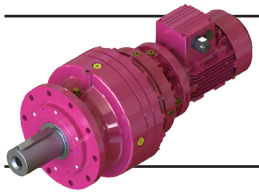

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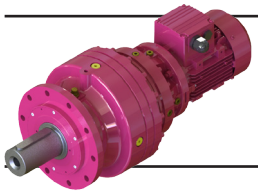

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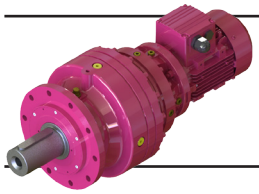

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Sembollerin Açıklaması

Δp : Hidrolik sistem basınç farkı [bar]

η_V : Hacimsel verim

η_{hm} : Hidromekanik verim

f_s : Servis faktörü

F_a : Çıkış miline gelen radyal yükler [kN]

F_e : Giriş miline gelen radyal yükler [kN]

F_{qam} : Çıkış milinde izin verilen radyal yükler [kN]

F_{qem} : Giriş milinde izin verilen radyal yükler [kN]

i : Tahvil oranı

k_1 : Tahrik makinası faktörü

k_2 : Maksimum moment faktörü

M_a : Anma momenti [kNm]

M_{pikmak} : Redüktöre giren pik moment [kNm]

M_{amax} : Maksimum moment [kNm]

M_A : Kalkış, duruş veya çalışma esnasında ihityaç olan uç tork [Nm]

n_1 : Redüktör giriş mili devri [d/dak]

n_2 : Redüktör çıkış mili devri [d/dak]

P_M : Tahrik edilecek makina için gerekli güç (Değişken yükler için eşdeğer nominal güç alınır) [kW]

P_N : Müsade edilen nominal giriş gücü (Bknz. Güç-Devir Tabloları) [kW]

P_{t1} : Ek soğutmasız redüktörlerde, izin verilen termik kapasite [kW]

P_{t2} : Eşanjör soğutmalı redüktörlerde, müsade edilen termik kapasite [kW]

P_{t3} : Radyatör soğutmalı redüktörlerde, müsade edilen termik kapasite [kW]

s : Sapma

t_1 : Soğutma faktörü

t_2 : Yükseklik faktörü

t_3 : Eşanjör soğutmalı redüktörlerde, yükseklik faktörü

t_4 : Yağlama faktörü

Q : Debi [l/dak]

V : Deplasman [cm^3/d]

Key of Symbols

Δp : *Pressure difference on system [bar]*

η_V : *Volumetric efficiency*

η_{hm} : *Hidraulic-Mecanical efficiency*

f_s : *Service factor*

F_a : *Overhung loads applied to the output shafts. [kN]*

F_e : *Overhung loads applied to the input shafts. [kN]*

F_{qam} : *Permissible overhung loads which can be applied to output shafts [kN]*

F_{qem} : *Permissible overhung loads which can be applied to input shafts [kN]*

i : *Transmission Ratio*

k_1 : *Driving machine factor*

k_2 : *Maximum torque factor*

M_a : *Nominal torque [kNm]*

M_{pikmak} : *Peak torque to gearbox [kNm]*

M_{amax} : Maximum Torque [kNm]

M_A : *Peak torque which required during breaking, starting or running. [Nm]*

n_1 : *Input speed of gearbox [rpm]*

n_2 : *Output speed of gearbox [rpm]*

P_M : *Power consumption of the driven machine (for alternating loads, use equivalent power rating [kW]*

P_N : *Permissible nominal input power (given on performance tables) [kW]*

P_{t1} : *Thermal capacity for gear units without auxiliary cooling. [kW]*

P_{t2} : *Thermal capacity for gear units with heat exchanger. [kW]*

P_{t3} : *Thermal capacity for gear units with air/oil cooling system. [kW]*

s : *Slip*

t_1 : *Cooling factor*

t_2 : *Factor for altitude*

t_3 : *Factor for altitude for gear units with cooling coil or heat exchanger*

t_4 : *Lubrication factor*

Q : *Flow rate [l/min]*

V : *Geometric displacement [cm^3/rev]*

Erklärung der Bezeichnungen

Δp : Druckdifferenz des hydraulischen Systems [bar]

η_V : Volumetrische Wirkungsgrad

η_{hm} : Hydraulisch-mechan. Wirkungsgrad

f_s : Betriebsfaktor

F_a : Querkräfte auf Abtriebswelle [kN]

F_e : Querkräfte auf Antriebswelle [kN]

F_{qam} : Erlaubte Querkräfte auf Abtriebs welle [kN]

F_{qem} : Erlaubte Querkräfte auf Antriebs welle [kN]

i : Übersetzung

k_1 : Antriebsmaschinen-Faktor

k_2 : Spitzenmoment-Faktor

M_a : Nenndrehmoment [kNm]

M_{pikmak} : Spitzenmoment auf Getriebe[kNm]

M_{amax} : Maximales Drehmoment [kNm]

M_A : Benötigte Anlauf-, Brems- oder Spitzenmoment [Nm]

n_1 : Antriebsdrehzahl [rpm]

n_2 : Abtriebsdrehzahl [rpm]

P_M : Leistung an der Abtriebswelle (Für variabler Belastungen äquivalente Leistung benutzen)[kW]

P_N : Getriebe Nennleistung (siehe Leis tung Drehzahltabellen) [kW]

P_{t1} : Wärmegrenzleistung ohne Zusatz-kühlung [kW]

P_{t2} : Wärmegrenzleistung mit Wärme-tauscher [kW]

P_{t3} : Wärmegrenzleistung mit Luft/Öl Wärmetaucher [kW]

s : Schlupf

t_1 : Kühlungs-Faktor

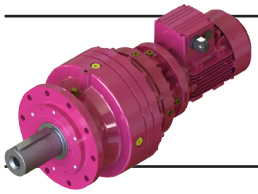
t_2 : Höhen-Faktor

t_3 : Höhen-Faktor mit Kühlung durch Kühlschlange oder Wärmetauscher

t_4 : Schmierungsfaktor

Q : Volumenstrom [l/min]

V : Schluckvolumen [cm^3/U]



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Ürün Yelpazesi

Elinizdeki katalog sadece ***P ve R serisi*** ürünleri içermektedir.

- M ve N Serisi

Helisel alın dişliye sahip, giriş ve çıkış milleri aynı düzlem üzerinde ve birbirine paralel uzanan, üzerlerinde bulunan ayak veya flanş ile makinaya sabitlenen redüktörlerdir. Dolu mil çıkışlıdır.

- D Serisi

Helisel alın dişliye sahip, giriş ve çıkış milleri aynı düzlem üzerinde, birbirine paralel ve belirli bir aralıkta yerleştirilmiş, iki yan yüzde bulunan bağlantı civataları, flanş veya tork kolu ile makinaya sabitlenen redüktörlerdir. Delik milli veya mil çıkışlı olabilir.

- E Serisi

Sonsuz vida ve çark dişlili, belirli bir aralıkta ve birbirine dik konumlandırılmış giriş ve çıkış millerine sahip, çepeçevre konumlandırılmış ayak bağlantıları, flanş veya tork kolu ile makinaya sabitlenebilen redüktörlerdir. Delik milli veya mil çıkışlı olabilir.

- Y Serisi

Yatık tip redüktörler, ağır şartlarda çalışmak üzere dizayn edilmiş redüktör tipleridir. Bu tiplerde redüktör ile bunu tahrik eden mekanizma arasında değişik bağlantı şekilleri mevcuttur (Mekanik ve hidrolik kaplinler, çeşitli tip kayışlar ve zincirle tahrik gibi). Delik milli veya mil çıkışlı olabilir.

- K Serisi

Helisel alın dişli ve konik dişlilerden oluşan, birbirine dik ve belirli bir aralıkta konumlandırılmış giriş ve çıkış miline sahip, çepeçevre sunulan ayaklar, flanş veya tork kolu ile makinaya sabitlenen redüktörlerdir. E serisinden farklı olarak yüksek verime sahiptirler. Delik milli veya mil çıkışlı olabilir.

- H ve B Serisi

Helisel ve/veya konik dişliye sahip ağır hizmet tipi redüktörlerdir. Giriş ve çıkış milleri birbirine paralel veya dik olabilir. Her yönden bağlantı için ayak bağlantıları bulunur. Opsiyonel olarak flanş ile de bağlanabilir. Delik milli veya mil çıkışlı olabilir.

- T Serisi

T Serisi redüktörler helisel dişli iki kademe motorsuz delik milli redüktörlerdir. T Serisi redüktörler delik milli olması ve kompakt gövde yapısı sayesinde daha küçük hacimli alanlara montajı yapılabilmektedir.

- P ve R Serisi

P ve R Serisi redüktörler planet dişli redüktörlerdir. Endüstriyel ve mobil uygulamalarda kullanılırlar. Diğer redüktör tiplerine göre daha küçük hacimde daha büyük tork iletebilirler.

- VR Serisi

VR vinç redüktörleri M1 - M8 (1Dm - 5m) yük sınıflarına uygun olarak, çift veya sabit devirli frenli motorlarla üretilebilmektedir.

Production Range

*This catalogue is containing **P and R series** of gearboxes only.*

- M and N Series

M and N series of YILMAZ REDÜKTÖR are helical geared. The input and output shafts are parallel to each other and on the same plane. The gearbox can be connected to the machine by using the foot or flange on the gearbox. Has solid output shaft.

- D Series

D series are helical geared gearboxes with parallel input and output shafts. The shafts have a distance in between and located on the same plane. The gearbox can be assembled to the machine by using the foot, the connection screws on the sides, flange or torque arm on the gearbox. Can have hollow or solid output shaft.

- E Series

E series gearboxes are with worm and wormwheel. The input and output shafts are perpendicular to each other and have a distance in between. It can be assembled to the driven machine by the use of the foot, flange or torque arm on the gearbox. Can have hollow or solid output shaft.

- Y Series

Horizontal type gearboxes are designed to operate in heavy conditions. In these types there are a lot of combination forms between gearbox and driver (for example, mechanic and hydraulic couplings, various belt and chain drives etc.). Can have hollow or solid output shaft.

- K Series

These are gearboxes with helical and bevel gears. The input and output shafts are perpendicular to each other and have a distance in between. It can be assembled to the driven machine using the foot, flange or torque arm on the gearbox. They have high efficiency compared to E series. Can have hollow or solid output shaft.

- H and B Series

These gearboxes are helical or/and bevel geared industrial gearboxes . The input and output shafts can be arranged parallel or perpendicular to each other. The gearbox can be assembled by the use of the foot connections on each side. Flange connections are optional. Can have hollow or solid output shaft.

- T Series

T Series are gear units which are helical geared, two staged, hollow shaft mounted gear units and manufactured according to monoblock principal. T Series gearboxes have hollow shaft and compact housing so that T series can be mounted on smaller places.

- P and R Series

P and R Series gearboxes are planetary gearboxes. They are mostly used by industrial and mobile applications. Planetary gearboxes can transfer high torques in small volumes compared to other gearboxes.

- VR Serie

VR hoist drives are produced according to M1 - M8 (1Dm - 5m) load classification.

Produktpalette

Dieses Katalog umfasst nur die **P und R Serien** Getriebe.

- M und N Serie

Diese Modelle sind Stirnradgetriebe mit parallelen Antriebs- und Abtriebswelle auf einer Ebene. Die Getriebe werden mit Fuß- oder Flanschverbindung an die angetriebene Maschine angekoppelt. Hat Vollwelle am Ausgang.

- D Serie

Diese Getriebe sind Stirnradgetriebe mit paralleler Antriebs- und Abtriebswelle, die auf einer Ebene liegen und einen Abstand zueinander haben. Diese Getriebe wird seitlich mit Gewindelöchern am Maschine oder mit einer Flansch verbindet. Kann Voll- und Hohlwelle am Ausgang haben.

-E Serie

Diese Getriebe bestehen aus Schnecke und Schneckenrad. Die Antriebs-und Abtriebswellen sind senkrecht zueinander und haben einen bestimmten Abstand. Das Getriebe wird mit Fußbefestigung,Flanschverbindung oder mit Drehmomentstütze an die angetriebene Maschine montiert. Kann Voll- und Hohlwelle am Ausgang haben.

- Y Serie

Diese Getrieben sind für Einsatz unter schweren Bedingungen ausgelegt. Bei dieser Ausführung gibt es sehr viele verschiedene Verbindungsmöglichkeiten zwischen Antrieb und Getriebe (Zum Beispiel; mechanische und hydraulische Kupplungen, Riementrieb, Kettentrieb usw.). Kann Voll- und Hohlwelle am Ausgang haben.

- K Serie

Diese Getrieben bestehen aus Stirnräder und Kegelräder. Die Antrieb und Abtriebswellen sind senkrecht und haben einen Abstand zueinander. Das Getriebe wird mit Fußbefestigung, Flanschverbindung oder Drehmomentstütze an die angetriebene Maschine montiert. Der Wirkungsgrad ist wesentlich höher als E Serie. Kann Voll- und Hohlwelle am Ausgang haben.

- H und B Serie

Diese Getriebe sind geeignet für industrielle Anwendungen und haben parallelen oder senkrechten Antrieb und Abtriebswelle auf einer Ebene. Das Getriebe kann mit Fußen, die auf jede Seite der Getriebe vorhanden sind, oder optional mit Flansch an die angetriebene Maschine montiert werden. Kann Voll-und Hohlwelle am Ausgang haben.

- T Serie

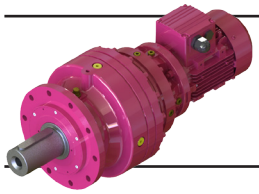
TSerien Getriebe sind zwei stufige, schrägverzahnte Hohlwellenflachgetriebe in Monoblockgehäuse. Die T Serie hat eine kompakte Gehäuse und ist serienmäßig mit Abgangshohlwelle hergestellt, so dass das Getriebe minimalen Platzbedarf hat.

- P und R Serie

P und R Serie sind Planetengetriebe, die vielseitig im Industrie und bei mobiler Anwendungen einsetzbar sind, mit Planetenzahnräder. Planetengetriebe können im Vergleich zu anderen Getrieben größere Drehmomente bei kleineren Bauvolumen übertragen.

- VR Serie

VR Krane und Hebezeuge werden geeignet zur Belastungsart M1 - M8 (1Dm - 5m) hergestellt.



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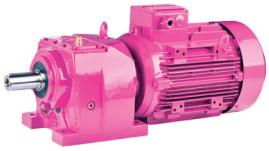
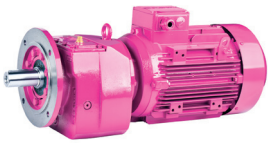


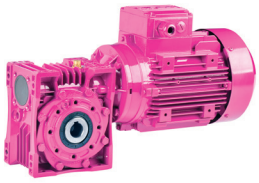
M ...

13 farklı büyüklükte;
Moment aralığı: 50 - 18.000 Nm
Devir aralığı: 0,1 - 500 d/dak
13 different sizes:
Torque range: 50 - 18.000 Nm
Speed range: 0,1 - 500 rpm
13 verschiedene Baugrößen:
Drehmomentbereich:50 - 18.000 Nm
Drehzahlbereich : 0,1 - 500 U/min



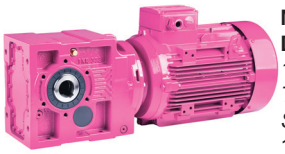
N ...

13 farklı büyüklükte;
Moment aralığı: 50 - 18.000 Nm
Devir aralığı: 0,1 - 500 d/dak
13 different sizes:
Torque range: 50 - 18.000 Nm
Speed range: 0,1 - 500 rpm
13 verschiedene Baugrößen:
Drehmomentbereich:50 - 18.000 Nm
Drehzahlbereich : 0,1 - 500 U/min



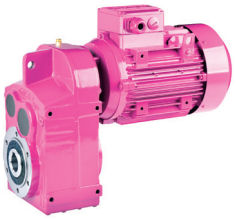
E ...

8 farklı büyüklükte;
Moment aralığı: 5 - 1.000 Nm
Devir aralığı: 0,1 - 400 d/dak
8 different sizes:
Torque range: 5 - 1.000 Nm
Speed range: 0,1 - 400 rpm
8 verschiedene Baugrößen:
Drehmomentbereich: 5-1.000 Nm
Drehzahlbereich : 0,1-400 U/min



K ...

11 farklı büyüklükte;
Moment aralığı: 200 - 15.000 Nm
Devir aralığı: 0,1 - 400 d/dak
11 different sizes:
Torque range: 200 - 15.000 Nm
Speed range: 0,1 - 400 rpm
11 verschiedene Baugrößen:
Drehmomentbereich:200 - 15.000 Nm
Drehzahlbereich : 0,1 - 400 U/min

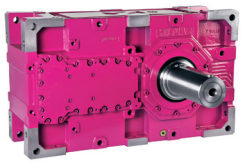


D...

10 farklı büyüklükte;
Moment aralığı: 130 - 18.000 Nm
Devir aralığı: 0,1 - 350 d/dak
10 different sizes:
Torque range: 130 - 18.000 Nm
Speed range: 0,1 - 350 rpm
10 verschiedene Baugrößen:
Drehmomentbereich: 130 - 18.000 Nm
Drehzahlbereich : 0,1 - 350 U/min

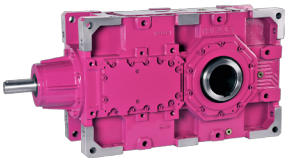
Y ...

25 farklı büyüklükte;
Moment aralığı: 1200 - 43000 Nm
Devir aralığı: 2,6 - 990 d/dak
25 different sizes:
Torque range: 1200 - 43000Nm
Speed range: 2,6 - 990 rpm
25 verschiedene Baugrößen:
Drehmomentber. :1200-43000 Nm
Drehzahlbereich : 2,6-990 U/min



H ...

14 farklı büyüklükte;
Moment aralığı: 2.500 - 165.000 Nm
Devir aralığı: 0,1 - 250 d/dak
14 different sizes:
Torque range: 2.500 - 165.000 Nm
Speed range: 0,1 - 250 rpm
14 verschiedene Baugrößen:
Drehmomentber. :2.500 - 165.000 Nm
Drehzahlbereich : 0,1 - 250 U/min

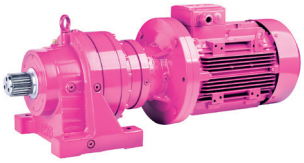


B ...

14 farklı büyüklükte;
Moment aralığı: 5.000 - 165.000 Nm
Devir aralığı: 0,1 - 115 d/dak
14 different sizes:
Torque range: 5.000 - 165.000 Nm
Speed range: 0,1 - 115 rpm
14 verschiedene Baugrößen:
Drehmomentber. :5.000-165.000 Nm
Drehzahlbereich : 0,1-115 U/min

P ...

10 farklı büyüklükte;
Moment aralığı: 1.000 - 50.000 Nm
Tahvil oranları: 3,5 - 3000 arası
10 different sizes:
Torque range: 1.000 - 50.000 Nm
Transmission ratio: 3,5 - 3000
10 verschiedene Baugrößen:
Drehmomentber. : 1.000 - 50.000 Nm
Übersetzung: 3,5 - 3000

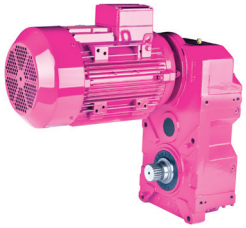


R ...

10 farklı büyüklükte;
Moment aralığı: 1.000 - 50.000 Nm
Tahvil oranları: 3,5 - 3000 arası
10 different sizes:
Torque range: 1.000 - 50.000 Nm
Transmission ratio: 3,5 - 3000
10 verschiedene Baugrößen:
Drehmomentber. : 1.000 - 50.000 Nm
Übersetzung: 3,5 - 3000

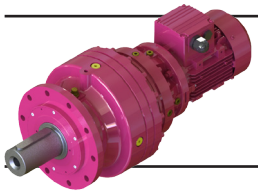
T ...

10 farklı büyüklükte;
Moment aralığı: 200 - 18.000 Nm
Devir aralığı: 46 - 280 d/dak
10 different sizes:
Torque range: 200-18.000 Nm
Speed range: 46-280 rpm
10 verschiedene Baugrößen:
Drehmomentber. :200-18.000 Nm
Drehzahlbereich : 46-280 U/min



VR ...

VR vinç redüktörleri
M1 - M8 ,(1Dm - 5m) yük sınıfı
ISO 4301 / 1 ,(FEM 1.001 / III)
VR Hoist Drive Units
M1 - M8 ,(1Dm - 5m) load classification
ISO 4301 / 1 ,(FEM 1.001 / III)
VR Kran und Hebezeug Getriebe
M1 - M8 ,(1Dm - 5m) Belastungsart
ISO 4301 / 1 ,(FEM 1.001 / III)



PLANET REDÜKTÖRLER
Planet Redüktörlerin Genel Özellikleri

Planet Redüktörler günümüzde birçok uygulama alanında ihtiyaç haline gelen ufak hacimde yüksek tork isteklerini karşılamak amacı ile üretilmiş, modüler yapıda, uydu, güneş ve iç dişlilerden oluşan redüktör tipleridir. Farklı sektörlerden gelen talepleri karşılaması amacı ile geniş bir ürün çeşitliliği ve opsiyonel aksesuarları ile piyasaya sunulmuştur. Ufak hacimlerde yüksek tork taşıma kabiliyetleri nedeni ile güç yoğunluğu yüksek redüktörlerdir ve bu nedenle kullanıldıkları uygulamaya bağlı olarak ısıl güçlerinin kontrol edilmesi gerekmektedir. Özellikle mobil uygulamalarda yoğun olarak kullanılan planet redüktörler, vinç, metal şekil verme, inşaat alanlarında da kullanıldığı gibi yenilenebilir enerji sistemlerinden biri olan rüzgar türbinlerinde, kanat hatve ve kule çevirmede yaygın olarak kullanılmaktadır. Aşağıda bu ürünlerin temel bazı özellikleri sıralanmıştır:

-10 Farklı yapı büyüklüğü,
-1000 Nm ile 50.000 Nm arasında tork aralığı,
-3,5 ile 3000 arasında geniş bir tahvil oranı aralığı
-Ayaklı, flanşlı gövde opsiyonu,
-Çoklu kamalı (DIN5480/DIN5482) giriş ve çıkış
-Sıkma bilezik opsiyonu,
-Konik girişli veya sonsuz tip redüktörler ile akuple olabilme,
-IEC B5 standart motor bağlantı seçeneği
-Hidromotor bağlantı opsiyonu (SAE J744C),
-Radyatör veya eşanjör soğutma opsiyonu,
-GGG40 sfero gövde ve flanşlar,
-Çoklu kamalı iç bağlantılar,
-Opsiyonel genleşme tankı uygulaması,
-Standart FKM keçe ve sentetik yağ,
-Standart çıkış keçesi koruma kapağı,

YILMAZ REDÜKTÖR olarak tasarım prensiplerimiz;
-Yüksek teknoloji kullanmak
-Güvenilirlik,
-Yüksek güç yoğunluğu,
-Yüksek verim,
-Montaj uyumluluğu,
-Esnek çözümler.

Dikkat Edilecek Hususlar !

- Bu katalogda verilen resimler görsel amaçlıdır ve şekilsel detaylar bağlayıcı değildir.

- YILMAZ REDÜKTÖR, ürünler ve katalog üzerinde, müşterileri bilgilendirmeksizin her türlü değişikliği yapma hakkına sahiptir.
- Ürünler teslim alındıktan sonra ürünle birlikte verilen kullanım kılavuzu okunmadan sistem devreye alınmamalıdır.
- Katalogda verilen yağ miktarları referans amaçlıdır. Gerçek yağ seviyesi için redüktör üzerinde bulunan yağ seviye tapası kullanılmalıdır. Yağ vizkozitesi için, redüktör etiketine bakınız.

- Sipariş anında montaj pozisyonu bildirilmeyen redüktörler **M1** montajına uygun sevk edilir. Etikette yazan montaj pozisyonundan farklı bağlanan redüktörler garanti kapsamından çıkar. Bu katalogda verilen redüktör ağırlıkları ortalama ağırlık değerleridir. Tahvil oranına ve üzerinde bağlı olan aksesuara göre ağırlıklar farklılık gösterebilir.

PLANETARY GEARBOXES
General Specifications of Planetary Gearboxes

Planetary gearboxes, which have modular structure, consist of sun, planet and internal gears. This gearboxes are produced to meet the requirements of high torques in small volumes, what is essential in most applications nowadays. Planetary gearboxes presented to the market with large product variety and optional accessories according to requirements from different sectors. Because of transmitting high powers in small volumes power density will increase. Therefore thermal power value must be checked according to the application. Planetary gearboxes, which are intensively used in mobile applications, are generally used in cranes, metal forming and construction machinery as well as in wind turbines of renewable energy systems for pitch and its drives. Some of the main product specifications are mentioned below:

-10 different sizes,
-Torque between 1000 Nm to 50.000 Nm,
-Ratio distribution between 3,5 to 3000,
-Optional foot or flange connections,
-Splined input and output (DIN5480/ DIN5482)
-Shrink disc options,
-Can be easy coupled with worm and bevel gearboxes
-IEC B5 standard motor connection,
-Hydro motor connection options (SAE J744C)
-Radiator or heat exchanger cooling options.
-GGG40 cast iron body and flanges
-Splined internal shaft connections
-Optional expansion tank applications.
-Standard FKM seal and synthetic oil
-Standard output seal protection.

As we are YILMAZ REDÜKTÖR,our design principals are;
-Using high technology
-Reliability
-High power density
-High efficiency
-Mounting compatible
-Flexible solutions.

Attention to the following points !

- Drawings are examples only and the details on the drawings or illustrations are not strictly binding.
- YILMAZ GEARBOXES reserve the right to make any changes in catalogue and products without any notice.
- Prior to commissioning, the operating instructions provided with the gearbox must be observed.
- Oil quantities given are guide values only. The exact quantity of oil should be checked by using the provided oil level plugs according mounting positions. For correct oil viscosity refer to the nameplate.
*- If the mounting position is not informed upon ordering, the gear unit is delivered according **M1** mounting position. A different operation then the indicated mounting position on the name plate cancels the warranty. The weights given in this catalogue are mean values. Depending on the ratio and accessories the weights can differ.*

PLANETENGETRIEBE
Allgemeine Eigenschaften von Planetengetrieben

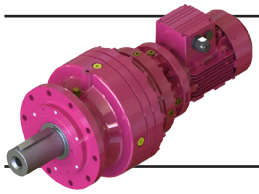
Planetengetriebe finden heutzutage Anwendung in verschiedenen Bereichen mit hohen Moment-anforderungen und kompakten Bauweisen. Die modular hergestellten Planetengetriebe bestehen aus Sonne, Planeten und innere Verzahnung. Um den Bedarf von unterschiedlichen Arbeitsbereichen zu decken, werden die Planetengetriebe mit verschiedenen Ausführungsvarianten und umfangreichen Zubehör vorbereitet. Da die Planetengetriebe in kleinen Räumen mit hohen Momenten arbeiten, entsteht in den Getrieben entsprechend der hohen Leistungsdichte hohe thermische Belastung. Darum muss die thermische Leistung geprüft werden. Die Verwendung von den Planetengetrieben, die meist speziell bei mobilen Einsätzen verwendet werden, hat sich bei Kräne, Metallverarbeitungsmaschinen, Baumaschinen und Windkraftanlagen verbreitet. Unten wurden einige Grundeigenschaften diesen Getrieben gelistet:
-10 unterschiedliche Baugröße
-Drehmoment von 1000 Nm bis 50.000 Nm
-Übersetzung zwischen 3,5 und 3000
-Gehäuse mit Fuß und Flansch möglich
-Eingang und Ausgangs mit Keilwelle (DIN5480)
-Auswahlmöglichkeit für Schrumpfscheibe
-Verbindungsmöglichkeit mit Schnecken- und Kegelradgetrieben
-Übliche Motorverbindung IEC B5
-Verbindung mit Hydromotoren (SAE J744C)
-Kühlung mit Wasser- oder Luftwärmetauscher
-Gehäuse und Flanschen aus GGG40
-Innere Wellenverbindungen mit Keile
-Wählbare Anwendung von Expansionstank
-Übliche FKM Dichtung und synthetische Öl
-Übliche Ausgangsdichtung für Schmutz und Fremdkörper

Als YILMAZ REDÜKTÖR unsere Entwurfsprinzipien sind:
- Benutzen von hohen Fertigungstechnologien
- Vertrauenswürdig
- Hohe Leistungsdichte
- Hoher Wirkungsgrad
- Universale Montagemöglichkeit
- Sonderlösungen.

Bitte folgende Punkte beachten !

- Die Abbildungen sind beispielhaft und nicht verbindlich.
- Alle Änderungen auf dem Katalog und an der Produkte bleiben vorbehalten und können ohne Kenntnisnahme von YILMAZ GETRIEBE erfolgen.
- Vor Inbetriebnahme ist die mit gelieferter Betriebsanleitung zu beachten.
-Angaben über Ölmengen sind unverbindlich. Maßgebend ist die Ölstandsschraube in der geeigneten Montageposition. Ölviskosität und Sorte muss den Angaben des Typenschieldes entsprechen.

- Wenn die Bauform bei Bestellung nicht angegeben ist, erfolgt die Lieferung in der Bauform **M1**. Wenn die Getriebe anders als auf dem Typenschild benannte Bauform eingesetzt werden, verliert die Garantie ihre Gültigkeit. Die angegebenen Gewichte sind unverbindliche Mittelwerte ohne Zubehör; genauere Gewichte sind abhängig von Zubehör und Übersetzung.



Genel Bilgiler
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Teknik Tanımlamalar

- **Çıkış Momenti:**
Motorun verdiği momentin tahvil oranı ve verim ile çarpılarak, elde edilen değerdir. Redüktörün çıkışından alınabilecek momenti gösterir.

- **Anma Momenti:**
Redüktörün termik kapasitesi dikkate alınmadan f_s=1 şartı için mekanik olarak taşıdığı moment değeridir.

- **Maksimum Moment:**
Kısa zamanlarda ve uç yüklerde müsade edilen maksimum momenttir. Redüktörün statik mukavemetini gösterir. Özellikle çok sık dur kalk yapan veya her iki yöne çalışan makinalarda anlık oluşan en yüksek momentdir.

- **Termik Güç:**
Redüktörün; çevre ısısı, rüzgar hızı, deniz seviyesinden yüksekliği gibi değişken çevre şartları ve f_s=1 şartı altında, redüktör yağının 90^{0}C'yi geçmeyecek şekilde müsade edilen azami güç değeridir. Redüktörlerin termik güçleri güç devir tablolarında verilmiştir. Termal güç mekanik güce eşit yada bu güçten büyük olmalıdır, aksi takdirde soğutma sistemi gerekir. 5°C altında ve 40°C üzerinde YILMAZ REDÜKTÖR'e danışınız.

- **Nominal Güç:**
Redüktörün termik kapasitesi dikkate alınmadan f_s=1 şartı için mekanik olarak taşıyabileceği güç değeridir. Redüktörlerin nominal güçleri, motorsuz güç devir tablolarında verilmiştir.

- **Verim:**
Çıkış gücünün giriş gücüne oranıdır. Güç devir tablolarında farklı kademeler için verim veya çıkış gücü değerleri belirtilmiştir.

- **Çevrim oranı :**
Redüktörün giriş devrinin çıkış devrine oranıdır. Yılmaz Redüktör Planet serisi redüktörlerde 3,5-3000 arasında değişen çevrim oranları mevcuttur.

- **Eşdeğer Güç ve Moment:**
Sabit devir altında ancak değişken yük değerlerinde çalışan redüktörlerde, sabit yük altında çalışma şartlarına eşdeğer gelen moment ve güç değerleridir.

- İhtiyaç güç:
Redüktörlerin kullanılacağı uygulamanın istenilen şekilde çalışabilmesi için ihtiyaç duyduğu güç değeridir.

- İhtiyaç moment:
Redüktörün kullanılacağı uygulamanın çalışabilmesi için ihtiyaç uyduğu moment değeridir. Seçilen redüktör için herzaman çıkış momentine eşit yada daha düşük olmalıdır.

Technical Explanations

- ***Output Torque:***
Multiplication of motor output torque with transmission ratio and efficiency gives the output torque at the output of gearbox unit.

- ***Nominal Torque:***
Nominal torque is the permissible torque under f_s=1 conditions without considering the thermal rating.

- ***Maximum Torque:***
Permissible maximum torque values in short periods and peak loads. By the drives with frequently start-stop and reversible working maximum torque is limited static strength of the mechanical parts.

- ***Thermal Power:***
Thermal power is the maximum permissible power under the given ambient conditions like temperature, wind velocity, altitude etc. and f_s=1 conditions, besides the gearbox oil temperature doesn't exceed the 90^{0}C. The thermal powers of gearboxes are given on performance tables. This power should be equal or greater then mechanical power, otherwise a cooling system should be used. Under 5^{0}C and over 40^{0}C ambient temperature contact YILMAZ REDÜKTÖR.

- ***Nominal Power:***
Nominal power is the permissible power under f_s=1 conditions without considering the thermal ratings. The nominal powers are given on the performance tables.

- ***Efficiency:***
Obtained from the ratio of output power to input power. Efficiencies or output power of different stages are mentioned on performance table.

- ***Ratio:***
Ratio between output shaft speed and input shaft speed. Available ratios of Yilmaz planetary gear box series are between 3,5 to 3000.

- **Equivalent Power and Torque:**
For gearbox unit with constant speed but variable working conditions calculated power and torque equivalent to the values at working under constant working conditions.

- Required Power:
Power consumption of the application, where the gearbox will be used.

- Required Torque :
Required torque for the applications. Required torque always must be equal or smaller than output torque of selected gearbox.

Technische Erläuterungen

- **Ausgangsmoment:**
Multiplikation von Ausgangsmoment des Motors mit Übersetzung und Wirkungsgrad ergibt den Betrag von Ausgangsmoment der Getriebe.

- **Nenndrehmoment:**
Mechanisches Belastbarkeitsmoment ohne Berücksichtigung der thermische Kapazität der Getriebe unter dem Bedingung f_s=1.

- **Maximal zulässiges Moment:**
In kurze Perioden und bei Spitzenbelastungen zugelassene max. Moment. Dieses Moment ist begrenzt entsprechend der statischen Belastbarkeit der Welle und des Zahnrads bei in umgekehrter Richtung und sehr oft geschalteten Getriebe.

- **Thermische Leistung:**
Thermische Leistung ist maximal zulässige Leistung unter den angegebenen Umgebungsbedingungen, bei f_s=1 und unter der Bedingung, dass die Temperatur des Öls in die Getriebe 90°C nicht überschreitet. Thermische Leistung soll größer oder gleich dem mechanischen Leistung sein, sonst soll ein Kühlungssystem ausgewählt werden. Unter 5^{0}C und über 40^{0}C Umgebungstemperatur Kontakt mit YILMAZ GETRIEBE aufnehmen.

- **Nennleistung:**
Die Nennleistung ist die mechanische Grenzfestigkeitsleistung für fs=1 ohne Berücksichtigung der Wärmegrenzleistung. Kann von der Drehzahl-Leistung-Tabelle abgelesen werden.

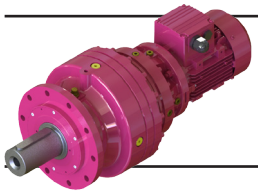
- **Wirkungsgrad:**
Wird aus dem Verhältnis von Ausgang- zu Eingangsleistung bestimmt. Die max. mögliche Wirkungsgrade bei unterschiedlichen Stufen werden auf der Leistung-Drehzahl-Tabelle dargestellt.

- **Übersetzung:**
Das Verhältnis von Winkelgeschwindigkeit am Eingang zu Winkelgeschwindigkeit am Ausgang.YILMAZ Getriebe hat bei der P-Serie Übersetzungen zwischen 3,5 und 3000.

- **Äquivalente Leistung und Moment:**
Für mit konstanten Drehzahl aber unter veränderlichen Betriebsbedingungen arbeitende Getriebe berechnete Leistung und Moment äquivalent zu Werten beim Arbeiten unter konstanten Bedingungen.

- Notwendige Leistung:
Für die Anwendung notwendige Leistung.

- Notwendige Moment:
Notwendige Moment für Anwendungen. Für den ausgewählte Getriebe soll das notwendige Moment gleich dem Ausgangsmoment oder kleiner als diesem Moment sein.



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- **Müsade Edilen Eksenel ve Radyal Yükler:**
Redüktörün çalışma esnasında giriş veya çıkış millerinde müsade edilen eksenel ve radyal yüklerdir.

- **Servis Faktörü f_s:**
Redüktörün çalıştığı şartlar ile uyumlu olması için gerekli olan emniyet katsayısıdır. f_s=1, düzgün ve sakin yüklerde, günlük 8 saat, saatte 10 dur kalk çalışmayı karşılar. Detaylar için redüktör seçim bölümüne bakınız.

Teknik Özellikler
- **Ses seviyesi:**
Redüktörlerimizin ses seviyesi VDI 2159' da verilen redüktörler için müsade edilen ses seviyelerinin altındadır.
- **Yağlama:**
27, 29, 35 gövdeli redüktörler dışında diğer redüktörler özel belirtilmediği sürece, yağlama tablolarında verilen sentetik yağlar ile doldurulmaktadır. 27 , 29, 35 gövdeli redüktörler yağı doldurulmamış olarak sevk edilmektedir. Yağ detayları için yağlama bölümüne bakınız.

- Aksesuarlar:
Planet Serisi redüktörlerde aşağıdaki aksesuarlar takılabilir.
- IEC B5 Motor bağlantı flanşları
- Çıkış Bağlantı Flanşları
- Sıkma bileziği
- Geri dönüş kilidi
- Eşanjörlü Soğutma,
- Radyatörlü soğutma,
- Isı sensörü / termostat,
- Yağ akış sensörü,
- Yağ Filtresi ,
- Özel keçe çözümleri,
- Şeffaf yağ seviye göstergesi
- Genleşme tankı
- Tork kolu
- Elektromanyetik veya hidrolik frenler

Diğer özel aksesuarlar için lütfen,
YILMAZ REDÜKTÖR ile temasa geçiniz.

- Yüzey Koruması
Redüktörlerimiz aksi belirtilmedikçe boyalı olarak sevk edilmektedir. DIN EN ISO 12944-2 korozyon standardında belirtilen sınıflardan aşağıdaki tabloda belirtilen 4 kategori için yüzey koruması sağlanmaktadır. Standart boya sınıfımız C2 korozyon kategorisini karşılamaktadır. Farklı bir koruma sınıfı istenirse sipariş aşamasında belirtilmelidir.
Mil, flanş bağlantı yüzeyi gibi boyanmayan yüzeylere paslanmaya karşı koruma sağlamak için korozyon önleyici yağ sürülmektedir.

- ***Permissible Axial and Overhung Loads:***
Permissible axial and overhung load of output or input shaft for applications.

- ***Service Factor f_s:***
Service factor is a safety coefficient, which takes into account the different running conditions of the driven machine. f_s=1 is used for uniform loads 8 hours working per day and up to 10 starts per hour.

Technical Specifications
- ***Noise Level:***
The noise level of our gearboxes is below the permitted values defined in VDI guidlines 2159 for gear units.
- ***Lubrication:***
The gearboxes other than sizes 27, 29, 35 are filled with synthetic oil quantities given on the tables in the lubrication section unless something else specified. The 27, 29, 35 size gearboxes are delivered without oil. For lubrication details please refer to the lubrication section.

- ***Accessories***
The following accessories can be applied to P series gearboxes.
- *IEC B5 Motor connection flange*
- *Output flanges*
- *Shrink Discs*
- *Backstops*
- *Cooling with external heat exchanger,*
- *Cooling with external air/oil cooler*
- *Temperature sensor / Termoswitch,*
- *Oil flow sensor,*
- *Oil filter,*
- *Sealings according operating environment,*
- *Transparent oil level indicator,*
- *Expansion tank,*
- *Torque arm*
- *Eectromagnetic or hydraulic brakes*

For other accessories please contact, YILMAZ REDÜKTÖR.

- Surface Protection
Our products are all painted unless otherwise stated. 4 corrosion categories which are mentioned below can be offered according to corrosion categories of DIN EN ISO 12944-2 standard. Our standard paint meets C2 corrosion category. If different category is requested, please inform before order.
Unpainted parts such as shaft, flange connection surface are coated with anti-corrosion paint before shipment against corrosion.

- **Zulässige Axial- oder Querkräfte:**
Bei der Anwendungen während der Betrieb zulässige axiale oder radiale Eingangs- oder Ausgangsbelastungen.

- **Betriebsfaktor f_s:**
Dieser Faktor f_s ist ein Sicherheitsfaktor, damit die Getriebe unter verschiedenen Bedingungen mit genügender Sicherheit arbeitet. f_s=1 gilt für gleichförmig Belastung, mit 8 Betriebsstunden pro Tag und bis zum 10 Schaltungen pro Stunde.

Technische Informationen
- **Geräuschpegel:**
Geräuschstärken aller Getriebe bleiben unter die zulässigen Werte, die für die Getriebe in der VDI-Richtlinie 2159 festgelegt sind.
- **Schmierung:**
Falls nichts anders vereinbart, werden Getriebe außer den Größen 27, 29, 35 mit dem synthetischen Ölen entsprechend der Schmierungstabellen gefüllt. Die Getriebe mit der Größe 27, 29, 35 sind bei Auslieferung nicht betriebsfertig mit Öl gefüllt. Für weitere Schmierungsangaben siehe Kapitel Schmierung.

- **Zubehör**
Folgendes Zubehör kann für Getriebe der P Serie geliefert werden.
- IEC B5 Motorverbindungsflansch,
- Abtriebsflansch,
- Schrumpfscheiben,
- Rücklaufsperren,
- Kühlung mit extern. Wärmetauscher
- Kühlung mit externem Luft/Öl Wärmetauscher
- Temperatursensor / Temperaturschalter,
- Ölflusssensor,
- Ölfilter,
- Unterschiedliche Dichtungssysteme,
- Durchsichtige Ölstandanzeige,
- Ölausgleichbehälter,
- Drehmomentarm
- *Elektromagnetische oder hydraulische Bremsen*

Für weiteres Zubehör kontaktieren Sie bitte mit, YILMAZ REDÜKTÖR.

- Oberflächenschutz
Getriebe von Yılmaz Redüktör werden lackiert und so geliefert falls nicht anders vereinbart ist. Die 4 untenstehenden Korrosionskategorien können nach Korrosionsschutz-Basisnorm DIN EN ISO 12944-2 angeboten werden. Unsere Standard-Lackierung erfüllt C2-Korrosionkategorie. Wenn Sie eine andere Kategorie erwünschen, informieren Sie uns bitte darüber vor der Bestellung.
Nicht lackierte Teile (z.B. Welle, Oberfläche des Anschlussflanschs) werden mit einem Schutzmittel vor dem Versand geschmiert, um vor Korrosion und Rost zu schützen.

Korozyon Kategorisi *Corrosion Categories* Korrosivitätskategorie	**Çevre Şartları** *Ambient Conditions* Umgebungsbedingungen	**Boya Tipi** *Paint Type* Lackierung	**Boya Kalınlıkları** *Paint Thickness* Sollschichtdicke
C2 (Standard)	**İç ortam ve muhafazalı dış ortam** **Nem ve kirlilik oranı düşük çalışma ortamı** *Indoor installation and outdoor installation with protection roof* *Environments with low humidity and contamination* Innenaufstellung und Außenaufstellung mit Überdachung oder Schutzeinrichtung Atmosphäre mit niedriger Luftfeuchtigkeit und Verunreinigung	**Çift Komponent Astar** *Two-Component Primer Coat* Zwei-Komponenten-Grundierung **Akrilik Sonkat** *Acrylic Top Coat* Akryl-Decklack	60 µm 40 µm
C3	**İç ortam ve atmosfere açık dış ortam** **Orta seviyede nem ve kirlilik olan çalışma ortamı** *Indoor installation and outdoor installation subject to weathering* *Environments with mean humidity and contamination* Innenaufstellung und Außenaufstellung im Freien unter Bewitterung Atmosphäre mit mäßiger Luftfeuchtigkeit und Verunreinigung	**Epoksi Astar** *Epoxy Primer Coat* Epoxy-Grundierung **Akrilik Sonkat** *Acrylic Top Coat* Akryl-Decklack	80 µm 40 µm
C4	**İç ortam ve atmosfore açık dış ortam** **Genelde yüksek nem ve kimyasal madde olan çalışma ortamı** *Indoor installation and outdoor installation subject to weathering* *Environments with occasionally high humidity and chemical contamination* Innenaufstellung und Außenaufstellung im Freien unter Bewitterung Atmosphäre gelegentlich mit hoher Luftfeuchtigkeit und chemischer Verunreinigung	**Epoksi Astar** *Epoxy Primer Coat* Epoxy-Grundierung **Akrilik Sonkat** *Acrylic Top Coat* Akryl-Decklack	180 µm 40 µm
C5-I / C5-M	**İç ortam ve atmosfere açık dış ortam** **Sürekli yüksek nem ve kimyasal madde ile temizlik yapılan çalışma ortamı** *Indoor installation and outdoor installation subject to weathering* *Environments with permanent high humidity and chemical cleaning contamination* Innenaufstellung und Außenaufstellung im Freien unter Bewitterung Atmosphäre mit ständiger hoher Luftfeuchtigkeit und chemischer Verunreinigung (Nassreinigung mit Säuren/Laugen und auch mit chemischen Reinigungsmitteln).	**Çinko Yüklemeli Epoksi Astar** *Epoxy Zinc Primer Coat* Epoxy-Zink-Grundierung **Epoksi Astar Miox** *Epoxy Miox Primer Coat* Epoxy-Miox-Grundierung **Akrilik Sonkat** *Acrylic Top Coat* Akryl-Decklack	70 µm 150 µm 40 µm

Redüktör Tip Tanımlaması

P N 11 0 2 L . 01 - Ek Bilgi

1	2	3	4	5	6	7	8

Redüktör Tipi:
P.....: Flanşlı Planet Redüktör
R.....: Ayaklı Planet Redüktör

Giriş Tipi:
V.....: Elektrik veya Hidrolik Motorlu
N.....: Motorsuz, Motor Bağlantı Flanşlı (IEC, C26, M46)
T.....: Motorsuz Dolu Mil Girişli

Gövde Büyüklük:
11,12, 15, 16, 19, 23, 24, 27, 29, 35

Revizyon Numarası

Kademe Sayısı:
1.....: Tek kademeli
2.....: İki Kademeli
3.....: Üç Kademeli
4.....: Dört Kademeli

Redüktör Yapısı:
L.....:Giriş ve Çıkış Mili Aynı Eksende
K.....:Giriş ve Çıkış Mili Birbirine Dik

Çıkış Mili Özelliği:
01...:Mil Çıkışlı
0K...:Çoklu Kamalı Dişi DIN 5480
0L...:Çoklu Kamalı Dişi DIN 5482
0S...:Sıkma Bilezikli
1K...:Çoklu Kamalı Erkek DIN 5480
1L...:Çoklu Kamalı Erkek DIN 5482
P24 için opsiyonel:
10...:Opsiyonel Mil Çıkışlı
K0...:Çoklu Kamalı Dişi DIN 5480
L0...:Çoklu Kamalı Dişi DIN 5482
S0...:Sıkma Bilezikli
K1...:Çoklu Kamalı Erkek DIN 5480
L1...:Çoklu Kamalı Erkek DIN 5482

Ek Bilgi: (PN, PV, RN, RV için)

- Eğer redüktör PN, RN tipinde ise:

A06	63 tip IEC B5 motor bağlantı flanşı
A07	71 tip IEC B5 motor bağlantı flanşı
A08	80 tip IEC B5 motor bağlantı flanşı
A09	90 tip IEC B5 motor bağlantı flanşı
A10	100 / 112 tip IEC B5 motor bağlantı flanşı
A13	132 tip IEC B5 motor bağlantı flanşı
A16	160 tip IEC B5 motor bağlantı flanşı
A18	180 tip IEC B5 motor bağlantı flanşı
A20	200 tip IEC B5 motor bağlantı flanşı
A22	225 tip IEC B5 motor bağlantı flanşı
A25	250 tip IEC B5 motor bağlantı flanşı
C26	Flanş kodu C, mil kodu 26 (HE Hidrolik Motor)
M46	Flanş kodu M, mil kodu 46 (HG Hidrolik Motor)

-Eğer PN, RN tipindeki redüktör hidro motorla bağlanmış ise:

HE330
- Geometrik yer değiştirme
- Hidromotor tipi (HG yada HE)

- Eğer redüktör PV, RV tipinde ise:

3E90S/4C
- Kutup Sayısı
- Gövde uzunluğu
- Motor büyüklüğü (63...-125...)
- Motor markası
- Motor verim sınıfı

- Eğer PN, RN tipi redüktöre sonsuz tipli redüktör ekleme yapılmışsa:

EV063-71/4b
- Motor boyu
- Kutup Sayısı
- Motor Büyüklüğü (63...-132...)
- Sonsuz redüktör büyüklüğü (63 - 125)
- Sonsuz redüktör tipi
  - EV: Motorlu
  - EN: Motor bağlantı flanşlı
  - ET: Motorsuz

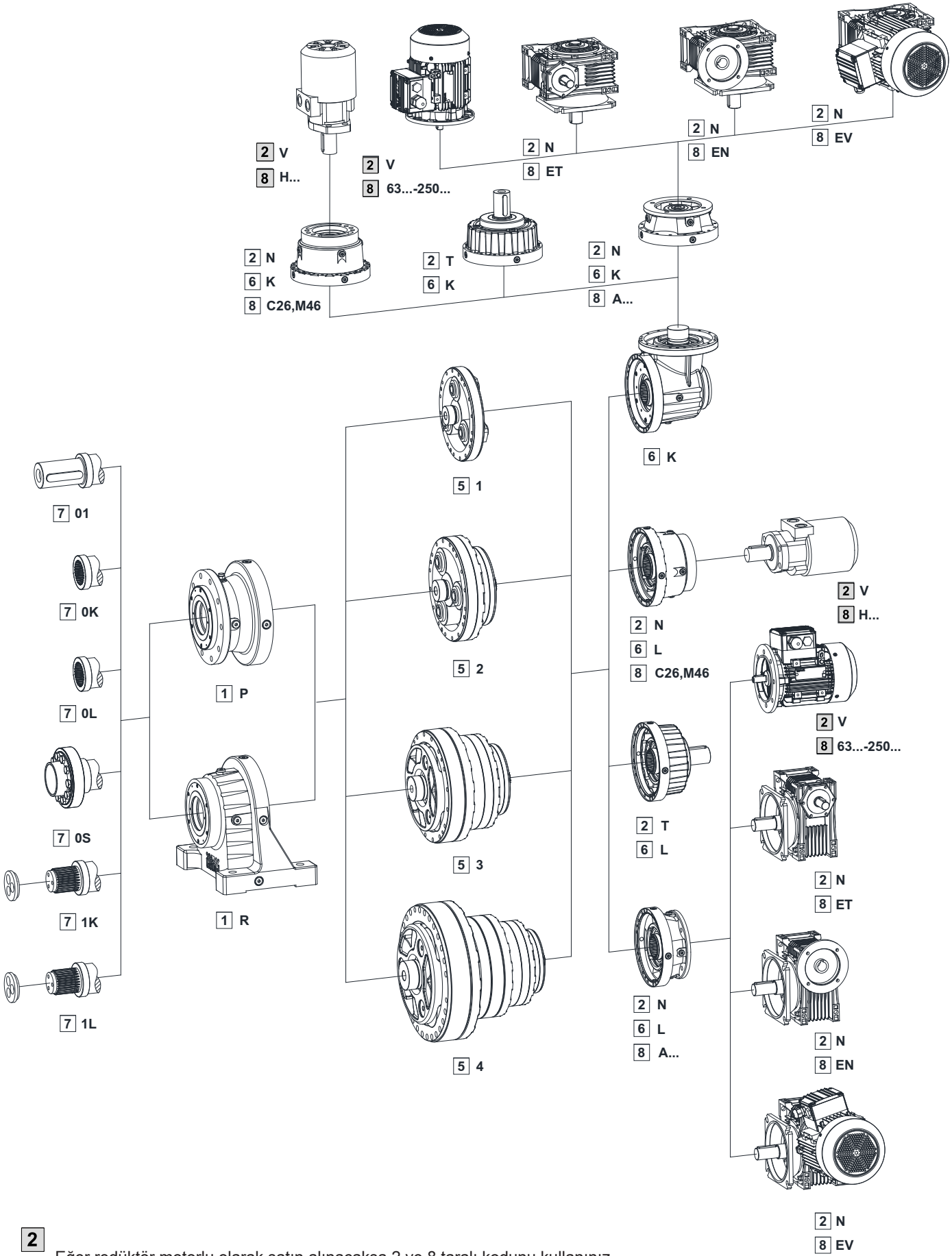
Örnekler

PT1202K.01
Motorsuz, mil çıkışlı, 12 numaralı gövde büyüklüğü, 2 kademeli, giriş çıkış mili birbirine dik flanşlı konik girişli planet redüktör

PV1902L.01-3E160M/6
7,5 kW 900 d/dak IE3 Elk motorlu, mil çıkışlı, 19 numaralı gövde büyüklüğü, 2 kademeli, paralel giriş çıkış milli, flanşlı planet redüktör

RV1502L.00-2E90S/6A
0,75 kW 900 d/dak IE2 Elk motorlu, kör delik mil çıkışlı, 15 numaralı gövde büyüklüğü, 2 kademeli, paralel giriş çıkış milli, ayaklı planet redüktör

PN1102L.01-EV063-3E71M/4D
0,37 kW 1400 d/dak IE3 Elk motorlu, 63 numaralı gövde büyüklüklü sonsuz redüktörle bağlı, mil çıkışlı, 2 kademeli, paralel giriş çıkış milli, 11 numara gövdeli, flanşlı planet redüktör



2 **8** Eğer redüktör motorlu olarak satın alınacaksa 2 ve 8 taralı kodunu kullanınız.

Designation of Gear Units

P N 11 0 2 L . 01 - Additional Information

1 2 3 4 5 6 7 — 8

Serie of Gearbox:
P……..**:** Planetary Gearbox with Flange Mounted.
R……..**:** Planetary Gearbox with Foot Mounted.

Version of Gearbox:
V……..**:** With Electric or Hydraulic Motor
N……..**:** Motor Connection Flange (IEC, C26, M46)
T……..**:** Solid Input Shaft

Gearbox Sizes:
11,12, 15, 16, 19, 23, 24, 27, 29, 35

Revision Number

Number of Stage:
1……..: Single Stage
2……..: Two Stage
3……..: Three Stages
4……..: Four Stages

Shaft Condition:
L: Input and Output Shafts on Same Axis
K: Input and Output Shafts Perpendicular

Output Shaft Properties:
01…:Solid Output Shaft
0K…:Splined Hollow Shaft DIN 5480
0L…:Splined Hollow Shaft DIN 5482
0S…:Shrink Disc
1K…:Splined Solid Shaft DIN 5480
1L…:Splined Solid Shaft DIN 5482
Optional for P24:
10…:Solid Output Shaft
K0…:Splined Hollow Shaft DIN 5480
L0…:Splined Hollow Shaft DIN 5482
S0…:Shrink Disc
K1…:Splined Solid Shaft DIN 5480
L1…:Splined Solid Shaft DIN 5482

Additional Information: (For PN, PV, RN, RV)

- If the gearbox unit is PN, RN Type:

A06	63 size IEC B5 motor connection flange
A07	71 size IEC B5 motor connection flange
A08	80 size IEC B5 motor connection flange
A09	90 size IEC B5 motor connection flange
A10	100 / 112 size IEC B5 motor connection flange
A13	132 size IEC B5 motor connection flange
A16	160 size IEC B5 motor connection flange
A18	180 size IEC B5 motor connection flange
A20	200 size IEC B5 motor connection flange
A22	225 size IEC B5 motor connection flange
A25	250 size IEC B5 motor connection flange
C26	Flange code C, Shaft code 26 (HE Hydraulic Motor)
M46	Flange code M, Shaft code 46 (HG Hydraulic Motor)

- If PN, RN type gearbox unit connected with hydraulic motor:

HE330
- Geometric displacement
- Hydraulic motor type (HG or HE)

- If the gearbox unit is PV, RV type:

3E90S/4C
- Number of pole
- Frame length
- Motor size (63...-250...)
- Motor brand
- Motor efficiency class

- If PN, RN type gearbox unit coupled with a worm gearbox:

EV063-71/4b
- Iron core length
- Number of pole
- Motor size (63...-132...)
- Size of worm gearbox (63-125)
- Worm gearbox type
  EV: With motor
  EN: With motor flange
  ET: Without motor

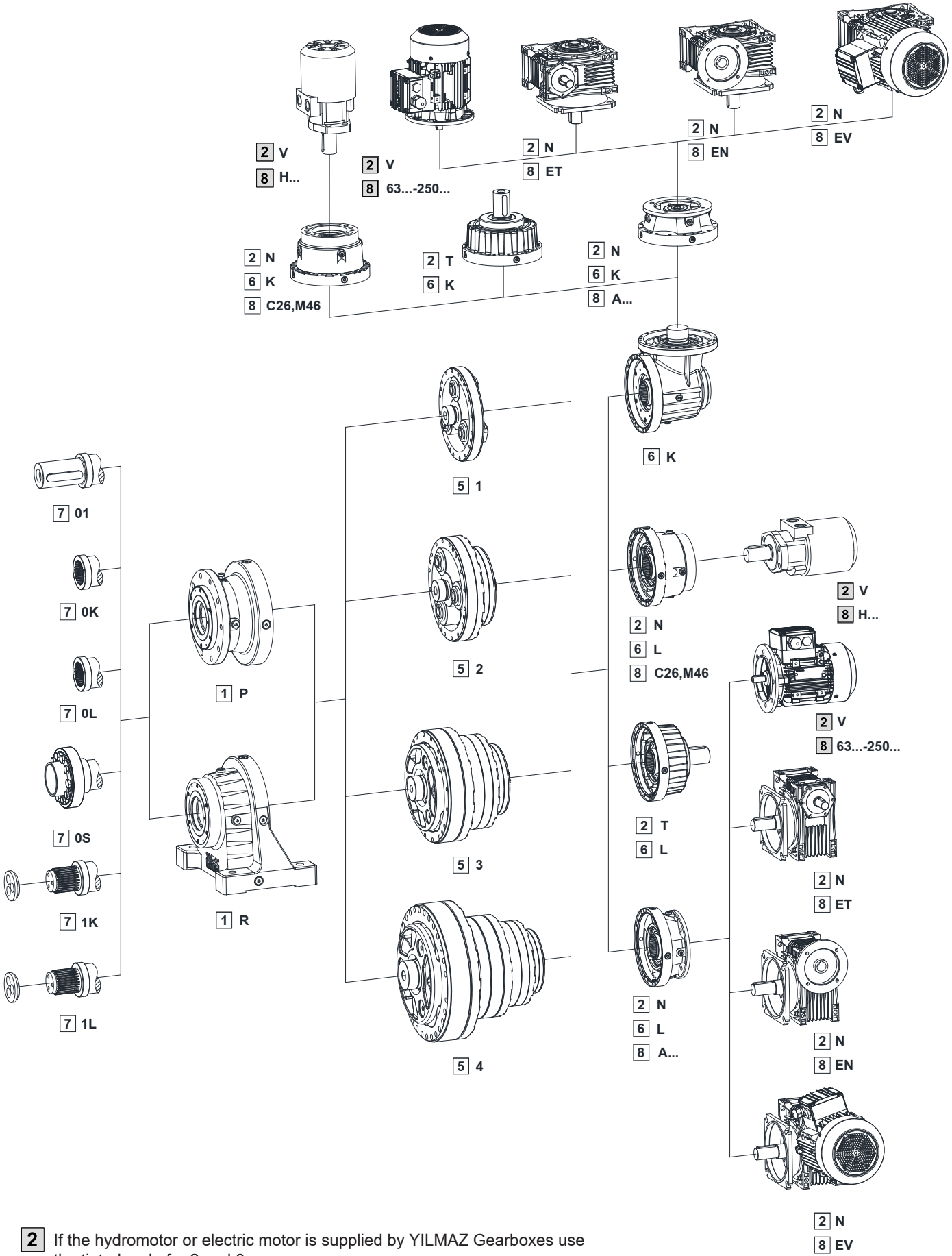
Examples

PT1202K.01
Without motor, solid output shaft, gearbox size 12, 2 stages, perpendicular input and output shaft with flange

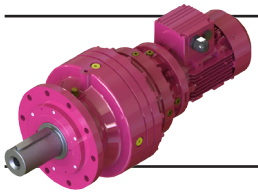
***PV1902L.01*-3E160M/6**
11 kW 900 rpm IE3 efficiency Elk brand motor, solid output shaft, gearbox size 19, 2 stages, parallel input and output shaft with flange

***RV1502L.00*-2E90S/6A**
0,75 kW 900 rpm IE2 efficiency Elk brand motor, hollow output shaft, gearbox size 15, 2 stages, parallel input and output shaft, with foot

PN1102L.01-EV063-3E71M/4D
0,37 kW 1400 rpm IE3 efficiency Elk brand motor, connected with worm gearbox size 63, solid output shaft, 2 stages, parallel input output shaft, planetary gearbox size 11 with flange



2 **8** If the hydromotor or electric motor is supplied by YILMAZ Gearboxes use the tinted code for 2 and 8.



Typenbezeichnung für Getriebe

P N 11 0 2 L . 01 - Zusatzinformation

1	2	3	4	5	6	7	8

Getriebe:
P.....: Planetgetriebe mit Flansch
R.....: Planetgetriebe mit Fuß

Eingangstyp:
V.....: Mit Elektrischen oder Hydraulischen Motor
N.....: Flanschverbindung ohne Motor (IEC, C26, M46)
T.....: Eingang Ohne Motor Mit Vollwelle

Baugröße:
11,12, 15, 16, 19, 23, 24, 27, 29, 35

Änderungsnummer

Anzahl der Stufen:
1.....: Ein Stufig
2.....: Zwei Stufig
3.....: Drei Stufig
4.....: Vier Stufig

Aufbau der Getriebe:
L.....:Aussenwellen auf einer Achse
K.....:Aussenwellen Senkrecht

Eigenschaften von Abtriebswelle:
01...:Vollwelle
0K...:Hohlkeilwelle DIN 5480
0L...:Hohlkeilwelle DIN 5482
0S...:Schrumpfscheibe
1K...:Keilwelle DIN 5480
1L...:Keilwelle DIN 5482
Auswählbar für P24:
10...:Vollwelle
K0...:Hohlkeilwelle DIN 5480
L0...:Hohlkeilwelle DIN 5482
S0...:Schrumpfscheibe
K1...:Keilwelle DIN 5480
L1...:Keilwelle DIN 5482

Zusatzinformation: (Für PN, PV, RN, RV)

- Wenn Getriebetyp PN, RN ist:

A06	63 Baugröße IEC B5 Motorverbindungsflansch
A07	71 Baugröße IEC B5 Motorverbindungsflansch
A08	80 Baugröße IEC B5 Motorverbindungsflansch
A09	90 Baugröße IEC B5 Motorverbindungsflansch
A10	100 / 112 Baugröße IEC B5 Motorverbindungsflansch
A13	132 Baugröße IEC B5 Motorverbindungsflansch
A16	160 Baugröße IEC B5 Motorverbindungsflansch
A18	180 Baugröße IEC B5 Motorverbindungsflansch
A20	200 Baugröße IEC B5 Motorverbindungsflansch
A22	225 Baugröße IEC B5 Motorverbindungsflansch
A25	250 Baugröße IEC B5 Motorverbindungsflansch
C26	Flanschkode C, Wellenkode 26
M46	Flanschkode M, Wellenkode 46

- Wenn ein Getriebe von Typ PN, RN mit dem hydraulischen Motor verbunden: **HE330**
  - Geometrische Schluckvolumen
  - Typ des hydrauli. Motors (HG oder HE)

- Wenn Getriebetyp PV, RV ist: **3E90S/4C**
  - Anzahl der Polen
  - Gehäuselänge des Motors
  - Motorbaugröße (63...-250...)
  - Motortyp
  - Motor-Effizienzklasse

- Wenn ein Getriebe vom Typ PN, RN mit dem Schneckenradgetriebe verbunden: **EV063-71/4b**
  - Motorlänge
  - Anzahl der Polen
  - Motorbaugröße (63...-132...)
  - Größe des Schneckenradgetriebes (63-125)
  - Typ des Schneckenradgetriebes
    EV: mit Motor
    EN: mit Motorflansch
    ET: ohne Motor

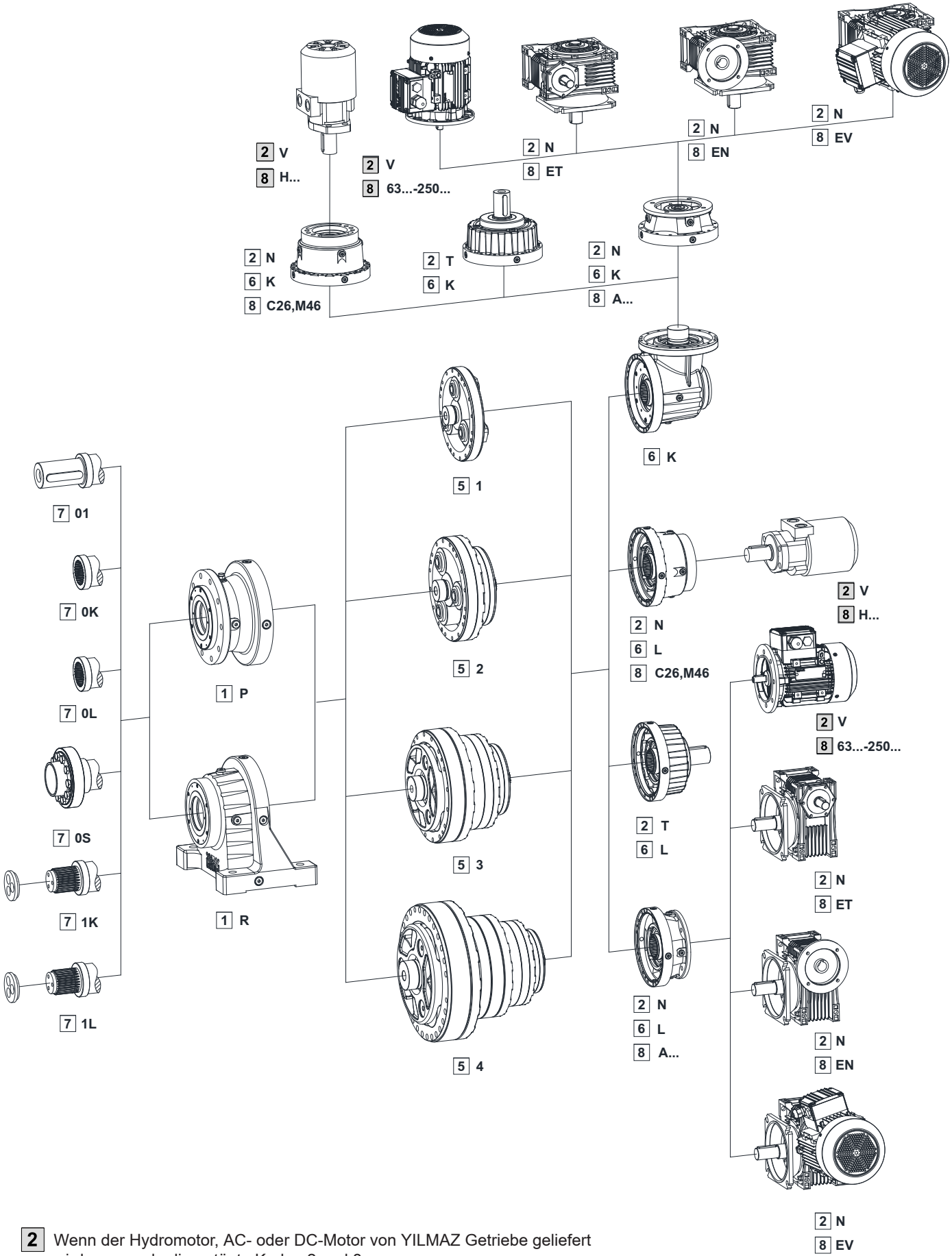
Beispiele

PT1202K.01:
Ohne Motor, Ausgang mit Vollwelle, Größe der Getriebegehäuse 12 , 2 stufig, senkrechte Eingangs- und Ausgangswelle mit Flansch

PV1902L.01-3E160M/6:
Motor mit 11 kW 900 U/min IE3 Motor-Effizienzklasse, Elk motortyp, Ausgang mit Vollwelle, Größe der Getriebegehäuse 19, 2 stufig, parallele Eingangs- und Ausgangswelle mit Flansch

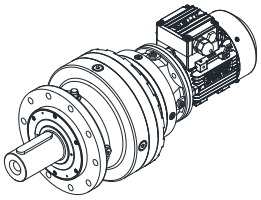
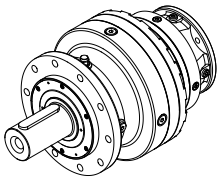
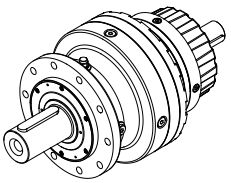
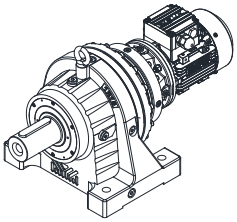
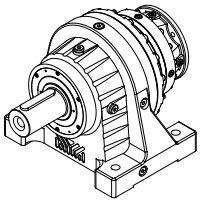
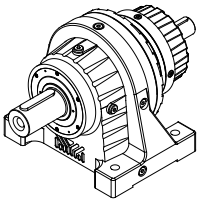
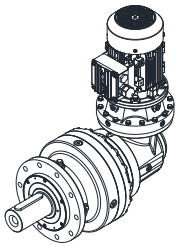
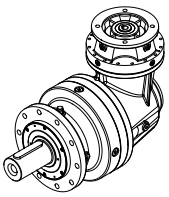
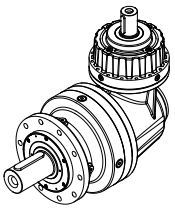
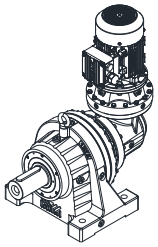
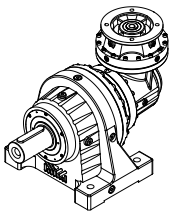
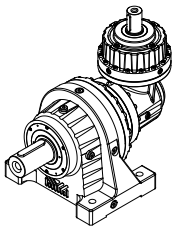
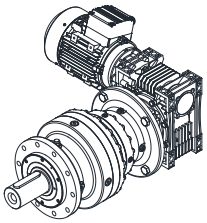
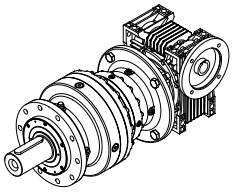
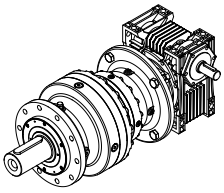
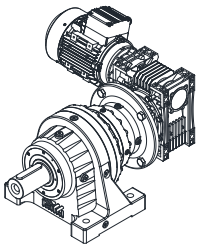
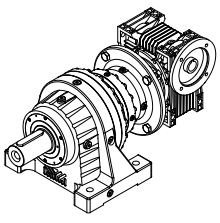
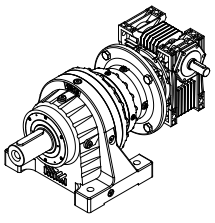
RV1502L.00-2E90S/6A:
Motor mit 0,75 kW 900 U/min,IE2 Motor-Effizienzklasse, Elk motortyp, Ausgang mit Hohlwelle, Größe der Getriebegehäuse 15, 2 stufig, parallele Eingangs- und Ausgangswelle mit Fuß

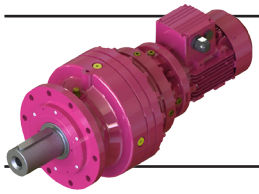
PN1102L.01-EV063-3E71M/4D:
Motor mit 0,37 kW 1400 U/min, IE3 Motor-Effizienzklasse, Elk motortyp verbindet mit Schneckenradgetriebe mit der Gehäusegröße 63, Ausgang mit Hohlwelle, 2 stufig, parallele Eingangs- und Ausgangswelle mit Flansch, Planetengetriebe mit der Größe 11



2 **8** Wenn der Hydromotor, AC- oder DC-Motor von YILMAZ Getriebe geliefert wird, verwende die getönte Koden 2 und 8.

Tip Tanımlamaları / *Unit Designation* / Typenbezeichnungen

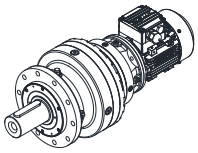
 PV....L	 PN....L	 PT....L
 RV....L	 RN....L	 RT....L
 PV....K	 PN....K	 PT....K
 RV....K	 RN....K	 RT....K
 PN....L-EV	 PN....L-EN	 PT....L-ET
 RN....L-EV	 RN....L-EN	 RN....L-ET



Genel Bilgiler
General Information
Einführung

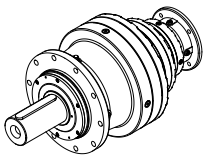
Örnek Tip Tanımlamaları

PV1502L.01-3E71M/4D



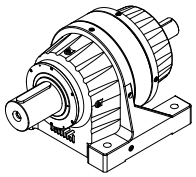
P.....: Flanşlı planet redüktör
V.....: B5 motor bağlantılı
15.....: Gövde büyüklük
0.....: Revizyon sayısı
2.....: Kademe sayısı
L.....: Giriş ve çıkış mili aynı eksende bulunmakta
01.....: Mil çıkışlı
3E71M/4D...:0,25 kW, 1500 d/dak, IE3 AC Motor

PN2303L.01-A09



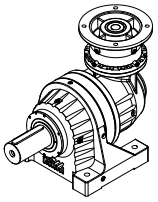
P.....: Flanşlı planet redüktör
N.....: B5 motor bağlantı flanşlı
23.....: Gövde büyüklüğü
0.....: Revizyon sayısı
3.....: Kademe sayısı
L.....: Giriş ve çıkış mili aynı eksende bulunmakta
01.....: Mil çıkışlı
A09.....: IEC B5 motor bağlantı flanşlı

RT3501L.01



R.....: Ayaklı planet redüktör
T.....: Motorsuz giriş milli
35.....: Gövde büyüklüğü
0.....: Revizyon sayısı
1.....: Kademe sayısı
L.....: Giriş ve çıkış mili aynı eksende bulunmakta

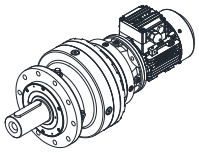
RN2702K.01-A16



R.....: Ayakli planet redüktör
N.....: B5 motor bağlantı flanşlı
27.....: Gövde büyüklüğü
0.....: Revizyon sayısı
2.....: Kademe sayısı
K.....: Giriş ve çıkış mili birbirine dik konumdadır
01.....: Mil çıkışlı
A16.....: IEC B5 motor bağlantı flanşlı

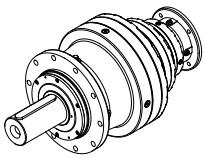
Sample Designations

***PV1502L.01*-3E71M/4D**



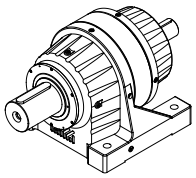
P.....: Planetary gearbox with flange
V.....: B5 motor connection
15.....: Gear unit size
0.....: Revision number
2.....: Stage Number
L.....: Input and output shafts are on same axis.
01.....: Solid output shaft
3E71M/4D...: 0,25 kW, 1500 rpm,IE3 AC Motor

PN2303L.01-A09



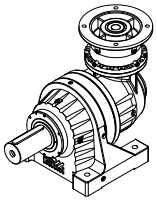
P.....: Planetery gearbox with flange
N.....: B5 motor input with flange
23.....: Gear unit size
0.....: Revision number
3.....: Stage number
L.....: Input and output shafts are on same axis
01.....: Solid output shaft
A09.....: IEC B5 motor input with flange

RT3501L.01



R.....: Foot mounted planetary gearbox
T.....: Motor input shaft
35.....: Gear unit size.
0.....: Revision number
4.....: Stage number
L.....: Input and output shafts are on same axis

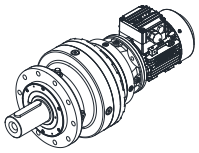
RN2702K.01-A16



R.....: Foot mounted planetary gearbox
N.....: B5 motor input with flange
27.....: Gear unit size
0.....: Revision number
2.....: Stage Number
K.....: Input and output shafts perpendicular
01.....: Solid output shaft
A16.....: IEC B5 motor input with flange

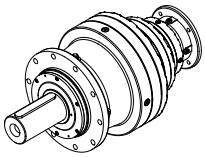
Typenbezeichnungsbeispiele

PV1502L.01-3E71M/4D



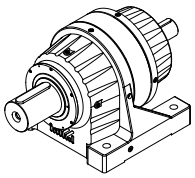
P.....: Planetgetriebe mit Flansch
V.....: B5 Motorverbindung
15.....: Getriebebaugröße
0.....: Änderungsnummer
2.....: Stufenanzahl
L.....: Eingangs-und Ausgangswelle auf der gleichen Achse
01.....: Vollwelle
3E71M/4D.: 0,25 kW, 1500 U/min, IE3 AC Motor

PN2303L.01-A09



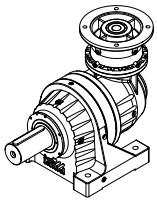
P.....: Planetengetriebe mit Flansch
N.....: B5 Motoreingang mit Flansch
23.....: Getriebebaugröße
0.....: Änderungsnummer
3.....: Stufenanzahl
L.....: Eingangs- und Ausgangswelle auf der gleichen Achse
01.....: Vollwelle
A09.....: IEC B5 Motorverbindungsflansch

RT3501L.01

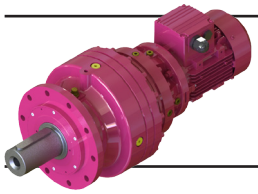


R.....: Planetgetriebe mit Fuß
T.....: Motoreingangswelle
35.....: Getriebebaugröße
0.....: Änderungsnummer
4.....: Stufenanzahl
L.....: Eingangs-und Ausgangswelle auf der gleichen Achse

RN2702K.01-A16



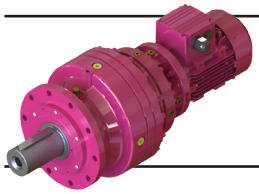
R.....: Planetgetriebe mit Fuß
N.....: B5 Motoreingang mit Flansch
27.....: Getriebebaugröße
0.....: Änderungsnummer
2.....: Stufenanzahl
K.....: Eingangs-und Ausgangswelle senkrecht zueinander
01.....: Vollwelle
A16.....: IEC B5 Motorverbindungsflansch



Geometrik Mümkün Kombinasyonlar / *Geometrically Possible Combinations* / Geometrisch Mögliche Kombinationen

Tip *Type* Typ	**Kademe** *Stage* Stufe	**Motor Büyüklüğü** / *Motor Size* / Motorbaugröße										
		71	80	90	100/112	132	160	180	200	225	250	280
P11 R11	1	●	●	●	●	●	●	●	-	-	-	-
	2	●	●	●	●	●	●	●	-	-	-	-
	3	●	●	●	●	●	●	●	-	-	-	-
	4	●	●	●	●	●	●	●	-	-	-	-
P12 R12	1	●	●	●	●	●	●	●	-	-	-	-
	2	●	●	●	●	●	●	●	-	-	-	-
	3	●	●	●	●	●	●	●	-	-	-	-
	4	●	●	●	●	●	●	●	-	-	-	-
P15 R15	1	-	-	-	●	●	●	●	●	●	-	-
	2	●	●	●	●	●	●	●	-	-	-	-
	3	●	●	●	●	●	●	●	-	-	-	-
	4	●	●	●	●	●	●	●	-	-	-	-
P16 R16	1	-	-	-	●	●	●	●	●	●	-	-
	2	●	●	●	●	●	●	●	-	-	-	-
	3	●	●	●	●	●	●	●	-	-	-	-
	4	●	●	●	●	●	●	●	-	-	-	-
P19 R19	1	-	-	-	-	-	●	●	●	●	●	●
	2	-	-	-	●	●	●	●	●	●	-	-
	3	●	●	●	●	●	●	●	-	-	-	-
	4	●	●	●	●	●	●	●	-	-	-	-
P23 R23	1	-	-	-	-	-	-	●	●	●	●	●
	2	-	-	-	●	●	●	●	●	●	-	-
	3	●	●	●	●	●	●	●	-	-	-	-
	4	●	●	●	●	●	●	●	-	-	-	-
P24 R24	1	-	-	-	-	-	-	●	●	●	●	●
	2	-	-	-	●	●	●	●	●	●	-	-
	3	●	●	●	●	●	●	●	-	-	-	-
	4	●	●	●	●	●	●	●	-	-	-	-
P27 R27	1	-	-	-	-	-	-	-	●	●	●	-
	2	-	-	-	-	-	●	●	●	●	●	●
	3	-	-	-	●	●	●	●	●	●	-	-
	4	●	●	●	●	●	●	●	-	-	-	-
P29 R29	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	●	●	●	●	●
	3	-	-	-	●	●	●	●	●	●	-	-
	4	●	●	●	●	●	●	●	-	-	-	-
P35 R35	1	-	-	-	-	-	-	-	-	-	-	-
	2	-	-	-	-	-	-	●	●	●	●	●
	3	-	-	-	●	●	●	●	●	●	-	-
	4	●	●	●	●	●	●	●	-	-	-	-

●	**Mümkün**	●	*Possible*	●	Möglich
-	**Mümkün değil**	-	*Not possible*	-	Nicht möglich



Genel Bilgiler
General Information
Einführung

Servis Faktörü

Servis Faktörü redüktörün çalıştığı şartlar ile uyumlu olması için gerekli emniyet katsayısıdır. f_s = 1 düzgün ve sakin yüklerde, günlük sekiz saat ve saatte on dur kalkı karşılar. Servis faktörü aşağıdaki etkenlere bağlıdır:

- Günlük çalışma süresi
-Yük sınıfı
-Bir saatteki dur-kalk sayısı
-Redüktör tahrik tipi
-Diğer etkenler

Gerekli servis faktörünü belirlemek için;
1. Makinanın günlük çalışma süresini belirleyin
2. Makinanın yük sınıfını belirleyin
3. Saatteki dur kalk sayısını belirleyin
4. Servis faktörünü aşağıdaki tablodan belirleyin
5. Tahrik tipine bağlı olarak servis faktörünü arttırın

Service Factor

Service factor is a safety coefficient, which takes into account the different running conditions of the driven machine. f_s = 1 is at smooth and quiet load, 8 hour working per day and 10 start stop cycle per hour. Service factor depends on:

-Running time per day
-Nature of load
-Start-stop quantity per hour
-Driver type
-Other facts

For the right selection of service factor;
1. Determine daily running time
2. Find the nature of load
3. Determine the frequency of start stop
4. Choose the service factor from the table below
5. According to driving type increase the service factor

Betriebsfaktor

Betriebsfaktor ist ein Sicherheitsfaktor des Getriebes, damit das Getriebe unter bestimmten Betriebsbedingungen sicher arbeitet. f_s = 1 gilt für ruhige und langsame Belastung, 8 Studen Betrieb pro Tag und 10 mal Start-Stop pro Stunde. Betriebsfaktor ist abhängig von:
-Betriebsdauer pro Tag
-Belastungsart
-Schalthäufigkeit
-Antriebsart
-Andere Faktoren

Für die richtige Auswahl der Betriebsfaktor;
1. Bestimmen Sie tägliche Laufzeit
2. Finden Sie die Art der Belastung
3. Bestimmen Sie die Frequenz von Start-Stopp
4. Wählen Sie den Betriebsfaktor aus der Tabelle unten
5. Abhängig von Antriebsart erhöhen Sie den Betriebsfaktor

Yük sınıfı *Nature of Load* Belastungsart	***Günlük Çalışma Saati*** *Operating per Day (h)* Laufzeit pro Tag (Std)	**Service Faktörü f_s** / *Service Factor f_s* / Betriebefaktor f_s				
		Saatte Start Sayısı /*Cycles per Hour* / Schaltungen pro Stunde				
		0-10	**10-50**	**50-100**	**100-200**	**200-400**
U	**4**	0,9	1	1,1	1,2	1,3
	8	1	1,2	1,2	1,3	1,5
	16	1,2	1,3	1,4	1,5	1,6
	24	1,2	1,4	1,5	1,6	1,7
M	**4**	1	1,2	1,3	1,4	1,6
	8	1,1	1,3	1,4	1,6	1,7
	16	1,2	1,5	1,6	1,8	1,9
	24	1,3	1,5	1,7	1,9	2,1
H	**4**	1,1	1,3	1,5	1,7	1,8
	8	1,2	1,5	1,7	1,8	2
	16	1,4	1,7	1,8	2	2,3
	24	1,4	1,8	2	2,2	2,4

$$J'_{ext} = \frac{J_{ext}}{i^2}$$

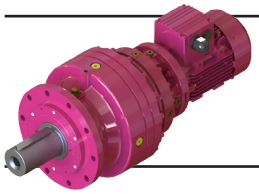
$$F_i = \frac{J'_{ext}}{J_{rotor}}$$

U	**Uniform Yük** *Uniform Loads* Gleichförmige Last	F_i < 0,25
M	**Orta Darbeli Yük** *Moderate Loads* Ungleichförmige Last	F_i < 3
H	**Darbeli Yük** *Heavy Shock Loads* Stark Ungleichförmige Last	F_i < 10

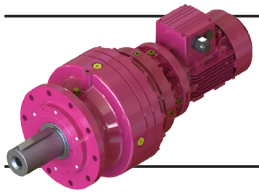
J_{ext} ..... :**Motor miline indirgenmiş dış atalet momenti**
External moments of inertia reduced to the motor shaft
Externe Massenträgheitsmomente reduziert auf Motorwelle

i ..... :**Tahvil oranı**
Transmission ratio
Übersetzung

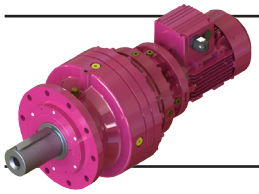
J_{rotor} ..... :**Motorun atalet momenti**
Motor *moment of inertia*
Massenträgheitsmoment des Antriebsmotors



Önerilen Servis Faktörleri ***Recommended Service Factors*** **Empfehlung für Betriebsfaktoren**				Günlük Çalışma Saati *Operation time per day* Betriebsstunden pro tag			
				h<4	***4 - 8***	***8 - 16***	***h>16***
Kimya Sektörü *Chemical Industry* Chemische Industrie	**Sıvı Karıştırıcılar**	***Agitators***	**Rührwerke**				
	M-Sabit yoğunluklu sıvı	*M-Uniform solid media*	M-Gleichmäsiger Dichte	*1,0*	*1,3*	*1,4*	*1,5*
	M-Değişken yoğunluklu sıvı	*M-None-uniform solid media*	M-Ungleichmäsiger Dichte	*1,2*	*1,5*	*1,6*	*1,7*
	H-Değişken gaz oranları	*H-None-uniform gas absorption*	H-Ungleichmäsige Begasung	*1,4*	*1,6*	*1,7*	*1,8*
	Katı Karıştırıcılar	***Mixers***	**Mischer**				
	M-Eşit taneli katı	*M-Constant density liquid*	M-Gleichmäsiges Gut	*1,3*	*1,4*	*1,5*	*1,6*
	H-Değişgen taneli katı	*H-Variable density liquid*	H-Ungleischmäsiges Gut	*1,4*	*1,6*	*1,7*	*1,8*
	M-Beton	*M-Concrete*	M-Beton	*1,5*	*1,5*	*1,5*	*1,6*
	Kauçuk ve Plastik Makinaları	***Rubber and Plastic Machines***	**Gummi und Kunststoff Machinen**				
	M-Plastik extruderler	*M-Plastic extruders*	M-Kunststoff Extruder	*1,4*	*1,4*	*1,5*	*1,6*
	H-Kauçuk extruder	*H-Rubber extruders*	H-Gummi Extruder	*1,5*	*1,5*	*1,6*	*1,8*
	H-Kauçuk hadde (2' li)	*H-Rubber mills (2' in a row)*	H-Gummi Wälzwerke (2 Walzen)	*1,6*	*1,8*	*1,8*	*2,0*
	H-Kauçuk hadde (3' lü)	*H-Rubber mills (3' in a row)*	H-Gummi Wälzwerke (3 Walzen)	*1,5*	*1,5*	*1,6*	*1,8*
	H-Isıtıcı hadde	*H-Warming mills*	H-Wärmungstrommel	*1,4*	*1,5*	*1,6*	*1,8*
	H-Kalender	*H-Calenders*	H-Gummikalender	*1,7*	*1,7*	*1,7*	*1,7*
	H-Taşlama	*H-Grinders*	H-Schleifen	*1,6*	*1,8*	*1,8*	*2,0*
	H-Karıştırıcı hadde	*H-Mixing mills*	H-Kalender Mischer	*1,6*	*1,8*	*1,8*	*2,0*
	H-Düzlemselleştirme	*H-Sheeters*	H-Flach Walzen	*1,6*	*1,8*	*1,8*	*2,0*
	H-Inceltme	*H-Refiners*	H-Fein Walzen	*1,6*	*1,8*	*1,8*	*2,0*
	Atık Su Arıtma	***Waste Water Treatment***	**Abwasser**				
	U-Kalınlaştırıcı (Merkez Tahrikli)	*U-Thickners (central drive)*	U-Eindicker (Zentralantrieb)	*1,2*	*1,3*	*1,4*	*1,5*
	U-Filtre presleri	*U-Filter presses*	U-Filterpressen	*1,2*	*1,3*	*1,4*	*1,5*
	U-Çamur karıştırıcı	*U-Flocculation agitator*	U-Flockungsrührer	*1,0*	*1,2*	*1,2*	*1,3*
	H-Dairesel havalandırıcı	*H-Circular aerators*	H-Kreiselbelüfter	*1,8*	*1,8*	*1,8*	*2,0*
	H-Fırçalı havalandırıcı	*H-Brush areators*	H-Bürstenbelüfter	*2,0*	*2,0*	*2,0*	*2,0*
	U-Dairesel tarama	*U-Raking Equipment*	U-Rechenanlagen	*1,0*	*1,2*	*1,2*	*1,3*
	U-Dairesel ve doğrusal tarama	*U-Longitudinal and rotary rakes*	U-Rund und Längsräumen	*1,1*	*1,3*	*1,4*	*1,5*
	U-Ön kalınlaştırıcı	*U-Pre-thickeners*	U-Voreindicker	*1,2*	*1,3*	*1,4*	*1,5*
	M-Vidalı pompa	*M-Screw pumps*	M-Schneckempumpen	*1,3*	*1,5*	*1,5*	*1,5*
	H-Su türbinleri	*H-Water turbines*	H-Wasserturbinen	*2,0*	*2,0*	*2,0*	*2,0*
	Pompalar	***Pumps***	**Pumpen**				
	U-Santrifüj	*U-Centrifugal*	U-Kreiselpumpen	*1,2*	*1,4*	*1,4*	*1,5*
	H-Deplasman (Tek Silindirli)	*H-Displacement (single-cylinder)*	H-Verdrängerpumpen (1 Kolben)	*1,4*	*1,5*	*1,6*	*1,8*
	M-Deplasman (Çok Silindirli)	*M-Displacement (multi-cylinder)*	M-Verdrängerpumpen (Vielkolben)	*1,2*	*1,4*	*1,4*	*1,5*
	M-Sipiral pompa	*M-Spiral Pumps*	M-Spiral Pumpen	*1,3*	*1,3*	*1,4*	*1,5*
	U-Döner (dişli veya paletli)	*U-Rotary (gear or vane type)*	U-Zahnrad-, Paletten-pumpen	*1,3*	*1,3*	*1,3*	*1,3*
Metal Sektörü *Metal Working Industry* Stahl und Eisenindustrie	**Metal Hadde Makinaları**	***Metal Working Mills***	**Metallwalzen**				
	H-Çift yönlü ham demir haddesi	*H-Reversing blooming mills*	H-Blechwalzen (Vor-, Rückwärts)	*2,5*	*2,5*	*2,5*	*2,5*
	H-Çift yönlü şahmerdan haddesi	*H-Reversing slabbing mills*	H-Brammen (Vor-, Rückwärts)	*2,5*	*2,5*	*2,5*	*2,5*
	H-Çift yönlü sac haddesi	*H-Reversing sheet mills*	H-Feinblechwalz. (Vor-, Rückwärts)	*2,0*	*2,0*	*2,0*	*2,0*
	H-Çift yönlü plaka haddesi	*H-Reversing plate mills*	H-Grobblechwalz. (Vor-, Rückwärts)	*1,8*	*1,8*	*1,8*	*1,8*
	H-Çift yönlü boru haddesi	*H-Reversing tube mills*	H-Rohrwalzen (Vor-, Rückwärts)	*1,8*	*1,8*	*1,8*	*1,8*
	U-Hadde aralık ayarı	*U-Roll adjustment drives*	U-Walzenanstellungen	*0,9*	*1,0*	*1,0*	*1,0*
	H-Tel çekme makinaları	*H-Wire drawing machines*	H-Drahtziehen	*1,6*	*1,8*	*1,8*	*2,0*
	U-Kütük itici	*U-Ingot pushers*	U-Blockdrücker	*1,0*	*1,2*	*1,2*	*1,2*
	U-Sac bükme	*U-Plate tilters*	U-Blechbieger	*1,0*	*1,0*	*1,2*	*1,2*
	M-Makaralı doğrultucu	*M-Roller straighteners*	M-Rollenrichtmachinen	*1,6*	*1,6*	*1,6*	*1,6*
	H-Sarma makaraları	*H-Winding machines*	H-Haspeln	*1,6*	*1,6*	*1,8*	*1,8*
	Makaslar	***Shears***	**Scheren**				
	M-Sürekli kesim	*M-Continuous*	M-Durchgehendes Schnitt	*1,5*	*1,5*	*1,5*	*1,5*
	U-Eksantrik tip	*U-Crank type*	U-Kurbelschnitt	*1,2*	*1,2*	*1,2*	*1,2*
	Tekerli Yürütücü	***Roller tables***	**Rollgänge**				
	M-Sürekli çalışan yürütücü	*M-Continuous*	M-Durchlauf	*1,5*	*1,5*	*1,5*	*1,5*
	H-Dur kalk çalışan yürütücü	*H-Intermittend*	H-Stossartig	*2,0*	*2,0*	*2,0*	*2,0*
Enerji Sektörü *Energy* Energie	H-Frekans dönüştürme	*H-Frequency converters*	H-Frequenzumformer	*1,8*	*1,8*	*1,8*	*2,0*
	H-Su çarkları (düşük hız)	*H-Water wheels (low speed)*	H-Wasserräder (langsam drehend)	*1,7*	*1,8*	*1,8*	*2,0*
	H-Su türbinleri	*H-Water turbines*	H-Wasserturbinen	*2,0*	*2,2*	*2,4*	*2,5*
Kompresörler *Compressors* Verdichter	H-Deplasman tipi (pistonlu)	*H-Reciprocating*	H-Kolbenverdichter	*1,8*	*1,8*	*1,8*	*1,9*
	M-Santrifüj tipi	*M-Centrifugal compressors*	M-Rotierende Verdichter	*1,4*	*1,4*	*1,5*	*1,5*
	H-Vidalı	*H-Screw-type*	H-Schraubenverdichter	*1,5*	*1,5*	*1,6*	*1,8*
Krenler *Cranes* Krananlagen	M-Kren döndürme	*M-Slewing gears*	M-Drehwerke	*1,2*	*1,6*	*1,8*	*2,0*
	U-Palangalı çekme	*U-Luffing gears*	U-Einziehwerke	*1,0*	*1,2*	*1,4*	*1,4*
	H-Kren yürütme	*H-Travelling gears*	H-Fahrwerke	*1,6*	*1,8*	*1,8*	*2,0*
	U-Kren yük kaldırma	*U-Hoisting gears*	U-Hubwerke	*1,0*	*1,2*	*1,4*	*1,4*
	M-Vinç kolu kaldırma	*M-Derricking jib cranes*	M-Wippwerke	*1,2*	*1,4*	*1,4*	*1,6*



Önerilen servis faktörleri ***Recommended service Factors*** **Empfehlung für Betriebsfaktoren**				**Günlük Çalışma Saati** *Operation time per day* Betriebsstunden pro tag			
				h<4	***4 - 8***	***8 - 16***	***h>16***
Gıda Sektörü *Food Industry* Lebensmittel-industrie	**Kamıştan Şeker Üretimi**	***Cane Sugar Production***	**Rohrzuckerherstellung**				
	H-Kamış bıçağı	*H-Cane knives*	H-Zuckerrohr-Messer	*1,7*	*1,7*	*1,8*	*1,8*
	H-Kamış değirmeni	*H-Cane mills*	H-Zuckerrohr-Mühle	*1,7*	*1,7*	*1,8*	*1,8*
	Pancardan Şeker Üretimi	***Beet Sugar Production***	**Rübenzuckerherstellung**				
	U-Pancar dilimleme	*U-Beet cossettes macerators*	U-Schnitzelmaschine	*1,2*	*1,3*	*1,4*	*1,5*
	M-Sıkma, soğutma, kaynatma	*M-Extraction, coolers, boilers*	M-Extraction, Kühlen, Kochen	*1,4*	*1,5*	*1,6*	*1,6*
	H-Pancar yıkama	*H-Sugar beet washing machine*	H-Rübenwäsche	*1,5*	*1,6*	*1,6*	*1,7*
	H-Pancar kesme	*H-Sugar beet cutters*	H-Schneidmaschine	*1,5*	*1,6*	*1,6*	*1,7*
	Diğer Gıda	***Other Food***	**Andere Nahrungsmittel**				
	H-Ezme ve öğütme	*H-Crushers and mills*	H-Quetschen, mahlen	*1,8*	*1,8*	*1,8*	*1,8*
	U-Dilimleme	*U-Slicers*	U-Schnitzelmaiche	*1,2*	*1,3*	*1,4*	*1,5*
	U-Kurutma tamburları	*U-Drying drums*	U-Trockner-Trommel	*1,2*	*1,3*	*1,4*	*1,5*
Fanlar *Fans* Ventilatoren	**Soğutma Kuleleri**	***Cooling towers***	**Kühltürme**				
	H-Kuru soğutma kuleleri	*H-Dry cooling towers*	H-Trockenkühlturm	*1,8*	*1,8*	*2,0*	*2,0*
	M-Yaş soğutma kuleleri	*M-Wet cooling towers*	M-Naßkühlturm	*1,4*	*1,4*	*1,4*	*1,5*
	Fanlar	***Fans***	**Gebläse**				
	M-Eksenel ve radyal fanlar	*M-Axial and radial fans*	M-Gebläse (axial und radial)	*1,5*	*1,5*	*1,5*	*1,5*
	U-Eşanjör fanları	*U-Heat exchangers*	U-Wärmetaucher	*1,2*	*1,2*	*1,2*	*1,2*
Kağıt Sektörü *Pulp and Paper Industry* Papier-,Zellstoff-industrie	H-Kabuk sıyırma ve tamburu	*H-Debarking drums and brakers*	H-Entrindungstrommeln	*1,6*	*1,8*	*1,8*	*1,8*
	H-Haddeleme	*H-Rolls*	H-Walzen	*1,8*	*1,8*	*2,0*	*2,0*
	H-Kurutma silindiri	*H-Dryer cylinders*	H-Trockenzylinder	*1,8*	*1,8*	*2,0*	*2,0*
	H-Kalenderler	*H-Calenders*	H-Kalender	*1,8*	*1,8*	*2,0*	*2,0*
	H-Filtreler (vakum ve basınç)	*H-Filters (pressure and vacuum)*	H-Filter (Druck- und Saugfilter)	*1,8*	*1,8*	*2,0*	*2,0*
	H-Dövücü ve talaş kırıcı	*H-Beaters and chippers*	H-Hackmaschinen und Häcksler	*1,6*	*1,8*	*2,0*	*2,0*
	H-Jordan değirmeni	*H-Jordan mills*	H-Jordanmühlen	*1,5*	*1,5*	*1,6*	*1,8*
	H-Presler	*H-Presses*	H-Pressen	*1,8*	*1,8*	*1,8*	*1,8*
	M-Yıkayıcı filtreler	*M-Washer filters*	M-Waschfilter	*1,5*	*1,5*	*1,5*	*1,5*
Çimento Sektörü *Cement Industry* Zementindustrie	H-Beton mixeri	*H-Concrate mixers*	H-Betonmischer	*1,5*	*1,5*	*1,5*	*1,5*
	M-Kırıcı	*M-Breakers*	M-Brecher	*1,4*	*1,5*	*1,6*	*1,7*
	H-Döner fırın	*H-Rotary kilns*	H-Drehöfen	*2,0*	*2,0*	*2,0*	*2,0*
	H-Boru değirmen	*H-Tube mills*	H-Rohrmühle	*2,0*	*2,0*	*2,0*	*2,0*
	M-Separatör	*M-Seperators*	M-Sichter	*1,6*	*1,6*	*1,6*	*1,6*
	H-Hadde değirmen	*H-Roll crushers*	H-Walzenmühlen	*2,0*	*2,0*	*2,0*	*2,0*
Maden Sektörü *Mining Industry* Bergbau	H-Kırıcılar	*H-Crushers*	H-Brecher	*1,6*	*1,8*	*2,0*	*2,0*
	H-Titreşimli elek	*H-Screen and shakers*	H-Rüttler und Siebe	*1,6*	*1,8*	*2,0*	*2,0*
	H-Kepçe kafa çevirme	*H-Slewing drives*	H-Schwenkwerke	*1,5*	*1,6*	*1,8*	*1,8*
	H-Kovalı elevatörler	*H-Bucket conveyors*	H-Eimerketten	*1,6*	*1,7*	*1,8*	*1,8*
	H-Katerpiler yürütme	*H-Carterpillar traveling gears*	H-Raupenfahrzeuge	*1,3*	*1,7*	*1,8*	*2,0*
	H-Kepçeli teker	*H-Bucket wheel*	H-Schaufelradbagger	*2,0*	*2,2*	*2,5*	*2,5*
	H-Kesici kafalar	*H-Cutter heads*	H-Schneidköpfe	*2,0*	*2,2*	*2,5*	*2,5*
Konveyörler *Conveyors* Förderanlagen	H-Kovalı elevatörler	*H-Bucket conveyors*	H-Becherwerke	*1,4*	*1,5*	*1,6*	*1,8*
	H-Halatlı çekici	*H-Hauling winches*	H-Förderhaspel	*1,4*	*1,6*	*1,6*	*1,6*
	H-Halatlı kaldırma	*H-Hoists*	H-Fördermaschinen	*1,5*	*1,5*	*1,6*	*1,8*
	U-Lastik bantlı konveyör	*U-Belt conveyors*	U-Gurtbandförderer	*1,2*	*1,3*	*1,4*	*1,5*
	U-Yük asansörleri	*U-None-Human lifts*	U-Lastaufzüge	*1,2*	*1,2*	*1,4*	*1,5*
	H-İnsan asansörleri	*H-Human lifts*	H-Personenaufzüge	*1,5*	*1,5*	*1,6*	*1,8*
	U-Levhalı taşıyıcı	*U-Apron conveyors*	U-Plattenbänder	*1,2*	*1,3*	*1,4*	*1,5*
	U-Yürüyen merdiven	*U-Escalators*	U-Rolltreppen	*1,1*	*1,3*	*1,4*	*1,5*
	M-Rayda yürüyen araçlar	*M-Rail traveling gears*	M-Schienenfahrzeuge	*1,5*	*1,5*	*1,5*	*1,5*
	U-Helezon götürücü	*U-Screw feeders*	U-Schneckenförderer	*1,2*	*1,3*	*1,4*	*1,5*



Eşdeğer Güç Hesabı

Sabit devirde, ancak değişken momentlerde (güçlerde) çalışan redüktörler için eşdeğer tork altındaki, eşdeğer güç hesaplanabilir. Bu eşdeğer güç kullanılarak bilinen sabit güçteki redüktör seçim yöntemi kullanılarak seçim yapılabilir. Burada ağırlıklı torka göre eşdeğer anma torku belirlenmektedir. Hesaplanan bu güçte çalışan redüktör, teorik olarak, değişken yüklerde çalışan redüktör ile aynı emniyet değerine ve ömre sahiptir.

Bir çevrim boyunca oluşan değişken torklar, en yüksek torktan, en düşüğe doğru yatay zaman ekseni boyunca sıralanır (bakınız alttaki şekil). Bu şekile göre eşdeğer tork şu formül ile hesaplanır;

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6,6} + \Delta t_2 \times T_2^{6,6} + \ldots + \Delta t_n \times T_n^{6,6}}{t} \right)^{\frac{1}{6,6}}$$

Eğer T_n değerleri (en düşük tork), T_e'nin 0,5 katının altında ise, bu tork dilimi yok sayılarak, işlem tekrarlanır;

Eğer $T_n < T_e \times 0,5$ ise

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6,6} + \Delta t_2 \times T_2^{6,6} + \ldots + \Delta t_{n-1} \times T_{n-1}^{6,6}}{t - \Delta t_n} \right)^{\frac{1}{6,6}}$$

Tüm T_n değerleri T_e'nin 0,5 katının üzerinde ise, eşdeğer güç aşağıdaki gibi hesaplanır;

$$P_e = P_N = \frac{T_e \times n}{9550}$$

Eşdeğer gücün bulunmasından sonra P_N değeri kullanılarak, bu katalogda verilen redüktör seçimi bölümünde anlatılan adımlar uygulanarak redüktör seçimi tamamlanır.

Equivalent Power Rating Calculation

The equivalent power by an equivalent constant torque can be calculated for gearboxes working in constant speed but variable torques (or powers). Using this equivalent power it is possible to make a gearbox selection according the usual gearbox selection method with constant torques. The equivalent torque will be determined according the mean of dominating torques. The gearbox working in constant equivalent torque will theoretically have the same lifetime and safety compared to the variable torque one.

To calculate the equivalent torques, the variable torques in a cycle must be sorted from the maximal to the minimal on a horizontal time line (Check the graphic below). According to the graphic below the equivalent torque can be calculated with the following formula;

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6,6} + \Delta t_2 \times T_2^{6,6} + \ldots + \Delta t_n \times T_n^{6,6}}{t} \right)^{\frac{1}{6,6}}$$

If T_n (the lowest torque) is lower than 50% of T_e, this torque part must be taken out of the torque graph and the calculation must be repeated;

If $T_n < T_e \times 0,5$ *then*

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6,6} + \Delta t_2 \times T_2^{6,6} + \ldots + \Delta t_{n-1} \times T_{n-1}^{6,6}}{t - \Delta t_n} \right)^{\frac{1}{6,6}}$$

If all T_n values are higher then 50% of T_e then the equivalent power can be calculated by the following formula;

$$P_e = P_N = \frac{T_e \times n}{9550}$$

After the equivalent power is determined the selection of gearbox is made according to the selection procedures given on the gearbox selection part in this catalogue.

Berechnung Äquivalenter Leistung

Die äquivalente Leistung bei äquivalenten Drehmoment kann für Getrieben mit konstanten Drehzahl und variablen Momente berechnet werden. Mit dieser Leistung kann das Getriebe ausgelegt werden, wie bei konstanten Leistung. Man bestimmt hiermit also die maßgebende Belastung. Das ausgelegte Getriebe erreicht theoretisch dem gleichen Lebensdauer und hat die gleiche Sicherheit.

Für die Berechnung der äquivalenten Drehmoment müssen die einzelnen Drehmomentanteile auf eine Zeitachse von größten bis zu kleinsten angeordnet werden (siehe unteres Bild). Das äquivalente Drehmoment wird nach folgender Formel berechnet;

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6,6} + \Delta t_2 \times T_2^{6,6} + \ldots + \Delta t_n \times T_n^{6,6}}{t} \right)^{\frac{1}{6,6}}$$

Wenn T_n (niedrigstes Drehmoment) kleiner als 50% von T_e ist, muss dieser Anteil vernachlässigt werden und die Berechnung soll neu durchgeführt werden;

Wenn $T_n < T_e \times 0,5$ dann

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6,6} + \Delta t_2 \times T_2^{6,6} + \ldots + \Delta t_{n-1} \times T_{n-1}^{6,6}}{t - \Delta t_n} \right)^{\frac{1}{6,6}}$$

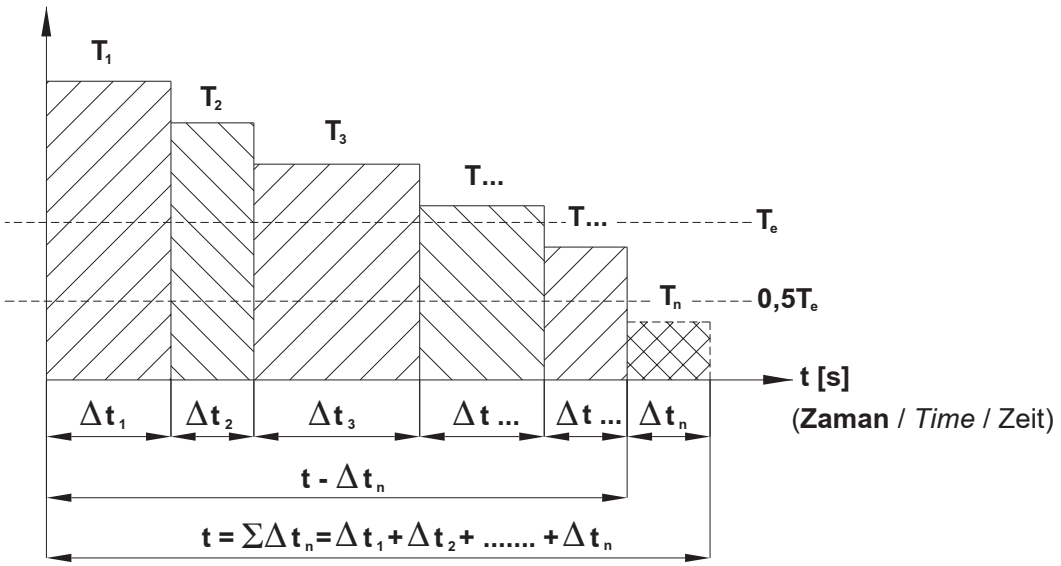
Wenn alle T_n Werte höher als 50% von T_e sind, dann wird die äquivalente Leistung nach folgender Formel berechnet;

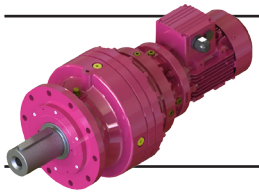
$$P_e = P_N = \frac{T_e \times n}{9550}$$

Nach Bestimmung der äquivalenter Leistung, erfolgt die Getriebeauslegung wie bei konstanter Leistung. Die Auswahlverfahren für konstante Leistung ist in diesem Katalog angegeben.

(**Moment** / *Torque* / Moment)

T [Nm]





Eşdeğer Güç Hesabı Örneği

Çift yönlü çalışan ham demir haddesi için aşağıdaki çalışma koşulları belirlenmiş;

Veriler:
Toplam bir iş çevrimi: 2 dak.
1. Yük kademesi: 48 kNm, 30 sn
2. Yük Kademesi: 32 kNm, 22 sn
3. Yük Kademesi: 28 kNm, 15 sn
4. Yük Kademesi: 16 kNm, 10 sn
5. Yük Kademesi: 5 kNm, 43sn
Makina sabit devri: 50 d/dak
Redüktör seçimine esas olacak eşdeğer yük aranmaktadır.

Çözüm:
Bir çevrimin toplam zamanı;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120\ sn$$

Eşdeğer Tork;

$$T_e = \left(\frac{30 \times 48^{6,6} + \ ... \ + 43 \times 5^{6,6}}{120}\right)^{\left(\frac{1}{6,6}\right)}$$

=39,2 kNm

%50 eşdeğer tork;

$$0,5 \times T_e = 19,6 kNm$$

Her bir tork dilimi bu değerin üzerinde olmalı

$$T_{4,5} < 0,5 \times T_e$$

%50 torkun altındakileri çıkararak hesabı tekrarlayalım;

$$t' = t_1 - t_4 - t_5 = 120 - 43 - 10 = 67s$$

$$T_e = \left(\frac{30 \times 48^{6,6} + 22 \times 32^{6,6} + 15 \times 28^{6,6}}{67}\right)^{\frac{1}{6,6}}$$

=42,9 kNm

Moment ve devir değerlerini kullanarak eşdeğer gücümüzü hesaplayalım;

$$P_e = \frac{T_e \times n}{9550} = \frac{42,9 \times 1000 \times 50}{9550} = 225kW$$

Yukarıdaki güç ve devir değeri kullanılarak bu katalogda anlatılan seçim presüdürü ile redüktör seçimi yapılabilir.

Equivalent Power Rating Sample

The following data is given for a reversing blooming mill;

Torque steps:
Total one cycle time: 2 min.
1st torque part: 48 kNm, 30 s
2nd torque part: 32 kNm, 22 s
3th torque part: 28 kNm, 15 s
4th torque part: 16 kNm, 10 s
5th torque part: 5 kNm, 43 s
Machine constant speed: 50 rpm
The equivalent power, which is required for gear unit selection, is to determine.

Solution:
Total time in a cycle;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120\ sn$$

Equivalent Torque;

$$T_e = \left(\frac{30 \times 48^{6,6} + \ ... \ + 43 \times 5^{6,6}}{120}\right)^{\left(\frac{1}{6,6}\right)}$$

=39,2 kNm

50% of Equivalent torque;

$$0,5 \times T_e = 19,6 kNm$$

Every torque part must be lower then this value;

$$T_{4,5} < 0,5 \times T_e$$

We are repeating the calculation by taking out the torque parts, which are below 50%;

$$t' = t_1 - t_4 - t_5 = 120 - 43 - 10 = 67s$$

$$T_e = \left(\frac{30 \times 48^{6,6} + 22 \times 32^{6,6} + 15 \times 28^{6,6}}{67}\right)^{\frac{1}{6,6}}$$

=42,9 kNm

By using the equivalent torque and constant speed we calculate the equivalent power;

$$P_e = \frac{T_e \times n}{9550} = \frac{42,9 \times 1000 \times 50}{9550} = 225kW$$

Now by using the above calculated equivalent power and constant speed we can make the gearbox selection with the procedures described in this catalogue.

Beispiel für Äquivalente Leistung

Die nachfolgenden Angaben sind für eine Blechreversierwalze;

Drehmoment stufen:
Gesamte Zeit für einem Arbeitszyklus: 2 min.
Drehmomentanteil 1: 48 kNm 30 s
Drehmomentanteil 2: 32 kNm 22 s
Drehmomentanteil 3: 28 kNm 15 s
Drehmomentanteil 4: 16 kNm 10 s
Drehmomentanteil 5: 5 kNm 43 s
Maschine hat konstante Drehzahl: 50 U/min
Gesucht ist die äquivalente Leistung, die für die Getriebeauslegung nötig ist.

Lösung:
Gesamte Zeit für einem Arbeitszyklus;

$$t = t_1 + t_2 + t_3 + t_4 + t_5 = 120\ sn$$

Äquivalentes Drehmoment;

$$T_e = \left(\frac{30 \times 48^{6,6} + \ ... \ + 43 \times 5^{6,6}}{120}\right)^{\left(\frac{1}{6,6}\right)}$$

=39,2 kNm

50% von äquivalenten Drehmoment;

$$0,5 \times T_e = 19,6 kNm$$

Drehmomentanteile müssen größer als dieser Wert sein;

$$T_{4,5} < 0,5 \times T_e$$

Wir wiederholen die Berechnung nochmals ohne die kleine Drehmomentanteile;

$$t' = t_1 - t_4 - t_5 = 120 - 43 - 10 = 67s$$

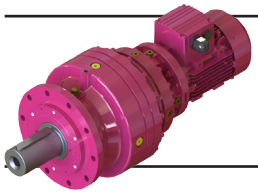
$$T_e = \left(\frac{30 \times 48^{6,6} + 22 \times 32^{6,6} + 15 \times 28^{6,6}}{67}\right)^{\frac{1}{6,6}}$$

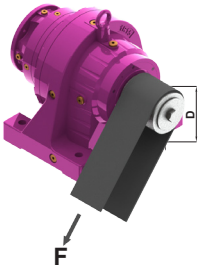
=42,9 kNm

Mit Hilfe von äquivalenten Drehmoment und konstanter Drehzahl berechnet man die äquivalente Leistung;

$$P_e = \frac{T_e \times n}{9550} = \frac{42,9 \times 1000 \times 50}{9550} = 225kW$$

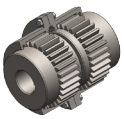
Nach Bestimmung der äquivalente Leistung und konstanter Drehzahl, erfolgt die Getriebeauslegung dann wie die Getriebeauswahl gemäß dem in diesem Katalog beschriebenen Verfahren für konstante Leistung.





Radyal Yüklerin Hesabı

Radyal Yük Fq(N)'nun hesaplanmasında, gerekli tahrik momenti M (Nm), kasnak veya dişli çapı D(mm) olmak üzere aşağıdaki formüller kullanılır.



1. Elastik Kaplin
Çalışma sırasında oluşan sapmalar kaplinin güvenlik sınırları içinde ise kuvvetler ihmal edilebilir.

2. Düz Dişli
(20° kavrama açılı)

$$F_q = \frac{2100 \times M_2}{D}$$

3. Küçük Hızlarda Zincir Dişli (z>17)

$$F_q = \frac{2100 \times M_2}{D}$$

4. Triger Kayış

$$F_q = \frac{2500 \times M_2}{D}$$

5. V Kayış

$$F_q = \frac{5000 \times M_2}{D}$$

6. Gerdirme Makaralı Kayış

$$F_q = \frac{5000 \times M_2}{D}$$

Calculation Of Overhung Loads

Radial Load Fq(N) is calculated with the following equations where required moment M (Nm) and hoop or gear diameter D (mm) is used.

1. Elastic Coupling
If Elastic Coupling is working in its relaible working area, the overhung loads can be neglected.

2. For Spur Gear
(Pressure angle 20°)

$$F_q = \frac{2100 \times M_2}{D}$$

3. For Chain Drive With Low Speed (z>17)

$$F_q = \frac{2100 \times M_2}{D}$$

4. For Trigger Belt

$$F_q = \frac{2500 \times M_2}{D}$$

5. For V Belt

$$F_q = \frac{5000 \times M_2}{D}$$

6. Flat Belt With Spanning Pulley

$$F_q = \frac{5000 \times M_2}{D}$$

Berechnung der Querkräfte

Der Fall der radialen Belastung Fq(N) kann mit den angegebenen Gleichungen berechnet werden. Antriebsmoment M (Nm) und Zahnrad- oder Riemenscheiben Durchmesser D (mm).

1. Elastische Kupplung
Wenn die elastische Kupplung in ihren zulässige Arbeits toleranz arbeitet, können die radialen Belastungen vernächlaßigt werden.

2. Stirnradgetriebe
(Angriffwinkel=20°)

$$F_q = \frac{2100 \times M_2}{D}$$

3. Kettenantrieb mit niedriger Geschwindigkeit (z>17)

$$F_q = \frac{2100 \times M_2}{D}$$

4. Zahnriemenantrieb

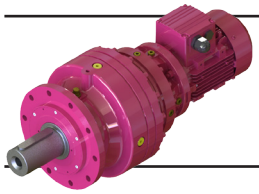
$$F_q = \frac{2500 \times M_2}{D}$$

5. Keilriemenantrieb

$$F_q = \frac{5000 \times M_2}{D}$$

6. Flachriemenantrieb mit Spannungstrommel

$$F_q = \frac{5000 \times M_2}{D}$$



Radyal ve Eksenel Yükler

Giriş ve çıkış miline gelebilecek radyal yükler yatak ömrüne ve mil mukavemetine göre belirlenmiş ve güç devir tablolarında verilmiştir. Bu tablolarda verilen F_{qam} güvenli radyal çıkış yükü ve F_{qem} güvenli radyal giriş yükü, f_s=1 şartı ve yükün mil ortasına etkidiği durum için verilmiştir. Darbeli yüklerin olması durumunda daha önce verilmiş olan servis faktörü tablosundaki değerler dikkate alınmalıdır. Verilen radyal yükler kuvvetin en kötü açı şartında etkidiği durum için verilmiştir. Mil ortasına gelen kuvvetin açısına göre daha yüksek radyal yükler mümkündür (firmamıza danışınız). Bağlantı şekline göre oluşan radyal yük F_a veya F_e değeri önceki sayfada verilen formüller yardımı ile hesaplanabilir.Redüktör seçiminde ;

$$F_a \leq F_{qam}$$

$$F_e \leq F_{qem}$$

şartı göz önünde tutulmalıdır.

a- Mesafeye göre düzeltme katsayısı

Eğer çıkış miline etkiyen radyal kuvvet milin orta noktasında değil ise, verilen güvenilir radyal yük değerinin aşağıda verilen formül ile düzeltilmesi gerekir.

$$F'_{qa} = F_{qam} \times \frac{t}{y + u}$$

$$F'_{qe} = F_{qem} \times \frac{t_g}{y_g + u_g}$$

"t", "y" değerleri aşağıda verilmiştir. "u" değeri aşağıda görüldüğü gibi kuvvetin uygulama noktasıdır.

Overhung and Axial Loads

The permissible overhung loads are calculated by considering working life and strength of shaft. It is listed on the performance tables. The given permissible overhung load for output shaft F_{qam} and permissible overhung load for input shaft F_{qem} are based on f_s=1 and are valid for forces which are applied to the midpoint of the shaft. For shock loading applications the required service factor given on the tables has to be taken into consideration. The listed permissible overhung loads are based on the worst loading direction. Higher overhung loads can be applied for different loading directions (Please ask if requested). The effective overhung load at the gear box input or output shaft F_a or F_e will be determined with the given formulas on the previous page. By Gearbox Selection ;

$$F_a \leq F_{qam}$$

$$F_e \leq F_{qem}$$

these formulas must be taken into consideration.

a- Correcting value according to loading point

If the load is not applied at the midpoint of the output shaft; the given permissible load must be corrected with the following formulas.

$$F'_{qa} = F_{qam} \times \frac{t}{y + u}$$

$$F'_{qe} = F_{qem} \times \frac{t_g}{y_g + u_g}$$

The values "t","y" can be taken from following tables. The value "u" is the length of the application point as shown bellow.

Quer- und Axialkräfte

Die in den Leistung-Drehzahl-Tabellen angegebenen zulässigen Radialbelastungen auf Abtriebswelle F_{qam} und Antriebswelle F_{qem} wurden nach dem Lebensdauer der Getriebe und Festigkeşt der Welle festgelegt. Diese Werte gelten bei Kraftangriff auf die Mitte des Wellenendes. Die Angaben legt den Betriebsfaktor f_s=1 zugrunde. Bei stoßartigen Belastungsfällen ist der entsprechende Betriebsfaktor zu berücksichtigen. Die Querkräfte sind angegeben für ungünstigste Kraftangriffswinkel. Bei der Ermittlung der zulässige Querkräfte sind höhere Werte möglich (Bitte rückfragen). Die auftretende Querkraft F_a und F_e an der Getriebewelle wird wie auf der vorherige Seite bestimmt.
Bei Getriebe Auswahl;

$$F_a \leq F_{qam}$$

$$F_e \leq F_{qem}$$

müssen die oben angegebenen Bedingungen erfüllt sein.

a- Korrekturfaktor gemäß Kraftangriffspunkt

Greift die äußere Kraft nicht auf Abtriebswellenmitte an, so kann die zulässige Querkraft mit Hilfe der unten angegebenen Formel auf jede beliebige Stelle umgerechnet werden.

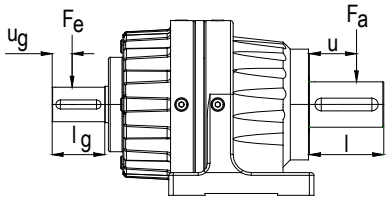
$$F'_{qa} = F_{qam} \times \frac{t}{y + u}$$

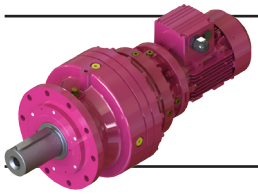
$$F'_{qe} = F_{qem} \times \frac{t_g}{y_g + u_g}$$

Die Werte "t", "y" sind aus den unteren Tabellen entzunehmen. Der Wert "u" ist die Stelle des Kraftangriffes, wie auf der unteren Zeichnung dargestellt.

Çıkış ve giriş radyal yükler için düzeltme katsayıları
Output and input overhung load correcting values
Korrekturfaktor für radiale Ausgangs- und Eingangskraft

Tip / *Type* / Typ		**P11/R11 P12/R12**	**P15/R15 P16/R16**	**P19/R19**	**P23/R23 P24/R24**	**P27/R27**	**P29/R29**	**P35/R35**
Çıkış *Output* Ausgang	**t**	140	175	234	301	325	337	352
	y	100	125	169	216	220	254	252
	l	80	100	130	170	210	210	200
Giriş *Input* Eingang	**t_g**	118	202	255	255	315	231	265
	y_g	90	161	204	191	251	201	200
	l_g	58	81	103	128	128	130	130





Mile gelen radyal yük değeri düzeltilmiş müsade edilen radyal yük değerine eşit yada bu değerden küçük olmalıdır.

$$F_a \leq F'_{qa}$$

$$F_e \leq F'_{qe}$$

b- Ömre göre düzeltme katsayısı

Güç devir tablosundaki izin verilen radyal yük ve aşağıdaki diagramdaki izin verilen eksenel yük 10000 saat ömre göre verilmiştir. Aşağıdaki tablodaki diğer ömürler için düzeltme faktörü K_L ile izin verilen radyal ve eksenel yükler diğer ömürler için bulunabilir. Burada dikkat edilmesi gereken husus radyal yükler için milden dolayı verilen maksimum yük F_{Rmx} hiçbir koşulda aşılamaz.

İzin verilen eksenel yük diagramının iki ekseni de logaritmik verilmiştir.

$$F_{qdz} = F'_{qa} \times K_L \leq F_{Rmx}$$

$$F_{qez} = F'_{qe} \times K_L \leq F_{Rmx}$$

$$F_{atdz} = F_{atg} \times K_L$$

$$F_{acdz} = F_{acg} \times K_L$$

F_{qdz}.....: Ömre göre düzeltilmiş izin verilen radyal yük

F_{atdz}.....: Ömre göre düzeltilmiş izin verilen eksenel basma yükü

F_{acdz}.....: Ömre göre düzeltilmiş izin verilen eksenel çekme yükü

İzin verilen radyal ve eksenel yükler,sadece birinin etkisi düşünülerek verilmiştir. Her ikise aynı anda müsade edilmez.

$$F_{qdz} \geq F_a$$

$$F_{qez} \geq F_e$$

Radial load on the shaft have to be smaller then corrected permissible radial load or equal to this load.

$$F_a \leq F'_{qa}$$

$$F_e \leq F'_{qe}$$

b- Correcting value according to life time

Permissible overhung load given on performance table and permissible axial load given on diagram bellow is determined for 10000 hours life time. With correcting value K_L permissible overhung and axial load for other life times can be calculated according to following formulas. It is important, that the calculated corrected overhung load must be lower then maximum permissible overhung load F_{Rmx}.

Both axes of permissible axial load diagram is logarithmic.

$$F_{qdz} = F'_{qa} \times K_L \leq F_{Rmx}$$

$$F_{qez} = F'_{qe} \times K_L \leq F_{Rmx}$$

$$F_{atdz} = F_{atg} \times K_L$$

$$F_{acdz} = F_{acg} \times K_L$$

F_{qdz}.....: Corrected permissible overhung load according to life time

F_{atdz}.....: Corrected permissible axial press load according to life time

F_{acdz}.....: Corrected permissible axial withdrawal load according to life time

By determining the permissible overhung and axial load only impact of one of the load observed. They may not applied together.

$$F_{qdz} \geq F_a$$

$$F_{qez} \geq F_e$$

Auf der Welle angebrachte radiale Kraft soll gleich dem korrigierten zulässigen radialen Kraft oder kleiner als dieser Kraft sein.

$$F_a \leq F'_{qa}$$

$$F_e \leq F'_{qe}$$

b- Korrektorfaktor gemäß Lebensdauer

Auf der Drehzahl-Leistung-Tabelle angegebene zulässige radiale Belastung und auf dem Diagramm dargestellte zulässige axial Belastung ist für 10000 Stunden Lebensdauer angegeben. Mit dem Korrekturfaktor K_L kann zulässige radiale und axiale Belastung für andere Lebensdauer berechnet werden. Es ist dabei wichtig, dass die berechnete zulässige radiale Belastung geringer als maximal zulässige radiale Belastung F_{Rmx} sein soll. Die beiden Achsen von dem Diagramm der zulässigen axialen Belastung sind logarithmisch.

$$F_{qdz} = F'_{qa} \times K_L \leq F_{Rmx}$$

$$F_{qez} = F'_{qe} \times K_L \leq F_{Rmx}$$

$$F_{atdz} = F_{atg} \times K_L$$

$$F_{acdz} = F_{acg} \times K_L$$

F_{qdz}.....: Korrigierte zulässige radiale Belastung entsprechend der Lebensdauer

F_{atdz}.....: Korrigierte zulässige axiale drückende Belastung entsprechend der Lebensdauer

F_{acdz}.....: Korrigierte zulässige axiale ziehende Belastung entsprechend der Lebensdauer

Bei den angegebenen zulässigen radialen und axialen Belastungen wurde nur eine von der Belastungen beachtet. Beide dürfen gleichzeitig nicht einwirken.

$$F_{qdz} \geq F_a$$

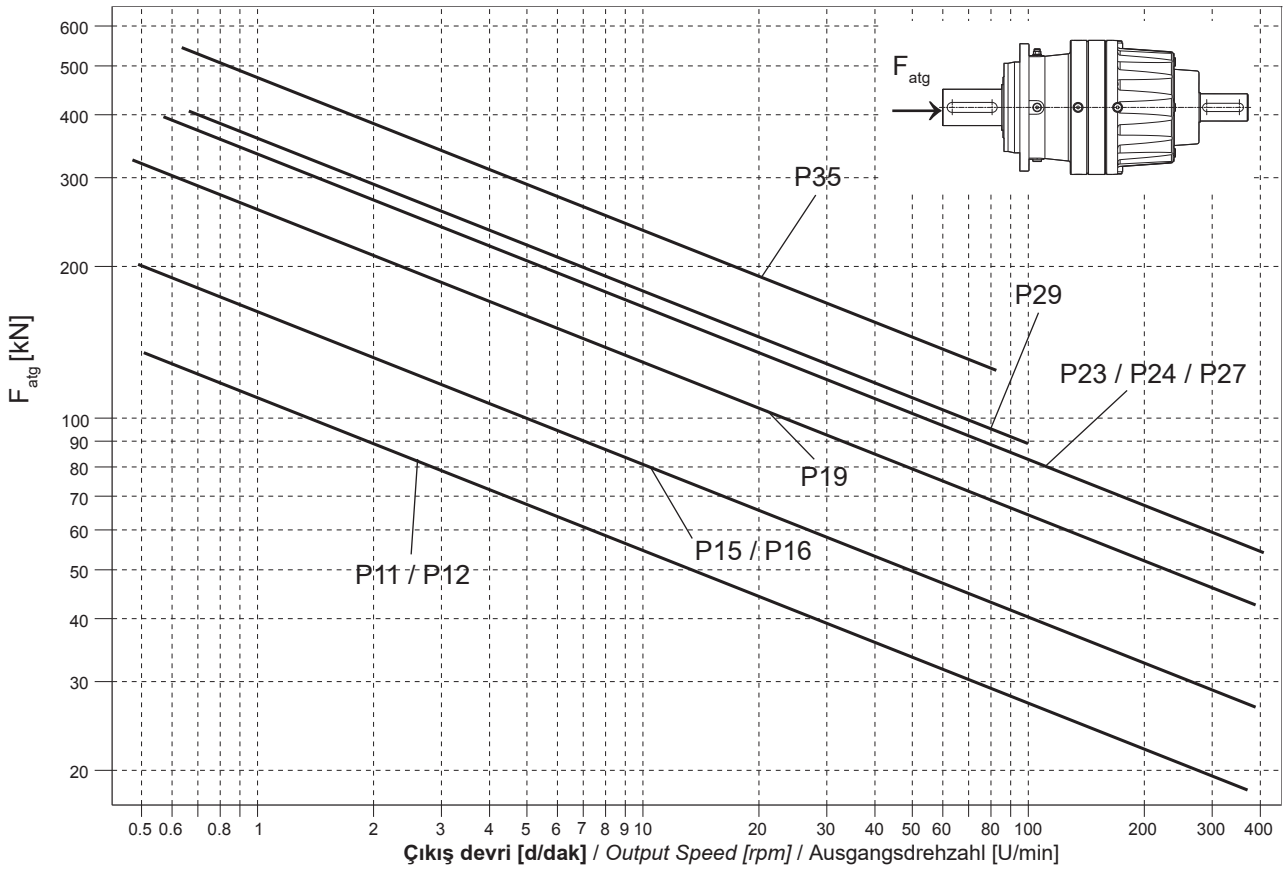
$$F_{qez} \geq F_e$$

Radyal ve eksenel yük için ömre bağlı düzeltme katsayısı *Correcting value according to life time for overhung and axial load* Korrekturfaktor für radiale und axiale Kraft entsprechend der Lebensdauer			
Ömür [saat] *Life time [hours]* Lebensdauer [Stunde]	5000	2000	1000
Düzeltme Katsayısı K_L *Correcting value K_L* Korrekturfaktor K_L	1,23	1,62	2

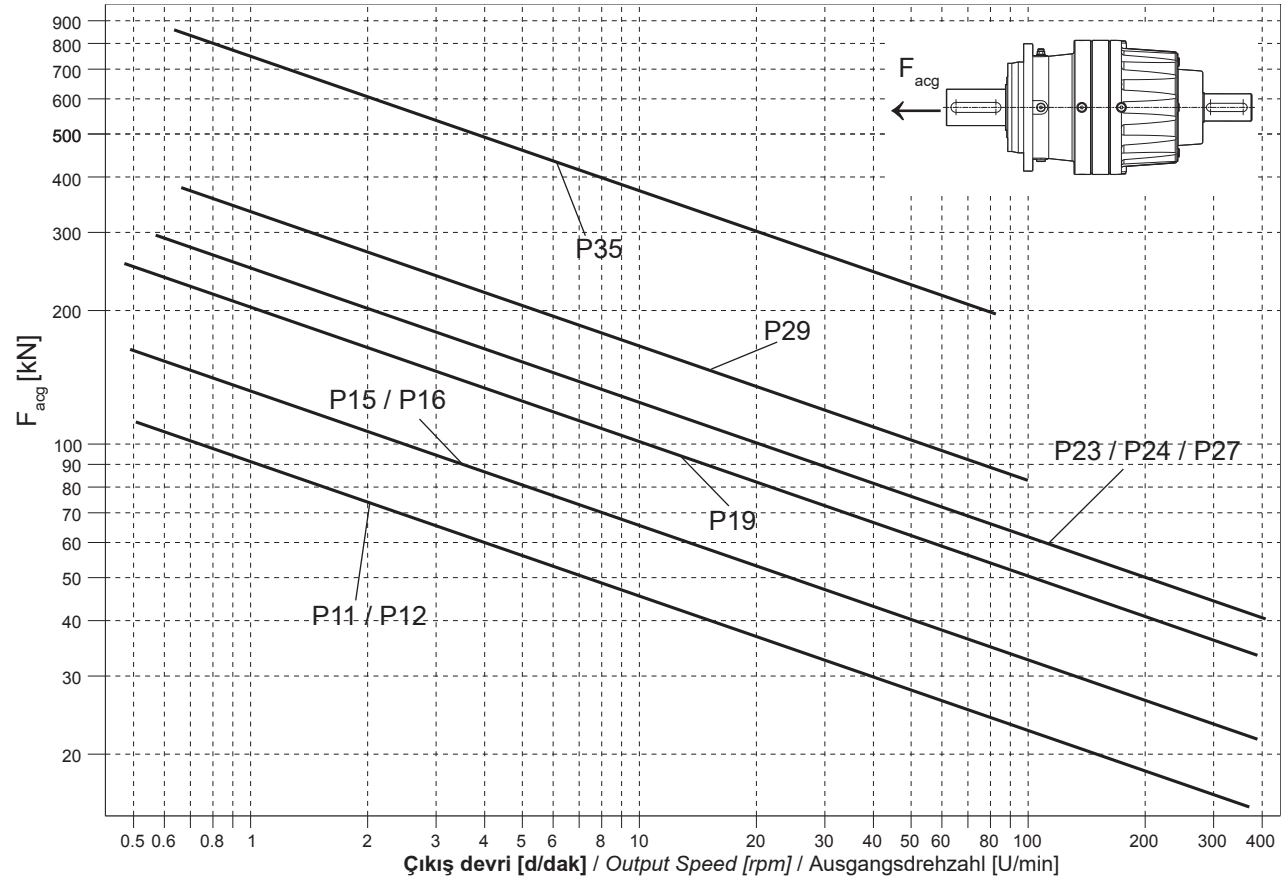
Çıkış için izin verilen maksimum radyal yük F_{Rmx} [kN] *Maximum permissible output overhung load F_{Rmx} [kN]* Maximal zulässige radiale Ausgangsbelastung F_{Rmx} **[kN]**									
P11 / R11	**P12 / R12**	**P15 / R15**	**P16 / R16**	**P19 / R19**	**P23 / R23**	**P24 / R24**	**P27 / R27**	**P29 / R29**	**P35 / R35**
40	38	60	53	95	100	94	126	169	252

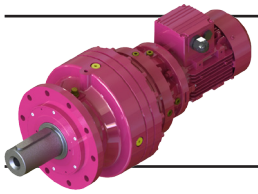
Düzeltilmiş radyal yükler yukarıdaki değerlerden daha büyük olamaz.
Corrected overhung loads can not be higher then the values above.
Korrigierte radiale Kräfte können nicht höher als oberen Werte sein.

İzin verilen basma eksenel yükü / *Permissible axial overhung compress load* / Zullässige axiale Druckkraft



İzin verilen çekme eksenel yükü / *Permissible axial overhung pull load* / Zullässige axiale Ziehkraft





Genel Bilgiler
General Information
Einführung

Redüktör Seçimi

Redüktör seçimi yapılırken aşağıdaki sıra uygulanmalıdır. Parametreler ve katsayılar için verilen sayfalara bakınız. Firmamızın seçim konusunda yardımcı olması isteniyor ise lütfen takip eden sayfalarda verilen redüktör seçim formunu doldurularak firmamızın satış bölümü ile irtibata geçiniz. Aşağıdaki katsayılar için yan sayfadaki tablolara bakınız. Kullanılan sembollerin açıklaması için sayfa 3, teknik tanımlar için sayfa 7 ve 8'e bakınız.
Hidromotorlu redüktör seçimleri için sayfa 31 deki hidromotorlu redüktör seçim örneğine bakınız. Seçim yapılırken hidromotorun devrine uygun motorsuz tablolarından değerler okunur. Eğer hidromotor devri 300 d/dak altında ise ekstrapolasyon yapılır. Ara devir değerleri için interposyon kullanılır.

1. Gerekli tahvil oranı tespit ediniz;

$$i = \frac{n_1}{n_2}$$

2.1. Motosuz seçim için redüktör nominal gücü aşağıdaki şartı sağlamalıdır;

$$P_N \geq P_M \times f_s \times k_1$$

2.2. Motorlu seçimde redüktörün servis faktörü istenen servis faktörünün tahrik makinası faktörüyle çarpımından büyük olmalıdır. Ayrıca çıkış gücü P_M'den büyük olmalıdır.

3. Makinanın pik torku aşağıdaki iki şartın her ikisini de sağlamalıdır. M_{pikmak} değeri bilinmiyor ise motorun kalkış momenti olarak alınır.

$$M_{pikmak} \geq M_a \times k_2$$

$$M_{pikmak} \leq M_{amax}$$

4. Termik gücü kontrol ediniz;
P_{t1} ve P_{t2} seçilen redüktör için güç devir sayfalarında hava hızı ve çevre sıcaklığına bağlı olarak belirlenmiş termik güç değerleridir. Motorlu güç devir sayfalarında 30°C çevre sıcaklığında, motorsuz güç devir sayfalarında 20°C ve 40°C çevre sıcaklığına göre termik güç değerleri verilmiştir. 5°C ve 40°C arasındaki herhangi bir değer için motorsuz sayfasındaki değerler yardımıyla interpolasyon yapınız. Servis faktörü 1,5'tan yüksek olan redüktörlerde motorsuz güç devir sayfalarında önerilenlerden daha küçük eşanjör yada radyatör kullanılabilir. Katalogda verilen değerler 5°C ve 40°C aralığındaki çevre sıcaklığı için geçerlidir. Katalogda açıkca belirtilen durumlar dışında firmamıza danışınız.

4.1. Ek soğutmasız redüktör şu şart altında seçilebilir;

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

4.2 Eşanjör soğutmalı redüktörler şu şart altında kullanılabilir;

$$P_M \leq P_{t2} \times t_1 \times t_3 \times t_4$$

5. Radyal Yükleri kontrol ediniz;

$$F_a \leq F_{qam} \qquad F_e \leq F_{qem}$$

Detaylar için radyal yükler bölümüne bakınız.

Gear Unit Selection

For the correct gearbox selection please use the following steps. For the unit designation and factors refer to the following pages. If you request selection support please fill in the gearbox selection form given on the following pages and contact our company. For factors needed bellow use the tables on the next page. For the descriptions of the symbols and the technical definitions used on this page refer to page 3, page 7 and 8.

For the selection of gearbox with hydraulic motor see gearbox selection example on page 31. While selection use according to speed of hydromotor the performance tables of gearboxes without motor. If speed of hydromotor is under 300 rev/min calculate with extrapolation. For values of not given speeds use interpolation.

1. Find the transmission ratio;

$$i = \frac{n_1}{n_2}$$

2.1. Gearbox selection without motor determine nominal power rating of the gear unit;

$$P_N \geq P_M \times f_s \times k_1$$

2.2. At gearbox selection with motor service factor of gearbox must be greater then the multiplication of determined service factor with driving machine factor. Besides output power must be greater then P_M .
3. Peak torque of the machine has to fulfill the circumstances bellow. If M_{pikmak} is not known, use motor starting torque as M_{pikmak}.

$$M_{pikmak} \geq M_a \times k_2$$

$$M_{pikmak} \leq M_{amax}$$

4. Check thermal power;
P_{t1} and P_{t2} are on the performance table of chosen gearbox unit, depending on ambient temperature and wind velocity determined thermal power values. This values are give on performance tables of gearboxes with motor for 30°C ambient temperature and on performance tables of gearboxes without motor for 20°C and 40°C ambient temperature. For any value between 5°C and 40°C do interpolation by using values on performance tables of gearboxes without motor. By gearbox choice with service factor bigger then 1,5 a smaller heat exchanger or radiator can be used. The values given on this catalogue is valid between 5°C and 40°C ambient temperature. For any situation, which is not clearly mentioned in this catalogue, please contact us.
4.1. Gear units without external cooling can be selected if;

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

4.2 Gear units with heat exchanger can be selected if;

$$P_M \leq P_{t2} \times t_1 \times t_3 \times t_4$$

5. Check the overhung loads;

$$F_a \leq F_{qam} \qquad F_e \leq F_{qem}$$

For more information please refer to overhung loads section.

Getriebeauswahl

Für eine richtige Getriebeauslegung benutzen Sie bitte das folgende Verfahren. Die Bezeichnungen, Erklärungen und Faktoren sollen von den folgenden Seiten entnommen werden. Wenn sie eine Frage betreffend der Getriebeauslegung haben bitten wir Sie das Auslegungsformular auf den folgenden Seiten auszufüllen und mit unserer Firma Kontakt aufzunehmen. Für den Faktoren, die unten benutzt werden, verwende die Tabellen auf der nächsten Seite. Für die Beschreibungen der Symbole und die technischen Definitionen auf dieser Seite, siehe Seite 3, Seite 7 und 8.
Für die Auswahl der Getriebe mit hydraulischer Motor betrachte Beispiel auf Seite 31. Bei der Auswahl abhängig von Geschwindigkeit des Hydromotors verwende Leistung Drehzahlübersicht der Getriebe ohne Motor. Wenn die Geschwindigkeit der Hydromotor unter 300 U/min ist, berechne mit Hilfe von Extrapolation. Für Werte von nicht gegeben Geschwindigkeiten Interpolation verwenden.
1. Bestimmung der Übersetzung;

$$i = \frac{n_1}{n_2}$$

2.1. Bestimmung der Nennleistung bei Getriebeauswahl ohne Motor;

$$P_N \geq P_M \times f_s \times k_1$$

2.2 Bei Auswahl der Getriebe mit Motor Betriebsfaktor des Getriebes muss größer sein als die Multiplikation von bestimmten Betriebsfaktor mit Antriebsmaschinen-Faktor. Außerdem Außgangsleistung muss größer sein als PM.
3. Spitzenmoment der Maschine soll die Gleichungen erfüllen. Wenn M_{pikmak} nicht festgestellt werden kann, Motoranfangsmoment als M_{pikmak} annehmen.

$$M_{pikmak} \geq M_a \times k_2$$

$$M_{pikmak} \leq M_{amax}$$

4. Kontrolle auf Wärmegrenzleistung;
P_{t1} und P_{t2} sind auf dem Leistung- und Drehzahlübersicht von gewähltem Getriebe abhängig von Umgebungstemperatur und Luftgeschwindigkeit bestimmte Wärme-Grenzleistungswerte. Diese Werte sind auf dem Leistung- und Drehzahlübersicht von Getrieben mit Motor für 30°C Umgebungstemperatur auf dem Leistung- und Drehzahlübersicht von Getrieben ohne Motor für 20°C und 40°C Umgebungstemperatur angegeben. Für irgendeinen Wert zwischen 5°C und 40°C interpoliere mit Hilfe von Werten auf dem Leistung- und Drehzahlübersicht von Getrieben ohne Motor. Die Werte, die auf diesem Katalog angegeben sind, gültig zwischen 5°C und 40°C. Für die Situation, die in diesem Katalog nicht eindeutig erwähnt sind, bitte mit uns kontaktieren.
4.1. Getriebekühlung ohne Zusatzkühlung ausreichend wenn;

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

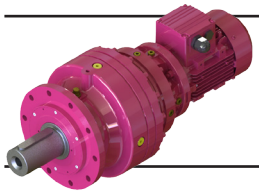
4.2 Getriebekühlung mit Wärmetauscher ausreichend wenn;

$$P_M \leq P_{t2} \times t_1 \times t_3 \times t_4$$

5. Überprüfe radiale Belastungen;

$$F_a \leq F_{qam} \qquad F_e \leq F_{qem}$$

Für mehr Information siehe das Kapitel "Querkräfte".



Seçim Katsayıları / *Gearbox Selection Factors* / Auswählfaktoren für Getriebe

Tahrik Makinası Faktörü k_1	
Elektrik motorları, Hidromotorlar, Türbinler	1
İçten yanmalı motorlar, 4 ve 4den fazla silindirli	1,25
İçten yanmalı motorlar, 1-3 silindirli	1,5

Driving Machine Factor k_1	
Electric motors, Hydrolic motors, Turbines	*1*
Piston Engines 4 or more than 4 cylinders	*1,25*
Piston Engines 1 to 3 cylinders	*1,5*

Antriebsmaschinen-Factor k_1	
Elektromotoren, Hydromotoren, Turbinen	1
Kolbenmaschinen, 4 oder mehr Zylinder	1,25
Kolbenmaschinen, 1 bis 3 Zylinder	1,5

Pik Moment Faktörü k_2				
	Saatteki Pik Moment Adedi			
	1-5	6-30	31-100	>100
Aynı yönlü moment	2,0	1,5	1,4	1,2
Değişken yönlü moment	1,4	1,1	0,9	0,8

Peak Torque Factor k_2				
	Load peaks per hour			
	1-5	*6-30*	*31-100*	*>100*
Steady direction load	2,0	1,5	1,4	1,2
Alternating direction load	1,4	1,1	0,9	0,8

Spitzenmoment-Faktor k_2				
	Belastungsspitzen pro Stunde			
	1-5	6-30	31-100	>100
Belastung in gleicher Richtung	2,0	1,5	1,4	1,2
Belastung in verschiedenen Richtunggen	1,4	1,1	0,9	0,8

Soğuma faktörü t_1				
Saatte Çalışma Yüzdesi [ED]				
100	80	60	40	20
1,00	1,06	1,16	1,35	1,79

Cooling factor t_1				
Operation cycle per hour [ED] in %				
100	*80*	*60*	*40*	*20*
1,00	*1,06*	*1,16*	*1,35*	*1,79*

Kühlungs-Faktor t_1				
Einschaltdauer je Stunde [ED] in %				
100	80	60	40	20
1,00	1,06	1,16	1,35	1,79

Yükseklik Faktörü t_2				
Soğutmasız				
Deniz seviyesinden yükseklik[m]				
<1000	<2000	<3000	<4000	<5000
1,00	0,95	0,90	0,85	0,80

Factor for altitude t_2				
Without auxilary cooling				
Altitude above MSL [m]				
<1000	*<2000*	*<3000*	*<4000*	*<5000*
1,00	*0,95*	*0,90*	*0,85*	*0,80*

Höhen-Faktör t_2				
Ohne Zusatzkühlung				
Höhenlage über NN [m]				
<1000	<2000	<3000	<4000	<5000
1,00	0,95	0,90	0,85	0,80

Yükseklik Faktörü t_3				
Eşanjörlü Soğutmalı				
Deniz seviyesinden yükseklik [m]				
<1000	<2000	<3000	<4000	<5000
1,00	0,98	0,96	0,94	0,92

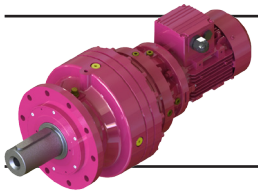
Factor for altitude t_3				
With Heat Exchanger				
Altitude above MSL [m]				
<1000	*<2000*	*<3000*	*<4000*	*<5000*
1,00	*0,98*	*0,96*	*0,94*	*0,92*

Höhen-Faktör t_3				
Kühlung mit Wärmetauscher				
Höhenlage über NN [m]				
<1000	<2000	<3000	<4000	<5000
1,00	0,98	0,96	0,94	0,92

Yağlama faktörü t_4		
Montaj Pozisyonu	Daldırma Yağ-lama	Genleşme Tankı
M1 / M3 / M5 / M6	1,00	-
M2 / M4	0,95	0,92

Lubrication factor t_4		
Mounting position	*Splash lubrication*	*Expansion tank*
M1 / M3 / M5 / M6	*1,00*	-
M2 / M4	*0,95*	*0,92*

Schmierungsfaktor t_4		
Montageposition	Tauchschmierung	Ölausgleichbe-hälter
M1 / M3 / M5 / M6	1,00	-
M2 / M4	0,95	0,92



Redüktör Seçim Örneği:

4 donamlı 12,5 tonluk vinç kaldırma redüktörü seçilecektir. Vinç günde 4 saat uniform yükle çalışmaktadır. Saatte 100 adet dur kalk öngörülmektedir. Gerekli kaldırma gücü 14,7 kW ve gerekli redüktör devri 14 d/dak olarak hesaplanmıştır. Tambur her iki taraftan yataklı ve redüktör miline eksenel veya radyal yönde yük gelmemektedir.

Kullanım alanı: Vinç kaldırma
Günlük çalışma saati: 4 saat
Vinç ihtiyaç gücü: 14,7 kW
Redüktör çıkış devri 14 d/dak
Deniz seviyesinden yükseklik: 1000 m
Ortam sıcaklığı: 30 °C
Rüzgar hızı: ~ 4 m/sn (açık ortam)
Yukarı haraket anlık kalkış momenti:15 kNm
Saate çalışma yüzdesi: ED = %40
Montaj pozisyonu: M1
olarak belirlenmiştir.

a) Motorsuz redüktör seçimi
1. Gerekli tahvil oranı:

$$i = \frac{n_1}{n_2} = \frac{1400}{14} = 100$$

2. Nominal güç kontrolü;
P_M vincin ihtiyaç gücü olan 14,7 kW'dır. f_s değeri sayfa 19'da verilen tablodan, uniform yük ve saatte 100 start için f_s=1,2 olarak okunmaktadır. Benzer şekilde sayfa 21'de krenler için verilen kren yük kaldırma için önerilen servis faktörü 4 saat için f_s= 1,2 olarak okunabilir. k_1 tahrik makinası faktörü, sayfa 29 'da verilen tablodan elektrik motoru için k_1=1 seçilir.

$$P_N \geq P_M \times f_s \times k_1$$
$$P_N \geq 14,7 \times 1,2 \times 1 = 17,6 kW$$

Bu değere uygun motorsuz güç devir tablolarından PT2403L, i = 104,32, P_N= 27 kW seçilebilir. 17,6 kW < 27 kW.

3. PT2403L, i = 104,32 için verilen maksimum moment değeri $Ma_{mak.}$ = 30 kNm'dir. k_2 =1,4

$$30 kNm > 15 kNm \times k_2 = 21 kNm$$

4. Ek bir soğutma kullanılmayan redüktörlerde soğutma yeterliliğinin kontrolü için;

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

olmalıdır.
Motorsuz tablolarında verilen PT2403L, i = 104,32 için 20 °C ve 40 °C açık ortam sıcaklığında termik güç P_{t1} değerleri okunduğunda 15 kW ve 10 kW görülmektedir. 30 °C için interpolasyon yapılır ise;

$\frac{15 + 10}{2} = 12,5 kW$ elde edilir.

Aynı şekilde,

$$P_M \leq 12,5 \times 1,35 \times 1,0 \times 1,0 = 16,8 kW$$
$$14,7 kW < 16,8 kW$$

olduğundan seçim uygundur.

5. Motorsuz redüktör için kaplin kullanıldığından giriş radyal yük kontrolü gerekmez.

Gear Unit Selection Sample:

4 times convoluted 12,5 kW crane lifting gear will be selected. Crane is working 4 hours per day under uniform load. 100 times start stop per hour is expected. Necessary starting power is 14.7 kW and gearbox speed is 14 rpm. Drum has bearing on both sides and on gearbox output shaft there is no axial or radial load.

Application: Crane lifting
Daily working hours: 4 hours
Required power of Crane: 14.7 kW
Gearbox output speed: 14 rpm
Height from sea level: 1000 m
Ambient temperature: 30 ° C
Wind speed: ~ 4 m / sec (open air)
Peak torque instantly at moving up: 15 kNm
Percentage of working per hour: ED = 40%
Mounting position: M1
as conditions determined.

a) Selection of gearbox without motor
1. Required transmission ratio:

$$i = \frac{n_1}{n_2} = \frac{1400}{14} = 100$$

2. Control of nominal power P_N;
P_M is 14,7 kW required power of Crane. The value of f_s would be read from the table on page 19, for uniform load and 100 times start stop per hour as equal to 1,2. Same way it can be read on page 21 for crane lifting recommended service factor f_s=1,2. k_1 driving machine factor can be selected from the table on page 29 for electrik motor as k_1=1.

$$P_N \geq P_M \times f_s \times k_1$$
$$P_N \geq 14,7 \times 1,2 \times 1 = 17,6 kW$$

According to this value from performance tables PT2403L, i = 104,32, P_N= 27 kW would be selected. 17,6 kW < 27 kW.

3. For PT2403L, i=104,32 given maximum torque value is $Ma_{mak.}$ = 30 kNm. k_2 =1,4

$$30 kNm > 15 kNm \times k_2 = 21 kNm$$

4. Controlling cooling of gearboxes without additionally cooling equipment;

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

should be valid.
On the performance tables of gearboxes without motor given thermal power P_{t1} values for 20 °C and 40 °C ambient temperature is 15 kW and 10 kW. If for 30 °C interpolation made;

$\frac{15 + 10}{2} = 12,5 kW$

Same way,

$$P_M \leq 12,5 \times 1,35 \times 1,0 \times 1,0 = 16,8 kW$$
$$14,7 kW < 16,8 kW$$

Selection is approved.

5. Controlling of input radial load is not needed because coupling is used for gearbox.

Beispiel für Getriebeauslegung:

4 mal gewundene 12,5 kW Kran soll ausgewählt werden. Kran arbeitet 4 Stunden pro Tag unter uniforme Belastung. Es wird 100 mal Anfahren und Anhalten pro Stunde erwartet. Benötigte Leistung zum Anfahren ist 14,7 kW und Winkelgeschwindigkeit des Getriebes ist 14 U/min. Trommel ist von beiden Seiten gelagert und auf der Ausgangswelle des Getriebes gibt es keine axiale oder radiale Belastung.

Anwendung: Hubkran
Tägliche Arbeitszeit: 4 Stunden
Benötigte Leistung für Kran: 14,7 kW
Abtriebsdrehzahl des Getriebe: 14 U/min
Höhe von der Meeresspiegel: 1000 m
Umgebungstemperatur: 30 ° C
Windgeschwindigkeit: ~ 4 m/s (Freiluft)
Stoßartige Abfahrtmoment bei Hub: 15 kNm
Prozent der Arbeit pro Stunde: ED = 40%
Montageposition: M1
als Bedingungen bestimmt worden.

a) Auswahl von Getriebe ohne Motor
1. Benötigte Übersetzung;

$$i = \frac{n_1}{n_2} = \frac{1400}{14} = 100$$

2. Überprüfen von Nennleistung P_N;
P_M ist gebrauchte Leistung für Kran. Der Wert von f_s wird von der Tabelle auf der Seite 19, für uniforme Belastung und 100 mal Anfahren und Anhalten pro Stunde als 1,2 gelesen. Gleicherweise Betriebsfaktor kann auf der Seite 21 für Hubkran als 1,2 gelesen werden. k_1 Antriebsmaschinen-Faktor kann von der Tabelle auf der Seite 29 für elektrischen Motor gleich 1 gewählt werden.

$$P_N \geq P_M \times f_s \times k_1$$
$$P_N \geq 14,7 \times 1,2 \times 1 = 17,6 kW$$

Abhängig von diesem Wert von der Leistung- und Drehzahlübersicht PT2403L, i = 104,32 , P_N = 27 kW wird ausgewählt. 17,6 kW < 27 kW.

3. Für PT2403L, i=104,32 gegebene maximales Drehmoment ist $Ma_{mak.}$ = 30 kNm. k_2 =1,4

$$30 kNm > 15 kNm \times k_2 = 21 kNm$$

4. Überprüfen von Kühlung des Getriebes ohne zusätzlichen Kühlung;

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

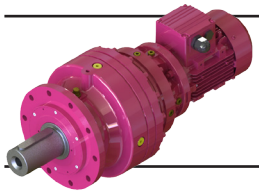
eingehalten werden.
Auf der Leistung- und Drehzahltabelle von Getrieben ohne Motor gegebene thermische Leistung P_{t1} Werte für 20 °C und 40 °C Umgebungstemperaturen ist 15 kW und 10 kW. Wenn für 30 °C interpolation durchgeführt wird, wird

$\frac{15 + 10}{2} = 12,5 kW$ erhalten.

$$P_M \leq 12,5 \times 1,35 \times 1,0 \times 1,0 = 16,8 kW$$
$$14,7 kW < 16,8 kW$$

Auswahl ist bestätigt.

5. Überprüfen von radiale Kräfte am Eingang ist unnötig, weil am Eingang Kupplung verwendet wird.



b) Motorlu redüktör seçimi

1. Gerekli tahvil oranı:

$$i = \frac{n_1}{n_2} = \frac{1400}{14} = 100$$

2. Redüktörün çıkış gücü P_2 vincin ihtiyaç momenti P_M 'den büyük olmalıdır.

$$P_2 > P_M$$

i = 100' e uygun ve $f_s \geq 1,2$ olan PV2703L-180M/4, i = 107,8, P_2 = 16 kW, f_s = 1,9 seçilir. Motorsuz ve motorlu seçilen redüktörlerdeki farklı büyüklük çıkma nedeni PV2403L modelinde 160 tip motor kapağı bulunmamaktadır. Ancak PT2403L motorsuz modelinde kaplin ile bağlantı yapılabilir.

3. Maksimum dur kalk veya pik moment kontrolü:
Motorlu PV2703L modeli için müsade edilen maksimum moment değeri motorsuz tablolarından kontrol edilebilir. Motorsuz tablolarında PT2703L modeli için i = 107,8'de verilen maksimum moment değeri 58,5 kNm 'dir.

$$58,5\,kNm > 15\,kNm \times k_2 = 21\,kNm$$

4. Ek bir soğutma kullanılmayan redüktörlerde soğutma yeterliliğinin kontrolü için;

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

Motorlu sayfalarında verilen 30 °C çevre sıcaklığı için P_{t1} değeri 15 kW olarak alınır. Saatte çalışma yüzdesi ED %40 için sayfa 29'dan t_1 =1,35; deniz seviyesinden 1000 m yükseklik için t_2 = 1,0 ve montaj pozisyonu M1 için t_4 = 1,0 alınır.

$$P_M \leq 15 \times 1,35 \times 1,0 \times 1,0 = 20,2\,kW$$
$$14,7 < 20,2\,kW$$

olduğundan seçim uygundur.

5. Tambur her iki taraftan yataklı olduğundan çıkış radyal yükü kontrolüne gerek yoktur.

c) Hidromotorlu redüktör seçimi

Tesiste 60 lt/dak ve maksimum 300 bar hidrolik sistem mevcuttur. HG280 pompa için sayfa 81'daki grafikten 60 lt/dak ve 200 bar ile çalıştırıldığında M_{pompa}= 800 Nm ve n_{pompa}= 187 d/dak okunur.

$$P_{pompa} = \frac{M_n}{9550} = \frac{800 \times 187}{9550} =$$
$$= 15\,kW > 14,7\,kW$$

olduğundan uygundur.

- Redüktör seçimi:

1. Gerekli tahvil oranı:

$$i = \frac{n_1}{n_2} = \frac{187}{14} = 13,36$$

b) Selection of gearbox with motor

1. Required transmission ratio:

$$i = \frac{n_1}{n_2} = \frac{1400}{14} = 100$$

2. Output power of gearbox should be greater than required power of Crane.

$$P_2 > P_M$$

According to i = 100 and for $f_s \geq 1.2$ is PV2703L-180M/4, i = 107.8, P2 = 16 kW, fs = 1.9 selected. The reason of the different sizes between selected gearboxes with and without motor is that there is no 160 type motor cover for PV2403L. However, PT2403L without motor can be connected with coupling.

3. Control of maximum start stop or peak torque:

Maximum permissible torque values for PV2703L with motor can be checked from performance tables of gearbox without motor. On performance table given maximum torque value for PT2703L, i = 107.8 is 58.5 kNm.

$$58,5\,kNm > 15\,kNm \times k_2 = 21\,kNm$$

4. Checking the capability of cooling at gearboxes without additional cooling;

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

On performance tables of gearboxes with motor given value of P_{t1} for 30 ° C ambient temperature is 15 kW. For percentage of working per hour ED 40% is on page 29 t_1 = 1.35; for 1000 m height from sea level is t_2 = 1.0 and for mounting position M1 is t_4 = 1,0.

$$P_M \leq 15 \times 1,35 \times 1,0 \times 1,0 = 20,2\,kW$$
$$14,7 < 20,2\,kW$$

The selection is confirmed.

5. There is no need to check the radial load on output shaft of gearbox because the drum has bearing on both sides.

c) Gearbox selection with hydromotor

60 lt/min and up to 300 bar pressure hydraulic system is available at the facility. For hydraulic motor HG280 will be determined from chart on page 81 for 60 lt/min and 200 bar M_{pompa}= 800 Nm and n_{pompa}= 187 rev/min.

$$P_{pompa} = \frac{M_n}{9550} = \frac{800 \times 187}{9550} =$$
$$= 15\,kW > 14,7\,kW$$

The selection is confirmed.

- Gearbox selection:

1. Required transmission ratio:

$$i = \frac{n_1}{n_2} = \frac{187}{14} = 13,36$$

b) Auswahl von Getriebe mit Motor

1. Erforderliche Übersetzung:

$$i = \frac{n_1}{n_2} = \frac{1400}{14} = 100$$

2. Ausgangsleistung des Getriebes sollte größer sein als erforderliche Leistung von Kran.

$$P_2 > P_M$$

Anhängig von i = 100 und für fs ≥ 1,2 wurde PV2703L-180M/4, i = 107,8, P_2 = 16 kW, f_s = 1,9 gewählt. Der Grund der unterschiedlichen Größen zwischen ausgewählten Getriebe mit und ohne Motor ist, dass es kein Deckel von 160 Typ Motor für PV2403L gibt. Allerdings kann PT2403L ohne Motor mit Kupplung verbunden werden.

3. Kontrolle der maximalen Anfahren-Anhalten-Zyklus oder maximales Drehmoment:
Die Werte von maximal zulässigen Drehmoment für PV2703L mit Motor kann aus Leistung Drehzahlübersicht der Getriebe ohne Motor geprüft werden. Auf der Tabelle beträgt maximale Drehmoment für PT2703L, i = 107,8 58,5 kNm.

$$58,5\,kNm > 15\,kNm \times k_2 = 21\,kNm$$

4. Überprüfung der Kühlfähigkeit der Kühlung bei Getrieben ohne zusätzliche Kühlung;

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

Auf Leistung Drehzahlübersicht von Getrieben mit Motor angegebene Wert des P_{t1} für 30 ° C Umgebungstemperatur beträgt 15 kW. Für Prozent der Arbeitszeit pro Stunde ED 40% ist auf Seite 29 t_1 = 1,35; für 1000 m Höhe über dem Meeresspiegel ist t_2 = 1,0 und für Montageposition M1 ist t_4 = 1,0.

$$P_M \leq 15 \times 1,35 \times 1,0 \times 1,0 = 20,2\,kW$$
$$14,7 < 20,2\,kW$$

Die Auswahl ist in Ordnung.

5. Eine Überprüfung für radiale Belastung auf Ausgangswelle ist nicht notwendig, weil die Trommel von beiden Seiten gelagert ist.

c) Getriebeauslegung mit Hidromotor

60 l/min und bis zu 300 bar Druck aushaltendes Hydrauliksystem steht bei der Anlage zur Verfügung. Für Hydraulikmotor HG280 wurde von Diagramm auf Seite 81 für 60 l/min und 200 bar M_{pompa} = 800 Nm und n_{pompa} = 187 U/min gelesen.

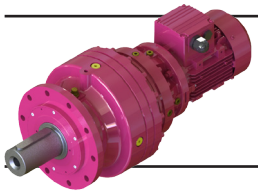
$$P_{pompa} = \frac{M_n}{9550} = \frac{800 \times 187}{9550} =$$
$$= 15\,kW > 14,7\,kW$$

Die Auswahl ist in Ordnung.

- Getriebeauswahl

1. Erforderliche Übersetzung:

$$i = \frac{n_1}{n_2} = \frac{187}{14} = 13,36$$



2. Redüktör anma momenti M_a:

$$Ma \geq 9550 \times \frac{P_M}{n_2} \times f_s \times k_1$$

$$Ma \geq 9550 \times \frac{14,7}{14} \times 1,2 \times 1 = 12033\ Nm$$

PT2402L i=14,73 modeli seçilir.
n_1 = 300 d/dak için PT2402L i = 14,73
M_a = 15,2 kNm
n_1 = 450 d/dak için PT2402L i = 14,73
M_a = 13,9 kNm
n_1=187 d/dak için extrapolasyon ile
M_a=16179 Nm bulunur.
161179 Nm > 12033 Nm olduğundan seçim uygundur.

3. Maximum moment kontrolü;
PT2402L i = 14,73 modeli için
n_1 = 300 d/dak için PT2402L i = 14,73
Ma_{mak} = 30 kNm
n_1 = 450 d/dak için PT2402L i = 14,73
Ma_{mak} = 30 kNm
n_1=187 d/dak için extrapolasyon ile
Ma_{mak}= 30 kNm bulunur.
30 kNm > 15 kNm olduğundan seçim uygundur.

4. Termik güç kontrolü;
PT2402L i = 14,73 modeli için
n_1 = 300 d/dak, 30 °C çevre sıcaklığında

$$P_{t1} = \frac{21 + 14}{2} = 17,5\ kW$$

n_1 = 450 d/dak, 30 °C çevre sıcaklığında

$$P_{t1} = \frac{23 + 16}{2} = 19,5\ kW$$

n_1=187 d/dak için extrapolasyon ile
P_{t1} =15,2 kW

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

$$P_M \leq 15,2 \times 1,35 \times 1 \times 1 = 20,52\ kW$$

14,7 kW < 20,52 kW olduğundan soğutmasız seçim uygundur.

2. Nominal torque of gearbox M_a*:*

$$Ma \geq 9550 \times \frac{P_M}{n_2} \times f_s \times k_1$$

$$Ma \geq 9550 \times \frac{14,7}{14} \times 1,2 \times 1 = 12033\ Nm$$

PT2402L i=14,73 will be selected.
n_1 = 300 rev/min for PT2402L i = 14,73
M_a = 15,2 kNm
n_1 = 450 rev/min for PT2402L i = 14,73
M_a = 13,9 kNm
for n_1=187 rev/min with extrapolation
is M_a=16179 Nm.
161179 Nm > 12033 Nm. Therefore the selection is confirmed.

3. Checking maximum torque;
for PT2402L i = 14,73
n_1 = 300 rev/min for PT2402L i = 14,73
Ma_{mak} = 30 kNm
n_1 = 450 rev/min for PT2402L i = 14,73
Ma_{mak} = 30 kNm
for n_1=187 rev/min with extrapolation
is Ma_{mak}= 30 kNm.
30 kNm > 15 kNm. Therefore the selection is confirmed.

4. Checking thermal power;
For PT2402L i = 14,73
n_1 = 300 rev/min, at 30 °C ambient temperature

$$P_{t1} = \frac{21 + 14}{2} = 17,5\ kW$$

n_1 = 450 rev/min at 30 °C ambient temperature

$$P_{t1} = \frac{23 + 16}{2} = 19,5\ kW$$

for n_1=187 d/dak with extrapolation
P_{t1} =15,2 kW

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

$$P_M \leq 15,2 \times 1,35 \times 1 \times 1 = 20,52\ kW$$

14,7 kW < 20,52 kW. The selection without extra cooling is confirmed.

2. Nennmoment des Getriebes M_a:

$$Ma \geq 9550 \times \frac{P_M}{n_2} \times f_s \times k_1$$

$$Ma \geq 9550 \times \frac{14,7}{14} \times 1,2 \times 1 = 12033\ Nm$$

PT2402L i=14,73 wird ausgewählt.
n_1 = 300 U/min für PT2402L i = 14,73
M_a = 15,2 kNm
n_1 = 450 U/min für PT2402L i = 14,73
M_a = 13,9 kNm
for n_1=187 U/min mit Hilfe von Extrapolation
is M_a=16179 Nm.
161179 Nm > 12033 Nm. Damit wurde die Auswahl bestätigt .

3. Maximales Drehmoment überprüfen ;
für PT2402L i = 14,73
n_1 = 300 U/min für PT2402L i = 14,73
Ma_{mak} = 30 kNm
n_1 = 450 U/min für PT2402L i = 14,73
Ma_{mak} = 30 kNm
für n_1=187 U/min mit Hilfe von Extrapolation
ist Ma_{mak}= 30 kNm.
30 kNm > 15 kNm. Damit wurde die Auswahl bestätigt .

4. Thermische Leistung überprüfen;
Für PT2402L i = 14,73
n_1 = 300 U/min, bei 30 °C Umgebungstemperatur

$$P_{t1} = \frac{21 + 14}{2} = 17,5\ kW$$

n_1 = 450 U/min, bei 30 °C Umgebungstemperatur

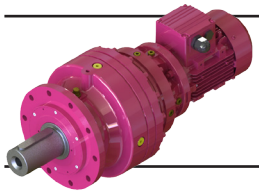
$$P_{t1} = \frac{23 + 16}{2} = 19,5\ kW$$

für n_1=187 U/min mit Hilfe von Extrapolation
P_{t1} =15,2 kW

$$P_M \leq P_{t1} \times t_1 \times t_2 \times t_4$$

$$P_M \leq 15,2 \times 1,35 \times 1 \times 1 = 20,52\ kW$$

14,7 kW < 20,52 kW. Die Auswahl ohne zusätzliche Kühlung wurde bestätigt.



Planet Redüktör Seçim Formu

Kullanıldığı Sektör.....
Kullanıldığı Yer.....
Gerekli Ortalama Devir.....d/dak

Makina ihtiyaç gücü:
-Normal..... kW
-En çok..... kW
-En az..... kW

Tahrik Şekli:
AC Motor [ ]
AC Motor + Invertör [ ]
DC Motor [ ]
Hidromotor [ ]
1-3 silindirli içten yanmalı [ ]
2-4 silindirli içten yanmalı [ ]

Motor Bağlantı Şekli (Elektrik Motorları):
IEC B5 Flanşlı [ ]
NEMA Flanşlı [ ]

IEC veya NEMA flanş kodu. .....

Motor Gücü:
-Nominal..... kW

Motor Devri:
-Normal..... d/dak
-En çok..... d/dak
-En az..... d/dak

Motor Torku:
-Normal..... Nm
-En çok..... Nm
-En az..... Nm

Dönüş yönü+:
saat yönü [ ] saat yönüne ters [ ] değişken [ ]

Günlük çalışma süresi:
<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

Saatdeki start sayısı:
0-50 [ ] 50-100 [ ] 100-200 [ ]
200-300 [ ] 300-500 [ ] 500-700 [ ]
700-1000 [ ] >1000 [ ]

Motor Redüktör Arası Tahvil Oranı.....

Kalkış için gerekli moment.....Nm

Saatdeki pik moment adedi:
1-5 [ ] 6-30 [ ] 31-100 [ ] >100 [ ]

Bir çevrimde aktif çalışma oranı (ED):
%100 [ ] %80 [ ] %60 [ ] 40% [ ] %20[ ]

Deniz seviyesinden yükseklik:
<1000 [ ] <2000 [ ] <3000 [ ]
<4000 [ ] <5000 [ ]

Montaj yeri:
Küçük kapalı oda (w<1m/sn) [ ]
Kapalı oda (w<3m/sn) [ ]
Büyük oda ve holler (w>=3m/sn) [ ]
Tamamen açık ortam [ ]

Çevre Şartları:
Normal [ ] Tozlu [ ] Nemli [ ] Korozif [ ]
Kuru [ ]

Çevre Sıcaklığı:
Ortalama..... ^{0}C
En Yüksek..... ^{0}C
En Düşük..... ^{0}C

Kilit İhtiyacı:
Var [ ] Yok [ ]

Redüktör Tipi:
P... [ ] R... [ ]

Redüktör Giriş Opsiyonu:
V..[ ] N..[ ] T..[ ]

Çıkış Mili Özelliği:
Dolu Mil Kamalı 01 [ ]
Çoklu Kamalı Dişi DIN 5480 0K [ ]
Çoklu Kamalı Dişi DIN 5482 0L [ ]
Delik Milli Sıkma Bilezikli 0S [ ]
Çoklu Kamalı Erkek DIN 5480 1K [ ]
Çoklu Kamalı Erkek DIN 5482 1L [ ]
Özel Mil [ ]

Redüktör Yapısı:
K [ ] L [ ]

Montaj Pozisyonu:
M1 [ ] M2 [ ] M3 [ ] M4 [ ] M5 [ ] M6 [ ]

Giriş mili bağlantı şekli:
Elastik kaplin [ ]
Fıçı tipi kaplin [ ]
Rijit kaplin [ ]
Hidrolik Kaplin [ ]
Kayış kasnak [ ]
Zincir dişli [ ]
Pinyon dişli [ ]
Bağlantı elemanı çapı.....mm
Radyal yükü.....N
Radyal yük "u" mesafesi.....mm
Aksiyal yükü (mile doğru.....N

Çıkış mili bağlantı şekli:
Elastik kaplin [ ]
Fıçı tipi kaplin [ ]
Rijit kaplin [ ]
Kayış kasnak [ ]
Zincir dişli [ ]
Pinyon dişli [ ]
Delik milli tork kollu [ ]
Sıkma bilezikli tork kollu [ ]
Bağlantı elemanı çapı.....mm
Radyal yükü.....N
Radyal yük "u" mesafesi.....mm
Aksiyal yükü (mile doğru +).....N

Müsait Soğutma Şekilleri:
Hava-Yağ [ ] Hava-Su [ ] Su [ ]

Soğutma suyu imkanı:
Soğutma Kulesi Var [ ] Yok [ ]

Giriş Mili Özelliği:
Kamalı dolu mil [ ]
Kamasız düz mil [ ]
Çoklu Kamalı DIN5480 [ ]
Çoklu Kamalı DIN5482 [ ]
Özel Mil [ ]

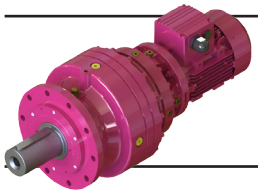
Tork kollu:
[ ] Var [ ]Yok

Elektrik Gerilimi:
AC-Monofaze [ ] AC-Trifaze [ ] DC [ ]
Voltaj.....Volt
Frekans.....Hz
Koruma Sınıfı:
IP55 [ ] IP65 [ ] Exproof [ ]
Diğer IP.....

Motor Verim Sınıfı:
IE1 [ ] IE2 [ ] IE3 [ ] IE4 [ ]

Ekler:
Yük diyagramı [ ]
Proje [ ]
İstenen ana boyutlar [ ]
Teknik veriler [ ]

Diğer Notlar:



Genel Bilgiler
General Information
Einführung

Gearbox Selection Form

Field of Industry.....
Application.....
Required Average Speed.....rpm

Required Power on Driven Machine:
-Normal..... kW
-Maximum..... kW
-Minimum..... kW

Driving Machine:

AC Motor	[ ]
AC Motor + Inverter	[ ]
DC Motor	[ ]
Hydraulic Motor	[ ]
Piston Engine with 1-3 cylinder	[ ]
Piston Engine with 4-24 cylinder	[ ]

Motor Connection Type (Electric Motors):

IEC B5 Flange	[ ]
NEMA Flange	[ ]

IEC or NEMA Flange Code.....

Motor Power:
-Nominal.....kW

Motor Speed:
-Normal.....rpm
-Maximum.....rpm
-Minimum.....rpm

Motor Torque:
-Normal.....Nm
-Maximum.....Nm
-Minimum.....Nm

Direction of Rotation:
cw [ ] *ccw* [ ] *variable* [ ]

Working hours per day:
<4 [ ] *4-8* [ ] *8-16* [ ] *>16* [ ]

Startings per cycle:
0-50 [ ] *50-100* [ ] *100-200* [ ]
200-300 [ ] *300-500* [ ] *500-700* [ ]
700-1000 [ ] *>1000* [ ]

Transmission ratio between motor and gear unit .....

Required Starting Torque.....Nm

Peak torques per hour:
1-5 [ ] *6-30* [ ] *31-100* [ ] *>100* [ ]

Effective working time in a cycle (ED):
%100 [ ] *%80* [ ] *%60* [ ] *40%* [ ]
20% [ ]

Altitude:
<1000 [ ] *<2000* [ ] *<3000* [ ]
<4000 [ ] *<5000* [ ]

Mounting Place:

Small closed room (w<1m/sec.)	[ ]
Closed room (w<3m/sec.)	[ ]
Big rooms and halls (w>=3m/sec.)	[ ]
Outdoor	[ ]

Ambient Conditions:
Normal [ ] *Dusty* [ ] *Humid* [ ]
Corrosive [ ] *Dry* [ ]

Ambient Temperature:
Average.....^{0}C
Maximum.....^{0}C
Minimum.....^{0}C

Backstop Required:
Yes [ ] *No* [ ]

Gearbox Type:
P... [ ] *R...* [ ]

Gearbox input options:
V..[ ] *N..*[ ] *T..*[ ]

Output Shaft Specification:

Solid Shaft with Keyway	01 [ ]
Hollow Shaft with Spline DIN 5480	0K [ ]
Hollow Shaft with Spline DIN 5482	0L [ ]
Shrink disc	0S [ ]
Solid Shaft with Spline DIN 5480	1K [ ]
Solid Shaft with Spline DIN 5482	1L [ ]
Özel Mil	[ ]

Gearbox structure:
K [ ] *L* [ ]

Mounting Position:
M1 [ ] *M2* [ ] *M3* [ ] *M4*[ ] *M5*[ ] *M6* [ ]

Input Shaft Connection Type:

Elastic Coupling	[ ]
Barrel Type Coupling	[ ]
Hydraulic Coupling	[ ]
Rigid Flange Coupling	[ ]
Pulley	[ ]
Chain Sprocket	[ ]
Pinion	[ ]

Diameter of Connection element.....mm
Overhung Load.....N
"u" Distance of Overhung Load.....mm
Axial Load (Towards Shaft)
.....N

Output Shaft Connection Type:

Elastic Coupling	[ ]
Barrel Type Coupling	[ ]
Rigid Flange Coupling	[ ]
Pulley	[ ]
Chain Sprocket	[ ]
Pinion	[ ]
Hollow Shaft with Torque Arm	[ ]
Schrinc disc with Torque Arm	[ ]

Diameter of Connection Element.....mm
Overhung Load.....N
"u" Distance of Overhung Load.....mm
Axial Load (Towards Shaft).....N

Gearbox assembled by:
Foot [ ] *Flange* [ ] *Torque Arm* [ ]

Allowed cooling systems:
Air-Oil [ ] *Air-Water* [ ] *Water* [ ]

Cooling water available:
Yes [ ] *No* [ ]

Input Shaft Specification:

Solid Shaft with Keyway	[ ]
Solid Shaft without Keyway	[ ]
Solid Shaft with Spline DIN5480	[ ]
Solid Shaft with Spline DIN5482	[ ]
Special Shaft	[ ]

Torque arm required:
Yes[ ] *No*[ ]

Electrical Supply:
AC-1 Phase [ ] *AC-3 Phase* [ ] *DC* [ ]
Voltage.....Volt
Frequency..... Hz

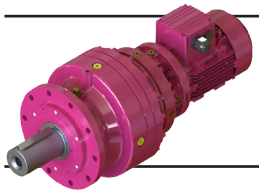
Protection Class:
IP55 [ ] *IP65* [ ] *Exproof* [ ]
Other IP.....

Motor Efficiency Class:
IE1 [ ] *IE2* [ ] *IE3* [ ] *IE4* [ ]

Attachments:

Load Diagram	[ ]
Project	[ ]
Required Dimensions	[ ]
Technical Specifications	[ ]

Notes:



Genel Bilgiler
General Information
Einführung

Formular für Getriebeauswahl

Industriebereich.....
Anwendung.....
Erforderliche Drehzahl.....U/min

Erforderliche Leistung für die Maschine:
-Normal.....kW
-Minimal.....kW
-Maximal.....kW

Antriebsmaschine:
AC Motor [ ]
AC Motor mit Frequenzumrichter [ ]
DC Motor [ ]
Hydromotor [ ]
Kolbenmachinen mit 1-3 Zylinder [ ]
Kolbenmachinen mit 4-24 Zylinder [ ]

Motorverbindungsart (Elektromotoren):
IEC B5 Flansch [ ]
NEMA Flansch [ ]

IEC oder NEMA Flanschkode.....

Motorleistung:
-Nominal.....kW

Motordrehzahl:
-Normal.....U/min
-Maximal .....U/min
-Minimal.....U/min

Motordrehmoment:
-Normal.....Nm
-Maximal.....Nm
-Minimal.....Nm

Drehrichtung:
in Uhrzeigersinn [ ] gegen Uhrzeigersinn[ ]
veränderlich [ ]

Betriebsdauer in Stunden pro Tag:
<4 [ ] 4-8 [ ] 8-16 [ ] >16 [ ]

Anzahl der Anläufe pro Stunde:
0-50 [ ] 50-100 [ ] 100-200 [ ]
200-300 [ ] 300-500 [ ] 500-700 [ ]
700-1000 [ ] >1000 [ ]

Übersetzung zwischen Motor und Antriebs-
welle.....

Erforderliches Anlaufmoment.....Nm

Häufigkeit von Lastspitzen pro Stunde:
1-5 [ ] 6-30 [ ] 31-100 [ ] >100 [ ]

Einschaltdauer je Stunde (ED):
%100 [ ] %80 [ ] %60 [ ] 40% [ ] %20 [ ]

Höhenlage über Meeresspiegel (m):
<1000 [ ] <2000 [ ] <3000 [ ]
<4000 [ ] <5000 [ ]

Betriebsort:
Kleine geschlossene Räume (w<1m/s) [ ]
Geschlossene Räume (w<3m/s) [ ]
Große Räume und Hallen (w>=3m/s) [ ]
im Freien [ ]

Umgebungsbedingungen:
Normal [ ] Staubig [ ] Feucht [ ]
Korrodierend [ ] Trocken [ ] Verklebend [ ]

Umgebungstemperatur:
Mittelwert .....^{0}C
Maximal.....^{0}C
Minimal.....^{0}C

Rücklaufsperre erforderlich:
Ja [ ] Nein [ ]

Getriebetyp:
P... [ ] R... [ ]

Getriebeeingangsvarianten:
V..[ ] N..[ ] T..[ ]

Eigenschaften der Abtriebswelle:
Vollwelle mit Paßfeder 01 [ ]
Hohlkeilwelle DIN 5480 0K [ ]
Hohlkeilwelle DIN 5482 0L [ ]
Schrumpfscheibe 0S [ ]
Keilwelle DIN 5480 1K [ ]
Keilwelle DIN 5482 1L [ ]
Sonderwelle [ ]

Bauform:
K [ ] L [ ]

Montageposition:
M1 [ ] M2 [ ] M3 [ ] M4[ ] M5[ ] M6 [ ]

Antriebswellenanschluss:
Elastische Kupplung [ ]
Trommelkupplung [ ]
Hydrokupplung [ ]
Starre Flanschkupplung [ ]
Keilriementrieb [ ]
Kettenrad [ ]
Ritzel [ ]
Durchmesser von Anschlusselement.....mm
Querkraft.....N
“u” Abstand von der Wellenschulter.....mm
Axialkraft (in Richtung der Welle +) .....N

Abtriebswellenanschluss:
Elastische Kupplung [ ]
Trommelkupplung [ ]
Starre Flanschkupplung [ ]
Keilriementrieb [ ]
Kettenrad [ ]
Ritzel [ ]
Hohlwelle mit Drehmomentstütze [ ]
Schrumpfscheibe mit Drehmomentstütze [ ]
Anschlusselementdurchmesser.....mm
Querkraft.....N
“u” Abstand von Wellenshulter.....mm
Axialkraft (in Richtung der Welle +) .....N

Montage zur Getriebegehäuse mit:
Fuß [ ] Flansch [ ] Drehmomentstütze [ ]

Zugelassene Kühlung:
Luft-Öl [ ] Luft-Wasser [ ] Wasser [ ]

Verfügbarkeit von Kühlwasser:
Ja [ ] Nein [ ]

Eigenschaften der Antriebswelle:
Vollwelle mit Paßfeder [ ]
Vollwelle ohne Paßfeder [ ]
Keilwelle nach DIN5480 [ ]
Keilwelle nach DIN5482 [ ]
Sonderwelle [ ]

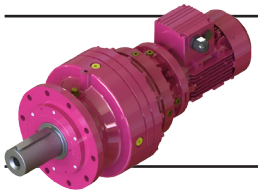
Drehmomentstütze erforderlich:
Ja[ ] Nein[ ]

Spannungsversorgung:
AC-1 phasig [ ] AC-3 phasig [ ] DC [ ]
Spannung.....Volt
Frequenz.....Hz
Schutzart:
IP55 [ ] IP65 [ ] Exproof [ ]
Andere IP.....

Energieeffizienzklasse von dem Motor:
IE1 [ ] IE2 [ ] IE3 [ ] IE4 [ ]

Anhang:
Lastdiagramm [ ]
Projekt [ ]
Erforderliche Abmessungen [ ]
Technische Spezifikationen [ ]

Andere Merkmale:



YAĞLAMA VE SOĞUTMA EKİPMANLARI

1. Yağlama

Redüktörlerin uzun ömürlü olması ve iyi performansla çalışabilmesi için, kullanılan yağın seçimi doğru olmalı ve belirtilen zamanlarda değişimleri yapılmalıdır. Yağın seçiminde devir, çevre sıcaklığı, redüktör yağ sıcaklığı, çalışma koşulları ve yağ ömrü önem taşımaktadır.

Redüktörler yağı doldurulmuş olarak sevkedilmektedir. Yağ doldurulmadan sevk edilen redüktörlerin yağları beraberlerinde gönderilir. Yağı doldurulmuş redüktörlerdeki sentetik yağ ömür boyu değiştirilmeye ihtiyaç duymaz. Redüktörler uzun süre depolanacakları zaman veya çalışmaya başlanacağı zaman çalışma konumuna göre üstte kalan tapa sökülmeli ve redüktörün beraberinde verilen havalandırma tapası kullanılmalıdır. Bu redüktörün iç basıncından dolayı oluşacak yağ sızmalarını önleyecektir. Redüktörlerde standart olarak kullanılan yağlar yan sayfadaki tabloda verilmiştir. Özel çalışma koşullarında firmamıza danışmanız tavsiye edilir.

Düşük kuvvetler ve ısı farkları altında devamlı çalışmayan redüktörlerde mineral yağlar rahatlıkla kullanılabilir. Yüksek kuvvet ve ısı altında uzun süreli çalışan redüktörlerde sentetik yağlar tercih edilmelidir. Mineral yağlar her 10.000 çalışma saatinde değiştirilmelidir. Sentetik yağlarda bu yağ değiştirme süresi ikiye katlanır. Ağır çevre koşullarında (ani ısı değişiklikleri, yüksek nemlilik, agresif ortam koşulları gibi) yağ değiştirme periyotlarının kısaltılması tavsiye edilir. Yağ değişimi sırasında redüktör içerisinde eski yağın hiç kalmadığından emin olunacak şekilde iyice boşaltılması tavsiye edilir. Mineral yağlar ile sentetik yağlar birbirine kesinlikle karıştırılmamalıdır. Değiştirme işlemi bir çalışma periyodunun hemen peşinden ve yağ sıcakken yapılmalıdır. Bu şekilde bir değiştirme, redüktör içindeki partiküllerin yağa karışmış olarak bulunmasından dolayı iyi bir temizleme ve yağın rahat boşalması neticesini verecektir.

Montaj ve çalışma pozisyonlarına göre yağ miktarları aşağıda verilmiştir. M2 ve M4 çalışma pozisyonları için genleşme tankı veya basınçlı yağlama gerekmektedir.

LUBRICATION AND COOLING ACCESSIONARIES

1. Lubrication

To work in perfect condition and to have long life for gearbox the lubricant must be chosen correctly and changed on time. In selection of oil it is important to consider speed, ambient temperature, gear box oil temperature, working conditions and the life required from the lubricant.

All gearbox units are filled with lubricant before shipping. Besides not with oil filled gearbox units oil will be sent separately. Oil filled gearbox units are sent with synthetic oil. This oil does not need to be changed lifetime. Before the gearbox is stored for a long time or before starting up, the top plug (according to the working position) must be removed and the extra given vent plug must be replaced. This prevents excessive pressure which causes oil leakages. The lubricant in the standard line is given for standard fillings on the table below. For special working conditions please contact us.

Gearboxes, which work with not great loads at small temperature differences in discontinuous operation, can easily be lubricated with mineral oil. The gearboxes, that are used at high loads and temperatures with continuous operation, should be lubricated with synthetic oils. The mineral lubricant should be changed after every 10.000 service hours. This period of time should be doubled for synthetic lubricant. If the operation conditions are very heavy (e.g. high temperature differences, high humidity, aggressive conditions) shorter intervals between changes are recommended. Mineral and synthetic oils must not be mixed up. While changing the lubricant complete cleaning is advised. The oil change should be done after a working period. Because oil is hot in this condition and impurities are mixed with it the changing of oil will be done in best result and the oil will drain easily.

Oil quantities according to mounting positions are given below. For M2 and M4 mounting positions pressure lubrication or expansion tank is needed.

ZUBEHÖR FÜR SCHMIERUNG UND KÜHLUNG

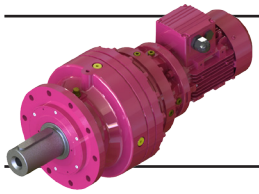
1. Schmierung

Um eine lange Lebensdauer zu gewährleisten muss der Schmierstoff richtig ausgewählt werden. Für die richtige Ölauswahl soll Drehzahl, Umgebungstemparatur, Belastungsart und Lebensdauer des Öles berücksichtigt werden.

Die Getrieben werden vor dem Versand mit Öl gefüllt. Neben nicht mit Öl gefüllte Getrieben wird Öl separat gesendet. Mit Öl gefüllten Getrieben werden mit synthetischem Öl gesendet. Dieses Öl braucht lebenslang nicht geändert werden. Die Einfüllschraube soll vor Inbetriebnahme oder längeren Lagerung mit der mitgelieferten Entlüftungsschrauben ausgetauscht werden, um einen Überdruck im Getriebe und damit eine Undichtigkeit des Getriebes zu vermeiden. Ohne besondere Bestellangaben werden die Getriebe grundsätzlich mit der auf der folgenden Seite angegebenen Schmierstoffen gefüllt.

Getriebe, die unter kleinen Belastungen und nicht großartigen Temperaturunterschiede ohne Dauerbetrieb arbeiten, können problemlos mit Mineralöl geschmiert werden. Die Getriebe, die unter hohen Belastungen und Temperaturen mit Dauerbetrieb eingesetzt sind, soll mit synthetischen Ölen geschmiert werden. Ein Schmierstoffwechsel sollte alle 10.000 Betriebsstunden durchgeführt werden. Für synthetische Produkte verdoppelt sich diese Frist. Unter extremen Bedingungen, z.B. hohe Luftfeuchtigkeit, aggressiver Umgebung oder hohe Temparaturschwankungen, sind kürzere Wechselintervalle vorteilhaft. Es ist empfehlenswert, den Schmierstoffwechsel mit gründlichen Reinigung des Getriebes zu verbinden. Synthetische und mineralische Schmierstoffe dürfen auf keinen Fall miteinander gemischt werden. Das Ablassen des Öles, sollte unmittelbar nach dem Abschaltung des Getriebes erfolgen, während das Öl noch warm ist. In dieser Zustand ist das Öl mit den Schmutzpartikeln vermischt, so dass Entleeren des alten Öles eine gute Reinigung garantiert.

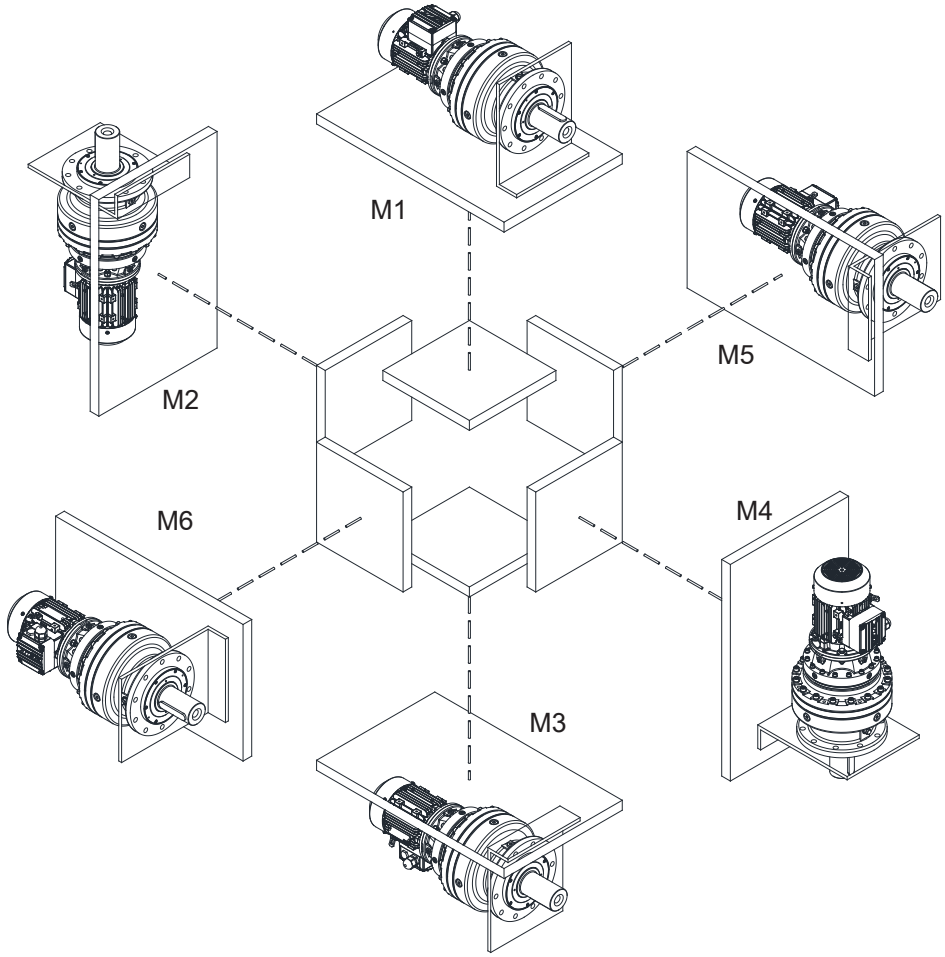
Entsprechend der Montagepositionen sind Ölmengen angegeben. Für Montagepositionen M2 und M4 ist ein Ölausgleichbehälter oder Druckschmierung notwendig.

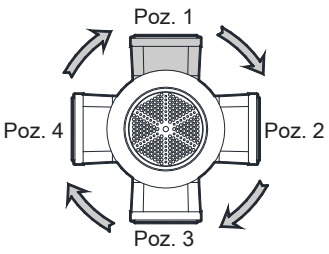


Yağ Tipleri / *Oil Types* / Schmierstoffe

Yağ Cinsi *Lubricant* Art des Schmier-stoffes	DIN 51517-3	Çevre Sıcaklığı [°C] *Ambient Temp. [°C]* Umgebungstemp. [°C] / Daldırma Yağlama *Dip Lubrication* Tauchschmierung	ISO VG	Aral	Beyond Petroleum	Castrol	Klüber Lubrication	Mobil	Shell	Total
Mineral Yağlar *Mineral Oil* Mineralöl	**CLP**	0 ... +50	680	Degol BG 680	Energol GR-XP 680	Alpha SP 680	Klüberoil GEM 1-680 N	Mobilgear XMP 680	Omala S2 GX 680	Carter EP 680
		-5 ... +45	460	Degol BG 460	Energol GR-XP 460	Alpha SP 460	Klüberoil GEM 1-460 N	Mobilgear XMP 460	Omala S2 GX 460	Carter EP 460
		-10 ... +40	320	Degol BG 320	Energol GR-XP 320	Alpha SP 320	Klüberoil GEM 1-320 N	Mobilgear XMP 320	Omala S2 GX 320	Carter EP 320
		-15 ... +30	220	Degol BG 220	Energol GR-XP 220	Alpha SP 220	Klüberoil GEM 1-220 N	Mobilgear XMP 220	Omala S2 GX 220	Carter EP 220
		-20 ... +20	150	Degol BG 150	Energol GR-XP 150	Alpha SP 150	Klüberoil GEM 1-150 N	Mobilgear XMP 150	Omala S2 GX 150	Carter EP 150
		-25... +10	100	Degol BG 100	Energol GR-XP 100	Alpha SP 100	Klüberoil GEM 1-100 N	Mobilgear XMP 100	Omala S2 GX 100	Carter EP 100
Sentetik Yağlar *Synthetic Oil* Synthetisches Öl	**CLP PG**	-10 ... +60	680	Degol GS 680	Energsyn SG-XP 680	–	Klübersynth GH 6 -680	Mobil Glygoyle 680	Omala S4 WE 680	Carter SY 680
		-20 ... +50	460	Degol GS 460	Energsyn SG-XP 460	Aphasyn PG 460	Klübersynth GH 6 -460	Mobil Glygoyle 460	Omala S4 WE 460	Carter SY 460
		-25 ... +40	320	Degol GS 320	Energsyn SG-XP 320	Aphasyn PG 320	Klübersynth GH 6 -320	Mobil Glygoyle 320	Omala S4 WE 320	Carter SY 320
		-30 ...+30	220	Degol GS 220	Energsyn SG-XP 220	Aphasyn PG 220	Klübersynth GH 6 -220	Mobil Glygoyle 30	Omala S4 WE 220	Carter SY 220
		-35 ... +20	150	Degol GS 150	Energsyn SG-XP 150	Aphasyn PG 150	Klübersynth GH 6 -150	Mobil Glygoyle 22	Omala S4 WE 150	Carter SY 150
		-40 ... +10	100	–	–	–	Klübersynth GH 6 -100	Mobil Glygoyle 100	–	–
	CLP HC	-10 ... +60	680	–	–	–	Klübersynth GEM 4-680 N	Mobil SHC Gear 680	Omala S4 GXV 680	Carter SH 680
		-20 ... +50	460	Degol PAS 460	Enersyn EP-XF 460	Alphasyn T 460	Klübersynth GEM 4-460 N	Mobil SHC Gear 460	Omala S4 GXV 460	Carter SH 460
		-25 ... +40	320	Degol PAS 320	Enersyn EP-XF 320	Alphasyn T 320	Klübersynth GEM 4-320 N	Mobil SHC Gear 320	Omala S4 GXV 320	Carter SH 320
		-30 ... +30	220	Degol PAS 220	Enersyn EP-XF 220	Alphasyn T 220	Klübersynth GEM 4-220 N	Mobil SHC Gear 220	Omala S4 GXV 220	Carter SH 220
		-35 ... +20	150	Degol PAS 150	Enersyn EP-XF 150	Alphasyn T 150	Klübersynth GEM 4-150 N	–	Omala S4 GXV 150	Carter SH 150
		-40 ... +10	100	–	–	–	Klübersynth GEM 4-100 N	–	Omala S4 GXV 100	–
Gıda Uyumlu Yağ *Food Grade Oil* Lebensmittelöl	**CLP NSF H1**	-15 ... +25	220	–	–	Optileb GT 220	Klüberoil 4 UH1-220 N	Mobil SHC Cibus 220	Cassida Fluid GL-220	Nevastane SL 220
Çevre Dostu Yağ *Biodegradable Oil* Biologisch abbaubares Öl	**CLP E**	-25 ... +40	320	–	–	Tribol BioTop 1418-320	Klübersynth GEM 2-320	–	–	Carter Bio 320
Mineral Gresler [-20 .... +130 Çalışma Sıcaklığı °C] *Mineral Grease [-20 .... +130 Working Temperature °C]* Mineral-Fett [-20 .... +130 Betriebstemperatur °C]				Aralub HL3	Energrease LS 3	Spheerol AP3	Centoplex 2 EP	Mobilux EP 3	Gadus S2 V100 3	Multis Complex EP 2
Sentetik Gresler [-30 .... +130 Çalışma Sıcaklığı °C] *Synthetic Grease [-30 .... +130 Working Temperature °C]* Synthetisches Fett [-30 .... +130 Betriebstemperatur °C]				–	Energrease SY 2202	–	Petamo GHY 133 N	Mobiltemp SHC 100	Gadus S5 V100 2	Multis Complex SHD 220

P Tipi L Yapıda Montaj pozisyonları / *Mounting Positions of P Series with L Form* / Montagepostionen von P Serie mit Form L



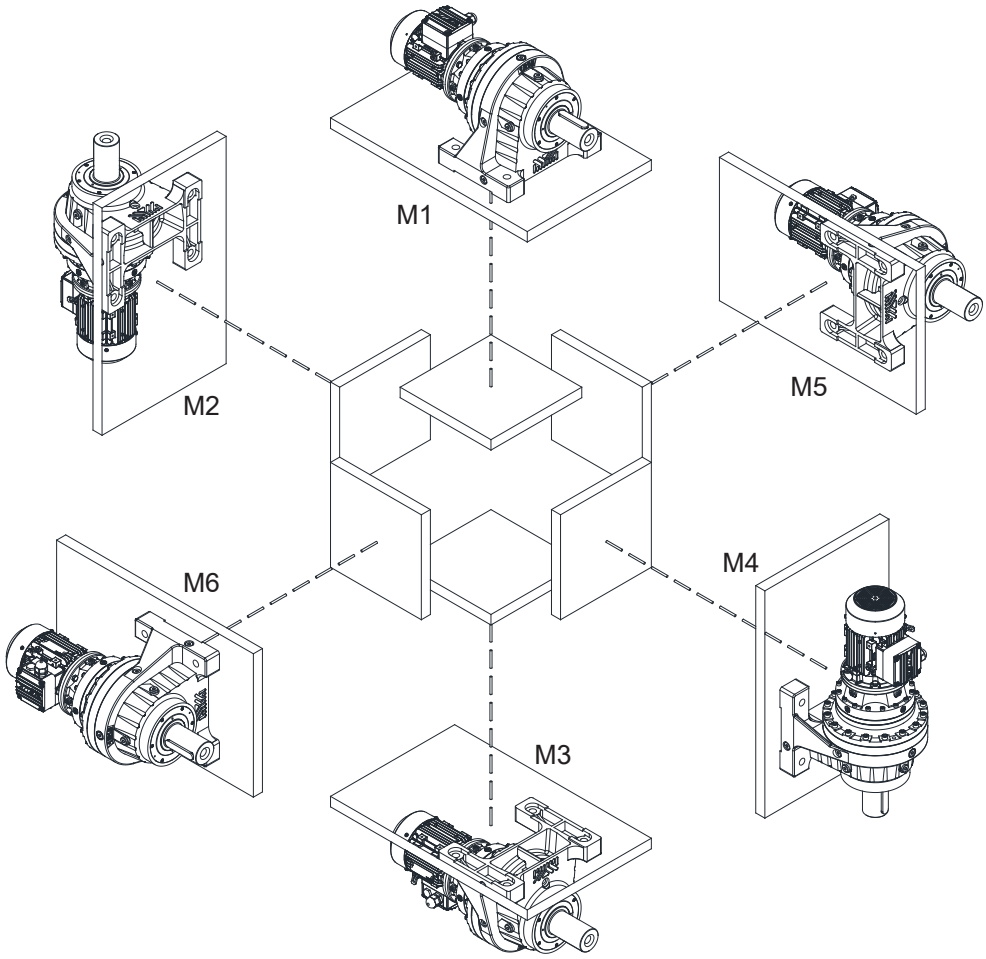


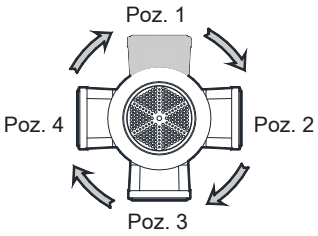
Resimlerde görülen klemens kutusu pozisyonları Poz 1 olarak kabul edilir. Diğer klemens pozisyonları seçilen montaj pozisyonunda motor arkasından bakıldığında saat yönünde döndürülerek isimlendirilir.

Terminal box positions are assumed as Poz 1 according to above drawings. For other positions are named by rotating clockwise direction on mounting positions when viewing back side of motor .

Auf der Abbildung sind die Stellungen, die schwarz gekennzeichnet sind, von Klemmenkasten als Poz. 1 angenommen. Andere Stellungen werden so genannt, dass Motor mit der Blick hinter dem Motor im Uhrzeigersinn gedreht wird.

R Tipi L Yapıda Montaj pozisyonları / *Mounting Positions of R Series with L Form* / Montagepostionen von R Serie mit Form L





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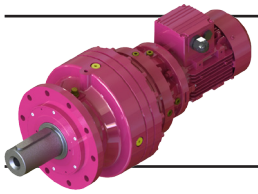
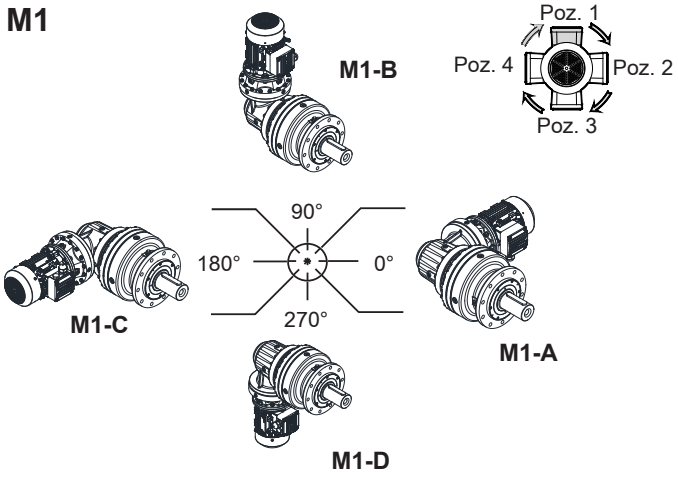


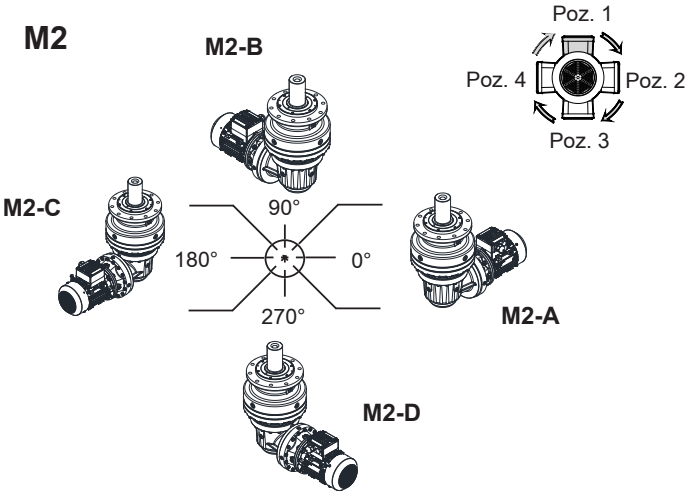
Genel Bilgiler
General Information
Einführung

Montaj Pozisyonu / *Mounting Position* / Montagepositionen
P Serisi K Yapıda / *P Series with K Form* / P Serie mit K Form

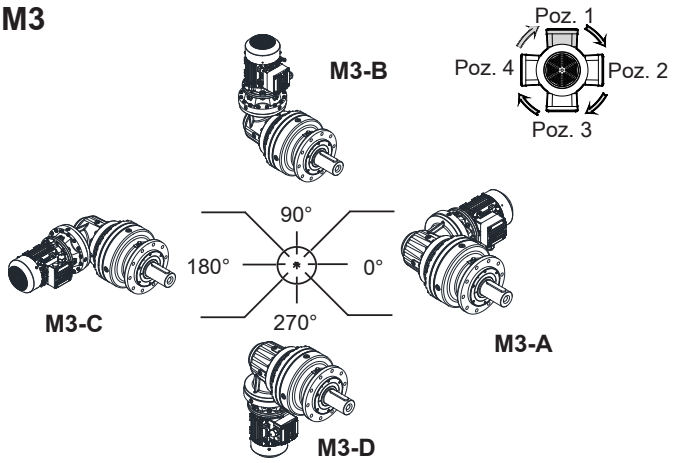
M1



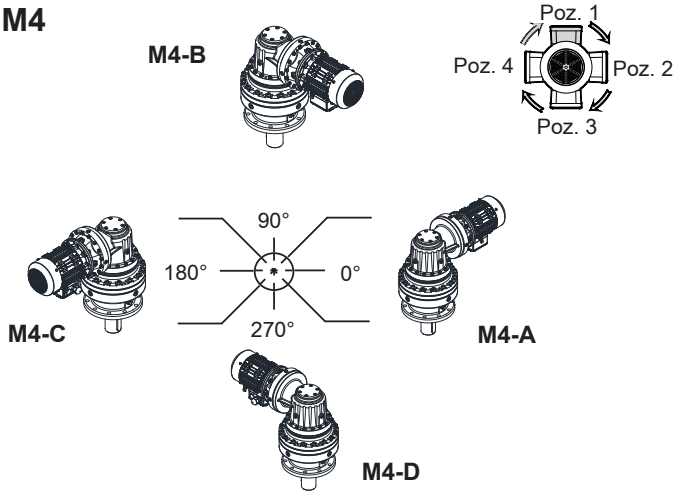
M2



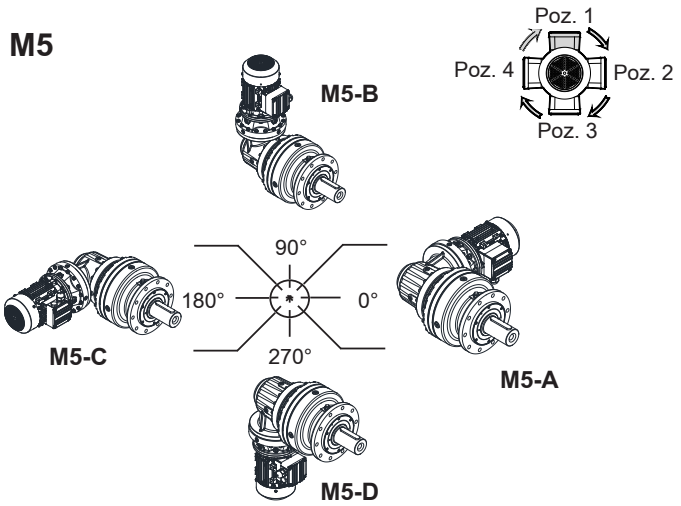
M3



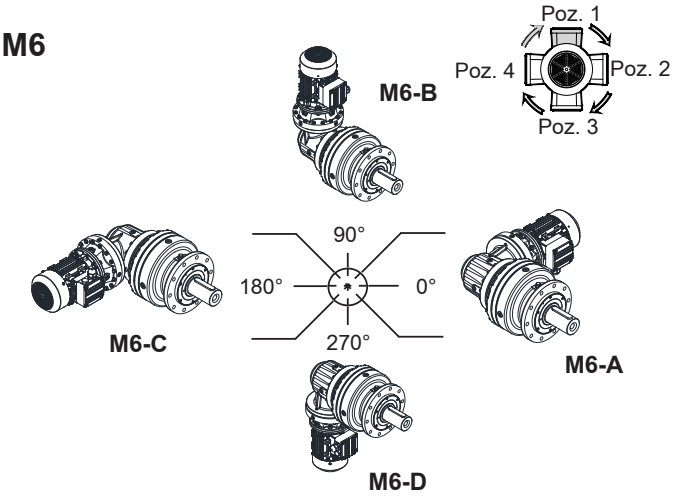
M4



M5



M6



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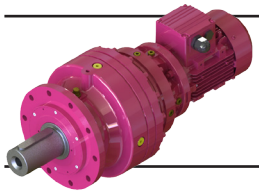
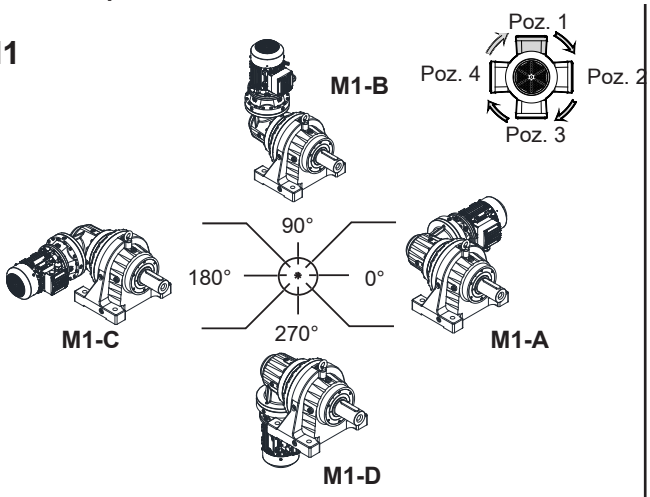
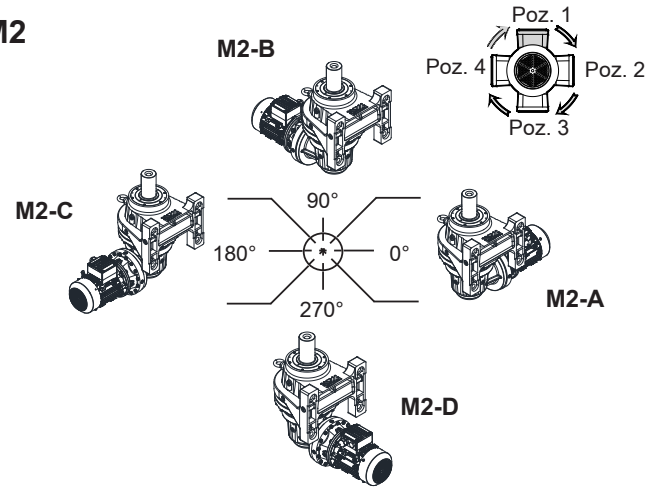


Montaj Pozisyonu / *Mounting Position* / Montagepositionen
R Serisi K Yapıda / *R Series with K Form* / R Serie mit K Form

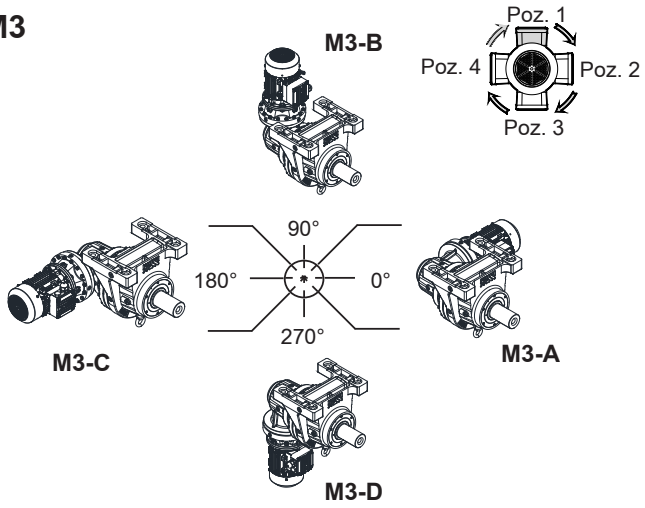
M1



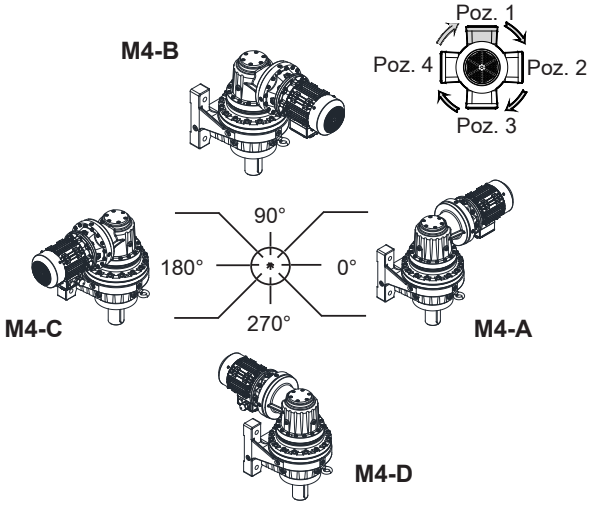
M2



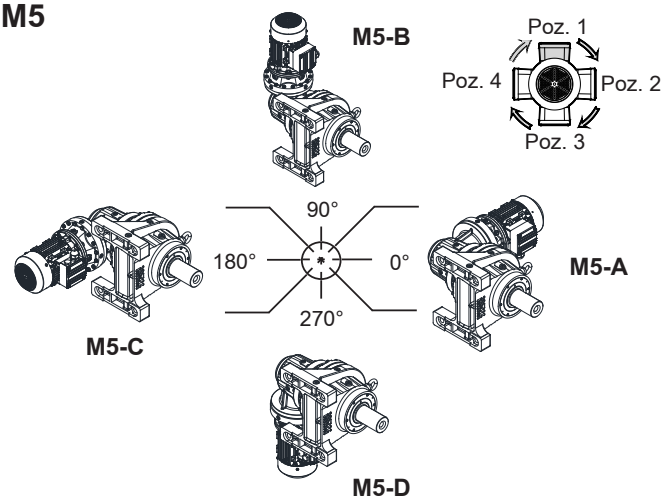
M3



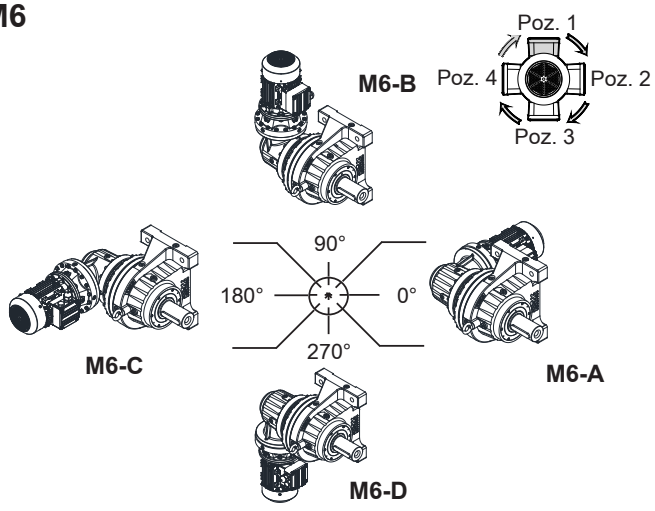
M4



M5



M6



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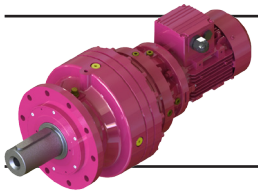
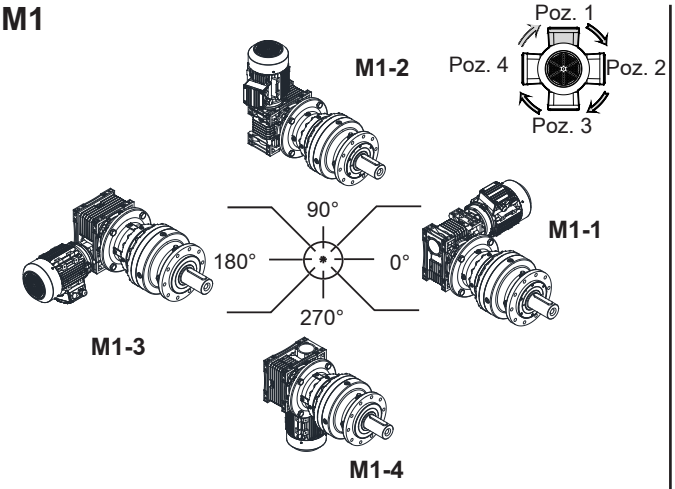
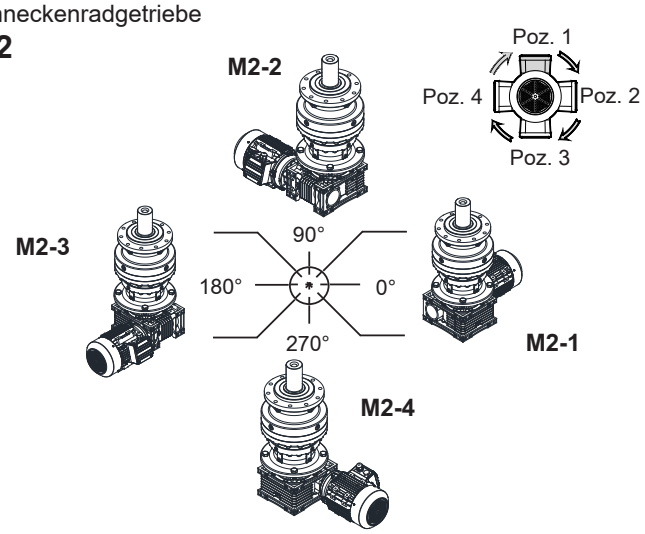


Montaj Pozisyonu / *Mounting Position* / Montagepositionen
P Serisi Sonsuz Eklemeli / *P Series with Worm Gear* / P Serie mit Schneckenradgetriebe

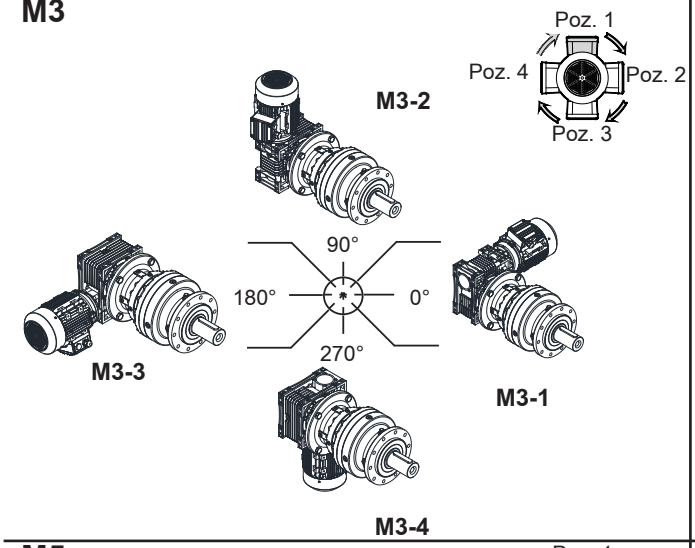
M1



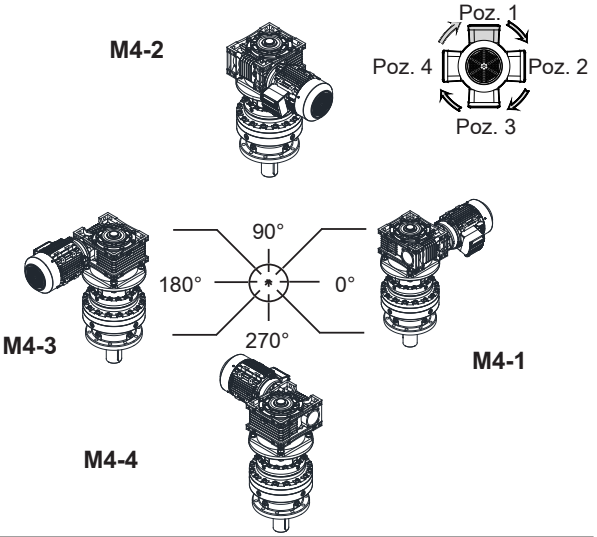
M2



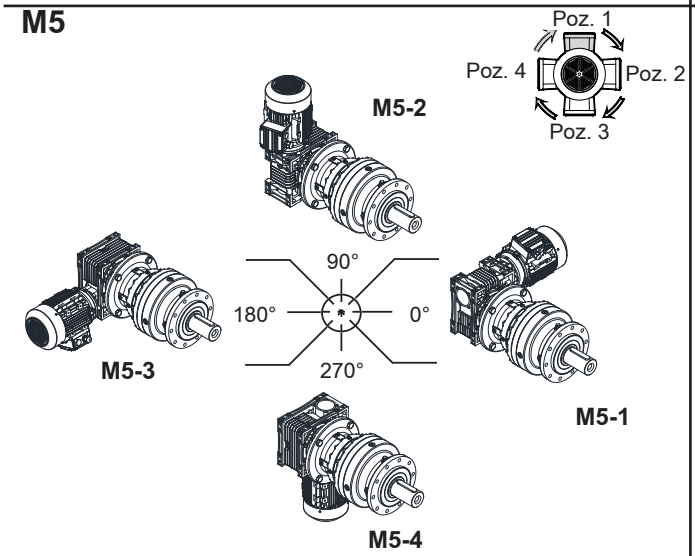
M3



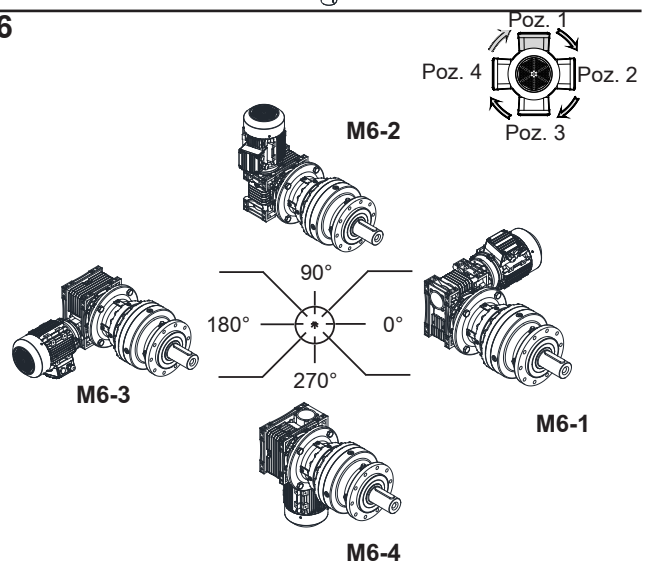
M4



M5



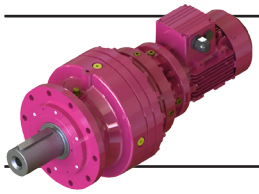
M6



Resimlerde görülen klemens kutusu pozisyonları Poz 1 olarak kabul edilir. Diğer klemens pozisyonları seçilen montaj pozisyonunda motor arkasından bakıldığında saat yönünde döndürülerek isimlendirilir.

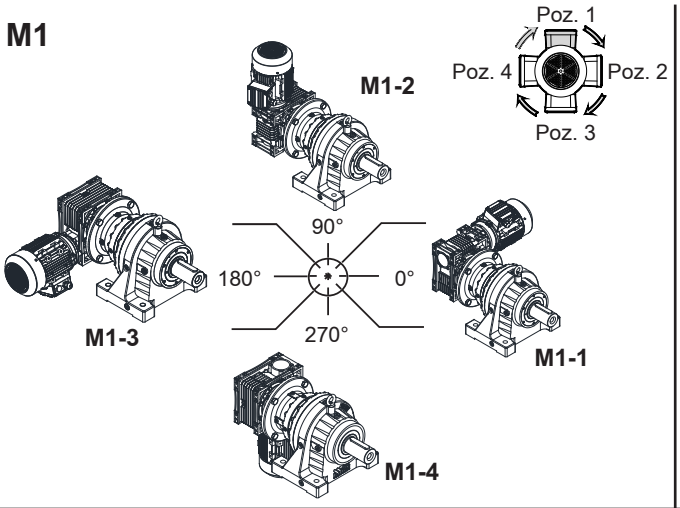
Terminal box positions are assumed as Poz 1 according to above drawings. For other positions are named by rotating clockwise direction on mounting positions when viewing back side of motor .

Auf der Abbildung sind die Stellungen, die schwarz gekennzeichnet sind, von Klemmenkasten als Poz. 1 angenommen. Andere Stellungen werden so genannt, dass Motor mit der Blick hinter dem Motor im Uhrzeigersinn gedreht wird.

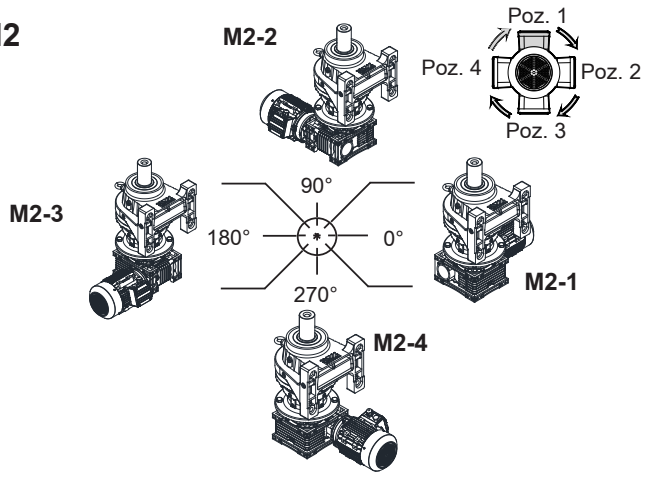


Montaj Pozisyonu / *Mounting Position* / Montagepositionen
R Serisi Sonsuz Eklemeli / *R Series with Worm Gear* / R Serie mit Schneckenradgetriebe

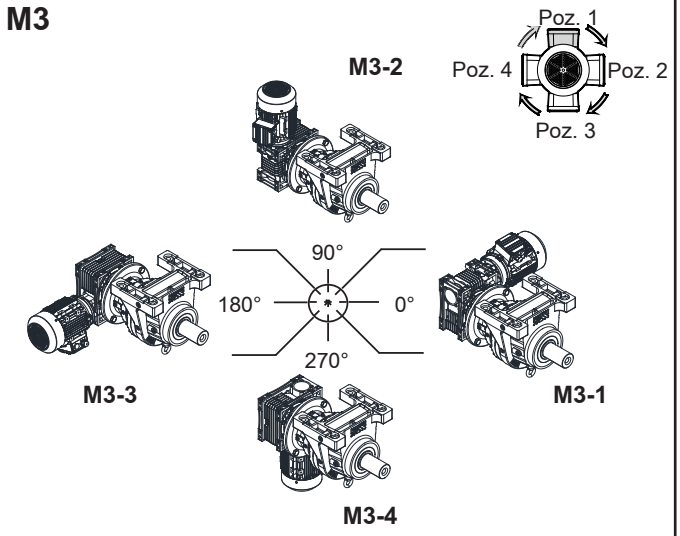
M1



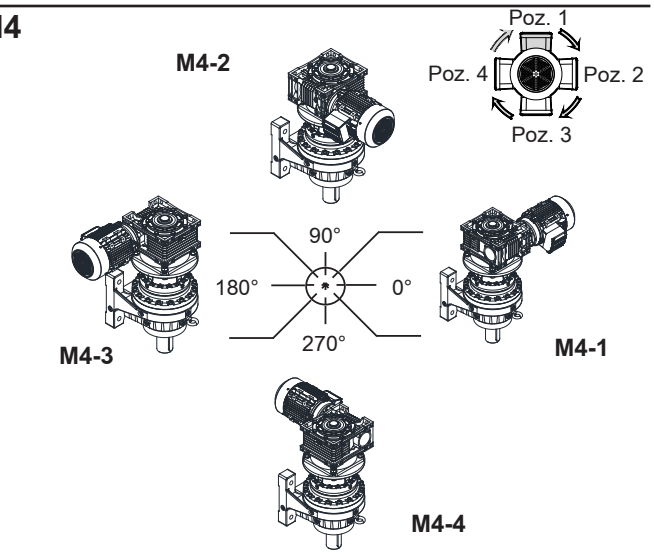
M2



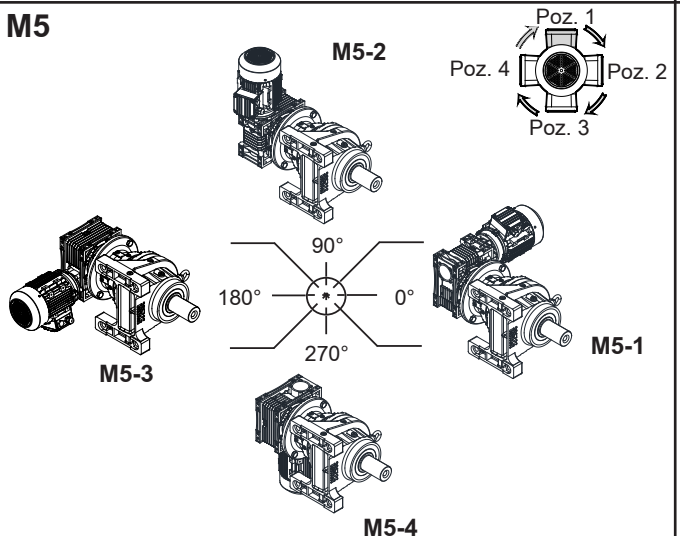
M3



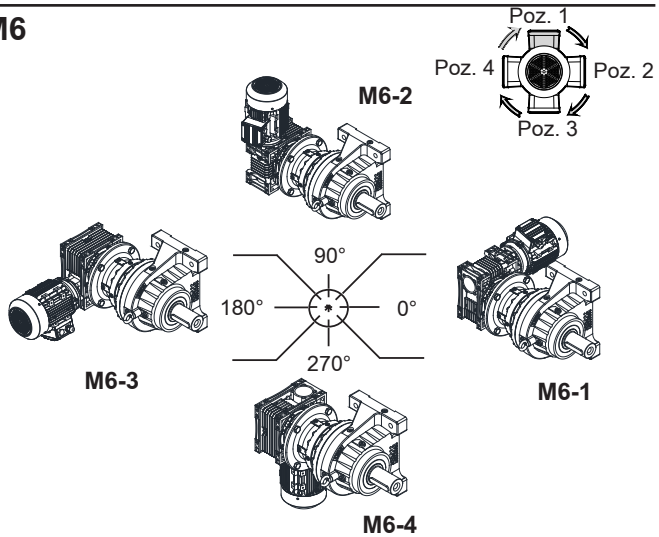
M4



M5



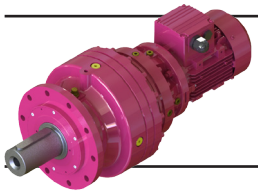
M6



Resimlerde görülen klemens kutusu pozisyonları Poz 1 olarak kabul edilir. Diğer klemens pozisyonları seçilen montaj pozisyonunda motor arkasından bakıldığında saat yönünde döndürülerek isimlendirilir.

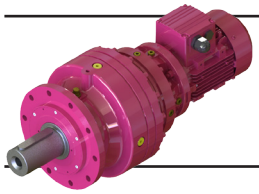
Terminal box positions are assumed as Poz 1 according to above drawings. For other positions are named by rotating clockwise direction on mounting positions when viewing back side of motor .

Auf der Abbildung sind die Stellungen, die schwarz gekennzeichnet sind, von Klemmenkasten als Poz. 1 angenommen. Andere Stellungen werden so genannt, dass Motor mit der Blick hinter dem Motor im Uhrzeigersinn gedreht wird.



Yağ Miktarları [litre] / *Oil Quantities [liter]* / Ölmengen [liter]

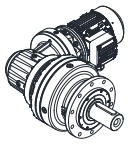
Redüktör *Gearbox* *Getriebe*	**Montaj pozisyonu** / *Mounting position* / Montageposition					
	M1	**M2**	**M3**	**M4**	**M5**	**M6**
P...1101L / R...1101L	0,6	0,6	0,6	0,8	0,6	0,6
P...1102L / R...1102L	1,0	1,2	0,7	1,3	0,7	0,7
P...1103L / R...1103L	1,1	1,8	1,1	1,6	1,1	1,1
P...1104L / R...1104L	1,6	2,1	1,4	2,2	1,4	1,4
P...1201L / R...1201L	0,7	0,7	0,7	0,9	0,7	0,7
P...1202L / R...1202L	0,8	1,3	0,8	0,9	0,8	0,8
P...1203L / R...1203L	1,5	2,0	1,5	1,8	1,5	1,5
P...1204L / R...1204L	1,5	2,3	1,5	2,4	1,5	1,5
P...1501L / R...1501L	1,4	2,8	1,4	1,7	1,4	1,4
P...1502L / R...1502L	1,3	1,9	1,3	2,1	1,3	1,3
P...1503L / R...1503L	1,5	2,4	1,5	2,6	1,5	1,5
P...1504L / R...1504L	1,8	3,0	1,8	3,1	1,8	1,8
P...1601L / R...1601L	1,5	3,0	1,5	1,9	1,5	1,5
P...1602L / R...1602L	1,5	2,1	1,5	2,2	1,5	1,5
P...1603L / R...1603L	1,8	2,6	1,8	2,8	1,8	1,8
P...1604L / R...1604L	2,0	3,0	2,0	3,2	2,0	2,0
P...1901L / R...1901L	2,2	2,4	2,2	2,2	2,2	2,2
P...1902L / R...1902L	2,0	2,9	2,0	3,3	2,0	2,0
P...1903L / R...1903L	3,4	2,1	1,8	3,1	1,8	1,8
P...1904L / R...1904L	2,0	2,5	2,0	3,5	2,0	2,0
P...2301L / R...2301L	3,6	4,2	3,6	4,2	3,6	3,6
P...2302L / R...2302L	4,3	4,2	4,3	7,2	4,3	4,3
P...2303L / R...2303L	4,1	3,7	3,4	6,4	3,4	3,4
P...2304L / R...2304L	3,6	4,2	3,6	6,8	3,6	3,6
P...2401L / R...2401L	4,0	4,9	4,0	4,5	4,0	4,0
P...2402L / R...2402L	4,5	4,4	4,5	7,4	4,5	4,5
P...2403L / R...2403L	3,5	4,0	3,5	6,5	3,5	3,5
P...2404L / R...2404L	5,5	4,4	4,0	7,0	4,0	4,0
P...2701L / R...2701L	4,3	9,0	4,3	8,6	4,3	4,3
P...2702L / R...2702L	4,7	8,3	4,7	7,1	4,7	4,7
P...2703L / R...2703L	4,8	10,75	7,3	6,7	7,3	7,3
P...2704L / R...2704L	4,9	8,5	4,7	8,5	4,7	4,7
P...2901L / R...2901L	5,75	8,3	5,75	9,65	5,75	5,75
P...2902L / R...2902L	6,05	11,15	6,05	7,55	6,05	6,05
P...2903L / R...2903L	6,1	8,8	6,1	10,35	6,1	6,1
P...2904L / R...2904L	6,2	8,7	6,2	11,75	6,2	6,2
P...3501L / R...3501L	6,5	7,6	6,5	10,7	6,5	6,5
P...3502L / R...3502L	7,4	14,0	7,4	8,0	7,4	7,4
P...3503L / R...3503L	9	8,6	9	24	9	9
P...3504L / R...3504L	12,3	8,9	12,3	15,0	12,3	12,3



Yağ Miktarları [litre] / *Oil Quantities [liter]* / Ölmengen [liter]

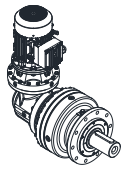
Redüktör *Gearbox* *Getriebe*	Montaj pozisyonu / *Mounting position* / Montageposition					
	M1-A	M2-A	M3-A	M4-A	M5-A	M6-A
P...1102K / R...1102K	1,3	2,3	1,3	1,7	1,3	1,3
P...1103K / R...1103K	1,6	3	1,6	2,2	1,6	1,6
P...1104K / R...1104K	2,4	4,5	2,4	3,1	2,4	2,4
P...1202K / R...1202K	1,4	2,5	1,4	1,8	1,4	1,4
P...1203K / R...1203K	1,7	3,2	1,7	2,3	1,7	1,7
P...1204K / R...1204K	2,5	4,7	2,5	1,8	2,5	2,5
P...1502K / R...1502K	2,1	4,8	2,1	2,4	2,1	2,1
P...1503K / R...1503K	2	3,1	2	3	2	2
P...1504K / R...1504K	2	2,6	2	3,9	2	2
P...1602K / R...1602K	2,2	4,9	2,2	2,5	2,2	2,2
P...1603K / R...1603K	2,1	2,5	2,1	3,1	2,1	2,1
P...1604K / R...1604K	2,1	2,7	2,1	4	2,1	2,1
P...1902K / R...1902K	5	8,2	5	6,1	5	5
P...1903K / R...1903K	3,1	4,7	3,1	5	3,1	3,1
P...1904K / R...1904K	2,8	3	2,8	4,8	2,8	2,8
P...2302K / R...2302K	7,1	10,6	7,1	9,6	7,1	7,1
P...2303K / R...2303K	4,2	5,2	4,2	7,2	4,2	4,2
P...2304K / R...2304K	4,1	4,0	4,1	7,3	4,1	4,1
P...2402K / R...2402K	7,2	10,7	7,2	9,7	7,2	7,2
P...2403K / R...2403K	4,3	5,3	4,3	7,3	4,3	4,3
P...2404K / R...2404K	4,2	4,1	4,2	7,4	4,2	4,2
P...2702K / R...2702K	11	14,4	11	12,2	11	11
P...2703K / R...2703K	3,1	7,6	3,1	9	3,1	3,1
P...2704K / R...2704K	5,3	6,4	5,3	9,5	5,3	5,3
P...2902K / R...2902K	11,6	15,8	11,6	13,4	11,6	11,6
P...2903K / R...2903K	6,6	10,4	6,6	11,8	6,6	6,6
P...2904K / R...2904K	6,7	7,8	6,7	8,8	6,7	6,7
P...3502K / R...3502K	12,1	17,2	12,1	14,5	12,1	12,1
P...3503K / R...3503K	10,2	13,1	10,2	14,5	10,2	10,2
P...3504K / R...3504K	8,1	9,2	8,1	8,2	8,1	8,1

PV1501K.01



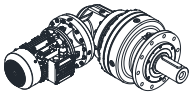
M1-A

PV1501K.01



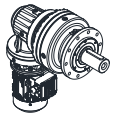
M1-B

PV1501K.01

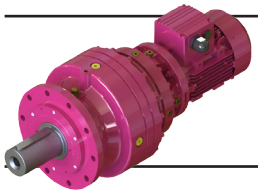


M1-C

PV1501K.01



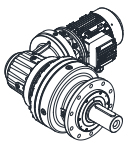
M1-D



Yağ Miktarları [litre] / *Oil Quantities [liter]* / Ölmengen [liter]

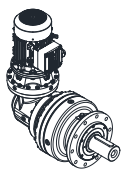
Redüktör *Gearbox* *Getriebe*	Montaj pozisyonu / *Mounting position* / Montageposition					
	M1-B	M2-B	M3-B	M4-B	M5-B	M6-B
P...1102K / R...1102K	1	2,3	1,25	1,7	1	1
P...1103K / R...1103K	1,2	3	1,6	2,2	1,2	1,2
P...1104K / R...1104K	3,6	4,5	2,4	3,0	3,6	3,6
P...1202K / R...1202K	1,1	2,4	1,4	1,8	1,1	1,1
P...1203K / R...1203K	1,3	3,1	1,7	2,3	1,3	1,3
P...1204K / R...1204K	3,7	4,6	2,6	3,1	3,7	3,7
P...1502K / R...1502K	1,8	4,8	2,1	2,4	1,8	1,8
P...1503K / R...1503K	1,7	3,1	2	3	1,7	1,7
P...1504K / R...1504K	1,7	2,6	1,7	3,9	1,7	1,7
P...1602K / R...1602K	1,9	4,9	2,2	2,5	1,9	1,9
P...1603K / R...1603K	1,8	3,2	2,1	3,1	1,8	1,8
P...1604K / R...1604K	1,8	2,7	1,77	4,0	1,8	1,8
P...1902K / R...1902K	3,9	8,2	3,9	6,1	3,9	3,9
P...1903K / R...1903K	5,2	4,7	5,22	5	5,2	5,2
P...1904K / R...1904K	2,5	3	2,5	4,8	2,5	2,5
P...2302K / R...2302K	7,1	10,6	6,1	9,1	6,1	6,1
P...2303K / R...2303K	4	5,2	4,4	7,2	4	4
P...2304K / R...2304K	3,8	4,0	4,1	7,3	3,8	3,8
P...2402K / R...2402K	7,2	10,7	6,2	9,2	6,2	6,2
P...2403K / R...2403K	4,1	5,3	4,5	7,3	4,1	4,1
P...2404K / R...2404K	3,9	4,1	4,9	7,4	3,9	3,9
P...2702K / R...2702K	9,3	14,4	9,3	12,2	9,3	9,3
P...2703K / R...2703K	4,9	7,6	4,9	9,2	4,9	4,9
P...2704K / R...2704K	5	6,4	5,3	9,51	5	5
P...2902K / R...2902K	8	15,8	8	13,4	8	8
P...2903K / R...2903K	7,1	10,3	7,1	11,8	7,1	7,1
P...2904K / R...2904K	6,5	7,8	6,6	8,8	6,5	6,5
P...3502K / R...3502K	6,8	17,2	6,7	14,5	6,8	6,8
P...3503K / R...3503K	9,2	13,1	9,2	14,5	9,2	9,2
P...3504K / R...3504K	7,9	9,2	7,9	8,2	7,9	7,9

PV1501K.01



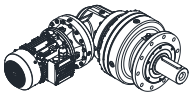
M1-A

PV1501K.01



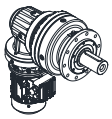
M1-B

PV1501K.01

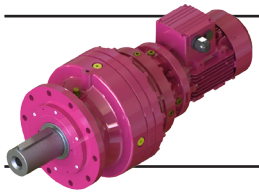


M1-C

PV1501K.01



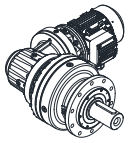
M1-D



Yağ Miktarları [litre] / *Oil Quantities [liter]* / Ölmengen [liter]

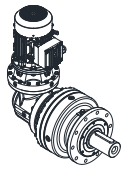
Redüktör *Gearbox* *Getriebe*	Montaj pozisyonu / *Mounting position* / Montageposition					
	M1-C	M2-C	M3-C	M4-C	M5-C	M6-C
P...1102K / R...1102K	1,3	2,3	1,25	1,7	1,3	1,3
P...1103K / R...1103K	1,6	3	1,6	2,2	1,6	1,6
P...1104K / R...1104K	2,4	4,5	2,4	3,0	2,4	2,4
P...1202K / R...1202K	1,4	2,4	1,4	1,8	1,4	1,4
P...1203K / R...1203K	1,7	3,1	1,7	2,3	1,7	1,7
P...1204K / R...1204K	2,5	4,6	2,5	3,1	2,5	2,5
P...1502K / R...1502K	2,1	4,8	2,1	2,4	2,1	2,1
P...1503K / R...1503K	2	3,1	2	3	2	2
P...1504K / R...1504K	2	2,6	1,7	3,9	2	2
P...1602K / R...1602K	2,21	4,9	2,2	2,5	2,2	2,2
P...1603K / R...1603K	2,1	3,2	2,1	3,1	2,1	2,1
P...1604K / R...1604K	2,1	2,7	1,77	4,0	2,1	2,1
P...1902K / R...1902K	5	8,2	3,9	6,1	5	5
P...1903K / R...1903K	3,1	4,7	5,2	5	3,1	3,1
P...1904K / R...1904K	2,8	3	2,5	4,8	2,8	2,8
P...2302K / R...2302K	7,1	10,6	6,1	9,6	7,1	7,1
P...2303K / R...2303K	4	5,2	4,4	7,2	4	4
P...2304K / R...2304K	4,1	4,0	4,1	7,3	4,1	4,1
P...2402K / R...2402K	7,2	10,7	6,2	9,7	7,2	7,2
P...2403K / R...2403K	4,1	5,3	4,5	7,3	4,1	4,1
P...2404K / R...2404K	4,2	4,1	4,2	7,4	4,2	4,2
P...2702K / R...2702K	11	14,4	9,3	12,2	11	11
P...2703K / R...2703K	3,1	7,6	4,9	9,2	3,1	3,1
P...2704K / R...2704K	5,3	6,4	5,3	9,5	5,3	5,3
P...2902K / R...2902K	12,6	15,8	11,8	13,4	12,6	12,6
P...2903K / R...2903K	6,6	10,3	7,04	11,8	6,6	6,6
P...2904K / R...2904K	6,4	7,8	6,6	8,8	6,4	6,4
P...3502K / R...3502K	14,2	17,2	14,2	14,5	14,2	14,2
P...3503K / R...3503K	10,2	13,1	9,2	14,5	10,2	10,2
P...3504K / R...3504K	7,5	9,2	7,9	8,16	7,5	7,5

PV1501K.01



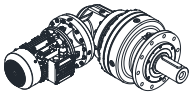
M1-A

PV1501K.01



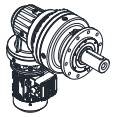
M1-B

PV1501K.01

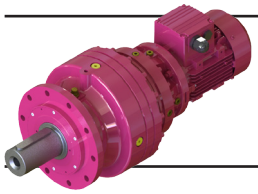


M1-C

PV1501K.01



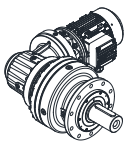
M1-D



Yağ Miktarları [litre] / *Oil Quantities [liter]* / Ölmengen [liter]

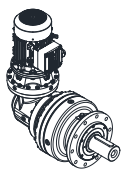
Redüktör *Gearbox* *Getriebe*	Montaj pozisyonu / *Mounting position* / Montageposition					
	M1-D	M2-D	M3-D	M4-D	M5-D	M6-D
P...1102K / R...1102K	1,3	2,3	1,3	1,7	1,3	1,3
P...1103K / R...1103K	1,7	3	1,7	2,2	1,7	1,7
P...1104K / R...1104K	2,1	4,5	2,1	3,0	2,1	2,1
P...1202K / R...1202K	1,4	2,4	1,4	1,8	1,4	1,4
P...1203K / R...1203K	1,8	3,1	1,8	2,3	1,8	1,8
P...1204K / R...1204K	2,2	4,6	2,2	1,8	2,2	2,2
P...1502K / R...1502K	2,9	4,8	2,9	2,4	2,9	2,9
P...1503K / R...1503K	2,3	3,2	2,3	3	2,3	2,3
P...1504K / R...1504K	1,8	2,7	1,8	3,9	1,8	1,8
P...1602K / R...1602K	2,9	4,9	2,97	3,1	3	3
P...1603K / R...1603K	2,4	3,3	2,44	4	2,4	2,4
P...1604K / R...1604K	1,9	2,8	1,9	4,2	1,9	1,9
P...1902K / R...1902K	7,3	8,2	7,3	6,1	7,3	7,3
P...1903K / R...1903K	3,5	4,7	3,5	5	3,5	3,5
P...1904K / R...1904K	2,5	3	2,5	4,8	2,5	2,5
P...2302K / R...2302K	8,2	10,6	8,2	9,6	8,2	8,2
P...2303K / R...2303K	4,6	5,2	4,6	7,2	4,6	4,6
P...2304K / R...2304K	6,6	4,0	6,6	7,3	6,6	6,6
P...2402K / R...2402K	8,3	10,7	8,3	9,7	8,3	8,3
P...2403K / R...2403K	4,6	6,1	4,6	7,3	4,6	4,6
P...2404K / R...2404K	6,6	5	6,6	7,4	6,6	6,6
P...2702K / R...2702K	11	14,4	11	12,2	11	11
P...2703K / R...2703K	7	7,6	7	9,2	7	7
P...2704K / R...2704K	5,6	6,4	5,6	9,5	5,6	5,6
P...2902K / R...2902K	12,6	15,8	12,6	13,4	12,6	12,6
P...2903K / R...2903K	10,5	10,4	10,5	11,8	9	9
P...2904K / R...2904K	6,6	7,8	6,6	8,8	6,6	6,6
P...3502K / R...3502K	14,2	17,2	14,2	14,5	14,2	14,2
P...3503K / R...3503K	14,1	13,1	14,1	14,5	11,1	11,1
P...3504K / R...3504K	7,5	9,2	7,5	8,16	7,5	7,5

PV1501K.01



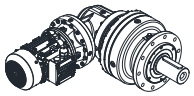
M1-A

PV1501K.01



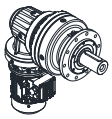
M1-B

PV1501K.01

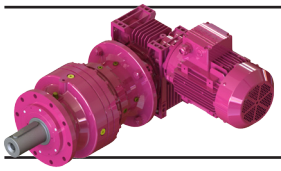


M1-C

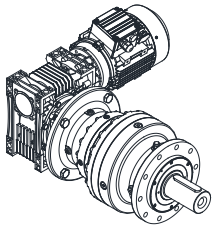
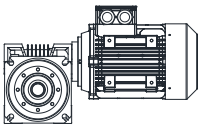
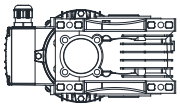
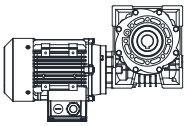
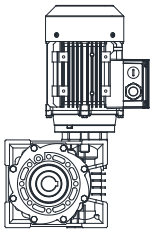
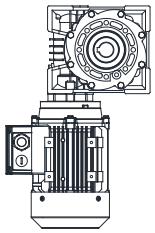
PV1501K.01



M1-D



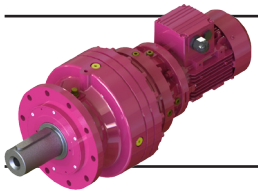
Yağ Miktarları [litre] / *Oil Quantities [liter]* / Ölmengen [liter]

Sonsuz Eklemeler / *Worm Gearbox at Input Stage* / Schneckenradgetriebe an der Antriebsseite						
		**Montaj pozisyonu** / *Mounting position* / Montageposition				
		M1	**M6**	**M3**	**M4**	**M2**
						
Eklenen Redüktör *Worm Gearbox at Input Stage* Schneckenradgetriebe auf Antriebsstufe	**Ana gövde** *Main gearbox unit* Hauptgetriebe					
EV063 EN063 ET063	**PN11 / RN11 PN12 / RN12**	0,3	0,5	0,26	0,4	
EV080 EN080 ET080	**PN15 / RN15 PN16 / RN16**	0,6	0,8	0,5	0,8	
EV100 EN100 ET100	**PN19 / RN19**	1,7	2,1	1,2	2,1	
EV125 EN125 ET125	**PN23 / RN23 PN24 / RN24**	3,1	3,6	2	3,6	

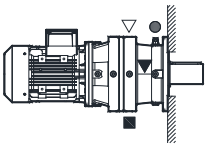
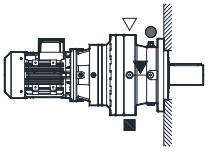
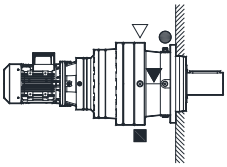
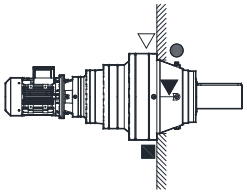
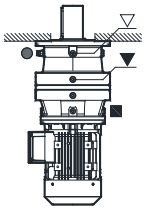
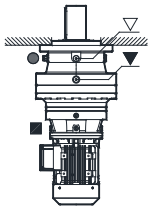
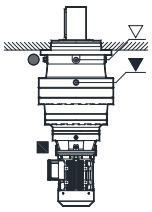
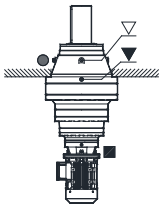
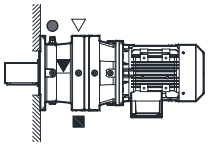
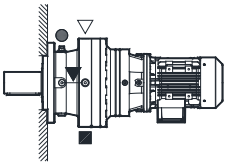
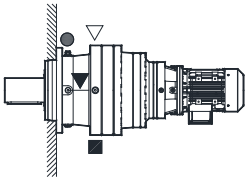
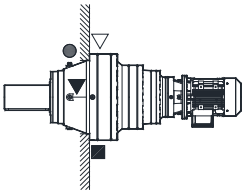
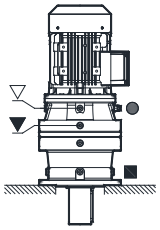
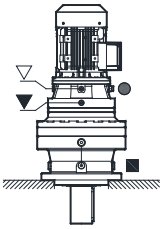
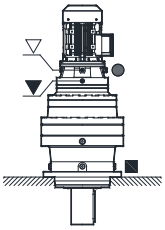
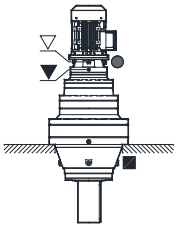
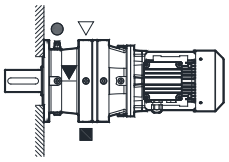
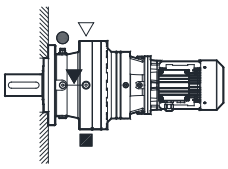
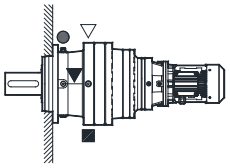
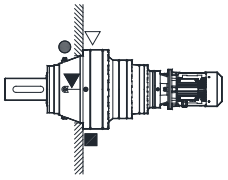
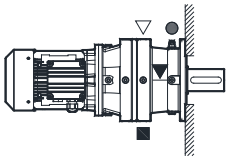
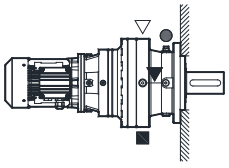
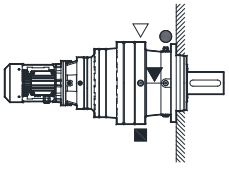
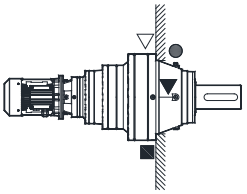
Planet redüktörlere eklenen sonsuz tip redüktörlerin yağ tapa yerleri ayrıdır. Sonsuz tip redüktörlerde her pozisyon için tapa yeri olmadığından yağ seviyesi doldurulan yağ miktarı ile anlaşılır. E63 ve E80 tip sonsuz redüktörler sentetik yağ , E100 ve E125 tip sonsuz redüktörler mineral yağ ile doldurulur. Sentetik yağlı redüktörlerde ömür boyu yağ değişimi gerekmemektedir. Mineral yağlı redüktörlerde ise 10.000 saat çalışmadan sonra yağ değiştirilmesi önerilir.

To planetary gear units added worm gearboxes have separate oil plug. Worm gearboxes have not oil plug for all positions. Therefore the oil level is understandable with quantity of filled oil . E63 and E80 type worm gearboxes are filled with synthetic oil. E100 and E125 type worm gearboxes are filled with mineral oil. Synthetic oil does not need to be changed for life time. Changing the oil of gearbox units filled with mineral oil is recommended after 10.000 hours working.

Mit der Planetengetriebe verbundene Schneckengetriebe haben separate Ölverschlussschrauben. Schneckengetriebe haben nicht Ölverschlussschrauben für alle Positionen. Deshalb den Ölstand ist verständlich mit der Menge der gefüllten Öl. E63 und E80 Typ Schneckengetriebe sind mit synthetischem Öl befüllt. E100 und E125 Typ Schneckengetriebe werden mit Mineralöl gefüllt. Synthetisches Öl soll lebenslang nicht geändert werden. Ölwechsel von mit Mineralöl gefüllten Getrieben werden nach 10.000 Betriebsstunden empfohlen.



Yağ Tapaları/ *Oil plugs* / Ölverschlussschrauben
P Serisi L Tipi için Yağ Tapaları / *Oil Plugs for P Series L Type* / Ölverschlussschrauben für P Serie Bauform L

Montaj pozisyonu *Mounting position* Montageposition	**Tek Kademe** *Single Stage* Einzelstufe	**2 Kademe** *2 Stages* 2 Stufen	**3 Kademe** *3 Stages* 3 Stufen	**4 Kademe** *4 Stages* 4 Stufen
M1				
M2				
M3				
M4				
M5				
M6				

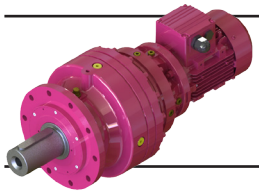
Semboller : / *Symbols :* / Symbole :

:Yağ Boşaltma
■ *:Drain Plug*
:Ölauslass

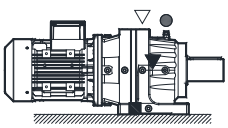
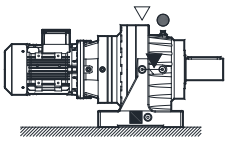
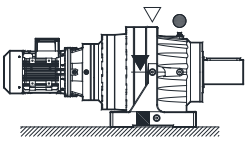
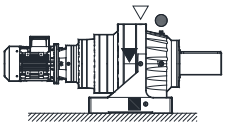
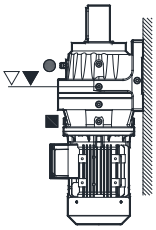
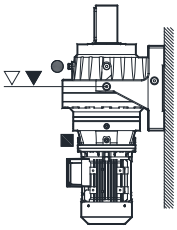
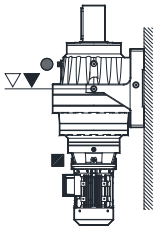
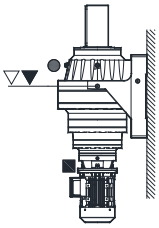
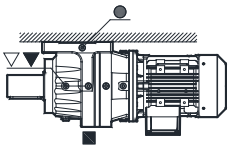
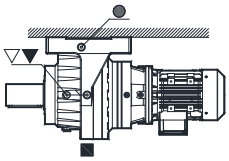
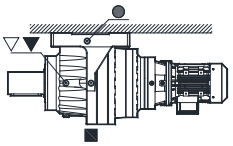
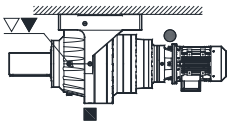
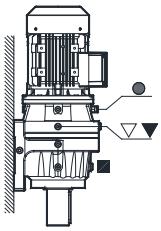
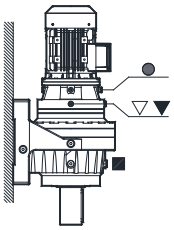
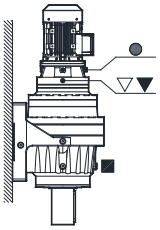
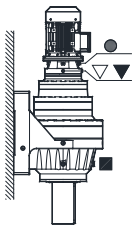
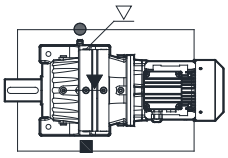
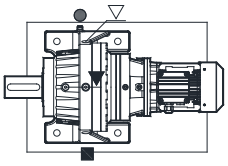
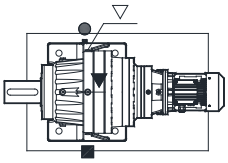
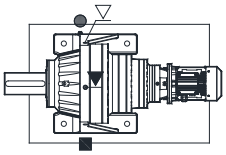
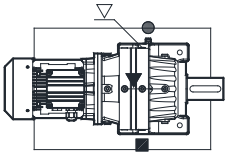
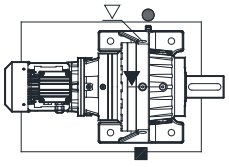
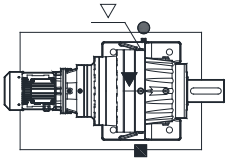
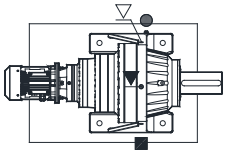
:Yağ doldurma
∇*:Oil Filling*
:Ölfüllung

:Yağ Seviyesi
▼*:Oil Level*
:Ölstand

:Havalandırma
● *:Breather*
:Entlüftung



R Serisi L Tipi için Yağ Tapaları / *Oil Plugs for R Series L Type* / Ölverschlussschrauben für R Series Bauform L

Montaj pozisyonu *Mounting position* Montageposition	**Tek kademe** *Single Stage* Einzelstufe	**2 kademe** *2 Stages* 2 Stufen	**3 kademe** *3 Stages* 3 Stufen	**4 Kademe** *4 Stages* 4 Stufen
M1				
M2				
M3				
M4				
M5				
M6				

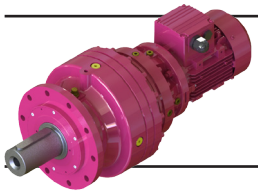
Semboller : / *Symbols :* / Symbole :

:Yağ Boşaltma / *:Drain Plug* / :Ölauslass ■

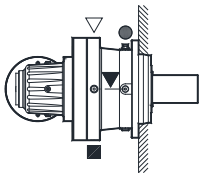
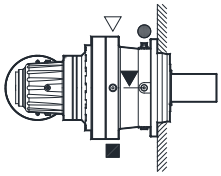
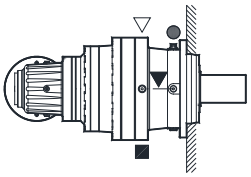
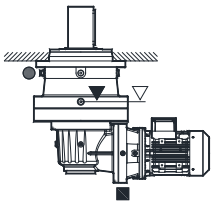
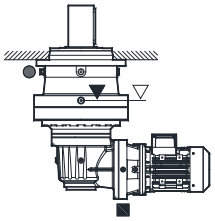
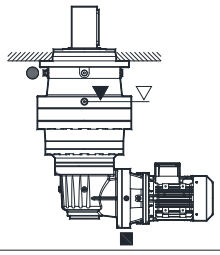
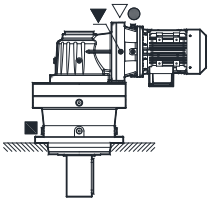
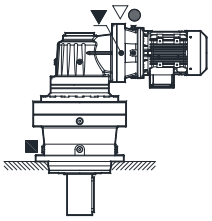
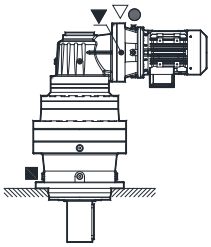
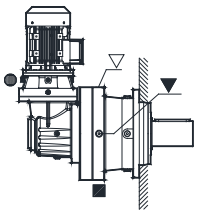
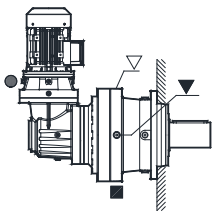
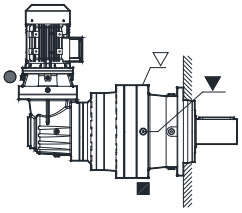
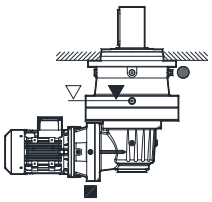
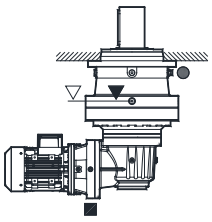
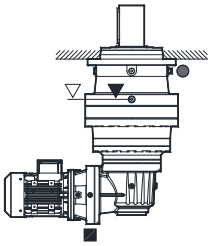
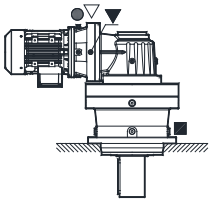
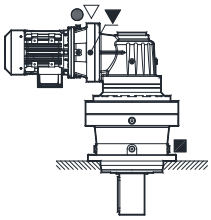
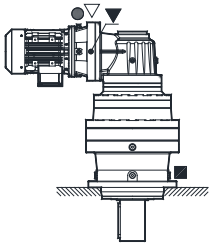
:Yağ doldurma / *:Oil Filling* / :Ölfüllung ∇

:Yağ Seviyesi / *:Oil Level* / :Ölstand ▼

:Havalandırma / *:Breather* / :Entlüftung ●



P Serisi K Tipi için Yağ Tapaları / *Oil Plugs for P Series K Type* / Ölverschlussschrauben für P Serie Bauform K

Montaj pozisyonu *Mounting position* Montageposition	**2 Kademe** *2 Stages* 2 Stufen	**3 Kademe** *2 Stages* 2 Stufen	**4 Kademe** *4 Stages* 4 Stufen
M1-A - M3-A **M5-A - M6-A**			
M2-A			
M4-A			
M1-B - M3-B **M5-B - M6-B**			
M2-B			
M4-B			

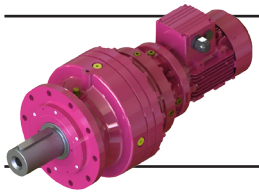
Semboller : / *Symbols :* / Symbole :

■ **:Yağ Boşaltma** / *:Drain Plug* / :Ölauslass

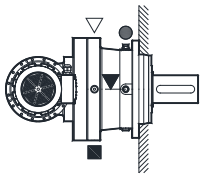
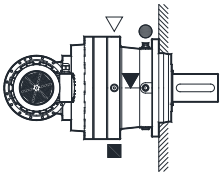
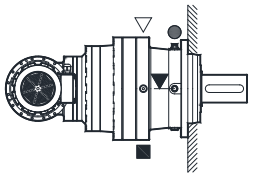
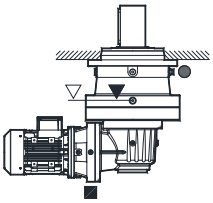
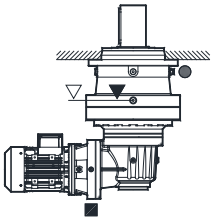
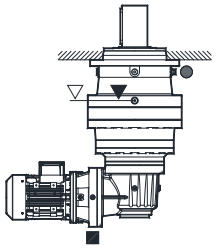
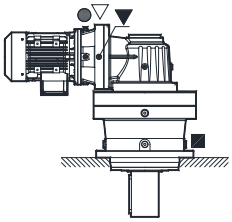
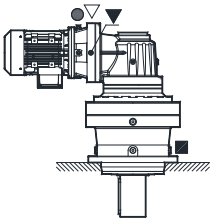
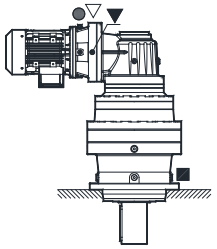
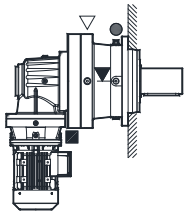
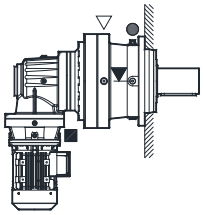
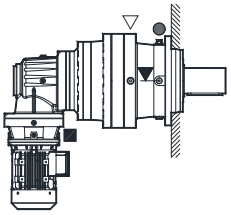
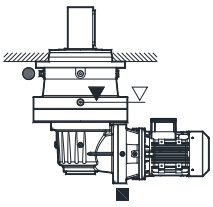
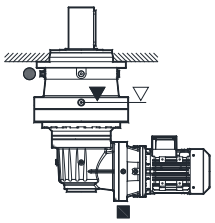
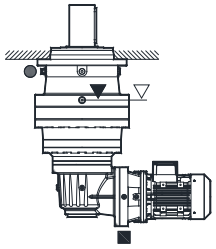
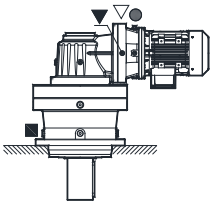
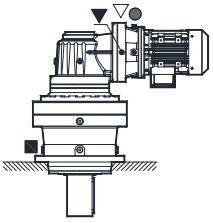
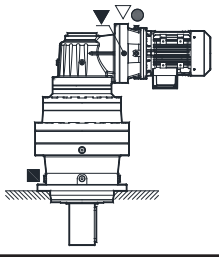
∇ **:Yağ doldurma** / *:Oil Filling* / :Ölfüllung

▼ **:Yağ Seviyesi** / *:Oil Level* / :Ölstand

● **:Havalandırma** / *:Breather* / :Entlüftung



P Serisi K Tipi için Yağ Tapaları / *Oil Plugs for P Series K Type* / Ölverschlussschrauben für P Serie Bauform K

Montaj pozisyonu *Mounting position* Montageposition	**2 Kademe** *2 Stages* 2 Stufen	**3 Kademe** *3 Stages* 3 Stufen	**4 Kademe** *4 Stages* 4 Stufen
M1-C - M3-C **M5-C - M6-C**			
M2-C			
M4-C			
M1-D - M3-D **M5-D - M6-D**			
M2-D			
M4-D			

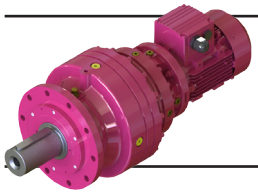
Semboller : *Symbols :* Symbole :

:Yağ Boşaltma
■ *:Drain Plug*
:Ölauslass

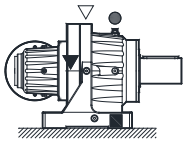
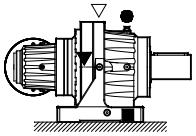
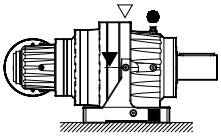
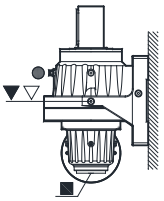
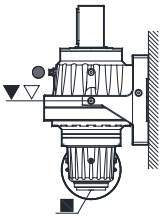
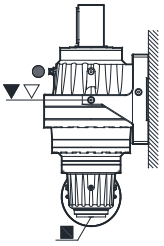
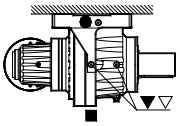
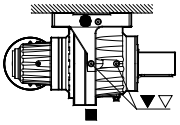
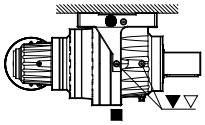
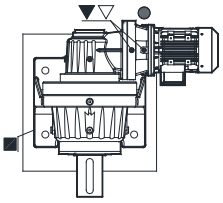
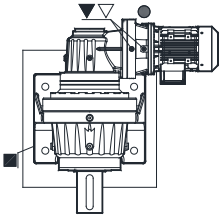
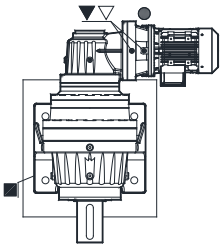
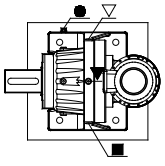
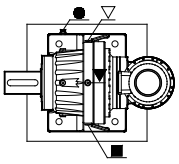
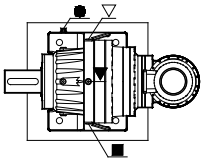
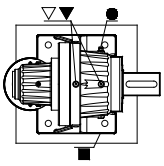
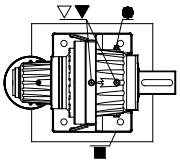
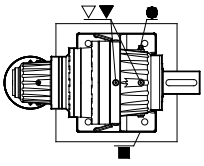
:Yağ doldurma
∇ *:Oil Filling*
:Ölfüllung

:Yağ Seviyesi
▼ *:Oil Level*
:Ölstand

:Havalandırma
● *:Breather*
:Entlüftung



R Serisi K Tipi için Yağ Tapaları / *Oil Plugs for R Series K Type* / Ölverschlussschrauben für R Serie Bauform K

Montaj pozisyonu *Mounting position* Montageposition	**2 Kademe** *2 Stages* 2 Stufen	**3 Kademe** *3 Stages* 3 Stufen	**4 Kademe** *4 Stages* 4 Stufen
M1-A			
M2-A			
M3-A			
M4-A			
M5-A			
M6-A			

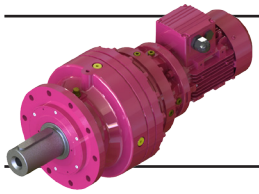
Semboller : / *Symbols :* / Symbole :

:Yağ Boşaltma / ■ *:Drain Plug* / :Ölauslass

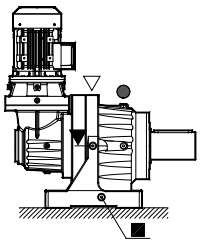
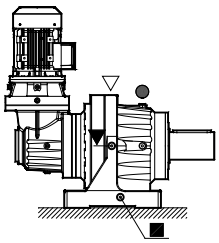
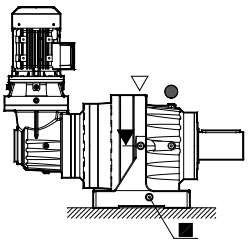
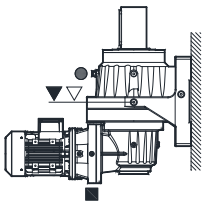
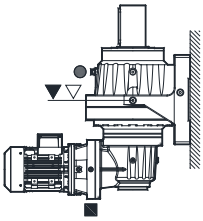
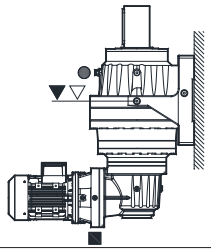
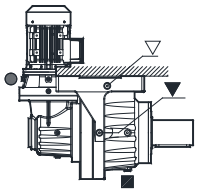
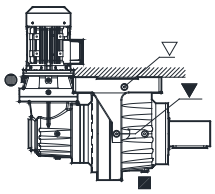
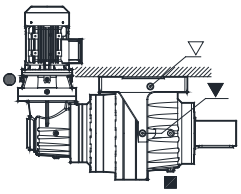
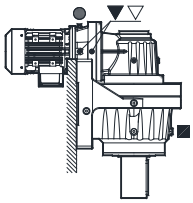
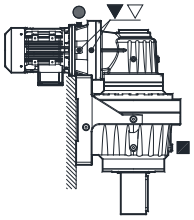
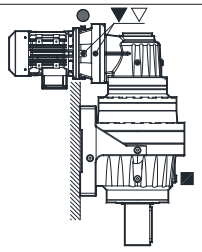
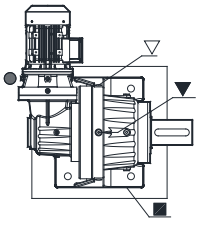
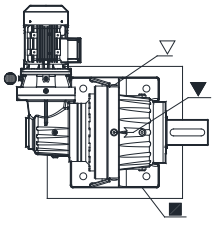
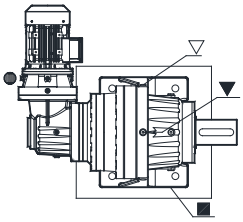
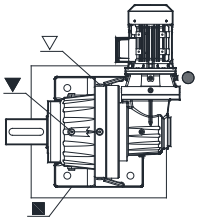
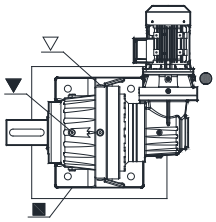
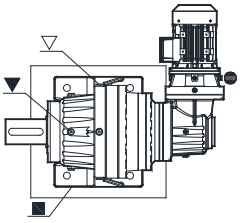
:Yağ doldurma / ∇ *:Oil Filling* / :Ölfüllung

:Yağ Seviyesi / ▼ *:Oil Level* / :Ölstand

:Havalandırma / ● *:Breather* / :Entlüftung



R Seisi K Tipi için Yağ Tapaları / *Oil Plugs for R Series K Type* / Ölverschlussschrauben für R Serie Bauform K

Montaj pozisyonu *Mounting position* Montageposition	**2 Kademe** *2 Stages* 2 Stufen	**3 kademe** *3 Stages* 3 Stufen	**4 kademe** *4 Stages* 4 Stufen
M1-B			
M2-B			
M3-B			
M4-B			
M5-B			
M6-B			

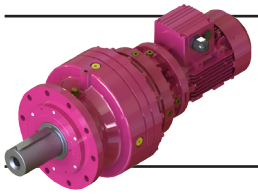
Semboller : / *Symbols :* / Symbole :

:Yağ Boşaltma / *:Drain Plug* / :Ölauslass ■

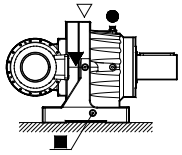
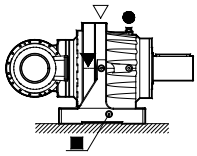
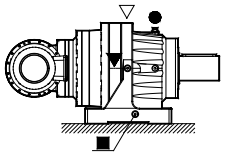
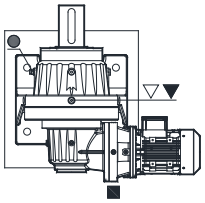
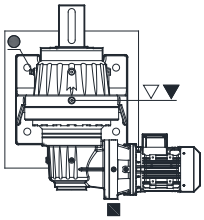
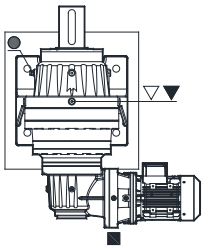
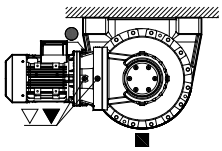
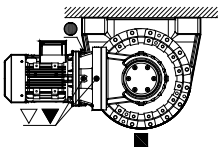
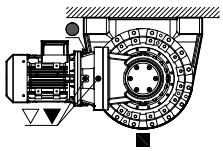
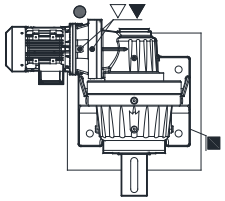
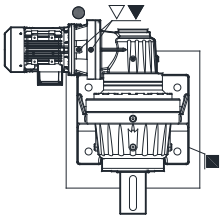
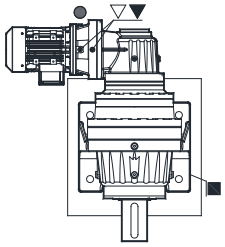
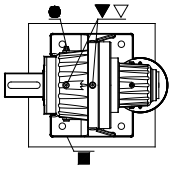
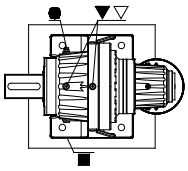
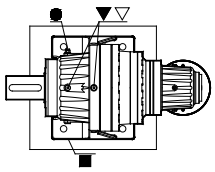
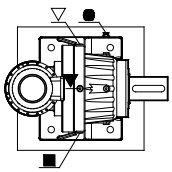
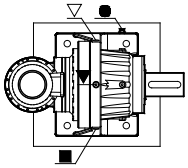
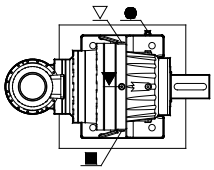
:Yağ doldurma / *:Oil Filling* / :Ölfüllung ∇

:Yağ Seviyesi / *:Oil Level* / :Ölstand ▼

:Havalandırma / *:Breather* / :Entlüftung ●



R Serisi K Tipi için Yağ Tapaları / *Oil Plugs for R Series K Type* / Ölverschlussschrauben für R Serie Bauform K

Montaj pozisyonu *Mounting position* Montageposition	**2 Kademe** *2 Stages* 2 Stufen	**3 Kademe** *3 Stages* 3 Stufen	**4 Kademe** *4 Stages* 4 Stufen
M1-C			
M2-C			
M3-C			
M4-C			
M5-C			
M6-C			

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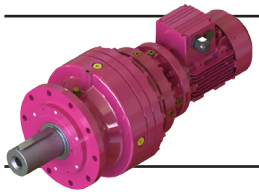
:Yağ doldurma / ∇ *:Oil Filling* / :Ölfüllung

:Yağ Seviyesi / ▼ *:Oil Level* / :Ölstand

:Havalandırma / ● *:Breather* / :Entlüftung



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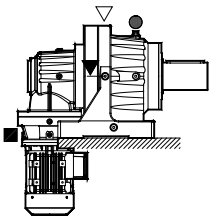
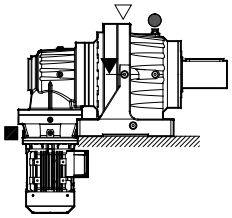
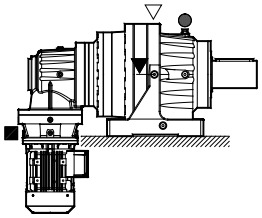
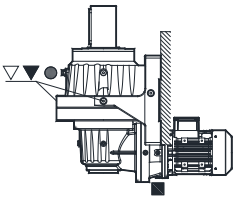
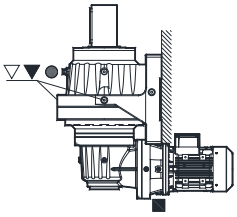
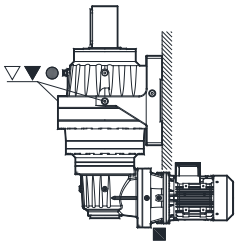
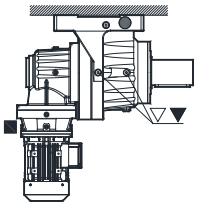
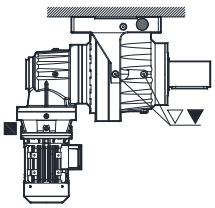
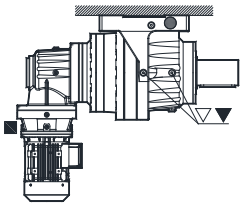
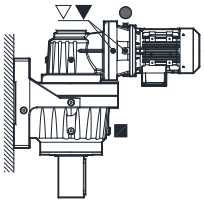
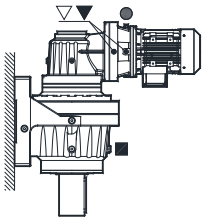
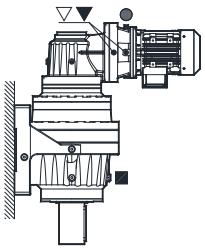
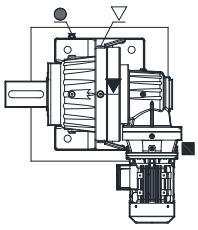
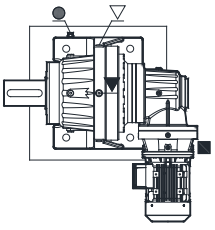
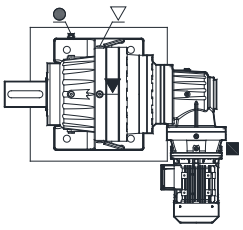
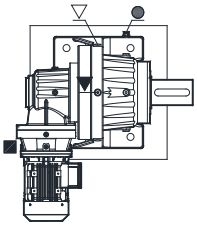
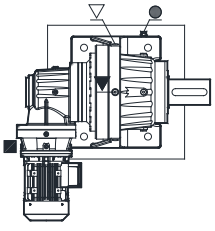
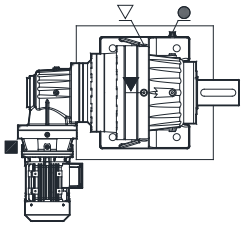
M1-D			
M2-D			
M3-D			
M4-D			
M5-D			
M6-D			

Semboller : *Symbols :* Symbole :

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:Yağ doldurma ∇ *:Oil Filling* :Ölfüllung

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E Serisi Eklemeliler için Yağ Tapaları
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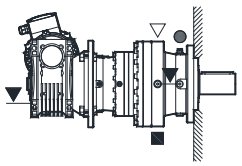
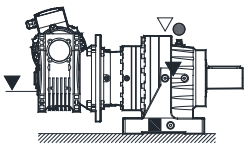
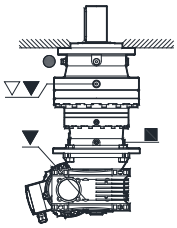
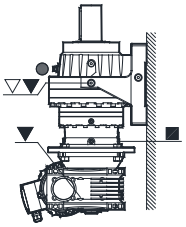
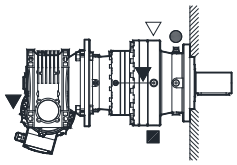
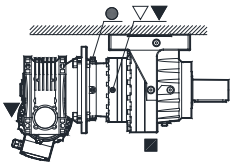
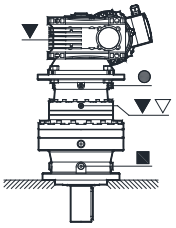
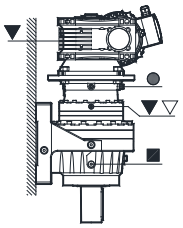
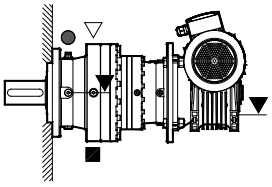
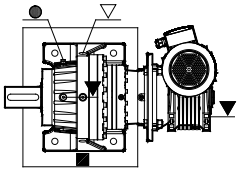
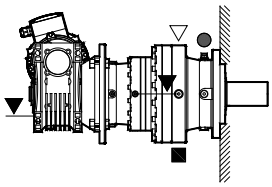
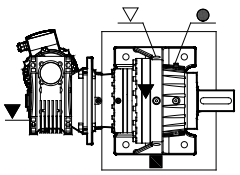
Ölverschlussschrauben für Getriebe verbunden mit E Serie

Montaj pozisyonu *Mounting position* Montageposition	**P Tipi** *P Type* P Typ	**R Tipi** *R Type* R Typ
M1-1		
M2-1		
M3-1		
M4-1		
M5-1		
M6-1		

Semboller : *Symbols :* Symbole :
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E Serisi Eklemeliler için Yağ Tapaları
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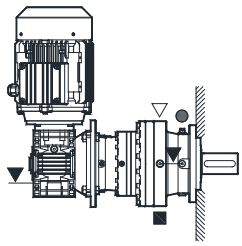
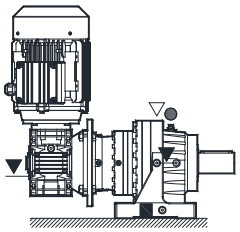
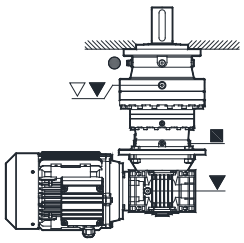
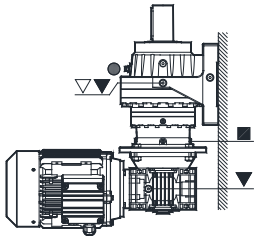
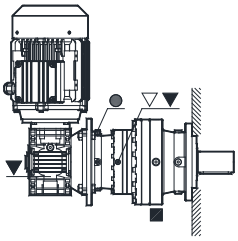
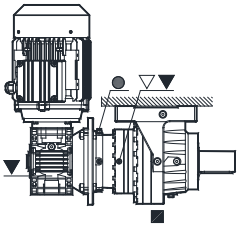
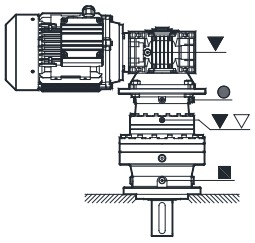
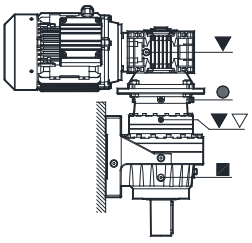
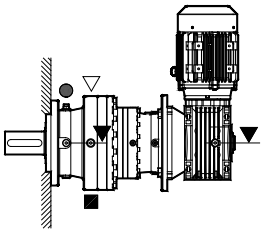
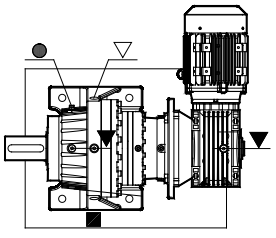
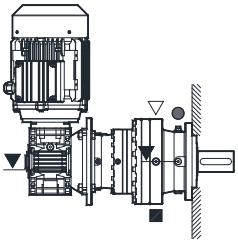
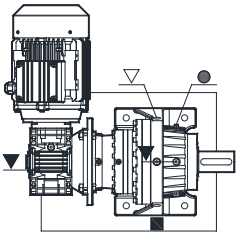
Montaj pozisyonu *Mounting position* Montageposition	**P Tipi** *P Type* P Typ	**R Tipi** *R Type* R Typ
M1-2		
M2-2		
M3-2		
M4-2		
M5-2		
M6-2		

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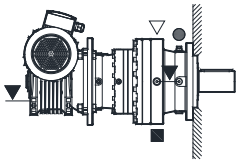
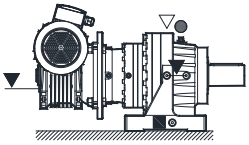
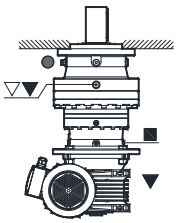
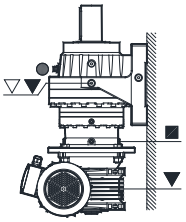
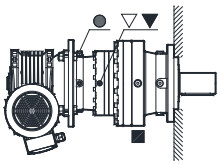
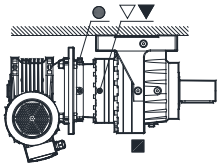
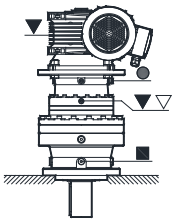
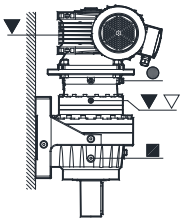
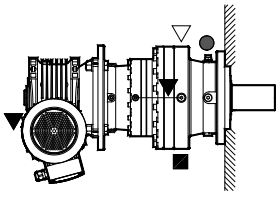
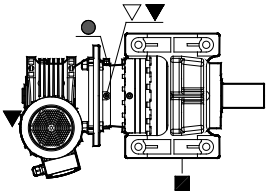
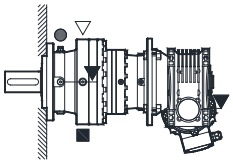
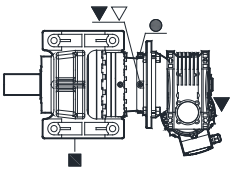
Montaj pozisyonu *Mounting position* Montageposition	**P Tipi** *P Type* P Typ	**R Tipi** *R Type* R Typ
M1-3		
M2-3		
M3-3		
M4-3		
M5-3		
M6-3		

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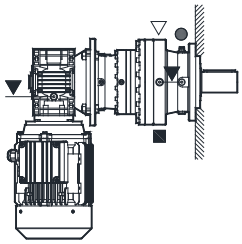
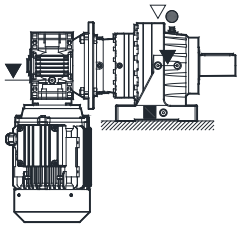
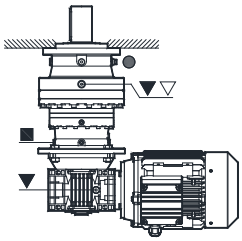
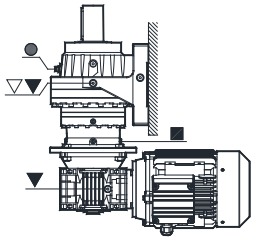
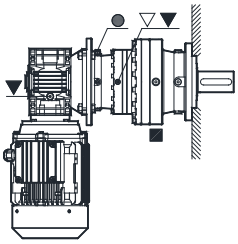
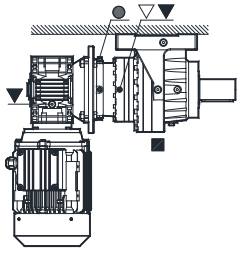
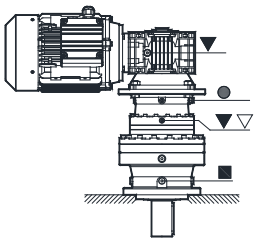
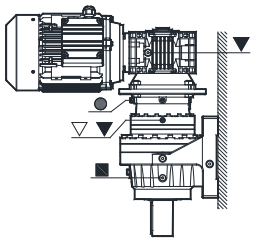
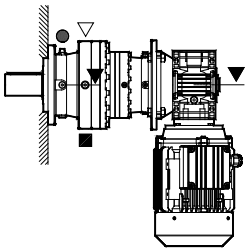
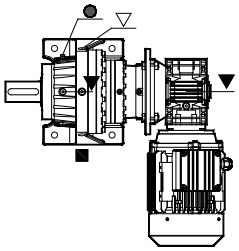
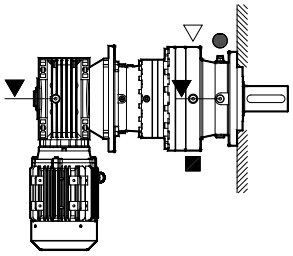
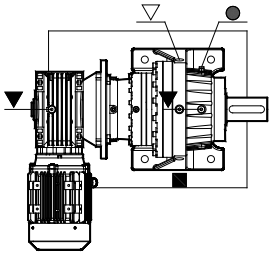
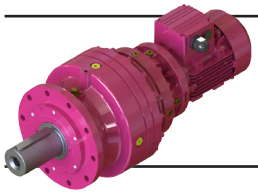
Montaj pozisyonu *Mounting position* Montageposition	**P Tipi** *P Type* P Typ	**R Tipi** *R Type* R Typ
M1-4		
M2-4		
M3-4		
M4-4		
M5-4		
M6-4		

Semboller : *Symbols :* Symbole :
:Yağ Boşaltma ■ *:Drain Plug* :Ölauslass
:Yağ doldurma ∇ *:Oil Filling* :Ölfüllung
:Yağ Seviyesi ▼ *:Oil Level* :Ölstand
:Havalandırma ● *:Breather* :Entlüftung



Yağlama ve Soğutma Ekipmanları

Redüktörlerde farklı montaj şekillerine göre farklı soğutma ve yağlama opsiyonları bulunmaktadır. Aşağıda hangi montaj pozisyonu için hangi ekipmanların seçilebileceği gösterilmiştir. Bu ekipmanlarla ilgili detayları takip eden sayfalarda bulabilirsiniz.
Genleşme tankı özellikle dikey olmak üzere tüm montaj pozisyonları için opsiyonel olarak kullanılabilir. Soğutma seçenekleri eşanjörlü ve radyatörlü soğutma gerektiğinde kullanılmalıdır. Burada soğutma sisteminin termal gücü dikkate alınmalıdır.

A- Yağlama Sistemi

P ve R Serisi redüktörler, çok farklı montaj pozisyonlarında çalışabildiklerinden, farklı yağlama opsiyonları ile birlikte sunulmaktadır. Montaj pozisyonlarına göre önerilen yağlama sistemi takip eden tablolarda gösterilmiştir. Farklı yağlama opsiyonları aşağıda açıklanmıştır.

1- Daldırma Yağlama

M1,M3,M5,M6 konumunda çalışan redüktörlerde standart daldırma yağlama kullanılır ve ilave bir yağlama sistemine ihtiyaç duyulmaz. Yağ seviyesi, tüm dönen elemanlar yağ alabilecek şekilde yükseltilmiştir. Redüktörün uygun yerlerinde doldurma, boşaltma ve seviye tapaları bulunmaktadır.

2- Genleşme Tankı

Redüktör'ün özellikle M2 veya M4 çalışma konumu için önerilen yağlama çözümüdür. Opsiyonel olarak diğer montaj pozisyonlarında da yağlama koşullarını iyileştirme amaçlı kullanılabilir. Bu sistemde, yağ almayan üst rulman ve dişliler, yağ banyosunda çalışacak şekilde yağ seviyesi bir genleşme tankı yardımı ile yükseltilerek yağlanmaktadır.

Genleşme Tankları Kullanımı

M2 ve M4 montaj pozisyonlarında, üstte kalan hareketli elemanları, yağ banyosunda çalıştırabilmek için kullanılır. Tüm büyüklüklerde 0,3 lt' den 4lt' ye kadar atmosferik basınçla çalışan membranlı genleşme tankları kullanılmaktadır. Membranlar yağlar ile etkileşimsiz çalışabilecek şekilde EPDM malzemeden olup, nemli ortamlarda da yağ ve havanın temasını kesmesi nedeni ile kullanılabilmektedir. Teknik resimlerde gösterilen tank pozisyonu şematiktir.Tank, boruların uzatılması vasıtası ile istenilen bir bölgeye taşınabilir. Ancak seviyesi değiştirilemez.

Standart Kapsam:
- 0,3 litre'den 4 litre'ye kadar genleşme tankı
- Yağ dolum borusu

Genleşme tanklı opsiyon seçildiğinde, redüktör üzerine montajlı veya yanında sonradan montaj edilmek üzere genleşme tankı verilir. Genleşme tankının ana ebatları aşağıda verilmiş olup, montaj yerine göre uygun bir noktaya, fabrika tarafından verilen montaj yüksekliği değiştirilmemek sureti ile taşınabilir. Redüktörün tamamı yağ banyosu içinde çalışmaktadır. Yağ dolumu, redüktör üzerinde verilen dolum borusu kullanılarak yapılır. Yağ dolumu veya boşaltılması esnasında, genleşme tankının hemen alt ucunda bulunan hava alma tapası sökülür. Uygun yağ doldurma, boşaltma ve seviye tapaları montaj pozisyonuna göre önceki sayfada verilmiştir.

Lubrication and Cooling Equipments

There are different cooling and lubricating options exist according to different mounting positions on gearboxes. In below shown that which equipments can select according to mounting positions. You can find the detailed informations for this equipments on next pages.
Expansion tank can be optionally used especially by vertical mounting positions and by all mounting positions. Cooling options heat exchanger and oil cooler has to be used if required according to thermal power of cooling unit.

A- Oil Supply System

P und R Series gearboxes can be assembled in various mounting positions. Therefore different kind of oil supply systems is mandatory. The recommended oil supply system according to the mounting positions are shown on the following tables. Different options of oil supplies are explained below.

1- Dip Lubrication

Dip lubrication is used for gearboxes working in M1,M3,M5,M6 positions and there is no need for an additional lubrication system. The oil level plug is arranged so that all gears and bearings get enough oil for good lubrication conditions. Appropriate fill, vent and level plugs are supplied with the standard gear units.

2- Expansion Tank

This system is recommended especially for gearboxes working in M2 or M4 mounting positions. It can also be used in other mounting positions to improve the lubrication condition. With this system the gears and bearings which can not get enough oil supply are bath lubricated by increasing the oil level and an expansion tank is used to control the inner pressure.

Oil Expansion Tanks Usage

Oil expansion tanks are used for bath lubrication of the running elements which are not immersed oil in mounting position M2 and M4 . From 0,3 lt to 4 lt. EPDM membrane expansion tank working in atmospheric pressure is used. The EPDM membrane is capable to work with oils without chemical reactions. Because it separates the oil from the air it is also possible to use it in high humidity places. The positions of the expansion tanks on the technical drawings are illustrations. The tank can be placed somewhere else by lengthening the supplied hydraulic hoses without changing the mounting height.

Scope of Delivery:
- *From 0,3 lt to 4 lt capacity oil expansion tank*
- *Oil filling pipe*

Oil expansion tanks are supplied assembled on the gearbox or supplied separately for assembling afterwards. The main dimensions of the oil expansion tank are given bellow. The oil expansion tanks can be placed in a suitable position in the mounting area without changing the given height from the factory. The gearbox is completely bath lubricated. The oil filling must be done with the given filling pipe on the gearbox. For oil filling or draining the air outlet plug must be screwed out. The filling, draining, vent and air outlet plug locations are shown in the illustrations on the previous page.

Schmierungs- und Kühlungszubehör

Es gibt verschiedene Schmierungs- und Kühlungsoptionen entsprechend der Montageposition. Die unten angegebenen Tabellen zeigen, welche Zubehör für welche Bauform geeignet ist. Für genauere Information sehen sie bitte die nachfolgenden Seiten.
Ölausgleichbehälter können wahlweise besonders bei senkrechten Montagepositionen oder auch bei anderen Montagepositionen verwendet werden. Wasser/Öl Wärmetauscher und Luft Wärmetauscher soll, falls nötig, benutzt werden. Dabei soll an die thermische Kapazität des Kühlers beachtet werden.

A- Ölversorgung

Die Getriebe der P und R Serien können mit sehr verschiedenen Montagevarianten montiert werden. Deshalb sind verschiedene Ölversorgungen verfügbar. Empfehlung für verschiedene Ölversorgungen in Abhängigkeit von Montagepositionen sind in den nachfolgenden Tabellen angegeben. Unten sind verschiedenen Ölversorgungen erklärt.

1- Tauchschmierung

Getriebe in Montageposition M1,M3,M5,M6 sind mit Tauchschmierung geschmiert und Druckschmierung ist nicht nötig. Die Ölstandschraube ist so gewählt, dass alle zu schmierenden Elemente in Ölbad sind. Ölablass-, Ölstand- und Ölfüllschrauben sind Standard für alle Getriebe.

2- Ölausgleichbehälter

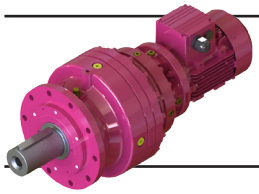
Der Ölausgleichbehälter ist empfohlen für Getriebe in M2 oder M4 Montagepositionen. Er kann auch für andere Montagepositionen benutzt werden, um die Ölversorgung zu verbessern. Bei diesem System liegen alle zu schmierenden Elemente in Öl und ein Ölausgleichbehälter ist für die innere Ausdehnung des Öles angeschraubt.

Benutzung der Ölausgleichbehälter

Ölausgleichbehälter sind bei Montagepositionen M2 und M4 zu benutzten, damit die obere bewegliche Teile auch im Ölbad arbeiten. Für alle Getriebebaugrößen wird Ölausgleichbehälter mit EPDM Membrane zwischnen 0,3 Liter und 4 Liter Volumen verwendet. EPDM Membrane können ohne Reaktion mit Öl arbeiten. Weil das Öl nicht mit der Luft in Kontakt kommt, kann das System in feuchten Umgebungen verwendet werden. Die Positionen des Behälters auf den Zeichnungen sind nur Beispiele. Die Benutzung des Behälters ist an den anderen Orten mittels Rohrverlängerung, ohne Veränderung der Montagehöhe, zulässig.

Lieferumfang:
- Ölausgleıchbehälter zwischen 0,3 l und 4l
- Ölfüllungsrohr

Der Ölausgleichbehälter kann an dem Getriebe montiert oder separat für Nachmontage geliefert werden. Die Hauptmaßen sind unten angegeben. Der Ölausdehnungstank kann an anderen Orten montiert werden, ohne die Montagehöhe zu verändern. Das Getriebe arbeitet komplett im Ölbad. Die Ölfüllung erfolgt mit Hilfe des vorhandenen Füllüngsrohres. Für Ölfüllung oder Ölauslass muss die Luftaustritschraube gelöst werden. Positionen der Luftaustrittschrauben und Ölfüllung-, Ölauslass- und Entlüftungsteilen sind auf der vorherige Seite dargestellt.



Genel Bilgiler
General Information
Einführung

Genleşme Tankı Hesabı:

Isı arttıkça redüktörün içindeki yağ hacmi artar. Bazı durumlarda redüktörün iç hacmi bu genleşmeyi dengelemeye yeterli olmayabilir. Böyle bir durumda redüktörün içindeki basınçların tehlikeli seviyelere çıkmaması için genleşme tankı kullanılabilir. Diğer taraftan dikey montajlarda yer çekiminden dolayı üst bölgedeki makina parçaları yeterince yağlanmayabilir. Dolayısıyla genleşme tankı bu durum için iyi bir çözümdür. Genleşme tankı hacmini belirlemek için çalışma sıcaklığında yağın ne kadar genleştiğini bilmek gerekir. Pratik olarak aşağıdaki formülden genleşme hacmi bulunabilir:

$$V_{Ex} = \frac{V_O \times \Delta T}{1000}$$

V_O.....: Toplam yağ hacmi
V_{Ex}.....: Çalışma sıcaklığında yağ hacmi
ΔT.....: Çevre sıcaklığı ile çalışma sıcaklığı arasındaki fark

$$V_T = 2 \times V_{Ex}$$

Genleşme tankı hacmi V_T buradan elde edilebilir.
Yetersiz yağlamanın bir sebebide örneğin yağ dolum aşamasında redüktörde sıkışan hava kabarcığıdır. Dikey montajlanan redüktörün en üst kısmı ile genleşme tankının üst bağlantısı birleştirilirken bu sıkışan hava kabarcığı boşaltılmış olur.

B- Soğutucu Seçimi

P Serisi redüktörler, yüksek güç yoğunluklu kompakt redüktörlerdir. Bu nedenle termik güçler çok büyük önem kazanmaktadır. Redüktörlerin termik güçleri, güç devir tablolarında farklı ortam sıcaklıkları ve farklı soğutucu seçenekleri için verilmiştir. Bu tablolardaki termik güçler, deniz seviyesinde, 1,25 m/sn ve 4 m/sn hava hızı, verilen ortam sıcaklığı şartlarında, redüktör yağ sıcaklığı 90 °C 'yi aşmayacak şekilde ve f_s=1 şartı için verilmiştir. Farklı hava hızları ve ortam koşulları için, redüktör seçiminde anlatılan katsayılar dikkate alınır. Nominal gücün, termik gücün üzerinde kaldığı durumlarda tablolardan soğutucu alternatiflerine bakılmalıdır. Aşağıda soğutucu alternatifleri açıklanmıştır.

a- Ek Soğutmasız
Redüktörde ilave bir soğutma yoktur. Redüktör yüzeyinden ısıyı dış ortama transfer ederek soğumaktadır.
b- Eşanjör Soğutmalı
Redüktör dışına yerleştirilmiş eşanjör içerisinden su geçirilmek şartı ile redüktör soğutulmaktadır. Tablolarda verilen değerler, takip eden sayfada resimlerin altında verilen minimum su debisi ve maksimum su giriş sıcaklığı için geçerlidir.

c- Radyatör Soğutmalı
Redüktör dışına yerleştirilmiş fanlı radyatör ile redüktör soğutulmaktadır. Su temin edilemeyen yerler için ideal çözümdür.
d- Diğer Seçenekler
Soğutucu seçeneklerinin herbiri farklı yağlama sistemleri ile kombine edilebilir. Filtre, basınç sensörü, akış sensörü, ısıtıcı, termal sensör gibi aksesuarlar istek üzerine konulur.

Expansion Tank Calculation:

With the temperature the volume of oil increases in gearbox. In some cases, the internal volume of the gear is not sufficient to match this expansion. The usage of expansion tank eliminates dangerous oil pressures in the gearbox. On the other hand, the lubrication of upper parts of vertical mounted gear possibly not enough because of the gravitational acceleration. Expansion tank is also the solution for this cases. To determine the necessary volume of the expansion tank, the expansion volume of the oil at operating temperature has to be known. Practically, it can be calculated by the following formula:

$$V_{Ex} = \frac{V_O \times \Delta T}{1000}$$

V_O.....: Total volume of oil
V_{Ex}.....: Volume expansion in the operation
ΔT.....: Difference between operating and ambient temperature

$$V_T = 2 \times V_{Ex}$$

The volume of the expansion tank V_T can be determined from this. One reason for insufficient lubrication is the air bubble, which may arise while filling for example, in gearbox. When connecting the top of the vertically mounted gearbox with upper connection of the expansion tank residual air is vented.

B- Cooling Unit Selection

P Series gearboxes are high power density products. Therefore the thermal rating of the products is very important. The thermal capacities are given on the performance tables for different ambient temperatures and for different cooling options. The thermal capacities on the tables are valid for 1,25 m/sec and 4 m/sec wind velocity, by sea level and by the given ambient temperatures and for service factor f_s=1 so that the oil temperatures does not exceed 90 ^{0}C. For different ambient conditions refer to the factors given by the gearbox selection section. If the thermal capacity of the gearbox is lower then the nominal power of the gearbox, alternative cooling systems should be checked. Different cooling options are explained below.

a- Without additional cooling
No additional cooling unit is used. The gearbox transfers its heat to the air with its outer surface.

b- Heat Exchanger
An external heat exchanger connected to the gearbox is cooling the unit by the help of water passing through the heat exchanger. The values on the tables are only valid if the given minimum water flow is reached and the maximal inlet water heat is not exceeded.
c- Air Heat Exchanger
The gear unit is cooled with an air heat exchanger with integrated motor pump. Suitable for areas where no water supply is available.
d- Other Options
All the cooling options can be combined with different oil supply options. Accessories like filters, pressure or flow switches, heaters, and thermal switches can be combined according to request.

Berechnung des Ölausgleichbehälters

Mit steigender Temperatur erhöht sich das Ölvolumen im Getriebe. In machen Fällen ist das innere Volumen der Getriebe nicht ausreichend, um diese Ausdehnung abzugleichen. Man kann ein Ölausgleichbehälter benutzen, damit das Öldruck im Getriebe nicht gefährlich wird. Andererseits beim vertikalen Montage kann die Schmierung von oberen Teilen nicht genügend sein, da das Schmierstoff wegen der Erdbeschleunigung nicht bis dahin gelingt. Dabei verwendet man auch Ölausgleichbehälter. Um das Volumen des Behälters zu bestimmen, muss das Ausdehnungsvolumen des Öls bei Betriebstemperatur berechnet werden. Praktisch kann es durch folgendes Formel berechnet werden:

$$V_{Ex} = \frac{V_O \times \Delta T}{1000}$$

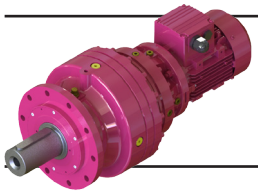
V_O.....: Gesamtes Ölvolumen
V_{Ex}.....: Ausdehnungsvolumen beim Betrieb
ΔT.....: Unterschied zwischen Betriebs- und Umgebungstemperatur

$$V_T = 2 \times V_{Ex}$$

Das Volumen des Ölausgleichbehälters V_T kann daraus ermittelt werden. Ein Grund für nicht ausreichende Schmierung kann die Luftblase, die während z.B. des Füllens entstehen kann, im Getriebe sein. Bei der Verbindung das oberste Loch des vertikal montierten Getriebe mit oberen Verbindung des Ölausgleichbehälters wird dieser Restluft entlüftet.

B- Kühlerauswahl

Getriebe der P Serie sind auf hohe Leistungsdichte optimierte Produkte. Darum ist die thermische Leistung sehr wichtig. Die thermischen Leistungen für verschiedene Kühlungsmöglichkeiten und verschiedene Umgebungstemperaturen sind auf den Leistung und Drehzahl Tabellen angegeben. Die Werte sind für 1,25 m/s und 4 m/s Windgeschwindigkeit, in Seespiegelhöhe und bei angegebener Umgebungstemperatur so gewählt, dass die Öltemperatur unter 90 °C bleibt. Für andere Umgebungsbedingungen beachten Sie bitte die angegeben Faktoren bei der Getriebeauswahl. Wenn die thermische Leistung niedriger als die Nennleistung ist, muss eine bessere Kühlmöglichkeit ausgewählt werden. Unten sind die verschiedenen Kühlungsmöglichkeiten erklärt.
a- Ohne zusätzliche Kühlung
Eine separate Kühlung ist nicht vorhanden. Die Wärmeenergie wird von der Gehäuseoberfläche abgeführt.
b- Wärmetauscher
Ein separater Wärmetauscher kühlt das Getriebe mit Hilfe des Wassers, das durch den Wärmetauscher fließt. Die angegebenen Werte auf den Tabellen sind nur gültig, wenn die maximale Wassereintrittstemperatur nicht überschritten und die minimale Wassermenge unterschritten ist.
c- Luftwärmetauscher
Ein separater Luftwärmetauscher mit der Motorpumpe kühlt das Getriebe. Bestens geeignet für die Stellen, wo keine Wasserversorgung da ist.
d- Andere Möglichkeiten
Alle oben genannten Kühlungsmöglichkeiten können mit fast allem Ölversorgungsmöglichkeiten kombiniert werden. Filter, Druckwächter, Flusswächter, Einschraubheizkörper, Temperaturwächter sind nach Kundenwunsch lieferbar.

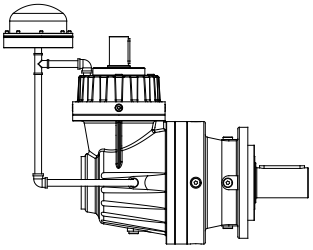
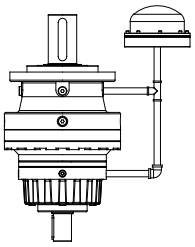
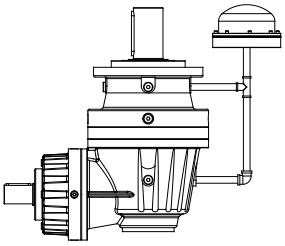
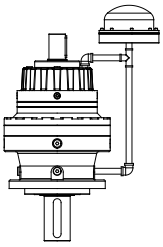
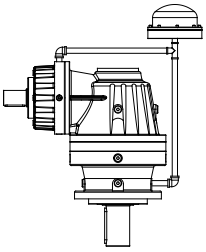


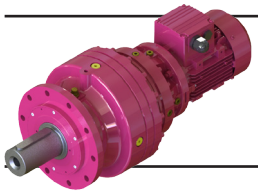
Genleşme Tankı Seçimi / *Expansion Tank Selection* / Wahl des Ölausgleichbehälters

Redüktör Tipi *Gearbox type* Getriebeart	**Kademe** *Stage* Stufe	**M1 Montaj Pozisyonu için** *For M1 Mounting Position* *Für Montageposition M1*	**M2 Montaj Pozisyonu için** *For M2 Mounting Position* *Für Montageposition M2*	**M4 Montaj Pozisyonu için** *For M4 Mounting Position* *Für Montageposition M4*
P11 R11	**1**	GT1	GT1	GT1
	2	GT1	GT1	GT1
	3	GT1	GT1	GT1
	4	GT1	GT1	GT1
P12 R12	**1**	GT1	GT1	GT1
	2	GT1	GT1	GT1
	3	GT1	GT1	GT1
	4	GT1	GT1	GT1
P15 R15	**1**	GT1	GT1	GT1
	2	GT1	GT1	GT1
	3	GT1	GT1	GT2
	4	GT1	GT2	GT2
P16 R16	**1**	GT1	GT1	GT1
	2	GT1	GT2	GT2
	3	GT1	GT2	GT2
	4	GT1	GT2	GT2
P19 R19	**1**	GT2	GT2	GT2
	2	GT2	GT2	GT2
	3	GT1	GT2	GT3
	4	GT2	GT3	GT3
P23 R23	**1**	GT2	GT2	GT3
	2	GT2	GT3	GT4
	3	GT3	GT4	GT4
	4	GT3	GT4	GT4
P24 R24	**1**	GT2	GT3	GT3
	2	GT2	GT4	GT4
	3	GT3	GT4	GT4
	4	GT3	GT4	GT4
P27 R27	**1**	GT4	GT4	GT4
	2	GT4	GT4	GT4
	3	GT4	GT4	GT4
	4	GT4	GT4	GT4
P29 R29	**2**	GT4	GT4	GT4
	3	GT4	GT4	GT4
	4	GT4	GT4	GT5
P35 R35	**2**	GT4	GT5	GT5
	3	GT4	GT5	GT5
	4	GT5	GT5	GT5

Genleşme Tankı Kapasite [l] *Expansion Tank Capacity [l]* Ölausgleichbehältervolumen [l]	**Kodu** *Code* Kode	**Genleşme Tankı Kapasite [l]** *Expansion Tank Capacity [l]* Ölausgleichbehältervolumen [l]	**Kodu** *Code* Kode
0,3	GT1	2,4	GT4
0,6	GT2	4	GT5
1,2	GT3		

Yağlama Seçenekleri / *Oil Supply Options* / Ölversorgungsarten

Montaj Poz. *Mounting Pos.* Bauform	**Genleşme Tankı (L Tipi)** *Expansion Tank (L Type)* Ölausgleichbehälter (L Typ)	**Genleşme Tankı (K Tipi)** *Expansion Tank (K Type)* Ölausgleichbehälter (K Typ)
M1	**Uygulanmaz** *Not Applicable* Nicht Geeignet	
M2		
M3	**Uygulanmaz** *Not Applicable* Nicht Geeignet	**Uygulanmaz** *Not Applicable* Nicht Geeignet
M4		
M5	**Uygulanmaz** *Not Applicable* Nicht Geeignet	**Uygulanmaz** *Not Applicable* Nicht Geeignet
M6	**Uygulanmaz** *Not Applicable* Nicht Geeignet	**Uygulanmaz** *Not Applicable* Nicht Geeignet



Genel Bilgiler
General Information
Einführung

Eşanjörlü Soğutma (Bağımsız Pompalı)

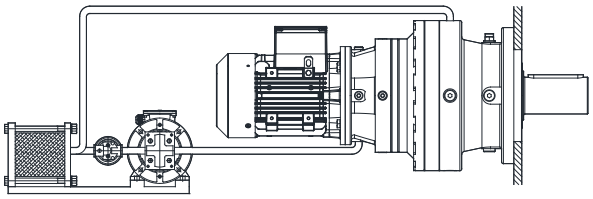
Bakım kolaylığı açısından en iyi soğutma çözümlerinden biri bağımsız su/yağ eşanjörüdür. Tüm montaj pozisyonlarına uygulanabilir. Kullanılacağı yerde soğutma suyu bulunması gerekir. Bu soğutma şekli aşağıdaki şematik resimlerde gösterilmiştir.

Water/Oil Heat Exchanger (External Motorpump)

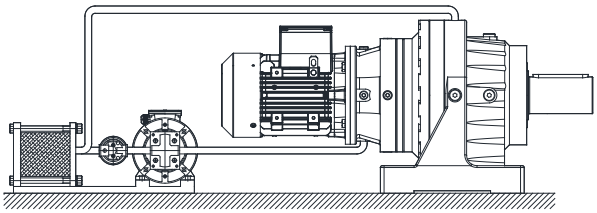
This kind of cooling system is best solution for cooling because of the easy handling and service. It is available for all mounting positions. In order to use this system cooling water must be available. Illustrations are shown below for this kind of cooling system.

Waser/Öl Wärmetauscher (externer Pumpenmotor)

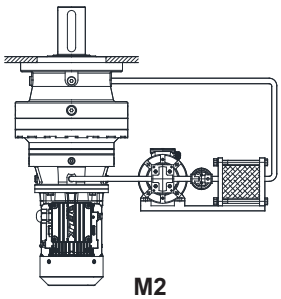
Dieses Kühlsystem ist zu bevorzugen gegenüber der Kühlschlange wegen der leichten Wartung. Es ist verfügbar für alle Montagepositionen. Kühlwasser muss vorhanden sein. Beispiele für Getriebe mit Wasser/Öl Wärmetauscher und externer Pumpe sind unten angegeben.



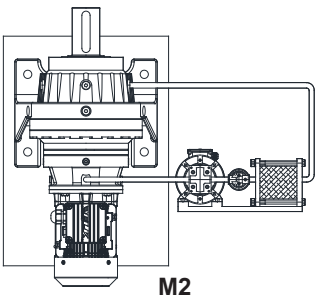
M1



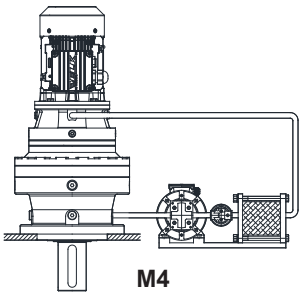
M1



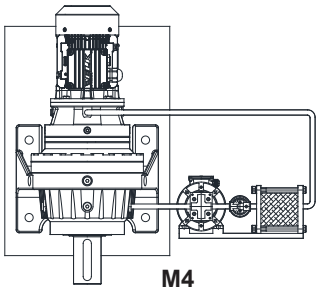
M2



M2



M4



M4

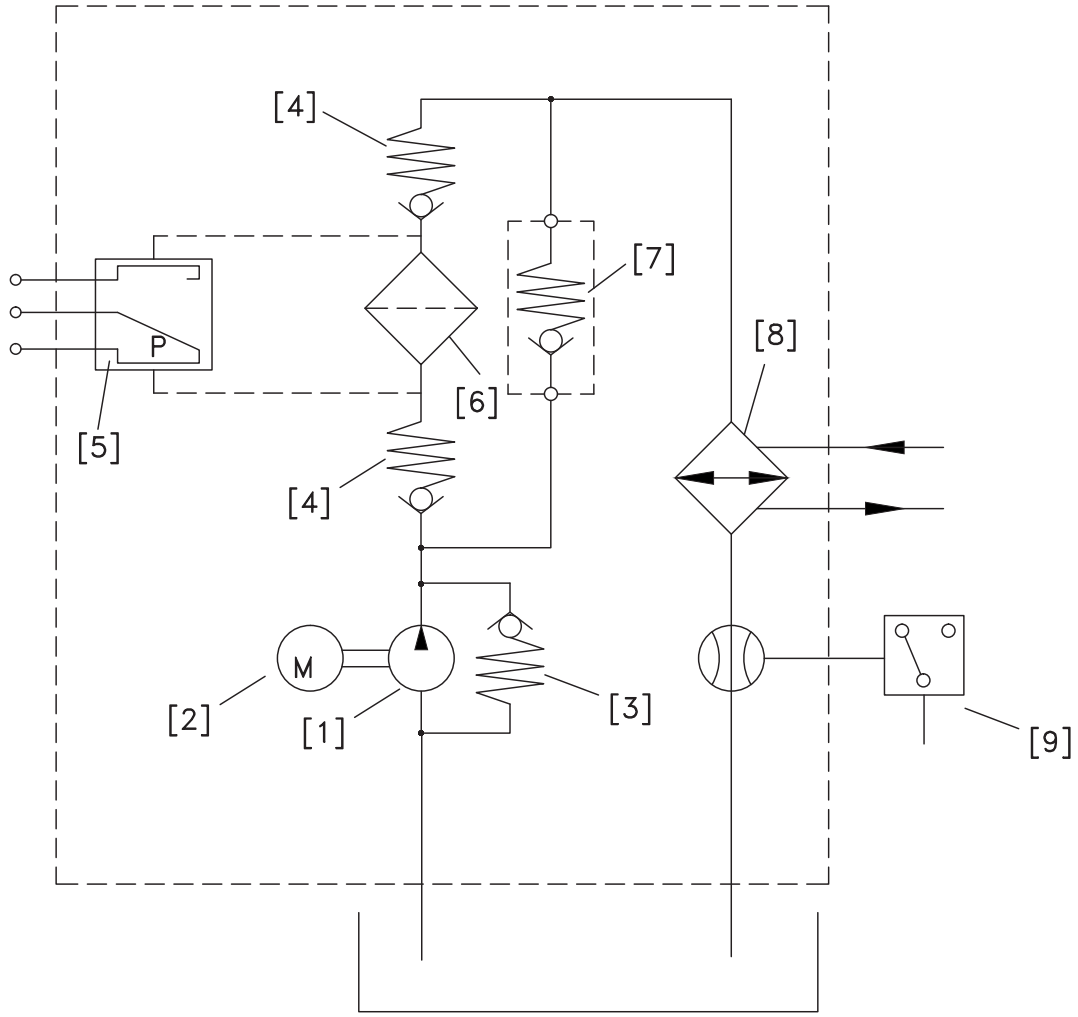
Eşanjör Tipi* *Heat Exchanger Type** Warmetauscher Typ*	**Soğutma Gücü [kW]** *Cooling Capacity [kW]* Kühlleistung [kW]	**Yağ Debisi [l/dak]** *Oil Flow [l/min]* Öl-Durchflussmenge [l/min]	**Pompa Motor Gücü [kW]** *Pump Motor Power [kW]* Pumpenmotorleistung [kW]	**Min. Soğ. Suyu Debisi [lt/dak]** *Min. Cooli. Water flow [lt/min]* Kühlwasserdurchflussmenge [l/min]
E1	1,5	5,6	0,25	2,2
E2	3,0	5,6	0,25	5,6
E3	5,0	11,5	0,37	7,2
E4	10	22,4	0,75	14
E5	20	46,2	1,5	29
E6	30	72,8	2,2	43
E7	45	98	3,0	65

*** Maksimum soğutma suyu giriş sıcaklığı 30 °C olmalıdır.**
** Maximum inlet temperature of cooling water can be 30 °C.*
* Maximale Wassereintrittstemperatur ist 30 °C.

Hidrolik Devre Diyagramı
Eşanjörlü Soğutma (Bağımsız Pompalı)

Flow Diagram
Water/Oil Heat Exchanger with External Motorpump

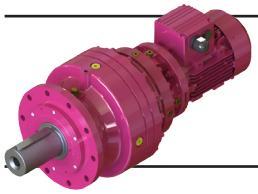
Hydraulikflussplan
Wasser/Öl Wärmetauscher mit externem Pumpenmotor



1- Bağımsız pompa
2- Pompa motoru
3- 3 bar basınç valfi
4- Bypas valfi (opsiyonel)
5- Basınç fark ledi (opsiyonel)
6- 20 µ yağ filtresi
7- Bypas valfi (opsiyonel)
8- Plakalı su/yağ eşanjörü
9- Akış sivici (opsiyonel)

1- External pump
2- Pump motor
3- 3 bar pressure valve
4- Bypass valve (option)
5- Pressure differential led (option)
6- 20 µ oil filter
7- Bypass valve (option)
8- Water/oil plate heat exchanger
9- Flow switch (option)

1- Externe Pumpe
2- Pumpenmotor
3- 3 bar Druckbegrezungsventil
4- Bypassventil (wählbar)
5- Diferenzialdruckalarm (wählbar)
6- 20 µ Ölfilter
7- Bypassventil (wählbar)
8- Wasser/Öl Plattenwärmetauscher
9- Durchflussschalter (wählbar)



Genel Bilgiler
General Information
Einführung

Radyatörlü Soğutma (Bağımsız Pompalı)

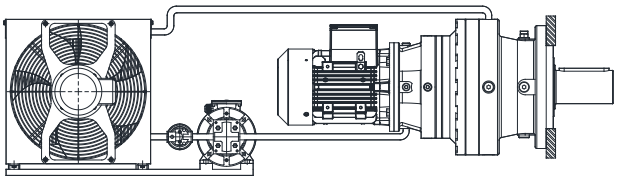
Su soğutma imkanının olmadığı yerlerde kullanılan hava/su soğutucu sistemidir. Tüm montaj pozisyonlarında, giriş devrinden ve dönüş yönünden bağımsız kullanılabilir. Kullanılacağı yer aşırı tozlu veya yağ buharlı olmamalıdır.

Air/Oil Heat Exchanger (External Motorpump)

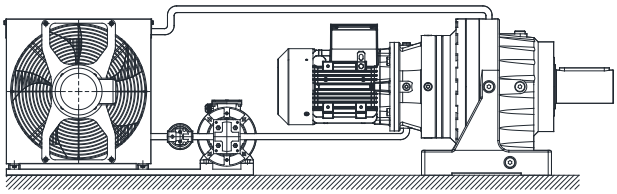
This kind of cooling system is preferred if there is no cooling water supply. It is available for all mounting positions and can be used independent from input speed and rotation of direction. It is not advised to use in very dusty or oil vapor polluted environments. Illustrations are shown below for this kind of cooling system.

Luft/Öl Wärmetauscher (externem Pumpenmotor)

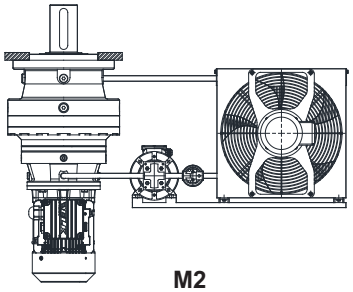
Dieses Kühlsystem ist zu bevorzugen, wo keine Kühlwasserversorgung möglich ist. Es ist verwenbar für alle Montagepositionen und kann unabhängig von Antriebswellendrehzahl und Drehrichtung benutzt werden. Luft/Öl Wärmetauscher sind für staubige oder Öldampf haltige Umgebungen nicht zu empfehlen. Der Eintritt des sauberen Luftes muss gewährleistet werden. Beispiele für Getriebe mit Luft/Öl Wärmetauscher sind unten angegeben.



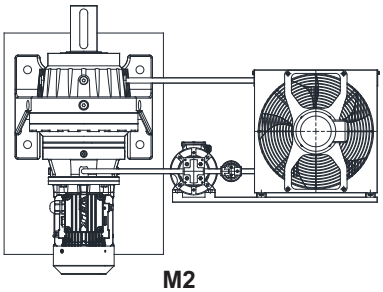
M1



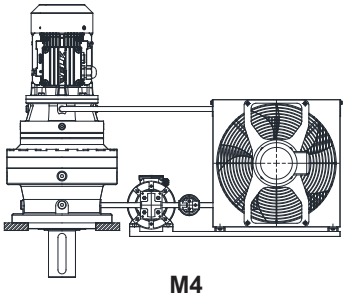
M1



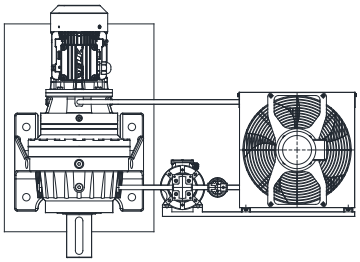
M2



M2



M4



M4

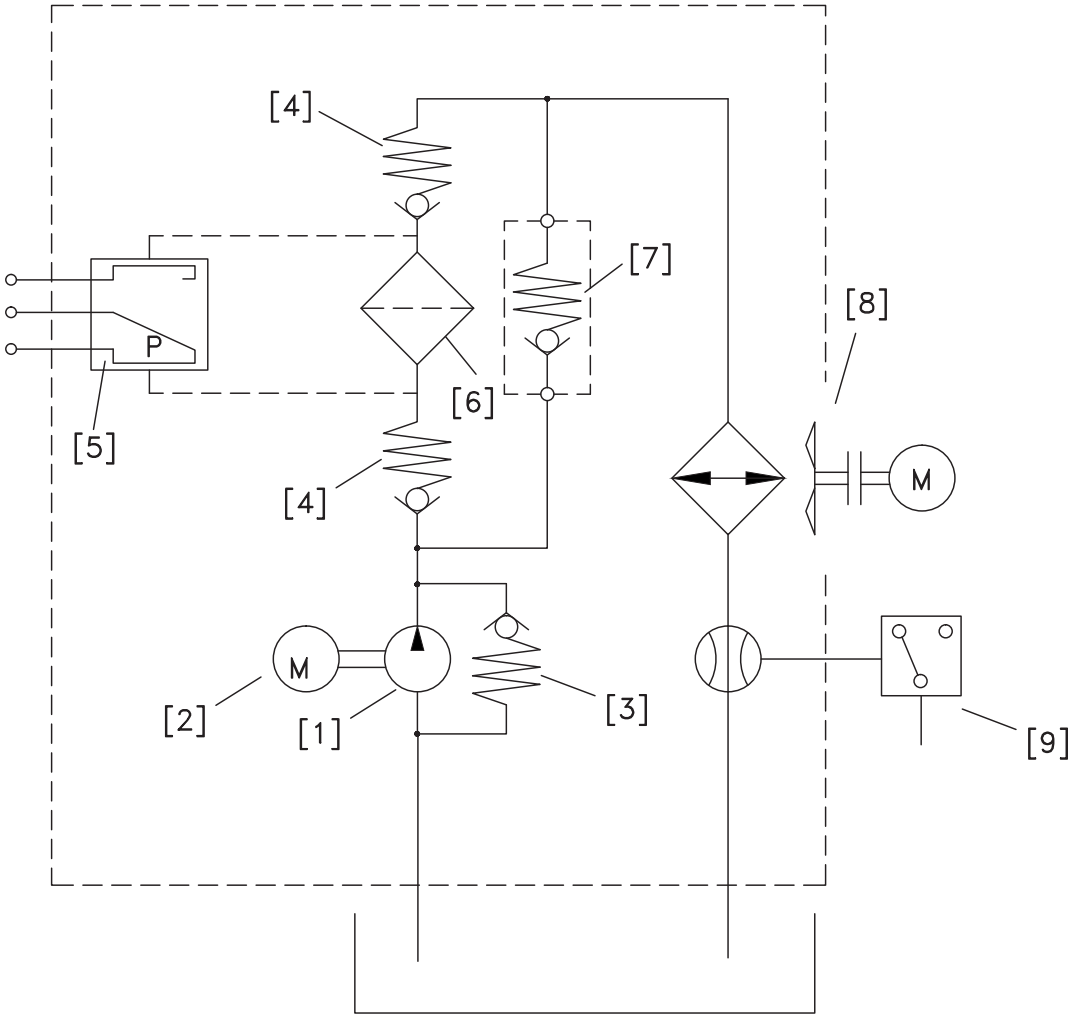
Radyatör Tipi *Air/Oil Exchanger Type* Luft-Öl Wärmetaucher	**Soğutma Gücü [kW]*** *Cooling Capacity [kW]** Kühlleistung [kW]*	**Yağ Debisi [lt/dak]** *Oil flow [lt/min]* Öl Durchflussmenge [l/min]	**Pompa Motor Gücü [kW]** *Pump Motor Power [kW]* Pumpenmotorleistung [kW]
R1	6	62	2,2
R2	9,5	62	2,2
R3	17,5	98	3,0
R4	25	98	3,0
R5	29,5	98	3,0

*** Değerler 20°C çevre sıcaklığına göre verilmiştir.**
** Values are valid for 20°C ambient temperature.*
* Die Werte sind gultig für 20°C Umgebungstemperatur.

Hidrolik Devre Diyagramı
Radyatörlü Soğutma (Bağımsız pompalı)

Flow Diagram
Air/Oil Heat Exchanger with External Motorpump

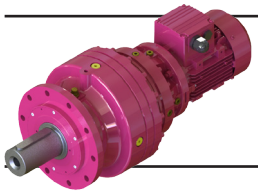
Hydraulikflussdiagramm
Luft/ÖI Wärmetauscher mit externem Pumpenmotor



1- Bağımsız pompa
2- Pompa motoru
3- 3bar basınç valfi
4- Bypas valfi (opsiyonel)
5- Basınç fark ledi (opsiyonel)
6- 20 µ yağ filtresi
7- Bypas valfi (opsiyonel)
8- Hava/yağ eşanjörü
9- Akış sivici (opsiyonel)

1- External pump
2- Pump motor
3- 3bar pressure valve
4- Bypass valve (option)
5- Pressure differential led (option)
6- 20 µ oil filter
7- Bypass valve (option)
8- Air/oil heat exchanger
9- Flow switch (option)

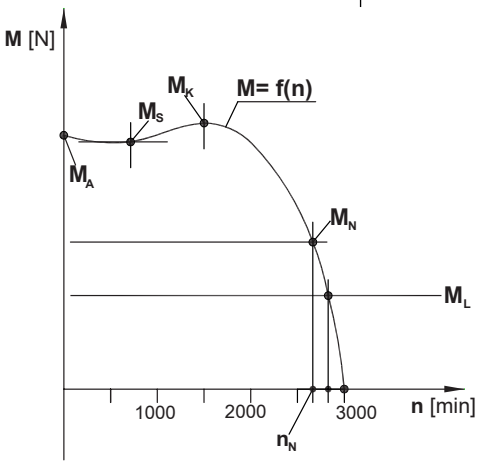
1- Externe Pumpe
2- Pumpenmotor
3- 3bar Druckbegrezungsventil
4- Bypassventil (Option)
5- Diferenzialdruckalarm (Option)
6- 20 µ Ölfilter
7- Bypassventil (Option)
8- Luftwärmetauscher
9- Durchflußschalter (Option)



MOTORLAR
AC Motorlar
a- Genel Özellikler:
Basit konstrüksiyonlu, bakım gerektirmez, güvenirliği yüksek ve uygun fiyatlı olmaları nedeni ile trifaze asenkron motorlar en çok kullanılan motor cinsidir. Bu motorların çalışma karekteristikleri moment-hız eğrisi ile belirlenir. Aşağıda bu karekteristik eğrisine bir örnek verilmiştir.

MOTORS
AC Motors
a- General Specifications of AC Motors:
On account of its simple and maintenance free construction, good reliability and price, the three phase squirrel cage motor is one of the most frequently employed electric motors. The run up behavior of a three phase squirrel cage motor is described by the torque-speed characteristic curve. An example is shown below.

MOTOREN
Drehstrommotoren:
a- Eigenschaften des Drehstrommotors:
Wegen die wartungsarme und leichte Konstruktion, hohe Sicherheit bei Nutzung und günstige Preise werden die asynchrone Drehstrommotoren am meisten benutzt. Motoranlaufverhalten wird mit Moment-Drehzahl-Kurve charakterisiert. Ein Beispiel ist unten angegeben.



M_A: Start momenti / *Starting torque* / Anlaufmoment

M_S: Demeraj momenti / *Pull-up torque* / Anziehungsmoment

M_K: Frenleme momenti / *Pull -out torque* / Bremsungsmoment

M_N: Motorun ilettiği moment / *Motor rated torque* / Treibmoment

M_L: Yük momenti / *Load torque* / Lastmoment

Motorun her start yapılmasında bu eğriye uygun hareket eder ve yük momenti M_L ile bu eğrinin çakıştığı nokta, motorun çalışma anındaki moment ve devirini verir.

Statorun manyetik alanı senkron hızla n_s döner. Kutuplar arasındaki faz kayması 3 fazlı motorlarda 120° *'dir.*

$$n_s = 120 \times \frac{f}{p_S}$$

f.....: şebeke frekansı [Hz]
p_s.....: statorun kutup sayısı

Rotorun değişken manyetik alanı rotorun statorun manyetik alanının dönüşü yönünde dönmeye başlamasını sağlar. Rotor bu hareketinde statorun manyetik alanını takip eder ama hiçbir zaman yakalayamaz. Rotor statorun manyetik alanının hızından yavaş döner. Rotorun bu hızına baz hız n_N denir. Yükün azalması rotorun hızının artmasını sağlar, aynı zamanda sapma azalmış olur. Sapma aşağıdaki gibi belirlenmiştir:

$$s = \frac{n_s - n_N}{n_s} \times 100$$

Sapmanın miktarına göre motorun nominal değerlerinde şu farklılıklar olabilir.
Sapma s .....:± 20%
Kalkış Akımı.....:± 20%
Kalkış Momenti.....:-15 /+25 %
Kütle Atalet Momenti.....:± 10%
Verim (37 kW'a kadar).....:-0,15 (1-η)

The motor follows this torque characteristics up to its stable operating point every time, when it is switched on. Operating point is that point, where the moment speed curve intersects with load torque M_L line.
The magnetic field in the stator rotates at a synchronous speed n_s. Phase shift of each pole is 120° at 3 phase motors.

$$n_s = 120 \times \frac{f}{p_S}$$

f.....: supply frequency [Hz]
p_s.....: number of stator poles

Because of the alternating magnetic field in the rotor, the rotor starts running in the same direction of the stator flux and tries to catch up with the rotating flux. The rotor never catches up the stator field. The rotor runs slower than the speed of the stator field. This speed is called the base speed n_N.
A decrease in load will cause the rotor to speed up or decrease slip. The slip is defined as follows:

$$s = \frac{n_s - n_N}{n_s} \times 100$$

According to the slip, the nominal values of the electric motor can alter as follows:
Slip s .....:± 20%
Starting current .....:± 20%
Starting torque .....:-15 /+25 %
Moment of inertia.....:± 10%
Efficiency (up to 37 kW).....:-0,15 (1-η)

Der Drehstrommotor läuft diese Kurve bei jeder Anlauf, bis dem stabilen Betriebspunkt erreicht wird. Betriebspunkt ist der Zustand, bei dem die Moment-Drehzahl-Kurve sich mit der Linie von erforderlichen Moment M_L schneidet.
Magnetisches Feld von Stator dreht sich mit synchroner Geschwindigkeit n_s. Phasen-verschiebung von den Polen ist 120° bei 3 phasigen Drehstrommotoren.

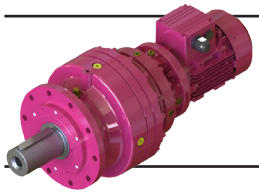
$$n_s = 120 \times \frac{f}{p_S}$$

f.....: Frequenz der Spannung [Hz]
p_s.....: Anzahl der Polen von Stator

Durch das magnetische Wechselfeld in den Rotor, beginnt der Rotor sich in der gleichen Richtung des Statorflusses zu drehen und versucht diese Bewegung aufzuholen. Der Rotor kann den Statorfeld nie aufholen. Die Rotorgeschwindigkeit nennt man Basisgeschwindigkeit n_N. Eine Abnahme der Belastung bewirkt, dass der Rotor sich beschleunigt und der Schlupf sich verringert. Der Schlupf wird wie folgt definiert:

$$s = \frac{n_s - n_N}{n_s} \times 100$$

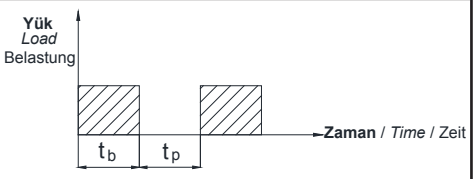
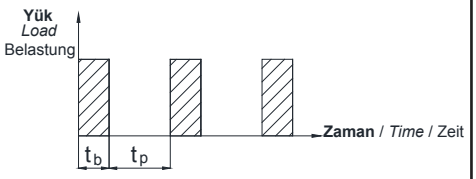
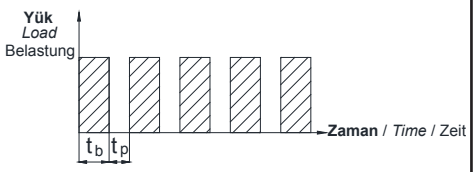
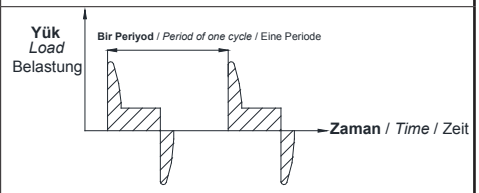
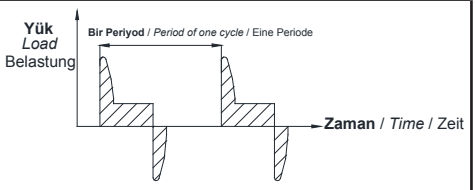
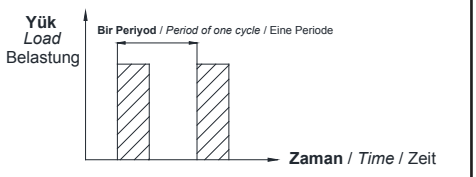
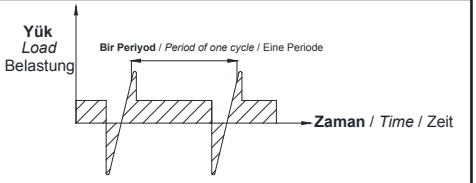
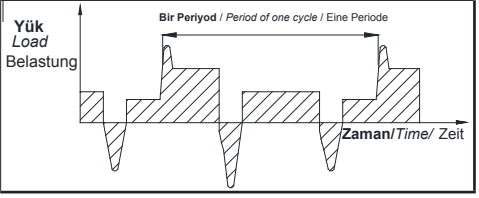
Für die nominale Werte der Drehstrommotoren sind folgende Abweichungen zulässig:
Schlumpf s .....:± 20%
Anzugsstrom .....:± 20%
Anzugsmomet .....:-15 /+25 %
Massentägheitsmoment .....:± 10%
Wirkungsgrad (bis 37 kW).....:-0,15 (1-η)

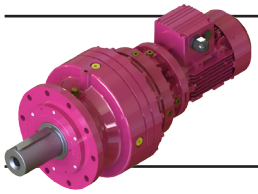


b- Çalışma Türleri
Katalogta verilen tüm redüktörlerin motorları S1 çalışma türüne uygun verilmektedir. Diğer çalışma türleri aşağıdaki tabloda gösterilmiştir.

b- Modes of Operation
All motors of the catalogue have been laid out for duty S1 (continuous operation). Other duty types are given on the following table.

b- Betriebsarten
Die im Katalog angeführten Motoren sind für Betriebsart S1 (Dauerbetrieb) ausgelegt. Andere Betriebsarten sind unten angegeben.

Çalışma Türü *Operation* Betriebsarten	**Açıklama** *Explanation* Erläuterung	**Yük Grafiği** *Load Graphic* Lastverläufe
S1	**Sabit yükte sürekli çalışma** *Continuous operation under constant load* Dauerbetrieb mit konstanter Belastung	
S2	**Sabit yükte kısa süreli çalışma** *Short-time duty under constant load* Kurzbetrieb mit konstanter Belastung	
S3	**Yolvermede sıcaklık artımı olmadan periyodik çalışma** *Periodic duty without influence of start-up on temperature* Aussetzbetrieb ohne Einfluß des Anlaufens auf die Temparatur	
S4	**Yolvermede sıcaklık artımı olan periyodik çalışma** *Periodic duty with influence of start up on temperature* Aussetzbetrieb mit Einfluß des Anlaufes auf die Temparatur	
S5	**Yolvermede ve frenlemede sıcaklık artımlı periyodik çalışma** *Periodic duty with influence of startup and braking on temp.* Aussetzbetrieb mit Einfluß des Anlaufens / Bremsung auf die Temp.	
S6	**Sürekli orta darbeli çalışma** *Continuous operation with intermittent loading* Durchlaufbetrieb mit Ausetzungsbelastung	
S7	**Elektriksel frenlemeli sürekli orta darbeli çalışma** *Continuous operation with intermittent loading and breaking* Ununterbrochener Betrieb mit Anlauf und Bremsung	
S8	**Devir ve yük değişimli sürekli çalışma** *Continuous operation duty type with related load-speed changes* Ununterbrochener periodischer Betrieb mit Drehzahländerung	



c- Koruma Sınıfı:
Yılmaz Redüktörde standart olarak IP54 (IEC 34-5) koruma sınıflı motorlar kullanılmaktadır. Diğer koruma sınıfları istendiğinde firmamıza danışınız.

d- İzolasyon Sınıfı:
Yılmaz Redüktörde kullanılan standart izolasyon sınıfı F (IEC 317-8) dir. İstek üzerine H sınıfı yapılabilmektedir.

e- Verim Sınıfları:
Üç fazlı az gerilim asenkron motorların verim sınıfı ölçümü IEC 60034-2-1:2007 normu ile belirlenmiştir. Yeni IE verim sınıfı 0,75 kW'tan 375 kW'a kadar güç aralığında çalışan AC motorlar için geçerlidir. EFF verim sınıfından farklı olarak IE verim sınıfı 6 kutup sayılı motorlar içinde kullanılabilir. Aşağıda verim sınıfları sıralanmıştır. Bölgeler dışında verim sınıfı zorunlulukları ülkelere görede farklılık gösterebilir. Lütfen firmamıza danışınız. Başka ürünlere entegre olmuş ve bu nedenle motorun veriminin bağımsız belirlenemediği sistemlerde (redüktör pompa gibi) verim sınıflandırması geçerli değildir.

c- Protection Class:
Yilmaz Gearboxes uses IP54 (IEC 34-5) protection class electric motors for standard products. If different kind of protection class is requested please contact us.

d- Insulation Class:
Yilmaz Gearboxes uses F (IEC 317-8) insulation class electric motors for standard products. H insolation class is available upon request.

e- Efficiency Classes:
The method for measuring the efficiency of low voltage three-phase asynchronous motors was revised with the new IEC 60034-2-1:2007 standard. The new IE classes is valid for AC Motors in power range from 0,75 to 375 kW. Unlike the EFF classes IE classes can be used for 6-pole AC motors. Bellow is the table of efficiency classes. The instructions for efficiency classes can differ from country to country. Please contact with us for more information. For the motors, which are fully integrated into a product (for example gear, pump) so their energy efficiency can not be recognized independently, the requirements of efficiency are not valid in Europe.

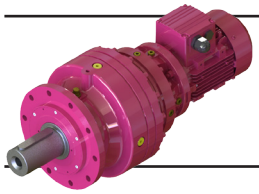
c- Schutzarten:
Yilmaz Getriebemotoren werden serienmäßig mit Schutzart IP54 (IEC34-5) ausgeführt. Für andere Schutzarten bitte rückfragen.

d- Isolationsklasse:
Yilmaz Getriebemotoren werden serienmäßig in Wärmeklasse F (IEC317-8) ausgeführt. H Wärmeklasse ist möglich auf Kundenwunsch.

e- Energieeffizienzklassen:
Die Methode für Messung die Effizienz von drei phasigen gering Spannung Asynchronmotoren hat neu mit IEC 60034-2-1:2007 Norm festgestellt. Die neue IE-Klassen gelten für alle Drehstrommotoren im Leistungsbereich von 0,75 bis 375 kW. Anders als EFF-Klassen die IE-Klassen können auch für 6-polige Drehstrommotoren verwendet werden. Unten steht die Tabelle der Effizienzklassen. Die Richtlinien für Effizienzklassen können sich je nach dem Land unterscheiden. Bitte mit unserem Firma Kontakt aufnehmen. Für die Motoren, die vollständig in ein Produkt (zum Beispiel Getriebe, Pumpe) eingebaut sind und deren Energieeffizienz nicht unabhängig von diesem Produkt erfasst werden kann, gelten in Europa die Anforderungen der Effizienzklassen nicht.

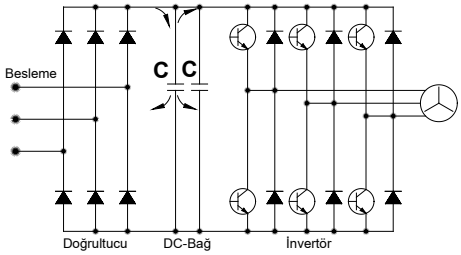
Verim Sınıfları *Efficiency Classes* Energieeffizienzklassen			**4 Kutuplu Motor Verim Değeri Hesabı** *Calculating Efficiency Values of Motors with 4 Poles* Berechnung der Wirkungsgrade von Elektromotoren mit 4 Polen	
IE1	EFF 2	**Standart Verim** *Standart Efficiency* Standarte Energieeffizienz	A=0,5234 B=-5,0499 C=17,4180 D=74,3171	$\eta_{Mn} = A \times \left[\log_{10}(P_L)\right] + B \times \left[\log_{10}(P_L)\right]^2 + C \times \log_{10}(P_L) + D$
IE2	EFF 1	**Yüksek Verim** *High Efficiency* Hohe Energieeffizienz	A=0,0278 B=-1,9247 C=10,4395 D=80,9761	
IE3	-	**Premium Verim** *Premium Efficiency* Premium Energieeffizienz	A=0,0773 B=-1,8951 C=9,2984 D=83,7025	P_L: **Anma Yükü [kW]** / *Nominal Load [kW]* / Nennlast [kW] η_{Mn}: **Olması gereken verim** / Nominal *Efficiency* / Sollwirkungsgrad
IE4	-	**Süper Premium Verim** *Super Premium Efficiency* Super Premium Energieeffizienz	-	

4 Kutuplu Motor Verim Değerleri *Efficiency Values of Motor with 4 poles* *Sollwirkungsgrad des Motors mit 4 Polen*	**Anma Yükü [kW]** *Nominal Load [kW]* Nennlast [kW]	**Verim Sınıfı** / *Efficiency Class* / Energieeffizienzklasse		
		IE1	IE2	IE3
	0,75	72,1 %	79,6 %	82,5 %
	1,5	77,2 %	82,8 %	85,3 %
	3	81,5 %	85,5 %	87,7 %
	7,5	86 %	88,7 %	90,4 %
	15	88,7 %	90,6 %	92,1 %
	22	89,9 %	91,6 %	93 %
	37	91,2 %	92,7 %	93,9 %
	45	91,7 %	93,1 %	94,2 %
	75	92,7 %	94 %	95 %
	90	93 %	94,2 %	95,2 %
	330	94 %	95,1 %	96 %

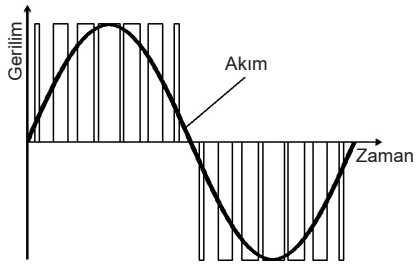


f- AC Frekans İnvertörler

Doğru Akımı (DC), alternatif akıma (AC) çeviren elektronik çeviricilere invertör denilmektedir. AC motorlar için elektronik hız kontrol cihazları genellikle AC giriş akımını doğrultucu diyotlarla DC akıma çevirir ve daha sonra çevirici diyotlar vasıtası ile bu akımı tekrar AC akıma çevirir. Doğrultucu diyotlar ile çevirici diyotlar arasındaki bağlantı DC-bağ olarak tanımlanmaktadır. DC kontrol cihazının (genellikle invertör olarak isimlendirilir) elektriksel blok şeması aşağıda verilmiştir.

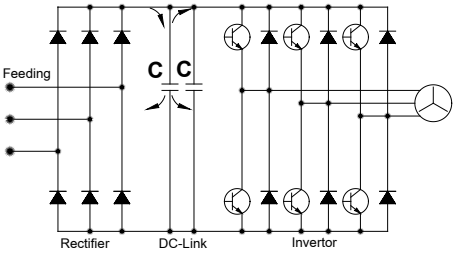


Tam dalga doğrultucuları besleyen üç faz besleme akımı DC-bağ kapasitörlerine iletilir. Kapasitörler voltajdaki dalgalanmaları azaltır ve kısa süreli ağdaki akım kesintilerinde enerji sağlar. Kapasitörlerdeki voltaj kontrolsüzdür ve gelen AC akımın pik akım değerlerine bağlıdır. DC akım tekrar AC akıma, Puls genişliği modulasyonu (PWM) kulanılarak çevrilir. İstenen dalga formu, sabit bir frekansta (Puls frekansında), çıkış transistörlerinin (İzole edilmiş geçit Bipolar transistörleri; IGBT 'ler) açılıp kapatılması ile oluşturulur. IGBT'lerin açma kapama zamanlarının değişimi ile istenen akım oluşturulabilir. Çıkış voltajı bir seri kare dalga pulslardır ve motor sargılarının indüktansı ile sinusodial bir motor akımı oluşur. Puls genişliği modulasyonu aşağıda gösterilmiştir.

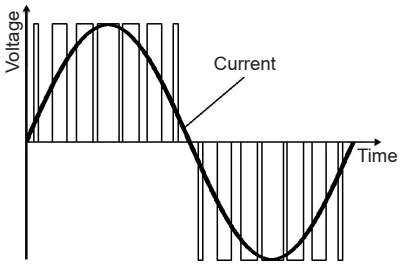


f- AC Frequency Inverters

An electronic converter is a device which converts Direct Current (DC) to Alternating Current (AC) is known as an inverter. Electronic speed controllers for AC motors usually convert the AC supply to DC using a rectifier, and then convert it back to a variable frequency, variable voltage AC supply using an inverter bridge. The connection between the rectifier and inverter is called the DC link. The block diagram of a speed controller (often called an inverter) is shown below.

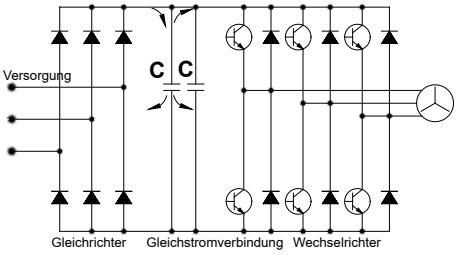


The three phase supply is fed into a full wave rectifier which supplies the DC link capacitors. The capacitors reduce the voltage ripple (especially on single supplies) and supply energy for short mains breaks. The voltage on the capacitors is uncontrolled and depends on the peak AC supply voltage. The DC voltage is converted back to AC using Pulse Width Modulation (PWM). The desired waveform is built up by switching the output transistors (Insulated Gate Bipolar Transistors; IGBTs) on and off at a fixed frequency (the switching frequency). By varying the on and off time of the IGBTs the desired current can be generated. The output voltage is still a series of square wave pulses and the inductance of the motor windings results in a sinusodial motor current. Pulse Width Modulation is shown in the figure below.

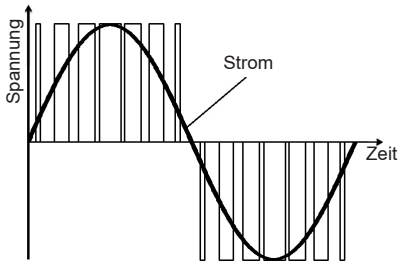


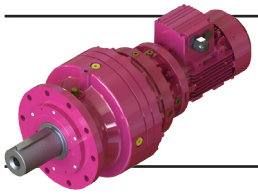
f- AC Frequenz Umrichter

Ein elektronischer Wandler, der den Gleichstrom (DC) in Wechselstrom (AC) umwandelt, wird als Umrichter bezeichnet. Ein Frequenzumrichter benutzt einen ungesteuerten Eingangsgleichrichter, um die Netzspannung in Gleichspannung umzuwandeln. Diese wird dann in den Zwischenkreiskondensatoren gespeichert. An diesem Gleichspannungszwischenkreis ist ein Wechselrichter angeschlossen. Dieser Wechselrichter erzeugt am Ausgang eine variable Frequenz und eine variable Spannung. Der Anschluss zwischen dem Gleichrichter und dem Wechselrichter nennt man Gleichstromverbindung. Das Blockschaltbild von diesem System wurde unten dargestellt:



Auch bei dreiphasiger Versorgung wird die gleichrichtete Netzspannung den Zwischenkreiskondensatoren zugeführt. Die Kondensatoren reduzieren die Oberwelligkeit der Spannung (was besonders bei einphasiger Versorgung entscheidend ist) und liefern Energie, die kurze Unterbrechungen der Netzstromversorgung ermöglicht. Die Spannung der Kondensatoren ist vom Spitzenwert der Wechselspannung abhängig. Die Gleichspannung wird im Wechselrichter durch Pulsweitenmodulation (PWM) in Wechselspannung umgewandelt. Die gewünschte Wellenform wird durch Ein- und Ausschalten der Ausgangstransistoren (IGBT's Isolierte Gate Bipolar Transistoren) mit einer festen Frequenz (der Pulsfrequenz) erzeugt. Der gewünschte Strom kann durch die Variation der Ein- und Ausschaltzeit der Ausgangstransistoren generiert werden. Die Ausgangsspannung ist dadurch eine Reihe von Spannungsimpulsen, die in Verbindung mit der Induktivität der Motorspulen zu einem sinusförmigen Motorstrom führt. Die Pulsweitenmodulation wird wie folgt dargestellt





DC Motorlar

a- Genel Özellikler
DC motorlar, elektronik parçalardaki gelişmeler nedeni ile yeni uygulama alanları bulmuştur. Daha önce çok pahalı olan ve ekonomik olmayan kontrol sistemlerinin yerini ucuz ve kompakt güç kontrol üniteleri almıştır. Yol vermenin kontrol altına alınabildiği, tork ve akım izlenebilirliği, aşırı yüklenmeye karşı elektronik koruma sağlanabilmesi ve daha birçok pahalı olmayan uygulamalar DC motorlarını cazip kılmaya başlamıştır.

b- DC Motorların Çalışma İlkeleri
DC motorlar için DC çıkış veren bir doğrultucuya ihtiyaç vardır. Motor armatür sargıları, alan sargıları,komutasyon sargıları ve kompanse sargılar olmak üzere rotorda ve statorda bulunan sargılardan oluşur. Rotora voltaj ve akım karbon fırçalar ve komutator sargılarla ulaştırılır. Bu karbon fırçalar aşındığından DC motorlar belirli periyotlarla bakıma alınmalıdır. İyi kontrol edilebilme özelliklerinden dolayı DC motorlar otomasyon teknolojisinde sıkça kullanılmaktadır.

c- DC Motor Çeşitleri
Sargı çeşidine bağlı olarak şönt ve seri sargılama vardır. Bunun dışında şönt ve seri sargılamanın beraber kullanıldığı ve alan sargısının manyetik alanı yerine mıknatıs kullanılan motor çeşitleride vardır.

Şönt Sargılı:
Ters yöne dönüşlerde kolay kontrol sağlar.

DC Motors

a- General Specifications of DC Motors
DC drive systems have found new possible applications with the development of the electronic components sector. What was previously extremely expensive and in some cases not economically feasible is nowadays realized by miniaturised power converter technology. Additional functions such as guided startup after a predetermined time, torque and current monitoring with electronic protection against overloading, and many inexpensive special applications have made DC drive systems more attractive.

b- Functioning principles of the DC Motor
The DC motor requires, a converter with DC output. The motor includes windings, such as armature, field, commutation and compensation windings, which are arranged in the stator as well as on rotor. Voltage and current are supplied to the rotor via the carbon brushes and the commutator. The carbon brushes are wearing parts therefore a DC motor requires maintenance at service intervals. While its good control properties, the DC motor is an essential item in automation technology.

c- Types of DC Motors
Depending on the wiring of the exciting winding or field winding, two basically different variants are regards torque speed characteristics may be distinguished.

Shunt Wound:
The shunt-wound motor offers simplified control for reversing.

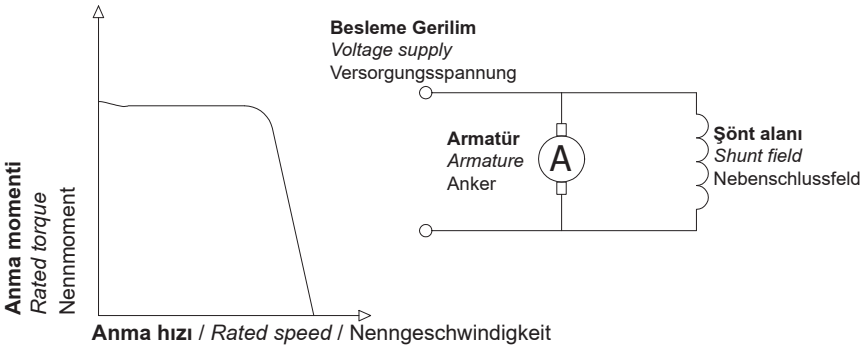
DC Motoren

a- Eigenschaften von DC Motoren
Mit den Entwicklungen bei elektronischen Komponenten haben DC Motoren neue Anwendungsbereiche gefunden. Regelungssysteme, die früher sehr teuer und im manchen Anwendungsfällen ungünstig waren, sind jetzt kompakt und günstig. Bei den DC Motoren ist kontrolliertes Anlauf, Moment- und Stromüberwachung mit Überlastschutz möglich. Es gibt viele günstige Sonderanwendungen für diese Motoren. Wegen oben genannten Eigenschaften werden die DC Motoren immer mehr bei unterschiedlichen Anwendungen benutzt.

b- Funktionsprinzip der DC Motoren
Bei DC Motoren ist eine Kommutatorwicklung im Rotor angeordnet, während der magnetische Fluss vom Stator erzeugt wird. Dies kann wiederum mittels einer Erregerwicklung oder durch Permanentmagnete geschehen. Wie bei der Synchronmaschine wird durch das Erregerfeld in der Ankerwicklung eine Wechselspannung, die bei der Gleichstrommaschine jedoch durch den mechanischen Kommutator und die darauf schleifenden Bürsten in eine Gleichspannung umgeformt wird, induziert.

c- Arten von DC Motoren
Es gibt zwei verschiedene Wicklungen, nämlich Shunt- und Serial-Wicklung. Das Drehmoment-Drehzahl-Verhältnis ist für beide Wicklungen unterschiedlich.

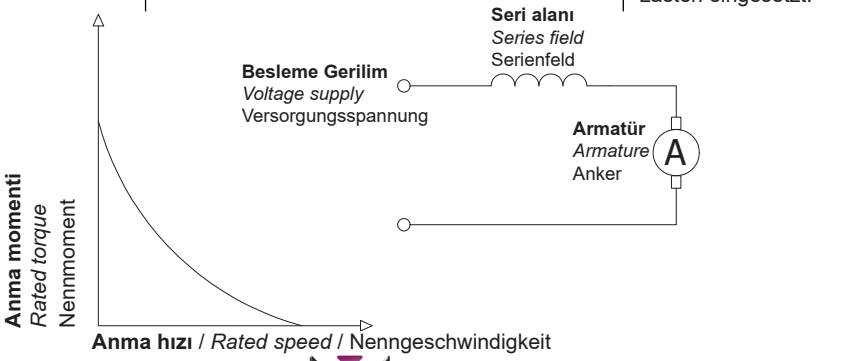
Nebenschluss:
Nebenschlussmotoren ermöglichen vereinfachte Steuerung für Rückwärtsfahren.

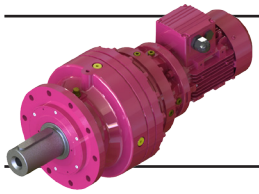


Seri Sargılı:
Genellikle düşük hızlarda, yüksek yüklerde tercih edilir.

Series Wound:
Series-wound motors are generally used on low speed, very heavy loads.

Reihenschluss:
Reihenschlussmotoren werden in der Regel bei niedriger Geschwindigkeiten und sehr schwere Lasten eingesetzt.

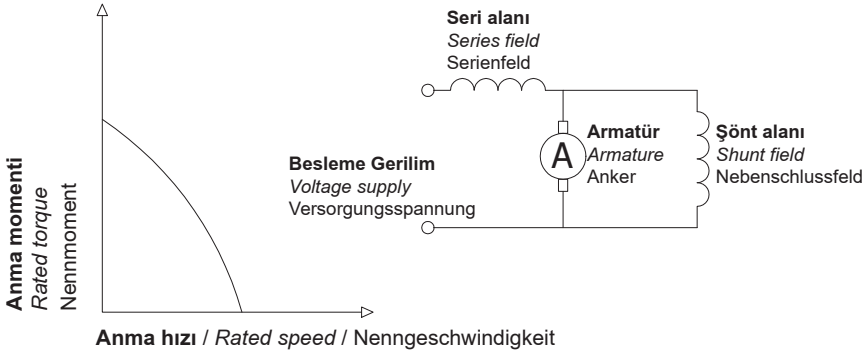




Birleşik Sargılı:
Başlama sırasında düzenli tork ve hız sağlar.

Compound Wound:
The compound-wound motor offers a combination of good starting torque and speed stability.

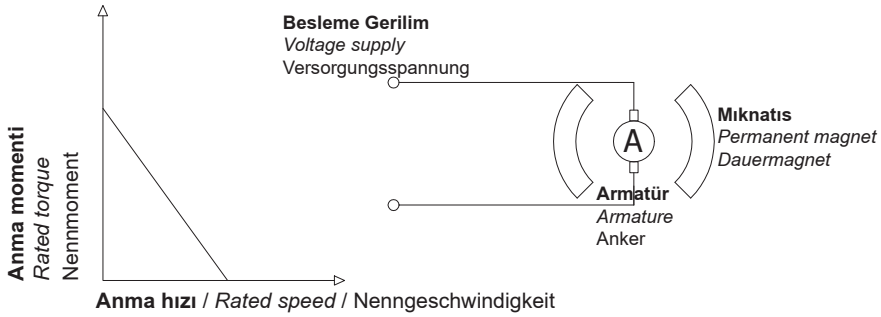
Verbundschluss:
Verbundmotoren ergibt eine Kombination von guten Anfangsmoment und Geschwindigkeits-stabilität.



Mıknatıs:
Mıknatıslı motorlar kompakt yapısı ve geniş hız aralığıyla avantaj sağlar.

Permanent Magnet
Permanent magnet motor have advantages of compact size and wide operating speed range.

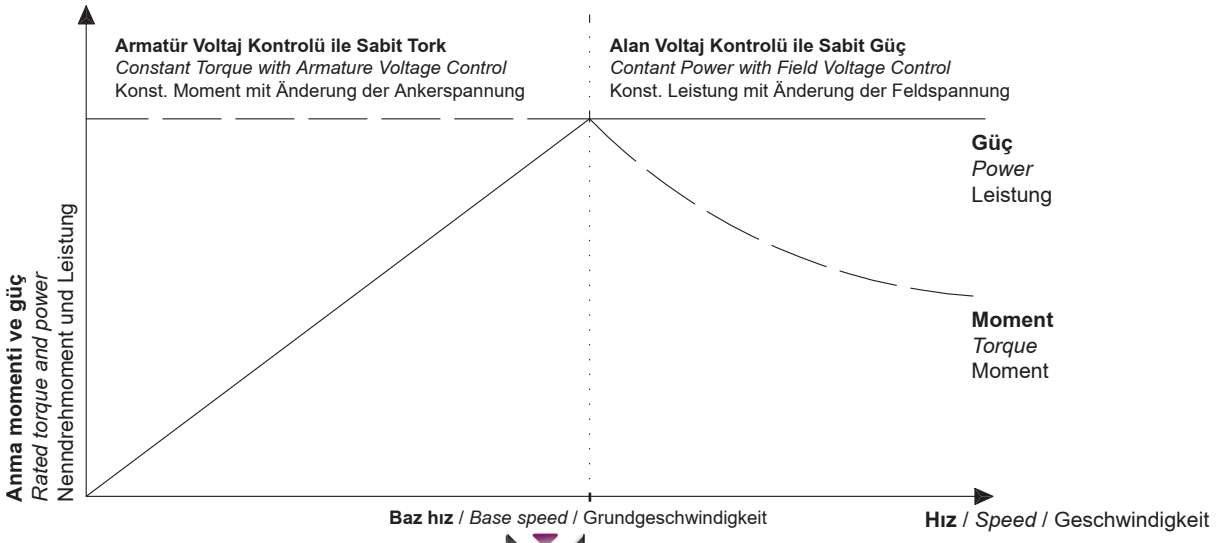
Dauermagnet:
Weite Betriebsgeschwindigkeitsbreite und kompakte Baugröße sind die Vorteile von Dauermagnetmotoren.

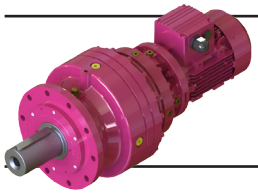


d- DC Motorlarda Hız Kontrolü
DC motorlarda devir değişimi DC voltajın değiştirilmesi ile yapılır. Şönt sarımlı DC motorların sıfır yük ile maximum yük arasındaki davranışı AC motorlara benzer. Devir artan yükle beraber düşer. Bu devir farkı ufak güçlü motorlarda büyük, büyük güçlü motorlarda ise ufaktır. Fakat bu hız farkı DC doğrultucu cihazda armatür voltajı (I x R) ile oynanarak kompanse edilebilir. Hassas hız kontrol gereksinimi olduğunda, tako jeneratörler kullanılabilir.

d- Speed Control of DC motors
In DC motors the speed is adjusted by altering the DC voltage. DC shunt wounded motors behave similar to three phase induction motors between no load operation and maximum load. The speed drops with increasing loading of the motor. This difference is greater in small motors and smaller in larger motors. The speed difference can compensated in the DC converter device by adjusting I x R. If great control accuracy is required, a speed control with measurement of the actual values by a tachogenerator can be used.

d- Drehzahl Kontrolle für DC Motoren
Drehzahl von DC Motoren kann man mit Steuerung der DC Spannung ändern. DC Motoren mit Shunt Wicklungen ist ähnlich zu drei phasen AC Motoren zwischen maximalen Last und ohne Last. Drehzahl wird mit der Last reduziert. Mit kleineren Motoren wird dieser Differenz höher, mit großeren Motoren kleiner. Der Drehzahlunterschied kann mit IxR Veränderung geregelt werden. Wenn eine genaue Steuerung gebraucht, soll ein Tachogenerator benutzt werden.





Elektromanyetik Frenler

Bu tip frenlerin iki sürtünme yüzeyi vardır. Fren torku, voltaj uygulanmadığı zaman yayların kuvveti ile oluşturulur. Fren elektromanyetik alanın oluşumu ile serbest kalır. Bobinin beslenmesi ile mıknatıslanan balata baskı pulu, elektromıknatısa doğru çekilir. Bu hareket yayları baskı altına alır ve rotor mili üzerine takılan çoklu kama üzerinde aksiyal yönde serbest hareket edebilen balata serbest kalır. Akım kesildiğinde yayların baskısıyla, balata baskı pulu fren balatasına doğru itilir ve bu hareket rotoru frenler.

Fren Çeşitleri
a) Soğutmasız tip frenler
Motor fanı çıkarılıp motor kapağı arkasına akuple edilerek kullanılan frenler; genellikle sıkça açılıp kapanmayan ve kısa zaman aralıklarında çalışan sistemlerde tercih edilir.

b) Soğutmalı tip frenler
Motor fanı çıkarılıp motor kapağı arkasına akuple edilen ve motorun mili uzatılarak fren ve motorun arkasına alınan fan sayesinde daimi bir hava sirkülasyonu sağlanarak kullanılan frenlerdir. Genellikle uzun süreli çalışan ve kapalı mekanlarda kullanılan sistemlerde tercih edilirler.
c) Manuel kol sistemli frenler
Çalışma sistemi olarak her iki fren tipinde de kullanılabilir (soğutmalı veya soğutmasız). Özel durumlarda (elektrik kesilmesi; mekanik problemler) üzerinde bulunan bir kol vasıtası ile sistemi yay baskısından kurtararak serbest kalmasını sağlayan frenlerdir. Genellikle manuel olarak sistemin açılması gereken yerlerde (otomatik giriş kapıları, dış cepe boyama asansörleri v.b.) tercih edilir.

Fren çalışma voltajları
Elektromanyetik frenler 230V AC veya 400V AC beslemeli olarak sipariş edilebilir. Frenler DC fren olmaları nedeni ile besleme ile fren bobini arasında fren tipine bağlı olarak, yarım dalga, tam dalga doğrultucular veya trafolar kullanılır. Özel olarak belirtilmedikçe 230V beslemeli ve yarım dalga doğrultuculu frenler kullanılmaktadır. Özel durumlar için YILMAZ Redüktöre danışınız.

a) 230V AC ile beslenen frenler
Motor klemens kutusundan alınan 230V'luk AC besleme fren tipine bağlı olarak yarım dalga veya tam dalga doğrultucu ile fren bobininin voltajına düşürülür. Fren bobin DC voltajı etiketi üzerinde belirtilmiştir.
b) 400V AC ile beslenen DC frenler
Motor klemens kutusundan alınan 400V'luk AC besleme, yarım dalga doğrultucu ile fren bobininin voltajına düşürülür. Fren bobininin DC voltajı etiket üzerinde belirtilmiştir.
c) 24V DC Frenler
Kullanılan fren momentinin büyüklüğüne göre besleme transformatörü seçilir. Şebekeden veya motorun klemens kutusundan alınan besleme voltajı transformatörde 29 V'a çevrilen gerilim tam dalga doğrultuculardan geçerek 24V DC'ye çevrilir ve fren bobini beslenir.

Electromagnetic Brakes

This type of brakes has two friction surfaces. Brake torque is generated by springs when no voltage is applied. The brake is electromagnetically released. On exciting the electromagnet means of the current, the armature plate is pulled towards the electromagnet itself, thrust loading the pressure spring and enabling the friction disc which is axially movable on the key, to turn freely. When current fails, the pressured springs drive the armature plate towards the disc, thus braking the motor shaft.

Brake Types
a) Brakes without cooling
This type of brakes are assembled on the back cover of the electric motor. There is no fan on the backside. This brake type is mostly preferred in short working times and short working cycles.
b) Fan cooled brakes
This type of brakes are assembled on the back cover of electric motor by removing the electric motor fan. A fan is coupled to the backside of the brake by extending the rotor shaft of the electric motor. Fan cooled brakes are preferred in long working times and closed places without airflow.
c) Brakes with hand release
This brakes can be released by help of an arm. It can be applied to both of the above mentioned brakes and used in special cases (fail of electric current, mechanical problems etc.)These brakes are mostly preferred if operation (relasing) without a current is needed (automatic controlled doors, gates, building wall painting elevators etc.).

Working Voltages
Electromagnetic brakes can be ordered with 230V AC or 400V AC supply voltage. The coil of brakes needs DC voltage and therefore depending on brake type a half wave, a full wave rectifier or transformer should be used between supply and coil voltage. As standard the brakes will be delivered with 230V supply voltage and half wave rectifier, if there is no special request. For special cases please contact YILMAZ Reduktor.
a) Brakes with 230V supply voltage
230V AC supply voltage from the motor terminal box will be reduced to the coil voltage depending on the brake type with half-wave or full-wave rectifier. DC brake coil voltage is indicated on the label.
b) Brakes with 400V supply voltage
400V AC supply voltage from the motor terminal box will be reduced to the coil voltage with half-wave rectifier. DC brake coil voltage indicated on the label.
c) 24V DC Brakes
The transformator's size is selected according to value of brake torque. The current is taken from the electric motor terminal box or from the electric panel and is transformed to 29V DC current. This current is transferred to 24V DC current with full-wave rectifier and supplies brake coil.

Elektromagnetische Bremsen

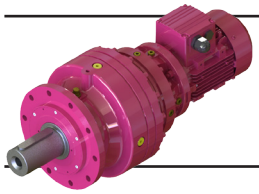
Die Bremse hat zwei Reibflächen und arbeitet nach dem Ruhestromprinzip. Im stromlosen Zustand wird das Bremsmoment durch den Druck der Feder erzeugt, während die Bremse beim Betrieb elektromagnetisch losgelassen wird. Durch die Erregung der Elektromagneten wird die Ankerscheibe zu den Elektromagneten gezogen und die Feder zusammengedrückt. Dadurch kann sich die Bremsscheibe, die axial beweglich auf dem Mitnehmer angeordnet ist, frei drehen. Wird der Strom unterbrochen, drücken die Feder die Ankerscheibe gegen die Bremsscheibe und halten die Motorwelle an.

Bremsearten:
a)Bremsen ohne Kühlung
Diese Bremsen sind für Kurzlaufzeiten geeignet. Die Lüfterhaube und Lüfter des Motors ist ausgebaut und die Bremse ist an dem Ende der Motorwelle befestigt.

b)Bremsen mit Kühlung
Diese Bremsen sind für lange Laufzeiten und kleine, abgedeckte Räume geeignet. Durch die Verlängerung der Motorwelle wurde Lüfter hinter dem Bremse und dem Motor verbunden. Somit wurde eine konstante Lüftung ermöglicht.

c)Bremsen mit Hebelarm
Diese Bremsenart kann mit oder ohne Kühlung verwendet werden. Diese Bremsen sind bei der speziellen Fälle, wie keine Spannung an der Leitung, mechanische Probleme usw. , anwendbar. Die Bremse wird mit einem Hebelarm manuell betätigt. Diese Bremsen werden am meisten an den Stellen, wo die Lüftung ohne Spannung erfolgen soll, benutzt (automatische Türe, Wandaufzüge).

Betriebsspannungen
Elektromagnetische Bremsen können mit 230V AC oder 400V AC Versorgungsspannung bestellt werden. Die Wicklungen der Bremsen brauchen Gleichspannung und deswegen abhängig von Bremsenart zwischen Versorgungsspannung und Wicklungsspannung soll Halbwellen-, Vollweggleichrichter oder Transformator verwendet werden. Als Standard die Bremsen werden mit 230V Versorgungsspannung und Halbwellengleichrichter geliefert.
a) Bremsen mit 230V Versorgungsspannung
230V AC Versorgungsspannung von Klemmenkasten wird auf die Wicklungsspannung abhängig von der Bremsentyp mit Halbwellen-oder Vollweggleichrichter reduziert. Wicklungsspannung ist auf dem Etikett angegeben.
b) Bremsen mit 400V Versorgungsspannung
400V AC Versorgungsspannung von Klemmenkasten wird auf die Wicklungsspannung mit Halbwellengleichrichter reduziert. Wicklungsspannung ist auf dem Etikett angegeben.
c) 24 V DC Bremsen
Die Spannung wird von den Klemmkasten des Motors oder Elektrikschrank entnommen. Diese Spannung wird zuerst mittels Transformator zu 24 V reduziert. Danach wird diese Spannung mit Hilfe von Gleichrichter zu Gleichstromspannung umgewandelt. Die Größe des Transformators ist abhängig von der Größe des Bremsmoments.



d) Şok ikazlı trafolar
Büyük güçteki ve momentteki frenlerin manyetik doyuma ulaşmaları uzun zaman alır. Şok ikazlı trafolar frenin yay baskısını yenmede gecikmesini engellemek için kullanılır ve zaman rölesi yardımı ile çok kısa bir süre normal besleme voltajının iki katı ile (48V DC) beslenip sistemin ani açılmasını sağlar. Bu sayede gecikmeli açılmada ortaya çıkacak sürtünmeyi engellemeye yarayan bir trafo şeklidir.

Fren bağlantı şekli
a) Gecikmeli frenleme
Genellikle sistemin yavaş ve kaydırılarak durması gereken yerlerde tercih edilen bağlantı şeklidir. Vinç yürütme motorlarındaki sarsıntıyı önlemek için gecikmeli bağlantı şekli kullanılır. Frenler fabrika çıkışında gecikmeli bağlantıya uygun ayarlanır.

b) Ani frenleme
Genellikle sistemin enerjisi kesildiği anda ani olarak durdurulması gereken sistemlerde kullanılan bağlantı şeklidir. Vinç kaldırma sistemleri, asansör motorlarında kullanılan bağlantı şeklidir.

d) Shock voltage supply transformer
Brakes which consist of high power and torques take long time to get in electromagnetic field. Shock voltage supply transformers with time relay are aiming to overcome spring pressure delaying for brakes .Also this transformers provide to open system suddenly by feeding double(48V DC) voltage in a short time and preventing to frictional loses occurring in delayed opening.

Connection Types
a) Delayed Braking
Generally this type of connection uses in slow and sliding brake intended systems. Delayed connection type using to prevent shock loadings in crane driving systems. Brakes are setting up to delayed connection if any other types are not specified by customer

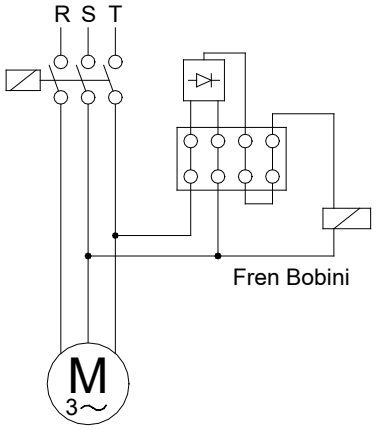
b) Sudden Braking
This type of connections are mostly used in systems when short braking times are needed. The braking torque will be produced as soon as the current fails. These brakes are mostly used in hoisting of lifting units and elevators.

d) Trafos mit Schock-Spannung
Diese Transformatoren werden bei großen Bremsen mit hohen Momenten verwendet. Da die große Bremsen eine lange Zeit braucht, um die erforderliche magnetische Feld zu erzeugen, wird an der Bremse kurz 48V Gleichstromspannung angelegt, um die Zeit zur Bildung von magnetischem Feld zu kürzen. Dies ermöglicht kürzere Reibungszeiten beim Start.

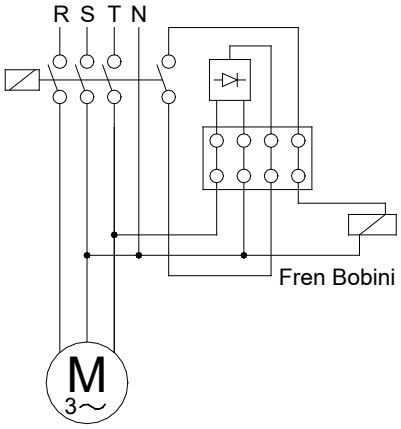
Schaltungsarten:
a)Verspätetes Bremsen
Diese Schaltung wird benutzt, wenn ein langsames und gleitendes Bremsen erforderlich ist. Am meisten wird es bei Fahrgetriebemotoren von Aufzügen verwendet. Wenn keine Angabe bei der Bestellung gegeben wird, werden die Bremsen mit verspäteter Schaltung geliefert.

b)Schnelles Bremsen:
Allgemein verwendet man diese Schaltung bei Bedarf an plötzlichen Bremsen in dem Augenblick, in dem das System keine Energie mehr erhält. Diese Schaltungsart wird meist bei Kräne und Motoren von Aufzüge verwendet.

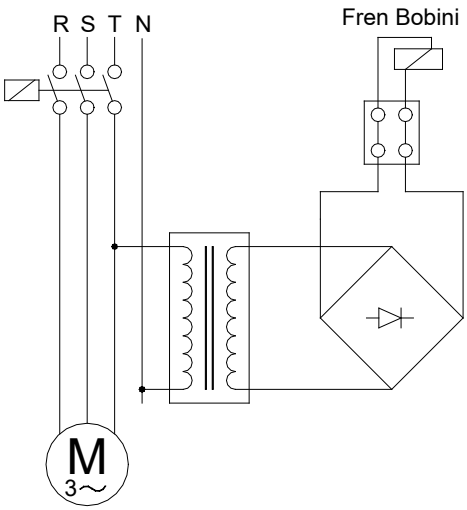
Gecikmeli Frenleme / *Delayed Running Brake* / Verspätete Bremsung
(230 V)



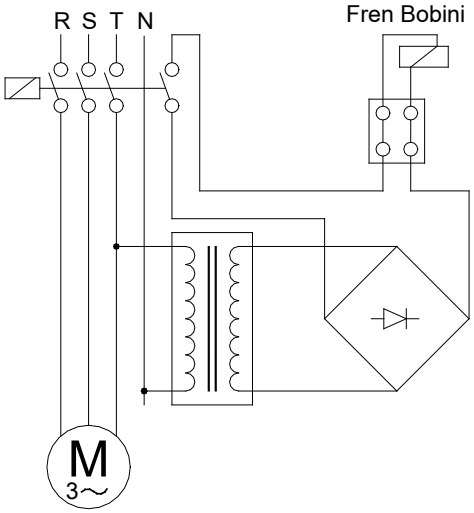
Ani Frenleme / *Sudden Brake* / Plötzliche Bremsung
(230 V)

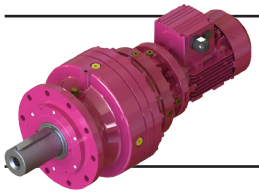


Gecikmeli Frenleme / *Delayed Running Brake* / Verspätete Bremsung
(24 V)



Ani Frenleme / *Sudden Brake* / Plötzliche Bremsung
(24 V)





Fren Seçimi:

Doğru bir fren seçimi için aşağıdaki parametreler bilinmelidir.

- I_{tot} [kg . m²]: Motor miline indirgenmiş toplam atalet momenti

- n_0 [d/dak]: Maksimum motor devir sayısı

- t_f [s]: İstenilen en uzun frenleme zamanı

- c_t : Anahtarın devreye girme zamanı katsayısı (ortalama 0,995).

- M_L [Nm]: Sistemin statik tork ihtiyacı.

- C_s : Emniyet katsayısı ($C_s \geq 2$ olmalı)

Gerekli fren momenti aşağıdaki şekilde hesaplanır:
a) M_L Statik yük torku, motor dönüş yönünde (motorun dönüşüne yardımcı olarak, yükün indirilmesi veya hızlandırıcı sabit yük momenti hali):

$$M_{fc} = \frac{(2\,\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b) M_L Statik yük torku, motor aksi dönüş yönünde (motorun dönüşüne engel olarak, yükün yukarı kaldırılması veya frenleyici sabit yük/direnç momenti hali):

$$M_{fc} = \frac{(2\,\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ \text{Nm}$$

$$M_f = 73,6 \times 2 = 147,2\ \text{Nm}$$

Yukarıda bulunan sonuç C_s katsayısı ile çarpılarak ($C_s \geq 2$), fren momenti seçilir;

$$M_f = M_{fc} \times C_s$$

Yaklaşım Yolu ile Fren Seçimi:
Eğer yalnızca motorun gücü ve en yüksek devri biliniyor ise :

$$M_f = \frac{W}{(\frac{2\pi \times n_0}{60})} \times C_s \quad (C_s \geq 2)$$

W [Watt]: Motorun nominal gücü

Brake Selection:

To select a brake correctly the following data are necessary;

***- I_{tot} [kg . m²]:** The total inertia of rotating parts reduced at the motor shaft*

***- n_0 [rpm]:**Maximum motor speed.*

***- t_f [s]:**The maximum admitted time of the braking.*

***- c_t :**Coefficient of switch on time (average 0,995).*

***- M_L [Nm] :**Required static torque of system.*

***- C_s :** Safety coefficient ($C_s \geq 2$)*

The neccessary braking torque calculates below;

***a)** The static load torque M_L ,same direction of motor rotation(Descent of a load or steady resisting torque which favours the rotation of the motor)*

$$M_{fc} = \frac{(2\,\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

***b)**The static load torque M_L ,opposes the rotation of the motor (Lifting of a load or steady resisting torque which opposes the rotation of the motor)*

$$M_{fc} = \frac{(2\,\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ \text{Nm}$$

$$M_f = 73,6 \times 2 = 147,2\ \text{Nm}$$

The necessary braking torque will result from the following equation using C_s ($C_s \geq 2$);

$$M_f = M_{fc} \times C_s$$

Approximated Brake Selection
Its only the motor power and its maximum speed are known:

$$M_f = \frac{W}{(\frac{2\pi \times n_0}{60})} \times C_s \quad (C_s \geq 2)$$

W [Watt]: Motor Nominal Power

Bremswahl:

Um die richtige Bremse auszuwählen, braucht man unten aufgelistete Variablen;

- I_{tot} [kg . m²]: Die Gesamtträgheit der rotierenden Teile (siehe Anwendungsbeispiele)

- n_0 [U/min]: Die höchste Drehzahl des Motors

- t_f [s]: Die längste zulässige Bremszeit

- c_t : Reduktionskoeffizient der Tätigkeitszeit (im Allgemein beträgt 0,995).

M_L [Nm] : Vom system benötigtes,statisches drehmoment.

- C_s: Sicherheitskoeffizient ($C_s \geq 2$)

Die benötigte Bremskraft wird wie folgt berechnet:

a) konstantes Belastungsmoment M_L, das die Motordrehung fördert (konstante Erhöhung der Motorgeschwindigkeit oder Herunterlassen der Last)

$$M_{fc} = \frac{(2\,\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b) konstantes Belastungsmoment M_L, das sich entgegen der Motordrehung widersetzt (konstante Verminderung der Motorgeschwindigkeit oder Aufheben der Last)

$$M_{fc} = \frac{(2\,\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ \text{Nm}$$

$$M_f = 73,6 \times 2 = 147,2\ \text{Nm}$$

Wenn die Bremskraft mit dem Sicherheitskoeffizient C_s ($C_s \geq 2$) multipliziert wird, erhält man die erforderliche Bremskraft;

$$M_f = M_{fc} \times C_s$$

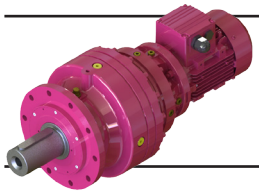
Abschätzung zur Bremswahl
Wenn man nur die Motorleistung und die höchste Drehzahl kennt, kann die Bremskraft mit der folgenden Formel annähernd berechnet werden:

$$M_f = \frac{W}{(\frac{2\pi \times n_0}{60})} \times C_s \quad (C_s \geq 2)$$

W [Watt]: Nennleistung des Motors

Standart Frenler / *Standard Brakes* / Standart Bremsen

Fren statik momenti [Nm] *Brake Static Torque [Nm]* Statische Bremskraft [Nm]	4,5	8	12	16	35	60	80	150	200
Fren Dinamik Momenti [Nm] *Brake Dynamic Torque [Nm]* Dynamische Bremskraft [Nm]	3,6	6,4	9,6	12,8	28	48	64	120	160
Maksimum Motor Hızı [d/dak] *Maximum Motor Speed [rpm]* Maximale Motordrehzahl [U/min]	3000	3000	3000	3000	3000	3000	3000	1500	1500
Giriş Gücü [W] *Input Power [W]* Antriebsleistung [W]	15	20	25	30	45	50	55	60	65



Frenlerin Termik Kapasitesi

Yukarıdaki seçime ek olarak frenin termik kapasitesinin kontrol edilmesi gerekir. L (joule) olarak gerekli soğutma işi aşağıdaki formüller ile hesaplanır ve ''Termik kapasite limit eğrisi'' kullanılarak eğrinin altında kalıp kalmadığı kontrol edilir.

a) M_L Statik yük torku motor dönüş yönünde (motorun dönüşüne yardımcı olarak, yükün indirilmesi hali)

$$L = \frac{I_{tot} \times (2\,\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

b) M_L Statik yük torku motor aksi dönüş yönünde (motorun dönüşüne engel olarak, yükün kaldırılması hali):

$$L = \frac{I_{tot} \times (2\,\pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) M_L Statik yük torku sabit, motor yönünde veya aksi yönde (kaldırma ve indirme harici hızlandırıcı veya frenleyici sabit bir yük momenti hali).

$$L = \frac{I_{tot} \times (2\,\pi \times n_0 \div 60)^2}{2}$$

Fren Hava Boşluğunun Ayarı:
Frenden sürekli aynı performansın alınabilmesi için, fren balatasının aşınmasına bağlı olarak, fren hava boşluğu belirli zaman aralıklarında yeniden ayarlanmalıdır. Fren hava boşluğu ayar zaman aralığı ve ayarın yapılması için firmamıza danışınız.

Fren Seçim Örneği:

İstenilen en uzun frenleme zamanı: 0,5 sn.
Motor devri: 1400 d/dak
Motora indirgenmiş toplam atalet momenti 0,08 kgm^2

Gerekli çalışma momenti: 50 Nm
Yük Durumu: Yük motor dönüş yönü ile aynı (Vinçten yük indirmesi: Saatte dur-kalk sayısı:30

$$M_{fc} = \frac{(2\pi \times n_0 \div 1)\, I_{tot}}{t_f \times c_t}$$

Standart frenler tablosundan 150 Nm lik fren seçilebilir.
Gerekli termik kapasite;

$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right)$$

=1302,0<18000 joule (150 Nm eğrisinden)
150 Nm lik fren uygun görülüyor.

The Thermal Capacity of Brake

The thermal capacity of the brake must also be checked after the above mentioned calculations. The heat dissipation energy L (joule) can be calculated from the following equation and must be checked if the result is under the limit curve shown on ''Limit curve of may dissipable work''.

***a)** The static load torgue M_L ,favours the rotation of the motor (Descent of a load which favours the rotation of the motor)*

$$L = \frac{I_{tot} \times (2\,\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

***b)** The static load torgue M_L ,opposes the rotation of the motor (Lifting of a load which opposes the rotation of the motor)*

$$L = \frac{I_{tot} \times (2\,\pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

***c)** The static load torgue M_L ,is constant and opposes or favours the rotation of the motor (except lifting of a load)*

$$L = \frac{I_{tot} \times (2\,\pi \times n_0 \div 60)^2}{2}$$

Adjustment of the air-gap:
In order to obtain the same performance from the brake during its lifetime,the air-gap of the brake must be re-adjusted after a limited time of operation For the air-gap and the time interval of the adjustment please contact us.

Brake Selection Example:

The maximum admitted time for braking 0,5 s
Motor speed: 1400 rpm
Total inertia reduced at motor shaft: 0,08 kgm^2

Required operating torque:50 Nm
Nature of load: Load direction is same as motor direction(Unloading process: Start-stop time per hour :30)

$$M_{fc} = \frac{(2\pi \times n_0 \div 1)\, I_{tot}}{t_f \times c_t}$$

From the brake selection table a standard brake of 150 Nm is selected.
Necessary thermal capacity:

$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right)$$

=1302,0<18000 joule (from 150 Nm curve)
The selected brake with 150 Nm is suitable.

Thermische Kapazität der Bremsen

Nach den oben genannten Berechnungen muss die Thermische Kapazität überprüft werden. Die Wärme, d.h. die gebrauchte Energie L, werden mit den folgenden Formeln berechnet. Die gerechnete Kapazitätswerte sollen unter dem Grenzkurve ''Thermische Kapazität Grenzwerte'' der gewählten Bremse liegen.

a) Konstantes Belastungsmoment M_L, das die Motordrehung fördert (Herunterlassen der Last)

$$L = \frac{I_{tot} \times (2\,\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

b) Konstantes Belastungsmoment M_L , das sich entgegen der Motordrehung widersetzt (Aufheben der Last)

$$L = \frac{I_{tot} \times (2\,\pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) Konstantes Belastungsmoment M_L , das sich gegen der Motorbewegung widersetzt oder die Motorrotation fördert (Konstante Verminderung oder Erhöhung der Motorgeschwindigkeit, kein Herunterlassen oder Aufheben der Last)

$$L = \frac{I_{tot} \times (2\,\pi \times n_0 \div 60)^2}{2}$$

Einstellung des Luftspaltes:
Um eine immer konstant bleibende Bremsfähigkeit zu erhalten, muss das Luftspalt nach einer bestimmten Arbeitszeit neu eingestellt werden. Für die Bestimmung des Luftspaltes und die Einstellzeiten bitten wir Sie um Rückfrage.

Beispiel für Bremseauswahl:

Die höchste zulässige Bremszeit: 0,5 s
Motordrehzahl: 1400 U/min
Die Gesamtträgheit der rotierenden Teile: 0,08 kgm^2
Das auf das Systemwirkende Drehmoment: 50 Nm
Belastungsart: Drehmoment, das die Motorrotation fördert (Herunterlassen der Last)
Betätigungen pro Stunde:30

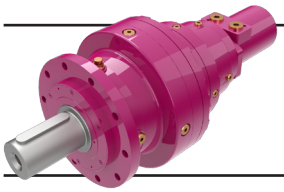
$$M_{fc} = \frac{(2\pi \times n_0 \div 1)\, I_{tot}}{t_f \times c_t}$$

Eine Bremse von 150 Nm kann man auswählen.

Die thermische Kapazität;

$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right)$$

=1302,0<18000 Joule (von 150 Nm Kurve)
Die ausgewählte 150 Nm Bremse ist ausreichend.



Genel Bilgiler
General Information
Einführung

Hidrolik Motorlar

Redüktör girişlerinde kullanılan hidrolik motorlar düşük hızlı rotorlara sahiptirler.
Sızdırmaz iletim valfi hidrolik motorlarda daha iyi ve tutarlı hacimsel verim sağlar. Verimin etkili bir şekilde koruma işlemi motor ömrü düşünülerek sürtünme ve iç sızıntı kayıpları azaltılarak geliştirilmiştir. Yüksek basınç patentli mil keçesi sayesinde çek-valf ve ekstra tesisata ihtiyaç duyulmamıştır.

Uygulamalardaki sistemlere en iyi uyumluluk ve yüksek verim için geniş yelpazede flanş ve mil çeşitleri mevcuttur.

Hydraulic Motors

Hydraulic motors, which can be used as gear unit input, have low speed gerotor motor.
Zero leak commutation valve provides greater and more consistent volumetric efficiency for hydraulic motors. On roller vane rotor set is reduced the friction and internal leakage for maintaining efficiency throughout the life of the motor. There is no need to use check valve and extra plumbing system for hydraulic motors because of the high pressure shaft seal.

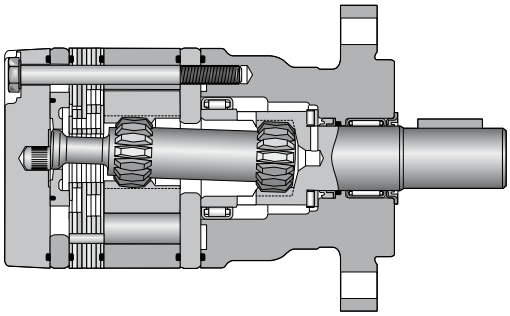
Wide choice of displacement range,flange and shaft options are available for greater efficiency in systems design to suit your applications.

Hydraulische Motoren

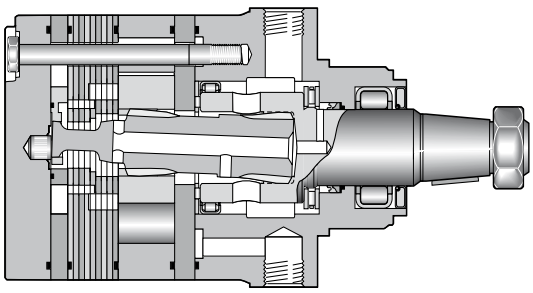
Bei der P Serie können die Getriebe wahlweise mit langsam laufender Hydromotoren geliefert werden.
Diese Hydromotoren besitzen spezielle Orbital-Steuerung. Diese Steuerung ermöglicht geringer innerer Verlust und hat den Vorteil, dass man hohen volumetrischen Wirkungsgrad erhält. Da bei diesen Motoren Rollen im Rotorsatz montiert sind, haben diese Motoren hohe Lebensdauer und geringer Reibungsverlust. Man braucht keine Rückschlagventile und Verlustölleitung.

Die Anpassungsmöglichkeiten sind sehr umfangreich. Diese Motoren haben effektive Leistungsumsetzung.

HE



HG

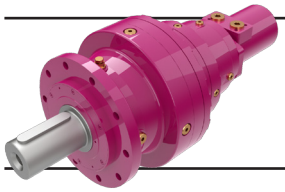


HE Serisi / *HE Series* / HE Serie

Devir [d/dak] *Speed [rpm]* Drehzahl [U/min]	5.....1160
Debi [l/dak] *Oil Flow [l/min]* Schluckstrom [l/min]	max. 75
Giriş Basıncı [bar] *Supply Pressure [bar]* Eingangsdruck [bar]	max. 200
Moment [Nm] *Torque [Nm]* Drehmoment [Nm]	max. 550
Yan yük [N] *Side Load [N]* Seitenlast [N]	max. 7000

HG Serisi / *HG Series* / HG Serie

Devir [d/dak] *Speed [rpm]* Drehzahl [U/min]	5.....710
Debi [l/dak] *Oil Flow [l/min]* Schluckstrom [l/min]	max. 115
Giriş Basıncı [bar] *Supply Pressure [bar]* Eingangsdruck [bar]	max. 300
Moment [Nm] *Torque [Nm]* Drehmoment [Nm]	max. 1490
Yan yük [N] *Side Load [N]* Seitenlast [N]	max. 16000



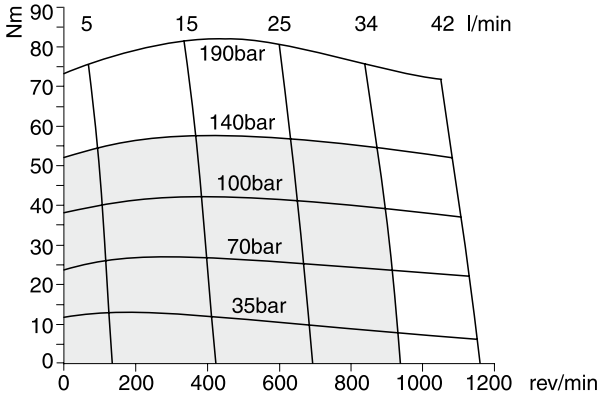
Hidromotor Veri Tablosu / *Hydromotor Data Table* / Datentabelle von hydraulischen Motor

		Deplasman V [cm³/d] *Geometric Displacement V [cm³/rev]* Geom. Schluckvolumen V [cm³/U]	**Maksimum Devir [d/dak]** *Maximum Speed [rpm]* Max. Drehzahl [U/min] (cont / int)	**Maksimum Debi Q_{max} [l/dak]** *Max. Oil Flow Q_{max} [l/min]* Max. Schluckstrom Q_{max} [l/min] (cont / int)	**Maksimum Basınç Farkı [bar]** *Max. Pressure Difference [bar]* Max. Druckdifferenz [bar] (cont / int)	**Maksimum Giriş Basıncı [bar]** *Max Supply Pressure [bar]* Max. Eingangsdruck [bar]	**Maksimum moment [Nm]** *Maximum Torque [Nm]* Max. Drehmoment [Nm] (cont / int)	**Maksimum Güç [kW]** *Maximum Power [kW]* Max. Leistungsabgabe [kW]	**Min. Çalışma Momenti [Nm]** *Min. Starting Torque [Nm]* Min. Anlaufmoment(contint) [Nm]
HE	HE 36	36	930 / 1160	35 / 42	140 / 190	200	55 / 70	8,5	44 / 52
	HE 45	41	810 / 990	35 / 42	140 / 190	200	70 / 100	10	44 / 64
	HE 50	50	725 / 935	35 / 45	140 / 175	200	90 / 115	11	72 / 92
	HE 65	66	705 / 940	45 / 60	140 / 175	200	125 / 160	15	100 / 128
	HE 80	82	560 / 750	45 / 60	140 / 175	200	160 / 200	15	128 / 160
	HE 100	98	470 / 630	45 / 60	140 / 175	200	190 / 240	15	152 / 192
	HE 130	130	350 / 470	45 / 60	140 / 175	200	255 / 320	15	204 / 256
	HE 165	163	280 / 375	45 / 60	140 / 175	200	310 / 395	15	248 / 316
	HE 195	196	235 / 315	45 / 60	140 / 175	200	390 / 480	15	312 / 384
	HE 230	228	265 / 330	60 / 75	120 / 150	200	380 / 480	15	304 / 384
	HE 260	261	230 / 290	60 / 75	110 / 140	200	400 / 525	15	320 / 420
	HE 295	293	200 / 255	60 / 75	100 / 130	200	410 / 520	13	328 / 416
	HE 330	326	185 / 235	60 / 75	100 / 120	200	430 / 530	13	344 / 424
	HE 365	370	150 / 200	60 / 75	95 / 110	200	467 / 558	11	373 / 446
	HE 390	392	152 / 190	60 / 75	85 / 100	200	435 / 540	10	348 / 432
HG	HG 140	140	530 / 710	75 / 100	200 / 280	300	400 / 545	33	320 / 436
	HG 170	169	440 / 575	75 / 100	200 / 280	300	485 / 670	33	388 / 536
	HG 195	195	380 / 510	75 / 100	200 / 280	300	560 / 770	33	448 / 616
	HG 240	237	320 / 420	75 / 100	200 / 280	300	685 / 945	32	548 / 756
	HG 280	280	270 / 350	75 / 100	200 / 280	300	800 / 1100	31	640 / 880
	HG 335	337	225 / 290	75 / 100	200 / 280	300	980 / 1350	30	784 / 1080
	HG 405	405	185 / 245	75 / 100	170 / 240	300	960 / 1350	27	768 / 1080
	HG 475	476	160 / 240	75 / 115	140 / 200	300	960 / 1400	28	768 / 1120
	HG 530	529	140 / 215	75 / 115	140 / 170	300	1050 / 1280	23	840 / 1024
	HG 625	624	120 / 185	75 / 115	120 / 160	300	1040 / 1360	20	832 / 1088
	HG 785	786	95 / 145	75 / 115	100 / 140	300	1150 / 1490	17	920 / 1192
	HG 960	958	78 / 119	75 / 115	70 / 100	300	925 / 1390	12	740 / 1112

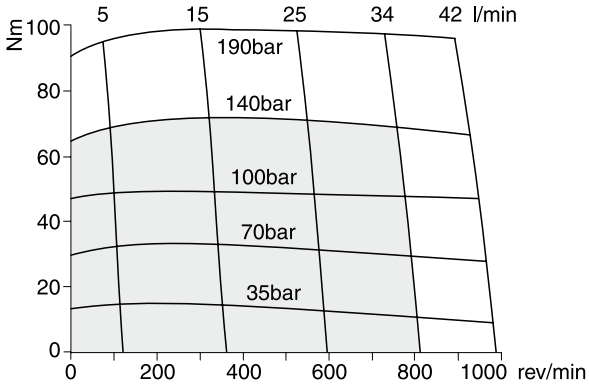
Aralıklı çalışma süresi her dakikanın % 10'u dur.
Intermittent operation rating applies to %10 of every minute.
Intermittierende Werte maximal:%10 von jeder Betriebsminute.

Hidromotor Moment-Devir Diyagramları / *Hydromotor Performance Dıagrams* / Drehmoment-Drehzahl-Diagrammen

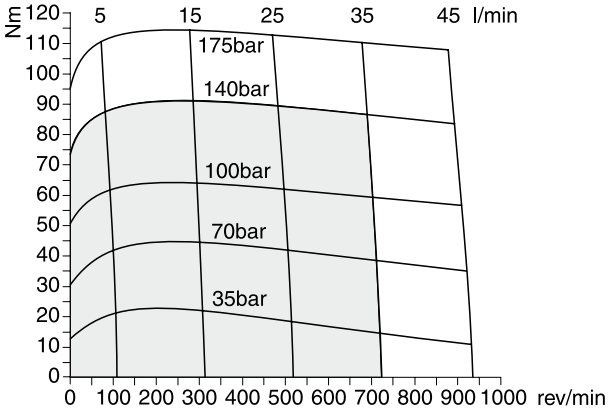
HE 36



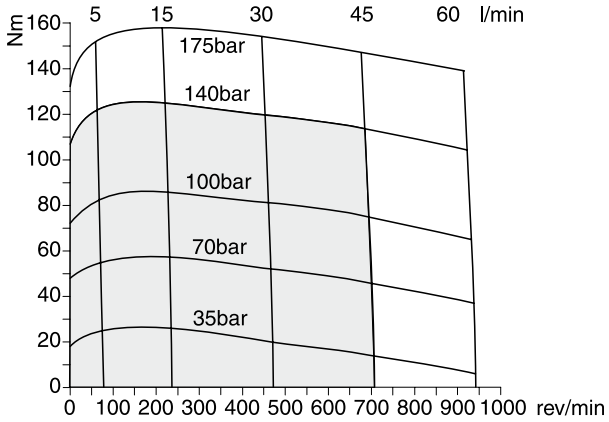
HE 45



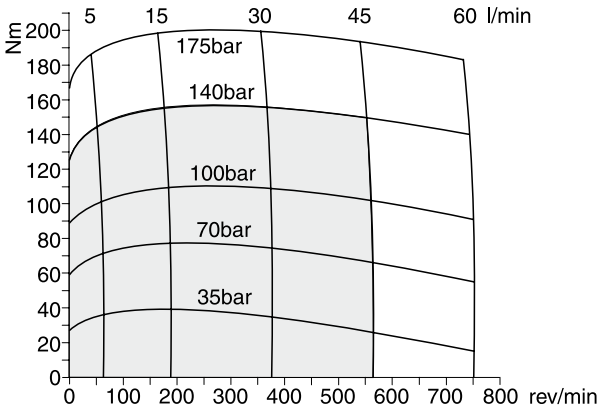
HE 50



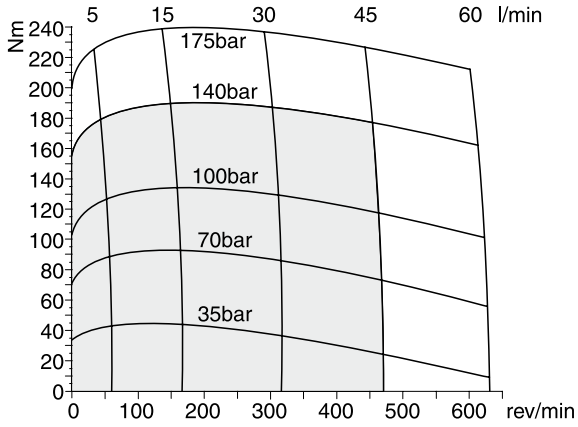
HE 65



HE 80



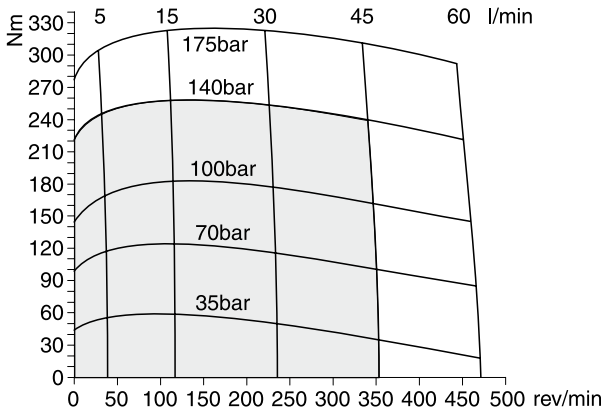
HE 100



☐ Cont. ☐ Int.

Hidromotor Moment-Devir Diyagramları / *Hydromotor Performance Diagrams* / Drehmoment-Drehzahl-Diagrammen

HE130



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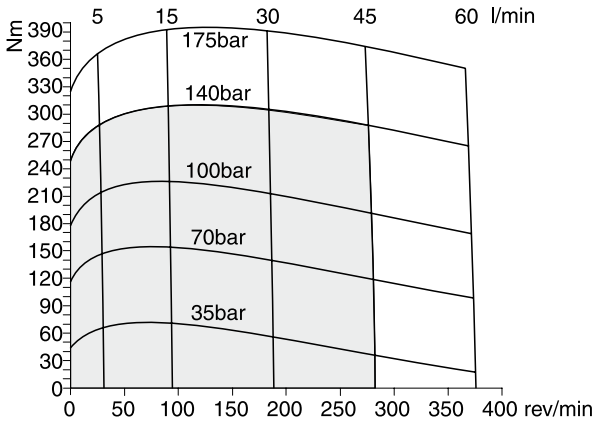

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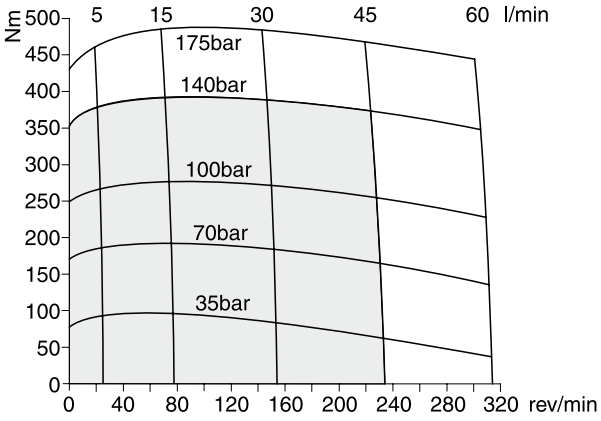

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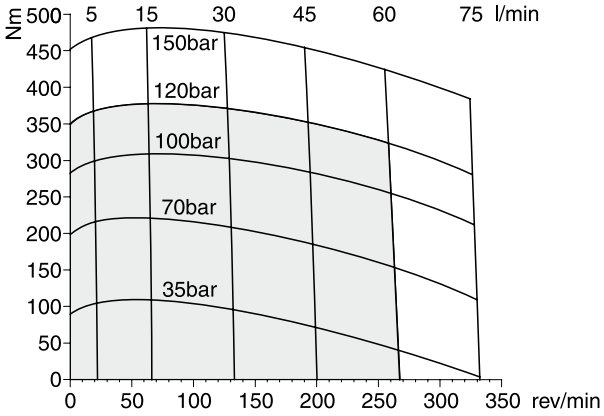

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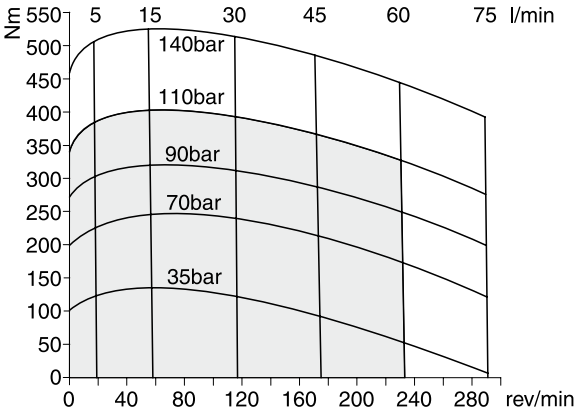

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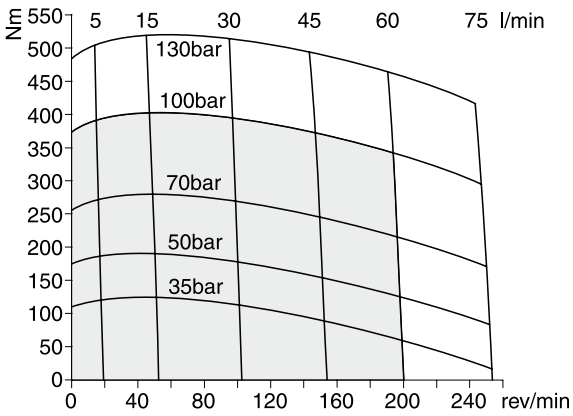
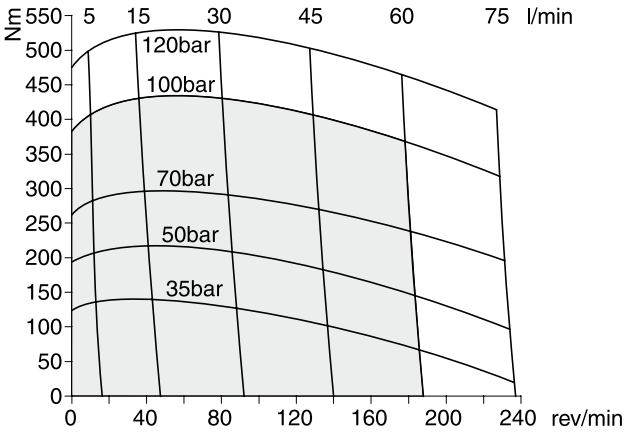


☐ Cont. ☐ Int.

Hidromotor Moment-Devir Diyagramları / *Hydromotor Performance Diagrams* / Drehmoment-Drehzahl-Diagrammen

HE330



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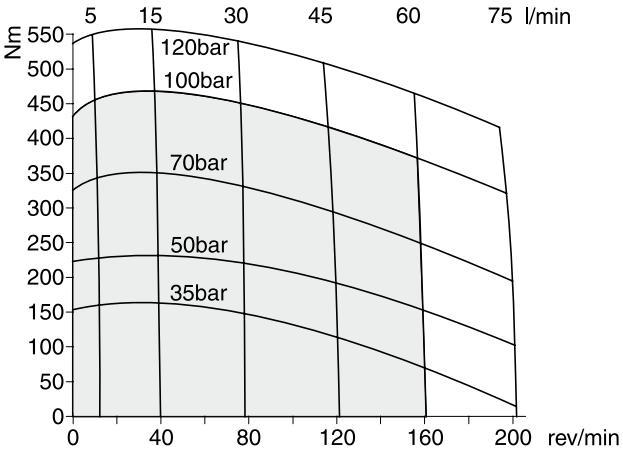
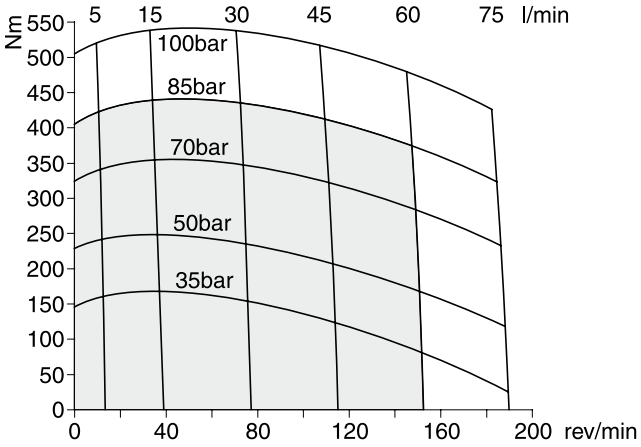
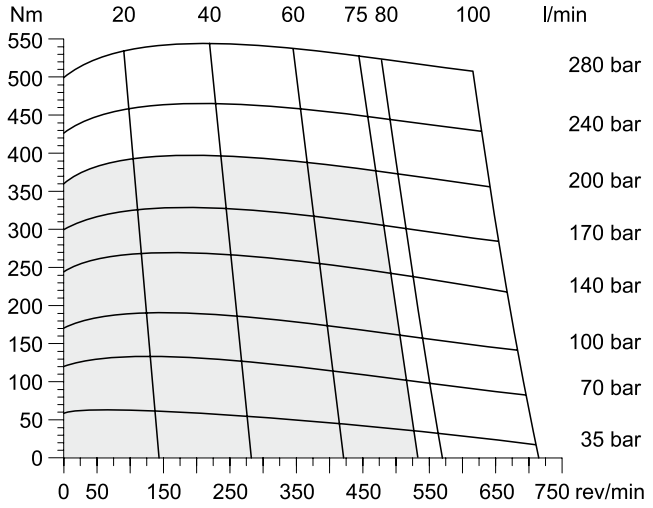


HE390



Hidromotor Moment-Devir Diyagramları / *Hydromotor Performance Diagrams* / Drehmoment-Drehzahl-Diagrammen

HG140



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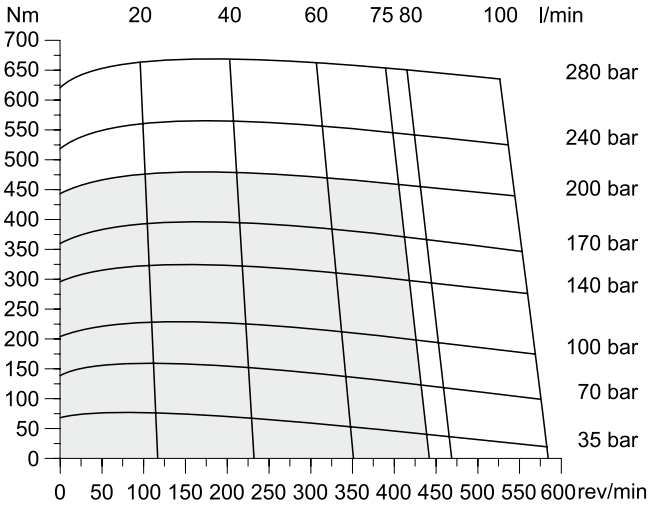

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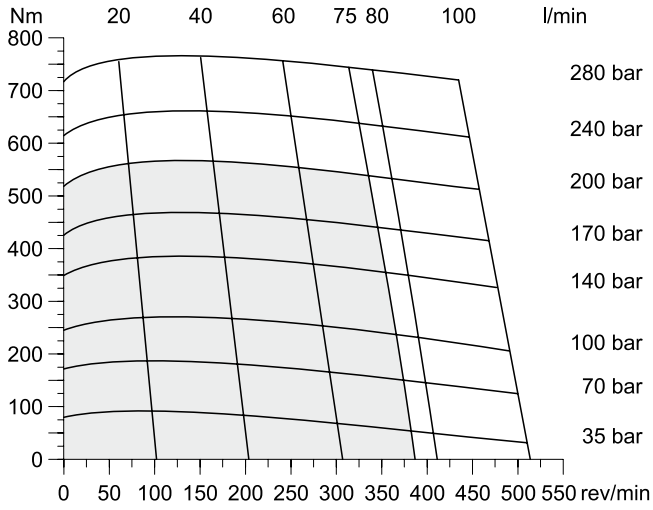

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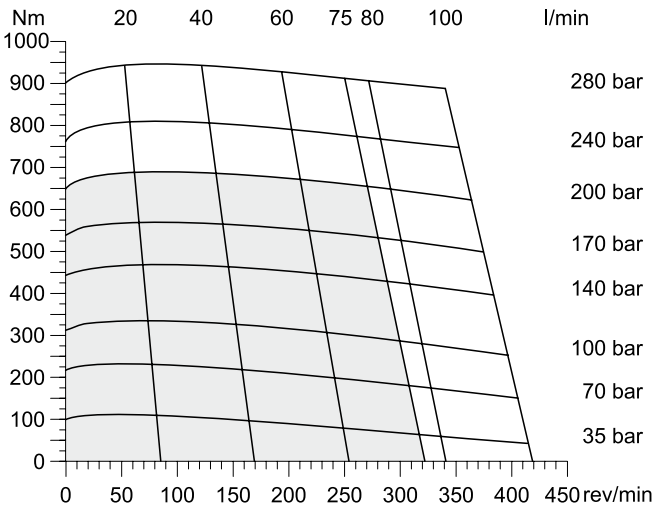

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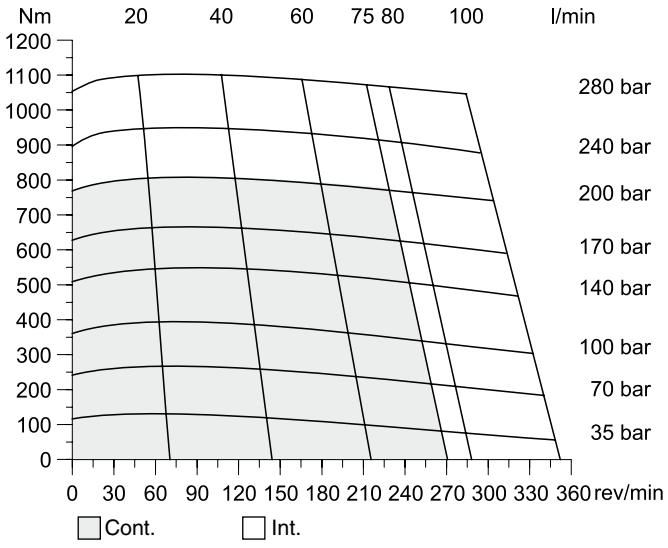

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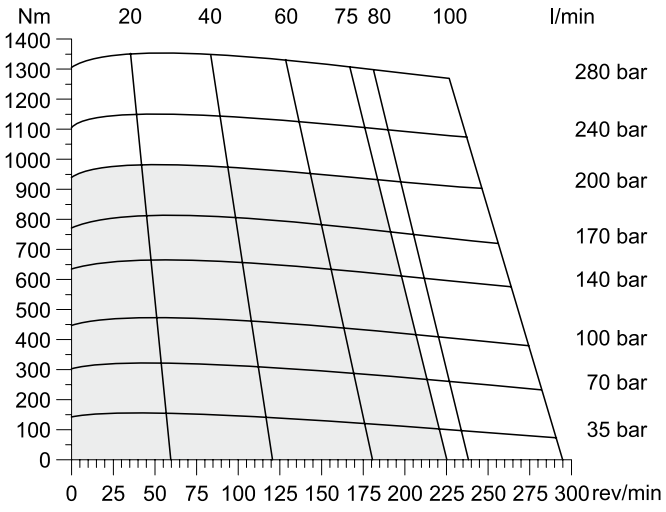
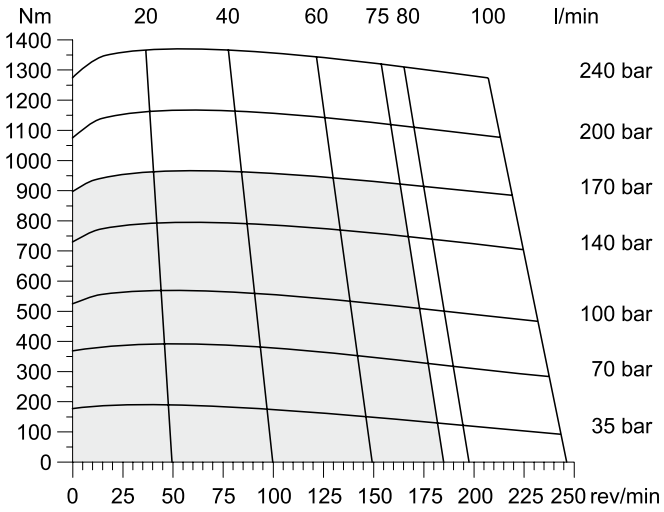
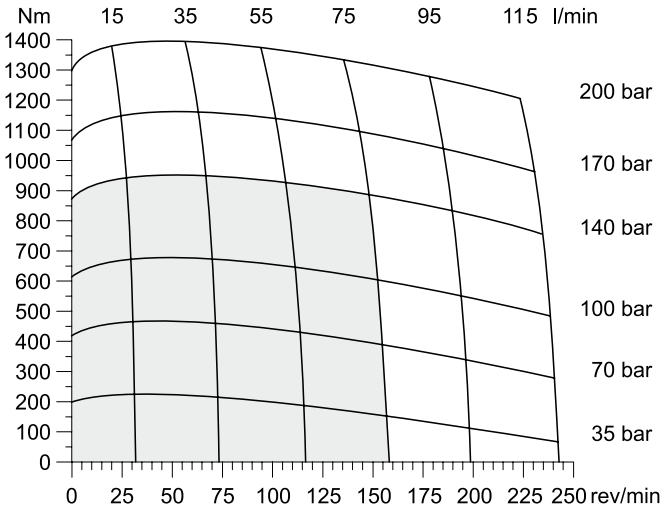


Hidromotor Moment-Devir Diyagramları / *Hydromotor Performance Diagrams* / Drehmoment-Drehzahl-Diagrammen

HG405



HG475



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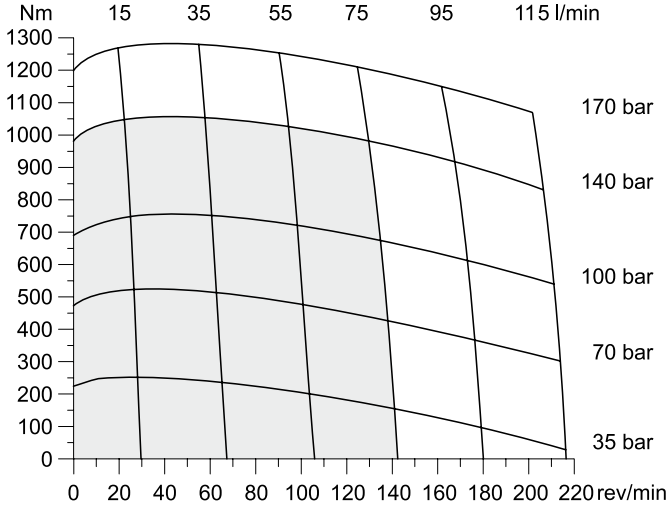

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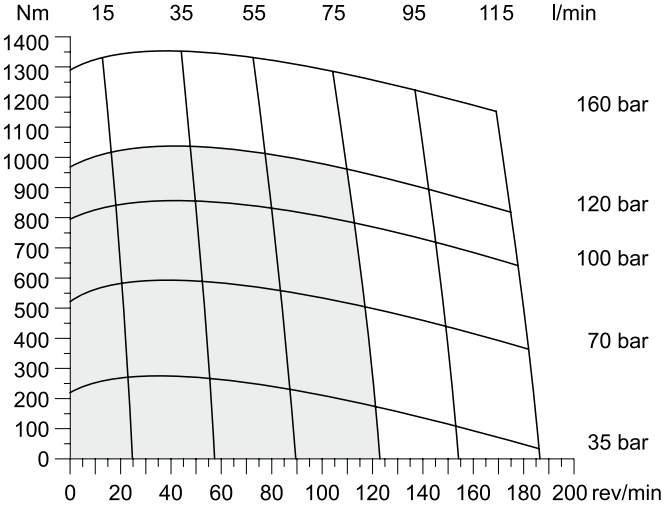
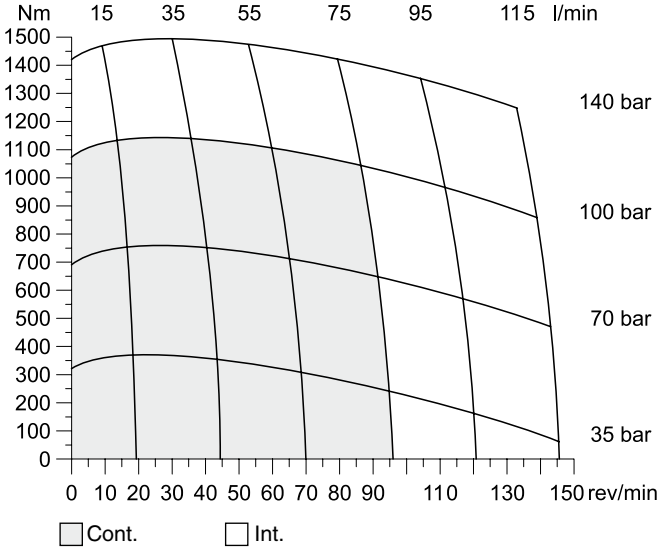
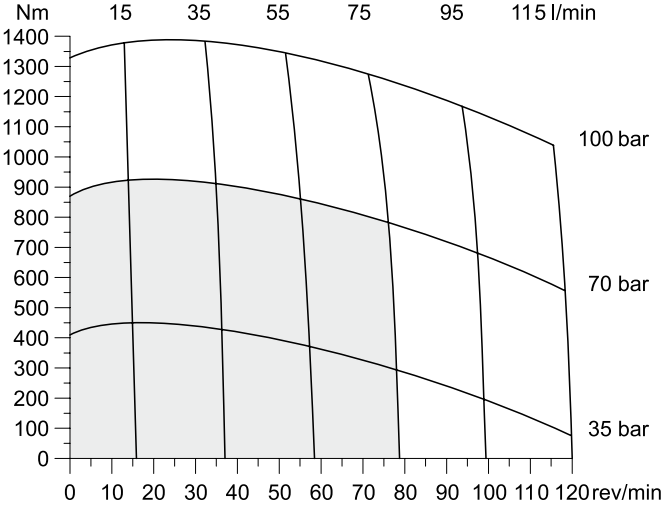
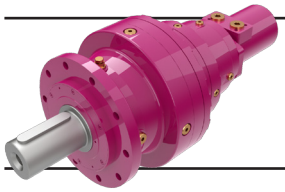


HG785



HG960





Hidrolik Frenler

Hidromotorlar ek basınç uygulamadan çok uzun süreli yük taşıyamazlar. Ancak mekanik fren sayesinde motor başarılı şekilde sabit tutulur.

Hidrolik olarak hareketlendirilen frenlerin avantajı kompakt ve ayarlanabilir olmasıdır. Bu frenlerde aşınmaya göre ayarlama yapılabilir. Ayrıca bu frenler yüksek hızlar ve sık kullanımlar için uygundur. Çalışma esnasında frenlerde sağlanan yağ basıncı sayesinde frenin sürtünme yüzeyleri arasındaki bağlantı kesilmiş olur. Frendeki yağ basıncı kesilince frene basılmış olur.

Aşağıdaki şema tipik bir hidrolik fren bağlantısını göstermektedir.

Hydraulic Brakes

Hydraulic motors usually have a leakage connection, which means that a hydraulic motor can never hold a load for a long period without a pressure feeding. So, a mechanical brake is used to hold the load on the motor in place.

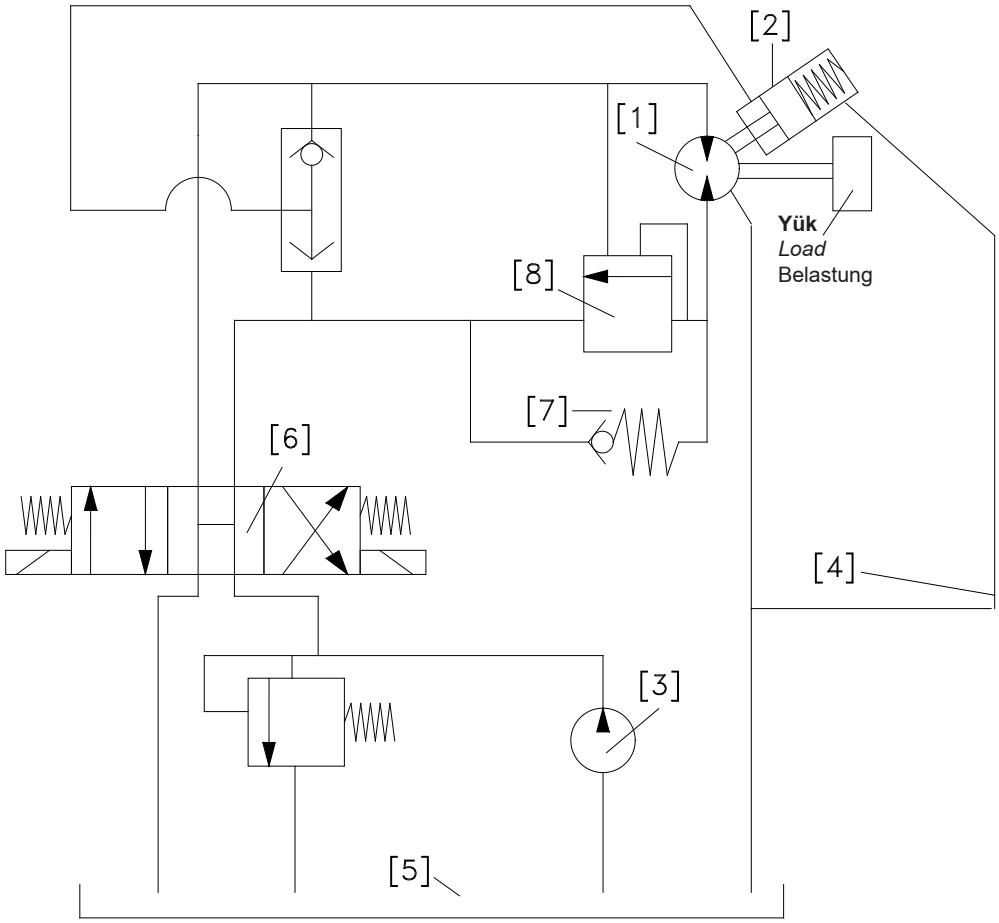
The brakes with hydraulic actuation have the advantage that these brakes are compact and manageable. These brakes can be adjusted according to the wear and are suitable for high speeds and fast switching. During operation the contact between friction surfaces in the brake is set apart by using oil pressure. Once the oil pressure does not exist any more the brake is applied.

The figure bellow shows a typical hydraulic circuit for hydraulic brakes.

Hydraulischen Bremsen

Hydraulische Motoren haben allgemein Verbindungsverlust, d.h. ein hydraulischer Motor kann die Belastung ohne Druckerhöhung nicht für lange Zeit halten. Also, eine mechanische Bremse wird für Belastungsaufnahme verwendet.

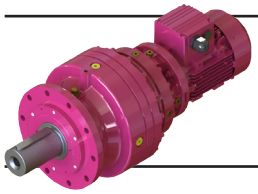
Die Bremsen mit hydraulischer Betätigung hat den Vorteil, dass diese Bremsen kompakt und steuerbar sind. Diese Bremsen kann man entsprechend der Verschleiß nachstellen und sind für hohe Drehzahlen und Schalthäufigkeiten geeignet. Während des Betriebs wird mit Hilfe von Öldruck der Kontakt zwischen Reibflächen in der Bremse auseinander gesetzt. Sobald der Öldruck nicht mehr existiert, wird die Bremse betätigt.
Untere Abbildung zeigt eine typische hydraulische Schaltung für hydraulische Bremse.



1- Hidrolik motor
2- Hidrolik fren
3- Pompa
4- Bilgi bağlantısı
5- Yağ tankı
6- Yönlü valf
7- Basınç valfı
8- Basınç yüklemesi

1- Hydraulic Motor
2- Hydraulic brake
3- Pump
4- Information connection
5- Oil tank
6- Directional valve
7- Pressure valve
8- Pressure charge

1- Hydraulisches Motor
2- Hydraulische Bremse
3- Pumpe
4- Informationsfluss
5- Öltank
6- Ventil mit verschiedenen Richtungen
7- Druckbegrenzungsventil
8- Druckladung



Seçenekler

a- Sıkma Bilezik

Sıkma bileziğin iç eğik yüzeyleri birbirleri üzerinde kaydırıldıkça bilezik iç mile daha çok bastırır ve böylelikle flanş biçiminde kuvvet bağlantısı oluşturulur.

Options

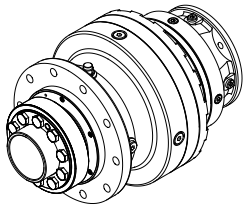
a-Shrink Disc

A shrink disc is a frictional shaft-hub connection with flange. The shrink disc is applied on a hub or hollow shaft and produced pressure while reducing its internal diameter over conical compression surfaces of the outer parts on hollow shaft.

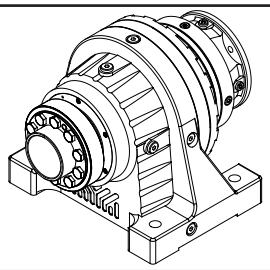
Optionen

a- Schrumpfscheibe

Eine Schrumpfscheibe ist eine flanschförmige kraftschlüssige Welle-Nabe-Verbindung. Die Schrumpfscheibe wird von außen auf eine Nabe oder Hohlwelle aufgebracht und erzeugt durch Verringerung ihres Innendurchmessers über kegelförmige Pressflächen der Außenteile Druck auf die Hohlwelle.



P Serisi sıkma bilezikli / *P series with shrink disk* / P Serie Planetengetriebe mit Schrumpfscheibe und B5 Motorverbindung



R serisi sıkma bilezikli / *R series with shrink disk* / R Serie Planetengetriebe mit Schrumpfscheibe und B5 Motorverbindung

b- Çoklu Kama

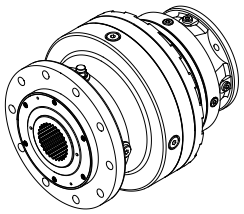
Çoklu kamalı milde dönme yükü form bağlantısı ile birçok yüzeyde taşınır. Yüksek ve çabuk değişen torklarda bu bağlantı çeşidi kullanılır.

b- Splined Shaft

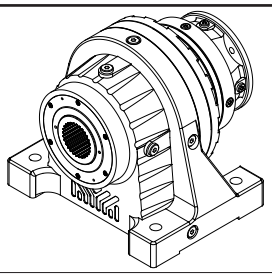
The spline shafts have form connectivity by a variety of carriers. Spline shaft connections are used to transfer large and varying torque.

b- Keilwelle

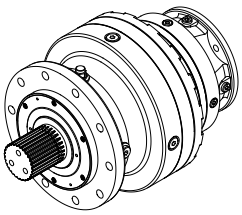
Als Keilwellen werden Wellen bezeichnet, bei denen ein Formschluss mit einer Vielzahl von Mitnehmern hergestellt wird. Keilwellen-Verbindungen werden zur Übertragung großer und wechselnder Drehmomente eingesetzt.



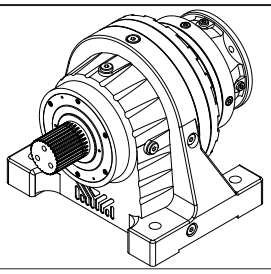
P serisi çoklu kamalı delik milli / *P series with splined hollow shaft* / P Serie mit Hohl-Keilwelle



R serisi çoklu kamalı delik milli / *R series with splined hollow shaft* / R Serie mit Hohl-Keilwelle



P serisi çoklu kamalı mil çıkışlı / *P series with splined solid shaft* / P Serie mit Keilwelle



R serisi çoklu kamalı mil çıkışlı / *R series with splined solid shaft* / R Serie mit Keilwelle

c- Kilit

Merkezkaç kuvveti yaylanma momentine karşı bir kaldırıcı tork oluşturur. Merkezkaç kuvvetinden tork, yaylanma momentinden büyükse kelepçe parçaları hiçbir yüzeye değmeden durur. Kilitler redüktör motorlu olursa motor arkasına, motorsuz olursa giriş miline monte edilir.

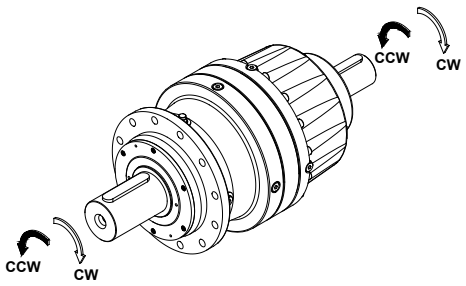
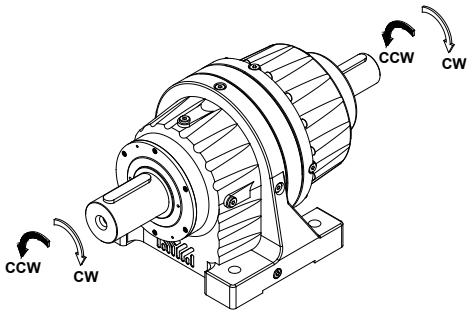
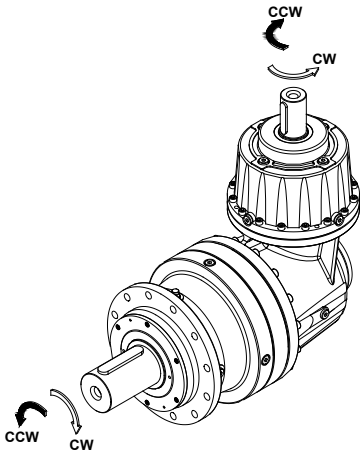
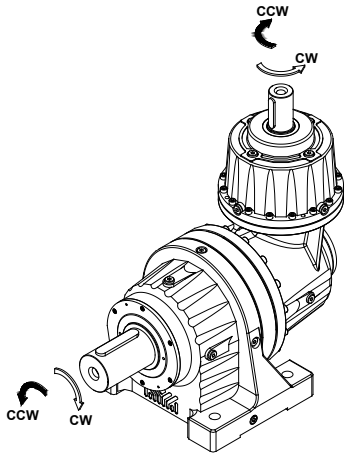
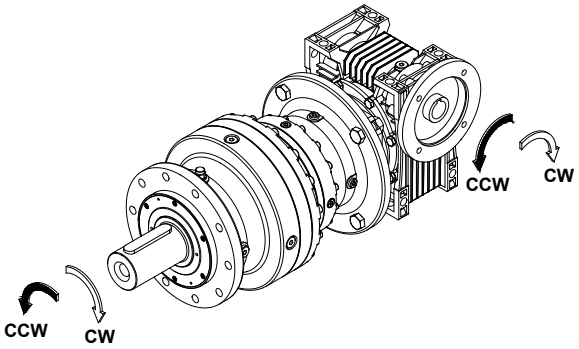
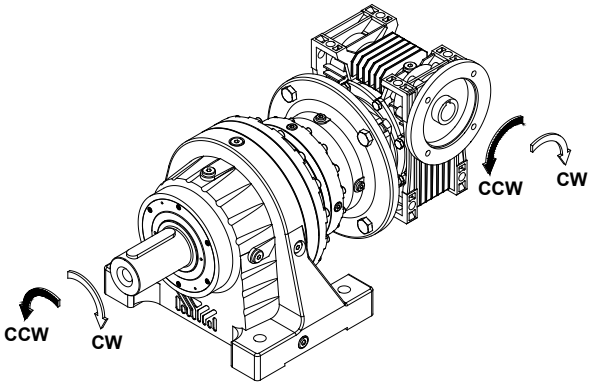
c- Backstop

The centrifugal force creates a torque against the spring system torque. If the torque of the centrifugal force is bigger than the torque of the spring system, the clamp parts will be in a contact-free position. Backstops are assembled at the gearbox units without motor on the input shaft of the gearbox unit and with the motor behind motor shaft.

c- Rücklaufsperre

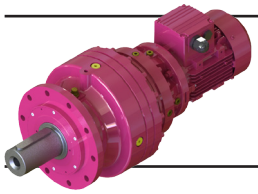
Die Zentrifugalkraft erzeugt ein abhebendes Drehmoment gegen das Anfederungsdrehmoment. Wenn das Drehmoment aus der Zentrifugalkraft größer ist als das Drehmoment der Anfederung, schwenken die Klemmkörper in eine berührungsfreie Position. Rücklaufsperren werden bei den Getrieben ohne Motor auf der Eingangswelle des Getriebes bei den Getrieben mit Motor hinter dem Motor montiert.

Dönüş Yönleri / *Direction of Rotation* / Drehrichtungen

P Serisi L Tipi / *P Series L Type* / P Serie L Type	**R Serisi L Tipi** / *R Series L Typ* / R Serie L Type
	
P Serisi K Tipi / *P Series K Typ* / P Serie K Type	**R Serisi K Tipi** / *R Series K Typ* / R Serie K Type
	
P Serisi L Tipi Sonsuz Bağlantılı / *P Series L Type with Worm Gearbox* / P Serie L Typ mit Schneckenradgetriebe	**R Serisi L Tipi Sonsuz Bağlantılı** / *R Series L Type with Worm Gearbox* / R Serie L Typ mit Schneckenradgetriebe
	

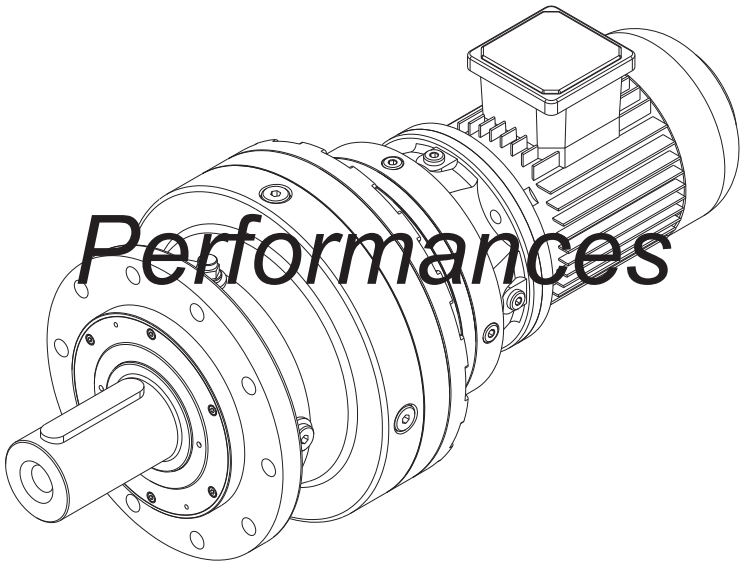
CCW: Saat Yönüne Ters / *Counter Clockwise* / *Gegen Uhrzeigersinn*
CW: Saat Yönünde / *Clockwise* / Im Uhrzeigersinn

Tüm kademelerde geçerlidir / *Valid for all stages* / Gültig für alle Stufen



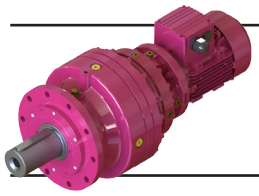
Notlar / *Notes* / Notizen

Güç ve Devir Tabloları



Performances

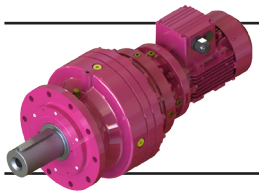
Leistung und Drehzahlübersicht



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çıkış Gücü *Output Power* Abtriebswelle Leistung **P_2 [kW]**	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 Servis Faktörü *Service Factors* Betriebs-faktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
0,37 0,50	2,4	1255	0,31	3,6	2,0	**394,22**	46	2,3	**PV1603L-3E80M/6B** **RV1603L-3E80M/6B** **PV1603L-2E80M/6A** **RV1603L-2E80M/6A**	1,03 1,08 	74 84 73 83	186 187 	IE3 IE2
	2,4 2,9 3,3	1233 1039 902	0,30 0,31 0,31	3,2 3,5 3,8	1,7 1,9 2,0	**394,22** **325,89** **280,33**	46 43 41	1,7 2,5 3,1	**PV1503L-3E80M/6B** **RV1503L-3E80M/6B** **PV1503L-2E80M/6A** **RV1503L-2E80M/6A**	1,03 1,08 	58 68 57 67	182 183 	IE3 IE2
	3,6	779	0,30	3,5	1,8	**394,22**	40	2,5	**PV1503L-3E71M/4D** **RV1503L-3E71M/4D** **PV1503L-2E71M/4C** **RV1503L-2E71M/4C**	0,97 1,0 	54 64 53 63	182 183 	IE3 IE2
	2,4 2,9 3,4	1166 991 863	0,30 0,31 0,31	2,5 2,8 3,0	1,4 1,6 1,7	**381,08** **315,38** **271,57**	32 30 29	1,2 1,8 2,3	**PV1203L-3E80M/6B** **RV1203L-3E80M/6B** **PV1203L-2E80M/6A** **RV1203L-2E80M/6A**	1,03 1,08 	45 47 44 46	178 179 	IE3 IE2
	3,8 4,6	734 634	0,29 0,30	2,8 3,3	1,3 1,7	**381,08** **315,38**	28 27	1,8 2,8	**PV1203L-3E71M/4D** **RV1203L-3E71M/4D** **PV1203L-2E71M/4C** **RV1203L-2E71M/4C**	0,97 1,0 	41 43 40 42	178 179 	IE3 IE2
	2,9 3,4	977 854	0,30 0,31	2,3 2,5	1,3 1,4	**315,38** **271,57**	30 29	1,0 1,2	**PV1103L-3E80M/6B** **RV1103L-3E80M/6B** **PV1103L-2E80M/6A** **RV1103L-2E80M/6A**	1,03 1,08 	41 43 40 42	174 175 	IE3 IE2
	3,8 4,6 5,3 6,6 8,0 9,3 12 14 16 20 22 24	695 612 538 439 369 321 259 213 183 145 132 122	0,27 0,29 0,30 0,30 0,31 0,31 0,31 0,31 0,31 0,31 0,31 0,31	2,2 2,7 2,9 3,1 3,3 3,4 3,6 3,7 3,6 3,5 3,3 3,3	1,1 1,2 1,5 1,6 1,7 1,8 1,8 1,7 1,5 1,3 1,0 1,0	**381,08** **315,38** **271,57** **216,82** **179,44** **154,52** **123,36** **102,09** **87,91** **70,19** **64,28** **58,87**	28 27 25 24 22 21 20 19 18 17 16 16	1,1 1,6 1,9 2,3 2,7 3,1 3,9 4,0 4,0 4,0 4,0 4,0	**PV1103L-3E71M/4D** **RV1103L-3E71M/4D** **PV1103L-2E71M/4C** **RV1103L-2E71M/4C**	0,97 1,0 	37 39 36 38	174 175 	IE3 IE2
	27 33 38 48 58 67 84 92 101	115 97 84 67 56 48 38 35 32	0,33 0,33 0,34 0,34 0,34 0,34 0,34 0,34 0,34	4,1 4,7 5,1 5,6 5,4 5,5 5,1 4,7 4,7	2,0 2,3 2,5 2,6 2,3 2,3 1,6 1,0 1,0	**52,56** **43,50** **37,46** **29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	15 15 14 13 12 12 11 11 10	4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**PV1102L-3E71M/4D** **RV1102L-3E71M/4D** **PV1102L-2E71M/4C** **RV1102L-2E71M/4C**	0,97 1,0 	36 38 35 37	174 175 	IE3 IE2
	198 239 278 348 380	17 14 12 10 8,9	0,35 0,35 0,35 0,35 0,35	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	4,0 4,0 4,0 4,0 4,0	**PV1101L-3E71M/4D** **RV1101L-3E71M/4D** **PV1101L-2E71M/4C** **RV1101L-2E71M/4C**	0,97 1,0 	34 36 33 35	174 175 	IE3 IE2

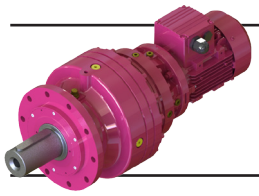
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,55 0,75	0,44	9007	0,42	6,5	3,5	**2110,97**	202	3,2	**PV2904L-3E80M/6C** **RV2904L-3E80M/6C** **PV2904L-2E80M/6B** **RV2904L-2E80M/6B**	1,47 1,50 	319 391 319 391	206 207 	IE3 IE2
	0,37 0,44 0,56	10734 9207 7318	0,41 0,42 0,43	5,1 5,5 5,9	2,8 3,0 3,2	**2540,99** **2141,02** **1668,32**	169 160 148	2,0 2,5 2,7	**PV2704L-3E80M/6C** **RV2704L-3E80M/6C** **PV2704L-2E80M/6B** **RV2704L-2E80M/6B**	1,47 1,50 	246 311 246 311	202 203 	IE3 IE2
	0,57	6814	0,41	5,7	3,0	**2540,99**	146	2,9	**PV2704L-3E80M/4C** **RV2704L-3E80M/4C** **PV2704L-2E80M/4B** **RV2704L-2E80M/4B**	1,34 1,45 	245 310 244 309	202 203 	IE3 IE2
	0,38 0,45 0,55	10389 8939 7395	0,41 0,42 0,42	4,3 4,6 4,8	2,3 2,4 2,5	**2456,29** **2069,65** **1710,91**	190 187 177	1,5 1,7 2,5	**PV2404L-3E80M/6C** **RV2404L-3E80M/6C** **PV2404L-2E80M/6B** **RV2404L-2E80M/6B**	1,47 1,50 	246 311 246 311	198 199 	IE3 IE2
	0,59 0,70	6551 5661	0,40 0,42	4,7 5,1	2,6 2,7	**2456,29** **2069,65**	172 164	2,3 2,5	**PV2404L-3E80M/4C** **RV2404L-3E80M/4C** **PV2404L-2E80M/4B** **RV2404L-2E80M/4B**	1,34 1,45 	210 225 209 224	198 199 	IE3 IE2
	0,38 0,45 0,55	10053 8706 7243	0,40 0,41 0,41	3,7 3,9 4,2	1,9 2,1 2,2	**2456,29** **2069,65** **1710,91**	122 132 140	1,2 1,3 1,7	**PV2304L-3E80M/6C** **RV2304L-3E80M/6C** **PV2304L-2E80M/6B** **RV2304L-2E80M/6B**	1,47 1,50 	162 177 162 177	194 195 	IE3 IE2
	0,59 0,70 0,85 0,99	6276 5436 4597 4000	0,39 0,40 0,41 0,41	4,1 4,4 4,6 4,8	2,2 2,4 2,5 2,6	**2456,29** **2069,65** **1710,91** **1471,75**	146 150 155 148	1,9 1,9 2,7 3,7	**PV2304L-3E80M/4C** **RV2304L-3E80M/4C** **PV2304L-2E80M/4B** **RV2304L-2E80M/4B**	1,34 1,45 	161 176 160 175	194 195 	IE3 IE2
	0,44 0,56	8904 7232	0,41 0,42	4,0 4,3	2,1 2,3	**2102,50** **1675,43**	92 108	1,0 1,2	**PV1904L-3E80M/6C** **RV1904L-3E80M/6C** **PV1904L-2E80M/6B** **RV1904L-2E80M/6B**	1,47 1,50 	118 132 118 132	190 191 	IE3 IE2
	0,59 0,69 0,87 1,0 1,2 1,5	6202 5520 4536 3820 3322 2678	0,39 0,40 0,41 0,42 0,42 0,43	4,2 4,4 4,7 5,0 5,2 5,4	2,2 2,4 2,6 2,7 2,8 2,9	**2444,16** **2102,50** **1675,43** **1385,02** **1191,42** **949,41**	117 121 113 106 102 95	1,2 1,5 1,8 2,2 2,6 3,2	**PV1904L-3E80M/4C** **RV1904L-3E80M/4C** **PV1904L-2E80M/4B** **RV1904L-2E80M/4B**	1,34 1,45 	117 131 116 130	190 191 	IE3 IE2
	2,3	1936	0,46	6,5	3,4	**407,81**	84	2,4	**PV1903L-3E80M/6C** **RV1903L-3E80M/6C** **PV1903L-2E80M/6B** **RV1903L-2E80M/6B**	1,47 1,50 	115 129 115 129	190 191 	IE3 IE2
	0,71 0,90 1,1 1,3 1,6 1,9 2,2	5129 4244 3596 3142 2547 2146 1870	0,38 0,40 0,41 0,41 0,42 0,43 0,43	2,5 2,7 2,9 3,0 3,1 3,3 3,4	1,3 1,3 1,5 1,6 1,6 1,7 1,8	**2032,42** **1619,58** **1340,34** **1154,18** **921,49** **762,61** **656,69**	51 62 58 56 52 49 47	1,0 1,2 1,4 1,6 2,0 2,3 2,7	**PV1604L-3E80M/4C** **RV1604L-3E80M/4C** **PV1604L-2E80M/4B** **RV1604L-2E80M/4B**	1,34 1,45 	79 89 78 88	186 187 	IE3 IE2

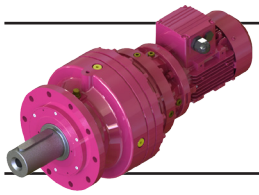
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.** * *Motor Eff. Class* Motor Effizienz-klasse
0,55 0,75	2,4 2,9	1855 1555	0,46 0,47	3,6 4,1	2,0 2,2	**394,22** **325,89**	46 43	1,6 2,6	**PV1603L-3E80M/6C** **RV1603L-3E80M/6C** **PV1603L-2E80M/6B** **RV1603L-2E80M/6B**	1,47 1,50 	74 84 74 84	186 187 	IE3 IE2
	3,7	1178	0,45	4,0	2,1	**394,22**	40	2,3	**PV1603L-3E80M/4C** **RV1603L-3E80M/4C** **PV1603L-2E80M/4B** **RV1603L-2E80M/4B**	1,34 1,45 	73 83 72 82	186 187 	IE3 IE2
	1,1 1,3 1,6 1,9 2,2	3400 2991 2446 2074 1815	0,39 0,39 0,40 0,41 0,42	2,5 2,6 2,7 3,0 3,1	1,3 1,3 1,5 1,6 1,6	**1340,34** **1154,18** **921,49** **762,61** **656,69**	57 56 52 49 47	0,9 1,0 1,3 1,5 1,7	**PV1504L-3E80M/4C** **RV1504L-3E80M/4C** **PV1504L-2E80M/4B** **RV1504L-2E80M/4B**	1,34 1,45 	63 73 62 72	182 183 	IE3 IE2
	2,4 2,9 3,3	1822 1536 1334	0,45 0,46 0,47	3,2 3,5 3,8	1,7 1,9 2,0	**394,22** **325,89** **280,33**	46 43 41	1,2 1,7 2,1	**PV1503L-3E80M/6C** **RV1503L-3E80M/6C** **PV1503L-2E80M/6B** **RV1503L-2E80M/6B**	1,47 1,50 	58 68 58 68	182 183 	IE3 IE2
	3,7 4,4	1145 978	0,44 0,46	3,5 3,9	1,8 2,0	**394,22** **325,89**	40 38	1,7 2,6	**PV1503L-3E80M/4C** **RV1503L-3E80M/4C** **PV1503L-2E80M/4B** **RV1503L-2E80M/4B**	1,34 1,45 	57 67 56 66	182 183 	IE3 IE2
	1,8	2224	0,43	2,6	1,4	**508,87**	35	0,9	**PV1204L-3E80M/6C** **RV1204L-3E80M/6C** **PV1204L-2E80M/6B** **RV1204L-2E80M/6B**	1,47 1,50 	51 53 51 53	178 179 	IE3 IE2
	2,0 2,3 2,8	1961 1721 1407	0,40 0,41 0,42	2,6 2,7 2,8	1,3 1,3 1,4	**740,18** **637,38** **508,87**	34 33 31	1,0 1,2 1,4	**PV1204L-3E80M/4C** **RV1204L-3E80M/4C** **PV1204L-2E80M/4B** **RV1204L-2E80M/4B**	1,34 1,45 	50 52 49 51	178 179 	IE3 IE2
	3,0 3,4	1466 1277	0,46 0,46	2,8 3,0	1,6 1,7	**315,38** **271,57**	30 29	1,2 1,6	**PV1203L-3E80M/6C** **RV1203L-3E80M/6C** **PV1203L-2E80M/6B** **RV1203L-2E80M/6B**	1,47 1,50 	45 47 45 47	178 179 	IE3 IE2
	3,8 4,6 5,3 6,7	1081 933 817 662	0,43 0,45 0,46 0,46	2,8 3,3 3,5 3,8	1,3 1,7 1,8 2,0	**381,08** **315,38** **271,57** **216,82**	28 26 25 24	1,2 1,9 2,4 3,0	**PV1203L-3E80M/4C** **RV1203L-3E80M/4C** **PV1203L-2E80M/4B** **RV1203L-2E80M/4B**	1,34 1,45 	44 46 43 45	178 179 	IE3 IE2
	3,4 4,0	1080 912	0,39 0,38	2,4 2,4	1,2 1,1	**421,14** **362,65**	29 28	0,9 1,1	**PV1104L-3E80M/4C** **RV1104L-3E80M/4C** **PV1104L-2E80M/4B** **RV1104L-2E80M/4B**	1,34 1,45 	44 47 43 46	174 175 	IE3 IE2
	4,3	1023	0,46	2,7	1,5	**216,82**	27	1,0	**PV1103L-3E80M/6C** **RV1103L-3E80M/6C** **PV1103L-2E80M/6B** **RV1103L-2E80M/6B**	1,47 1,50 	41 43 41 43	174 175 	IE3 IE2
	4,6 5,3 6,7 8,1	900 792 646 543	0,43 0,44 0,45 0,46	2,7 2,9 3,1 3,3	1,2 1,5 1,6 1,7	**315,38** **271,57** **216,82** **179,44**	26 25 24 22	1,1 1,3 1,5 1,8	**PV1103L-3E80M/4C** **RV1103L-3E80M/4C** **PV1103L-2E80M/4B** **RV1103L-2E80M/4B**	1,34 1,45 	40 42 39 41	174 175 	IE3 IE2

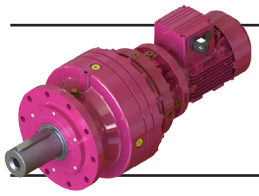
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienzklasse
0,55 0,75	9,4 12 14 16 21 23 25	472 380 314 270 213 194 179	0,46 0,47 0,47 0,47 0,46 0,46 0,46	3,4 3,6 3,7 3,6 3,5 3,3 3,3	1,8 1,8 1,7 1,5 1,3 1,0 1,0	**154,52** **123,36** **102,09** **87,91** **70,19** **64,28** **58,87**	21 20 19 18 17 16 16	2,1 2,6 3,2 3,7 4,0 4,0 4,0	**PV1103L-3E80M/4C** **RV1103L-3E80M/4C** **PV1103L-2E80M/4B** **RV1103L-2E80M/4B**	1,34 1,45 	40 42 39 41	174 175	IE3 IE2
	28 33 39 48 59 68 85 93 102	169 142 123 99 82 71 56 52 47	0,49 0,50 0,50 0,50 0,50 0,50 0,50 0,50 0,50	4,1 4,7 5,1 5,6 5,4 5,5 5,1 4,7 4,7	2,0 2,3 2,5 2,6 2,3 2,3 1,6 1,0 1,0	**52,56** **43,50** **37,46** **29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	15 15 14 13 12 12 11 11 10	4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**PV1102L-3E80M/4C** **RV1102L-3E80M/4C** **PV1102L-2E80M/4B** **RV1102L-2E80M/4B**	1,34 1,45 	37 39 36 38	174 175	IE3 IE2
	200 242 281 352 384	25 21 18 14 13	0,52 0,52 0,53 0,53 0,53	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	4,0 4,0 4,0 4,0 4,0	**PV1101L-3E80M/4C** **RV1101L-3E80M/4C** **PV1101L-2E80M/4B** **RV1101L-2E80M/4B**	1,34 1,45 	30 32 29 31	174 175	IE3 IE2
0,75 1,0	0,43	12876	0,58	7,7	4,3	**2202,19**	273	2,5	**PV3504L-3E90S/6B** **RV3504L-3E90S/6B** **PV3504L-2E90S/6A** **RV3504L-2E90S/6A**	1,96 2,0 	434 520 432 518	210 211	IE3 IE2
	0,45 0,53	12152 10447	0,57 0,58	6,5 6,9	3,5 3,7	**2110,97** **1778,69**	204 194	2,4 3,4	**PV2904L-3E90S/6B** **RV2904L-3E90S/6B** **PV2904L-2E90S/6A** **RV2904L-2E90S/6A**	1,96 2,0 	322 394 320 392	206 207	IE3 IE2
	0,37 0,44	14482 12422	0,56 0,57	5,1 5,5	2,8 3,0	**2540,99** **2141,02**	166 158	1,5 1,9	**PV2704L-3E90S/6B** **RV2704L-3E90S/6B** **PV2704L-2E90S/6A** **RV2704L-2E90S/6A**	1,96 2,0 	249 314 247 312	202 203	IE3 IE2
	0,57 0,68 0,87	9292 8032 6386	0,56 0,57 0,58	5,7 6,1 6,4	3,0 3,3 3,5	**2540,99** **2141,02** **1668,32**	146 139 128	2,2 2,8 2,9	**PV2704L-3E80M/4D** **RV2704L-3E80M/4D** **PV2704L-2E80M/4C** **RV2704L-2E80M/4C**	1,77 1,89 	247 312 246 311	202 203	IE3 IE2
	0,38 0,46 0,55	14017 12060 9977	0,56 0,58 0,58	4,3 4,6 4,8	2,3 2,4 2,5	**2456,29** **2069,65** **1710,91**	164 179 176	1,1 1,3 1,9	**PV2404L-3E90S/6B** **RV2404L-3E90S/6B** **PV2404L-2E90S/6A** **RV2404L-2E90S/6A**	1,96 2,0 	213 228 211 226	198 199	IE3 IE2
	0,59 0,70 0,85 0,99	8933 7719 6480 5623	0,55 0,57 0,58 0,58	4,7 5,1 5,4 5,6	2,6 2,7 2,9 3,0	**2456,29** **2069,65** **1710,91** **1471,75**	172 164 155 148	1,7 1,9 2,8 3,1	**PV2404L-3E80M/4D** **RV2404L-3E80M/4D** **PV2404L-2E80M/4C** **RV2404L-2E80M/4C**	1,77 1,89 	211 226 210 225	198 199	IE3 IE2
	0,38 0,46 0,55	13564 11746 9772	0,55 0,56 0,57	3,7 3,9 4,2	1,9 2,1 2,2	**2456,29** **2069,65** **1710,91**	90 109 124	0,9 0,9 1,3	**PV2304L-3E90S/6B** **RV2304L-3E90S/6B** **PV2304L-2E90S/6A** **RV2304L-2E90S/6A**	1,96 2,0 	164 180 162 178	194 195	IE3 IE2

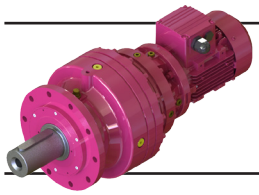
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,75	0,59	8558	0,53	4,1	2,2	**2456,29**	133	1,4	**PV2304L-3E80M/4D**	1,77	162	194	IE3
1,0	0,70	7412	0,54	4,4	2,4	**2069,65**	139	1,4	**RV2304L-3E80M/4D**		177	195	
	0,85	6268	0,56	4,6	2,5	**1710,91**	145	2,0	**PV2304L-2E80M/4C**	1,89	161		IE2
	0,99	5454	0,56	4,8	2,6	**1471,75**	148	2,3	**RV2304L-2E80M/4C**		176		
	1,2	4401	0,57	5,0	2,7	**1172,80**	138	2,7					
	0,68	8150	0,58	4,5	2,4	**1385,02**	100	1,0	**PV1904L-3E90S/6B**	1,96	121	190	IE3
									RV1904L-3E90S/6B		135	191	
									PV1904L-2E90S/6A	2,0	119		IE2
									RV1904L-2E90S/6A		133		
	0,69	7527	0,54	4,4	2,4	**2102,50**	106	1,1	**PV1904L-3E80M/4D**	1,77	118	190	IE3
	0,87	6185	0,56	4,7	2,6	**1675,43**	113	1,3	**RV1904L-3E80M/4D**		132	191	
	1,0	5209	0,57	5,0	2,7	**1385,02**	106	1,6	**PV1904L-2E80M/4C**	1,89	117		IE2
	1,2	4530	0,58	5,2	2,8	**1191,42**	102	1,9	**RV1904L-2E80M/4C**		131		
	1,5	3652	0,58	5,4	2,9	**949,41**	95	2,3					
	1,8	3068	0,59	5,7	3,1	**785,72**	90	2,7					
	2,1	2667	0,60	6,0	3,2	**676,59**	86	3,1					
	2,3	2613	0,63	6,5	3,4	**407,81**	85	1,8	**PV1903L-3E90S/6B**	1,96	118	190	IE3
	2,8	2185	0,64	7,3	3,9	**337,13**	80	2,9	**RV1903L-3E90S/6B**		132	191	
									PV1903L-2E90S/6A	2,0	116		IE2
									RV1903L-2E90S/6A		130		
	3,6	1690	0,63	7,2	4,0	**407,81**	73	2,7	**PV1903L-3E80M/4D**	1,77	114	190	IE3
									RV1903L-3E80M/4D		128	191	
									PV1903L-2E80M/4C	1,89	113		IE2
									RV1903L-2E80M/4C		127		
	1,0	5421	0,58	2,8	1,5	**921,49**	44	0,9	**PV1604L-3E90S/6B**	1,96	83	186	IE3
									RV1604L-3E90S/6B		93	187	
									PV1604L-2E90S/6A	2,0	81		IE2
									RV1604L-2E90S/6A		91		
	1,1	4904	0,56	2,9	1,5	**1340,34**	55	1,0	**PV1604L-3E80M/4D**	1,77	80	186	IE3
	1,3	4285	0,56	3,0	1,6	**1154,18**	56	1,2	**RV1604L-3E80M/4D**		90	187	
	1,6	3473	0,57	3,1	1,6	**921,49**	52	1,4	**PV1604L-2E80M/4C**	1,89	79		IE2
	1,9	2927	0,58	3,3	1,7	**762,61**	49	1,7	**RV1604L-2E80M/4C**		89		
	2,2	2550	0,59	3,4	1,8	**656,69**	47	2,0					
	2,4	2503	0,63	3,6	2,0	**394,22**	46	1,2	**PV1603L-3E90S/6B**	1,96	77	186	IE3
	2,9	2098	0,64	4,1	2,2	**325,89**	43	1,9	**RV1603L-3E90S/6B**		87	187	
	3,4	1815	0,64	4,4	2,3	**280,33**	41	2,6	**PV1603L-2E90S/6A**	2,0	75		IE2
									RV1603L-2E90S/6A		85		
	3,7	1607	0,62	4,0	2,1	**394,22**	40	1,7	**PV1603L-3E80M/4D**	1,77	74	186	IE3
	4,4	1362	0,63	4,6	2,3	**325,89**	38	2,9	**RV1603L-3E80M/4D**		84	187	
									PV1603L-2E80M/4C	1,89	73		IE2
									RV1603L-2E80M/4C		83		
	1,6	3335	0,55	2,7	1,5	**921,49**	52	0,9	**PV1504L-3E80M/4D**	1,77	64	182	IE3
	1,9	2828	0,56	3,0	1,6	**762,61**	49	1,1	**RV1504L-3E80M/4D**		74	183	
	2,2	2475	0,57	3,1	1,6	**656,69**	47	1,3	**PV1504L-2E80M/4C**	1,89	63		IE2
	2,8	2014	0,58	3,3	1,7	**524,29**	44	1,5	**RV1504L-2E80M/4C**		73		
	2,9	2073	0,63	3,5	1,9	**325,89**	43	1,2	**PV1503L-3E90S/6B**	1,96	61	182	IE3
	3,4	1800	0,64	3,8	2,0	**280,33**	41	1,6	**RV1503L-3E90S/6B**		71	183	
									PV1503L-2E90S/6A	2,0	59		IE2
									RV1503L-2E90S/6A		69		

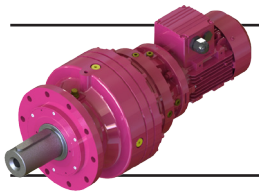
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
0,75 1,0	3,7 4,4 5,2 6,3	1562 1334 1164 973	0,60 0,62 0,63 0,64	3,5 3,9 4,2 4,5	1,8 2,0 2,2 2,3	**394,22** **325,89** **280,33** **232,00**	40 38 36 34	1,2 1,9 2,4 2,8	**PV1503L-3E80M/4D** **RV1503L-3E80M/4D** **PV1503L-2E80M/4C** **RV1503L-2E80M/4C**	1,77 1,89 	58 68 57 67	182 183 	IE3 IE2
	2,6	2127	0,58	2,7	1,5	**362,65**	31	0,9	**PV1204L-3E90S/6B** **RV1204L-3E90S/6B** **PV1204L-2E90S/6A** **RV1204L-2E90S/6A**	1,96 2,0 	53 55 51 53	178 179 	IE3 IE2
	2,8	1918	0,57	2,8	1,4	**508,87**	31	1,0	**PV1204L-3E80M/4D** **RV1204L-3E80M/4D** **PV1204L-2E80M/4C** **RV1204L-2E80M/4C**	1,77 1,89 	51 53 50 52	178 179 	IE3 IE2
	3,0 3,5	1978 1722	0,62 0,63	2,8 3,0	1,6 1,7	**315,38** **271,57**	30 29	0,9 1,2	**PV1203L-3E90S/6B** **RV1203L-3E90S/6B** **PV1203L-2E90S/6A** **RV1203L-2E90S/6A**	1,96 2,0 	47 49 45 47	178 179 	IE3 IE2
	3,8 4,6 5,3 6,7 8,1 9,4	1473 1273 1115 903 754 653	0,59 0,61 0,62 0,63 0,64 0,64	2,8 3,3 3,5 3,8 4,0 4,1	1,3 1,7 1,8 2,0 2,1 2,1	**381,08** **315,38** **271,57** **216,82** **179,44** **154,52**	28 26 25 24 22 21	0,9 1,4 1,8 2,2 2,7 3,1	**PV1203L-3E80M/4D** **RV1203L-3E80M/4D** **PV1203L-2E80M/4C** **RV1203L-2E80M/4C**	1,77 1,89 	45 47 44 46	178 179 	IE3 IE2
	5,0	957	0,50	2,4	0,9	**289,53**	26	1,0	**PV1104L-3E80M/4D** **RV1104L-3E80M/4D** **PV1104L-2E80M/4C** **RV1104L-2E80M/4C**	1,77 1,89 	45 48 44 47	174 175 	IE3 IE2
	5,3 6,7 8,1 9,4 12 14 16	1080 881 740 643 519 428 368	0,60 0,62 0,63 0,63 0,64 0,64 0,63	2,9 3,1 3,3 3,4 3,6 3,7 3,6	1,5 1,6 1,7 1,8 1,8 1,7 1,5	**271,57** **216,82** **179,44** **154,52** **123,36** **102,09** **87,91**	25 24 22 21 20 19 18	0,9 1,1 1,4 1,6 1,9 2,3 2,7	**PV1103L-3E80M/4D** **RV1103L-3E80M/4D** **PV1103L-2E80M/4C** **RV1103L-2E80M/4C**	1,77 1,89 	41 43 40 42	174 175 	IE3 IE2
	18 22	355 298	0,67 0,68	3,6 4,2	2,1 2,4	**52,56** **43,50**	17 17	1,9 3,0	**PV1102L-3E90S/6B** **RV1102L-3E90S/6B** **PV1102L-2E90S/6A** **RV1102L-2E90S/6A**	1,96 2,0 	40 42 38 40	174 175 	IE3 IE2
	28 33 39 48 59 68 85 93 102	230 194 168 135 112 96 77 70 64	0,67 0,68 0,68 0,69 0,69 0,69 0,69 0,68 0,69	4,1 4,7 5,1 5,6 5,4 5,5 5,1 4,7 4,7	2,0 2,3 2,5 2,6 2,3 2,3 1,6 1,0 1,0	**52,56** **43,50** **37,46** **29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	16 15 14 13 12 12 11 11 10	2,8 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**PV1102L-3E80M/4D** **RV1102L-3E80M/4D** **PV1102L-2E80M/4C** **RV1102L-2E80M/4C**	1,77 1,89 	36 38 35 37	174 175 	IE3 IE2
	200 242 281 352 384	34 28 24 19 18	0,71 0,71 0,72 0,72 0,72	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	4,0 4,0 4,0 4,0 4,0	**PV1101L-3E80M/4D** **RV1101L-3E80M/4D** **PV1101L-2E80M/4C** **RV1101L-2E80M/4C**	1,77 1,89 	31 33 30 32	174 175 	IE3 IE2

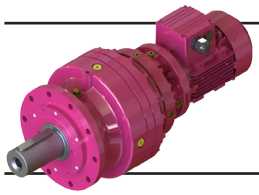
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,1 1,5	0,43 0,51	18986 15884	0,85 0,85	7,7 8,4	4,3 4,6	**2202,19** **1829,51**	273 258	1,7 2,8	**PV3504L-3E90L/6C** **RV3504L-3E90L/6C** **PV3504L-2E90L/6B** **RV3504L-2E90L/6B**	2,75 2,90 	437 523 435 521	210 211 	IE3 IE2
	0,66	12257	0,85	8,5	4,7	**2202,19**	240	2,4	**PV3504L-3E90S/4C** **RV3504L-3E90S/4C** **PV3504L-2E90S/4B** **RV3504L-2E90S/4B**	2,46 2,60 	435 521 433 519	210 211 	IE3 IE2
	0,45 0,53 0,68	17917 15404 12092	0,84 0,85 0,86	6,5 6,9 7,3	3,5 3,7 3,9	**2110,97** **1778,69** **1385,99**	204 194 179	1,7 2,3 2,9	**PV2904L-3E90L/6C** **RV2904L-3E90L/6C** **PV2904L-2E90L/6B** **RV2904L-2E90L/6B**	2,75 2,90 	325 397 323 395	206 207 	IE3 IE2
	0,69	11579	0,83	7,1	3,9	**2110,97**	176	2,5	**PV2904L-3E90S/4C** **RV2904L-3E90S/4C** **PV2904L-2E90S/4B** **RV2904L-2E90S/4B**	2,46 2,60 	323 395 321 393	206 207 	IE3 IE2
	0,37 0,44 0,56	21353 18316 14557	0,83 0,84 0,86	5,1 5,5 5,9	2,8 3,0 3,2	**2540,99** **2141,02** **1668,32**	167 158 147	1,0 1,3 1,3	**PV2704L-3E90L/6C** **RV2704L-3E90L/6C** **PV2704L-2E90L/6B** **RV2704L-2E90L/6B**	2,75 2,90 	251 316 249 314	202 203 	IE3 IE2
	0,57 0,68 0,87	13628 11781 9367	0,81 0,84 0,85	5,7 6,1 6,4	3,0 3,3 3,5	**2540,99** **2141,02** **1668,32**	146 139 128	1,5 1,9 2,0	**PV2704L-3E90S/4C** **RV2704L-3E90S/4C** **PV2704L-2E90S/4B** **RV2704L-2E90S/4B**	2,46 2,60 	250 315 248 313	202 203 	IE3 IE2
	0,55	14710	0,85	4,8	2,5	**1710,91**	158	1,3	**PV2404L-3E90L/6C** **RV2404L-3E90L/6C** **PV2404L-2E90L/6B** **RV2404L-2E90L/6B**	2,75 2,90 	215 230 213 228	198 199 	IE3 IE2
	0,59 0,70 0,85 0,99 1,2	13102 11321 9503 8248 6635	0,81 0,83 0,84 0,85 0,86	4,7 5,1 5,4 5,6 5,8	2,6 2,7 2,9 3,0 3,1	**2456,29** **2069,65** **1710,91** **1471,75** **1172,80**	172 164 155 148 138	1,1 1,3 1,9 2,1 2,6	**PV2404L-3E90S/4C** **RV2404L-3E90S/4C** **PV2404L-2E90S/4B** **RV2404L-2E90S/4B**	2,46 2,60 	212 227 210 225	198 199 	IE3 IE2
	0,59 0,70 0,85 0,99 1,2 1,6 1,9	12551 10871 9194 7999 6455 5114 4290	0,78 0,80 0,82 0,83 0,84 0,85 0,86	4,1 4,4 4,6 4,8 5,0 5,4 5,7	2,2 2,4 2,5 2,6 2,7 2,9 3,0	**2456,29** **2069,65** **1710,91** **1471,75** **1172,80** **913,87** **756,31**	101 116 128 136 138 128 121	0,9 0,9 1,4 1,5 1,9 2,4 2,9	**PV2304L-3E90S/4C** **RV2304L-3E90S/4C** **PV2304L-2E90S/4B** **RV2304L-2E90S/4B**	2,46 2,60 	164 180 162 178	194 195 	IE3 IE2
	2,8	3204	0,93	7,0	3,7	**338,80**	108	2,9	**PV2303L-3E90L/6C** **RV2303L-3E90L/6C** **PV2303L-2E90L/6B** **RV2303L-2E90L/6B**	2,75 2,90 	167 183 165 181	194 195 	IE3 IE2
	0,87 1,0 1,2 1,5 1,8 2,1	9072 7640 6645 5357 4500 3911	0,82 0,84 0,85 0,86 0,87 0,88	4,7 5,0 5,2 5,4 5,7 6,0	2,6 2,7 2,8 2,9 3,1 3,2	**1675,43** **1385,02** **1191,42** **949,41** **785,72** **676,59**	90 104 102 95 90 86	0,9 1,1 1,3 1,6 1,8 2,1	**PV1904L-3E90S/4C** **RV1904L-3E90S/4C** **PV1904L-2E90S/4B** **RV1904L-2E90S/4B**	2,46 2,60 	120 134 118 132	190 191 	IE3 IE2

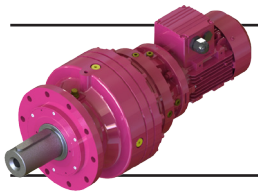
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienzklasse
1,1 1,5	2,3 2,8 3,2	3852 3222 2791	0,93 0,94 0,95	6,5 7,3 7,8	3,4 3,9 4,1	**407,81** **337,13** **290,00**	84 79 76	1,2 2,0 2,5	**PV1903L-3E90L/6C** **RV1903L-3E90L/6C** **PV1903L-2E90L/6B** **RV1903L-2E90L/6B**	2,75 2,90 	120 134 118 132	190 191 	IE3 IE2
	3,6 4,3	2478 2088	0,92 0,94	7,2 8,1	4,0 4,4	**407,81** **337,13**	73 69	1,8 3,0	**PV1903L-3E90S/4C** **RV1903L-3E90S/4C** **PV1903L-2E90S/4B** **RV1903L-2E90S/4B**	2,46 2,60 	117 131 115 129	190 191 	IE3 IE2
	1,6 1,9 2,2 2,8	5094 4293 3740 3026	0,84 0,85 0,86 0,88	3,1 3,3 3,4 3,6	1,6 1,7 1,8 1,9	**921,49** **762,61** **656,69** **524,29**	52 49 47 44	1,0 1,2 1,3 1,7	**PV1604L-3E90S/4C** **RV1604L-3E90S/4C** **PV1604L-2E90S/4B** **RV1604L-2E90S/4B**	2,46 2,60 	82 92 80 90	186 187 	IE3 IE2
	2,9 3,4	3093 2675	0,93 0,94	4,1 4,4	2,2 2,3	**325,89** **280,33**	43 41	1,3 1,8	**PV1603L-3E90L/6C** **RV1603L-3E90L/6C** **PV1603L-2E90L/6B** **RV1603L-2E90L/6B**	2,75 2,90 	80 90 78 88	186 187 	IE3 IE2
	3,7 4,4 5,2	2357 1998 1736	0,91 0,93 0,94	4,0 4,6 4,9	2,1 2,3 2,5	**394,22** **325,89** **280,33**	40 38 36	1,2 2,0 2,7	**PV1603L-3E90S/4C** **RV1603L-3E90S/4C** **PV1603L-2E90S/4B** **RV1603L-2E90S/4B**	2,46 2,60 	79 89 77 87	186 187 	IE3 IE2
	2,5	3280	0,86	3,2	1,7	**373,63**	45	0,9	**PV1504L-3E90L/6C** **RV1504L-3E90L/6C** **PV1504L-2E90L/6B** **RV1504L-2E90L/6B**	2,75 2,90 	70 80 68 78	182 183 	IE3 IE2
	2,8	2954	0,86	3,3	1,7	**524,29**	44	1,0	**PV1504L-3E90S/4C** **RV1504L-3E90S/4C** **PV1504L-2E90S/4B** **RV1504L-2E90S/4B**	2,46 2,60 	69 79 67 77	182 183 	IE3 IE2
	3,4 4,1	2654 2212	0,93 0,94	3,8 4,0	2,0 2,1	**280,33** **232,00**	41 39	1,1 1,3	**PV1503L-3E90L/6C** **RV1503L-3E90L/6C** **PV1503L-2E90L/6B** **RV1503L-2E90L/6B**	2,75 2,90 	63 73 61 71	182 183 	IE3 IE2
	4,4 5,2 6,3 7,8 9,1	1957 1708 1428 1152 996	0,91 0,93 0,93 0,95 0,95	3,9 4,2 4,5 4,8 5,0	2,0 2,2 2,3 2,5 2,5	**325,89** **280,33** **232,00** **184,88** **159,20**	38 36 34 32 31	1,3 1,6 1,9 2,7 3,1	**PV1503L-3E90S/4C** **RV1503L-3E90S/4C** **PV1503L-2E90S/4B** **RV1503L-2E90S/4B**	2,46 2,60 	60 70 58 68	182 183 	IE3 IE2
	17	548	0,99	5,9	3,5	**54,38**	25	3,1	**PV1502L-3E90L/6C** **RV1502L-3E90L/6C** **PV1502L-2E90L/6B** **RV1502L-2E90L/6B**	2,75 2,90 	59 69 57 67	182 183 	IE3 IE2
	4,0	1977	0,83	3,0	1,4	**362,65**	28	1,0	**PV1204L-3E90S/4C** **RV1204L-3E90S/4C** **PV1204L-2E90S/4B** **RV1204L-2E90S/4B**	2,46 2,60 	55 57 53 55	178 179 	IE3 IE2
	4,3	2050	0,93	3,3	1,8	**216,82**	27	1,0	**PV1203L-3E90L/6C** **RV1203L-3E90L/6C** **PV1203L-2E90L/6B** **RV1203L-2E90L/6B**	2,46 2,60 	49 51 47 49	178 179 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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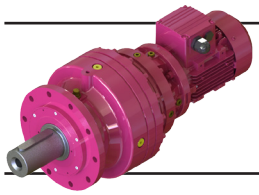
Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.*** *Motor Eff. Class* Motor Effizienz-klasse
1,1 1,5	4,6 5,3 6,7 8,1 9,4 12 14	1867 1635 1324 1106 958 769 638	0,90 0,91 0,93 0,94 0,94 0,95 0,95	3,3 3,5 3,8 4,0 4,1 4,3 4,5	1,7 1,8 2,0 2,1 2,1 2,2 2,1	**315,38** **271,57** **216,82** **179,44** **154,52** **123,36** **102,09**	26 25 24 22 21 20 19	1,0 1,2 1,5 1,8 2,1 2,6 3,1	**PV1203L-3E90S/4C** **RV1203L-3E90S/4C** **PV1203L-2E90S/4B** **RV1203L-2E90S/4B**	2,46 2,60 	48 50 46 48	178 179 	IE3 IE2
	18	526	0,98	4,4	2,6	**52,56**	18	2,3	**PV1202L-3E90L/6C** **RV1202L-3E90L/6C** **PV1202L-2E90L/6B** **RV1202L-2E90L/6B**	2,75 2,90 	46 48 44 46	178 179 	IE3 IE2
	8,1 9,4 12 14 16	1085 943 761 628 539	0,92 0,93 0,94 0,93 0,93	3,3 3,4 3,6 3,7 3,6	1,7 1,8 1,8 1,7 1,5	**179,44** **154,52** **123,36** **102,09** **87,91**	22 21 20 19 18	0,9 1,1 1,3 1,6 1,9	**PV1103L-3E90S/4C** **RV1103L-3E90S/4C** **PV1103L-2E90S/4B** **RV1103L-2E90S/4B**	2,46 2,60 	45 47 43 45	174 175 	IE3 IE2
	18 22 25	523 439 380	0,98 0,99 1,0	3,6 4,2 4,5	2,1 2,4 2,6	**52,56** **43,50** **37,46**	18 17 16	1,3 2,0 2,6	**PV1102L-3E90L/6C** **RV1102L-3E90L/6C** **PV1102L-2E90L/6B** **RV1102L-2E90L/6B**	2,75 2,90 	42 44 40 42	174 175 	IE3 IE2
	28 33 39 48 59 68 85 93 102	338 285 247 198 164 141 113 103 94	0,98 0,99 1,00 1,01 1,01 1,01 1,01 1,00 1,01	4,1 4,7 5,1 5,6 5,4 5,5 5,1 4,7 4,7	2,0 2,3 2,5 2,6 2,3 2,3 1,6 1,0 1,0	**52,56** **43,50** **37,46** **29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	15 15 14 13 12 12 11 11 10	1,9 3,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**PV1102L-3E90S/4C** **RV1102L-3E90S/4C** **PV1102L-2E90S/4B** **RV1102L-2E90S/4B**	2,46 2,60 	39 41 37 39	174 175 	IE3 IE2
	200 242 281 352 384	50 41 36 29 26	1,04 1,05 1,05 1,05 1,05	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	4,0 4,0 4,0 4,0 4,0	**PV1101L-3E90S/4C** **RV1101L-3E90S/4C** **PV1101L-2E90S/4B** **RV1101L-2E90S/4B**	2,46 2,60 	37 39 35 37	174 175 	IE3 IE2
1,5 2,0	0,43 0,52	25483 21320	1,2 1,2	7,7 8,4	4,3 4,6	**2202,19** **1829,51**	272 257	1,3 2,1	**PV3504L-3E100L/6B** **PV3504L-3E100L/6B** **PV3504L-2E100L/6A** **PV3504L-2E100L/6A**	3,50 3,72 	445 531 442 528	210 211 	IE3 IE2
	0,66 0,79	16714 14148	1,2 1,2	8,5 9,3	4,7 5,1	**2202,19** **1829,51**	240 227	1,8 3,0	**PV3504L-3E90L/4D** **RV3504L-3E90L/4D** **PV3504L-2E90L/4C** **RV3504L-2E90L/4C**	3,30 3,40 	436 522 435 521	210 211 	IE3 IE2
	0,45 0,54	24049 20676	1,1 1,2	6,5 6,9	3,5 3,7	**2110,97** **1778,69**	200 191	1,2 1,7	**PV2904L-3E100L/6B** **RV2904L-3E100L/6B** **PV2904L-2E100L/6A** **RV2904L-2E100L/6A**	3,50 3,72 	333 405 330 402	206 207 	IE3 IE2
	0,69 0,82	15790 13519	1,1 1,2	7,1 7,6	3,9 4,1	**2110,97** **1778,69**	176 168	1,8 2,5	**PV2904L-3E90L/4D** **RV2904L-3E90L/4D** **PV2904L-2E90L/4C** **RV2904L-2E90L/4C**	3,30 3,40 	437 523 436 522	206 207 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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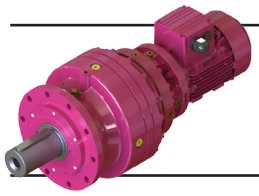
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienzklasse
1,5 2,0	0,45	24584	1,2	5,5	3,0	**2141,02**	136	0,9	**PV2704L-3E100L/6B** **RV2704L-3E100L/6B** **PV2704L-2E100L/6A** **RV2704L-2E100L/6A**	3,50 3,72 	258 323 255 320	202 203 	IE3 IE2
	0,57 0,68 0,87 1,1 1,2	18584 16065 12773 10637 9208	1,1 1,1 1,2 1,2 1,2	5,7 6,1 6,4 6,8 7,0	3,0 3,3 3,5 3,7 3,8	**2540,99** **2141,02** **1668,32** **1379,15** **1186,36**	148 140 130 123 117	1,1 1,4 1,4 2,4 2,7	**PV2704L-3E90L/4D** **RV2704L-3E90L/4D** **PV2704L-2E90L/4C** **RV2704L-2E90L/4C**	3,30 3,40 	252 317 251 316	202 203 	IE3 IE2
	2,7	4503	1,3	10	5,0	**350,48**	91	3,5	**PV2703L-3E100L/6B** **RV2703L-3E100L/6B** **PV2703L-2E100L/6A** **RV2703L-2E100L/6A**	3,50 3,72 	260 325 257 322	202 203 	IE3 IE2
	0,56 0,65	19745 17081	1,2 1,2	4,8 5,0	2,5 2,6	**1710,91** **1471,75**	119 151	0,9 1,1	**PV2404L-3E100L/6B** **RV2404L-3E100L/6B** **PV2404L-2E100L/6A** **RV2404L-2E100L/6A**	3,50 3,72 	223 238 220 235	198 199 	IE3 IE2
	0,70 0,85 0,99 1,2 1,6	15438 12959 11247 9047 7119	1,1 1,2 1,2 1,2 1,2	5,1 5,4 5,6 5,8 6,2	2,7 2,9 3,0 3,1 3,3	**2069,65** **1710,91** **1471,75** **1172,80** **913,87**	153 155 148 138 128	0,9 1,4 1,6 1,9 2,8	**PV2404L-3E90L/4D** **RV2404L-3E90L/4D** **PV2404L-2E90L/4C** **RV2404L-2E90L/4C**	3,30 3,40 	214 229 213 228	198 199 	IE3 IE2
	2,8	4366	1,3	8,2	4,3	**338,80**	107	2,8	**PV2403L-3E100L/6B** **RV2403L-3E100L/6B** **PV2403L-2E100L/6A** **RV2403L-2E100L/6A**	3,50 3,72 	217 233 214 230	198 199 	IE3 IE2
	0,81	13408	1,1	4,5	2,4	**1172,80**	92	0,9	**PV2304L-3E100L/6B** **RV2304L-3E100L/6B** **PV2304L-2E100L/6A** **RV2304L-2E100L/6A**	3,50 3,72 	174 190 171 187	194 195 	IE3 IE2
	0,85 0,99 1,2 1,6 1,9 2,2	12537 10908 8802 6974 5851 5081	1,1 1,1 1,1 1,2 1,2 1,2	4,6 4,8 5,0 5,4 5,7 5,9	2,5 2,6 2,7 2,9 3,0 3,2	**1710,91** **1471,75** **1172,80** **913,87** **756,31** **651,26**	101 116 131 128 121 115	1,0 1,1 1,4 1,8 2,1 2,5	**PV2304L-3E90L/4D** **RV2304L-3E90L/4D** **PV2304L-2E90L/4C** **RV2304L-2E90L/4C**	3,30 3,40 	166 182 165 181	194 195 	IE3 IE2
	2,8 3,3	4300 3668	1,3 1,3	7,0 7,6	3,7 4,0	**338,80** **285,47**	107 102	2,2 2,4	**PV2303L-3E100L/6B** **RV2303L-3E100L/6B** **PV2303L-2E100L/6A** **RV2303L-2E100L/6A**	3,50 3,72 	175 191 172 188	194 195 	IE3 IE2
	4,3	2845	1,3	7,7	4,2	**338,80**	95	3,0	**PV2303L-3E90L/4D** **RV2303L-3E90L/4D** **PV2303L-2E90L/4C** **RV2303L-2E90L/4C**	3,30 3,40 	167 183 166 182	194 195 	IE3 IE2
	1,2 1,5 1,8 2,1	9061 7305 6136 5334	1,2 1,2 1,2 1,2	5,2 5,4 5,7 6,0	2,8 2,9 3,1 3,2	**1191,42** **949,41** **785,72** **676,59**	103 96 91 87	0,9 1,2 1,3 1,5	**PV1904L-3E90L/4D** **RV1904L-3E90L/4D** **PV1904L-2E90L/4C** **RV1904L-2E90L/4C**	3,30 3,40 	122 136 121 135	190 191 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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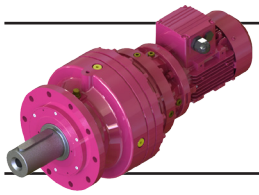
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,5 2,0	2,3 2,8 3,3	5171 4324 3746	1,3 1,3 1,3	6,5 7,3 7,8	3,4 3,9 4,1	**407,81** **337,13** **290,00**	83 79 75	0,9 1,5 1,9	**PV1903L-3E100L/6B** **RV1903L-3E100L/6B** **PV1903L-2E100L/6A** **RV1903L-2E100L/6A**	3,50 3,72 	127 141 124 138	190 191 	IE3 IE2
	3,6 4,3 5,0	3379 2848 2473	1,3 1,3 1,3	7,2 8,1 8,6	4,0 4,4 4,8	**407,81** **337,13** **290,00**	73 69 66	1,3 2,2 2,8	**PV1903L-3E90L/4D** **RV1903L-3E90L/4D** **PV1903L-2E90L/4C** **RV1903L-2E90L/4C**	3,30 3,40 	120 134 119 133	190 191 	IE3 IE2
	2,2 2,8	5100 4127	1,2 1,2	3,4 3,6	1,8 1,9	**656,69** **524,29**	47 44	1,0 1,2	**PV1604L-3E90L/4D** **RV1604L-3E90L/4D** **PV1604L-2E90L/4C** **RV1604L-2E90L/4C**	3,30 3,40 	84 94 83 83	186 187 	IE3 IE2
	2,9 3,4 4,1	4152 3591 2989	1,3 1,3 1,3	4,1 4,4 4,6	2,2 2,3 2,5	**325,89** **280,33** **232,00**	43 41 39	1,0 1,3 1,6	**PV1603L-3E100L/6B** **RV1603L-3E100L/6B** **PV1603L-2E100L/6A** **RV1603L-2E100L/6A**	3,50 3,72 	88 98 85 95	186 187 	IE3 IE2
	4,4 5,2 6,3 7,8	2724 2368 1974 1588	1,3 1,3 1,3 1,3	4,6 4,9 5,2 5,6	2,3 2,5 2,6 2,8	**325,89** **280,33** **232,00** **184,88**	38 36 34 32	1,4 2,0 2,4 3,1	**PV1603L-3E90L/4D** **RV1603L-3E90L/4D** **PV1603L-2E90L/4C** **RV1603L-2E90L/4C**	3,30 3,40 	80 90 77 87	186 187 	IE3 IE2
	3,3 3,9	3314 2833	1,2 1,2	3,4 3,4	1,7 1,5	**433,90** **373,63**	41 40	0,9 1,1	**PV1504L-3E90L/4D** **RV1504L-3E90L/4D** **PV1504L-2E90L/4C** **RV1504L-2E90L/4C**	3,30 3,40 	71 81 68 78	182 183 	IE3 IE2
	4,1	2969	1,3	4,0	2,1	**232,00**	39	0,9	**PV1503L-3E100L/6B** **RV1503L-3E100L/6B** **PV1503L-2E100L/6A** **RV1503L-2E100L/6A**	3,50 3,72 	70 80 67 77	182 183 	IE3 IE2
	4,4 5,2 6,3 7,8 9,1 11	2668 2329 1947 1570 1358 1089	1,2 1,3 1,3 1,3 1,3 1,3	3,9 4,2 4,5 4,8 5,0 5,2	2,0 2,2 2,3 2,5 2,5 2,6	**325,89** **280,33** **232,00** **184,88** **159,20** **127,10**	38 36 34 32 31 29	1,0 1,2 1,4 2,0 2,3 2,8	**PV1503L-3E90L/4D** **RV1503L-3E90L/4D** **PV1503L-2E90L/4C** **RV1503L-2E90L/4C**	3,30 3,40 	62 72 59 69	182 183 	IE3 IE2
	18	736	1,4	5,9	3,5	**54,38**	25	2,3	**PV1502L-3E100L/6B** **RV1502L-3E100L/6B** **PV1502L-2E100L/6A** **RV1502L-2E100L/6A**	3,50 3,72 	66 76 63 73	182 183 	IE3 IE2
	27	485	1,4	6,6	3,2	**54,38**	22	3,4	**PV1502L-3E90L/4D** **RV1502L-3E90L/4D** **PV1502L-2E90L/4C** **RV1502L-2E90L/4C**	3,30 3,40 	59 69 56 66	182 183 	IE3 IE2
	5,0	2116	1,1	3,0	1,3	**289,53**	26	0,9	**PV1204L-3E90L/4D** **RV1204L-3E90L/4D** **PV1204L-2E90L/4C** **RV1204L-2E90L/4C**	3,30 3,40 	57 59 54 56	178 179 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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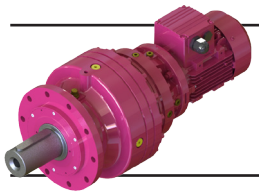
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,5 2,0	5,3 6,7 8,1 9,4 12 14 16	2229 1806 1509 1307 1049 869 749	1,3 1,3 1,3 1,3 1,3 1,3 1,3	3,5 3,8 4,0 4,1 4,3 4,5 4,4	1,8 2,0 2,1 2,1 2,2 2,1 1,9	**271,57** **216,82** **179,44** **154,52** **123,36** **102,09** **87,91**	25 24 23 21 20 19 18	0,9 1,1 1,3 1,5 1,9 2,3 2,7	**PV1203L-3E90L/4D** **RV1203L-3E90L/4D** **PV1203L-2E90L/4C** **RV1203L-2E90L/4C**	3,30 3,40 	49 51 48 50	178 179	IE3 IE2
	18 22	705 590	1,3 1,4	4,4 5,1	2,6 3,0	**52,56** **43,50**	18 17	1,7 2,8	**PV1202L-3E100L/6B** **RV1202L-3E100L/6B** **PV1202L-2E100L/6A** **RV1202L-2E100L/6A**	3,50 3,72 	52 54 49 51	178 179	IE3 IE2
	28	466	1,4	5,1	2,5	**52,56**	15	2,5	**PV1202L-3E90L/4D** **RV1202L-3E90L/4D** **PV1202L-2E90L/4C** **RV1202L-2E90L/4C**	3,30 3,40 	46 48 45 47	178 179	IE3 IE2
	9,4 12 14 16	1286 1037 857 735	1,3 1,3 1,3 1,3	3,4 3,6 3,7 3,6	1,8 1,8 1,7 1,5	**154,52** **123,36** **102,09** **87,91**	21 20 19 18	0,8 1,0 1,2 1,4	**PV1103L-3E90L/4D** **RV1103L-3E90L/4D** **PV1103L-2E90L/4C** **RV1103L-2E90L/4C**	3,30 3,40 	47 49 46 48	174 175	IE3 IE2
	18 22 25	702 589 510	1,3 1,4 1,4	3,6 4,2 4,5	2,1 2,4 2,6	**52,56** **43,50** **37,46**	18 16 16	1,0 1,5 2,0	**PV1102L-3E100L/6B** **RV1102L-3E100L/6B** **PV1102L-2E100L/6A** **RV1102L-2E100L/6A**	3,50 3,72 	48 50 45 48	174 175	IE3 IE2
	28 33 39 48 59 68 85 93 102	461 388 336 270 224 193 154 141 129	1,3 1,4 1,4 1,4 1,4 1,4 1,4 1,4 1,4	4,1 4,7 5,1 5,6 5,4 5,5 5,1 4,7 4,7	2,0 2,3 2,5 2,6 2,3 2,3 1,6 1,0 1,0	**52,56** **43,50** **37,46** **29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	15 15 14 13 12 12 11 11 10	1,4 2,2 3,0 3,7 4,0 4,0 4,0 4,0 4,0	**PV1102L-3E90L/4D** **RV1102L-3E90L/4D** **PV1102L-2E90L/4C** **RV1102L-2E90L/4C**	3,30 3,40 	41 43 40 42	174 175	IE3 IE2
	200 242 281 352 384	68 56 49 39 36	1,4 1,4 1,4 1,4 1,4	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	4,0 4,0 4,0 4,0 4,0	**PV1101L-3E90L/4D** **RV1101L-3E90L/4D** **PV1101L-2E90L/4C** **RV1101L-2E90L/4C**	3,30 3,40 	55 57 54 56	174 175	IE3 IE2
2,2 3,0	0,53	30945	1,7	8,4	4,6	**1829,51**	256	1,5	**PV3504L-3E112M/6B** **RV3504L-3E112M/6B** **PV3504L-2E112M/6A** **RV3504L-2E112M/6A**	4,95 5,32 	455 541 452 538	210 211	IE3 IE2
	0,66 0,79 1,0	24513 20751 16043	1,7 1,7 1,7	8,5 9,3 9,8	4,7 5,1 5,4	**2202,19** **1829,51** **1403,59**	240 227 209	1,2 2,1 2,9	**PV3504L-3E100L/4C** **RV3504L-3E100L/4C** **PV3504L-2E100L/4B** **RV3504L-2E100L/4B**	4,65 4,85 	442 528 441 527	210 211	IE3 IE2
	0,54	30010	1,7	6,9	3,7	**1778,69**	190	1,2	**PV2904L-3E112M/6B** **RV2904L-3E112M/6B** **PV2904L-2E112M/6A** **RV2904L-2E112M/6A**	4,95 5,32 	343 415 340 412	206 207	IE3 IE2

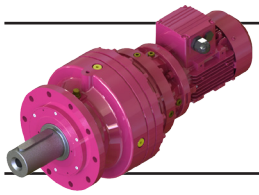
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
2,2 3,0	0,69 0,82 1,0 1,2 1,6 1,9	23159 19828 15667 13290 10400 8685	1,7 1,7 1,7 1,7 1,7 1,8	7,1 7,6 8,1 8,4 8,4 8,7	3,9 4,1 4,4 4,6 4,8 5,0	**2110,97** **1778,69** **1385,99** **1167,83** **909,99** **752,26**	176 168 155 148 137 129	1,2 1,7 2,2 2,6 3,4 4,0	**PV2904L-3E100L/4C** **RV2904L-3E100L/4C** **PV2904L-2E100L/4B** **RV2904L-2E100L/4B**	4,65 4,85 	334 406 333 407	206 207 	IE3 IE2
	0,68 0,87 1,1 1,2 1,5 1,9 2,2	23562 18733 15600 13505 10831 9051 7838	1,7 1,7 1,7 1,7 1,7 1,8 1,8	6,1 6,4 6,8 7,0 7,3 7,7 8,0	3,3 3,5 3,7 3,8 4,0 4,2 4,4	**2141,02** **1668,32** **1379,15** **1186,36** **945,38** **781,52** **672,27**	139 128 121 116 108 102 98	0,9 1,0 1,6 1,9 2,3 2,7 3,1	**PV2704L-3E100L/4C** **RV2704L-3E100L/4C** **PV2704L-2E100L/4B** **RV2704L-2E100L/4B**	4,65 4,85 	258 323 257 322	202 203 	IE3 IE2
	2,8 3,3	6536 5536	1,9 1,9	11 12	6,0 6,0	**350,48** **295,31**	91 86	2,4 3,6	**PV2703L-3E112M/6B** **RV2703L-3E112M/6B** **PV2703L-2E112M/6A** **RV2703L-2E112M/6A**	4,95 5,32 	270 342 267 339	202 203 	IE3 IE2
	4,1	4380	1,9	11	6,0	**350,48**	80	3,3	**PV2703L-3E100L/4C** **RV2703L-3E100L/4C** **PV2703L-2E100L/4B** **RV2703L-2E100L/4B**	4,65 4,85 	261 333 260 332	202 203 	IE3 IE2
	0,85 0,99 1,2 1,6 1,9 2,2	19007 16495 13269 10441 8736 7574	1,7 1,7 1,7 1,7 1,8 1,8	5,4 5,6 5,8 6,2 6,5 6,7	2,9 3,0 3,1 3,3 3,5 3,7	**1710,91** **1471,75** **1172,80** **913,87** **756,31** **651,26**	138 148 138 128 121 115	0,9 1,1 1,3 1,9 2,3 2,6	**PV2404L-3E100L/4C** **RV2404L-3E100L/4C** **PV2404L-2E100L/4B** **RV2404L-2E100L/4B**	4,65 4,85 	220 235 219 234	198 199 	IE3 IE2
	2,8 3,4	6337 5382	1,9 1,9	8,2 8,9	4,3 4,7	**338,80** **285,47**	107 102	1,9 2,4	**PV2403L-3E112M/6B** **RV2403L-3E112M/6B** **PV2403L-2E112M/6A** **RV2403L-2E112M/6A**	4,95 5,32 	227 243 224 240	198 199 	IE3 IE2
	4,3	4241	1,9	9,0	4,9	**338,80**	95	2,7	**PV2403L-3E100L/4C** **RV2403L-3E100L/4C** **PV2403L-2E100L/4B** **RV2403L-2E100L/4B**	4,65 4,85 	218 234 217 233	198 199 	IE3 IE2
	1,2 1,6 1,9 2,2	12909 10228 8581 7452	1,7 1,7 1,7 1,7	5,0 5,4 5,7 5,9	2,7 2,9 3,0 3,2	**1172,80** **913,87** **756,31** **651,26**	102 121 121 115	0,9 1,2 1,5 1,7	**PV2304L-3E100L/4C** **RV2304L-3E100L/4C** **PV2304L-2E100L/4B** **RV2304L-2E100L/4B**	4,65 4,85 	172 189 171 188	194 195 	IE3 IE2
	2,8 3,4 4,1	6241 5325 4392	1,9 1,9 1,9	7,0 7,6 8,0	3,7 4,0 4,3	**338,80** **285,47** **235,99**	107 102 96	1,5 1,7 2,6	**PV2303L-3E112M/6B** **RV2303L-3E112M/6B** **PV2303L-2E112M/6A** **RV2303L-2E112M/6A**	4,95 5,32 	185 201 182 198	194 195 	IE3 IE2
	4,3 5,1	4173 3558	1,9 1,9	7,7 8,3	4,2 4,5	**338,80** **285,47**	95 90	2,0 2,4	**PV2303L-3E100L/4C** **RV2303L-3E100L/4C** **PV2303L-2E100L/4B** **RV2303L-2E100L/4B**	4,65 4,85 	173 189 172 188	194 195 	IE3 IE2
	1,8 2,1 2,7	8999 7823 6311	1,7 1,8 1,8	5,7 6,0 6,3	3,1 3,2 3,4	**785,72** **676,59** **540,18**	90 86 80	0,9 1,1 1,3	**PV1904L-3E100L/4C** **RV1904L-3E100L/4C** **PV1904L-2E100L/4B** **RV1904L-2E100L/4B**	4,65 4,85 	128 142 127 141	190 191 	IE3 IE2

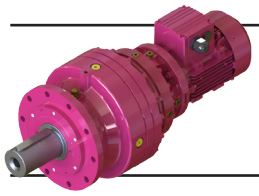
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienzklasse
2,2 3,0	2,9 3,3	6276 5437	1,9 1,9	7,3 7,8	3,9 4,1	**337,13** **290,00**	78 75	1,0 1,3	**PV1903L-3E112M/6B** **RV1903L-3E112M/6B** **PV1903L-2E112M/6A** **RV1903L-2E112M/6A**	4,95 5,32 	137 151 134 148	190 191 	IE3 IE2
	3,6 4,3 5,0 6,3	4956 4176 3627 2918	1,9 1,9 1,9 1,9	7,2 8,1 8,6 9,3	4,0 4,4 4,8 5,1	**407,81** **337,13** **290,00** **231,09**	73 69 66 62	0,9 1,5 1,9 2,4	**PV1903L-3E100L/4C** **RV1903L-3E100L/4C** **PV1903L-2E100L/4B** **RV1903L-2E100L/4B**	4,65 4,85 	126 140 125 139	190 191 	IE3 IE2
	17	1118	2,0	11	6,0	**56,25**	46	3,6	**PV1902L-3E112M/6B** **RV1902L-3E112M/6B** **PV1902L-2E112M/6A** **RV1902L-2E112M/6A**	4,95 5,32 	120 134 117 131	190 191 	IE3 IE2
	3,2	5180	1,8	3,7	1,9	**298,31**	42	1,0	**PV1604L-3E112M/6B** **RV1604L-3E112M/6B** **PV1604L-2E112M/6A** **RV1604L-2E112M/6A**	4,95 5,32 	102 112 99 109	186 187 	IE3 IE2
	3,4 4,2	5212 4339	1,9 1,9	4,4 4,6	2,3 2,5	**280,33** **232,00**	41 39	0,9 1,1	**PV1603L-3E112M/6B** **RV1603L-3E112M/6B** **PV1603L-2E112M/6A** **RV1603L-2E112M/6A**	4,95 5,32 	98 108 95 105	186 187 	IE3 IE2
	4,4 5,2 6,3 7,8 9,1 11	3996 3472 2895 2329 2012 1611	1,9 1,9 1,9 1,9 1,9 1,9	4,6 4,9 5,2 5,6 5,8 6,0	2,3 2,5 2,6 2,8 2,9 3,0	**325,89** **280,33** **232,00** **184,88** **159,20** **127,10**	38 36 34 32 31 29	1,0 1,4 1,6 2,1 2,5 3,1	**PV1603L-3E100L/4C** **RV1603L-3E100L/4C** **PV1603L-2E100L/4B** **RV1603L-2E100L/4B**	4,65 4,85 	86 96 85 95	186 187 	IE3 IE2
	18	1077	2,0	6,9	4,1	**54,38**	25	2,3	**PV1602L-3E112M/6B** **RV1602L-3E112M/6B** **PV1602L-2E112M/6A** **RV1602L-2E112M/6A**	4,95 5,32 	92 101 89 98	186 187 	IE3 IE2
	4,9 5,3 5,8	3265 2966 2743	1,7 1,7 1,7	3,3 3,1 3,2	1,3 1,1 1,1	**298,31** **273,20** **250,20**	37 36 35	0,9 1,0 1,1	**PV1504L-3E100L/4C** **RV1504L-3E100L/4C** **PV1504L-2E100L/4B** **RV1504L-2E100L/4B**	4,65 4,85 	77 87 76 86	182 183 	IE3 IE2
	6,1	2989	1,9	4,3	2,4	**159,20**	35	1,0	**PV1503L-3E112M/6B** **RV1503L-3E112M/6B** **PV1503L-2E112M/6A** **RV1503L-2E112M/6A**	4,95 5,32 	80 90 77 87	182 183 	IE3 IE2
	6,3 7,8 9,1 11 14 16	2856 2303 1992 1597 1324 1140	1,9 1,9 1,9 1,9 1,9 1,9	4,5 4,8 5,0 5,2 5,3 5,2	2,3 2,5 2,5 2,6 2,4 2,4	**232,00** **184,88** **159,20** **127,10** **105,19** **90,58**	34 32 31 29 27 26	1,0 1,3 1,6 1,9 2,3 2,7	**PV1503L-3E100L/4C** **RV1503L-3E100L/4C** **PV1503L-2E100L/4B** **RV1503L-2E100L/4B**	4,65 4,85 	63 65 62 64	182 183 	IE3 IE2
	18 21	1068 889	2,0 2,0	5,9 6,6	3,5 3,8	**54,38** **44,95**	25 24	1,6 2,7	**PV1502L-3E112M/6B** **RV1502L-3E112M/6B** **PV1502L-2E112M/6A** **RV1502L-2E112M/6A**	4,95 5,32 	76 86 73 83	182 183 	IE3 IE2

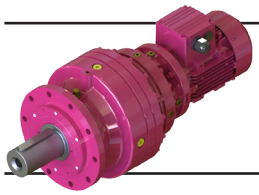
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
2,2 3,0	27	712	2,0	6,6	3,2	**54,38**	22	2,3	**PV1502L-3E100L/4C** **RV1502L-3E100L/4C** **PV1502L-2E100L/4B** **RV1502L-2E100L/4B**	4,65 4,85 	64 74 63 73	182 183 	IE3 IE2
	8,1 9,4 12 14 16	2213 1917 1539 1275 1098	1,9 1,9 1,9 1,9 1,9	4,0 4,1 4,3 4,5 4,4	2,1 2,1 2,2 2,1 1,9	**179,44** **154,52** **123,36** **102,09** **87,91**	22 21 20 19 18	0,9 1,0 1,3 1,6 1,8	**PV1203L-3E100L/4C** **RV1203L-3E100L/4C** **PV1203L-2E100L/4B** **RV1203L-2E100L/4B**	4,65 4,85 	55 57 54 56	178 179 	IE3 IE2
	18 22 26	1024 856 740	2,0 2,0 2,0	4,4 5,1 5,5	2,6 3,0 3,2	**52,56** **43,50** **37,46**	17 16 16	1,2 2,0 2,6	**PV1202L-3E112M/6B** **RV1202L-3E112M/6B** **PV1202L-2E112M/6A** **RV1202L-2E112M/6A**	4,95 5,32 	62 64 59 61	178 179 	IE3 IE2
	28 33	683 572	2,0 2,0	5,1 5,9	2,5 2,9	**52,56** **43,50**	15 15	1,7 2,9	**PV1202L-3E100L/4C** **RV1202L-3E100L/4C** **PV1202L-2E100L/4B** **RV1202L-2E100L/4B**	4,65 4,85 	52 54 51 53	178 179 	IE3 IE2
	16 21	1078 853	1,9 1,9	3,6 3,5	1,5 1,3	**87,91** **70,19**	18 17	0,9 1,2	**PV1103L-3E100L/4C** **RV1103L-3E100L/4C** **PV1103L-2E100L/4B** **RV1103L-2E100L/4B**	4,65 4,85 	53 55 52 54	174 175 	IE3 IE2
	22 26	855 740	2,0 2,0	4,2 4,5	2,4 2,6	**43,50** **37,46**	16 16	1,0 1,4	**PV1102L-3E112M/6B** **RV1102L-3E112M/6B** **PV1102L-2E112M/6A** **RV1102L-2E112M/6A**	4,95 5,32 	58 60 55 57	174 175 	IE3 IE2
	28 33 39 48 59 68 85 93 102	676 569 493 397 329 283 226 206 189	2,0 2,0 2,0 2,0 2,0 2,0 2,0 2,0 2,0	4,1 4,7 5,1 5,6 5,4 5,5 5,1 4,7 4,7	2,0 2,3 2,5 2,6 2,3 2,3 1,6 1,0 1,0	**52,56** **43,50** **37,46** **29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	15 15 14 13 12 12 11 11 10	1,0 1,5 2,0 2,5 3,0 3,5 4,0 4,0 4,0	**PV1102L-3E100L/4C** **RV1102L-3E100L/4C** **PV1102L-2E100L/4B** **RV1102L-2E100L/4B**	4,65 4,85 	47 49 46 48	174 175 	IE3 IE2
	200 242 281 352 384	99 83 71 57 52	2,1 2,1 2,1 2,1 2,1	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	4,0 4,0 4,0 4,0 4,0	**PV1101L-3E100L/4C** **RV1101L-3E100L/4C** **PV1101L-2E100L/4B** **RV1101L-2E100L/4B**	4,65 4,85 	42 44 41 43	174 175 	IE3 IE2
3,0 4,0	0,53	41981	2,3	8,4	4,6	**1829,51**	256	1,1	**PV3504L-3E132S/6B** **RV3504L-3E132S/6B** **PV3504L-2E132S/6A** **RV3504L-2E132S/6A**	6,55 6,85 	465 551 460 546	210 211 	IE3 IE2
	0,64 0,77 1,0 1,2	34621 29307 22658 19168	2,3 2,3 2,4 2,4	8,5 9,3 9,8 10	4,7 5,1 5,4 5,6	**2202,19** **1829,51** **1403,59** **1182,66**	242 229 211 201	0,9 1,5 2,1 2,6	**PV3504L-3E100L/4D** **RV3504L-3E100L/4D** **PV3504L-2E100L/4C** **RV3504L-2E100L/4C**	6,26 6,42 	445 531 443 529	210 211 	IE3 IE2
	3,2	7775	2,6	15	8,0	**303,75**	149	3,0	**PV3503L-3E132S/6B** **RV3503L-3E132S/6B** **PV3503L-2E132S/6A** **RV3503L-2E132S/6A**	6,55 6,85 	454 540 449 535	210 211 	IE3 IE2

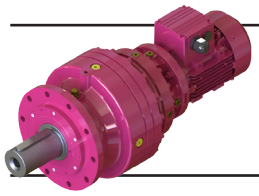
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
3,0 4,0	0,69 0,82 1,0 1,2 1,6 1,9 2,2	31580 27039 21364 18122 14181 11843 10252	2,3 2,3 2,3 2,4 2,4 2,4 2,4	7,1 7,6 8,1 8,4 8,7 9,2 9,5	3,9 4,1 4,4 4,6 4,8 5,0 5,2	**2110,97** **1778,69** **1385,99** **1167,83** **909,99** **752,26** **647,11**	176 168 155 147 137 129 123	0,9 1,2 1,6 1,9 2,5 3,0 3,4	**PV2904L-3E100L/4D** **RV2904L-3E100L/4D** **PV2904L-2E100L/4C** **RV2904L-2E100L/4C**	6,26 6,42 	355 421 353 419	206 207 	IE3 IE2
	3,3	7541	2,6	12	6,9	**291,17**	109	3,1	**PV2903L-3E132S/6B** **RV2903L-3E132S/6B** **PV2903L-2E132S/6A** **RV2903L-2E132S/6A**	6,55 6,85 	345 417 340 412	206 207 	IE3 IE2
	1,0	21870	2,3	6,6	3,6	**945,38**	122	1,1	**PV2704L-3E132S/6B** **RV2704L-3E132S/6B** **PV2704L-2E132S/6A** **RV2704L-2E132S/6A**	6,55 6,85 	275 340 270 335	202 203 	IE3 IE2
	1,1 1,2 1,5 1,9 2,2 2,7	21273 18416 14769 12342 10688 8582	2,3 2,4 2,4 2,4 2,4 2,4	6,8 7,0 7,3 7,7 8,0 8,0	3,7 3,8 4,0 4,2 4,4 5,0	**1379,15** **1186,36** **945,38** **781,52** **672,27** **535,72**	121 116 108 102 98 91	1,2 1,4 1,7 1,9 2,2 2,8	**PV2704L-3E100L/4D** **RV2704L-3E100L/4D** **PV2704L-2E100L/4C** **RV2704L-2E100L/4C**	6,26 6,42 	261 326 259 324	202 203 	IE3 IE2
	2,8 3,3	8866 7510	2,6 2,6	9,7 11	5,2 5,7	**350,48** **295,31**	90 86	1,8 2,6	**PV2703L-3E132S/6B** **RV2703L-3E132S/6B** **PV2703L-2E132S/6A** **RV2703L-2E132S/6A**	6,55 6,85 	272 337 267 332	202 203 	IE3 IE2
	4,1 4,9	5973 5064	2,6 2,6	9,7 11	5,2 5,7	**350,48** **295,31**	80 76	2,5 3,9	**PV2703L-3E100L/4D** **RV2703L-3E100L/4D** **PV2703L-2E100L/4C** **RV2703L-2E100L/4C**	6,26 6,42 	257 323 263 318	202 203 	IE3 IE2
	1,1	21096	2,3	5,5	3,1	**913,87**	76	0,9	**PV2404L-3E132S/6B** **RV2404L-3E132S/6B** **PV2404L-2E132S/6A** **RV2404L-2E132S/6A**	6,55 6,85 	237 252 235 250	198 199 	IE3 IE2
	1,2 1,6 1,9 2,2 2,8	18095 14237 11913 10328 8303	2,3 2,4 2,4 2,4 2,4	5,8 6,2 6,5 6,7 7,1	3,1 3,3 3,5 3,7 5,0	**1172,80** **913,87** **756,31** **651,26** **519,96**	124 128 121 115 108	0,9 1,4 1,7 1,9 2,4	**PV2404L-3E100L/4D** **RV2404L-3E100L/4D** **PV2404L-2E100L/4C** **RV2404L-2E100L/4C**	6,26 6,42 	223 238 221 236	198 199 	IE3 IE2
	2,9 3,4 4,1	8597 7302 6028	2,6 2,6 2,6	8,2 8,9 9,3	4,3 4,7 5,0	**338,80** **285,47** **235,99**	107 101 96	1,4 1,8 2,7	**PV2403L-3E132S/6B** **RV2403L-3E132S/6B** **PV2403L-2E132S/6A** **RV2403L-2E132S/6A**	6,55 6,85 	237 253 232 248	198 199 	IE3 IE2
	4,3 5,1	5784 4914	2,6 2,6	9,0 9,7	4,9 5,3	**338,80** **285,47**	95 89	2,0 2,6	**PV2403L-3E100L/4D** **RV2403L-3E100L/4D** **PV2403L-2E100L/4C** **RV2403L-2E100L/4C**	6,26 6,42 	221 237 219 235	198 199 	IE3 IE2
	1,6 1,9 2,2 2,8	13948 11701 10162 8186	2,3 2,4 2,4 2,4	5,4 5,7 5,9 6,1	2,9 3,0 3,2 3,3	**913,87** **756,31** **651,26** **519,96**	86 109 115 108	0,9 1,1 1,2 1,5	**PV2304L-3E100L/4D** **RV2304L-3E100L/4D** **PV2304L-2E100L/4C** **RV2304L-2E100L/4C**	6,26 6,42 	175 192 173 190	194 195 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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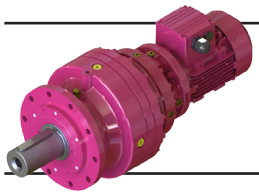
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
3,0 4,0	2,9 3,4 4,1	8467 7223 5959	2,5 2,6 2,6	7,0 7,6 8,0	3,7 4,0 4,3	**338,80** **285,47** **235,99**	107 101 96	1,1 1,2 1,9	**PV2303L-3E132S/6B** **RV2303L-3E132S/6B** **PV2303L-2E132S/6A** **RV2303L-2E132S/6A**	6,55 6,85 	195 211 190 206	194 195 	IE3 IE2
	4,3 5,1 6,1 7,1	5690 4851 4019 3470	2,6 2,6 2,6 2,6	7,7 8,3 8,8 9,1	4,2 4,5 4,8 4,9	**338,80** **285,47** **235,99** **203,00**	95 90 85 81	1,5 1,8 2,7 3,1	**PV2303L-3E100L/4D** **RV2303L-3E100L/4D** **PV2303L-2E100L/4C** **RV2303L-2E100L/4C**	6,26 6,42 	176 192 174 190	194 195 	IE3 IE2
	2,7 3,2	8605 7126	2,4 2,4	6,3 6,4	3,4 3,4	**540,18** **447,05**	80 76	1,0 1,1	**PV1904L-3E100L/4D** **RV1904L-3E100L/4D** **PV1904L-2E100L/4C** **RV1904L-2E100L/4C**	6,26 6,42 	131 145 129 143	190 191 	IE3 IE2
	3,3 4,2	7376 5924	2,6 2,6	7,8 8,4	4,1 4,5	**290,00** **231,09**	75 70	0,9 1,2	**PV1903L-3E132S/6B** **RV1903L-3E132S/6B** **PV1903L-2E132S/6A** **RV1903L-2E132S/6A**	6,55 6,85 	147 161 142 156	190 191 	IE3 IE2
	4,3 5,0 6,3 7,6 8,8	5695 4945 3980 3301 2848	2,6 2,6 2,6 2,6 2,6	8,1 8,6 9,3 9,8 10	4,4 4,8 5,1 5,4 5,6	**337,13** **290,00** **231,09** **191,04** **164,33**	69 66 62 58 56	1,1 1,4 1,7 2,4 2,8	**PV1903L-3E100L/4D** **RV1903L-3E100L/4D** **PV1903L-2E100L/4C** **RV1903L-2E100L/4C**	6,26 6,42 	129 143 127 141	190 191 	IE3 IE2
	17	1516	2,7	11	5,9	**56,25**	45	2,7	**PV1902L-3E132S/6B** **RV1902L-3E132S/6B** **PV1902L-2E132S/6A** **RV1902L-2E132S/6A**	6,55 6,85 	141 156 136 151	190 191 	IE3 IE2
	26	1019	2,8	8,1	4,4	**56,25**	40	3,9	**PV1902L-3E100L/4D** **RV1902L-3E100L/4D** **PV1902L-2E100L/4C** **RV1902L-2E100L/4C**	6,26 6,42 	123 137 121 135	190 191 	IE3 IE2
	4,9	4641	2,4	3,6	1,4	**298,31**	37	1,1	**PV1604L-3E100L/4D** **RV1604L-3E100L/4D** **PV1604L-2E100L/4C** **RV1604L-2E100L/4C**	6,26 6,42 	95 105 93 103	186 187 	IE3 IE2
	5,2 6,3 7,8 9,1 11 14	4735 3948 3175 2744 2196 1822	2,6 2,6 2,6 2,6 2,6 2,6	4,9 5,2 5,6 5,8 6,0 6,1	2,5 2,6 2,8 2,9 3,0 2,8	**280,33** **232,00** **184,88** **159,20** **127,10** **105,19**	36 34 32 31 29 27	1,0 1,2 1,6 1,8 2,3 2,7	**PV1603L-3E100L/4D** **RV1603L-3E100L/4D** **PV1603L-2E100L/4C** **RV1603L-2E100L/4C**	6,26 6,42 	88 98 86 96	186 187 	IE3 IE2
	18 22	1462 1214	2,7 2,7	6,9 7,9	4,1 4,5	**54,38** **44,95**	25 24	1,7 3,2	**PV1602L-3E132S/6B** **RV1602L-3E132S/6B** **PV1602L-2E132S/6A** **RV1602L-2E132S/6A**	6,55 6,85 	102 111 97 106	186 187 	IE3 IE2
	27	981	2,7	8,1	3,9	**54,38**	22	2,5	**PV1602L-3E100L/4D** **RV1602L-3E100L/4D** **PV1602L-2E100L/4C** **RV1602L-2E100L/4C**	6,26 6,42 	89 98 87 96	186 187 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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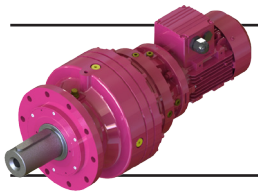
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienzklasse
3,0 4,0	5,8 7,5	3740 2932	2,3 2,3	8,1	3,9	**250,20** **194,09**	35 32	0,8 0,9	**PV1504L-3E100L/4D** **RV1504L-3E100L/4D** **PV1504L-2E100L/4C** **RV1504L-2E100L/4C**	6,26 6,42 	79 89 77 87	182 183 	IE3 IE2
	7,6	3244	2,6	4,5	2,5	**127,10**	32	1,0	**PV1503L-3E132S/6B** **RV1503L-3E132S/6B** **PV1503L-2E132S/6A** **RV1503L-2E132S/6A**	6,55 6,85 	90 100 85 95	182 183 	IE3 IE2
	7,8 9,1 11 14 16	3141 2717 2178 1805 1554	2,6 2,6 2,6 2,6 2,6	4,8 5,0 5,2 5,3 5,2	2,5 2,5 2,6 2,4 2,4	**184,88** **159,20** **127,10** **105,19** **90,58**	32 31 29 27 26	1,0 1,1 1,4 1,7 2,0	**PV1503L-3E100L/4D** **RV1503L-3E100L/4D** **PV1503L-2E100L/4C** **RV1503L-2E100L/4C**	6,26 6,42 	66 69 64 67	182 183 	IE3 IE2
	18 22 25	1449 1205 1041	2,7 2,7 2,7	5,9 6,6 7,1	3,5 3,8 4,0	**54,38** **44,95** **38,67**	25 24 22	1,2 2,0 2,6	**PV1502L-3E132S/6B** **RV1502L-3E132S/6B** **PV1502L-2E132S/6A** **RV1502L-2E132S/6A**	6,55 6,85 	86 96 81 91	182 183 	IE3 IE2
	27 32	971 810	2,7 2,7	6,6 7,5	3,2 3,6	**54,38** **44,95**	22 21	1,7 2,9	**PV1502L-3E100L/4D** **RV1502L-3E100L/4D** **PV1502L-2E100L/4C** **RV1502L-2E100L/4C**	6,26 6,42 	66 76 64 74	182 183 	IE3 IE2
	12 14 16 21	2098 1739 1497 1192	2,6 2,6 2,6 2,6	4,3 4,5 4,4 4,3	2,2 2,1 1,9 1,7	**123,36** **102,09** **87,91** **70,19**	20 19 18 17	1,0 1,2 1,3 1,7	**PV1203L-3E100L/4D** **RV1203L-3E100L/4D** **PV1203L-2E100L/4C** **RV1203L-2E100L/4C**	6,26 6,42 	57 59 55 57	178 179 	IE3 IE2
	22 26	1161 1004	2,7 2,7	5,1 5,5	3,0 3,2	**43,50** **37,46**	16 16	1,4 1,9	**PV1202L-3E132S/6B** **RV1202L-3E132S/6B** **PV1202L-2E132S/6A** **RV1202L-2E132S/6A**	6,55 6,85 	72 74 67 69	178 179 	IE3 IE2
	28 33 39	931 780 675	2,7 2,7 2,7	5,1 5,9 6,3	2,5 2,9 3,1	**52,56** **43,50** **37,46**	15 15 14	1,2 2,1 2,7	**PV1202L-3E100L/4D** **RV1202L-3E100L/4D** **PV1202L-2E100L/4C** **RV1202L-2E100L/4C**	6,26 6,42 	54 56 52 54	178 179 	IE3 IE2
	23 25	1060 976	2,5 2,5	3,3 3,3	1,0 1,0	**64,28** **58,87**	16 16	0,9 1,0	**PV1103L-3E100L/4D** **RV1103L-3E100L/4D** **PV1103L-2E100L/4C** **RV1103L-2E100L/4C**	6,26 6,42 	53 55 51 53	174 175 	IE3 IE2
	26	1004	2,7	4,5	2,6	**37,46**	16	1,0	**PV1102L-3E132S/6B** **RV1102L-3E132S/6B** **PV1102L-2E132S/6A** **RV1102L-2E132S/6A**	6,55 6,85 	68 70 63 65	174 175 	IE3 IE2
	28 33 39 48 59 68 85 93 102	922 776 673 541 448 386 308 281 258	2,7 2,7 2,7 2,8 2,8 2,8 2,7 2,7 2,7	4,7 5,1 5,6 5,4 5,5 5,1 4,7 4,7 4,7	2,3 2,5 2,6 2,3 2,3 1,6 1,0 1,0 1,0	**52,56** **43,50** **37,46** **29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	15 15 14 13 12 12 11 11 10	0,7 1,1 1,5 1,8 2,2 2,6 3,3 3,6 3,9	**PV1102L-3E100L/4D** **RV1102L-3E100L/4D** **PV1102L-2E100L/4C** **RV1102L-2E100L/4C**	6,26 6,42 	49 51 47 49	174 175 	IE3 IE2

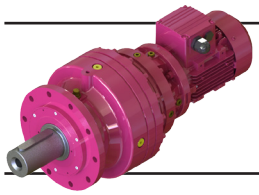
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor* Verim Snf.** *Motor Eff. Class* Motor Effizienz-klasse
3,0 4,0	134	202	2,8	7,1	3,8	**7,25**	10	2,9	**PV1101L-3E132S/6B** **RV1101L-3E132S/6B** **PV1101L-2E132S/6A** **RV1101L-2E132S/6A**	6,55 6,85 	63 65 58 60	174 175 	IE3 IE2
	200 242 281 352 384	135 113 97 78 71	2,8 2,9 2,9 2,9 2,9	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	4,0 4,0 4,0 4,0 4,0	**PV1101L-3E100L/4D** **RV1101L-3E100L/4D** **PV1101L-2E100L/4C** **RV1101L-2E100L/4C**	6,26 6,42 	44 46 42 44	174 175 	IE3 IE2
4,0 5,5	0,69	43025	3,1	8,8	4,9	**1403,59**	236	1,2	**PV3504L-3E132M/6C** **RV3504L-3E132M/6C** **PV3504L-2E132M/6B** **RV3504L-2E132M/6B**	8,52 8,80 	476 562 471 577	210 211 	IE3 IE2
	0,80 1,0 1,2 1,6 1,9	37470 28969 24507 19166 15992	3,1 3,2 3,2 3,2 3,2	9,3 9,8 10 11 11	5,1 5,4 5,6 5,8 6,1	**1829,51** **1403,59** **1182,66** **921,55** **761,81**	226 209 198 184 173	1,1 1,6 2,0 2,6 3,1	**PV3504L-3E112M/4D** **RV3504L-3E112M/4D** **PV3504L-2E112M/4C** **RV3504L-2E112M/4C**	8,05 8,20 	455 541 453 539	210 211 	IE3 IE2
	3,2	10367	3,5	15	8,0	**303,75**	148	2,3	**PV3503L-3E132M/6C** **RV3503L-3E132M/6C** **PV3503L-2E132M/6B** **RV3503L-2E132M/6B**	8,52 8,80 	465 551 460 546	210 211 	IE3 IE2
	4,8	6943	3,5	16	9,0	**303,75**	131	3,2	**PV3503L-3E112M/4D** **RV3503L-3E112M/4D** **PV3503L-2E112M/4C** **RV3503L-2E112M/4C**	8,05 8,20 	443 529 441 527	210 211 	IE3 IE2
	0,82 1,1 1,3 1,6 1,9 2,3	35805 28291 23998 18779 15682 13575	3,1 3,1 3,1 3,2 3,2 3,2	7,6 8,1 8,4 8,7 9,2 9,5	4,1 4,4 4,6 4,8 5,0 5,2	**1778,69** **1385,99** **1167,83** **909,99** **752,26** **647,11**	159 155 147 136 129 123	0,9 1,2 1,5 1,9 2,2 2,6	**PV2904L-3E112M/4D** **RV2904L-3E112M/4D** **PV2904L-2E112M/4C** **RV2904L-2E112M/4C**	8,05 8,20 	456 542 454 540	206 207 	IE3 IE2
	3,3 4,0	10055 8459	3,5 3,5	12 13	6,9 7,2	**291,17** **245,34**	109 104	2,3 3,4	**PV2903L-3E132M/6C** **RV2903L-3E132M/6C** **PV2903L-2E132M/6B** **RV2903L-2E132M/6B**	8,52 8,80 	356 428 351 423	206 207 	IE3 IE2
	5,0	6605	3,5	14	7,0	**291,17**	97	3,3	**PV2903L-3E112M/4D** **RV2903L-3E112M/4D** **PV2903L-2E112M/4C** **RV2903L-2E112M/4C**	8,05 8,20 	336 408 334 406	206 207 	IE3 IE2
	1,1 1,2 1,5 1,9 2,2 2,7	28170 24386 19557 16343 14153 11364	3,1 3,1 3,2 3,2 3,2 3,2	6,8 7,0 7,3 7,7 8,0	3,7 3,8 4,0 4,2 4,4	**1379,15** **1186,36** **945,38** **781,52** **672,27** **535,72**	83 116 108 102 97 91	0,9 1,0 1,2 1,5 1,7 2,1	**PV2704L-3E112M/4D** **RV2704L-3E112M/4D** **PV2704L-2E112M/4C** **RV2704L-2E112M/4C**	8,05 8,20 	271 336 269 334	202 203 	IE3 IE2
	2,8 3,3	11822 10014	3,4 3,4	9,7 11	5,2 5,7	**350,48** **295,31**	90 86	1,3 2,0	**PV2703L-3E132M/6C** **RV2703L-3E132M/6C** **PV2703L-2E132M/6B** **RV2703L-2E132M/6B**	8,52 8,80 	283 348 278 343	202 203 	IE3 IE2

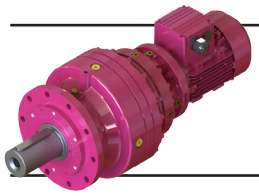
***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienzklasse
4,0	4,2	7909	3,5	6,8	3,7	**350,48**	80	1,9	**PV2703L-3E112M/4D**	8,05	268	202	IE3
5,5	4,9	6706	3,5	7,0	3,8	**295,31**	76	2,9	**RV2703L-3E112M/4D**		333	203	
	6,3	5279	3,5	7,3	4,0	**230,11**	70	3,1	**PV2703L-2E112M/4C**	8,20	266		IE2
									RV2703L-2E112M/4C		331		
	1,6	18853	3,2	6,2	3,3	**913,87**	114	1,1	**PV2404L-3E112M/4D**	8,05	233	198	IE3
	1,9	15775	3,2	6,5	3,5	**756,31**	120	1,3	**RV2404L-3E112M/4D**		248	199	
	2,2	13676	3,2	6,7	3,7	**651,26**	115	1,5	**PV2404L-2E112M/4C**	8,20	231		IE2
	2,8	10995	3,2	7,1	3,9	**519,96**	108	1,8	**RV2404L-2E112M/4C**		246		
	2,9	11463	3,4	8,2	4,3	**338,80**	107	1,1	**PV2403L-3E132M/6C**	8,52	248	198	IE3
	3,4	9735	3,5	8,9	4,7	**285,47**	101	1,3	**RV2403L-3E132M/6C**		264	199	
	4,1	8038	3,5	9,3	5,0	**235,99**	96	2,0	**PV2403L-2E132M/6B**	8,80	243		IE2
									RV2403L-2E132M/6B		259		
	4,3	7659	3,5	9,0	4,9	**338,80**	94	1,5	**PV2403L-3E112M/4D**	8,05	231	198	IE3
	5,1	6508	3,5	9,7	5,3	**285,47**	90	2,0	**RV2403L-3E112M/4D**		247	199	
	6,2	5387	3,5	10	5,6	**235,99**	85	2,9	**PV2403L-2E112M/4C**	8,20	229		IE2
									RV2403L-2E112M/4C		245		
	2,2	13456	3,2	5,9	3,2	**651,26**	92	0,9	**PV2304L-3E112M/4D**	8,05	185	194	IE3
	2,8	10840	3,2	6,1	3,3	**519,96**	108	1,2	**RV2304L-3E112M/4D**		202	195	
									PV2304L-2E112M/4C	8,20	183		IE2
									RV2304L-2E112M/4C		200		
	3,4	9631	3,4	7,6	4,0	**285,47**	101	0,9	**PV2303L-3E132M/6C**	8,52	206	194	IE3
	4,1	7945	3,4	8,0	4,3	**235,99**	96	1,4	**RV2303L-3E132M/6C**		222	195	
									PV2303L-2E132M/6B	8,80	201		IE2
									RV2303L-2E132M/6B		217		
	4,3	7535	3,4	7,7	4,2	**338,80**	94	1,1	**PV2303L-3E112M/4D**	8,05	186	194	IE3
	5,1	6424	3,4	8,3	4,5	**285,47**	90	1,3	**RV2303L-3E112M/4D**		212	195	
	6,2	5322	3,5	8,8	4,8	**235,99**	85	2,0	**PV2303L-2E112M/4C**	8,20	184		IE2
	7,2	4595	3,5	9,1	4,9	**203,00**	81	2,3	**RV2303L-2E112M/4C**		210		
	9,2	3606	3,5	9,8	5,3	**158,18**	75	3,0					
	3,8	8116	3,2	6,6	3,4	**384,96**	72	1,0	**PV1904L-3E112M/4D**	8,05	141	190	IE3
	4,8	6446	3,2	6,6	3,0	**307,34**	67	1,3	**RV1904L-3E112M/4D**		155	191	
	5,2	5882	3,2	6,5	2,9	**281,47**	66	1,4	**PV1904L-2E112M/4C**	8,20	139		IE2
									RV1904L-2E112M/4C		153		
	5,0	6548	3,5	8,6	4,8	**290,00**	66	1,1	**PV1903L-3E112M/4D**	8,05	139	190	IE3
	6,3	5270	3,5	9,3	5,1	**231,09**	62	1,3	**RV1903L-3E112M/4D**		153	191	
	7,6	4371	3,5	9,8	5,4	**191,04**	58	1,8	**PV1903L-2E112M/4C**	8,20	137		IE2
	8,9	3771	3,5	10	5,6	**164,33**	56	2,1	**RV1903L-2E112M/4C**		151		
	11	3013	3,5	11	5,8	**130,95**	52	2,6					
	13	2501	3,5	11	5,6	**108,38**	49	3,2					
	17	2022	3,7	11	5,9	**56,25**	46	2,0	**PV1902L-3E132M/6C**	8,52	152	190	IE3
									RV1902L-3E132M/6C		167	191	
									PV1902L-2E132M/6B	8,80	147		IE2
									RV1902L-2E132M/6B		162		
	26	1349	3,7	12	6,5	**56,25**	40	3,0	**PV1902L-3E112M/4D**	8,05	132	190	IE3
									RV1902L-3E112M/4D		147	191	
									PV1902L-2E112M/4C	8,20	130		IE2
									RV1902L-2E112M/4C		145		

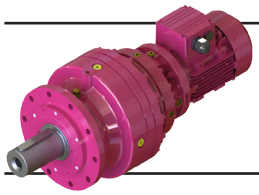
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
4,0	5,3	5601	3,1	3,4	1,3	**273,20**	36	0,9	**PV1604L-3E112M/4D**	8,05	105	186	IE3
5,5	5,8	5161	3,2	3,5	1,3	**250,20**	35	1,0	**RV1604L-3E112M/4D**		115	187	
	7,5	4025	3,2	3,5	1,3	**194,09**	32	1,0	**PV1604L-2E112M/4C**	8,20	103		IE2
									RV1604L-2E112M/4C		113		
	6,3	5228	3,5	5,2	2,6	**232,00**	34	0,9	**PV1603L-3E112M/4D**	8,05	98	186	IE3
	7,9	4205	3,5	5,6	2,8	**184,88**	32	1,2	**RV1603L-3E112M/4D**		108	187	
	9,2	3633	3,5	5,8	2,9	**159,20**	30	1,4	**PV1603L-2E112M/4C**	8,20	96		IE2
	11	2908	3,5	6,0	3,0	**127,10**	28	1,7	**RV1603L-2E112M/4C**		106		
	14	2413	3,5	6,1	2,8	**105,19**	27	2,1					
	16	2080	3,5	6,0	2,8	**90,58**	26	2,4					
	18	1949	3,6	6,9	4,1	**54,38**	25	1,3	**PV1602L-3E132M/6C**	8,52	113	186	IE3
	22	1618	3,7	7,9	4,5	**44,95**	24	2,4	**RV1602L-3E132M/6C**		122	187	
									PV1602L-2E132M/6B	8,80	108		IE2
									RV1602L-2E132M/6B		117		
	27	1299	3,7	8,1	3,9	**54,38**	22	1,9	**PV1602L-3E112M/4D**	8,05	99	186	IE3
									RV1602L-3E112M/4D		108	187	
									PV1602L-2E112M/4C	8,20	97		IE2
									RV1602L-2E112M/4C		106		
	11	2884	3,5	5,2	2,6	**127,10**	28	1,1	**PV1503L-3E112M/4D**	8,05	76	182	IE3
	14	2390	3,5	5,3	2,4	**105,19**	27	1,3	**RV1503L-3E112M/4D**		79	183	
	16	2058	3,5	5,2	2,4	**90,58**	26	1,5	**PV1503L-2E112M/4C**	8,20	74		IE2
	20	1639	3,5	4,8	1,9	**72,32**	24	1,9	**RV1503L-2E112M/4C**		77		
	22	1607	3,6	6,6	3,8	**44,95**	24	1,5	**PV1502L-3E132M/6C**	8,52	97	182	IE3
	25	1389	3,7	7,1	4,0	**38,67**	22	1,9	**RV1502L-3E132M/6C**		107	183	
									PV1502L-2E132M/6B	8,80	92		IE2
									RV1502L-2E132M/6B		102		
	27	1285	3,6	6,6	3,2	**54,38**	22	1,3	**PV1502L-3E112M/4D**	8,05	76	182	IE3
	32	1072	3,7	7,5	3,6	**44,95**	21	2,2	**RV1502L-3E112M/4D**		86	183	
	38	927	3,7	8,1	3,8	**38,67**	20	2,9	**PV1502L-2E112M/4C**	8,20	74		IE2
									RV1502L-2E112M/4C		84		
	15	2178	3,4	4,4	2,1	**64,28**	18	0,9	**PV1203L-3E132M/6C**	8,52	84	178	IE3
	16	1996	3,4	4,4	2,2	**58,87**	18	1,0	**RV1203L-3E132M/6C**		86	178	
									PV1203L-2E132M/6B	8,80	79		IE2
									RV1203L-2E132M/6B		81		
	17	1983	3,5	4,4	1,9	**87,91**	18	1,0	**PV1203L-3E112M/4D**	8,05	67	178	IE3
	21	1579	3,4	4,3	1,7	**70,19**	17	1,3	**RV1203L-3E112M/4D**		69	179	
									PV1203L-2E112M/4C	8,20	65		IE2
									RV1203L-2E112M/4C		67		
	22	1548	3,6	5,1	3,0	**43,50**	16	1,1	**PV1202L-3E132M/6C**	8,52	83	178	IE3
	26	1339	3,6	5,5	3,2	**37,46**	16	1,5	**RV1202L-3E132M/6C**		85	179	
									PV1202L-2E132M/6B	8,80	78		IE2
									RV1202L-2E132M/6B		79		
	28	1233	3,6	5,1	2,5	**52,56**	15	0,9	**PV1202L-3E112M/4D**	8,05	64	178	IE3
	34	1033	3,6	5,9	2,9	**43,50**	15	1,6	**RV1202L-3E112M/4D**		66	179	
	39	894	3,7	6,3	3,1	**37,46**	14	2,0	**PV1202L-2E112M/4C**	8,20	62		IE2
	49	719	3,7	6,8	3,3	**29,91**	13	2,4	**RV1202L-2E112M/4C**		64		
	59	596	3,7	6,7	3,3	**24,75**	13	2,8					
	69	514	3,7	6,8	2,9	**21,31**	12	3,1					

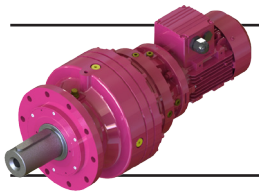
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
4,0 5,5	32	1075	3,7	4,9	2,8	**29,91**	15	0,9	**PV1102L-3E132M/6C** **RV1102L-3E132M/6C** **PV1102L-2E132M/6B** **RV1102L-2E132M/6B**	8,52 8,80 	79 81 74 76	174 175 	IE3 IE2
	39 49 59 69 86 94 102	891 716 593 511 407 372 341	3,6 3,7 3,7 3,7 3,7 3,7 3,7	5,1 5,6 5,4 5,5 5,1 4,7 4,7	2,5 2,6 2,3 2,3 1,6 1,0 1,0	**37,46** **29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	14 13 12 12 11 11 10	1,1 1,4 1,7 2,0 2,5 2,7 2,9	**PV1102L-3E112M/4D** **RV1102L-3E112M/4D** **PV1102L-2E112M/4C** **RV1102L-2E112M/4C**	8,05 8,20 	59 61 57 59	174 175 	IE3 IE2
	134	269	3,8	7,1	3,8	**7,25**	10	2,2	**PV1101L-3E132M/6C** **RV1101L-3E132M/6C** **PV1101L-2E132M/6B** **RV1101L-2E132M/6B**	8,52 8,80 	74 76 69 71	174 175 	IE3 IE2
	201 243 283 354 386	179 149 129 103 95	3,8 3,8 3,8 3,8 3,8	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	9 8 8 7 7	3,2 4,0 4,0 4,0 4,0	**PV1101L-3E112M/4D** **RV1101L-3E112M/4D** **PV1101L-2E112M/4C** **RV1101L-2E112M/4C**	8,05 8,20 	57 59 55 57	174 175 	IE3 IE2
5,5 7,5	0,82	50073	4,3	9,2	5,0	**1182,66**	224	1,0	**PV3504L-3E132M/6D** **RV3504L-3E132M/6D** **PV3504L-2E132M/6C** **RV3504L-2E132M/6C**	11,55 12,0 	481 567 476 562	210 211 	IE3 IE2
	1,0 1,2 1,6 1,9 2,2	39833 33697 26353 21988 19025	4,3 4,4 4,4 4,4 4,4	9,8 10 11 11 12	5,4 5,6 5,8 6,1 6,4	**1403,59** **1182,66** **921,55** **761,81** **655,32**	209 198 184 173 166	1,2 1,5 1,9 2,3 2,6	**PV3504L-3E132S/4C** **RV3504L-3E132S/4C** **PV3504L-2E132S/4B** **RV3504L-2E132S/4B**	10,65 11,05 	468 554 462 548	210 211 	IE3 IE2
	3,2 3,8	14254 11872	4,8 4,8	15 16	8,0 8,7	**303,75** **252,35**	148 140	1,7 2,9	**PV3503L-3E132M/6D** **RV3503L-3E132M/6D** **PV3503L-2E132M/6C** **RV3503L-2E132M/6C**	11,55 12,0 	471 556 466 551	210 211 	IE3 IE2
	4,8	9546	4,8	16	8,6	**303,75**	131	2,3	**PV3503L-3E132S/4C** **RV3503L-3E132S/4C** **PV3503L-2E132S/4B** **RV3503L-2E132S/4B**	10,65 11,05 	459 544 453 538	210 211 	IE3 IE2
	1,1 1,3 1,6 1,9 2,3 2,8	38900 32997 25821 21563 18666 14979	4,3 4,3 4,3 4,4 4,4 4,4	8,1 8,4 8,7 9,2 9,5 10	4,4 4,6 4,8 5,0 5,2 5,5	**1385,99** **1167,83** **909,99** **752,26** **647,11** **515,66**	112 147 136 129 123 115	0,9 1,1 1,4 1,6 1,9 2,3	**PV2904L-3E132S/4C** **RV2904L-3E132S/4C** **PV2904L-2E132S/4B** **RV2904L-2E132S/4B**	10,65 11,05 	469 555 463 549	206 207 	IE3 IE2
	3,3 4,0	13825 11632	4,8 4,8	12 13	6,9 7,2	**291,17** **245,34**	109 104	1,7 2,5	**PV2903L-3E132M/6D** **RV2903L-3E132M/6D** **PV2903L-2E132M/6C** **RV2903L-2E132M/6C**	11,55 12,0 	361 433 356 428	206 207 	IE3 IE2
	5,0	9082	4,8	14	7,2	**291,17**	97	2,4	**PV2903L-3E132S/4C** **RV2903L-3E132S/4C** **PV2903L-2E132S/4B** **RV2903L-2E132S/4B**	10,65 11,05 	349 421 343 415	206 207 	IE3 IE2

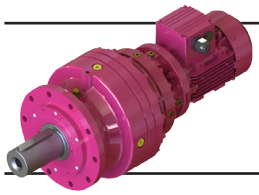
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
5,5	1,5	26892	4,3	7,3	4,0	**945,38**	108	0,9	**PV2704L-3E132S/4C**	10,65	284	202	IE3
7,5	1,9	22472	4,4	7,7	4,2	**781,52**	102	1,1	**RV2704L-3E132S/4C**		349	203	
	2,2	19460	4,4	8,0	4,4	**672,27**	97	1,2	**PV2704L-2E132S/4B**	11,05	278		IE2
	2,7	15625	4,5			**535,72**	91	1,5	**RV2704L-2E132S/4B**		343		
	2,8	16255	4,7	9,7	5,2	**350,48**	90	1,0	**PV2703L-3E132M/6D**	11,55	288	202	IE3
	3,3	13769	4,7	11	5,7	**295,31**	86	1,4	**RV2703L-3E132M/6D**		353	203	
									PV2703L-2E132M/6C	12,0	283		IE2
									RV2703L-2E132M/6C		348		
	4,2	10876	4,7	11	5,8	**350,48**	80	1,3	**PV2703L-3E132S/4C**	10,65	276	202	IE3
	4,9	9221	4,8	12	6,3	**295,31**	76	2,1	**RV2703L-3E132S/4C**		341	203	
	6,3	7259	4,8	12	6,7	**230,11**	70	2,2	**PV2703L-2E132S/4B**	11,05	270		IE2
									RV2703L-2E132S/4B		335		
	1,9	21691	4,4	6,5	3,5	**756,31**	62	0,9	**PV2404L-3E132S/4C**	10,65	246	198	IE3
	2,2	18805	4,4	6,7	3,7	**651,26**	115	1,1	**RV2404L-3E132S/4C**		261	199	
	2,8	15118	4,4	7,1	3,9	**519,96**	108	1,3	**PV2404L-2E132S/4B**	11,05	240		IE2
									RV2404L-2E132S/4B		255		
	3,4	13386	4,8	8,9	4,7	**285,47**	101	1,0	**PV2403L-3E132M/6D**	11,55	253	198	IE3
	4,1	11052	4,8	9,3	5,0	**235,99**	96	1,5	**RV2403L-3E132M/6D**		269	199	
									PV2403L-2E132M/6C	12,0	248		IE2
									RV2403L-2E132M/6C		264		
	4,3	10531	4,8	9,0	4,9	**338,80**	94	1,1	**PV2403L-3E132S/4C**	10,65	244	198	IE3
	5,1	8948	4,8	9,7	5,3	**285,47**	90	1,4	**RV2403L-3E132S/4C**		260	199	
	6,2	7408	4,8	10	5,6	**235,99**	85	2,1	**PV2403L-2E132S/4B**	11,05	238		IE2
	7,2	6393	4,8	11	5,8	**203,00**	81	2,4	**RV2403L-2E132S/4B**		254		
	3,4	12373	4,4	6,3	3,2	**430,31**	102	1,0	**PV2304L-3E132S/4C**	10,65	198	194	IE3
	3,9	10664	4,4	6,5	3,2	**370,55**	97	1,2	**RV2304L-3E132S/4C**		215	195	
									PV2304L-2E132S/4B	11,05	192		IE2
									RV2304L-2E132S/4B		209		
	4,1	10924	4,7	8,0	4,3	**235,99**	96	1,0	**PV2303L-3E132M/6D**	11,55	211	194	IE3
	4,8	9424	4,7	8,3	4,4	**203,00**	92	1,2	**RV2303L-3E132M/6D**		227	195	
									PV2303L-3E132M/6D	12,0	206		IE2
									RV2303L-3E132M/6D		222		
	5,1	8833	4,7	8,3	4,5	**285,47**	90	1,0	**PV2303L-3E132S/4C**	10,65	191	194	IE3
	6,2	7318	4,7	8,8	4,8	**235,99**	85	1,5	**RV2303L-3E132S/4C**		217	195	
	7,2	6318	4,8	9,1	4,9	**203,00**	81	1,7	**PV2303L-2E132S/4B**	11,05	185		IE2
	9,2	4958	4,8	9,8	5,3	**158,18**	75	2,2	**RV2303L-2E132S/4B**		211		
	12	3957	4,8	10	5,5	**126,05**	70	2,8					
	4,8	8864	4,4	6,6	3,0	**307,34**	67	0,9	**PV1904L-3E132S/4C**	10,65	154	190	IE3
	5,2	8088	4,4	6,5	2,9	**281,47**	66	1,0	**RV1904L-3E132S/4C**		168	191	
									PV1904L-2E132S/4B	11,05	148		IE2
									RV1904L-2E132S/4B		162		
	6,3	7246	4,8	9,3	5,1	**231,09**	62	1,0	**PV1903L-3E132S/4C**	10,65	152	190	IE3
	7,6	6010	4,8	9,8	5,4	**191,04**	58	1,3	**RV1903L-3E132S/4C**		166	191	
	8,9	5185	4,8	10	5,6	**164,33**	56	1,5	**PV1903L-2E132S/4B**	11,05	146		IE2
	11	4143	4,8	11	5,8	**130,95**	52	1,9	**RV1903L-2E132S/4B**		160		
	13	3439	4,9	11	5,6	**108,38**	49	2,3					
	16	2965	4,9	11	5,7	**93,32**	47	2,7					

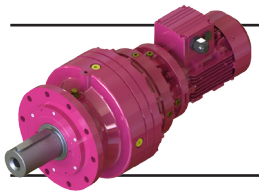
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienzklasse
5,5	17	2780	5,0	11	5,9	**56,25**	46	1,5	**PV1902L-3E132M/6D**	11,55	157	190	IE3
7,5	21	2312	5,1	13	7,1	**46,50**	43	2,4	**RV1902L-3E132M/6D**		172	191	
									PV1902L-2E132M/6C	12,0	152		IE2
									RV1902L-2E132M/6C		167		
	26	1855	5,0	12	6,5	**56,25**	40	2,1	**PV1902L-3E132S/4C**	10,65	145	190	IE3
									RV1902L-3E132S/4C		160	191	
									PV1902L-2E132S/4B	11,05	139		IE2
									RV1902L-2E132S/4B		154		
	9,2	4996	4,8	5,8	2,9	**159,20**	30	1,0	**PV1603L-3E132S/4C**	10,65	111	186	IE3
	11	3999	4,8	6,0	3,0	**127,10**	28	1,3	**RV1603L-3E132S/4C**		121	187	
	14	3318	4,8	6,1	2,8	**105,19**	27	1,5	**PV1603L-2E132S/4B**	11,05	105		IE2
	16	2860	4,8	6,0	2,8	**90,58**	26	1,7	**RV1603L-2E132S/4B**		115		
	18	2680	5,0	6,9	4,1	**54,38**	25	0,9	**PV1602L-3E132M/6D**	11,55	118	186	IE3
	22	2225	5,0	7,9	4,5	**44,95**	24	1,7	**RV1602L-3E132M/6D**		127	187	
	25	1919	5,0	8,5	4,8	**38,67**	22	2,4	**PV1602L-2E132M/6C**	12,0	113		IE2
									RV1602L-2E132M/6C		122		
	27	1786	5,0	8,1	3,9	**54,38**	22	1,4	**PV1602L-3E132S/4C**	10,65	112	186	IE3
	32	1486	5,1	9,1	4,4	**44,95**	21	2,5	**RV1602L-3E132S/4C**		121	187	
									PV1602L-2E132S/4B	11,05	106		IE2
									RV1602L-2E132S/4B		115		
	14	3286	4,8	5,3	2,4	**105,19**	27	0,9	**PV1503L-3E132S/4C**	10,65	101	182	IE3
	16	2830	4,8	5,2	2,4	**90,58**	26	1,1	**RV1503L-3E132S/4C**		111	183	
	20	2254	4,8	4,8	1,9	**72,32**	24	1,4	**PV1503L-2E132S/4B**	11,05	95		IE2
									RV1503L-2E132S/4B		105		
	22	2210	5,0	6,6	3,8	**44,95**	24	1,1	**PV1502L-3E132M/6D**	11,55	102	182	IE3
	25	1909	5,0	7,1	4,0	**38,67**	22	1,4	**RV1502L-3E132M/6D**		112	183	
									PV1502L-2E132M/6C	12,0	97		IE2
									RV1502L-2E132M/6C		107		
	27	1767	5,0	6,6	3,2	**54,38**	22	0,9	**PV1502L-3E132S/4C**	10,65	89	182	IE3
	32	1474	5,0	7,5	3,6	**44,95**	21	1,6	**RV1502L-3E132S/4C**		99	183	
	38	1274	5,0	8,1	3,8	**38,67**	20	2,1	**PV1502L-2E132S/4B**	11,05	83		IE2
	46	1057	5,1	8,0	3,8	**32,00**	19	2,5	**RV1502L-2E132S/4B**		93		
	21	2171	4,7	4,3	1,7	**70,19**	17	0,9	**PV1203L-3E132S/4C**	10,65	80	178	IE3
	23	1984	4,7	4,1	1,5	**64,28**	16	1,0	**RV1203L-3E132S/4C**		82	179	
	25	1820	4,7	4,1	1,5	**58,87**	16	1,1	**PV1203L-2E132M/6C**	11,05	74		IE2
									RV1203L-2E132M/6C		76		
	26	1841	5,0	5,5	3,2	**37,46**	16	1,1	**PV1202L-3E132M/6D**	11,55	88	178	IE3
	32	1477	5,0	6,0	3,3	**29,91**	15	1,3	**RV1202L-3E132M/6D**		90	179	
									PV1202L-2E132M/6C	12,0	83		IE2
									RV1202L-2E132M/6C		85		
	34	1421	5,0	5,9	2,9	**43,50**	15	1,2	**PV1202L-3E132S/4C**	10,65	77	178	IE3
	39	1230	5,0	6,3	3,1	**37,46**	14	1,5	**RV1202L-3E132S/4C**		82	179	
	49	988	5,1	6,8	3,3	**29,91**	13	1,8	**PV1202L-2E132S/4B**	11,05	71		IE2
	59	820	5,1	6,7	3,3	**24,75**	12	2,0	**RV1202L-2E132S/4B**		76		
	69	706	5,1	6,8	2,9	**21,31**	12	2,2					
	86	564	5,1	6,4	2,2	**17,02**	11	2,6					
	94	515	5,1	6,0	1,6	**15,58**	11	2,8					
	102	472	5,1	6,0	1,6	**14,27**	10	3,0					

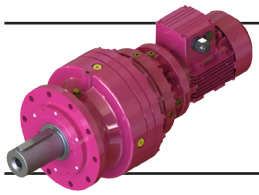
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.** * *Motor Eff. Class* Motor Effizienz-klasse
5,5 7,5	134	371	5,2	8,4	4,5	**7,25**	10	2,9	**PV1201L-3E132M/6D** **RV1201L-3E132M/6D** **PV1201L-2E132M/6C** **RV1201L-2E132M/6C**	11,55 12,0 	83 85 78 79	178 179 	IE3 IE2
	46	1056	5,0	5,5	2,8	**21,31**	13	0,9	**PV1102L-3E132M/6D** **RV1102L-3E132M/6D** **PV1102L-2E132M/6C** **RV1102L-2E132M/6C**	11,55 12,0 	84 86 79 81	174 175 	IE3 IE2
	49 59 69 86 94 102	985 816 703 560 512 469	5,0 5,0 5,0 5,0 5,0 5,0	5,6 5,4 5,5 5,1 4,7 4,7	2,6 2,3 2,3 1,6 1,0 1,0	**29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	13 12 12 11 11 10	1,0 1,2 1,4 1,8 2,0 2,1	**PV1102L-3E132S/4C** **RV1102L-3E132S/4C** **PV1102L-2E132S/4B** **RV1102L-2E132S/4B**	10,65 11,05 	72 74 66 68	174 175 	IE3 IE2
	134 162 188	370 308 267	5,2 5,2 5,2	7,1 8,5 9,1	3,8 4,3 4,2	**7,25** **6,00** **5,17**	10 9 9	1,6 2,5 2,9	**PV1101L-3E132M/6D** **RV1101L-3E132M/6D** **PV1101L-2E132M/6C** **RV1101L-2E132M/6C**	11,55 12,0 	79 81 74 76	174 175 	IE3 IE2
	201 243 283 354 386	247 205 177 142 130	5,2 5,2 5,3 5,3 5,3	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	2,3 3,4 3,8 4,0 4,0	**PV1101L-3E132S/4C** **RV1101L-3E132S/4C** **PV1101L-2E132S/4B** **RV1101L-2E132S/4B**	10,65 11,05 	67 69 61 63	174 175 	IE3 IE2
7,5 10	1,1	53292	5,9	10	5,0	**921,55**	208	0,9	**PV3504L-3E160M/6D** **RV3504L-3E160M/6D** **PV3504L-2E160M/6B** **RV3504L-2E160M/6B**	15,55 16,3 	501 586 479 564	210 211 	IE3 IE2
	1,2 1,6 1,9 2,2 2,8	45793 35813 29882 25855 20738	5,9 6,0 6,0 6,1 6,1	10 11 11 12 12	5,6 5,8 6,1 6,4 6,7	**1182,66** **921,55** **761,81** **655,32** **522,21**	198 183 173 165 154	1,1 1,4 1,7 1,9 2,4	**PV3504L-3E132M/4D** **RV3504L-3E132M/4D** **PV3504L-2E132M/4C** **RV3504L-2E132M/4C**	14,4 15,0 	478 564 477 463	210 211 	IE3 IE2
	3,2 3,8	19438 16189	6,5 6,5	15 16	8,0 8,7	**303,75** **252,35**	149 140	1,2 2,1	**PV3503L-3E160M/6D** **RV3503L-3E160M/6D** **PV3503L-2E160M/6B** **RV3503L-2E160M/6B**	15,55 16,3 	500 585 478 563	210 211 	IE3 IE2
	4,8 5,8	12973 10829	6,6 6,6	16 18	8,6 9,3	**303,75** **252,35**	131 124	1,7 3,0	**PV3503L-3E132M/4D** **RV3503L-3E132M/4D** **PV3503L-2E132M/4C** **RV3503L-2E132M/4C**	14,4 15,0 	469 554 468 553	210 211 	IE3 IE2
	1,5	38446	6,0	12	6,9	**647,11**	120	0,9	**PV2904L-3E160M/6D** **RV2904L-3E160M/6D** **PV2904L-2E160M/6B** **RV2904L-2E160M/6B**	15,55 16,3 	559 645 537 623	206 207 	IE3 IE2
	1,6 1,9 2,3 2,8	35091 29303 25367 20356	5,9 6,0 6,0 6,1	8,7 9,2 9,5 10	4,8 5,0 5,2 5,5	**909,99** **752,26** **647,11** **515,66**	136 129 123 115	1,0 1,2 1,4 1,7	**PV2904L-3E132M/4D** **RV2904L-3E132M/4D** **PV2904L-2E132M/4C** **RV2904L-2E132M/4C**	14,4 15,0 	479 565 478 564	206 207 	IE3 IE2

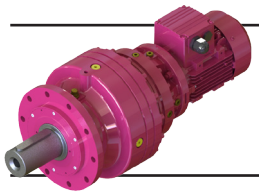
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienzklasse
7,5 10	3,3 4,0	18852 15861	6,6 6,6	12 13	6,9 7,2	**291,17** **245,34**	109 104	1,2 1,8	**PV2903L-3E160M/6D** **RV2903L-3E160M/6D** **PV2903L-2E160M/6B** **RV2903L-2E160M/6B**	15,55 16,3 	391 463 369 441	206 207 	IE3 IE2
	5,0 6,0	12343 10447	6,5 6,5	14 15	7,2 7,6	**291,17** **245,34**	96 92	1,8 2,6	**PV2903L-3E132M/4D** **RV2903L-3E132M/4D** **PV2903L-2E132M/4C** **RV2903L-2E132M/4C**	14,4 15,0 	359 431 358 430	206 207 	IE3 IE2
	2,2 2,7	26445 21235	6,0 6,1	8,0 8,4	4,4 4,6	**672,27** **535,72**	97 91	0,9 1,1	**PV2704L-3E132M/4D** **RV2704L-3E132M/4D** **PV2704L-2E132M/4C** **RV2704L-2E132M/4C**	14,4 15,0 	294 359 293 358	202 203 	IE3 IE2
	3,3	18776	6,5	11	5,7	**295,31**	86	1,0	**PV2703L-3E160M/6D** **RV2703L-3E160M/6D** **PV2703L-2E160M/6B** **RV2703L-2E160M/6B**	15,55 16,3 	318 383 296 361	202 203 	IE3 IE2
	4,2 5,0 6,4 7,7	14780 12531 9865 8143	6,5 6,5 6,6 6,6	11 12 12 13	5,8 6,3 6,7 7,1	**350,48** **295,31** **230,11** **190,23**	80 76 70 66	1,0 1,6 1,7 2,7	**PV2703L-3E132M/4D** **RV2703L-3E132M/4D** **PV2703L-2E132M/4C** **RV2703L-2E132M/4C**	14,4 15,0 	286 351 285 350	202 203 	IE3 IE2
	2,6	22059	6,1	7,1	3,9	**370,55**	51	0,9	**PV2404L-3E160M/6D** **RV2404L-3E160M/6D** **PV2404L-2E160M/6B** **RV2404L-2E160M/6B**	15,55 16,3 	336 351 314 329	198 199 	IE3 IE2
	2,8	20545	6,1	7,1	3,9	**519,96**	87	1,0	**PV2404L-3E132M/4D** **RV2404L-3E132M/4D** **PV2404L-2E132M/4C** **RV2404L-2E132M/4C**	14,4 15,0 	256 271 255 270	198 199 	IE3 IE2
	3,4 4,1 4,8	18254 15070 12996	6,5 6,5 6,5	9,7 10 11	5,3 5,6 5,8	**285,47** **235,99** **203,00**	101 96 92	0,7 1,1 1,2	**PV2403L-3E160M/6D** **RV2403L-3E160M/6D** **PV2403L-2E160M/6B** **RV2403L-2E160M/6B**	15,55 16,3 	334 350 312 328	198 199 	IE3 IE2
	5,1 6,2 7,2 9,3 12	12160 10067 8687 6783 5426	6,5 6,5 6,6 6,6 6,6	9,7 10 11 11 12	5,3 5,6 5,8 6,2 6,5	**285,47** **235,99** **203,00** **158,18** **126,05**	90 85 81 75 70	1,0 1,5 1,8 2,8 3,1	**PV2403L-3E132M/4D** **RV2403L-3E132M/4D** **PV2403L-2E132M/4C** **RV2403L-2E132M/4C**	14,4 15,0 	254 270 253 269	198 199 	IE3 IE2
	21	3175	6,9	18	9,8	**46,73**	59	3,2	**PV2402L-3E160M/6D** **RV2402L-3E160M/6D** **PV2402L-2E160M/6B** **RV2402L-2E160M/6B**	15,55 16,3 	277 292 255 270	198 199 	IE3 IE2
	4,1 4,8	14897 12850	6,4 6,4	8,8 9,1	4,8 4,9	**235,99** **203,00**	89 92	0,8 0,9	**PV2303L-3E160M/6D** **RV2303L-3E160M/6D** **PV2303L-2E160M/6B** **RV2303L-2E160M/6B**	15,55 16,3 	281 308 259 286	194 195 	IE3 IE2
	6,2 7,2 9,3 12	9944 8587 6738 5378	6,5 6,5 6,5 6,5	8,8 9,1 9,8 10	4,8 4,9 5,3 5,5	**235,99** **203,00** **158,18** **126,05**	85 81 75 70	1,1 1,2 1,6 2,1	**PV2303L-3E132M/4D** **RV2303L-3E132M/4D** **PV2303L-2E132M/4C** **RV2303L-2E132M/4C**	14,4 15,0 	201 227 200 226	194 195 	IE3 IE2

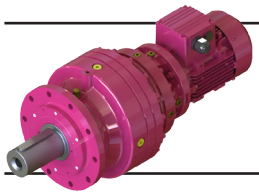
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
7,5 10	14 16 20	4471 3859 3085	6,6 6,6 6,6	11 11 11	5,0 5,0 5,0	**104,32** **89,83** **71,72**	66 63 59	2,3 2,6 3,0	**PV2303L-3E132M/4D** **RV2303L-3E132M/4D** **PV2303L-2E132M/4C** **RV2303L-2E132M/4C**	14,4 15,0	201 227 200 226	194 195	IE3 IE2
	21 25	3152 2673	6,9 6,9	15 17	8,4 9,2	**46,73** **39,38**	59 56	2,4 2,9	**PV2302L-3E160M/6D** **RV2302L-3E160M/6D** **PV2302L-2E160M/6B** **RV2302L-2E160M/6B**	15,55 16,3	236 251 214 229	194 195	IE3 IE2
	7,7 8,9 11 14 16	8167 7047 5630 4673 4029	6,6 6,6 6,6 6,6 6,6	9,8 10 11 11 11	5,4 5,6 5,8 5,6 5,7	**191,04** **164,33** **130,95** **108,38** **93,32**	58 56 52 49 47	1,0 1,1 1,4 1,7 2,0	**PV1903L-3E132M/4D** **RV1903L-3E132M/4D** **PV1903L-2E132M/4C** **RV1903L-2E132M/4C**	14,4 15,0	162 176 161 175	190 191	IE3 IE2
	17 21 24	3790 3152 2720	6,8 6,9 6,9	11 13 14	5,9 7,1 7,7	**56,25** **46,50** **40,00**	46 43 41	1,1 1,8 2,4	**PV1902L-3E160M/6D** **RV1902L-3E160M/6D** **PV1902L-2E160M/6B** **RV1902L-2E160M/6B**	15,55 16,3	187 202 165 180	190 191	IE3 IE2
	26 32	2521 2099	6,9 6,9	12 14	6,5 7,2	**56,25** **46,50**	40 38	1,6 2,6	**PV1902L-3E132M/4D** **RV1902L-3E132M/4D** **PV1902L-2E132M/4C** **RV1902L-2E132M/4C**	14,4 15,0	155 170 154 169	190 191	IE3 IE2
	11	5843	6,6	5,8	3,1	**90,58**	29	0,9	**PV1603L-3E160M/6D** **RV1603L-3E160M/6D** **PV1603L-2E160M/6B** **RV1603L-2E160M/6B**	15,55 16,3	201 211 200 210	186 187	IE3 IE2
	12 14 16	5434 4509 3887	6,6 6,6 6,6	6,0 6,1 6,0	3,0 2,8 2,8	**127,10** **105,19** **90,58**	28 27 26	0,9 1,1 1,2	**PV1603L-3E132M/4D** **RV1603L-3E132M/4D** **PV1603L-2E132M/4C** **RV1603L-2E132M/4C**	14,4 15,0	121 131 120 130	186 187	IE3 IE2
	18 22 25	3654 3034 2617	6,8 6,9 6,9	8,1 9,1 9,8	3,9 4,4 4,7	**54,38** **44,95** **38,67**	25 24 22	0,7 1,3 1,8	**PV1602L-3E160M/6D** **RV1602L-3E160M/6D** **PV1602L-2E160M/6B** **RV1602L-2E160M/6B**	15,55 16,3	202 211 180 189	186 187	IE3 IE2
	27 33 38 46	2427 2019 1742 1445	6,9 6,9 6,9 6,9	8,1 9,1 9,8 9,3	3,9 4,4 4,7 4,7	**54,38** **44,95** **38,67** **32,00**	22 21 20 19	1,0 1,9 2,6 3,1	**PV1602L-3E132M/4D** **RV1602L-3E132M/4D** **PV1602L-2E132M/4C** **RV1602L-2E132M/4C**	14,4 15,0	122 131 121 130	186 187	IE3 IE2
	19	3290	6,5	4,8	1,9	**51,38**	24	0,8	**PV1503L-3E160M/6D** **RV1503L-3E160M/6D** **PV1503L-2E160M/6B** **RV1503L-2E160M/6B**	15,55 16,3	179 182 157 160	182 183	IE3 IE2
	20 22 29	3063 2799 2177	6,5 6,5 6,5	4,8 4,8 4,8	1,9 1,5 1,5	**72,32** **66,23** **51,38**	24 23 22	1,0 1,1 1,2	**PV1503L-3E132M/4D** **RV1503L-3E132M/4D** **PV1503L-2E132M/4C** **RV1503L-2E132M/4C**	14,4 15,0	99 102 98 101	182 183	IE3 IE2
	30	2160	6,9	7,7	4,2	**32,00**	21	1,2	**PV1502L-3E160M/6D** **RV1502L-3E160M/6D** **PV1502L-2E160M/6B** **RV1502L-2E160M/6B**	15,55 16,3	179 189 157 167	182 183	IE3 IE2

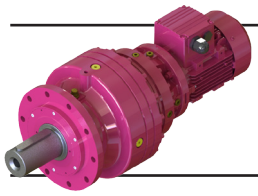
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
7,5 10	33 38 46 67	2004 1732 1436 991	6,8 6,9 6,9 6,9	7,5 8,1 8,0 8,6	3,6 3,8 3,8 3,8	**44,95** **38,67** **32,00** **21,96**	21 20 19 17	1,2 1,5 1,8 2,9	**PV1502L-3E132M/4D** **RV1502L-3E132M/4D** **PV1502L-2E132M/4C** **RV1502L-2E132M/4C**	14,4 15,0 	99 109 98 108	182 183 	IE3 IE2
	129	526	7,1	14	7,8	**7,50**	14	2,8	**PV1501L-3E160M/6D** **RV1501L-3E160M/6D** **PV1501L-2E160M/6B** **RV1501L-2E160M/6B**	15,55 16,3 	132 142 110 120	182 183 	IE3 IE2
	32	2015	6,8	6,0	3,3	**29,91**	15	1,0	**PV1202L-3E160M/6D** **RV1202L-3E160M/6D** **PV1202L-2E160M/6B** **RV1202L-2E160M/6B**	15,55 16,3 	87 92 65 70	178 179 	IE3 IE2
	39 49 59 69 86 94 103	1671 1343 1114 960 766 701 642	6,9 6,9 6,9 6,9 6,9 6,9 6,9	6,3 6,8 6,7 6,8 6,4 6,0 6,0	3,1 3,3 3,3 2,9 2,2 1,6 1,6	**37,46** **29,91** **24,75** **21,31** **17,02** **15,58** **14,27**	14 13 12 12 11 11 10	1,1 1,3 1,5 1,6 1,9 2,1 2,2	**PV1202L-3E132M/4D** **RV1202L-3E132M/4D** **PV1202L-2E132M/4C** **RV1202L-2E132M/4C**	14,4 15,0 	87 92 86 91	178 179 	IE3 IE2
	134	505	7,1	8,4	4,5	**7,25**	10	2,1	**PV1201L-3E160M/6D** **RV1201L-3E160M/6D** **PV1201L-2E160M/6B** **RV1201L-2E160M/6B**	15,55 16,3 	161 163 139 141	178 179 	IE3 IE2
	202	336	7,1	8,5	4,3	**7,25**	8	3,0	**PV1201L-3E132M/4D** **RV1201L-3E132M/4D** **PV1201L-2E132M/4C** **RV1201L-2E132M/4C**	14,4 15,0 	81 83 80 82	178 179 	IE3 IE2
	57	1149	6,9	5,5	2,5	**17,02**	12	0,9	**PV1102L-3E160M/6D** **RV1102L-3E160M/6D** **PV1102L-2E160M/6B** **RV1102L-2E160M/6B**	15,55 16,3 	162 164 140 142	174 175 	IE3 IE2
	59 69 86 94 103	1109 955 761 696 638	6,9 6,9 6,9 6,8 6,9	5,4 5,5 5,1 4,7 4,7	2,3 2,3 1,6 1,0 1,0	**24,75** **21,31** **17,02** **15,58** **14,27**	12 12 11 11 10	0,9 1,0 1,3 1,4 1,6	**PV1102L-3E132M/4D** **RV1102L-3E132M/4D** **PV1102L-2E132M/4C** **RV1102L-2E132M/4C**	14,4 15,0 	82 84 81 83	174 175 	IE3 IE2
	134 162 188	504 421 364	7,1 7,1 7,2	7,3 8,4 8,2	3,1 3,4 3,1	**7,25** **6,00** **5,17**	10 9 9	1,2 1,9 2,1	**PV1101L-3E160M/6D** **RV1101L-3E160M/6D** **PV1101L-2E160M/6B** **RV1101L-2E160M/6B**	15,55 16,3 	157 159 135 137	174 175 	IE3 IE2
	202 244 284 355 388	335 279 241 193 177	7,1 7,1 7,2 7,2 7,2	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	1,7 2,5 2,8 3,3 3,6	**PV1101L-3E132M/4D** **RV1101L-3E132M/4D** **PV1101L-2E132M/4C** **RV1101L-2E132M/4C**	14,4 15,0 	77 79 76 78	174 175 	IE3 IE2
11 15	1,5	56390	8,7	10	6,0	**655,32**	165	0,9	**PV3504L-3E160L/6E** **RV3504L-3E160L/6E** **PV3504L-2E160L/6D** **RV3504L-2E160L/6D**	22,9 22,95 	533 618 526 611	210 211 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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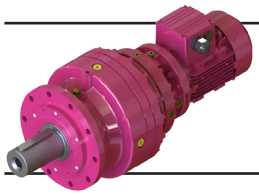
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
11 15	1,6 1,9 2,2 2,8 3,4	52348 43678 37792 30313 25245	8,7 8,8 8,9 8,9 9,0	11 11 12 12 13	6,0 6,0 6,0 7,0 7,0	**921,55** **761,81** **655,32** **522,21** **432,18**	183 173 165 154 146	1,0 1,1 1,3 1,6 2,0	**PV3504L-3E160M/4C** **RV3504L-3E160M/4C** **PV3504L-2E160M/4B** **RV3504L-2E160M/4B**	21,0 21,3 	516 601 502 587	210 211 	IE3 IE2
	3,8	23744	9,6	16	8,7	**252,35**	140	1,5	**PV3503L-3E160L/6E** **RV3503L-3E160L/6E** **PV3503L-2E160L/6D** **RV3503L-2E160L/6D**	22,9 22,95 	522 607 515 600	210 211 	IE3 IE2
	4,8 5,8 7,6 9,0	18962 15829 12129 10229	9,7 9,6 9,7 9,6	16 18 19 19	9,0 9,0 10 10	**303,75** **252,35** **193,60** **163,13**	131 124 114 108	1,2 2,0 3,4 4,0	**PV3503L-3E160M/4C** **RV3503L-3E160M/4C** **PV3503L-2E160M/4B** **RV3503L-2E160M/4B**	21,0 21,3 	505 590 498 583	210 211 	IE3 IE2
	2,3 2,9 3,4	37078 29755 24772	8,8 8,9 8,9	9,5 10 11	5,2 5,5 5,5	**647,11** **515,66** **426,76**	123 115 108	0,9 1,2 1,4	**PV2904L-3E160M/4C** **RV2904L-3E160M/4C** **PV2904L-2E160M/4B** **RV2904L-2E160M/4B**	21,0 21,3 	395 467 388 460	206 207 	IE3 IE2
	4,0	23263	9,6	13	7,2	**245,34**	104	1,2	**PV2903L-3E160L/6E** **RV2903L-3E160L/6E** **PV2903L-2E160L/6D** **RV2903L-2E160L/6D**	22,9 22,95 	412 484 405 477	206 207 	IE3 IE2
	5,0 6,0 7,7 9,1 12	18041 15270 11947 10094 7885	9,5 9,6 9,6 9,7 9,7	14 15 15 16 17	7,2 7,6 8,1 8,4 9,0	**291,17** **245,34** **191,17** **161,08** **125,52**	96 92 85 81 75	1,2 1,8 2,5 3,0 3,6	**PV2903L-3E160M/4C** **RV2903L-3E160M/4C** **PV2903L-2E160M/4B** **RV2903L-2E160M/4B**	21,0 21,3 	387 449 380 442	206 207 	IE3 IE2
	3,3 3,9 4,8	25800 22264 17786	9,0 9,0 9,0	9,0 9,0 9,0	4,0 4,0 4,0	**443,35** **381,78** **304,80**	86 82 76	0,9 1,1 1,3	**PV2704L-3E160M/4C** **RV2704L-3E160M/4C** **PV2704L-2E160M/4B** **RV2704L-2E160M/4B**	21,0 21,3 	325 390 318 383	202 203 	IE3 IE2
	5,0 6,4 7,7 9,0 11	18317 14420 11902 10252 8186	9,6 9,7 9,6 9,6 9,7	12 12 13 13 14	6,3 6,7 7,1 7,3 7,6	**295,31** **230,11** **190,23** **163,64** **130,40**	76 70 66 63 59	1,1 1,1 1,9 2,3 2,8	**PV2703L-3E160M/4C** **RV2703L-3E160M/4C** **PV2703L-2E160M/4B** **RV2703L-2E160M/4B**	21,0 21,3 	322 387 315 380	202 203 	IE3 IE2
	21	4632	10,1	19	10	**46,73**	49	2,8	**PV2702L-3E160L/6E** **RV2702L-3E160L/6E** **PV2702L-2E160L/6D** **RV2702L-2E160L/6D**	22,9 22,95 	334 399 327 392	202 203 	IE3 IE2
	3,6 3,9	23729 21750	8,9 8,9	7,2 7,3	3,7 3,8	**270,94** **248,13**	- 60	0,8 0,9	**PV2404L-3E160L/6E** **RV2404L-3E160L/6E** **PV2404L-2E160L/6D** **RV2404L-2E160L/6D**	22,9 22,95 	302 317 295 310	198 199 	IE3 IE2
	4,1 4,8	22103 19061	9,5 9,5	9,0 10	5,0 5,0	**235,99** **203,00**	95 92	0,7 0,8	**PV2403L-3E160L/6E** **RV2403L-3E160L/6E** **PV2403L-2E160L/6D** **RV2403L-2E160L/6D**	22,9 22,95 	300 315 293 308	198 199 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
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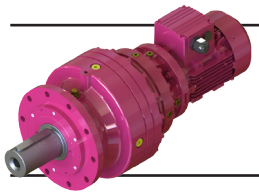
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
11	5,1	17774	9,5	10	5,0	**285,47**	89	0,7	**PV2403L-3E160M/4C**	21,0	300	198	IE3
15	6,2	14714	9,6	10	6,0	**235,99**	84	1,1	**RV2403L-3E160M/4C**		315	199	
	7,2	12698	9,6	11	6,0	**203,00**	81	1,2	**PV2403L-2E160M/4B**	21,3	293		IE2
	9,3	9915	9,7	11	6,0	**158,18**	75	1,9	**RV2403L-2E160M/4B**		308		
	12	7931	9,7	12	6,0	**126,05**	70	2,1					
	14	6588	9,7	12	6,0	**104,32**	66	2,6					
	16	5687	9,7	13	6,0	**89,83**	63	2,9					
	21	4656	10,1	18	9,8	**46,73**	59	2,2	**PV2402L-3E160L/6E**	22,9	298	198	IE3
	25	3940	10,2	19	11	**39,38**	56	2,9	**RV2402L-3E160L/6E**		313	199	
									PV2402L-2E160L/6D	22,95	292		IE2
									RV2402L-2E160L/6D		306		
	5,4	15429	8,8	6,3	2,5	**270,94**	64	0,8	**PV2304L-3E160M/4C**	21,0	249	194	IE3
	5,9	14174	8,8	6,4	2,7	**248,13**	86	0,8	**RV2304L-3E160M/4C**		266	195	
	7,0	12031	8,8	6,4	2,7	**210,18**	82	0,8	**PV2304L-2E160M/4B**	21,3	242		IE2
									RV2304L-2E160M/4B		259		
	6,2	14536	9,5	9,0	5,0	**235,99**	78	0,7	**PV2303L-3E160M/4C**	21,0	247	194	IE3
	7,2	12551	9,5	9,0	5,0	**203,00**	81	0,8	**RV2303L-3E160M/4C**		264	195	
	9,3	9849	9,6	10	5,0	**158,18**	75	1,1	**PV2303L-2E160M/4B**	21,3	240		IE2
	12	7860	9,6	10	5,0	**126,05**	70	1,4	**RV2303L-2E160M/4B**		257		
	14	6535	9,6	11	5,0	**104,32**	66	1,6					
	16	5641	9,7	11	5,0	**89,83**	63	1,8					
	20	4509	9,7	11	5,0	**71,72**	59	2,1					
	21	4624	10,1	15	8,4	**46,73**	59	1,6	**PV2302L-3E160L/6E**	22,9	257	194	IE3
	25	3921	10,1	17	9,2	**39,38**	56	2,0	**RV2302L-3E160L/6E**		272	195	
	30	3246	10,1	17	9,4	**32,55**	53	2,5	**PV2302L-2E160L/6D**	22,95	250		IE2
									RV2302L-2E160L/6D		265		
	31	3070	10,1	17	8,7	**46,73**	52	2,4	**PV2302L-3E160M/4C**	21,0	242	194	IE3
	37	2603	10,2	18	9,4	**39,38**	49	2,8	**RV2302L-3E160M/4C**		257	195	
									PV2302L-2E160M/4B	21,3	235		IE2
									RV2302L-2E160M/4B		250		
	8,9	10300	9,7	10	5,0	**164,33**	56	0,8	**PV1903L-3E160M/4C**	21,0	200	190	IE3
	11	8229	9,7	11	6,0	**130,95**	52	1,0	**RV1903L-3E160M/4C**		215	191	
	14	6830	9,7	11	6,0	**108,38**	49	1,2	**PV1903L-2E160M/4B**	21,3	193		IE2
	16	5889	9,7	11	6,0	**93,32**	47	1,3	**RV1903L-2E160M/4B**		208		
	20	4702	9,7	11	6,0	**74,51**	44	1,6					
	21	4624	10,1	13	7,1	**46,50**	43	1,2	**PV1902L-3E160L/6E**	22,9	208	190	IE3
	24	3989	10,1	14	7,7	**40,00**	41	1,7	**RV1902L-3E160L/6E**		223	191	
									PV1902L-2E160L/6D	22,95	207		IE2
									RV1902L-2E160L/6D		216		
	26	3685	10,1	12	6,5	**56,25**	40	1,1	**PV1902L-3E160M/4C**	21,0	191	190	IE3
	32	3067	10,2	14	7,2	**46,50**	38	1,8	**RV1902L-3E160M/4C**		206	191	
	37	2648	10,2	15	7,7	**40,00**	36	2,4	**PV1902L-2E160M/4B**	21,3	184		IE2
	46	2122	10,3	16	8,2	**31,88**	34	2,8	**RV1902L-2E160M/4B**		199		
	14	6591	9,6	6,1	2,8	**105,19**	-	0,8	**PV1603L-3E160M/4C**	21,0	185	186	IE3
	16	5681	9,7	6,0	2,8	**90,58**	27	0,9	**RV1603L-3E160M/4C**		200	187	
	20	4533	9,7	5,6	2,2	**72,32**	24	1,1	**PV1603L-2E160M/4B**	21,3	178		IE2
	22	4146	9,6	5,5	1,9	**66,23**	23	1,2	**RV1603L-2E160M/4B**		193		
	29	3217	9,6	5,6	1,9	**51,38**	22	1,5					

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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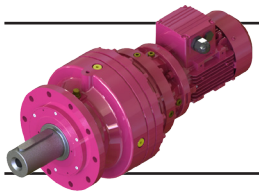
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
11	22	4450	10,1	7,9	4,5	**44,95**	24	0,9	**PV1602L-3E160L/6E**	22,9	175	186	IE3
15	25	3838	10,1	9,0	5,0	**38,67**	22	1,2	**RV1602L-3E160L/6E**		185	187	
									PV1602L-2E160L/6D	22,95	168		IE2
									RV1602L-2E160L/6D		178		
	27	3548	10,0	8,1	3,9	**54,38**	22	0,7	**PV1602L-3E160M/4C**	21,0	175	186	IE3
	33	2951	10,1	9,0	4,0	**44,95**	21	1,3	**RV1602L-3E160M/4C**		190	187	
	38	2547	10,1	10	5,0	**38,67**	20	1,8	**PV1602L-2E160M/4B**	21,3	168		IE2
	46	2113	10,2	9,0	5,0	**32,00**	19	2,1	**RV1602L-2E160M/4B**		183		
	58	1694	10,2	11	5,0	**25,50**	17	2,4					
	67	1460	10,2	10	5,0	**21,96**	17	2,8					
	129	774	10,5	17	9,5	**7,50**	14	2,9	**PV1601L-3E160L/6E**	22,9	165	186	IE3
									RV1601L-3E160L/6E		175	187	
									PV1601L-2E160L/6D	22,95	158		IE2
									RV1601L-2E160L/6D		168		
	29	3182	9,5	4,8	1,5	**51,38**	22	0,8	**PV1503L-3E160M/4C**	21,0	163	182	IE3
									RV1503L-3E160M/4C		178	183	
									PV1503L-2E160M/4B	21,3	156		IE2
									RV1503L-2E160M/4B		171		
	33	2929	10	7,5	3,6	**44,95**	21	0,8	**PV1502L-3E160M/4C**	21,0	158	182	IE3
	38	2532	10,1	8,1	3,8	**38,67**	20	1,0	**RV1502L-3E160M/4C**		173	183	
	46	2099	10,1	8,0	3,8	**32,00**	19	1,3	**PV1502L-2E160M/4B**	21,3	151		IE2
	58	1681	10,2	9,0	4,0	**25,50**	18	1,7	**RV1502L-2E160M/4B**		166		
	67	1449	10,2	9,0	3,0	**21,96**	17	2,0					
	84	1156	10,2	8,0	2,0	**17,53**	16	2,4					
	108	896	10,2	8,0	2,0	**13,60**	14	2,5					
	129	771	10,5	14	8,0	**7,50**	14	1,9	**PV1501L-3E160L/6E**	22,9	155	182	IE3
	156	641	10,5	16	9,0	**6,20**	13	3,3	**RV1501L-3E160L/6E**		165	183	
									PV1501L-2E160L/6D	22,95	148		IE2
									RV1501L-2E160L/6D		158		
	196	511	10,5	15	8,0	**7,50**	12	2,7	**PV1501L-3E160M/4C**	21,0	155	182	IE3
									RV1501L-3E160M/4C		165	183	
									PV1501L-2E160M/4B	21,3	148		IE2
									RV1501L-2E160M/4B		158		
	39	2443	10	6,3	3,1	**37,46**	14	0,7	**PV1202L-3E160M/4C**	21,0	125	178	IE3
	49	1962	10,1	6,8	3,3	**29,91**	13	0,9	**RV1202L-3E160M/4C**		143	179	
	59	1628	10,1	6,7	3,3	**24,75**	12	1,0	**PV1202L-2E160M/4B**	21,3	121		IE2
	69	1403	10,1	6,8	2,9	**21,31**	12	1,1	**RV1202L-2E160M/4B**		136		
	86	1120	10,1	6,4	2,2	**17,02**	11	1,3					
	94	1024	10,1	6,0	1,6	**15,58**	11	1,4					
	103	938	10,1	6,0	1,6	**14,27**	10	1,5					
	134	741	10,4	8,4	4,5	**7,25**	10	1,5	**PV1201L-3E160L/6E**	22,9	145	178	IE3
	162	619	10,5	10	5,0	**6,00**	9	1,8	**RV1201L-3E160L/6E**		155	179	
	188	535	10,5	11	5,0	**5,17**	9	2,0	**PV1201L-2E160L/6D**	22,95	138		IE2
									RV1201L-2E160L/6D		148		
	203	491	10,4	8,0	4,0	**7,25**	8	2,1	**PV1201L-3E160M/4C**	21,0	120	178	IE3
									RV1201L-3E160M/4C		138	179	
									PV1201L-2E160M/4B	21,3	113		IE2
									RV1201L-2E160M/4B		131		

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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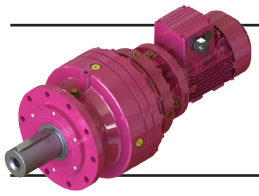
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
11 15	86 94 103	1112 1017 932	10 10 10,1	5,1 4,7 4,7	1,6 1,0 1,0	**17,02** **15,58** **14,27**	11 11 10	0,9 1,0 1,1	**PV1102L-3E160M/4C** **RV1102L-3E160M/4C** **PV1102L-2E160M/4B** **RV1102L-2E160M/4B**	21,0 21,3 	115 133 111 126	174 175 	IE3 IE2
	134 162 188	740 617 533	10,4 10,4 10,5	7,1 9,0 9,0	3,8 4,0 4,0	**7,25** **6,00** **5,17**	10 9 9	0,8 1,3 1,4	**PV1101L-3E160L/6E** **RV1101L-3E160L/6E** **PV1101L-2E160L/6D** **RV1101L-2E160L/6D**	22,9 22,95 	130 140 123 133	174 175 	IE3 IE2
	203 245 285 356 389	490 408 353 282 258	10,4 10,5 10,5 10,5 10,5	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8 8 8 7 7	1,2 1,7 1,9 2,3 2,4	**PV1101L-3E160M/4C** **RV1101L-3E160M/4C** **PV1101L-2E160M/4B** **RV1101L-2E160M/4B**	21,0 21,3 	110 128 103 121	174 175 	IE3 IE2
15 20	1,9 2,2 2,8 3,4	59560 51534 41335 34425	12,0 12,1 12,2 12,3	11 12 12 13	6,0 6,0 7,0 7,0	**761,81** **655,32** **522,21** **432,18**	83 165 154 146	0,8 1,0 1,2 1,5	**PV3504L-3E160L/4D** **RV3504L-3E160L/4D** **PV3504L-2E160L/4C** **RV3504L-2E160L/4C**	28,70 28,80 	577 662 572 657	210 211 	IE3 IE2
	3,9 5,0	32212 24673	13,0 13,0	16 17	8,7 9,1	**252,35** **193,60**	140 129	1,1 1,7	**PV3503L-3E180L/6E** **RV3503L-3E180L/6E** **PV3503L-2E180L/6D** **RV3503L-2E180L/6D**	30,80 31,00 	627 712 615 700	210 211 	IE3 IE2
	5,8 7,6 9,0	21585 16540 13948	13,2 13,2 13,2	18 19 19	9,3 9,8 10	**252,35** **193,60** **163,13**	124 114 108	1,5 2,5 3,2	**PV3503L-3E160L/4D** **RV3503L-3E160L/4D** **PV3503L-2E160L/4C** **RV3503L-2E160L/4C**	28,70 28,80 	516 601 511 596	210 211 	IE3 IE2
	2,9 3,4 4,0 5,0	40574 33780 29186 23363	12,1 12,2 12,2 12,3	10,7 10,6 10,5 10,1	5,5 5,5 5,3 4,9	**515,66** **426,76** **367,48** **293,39**	74 108 103 97	0,9 1,0 1,2 1,5	**PV2904L-3E160L/4D** **RV2904L-3E160L/4D** **PV2904L-2E160L/4C** **RV2904L-2E160L/4C**	28,70 28,80 	578 663 579 664	206 207 	IE3 IE2
	5,1	24623	13,2	14	7,6	**191,17**	96	1,2	**PV2903L-3E180L/6E** **RV2903L-3E180L/6E** **PV2903L-2E180L/6D** **RV2903L-2E180L/6D**	30,80 31,00 	467 539 455 528	206 207 	IE3 IE2
	6,0 7,7 9,1 12 14	20823 16291 13764 10752 8925	13,1 13,1 13,2 13,2 13,2	15 15 16 17 17	7,6 8,1 8,4 8,8 8,7	**245,34** **191,17** **161,08** **125,52** **103,76**	92 85 81 75 71	1,3 1,8 2,2 2,6 3,1	**PV2903L-3E160L/4D** **RV2903L-3E160L/4D** **PV2903L-2E160L/4C** **RV2903L-2E160L/4C**	28,70 28,80 	406 478 401 473	206 207 	IE3 IE2
	3,9 4,8	30360 24253	12,2 12,3	9,0 9,0	4,0 4,0	**381,78** **304,80**	61 76	0,8 1,0	**PV2704L-3E160L/4D** **RV2704L-3E160L/4D** **PV2704L-2E160L/4C** **RV2704L-2E160L/4C**	28,70 28,80 	393 478 388 473	202 203 	IE3 IE2
	5,1 6,0	24231 20872	13,0 13,0	12 12	6,4 6,7	**190,23** **163,64**	75 72	0,9 1,1	**PV2703L-3E180L/6E** **RV2703L-3E180L/6E** **PV2703L-2E180L/6D** **RV2703L-2E180L/6D**	30,80 31,00 	392 457 380 445	202 203 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
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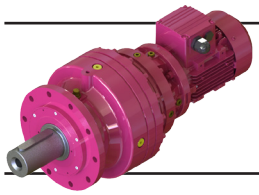
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
15	7,7	16231	13,1	13	7,1	**190,23**	66	1,4	**PV2703L-3E160L/4D**	28,70	333	202	IE3
20	9,0	13979	13,1	13	7,3	**163,64**	63	1,7	**RV2703L-3E160L/4D**		398	203	
	11	11162	13,2	14	7,6	**130,40**	59	2,1	**PV2703L-2E160L/4C**	28,80	328		IE2
	14	9261	13,2	15	7,5	**107,80**	56	2,5	**RV2703L-2E160L/4C**		393		
	16	7991	13,3	15	7,2	**92,73**	53	2,8					
	21	6283	13,7	19	10	**46,73**	49	2,1	**PV2702L-3E180L/6E**	30,80	389	202	IE3
									RV2702L-3E180L/6E		454	203	
									PV2702L-2E180L/6D	31,00	377		IE2
									RV2702L-2E180L/6D		442		
	31	4193	13,8	21	11	**46,73**	43	3,1	**PV2702L-3E160L/4D**	28,70	330	202	IE3
									RV2702L-3E160L/4D		395	203	
									PV2702L-2E160L/4C	28,80	325		IE2
									RV2702L-2E160L/4C		390		
	5,0	23490	12,2	7,4	3,4	**295,84**	-	0,9	**PV2404L-3E160L/4D**	28,70	355	198	IE3
	5,4	21491	12,2	7,3	3,1	**270,94**	67	0,9	**RV2404L-3E160L/4D**		423	199	
	5,9	19718	12,2	7,4	3,2	**248,13**	86	1,0	**PV2404L-2E160L/4C**	28,80	350		IE2
	7,0	16753	12,3	7,5	3,2	**210,18**	82	0,9	**RV2404L-2E160L/4C**		468		
	6,2	20065	13,1	10	6,0	**235,99**	84	0,8	**PV2403L-3E160L/4D**	28,70	301	198	IE3
	7,2	17316	13,1	11	6,0	**203,00**	81	0,9	**RV2403L-3E160L/4D**		366	199	
	9,3	13521	13,2	11	6,0	**158,18**	75	1,4	**PV2403L-2E160L/4C**	28,80	296		IE2
	12	10815	13,2	12	6,0	**126,05**	70	1,6	**RV2403L-2E160L/4C**		361		
	14	8983	13,3	12	6,0	**104,32**	66	1,9					
	16	7755	13,3	13	6,0	**89,83**	63	2,1					
	20	6204	13,3	12	5,0	**71,72**	59	2,5					
	21	6317	13,8	18	9,8	**46,73**	59	1,6	**PV2402L-3E180L/6E**	30,80	353	198	IE3
	25	5345	13,9	19	11	**39,38**	56	2,2	**RV2402L-3E180L/6E**		368	199	
	30	4418	13,9	20	11	**32,55**	52	3,1	**PV2402L-2E180L/6D**	31,00	341		IE2
									RV2402L-2E180L/6D		356		
	31	4215	13,9	19	10	**46,73**	52	2,4	**PV2402L-3E160L/4D**	28,70	294	198	IE3
	37	3567	13,9	21	11	**39,38**	49	3,1	**RV2402L-3E160L/4D**		309	199	
									PV2402L-2E160L/4C	28,80	289		IE2
									RV2402L-2E160L/4C		304		
	9,3	13431	13,1	10	5,0	**158,18**	75	0,8	**PV2303L-3E160L/4D**	28,70	248	194	IE3
	12	10719	13,1	10	6,0	**126,05**	70	1,0	**RV2303L-3E160L/4D**		313	195	
	14	8912	13,2	11	5,0	**104,32**	66	1,2	**PV2303L-2E160L/4C**	28,80	243		IE2
	16	7692	13,2	11	5,0	**89,83**	63	1,3	**RV2303L-2E160L/4C**		308		
	20	6148	13,2	11	5,0	**71,72**	59	1,5					
	21	6272	13,7	15	8,4	**46,73**	59	1,2	**PV2302L-3E180L/6E**	30,80	312	194	IE3
	25	5319	13,8	17	9,2	**39,38**	56	1,4	**RV2302L-3E180L/6E**		327	195	
	30	4404	13,8	17	9,4	**32,55**	52	1,9	**PV2302L-2E180L/6D**	31,00	300		IE2
									RV2302L-2E180L/6D		315		
	31	4186	13,8	17	8,7	**46,73**	52	1,8	**PV2302L-3E160L/4D**	28,70	253	194	IE3
	37	3549	13,9	18	9,4	**39,38**	49	2,1	**RV2302L-3E160L/4D**		268	195	
	45	2941	13,9	19	9,7	**32,55**	46	2,4	**PV2302L-2E160L/4C**	28,80	248		IE2
	58	2303	14,0	21	10	**25,36**	43	3,0	**RV2302L-2E160L/4C**		263		
	14	9314	13,2	11	6,0	**108,38**	49	0,8	**PV1903L-3E160L/4D**	28,70	209	190	IE3
	16	8031	13,3	11	6,0	**93,32**	47	1,0	**RV1903L-3E160L/4D**		274	191	
	20	6411	13,2	11	5,0	**74,51**	44	1,2	**PV1903L-2E160L/4C**	28,80	204		IE2
	22	5865	13,2	11	5,0	**68,24**	43	1,3	**RV1903L-2E160L/4C**		269		

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
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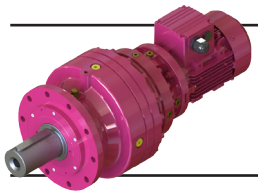
Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienzklasse
15	24	5412	13,8	14	7,7	**40,00**	41	1,2	**PV1902L-3E180L/6E**	30,80	263	190	IE3
20	31	4339	13,9	15	8,4	**31,88**	38	1,4	**RV1902L-3E180L/6E**		278	191	
									PV1902L-2E180L/6D	31,00	251		IE2
									RV1902L-2E180L/6D		266		
	32	4183	13,9	14	7,2	**46,50**	38	1,3	**PV1902L-3E160L/4D**	28,70	202	190	IE3
	37	3611	13,9	15	7,7	**40,00**	36	1,7	**RV1902L-3E160L/4D**		217	191	
	46	2894	14,0	16	8,2	**31,88**	34	2,1	**PV1902L-2E160L/4C**	28,80	197		IE2
	56	2398	14,0	17	8,6	**26,35**	32	2,4	**RV1902L-2E160L/4C**		212		
	65	2065	14,0	17	8,4	**22,67**	30	2,6					
	81	1647	14,0	17	7,2	**18,06**	28	3,1					
	22	5653	13,1	5,5	1,9	**66,23**	23	0,9	**PV1603L-3E160L/4D**	28,70	168	186	IE3
	29	4387	13,1	5,6	1,9	**51,38**	22	1,1	**RV1603L-3E160L/4D**		223	187	
									PV1603L-2E160L/4C	28,80	163		IE2
									RV1603L-2E160L/4C		218		
	33	4024	13,8	9,0	4,0	**44,95**	21	0,9	**PV1602L-3E160L/4D**	28,70	169	186	IE3
	38	3473	13,8	10	5,0	**38,67**	20	1,3	**RV1602L-3E160L/4D**		184	187	
	46	2881	13,9	9,0	4,0	**32,00**	19	1,5	**PV1602L-2E160L/4C**	28,80	164		IE2
	58	2309	13,9	11	4,0	**25,50**	17	1,8	**RV1602L-2E160L/4C**		179		
	67	1991	14,0	10	4,0	**21,96**	17	2,0					
	84	1589	14,0	10	4,0	**17,53**	16	2,4					
	130	1050	14,3	17	9,5	**7,50**	14	2,1	**PV1601L-3E180L/6E**	30,80	220	186	IE3
									RV1601L-3E180L/6E		230	187	
									PV1601L-2E180L/6D	31,00	208		IE2
									RV1601L-2E180L/6D		218		
	196	699	14,3	18	9,2	**7,50**	12	3,1	**PV1601L-3E160L/4D**	28,70	161	186	IE3
									RV1601L-3E160L/4D		171	187	
									PV1601L-2E160L/4C	28,80	156		IE2
									RV1601L-2E160L/4C		166		
	38	3452	13,7	8,1	3,8	**38,67**	20	0,8	**PV1502L-3E160L/4D**	28,70	153	182	IE3
	46	2862	13,8	8,0	3,8	**32,00**	19	0,9	**RV1502L-3E160L/4D**		168	183	
	58	2292	13,8	9,0	4,0	**25,50**	17	1,3	**PV1502L-2E160L/4C**	28,80	148		IE2
	67	1975	13,9	9,0	4,0	**21,96**	17	1,4	**RV1502L-2E160L/4C**		163		
	84	1576	13,8	8,0	3,0	**17,53**	16	1,7					
	108	1222	13,8	8,0	2,0	**13,60**	14	1,9					
	130	1047	14,3	14	7,8	**7,50**	14	1,4	**PV1501L-3E180L/6E**	30,80	208	182	IE3
	157	869	14,3	16	8,7	**6,20**	13	2,4	**RV1501L-3E180L/6E**		218	183	
	183	749	14,4	17	9,2	**5,33**	12	2,8	**PV1501L-2E180L/6D**	31,00	196		IE2
									RV1501L-2E180L/6D		206		
	196	697	14,3	15	7,6	**7,50**	12	2,0	**PV1501L-3E160L/4D**	28,70	149	182	IE3
									RV1501L-3E160L/4D		159	183	
									PV1501L-2E160L/4C	28,80	144		IE2
									RV1501L-2E160L/4C		154		
	59	2220	13,8	6,7	3,3	**24,75**	12	0,7	**PV1202L-3E160L/4D**	28,70	141	178	IE3
	69	1913	13,8	6,8	2,9	**21,31**	12	0,8	**RV1202L-3E160L/4D**		156	179	
	86	1527	13,8	6,4	2,2	**17,02**	11	1,0	**PV1202L-2E160L/4C**	28,80	136		IE2
	94	1396	13,8	6,0	1,6	**15,58**	11	1,0	**RV1202L-2E160L/4C**		151		
	103	1280	13,8	6,0	1,6	**14,27**	10	1,1					
	203	670	14,2	8,0	4,0	**7,25**	8,0	1,5	**PV1201L-3E160L/4D**	28,70	129	178	IE3
	245	559	14,3	10	4,0	**6,00**	8,0	1,7	**RV1201L-3E160L/4D**		139	179	
									PV1201L-2E160L/4C	28,80	124		IE2
									RV1201L-2E160L/4C		134		

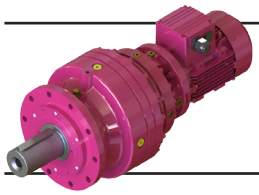
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
15 20	103	1271	13,7	4,7	1,0	**14,27**	10	0,8	**PV1102L-3E160L/4D** **RV1102L-3E160L/4D** **PV1102L-2E160L/4C** **RV1102L-2E160L/4C**	28,70 28,80 	136 151 131 146	174 175 	IE3 IE2
	203 245 285 356 389	668 556 481 385 352	14,2 14,3 14,3 14,4 14,4	7,3 8,4 8,2 8,1 7,0	3,1 3,4 3,1 1,3 0,5	**7,25** **6,00** **5,17** **4,13** **3,78**	8,4 7,9 7,6 7,1 6,9	0,9 1,2 1,4 1,7 1,8	**PV1101L-3E160L/4D** **RV1101L-3E160L/4D** **PV1101L-2E160L/4C** **RV1101L-2E160L/4C**	28,70 28,80 	124 134 119 129	174 175 	IE3 IE2
18,5 25	5,0	30430	16,1	17	9,1	**193,60**	129	1,4	**PV3503L-3G200L/6a** **RV3503L-3G200L/6a** **PV3503L-2G200L/6a** **RV3503L-2G200L/6a**	36,50 36,50 	644 729 644 729	210 211 	IE3 IE2
	5,8 7,6 9,0 12	26531 20330 17144 13382	16,2 16,2 16,2 16,3	18 19 19 20	9,3 9,8 10 11	**252,35** **193,60** **163,13** **127,11**	124 114 108 100	1,2 2,0 2,6 3,3	**PV3503L-3E180M/4C** **RV3503L-3E180M/4C** **PV3503L-2E180M/4B** **RV3503L-2E180M/4B**	35,00 34,90 	591 676 576 661	210 211 	IE3 IE2
	24	6769	17,1	28	15	**40,50**	81	3,0	**PV3502L-3G200L/6a** **RV3502L-3G200L/6a** **PV3502L-2G200L/6a** **RV3502L-2G200L/6a**	36,50 36,50 	615 702 615 702	210 211 	IE3 IE2
	5,1	30369	16,2	14	7,6	**191,17**	96	1,0	**PV2903L-3G200L/6a** **RV2903L-3G200L/6a** **PV2903L-2G200L/6a** **RV2903L-2G200L/6a**	36,50 36,50 	534 606 534 606	206 207 	IE3 IE2
	6,0 7,7 9,2 12 14 17 21	25595 20024 16918 13216 10970 9467 7569	16,1 16,2 16,2 16,3 16,3 16,4 16,4	15 15 16 17 17 18 18	7,6 8,1 8,4 8,8 8,7 8,7 7,8	**245,34** **191,17** **161,08** **125,52** **103,76** **89,26** **71,13**	91 85 80 75 70 67 63	1,1 1,5 1,8 2,1 2,6 2,8 3,3	**PV2903L-3E180M/4C** **RV2903L-3E180M/4C** **PV2903L-2E180M/4B** **RV2903L-2E180M/4B**	35,00 34,90 	471 543 456 528	206 207 	IE3 IE2
	25	6477	17,0	24	13	**38,82**	59	3,1	**PV2902L-3G200L/6a** **RV2902L-3G200L/6a** **PV2902L-2G200L/6a** **RV2902L-2G200L/6a**	36,50 36,50 	518 590 518 590	206 207 	IE3 IE2
	7,5	20548	16,1	13	7,0	**130,40**	67	1,1	**PV2703L-3G200L/6a** **RV2703L-3G200L/6a** **PV2703L-2G200L/6a** **RV2703L-2G200L/6a**	36,50 36,50 	459 524 459 524	202 203 	IE3 IE2
	7,8 9,0 11 14 16 20 24	19950 17183 13720 11383 9822 7851 6651	16,2 16,2 16,3 16,3 16,4 16,4 16,4	13 13 14 15 15 15 14	7,1 7,3 7,6 7,5 7,2 6,7 5,0	**190,23** **163,64** **130,40** **107,80** **92,73** **73,89** **62,59**	66 63 59 56 53 50 47	1,1 1,4 1,7 2,0 2,3 2,6 2,8	**PV2703L-3E180M/4C** **RV2703L-3E180M/4C** **PV2703L-2E180M/4B** **RV2703L-2E180M/4B**	36,50 36,50 	398 463 383 448	202 203 	IE3 IE2
	32	5154	17,0	21	11	**46,73**	43	2,5	**PV2702L-3E180M/4C** **RV2702L-3E180M/4C** **PV2702L-2E180M/4B** **RV2702L-2E180M/4B**	36,50 36,50 	395 460 380 445	202 203 	IE3 IE2

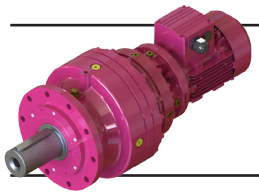
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
18,5	21	7790	17,0	18	9,8	**46,73**	59	1,3	**PV2402L-3G200L/6a**	36,50	420	198	IE3
25	25	6592	17,1	19	11	**39,38**	56	1,8	**RV2402L-3G200L/6a**		435	199	
	30	5449	17,1	20	11	**32,55**	52	2,5	**PV2402L-2G200L/6a**	36,50	420		IE2
									RV2402L-2G200L/6a		435		
	32	5180	17,1	19	10	**46,73**	52	1,9	**PV2402L-3E180M/4C**	35,00	359	198	IE3
	37	4384	17,2	21	11	**39,38**	49	2,6	**RV2402L-3E180M/4C**		374	199	
									PV2402L-2E180M/4B	34,90	344		IE2
									RV2402L-2E180M/4B		359		
	21	7736	16,9	15	8,4	**46,73**	59	1,0	**PV2302L-3G200L/6a**	36,50	379	194	IE3
	25	6560	17,0	17	9,2	**39,38**	56	1,2	**RV2302L-3G200L/6a**		394	195	
	30	5432	17,0	17	9,4	**32,55**	52	1,5	**PV2302L-2G200L/6a**	36,50	379		IE2
									RV2302L-2G200L/6a		394		
	32	5145	17,0	17	8,7	**46,73**	52	1,4	**PV2302L-3E180M/4C**	35,00	318	194	IE3
	37	4363	17,1	18	9,4	**39,38**	49	1,7	**RV2302L-3E180M/4C**		333	195	
	45	3615	17,2	19	9,7	**32,55**	46	2,0	**PV2302L-2E180M/4B**	34,90			IE2
	58	2831	17,2	21	10	**25,36**	43	2,4	**RV2302L-2E180M/4B**				
	68	2438	17,3	21	10	**21,82**	41	2,7					
	85	1945	17,3	20	8,8	**17,39**	38	3,1					
	24	6674	17,0	14	7,7	**40,00**	41	1,0	**PV1902L-3G200L/6a**	36,50	330	190	IE3
	31	5352	17,1	15	8,4	**31,88**	38	1,2	**RV1902L-3G200L/6a**		345	191	
									PV1902L-2G200L/6a	36,50	330		IE2
									RV1902L-2G200L/6a		345		
	32	5141	17,1	14	7,2	**46,50**	38	1,0	**PV1902L-3E180M/4C**	35,00	267	190	IE3
	37	4439	17,1	15	7,7	**40,00**	36	1,4	**RV1902L-3E180M/4C**		282	191	
	46	3557	17,2	16	8,2	**31,88**	34	1,7	**PV1902L-2E180M/4B**	34,90	252		IE2
	56	2947	17,3	17	8,6	**26,35**	32	1,9	**RV1902L-2E180M/4B**		267		
	65	2538	17,3	17	8,4	**22,67**	30	2,1					
	82	2024	17,3	17	7,2	**18,06**	28	2,5					
	114	1450	17,3	16	5,7	**12,96**	26	3,2					
	130	1296	17,6	24	14	**7,50**	25	2,8	**PV1901L-3G200L/6a**	36,50	311	190	IE3
									RV1901L-3G200L/6a		326	191	
									PV1901L-2G200L/6a	36,50	311		IE2
									RV1901L-2G200L/6a		326		
	130	1295	17,6	17	9,5	**7,50**	14	1,7	**PV1601L-3G200L/6a**	36,50	287	186	IE3
	157	1074	17,7	19	10	**6,20**	13	2,7	**RV1601L-3G200L/6a**		297	187	
	183	927	17,7	21	11	**5,33**	12	3,1	**PV1601L-2G200L/6a**	36,50	287		IE2
									RV1601L-2G200L/6a		297		
	197	859	17,7	18	9,2	**7,50**	12	2,5	**PV1601L-3E180M/4C**	35,00	226	186	IE3
									RV1601L-3E180M/4C		236	187	
									PV1601L-2E180M/4B	34,90	211		IE2
									RV1601L-2E180M/4B		221		
	130	1291	17,6	14	7,8	**7,50**	14	1,1	**PV1501L-3G200L/6a**	36,50	275	182	IE3
	157	1072	17,7	16	8,7	**6,20**	13	2,0	**RV1501L-3G200L/6a**		285	183	
	183	924	17,7	17	9,2	**5,33**	12	2,3	**PV1501L-2G200L/6a**	36,50	275		IE2
									RV1501L-2G200L/6a		285		
	197	856	17,6	15	7,6	**7,50**	12	1,6	**PV1501L-3E180M/4C**	35,00	214	182	IE3
	238	711	17,7	17	8,1	**6,20**	12	2,7	**RV1501L-3E180M/4C**		224	183	
	277	614	17,8	18	7,3	**5,33**	11	3,0	**PV1501L-2E180M/4B**	34,90			IE2
	347	490	17,8	18	6,0	**4,25**	10	3,7	**RV1501L-2E180M/4B**				
	410	415	17,8	16	3,0	**3,60**	10	4,0					

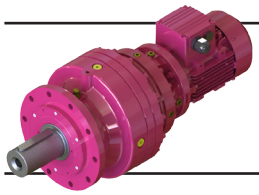
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
22 30	5,0	36187	19,1	17	9,1	**193,60**	129	1,2	**PV3503L-3G200L/6b** **RV3503L-3G200L/6b** **PV3503L-2G200L/6b** **RV3503L-2G200L/6b**	43,00 43,00 	667 752 667 752	210 211 	IE3 IE2
	5,8 7,6 9,0 12 14	31550 24176 20388 15914 13217	19,3 19,3 19,3 19,3 19,4	18 19 19 20 21	9,3 9,8 10 11 11	**252,35** **193,60** **163,13** **127,11** **105,08**	124 114 108 100 95	1,0 1,7 2,2 2,8 3,3	**PV3503L-3E180L/4D** **RV3503L-3E180L/4D** **PV3503L-2E180L/4C** **RV3503L-2E180L/4C**	41,40 41,40 	601 686 589 674	210 211 	IE3 IE2
	24	8049	20,3	28	15	**40,50**	81	2,5	**PV3502L-3G200L/6b** **RV3502L-3G200L/6b** **PV3502L-2G200L/6b** **RV3502L-2G200L/6b**	43,00 43,00 	638 725 638 725	210 211 	IE3 IE2
	6,1	30491	19,3	15	7,9	**161,08**	91	1,0	**PV2903L-3G200L/6b** **RV2903L-3G200L/6b** **PV2903L-2G200L/6b** **RV2903L-2G200L/6b**	43,00 43,00 	557 629 557 629	206 207 	IE3 IE2
	7,7 9,2 12 14 17 21	23812 20119 15716 13046 11258 9001	19,2 19,3 19,3 19,4 19,5 19,5	15 16 17 17 18 18	8,1 8,4 8,8 8,7 8,7 7,8	**191,17** **161,08** **125,52** **103,76** **89,26** **71,13**	85 80 75 70 67 63	1,3 1,5 1,8 2,1 2,4 2,8	**PV2903L-3E180L/4D** **RV2903L-3E180L/4D** **PV2903L-2E180L/4C** **RV2903L-2E180L/4C**	41,40 41,40 	481 553 469 541	206 207 	IE3 IE2
	25 30	7703 6503	20,3 20,3	24 26	13 14	**38,82** **32,71**	59 56	2,6 3,5	**PV2902L-3G200L/6b** **RV2902L-3G200L/6b** **PV2902L-2G200L/6b** **RV2902L-2G200L/6b**	43,00 43,00 	541 613 541 613	206 207 	IE3 IE2
	7,5	24436	19,1	13	7,0	**130,40**	67	1,0	**PV2703L-3G200L/6b** **RV2703L-3G200L/6b** **PV2703L-2G200L/6b** **RV2703L-2G200L/6b**	43,00 43,00 	482 547 482 547	202 203 	IE3 IE2
	7,8 9,0 11 14 16 20	23724 20434 16316 13537 11680 9336	19,3 19,3 19,3 19,4 19,5 19,5	13 13 14 15 15 15	7,1 7,3 7,6 7,5 7,2 6,7	**190,23** **163,64** **130,40** **107,80** **92,73** **73,89**	66 63 59 56 53 50	0,9 1,1 1,4 1,7 1,9 2,2	**PV2703L-3E180L/4D** **RV2703L-3E180L/4D** **PV2703L-2E180L/4C** **RV2703L-2E180L/4C**	41,40 41,40 	408 473 396 461	202 203 	IE3 IE2
	21 25	9216 7778	20,1 20,2	19 21	10 11	**46,73** **39,38**	49 47	1,4 2,4	**PV2702L-3G200L/6b** **RV2702L-3G200L/6b** **PV2702L-2G200L/6b** **RV2702L-2G200L/6b**	43,00 43,00 	479 542 479 542	202 203 	IE3 IE2
	32 37	6129 5174	20,3 20,3	21 22	11 12	**46,73** **39,38**	43 41	2,1 3,5	**PV2702L-3E180L/4D** **RV2702L-3E180L/4D** **PV2702L-2E180L/4C** **RV2702L-2E180L/4C**	41,40 41,40 	405 470 393 458	202 203 	IE3 IE2
	21 25 30	9264 7839 6480	20,2 20,3 20,3	18 19 20	9,8 11 11	**46,73** **39,38** **32,55**	59 56 52	1,1 1,5 2,1	**PV2402L-3G200L/6b** **RV2402L-3G200L/6b** **PV2402L-2G200L/6b** **RV2402L-2G200L/6b**	43,00 43,00 	443 458 443 458	198 199 	IE3 IE2

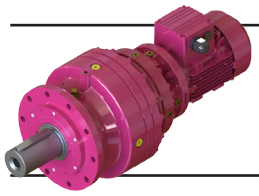
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
22	32	6160	20,4	19	10	**46,73**	52	1,6	**PV2402L-3E180L/4D**	41,40	369	198	IE3
30	37	5213	20,5	21	11	**39,38**	49	2,1	**RV2402L-3E180L/4D**		384	199	
	45	4315	20,5	22	11	**32,55**	46	2,8	**PV2402L-2E180L/4C**	41,40	357		IE2
	58	3381	20,6	24	12	**25,36**	43	3,1	**RV2402L-2E180L/4C**		372		
	25	7802	20,2	17	9,2	**39,38**	56	1,0	**PV2302L-3G200L/6b**	43,00	402	194	IE3
	30	6459	20,3	17	9,4	**32,55**	52	1,3	**RV2302L-3G200L/6b**		417	195	
									PV2302L-2G200L/6b	43,00	402		IE2
									RV2302L-2G200L/6b		417		
	32	6119	20,2	17	8,7	**46,73**	52	1,2	**PV2302L-3E180L/4D**	41,40	328	194	IE3
	37	5188	20,4	18	9,4	**39,38**	49	1,4	**RV2302L-3E180L/4D**		343	195	
	45	4298	20,4	19	9,7	**32,55**	46	1,7	**PV2302L-2E180L/4C**	41,40	316		IE2
	58	3367	20,5	21	10	**25,36**	43	2,0	**RV2302L-2E180L/4C**		331		
	68	2900	20,5	21	10	**21,82**	41	2,3					
	85	2312	20,5	20	8,8	**17,39**	38	2,6					
	100	1955	20,5	19	7,0	**14,73**	36	3,0					
	31	6364	20,4	15	8,4	**31,88**	38	1,0	**PV1902L-3G200L/6b**	43,00	353	190	IE3
									RV1902L-3G200L/6b		368	191	
									PV1902L-2G200L/6b	43,00	353		IE2
									RV1902L-2G200L/6b		368		
	32	6114	20,3	14	7,0	**46,50**	38	0,9	**PV1902L-3E180L/4D**	41,40	277	190	IE3
	37	5278	20,4	15	8,0	**40,00**	36	1,2	**RV1902L-3E180L/4D**		292	191	
	46	4230	20,5	16	8,0	**31,88**	34	1,4	**PV1902L-2E180L/4C**	41,40	265		IE2
	56	3505	20,5	17	9,0	**26,35**	32	1,6	**RV1902L-2E180L/4C**		280		
	65	3019	20,6	17	8,0	**22,67**	30	1,8					
	82	2407	20,6	17	7,0	**18,06**	28	2,1					
	114	1724	20,6	16	6,0	**12,96**	26	2,7					
	130	1541	21,0	24	14	**7,50**	25	2,4	**PV1901L-3G200L/6b**	43,00	334	190	IE3
	157	1281	21,0	28	14	**6,20**	23	3,1	**RV1901L-3G200L/6b**		359	191	
									PV1901L-2G200L/6b	43,00	334		IE2
									RV1901L-2G200L/6b		359		
	130	1540	21,0	17	9,5	**7,50**	14	1,4	**PV1601L-3G200L/6b**	43,00	310	186	IE3
	157	1277	21,0	19	10	**6,20**	13	2,3	**RV1601L-3G200L/6b**		320	187	
	183	1102	21,1	21	11	**5,33**	12	2,6	**PV1601L-2G200L/6b**	43,00	310		IE2
									RV1601L-2G200L/6b		320		
	197	1021	21,0	18	9,2	**7,50**	12	2,1	**PV1601L-3E180L/4D**	41,40	236	186	IE3
	238	848	21,1	21	9,9	**6,20**	11	3,0	**RV1601L-3E180L/4D**		246	187	
									PV1601L-2E180L/4C	41,40	224		IE2
									RV1601L-2E180L/4C		234		
	130	1535	20,9	14	7,8	**7,50**	14	0,9	**PV1501L-3G200L/6b**	43,00	298	182	IE3
	157	1275	21,0	16	8,7	**6,20**	13	1,7	**RV1501L-3G200L/6b**		308	183	
	183	1099	21,0	17	9,2	**5,33**	12	1,9	**PV1501L-2G200L/6b**	43,00	298		IE2
									RV1501L-2G200L/6b		308		
	187	1073	21,0	15	7,6	**7,50**	12	1,3	**PV1501L-3E180L/4D**	41,40	224	182	IE3
	226	891	21,1	17	8,1	**6,20**	12	2,2	**RV1501L-3E180L/4D**		234	183	
	263	769	21,1	18	7,3	**5,33**	11	2,5	**PV1501L-2E180L/4C**	41,40	212		IE2
	329	614	21,2	18	5,7	**4,25**	10	2,9	**RV1501L-2E180L/4C**		222		
30	5,1	48845	26,0	19	9,8	**193,60**	129	0,9	**PV3503L-3G225M/6**	58,00	651	210	IE3
40	6,0	41125	26,0	19	10	**163,13**	122	1,2	**RV3503L-3G225M/6**		736	211	
									PV3503L-2G225M/6	58,00	611		IE2
									RV3503L-2G225M/6		696		

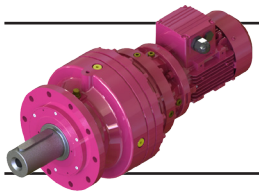
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
30	7,6	32968	26,3	19	9,8	**193,60**	114	1,3	**PV3503L-3G200L/4**	55,00	651	210	IE3
40	9,0	27801	26,3	19	10	**163,13**	108	1,6	**RV3503L-3G200L/4**		736	211	
	12	21700	26,4	20	11	**127,11**	100	2,0	**PV3503L-2G200L/4**	55,00	638		IE2
	14	18023	26,5	21	11	**105,08**	95	2,4	**RV3503L-2G200L/4**		723		
	16	15557	26,6	22	11	**90,39**	91	2,6					
	20	12445	26,7	21	9,8	**72,03**	85	3,1					
	24	10865	27,7	28	15	**40,50**	80	1,9	**PV3502L-3G225M/6**	58,00	703	210	IE3
	29	9042	27,7	31	16	**33,65**	76	3,2	**RV3502L-3G225M/6**		790	211	
									PV3502L-2G225M/6	58,00	663		IE2
									RV3502L-2G225M/6		750		
	36	7294	27,8	31	15	**40,50**	71	2,7	**PV3502L-3G200L/4**	55,00	622	210	IE3
									RV3502L-3G200L/4		709	211	
									PV3502L-2G200L/4	55,00	609		IE2
									RV3502L-2G200L/4		696		
	6,1	41156	26,4	15	8,0	**161,08**	55	0,8	**PV2903L-3G225M/6**	58,00	542	206	IE3
									RV2903L-3G225M/6		627	207	
									PV2903L-2G225M/6	58,00	502		IE2
									RV2903L-2G225M/6		587		
	7,7	32471	26,2	15	8,1	**191,17**	85	0,9	**PV2903L-3G200L/4**	55,00	531	206	IE3
	9,2	27434	26,3	16	8,4	**161,08**	80	1,1	**RV2903L-3G200L/4**		603	207	
	12	21431	26,4	17	8,8	**125,52**	75	1,3	**PV2903L-2G200L/4**	55,00	519		IE2
	14	17790	26,5	17	8,7	**103,76**	70	1,6	**RV2903L-2G200L/4**		591		
	17	15352	26,6	18	8,7	**89,26**	67	1,7					
	21	12274	26,7	18	7,8	**71,13**	63	2,0					
	25	10397	27,6	24	13	**38,82**	59	1,9	**PV2902L-3G225M/6**	58,00	606	206	IE3
	30	8778	27,7	26	14	**32,71**	56	2,6	**RV2902L-3G225M/6**		678	207	
									PV2902L-2G225M/6	58,00	564		IE2
									RV2902L-2G225M/6		638		
	38	6970	27,7	26	13	**38,82**	52	2,8	**PV2902L-3G200L/4**	55,00	525	206	IE3
									RV2902L-3G200L/4		597	207	
									PV2902L-2G200L/4	55,00	512		IE2
									RV2902L-2G200L/4		584		
	9,1	27396	26,2	14	7,0	**107,08**	63	0,9	**PV2703L-3G225M/6**	58,00	467	202	IE3
									RV2703L-3G225M/6		552	203	
									PV2703L-2G225M/6	58,00	427		IE2
									RV2703L-2G225M/6		512		
	11	22249	26,4	14	7,6	**130,40**	59	1,0	**PV2703L-3G200L/4**	55,00	458	202	IE3
	14	18459	26,5	15	7,5	**107,80**	56	1,3	**RV2703L-3G200L/4**		523	203	
	16	15928	26,5	15	7,2	**92,73**	53	1,4	**PV2703L-2G200L/4**	55,00	445		IE2
	20	12731	26,6	15	6,7	**73,89**	50	1,6	**RV2703L-2G200L/4**		511		
	21	12439	27,5	19	10	**46,73**	49	1,1	**PV2702L-3G225M/6**	58,00	544	202	IE3
	25	10499	27,5	21	11	**39,38**	46	1,8	**RV2702L-3G225M/6**		607	203	
									PV2702L-2G225M/6	58,00	504		IE2
									RV2702L-2G225M/6		567		
	32	8357	27,6	21	11	**46,73**	43	1,5	**PV2702L-3G200L/4**	55,00	455	202	IE3
	37	7056	27,7	22	12	**39,38**	41	2,6	**RV2702L-3G200L/4**		520	203	
	48	5535	27,9	24	12	**30,68**	38	2,6	**PV2702L-2G200L/4**	55,00	443		IE2
	58	4584	27,9	25	12	**25,36**	36	3,1	**RV2702L-2G200L/4**		508		

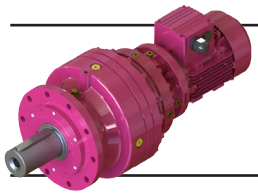
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
30	21	12505	27,6	18	10	**46,73**	58	0,8	**PV2402L-3G225M/6**	58,00	508	198	IE3
40	25	10581	27,7	19	11	**39,38**	55	1,1	**RV2402L-3G225M/6**		571	199	
	30	8747	27,7	20	11	**32,55**	52	1,6	**PV2402L-2G225M/6**	58,00	468		IE2
									RV2402L-2G225M/6		531		
	32	8400	27,8	19	10	**46,73**	52	1,2	**PV2402L-3G200L/4**	55,00	419	198	IE3
	37	7109	27,9	21	11	**39,38**	49	1,6	**RV2402L-3G200L/4**		434	199	
	45	5883	27,9	22	11	**32,55**	46	2,1	**PV2402L-2G200L/4**	55,00	407		IE2
	58	4610	28,1	24	12	**25,36**	43	2,3	**RV2402L-2G200L/4**		422		
	68	3971	28,1	24	12	**21,82**	41	2,6					
	85	3167	28,1	24	10	**17,39**	38	3,1					
	25	10530	27,6	17	9,0	**39,38**	55	0,7	**PV2302L-3G225M/6**	58,00	508	194	IE3
	30	8719	27,6	17	9,0	**32,55**	52	0,9	**RV2302L-3G225M/6**		571	195	
									PV2302L-2G225M/6	58,00	468		IE2
									RV2302L-2G225M/6		531		
	37	7075	27,8	18	9,4	**39,38**	49	1,0	**PV2302L-3G200L/4**	55,00	378	194	IE3
	45	5862	27,8	19	9,7	**32,55**	46	1,2	**RV2302L-3G200L/4**		393	195	
	58	4591	28,0	21	10	**25,36**	43	1,5	**PV2302L-2G200L/4**	55,00	366		IE2
	68	3954	28,0	21	10	**21,82**	41	1,7	**RV2302L-2G200L/4**		381		
	85	3153	28,0	20	8,8	**17,39**	38	1,9					
	100	2666	28,0	19	7,0	**14,73**	37	2,2					
	120	2231	27,9	19	6,9	**12,34**	34	2,5					
	158	1735	28,7	34	17	**6,23**	32	2,8	**PV2301L-3G225M/6**	58,00	456	194	IE3
									RV2301L-3G225M/6		471	195	
									PV2301L-2G225M/6	58,00	416		IE2
									RV2301L-2G225M/6		431		
	31	8591	27,8	15	8,0	**31,88**	38	0,7	**PV1902L-3G225M/6**	58,00	459	190	IE3
	37	7114	27,9	16	9,0	**26,35**	36	0,9	**RV1902L-3G225M/6**		522	191	
	43	6130	27,9	16	9,0	**22,67**	34	1,0	**PV1902L-2G225M/6**	58,00	419		IE2
									RV1902L-2G225M/6		482		
	46	5768	28,0	16	8,2	**31,88**	34	1,0	**PV1902L-3G200L/4**	55,00	327	190	IE3
	56	4780	28,0	17	8,6	**26,35**	32	1,2	**RV1902L-3G200L/4**		342	191	
	65	4116	28,1	17	8,4	**22,67**	30	1,3	**PV1902L-2G200L/4**	55,00	315		IE2
	82	3282	28,1	17	7,2	**18,06**	28	1,5	**RV1902L-2G200L/4**		330		
	114	2351	28,0	16	5,7	**12,96**	26	2,0					
	131	2080	28,6	24	14	**7,50**	25	1,8	**PV1901L-3G225M/6**	58,00	399	190	IE3
	159	1730	28,8	28	14	**6,20**	23	2,3	**RV1901L-3G225M/6**		424	191	
	185	1493	28,9	31	16	**5,33**	22	2,6	**PV1901L-2G225M/6**	58,00	358		IE2
									RV1901L-2G225M/6		384		
	197	1394	28,7	27	13	**7,50**	22	2,5	**PV1901L-3G200L/4**	55,00	318	190	IE3
	238	1159	28,9	30	14	**6,20**	21	3,0	**RV1901L-3G200L/4**		343	191	
									PV1901L-2G200L/4	55,00	306		IE2
									RV1901L-2G200L/4		331		
	131	2078	28,6	17	9,0	**7,50**	14	1,1	**PV1601L-3G225M/6**	58,00	375	186	IE3
	159	1724	28,7	19	10	**6,20**	13	1,7	**RV1601L-3G225M/6**		400	187	
	185	1488	28,8	21	11	**5,33**	12	1,9	**PV1601L-2G225M/6**	58,00	334		IE2
									RV1601L-2G225M/6		360		
	197	1393	28,7	18	9,2	**7,50**	12	1,5	**PV1601L-3G200L/4**	55,00	286	186	IE3
	238	1157	28,8	21	9,9	**6,20**	11	2,2	**RV1601L-3G200L/4**		296	187	
	277	998	28,9	22	9,1	**5,33**	11	2,5	**PV1601L-2G200L/4**	55,00	274		IE2
	347	798	29,0	22	7,6	**4,25**	10	3,0	**RV1601L-2G200L/4**		284		

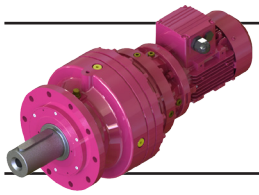
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
30 40	131 159 185	2072 1720 1484	28,5 28,6 28,7	14 16 17	8,0 9,0 9,0	**7,50** **6,20** **5,33**	14 13 12	0,7 1,2 1,4	**PV1501L-3G225M/6** **RV1501L-3G225M/6** **PV1501L-2G225M/6** **RV1501L-2G225M/6**	58,00 58,00 	363 388 312 348	182 183 	IE3 IE2
	197 238 277 347 410	1388 1153 995 795 673	28,6 28,7 28,8 28,9 28,9	15 17 18 18 16	7,6 8,1 7,3 5,7 3,1	**7,50** **6,20** **5,33** **4,25** **3,60**	12 11 11 10 10	1,0 1,7 1,9 2,3 2,5	**PV1501L-3G200L/4** **RV1501L-3G200L/4** **PV1501L-2G200L/4** **RV1501L-2G200L/4**	55,00 55,00 	274 284 262 272	182 183 	IE3 IE2
37 50	7,6 9,0 12 14 16 20	40660 34288 26764 22228 19187 15348	32,4 32,5 32,5 32,7 32,8 32,9	19 19 20 21 22 21	10 10 11 11 11 10	**193,60** **163,13** **127,11** **105,08** **90,39** **72,03**	114 108 100 95 91 85	1,0 1,3 1,6 1,9 2,1 2,5	**PV3503L-3G225S/4** **RV3503L-3G225S/4** **PV3503L-2G225S/4** **RV3503L-2G225S/4**	67,00 67,00 	691 776 706 791	210 211 	IE3 IE2
	24 29	13373 11129	34,1 34,2	28 31	15 16	**40,50** **33,65**	80 76	1,5 2,6	**PV3502L-3G250M/6** **RV3502L-3G250M/6** **PV3502L-2G250M/6** **RV3502L-2G250M/6**	70,00 69,00 	803 890 743 850	210 211 	IE3 IE2
	36 44	8996 7489	34,3 34,4	31 33	15 16	**40,50** **33,65**	71 67	2,2 3,8	**PV3502L-3G225S/4** **RV3502L-3G225S/4** **PV3502L-2G225S/4** **RV3502L-2G225S/4**	67,00 67,00 	662 749 677 764	210 211 	IE3 IE2
	7,7 9,2 12 14 17 21	40048 33836 26432 21940 18935 15138	32,4 32,4 32,5 32,7 32,8 32,9	15 16 17 17 18 18	8,0 8,0 9,0 9,0 9,0 8,0	**191,17** **161,08** **125,52** **103,76** **89,26** **71,13**	85 80 75 70 67 63	0,7 0,9 1,1 1,3 1,4 1,7	**PV2903L-3G225S/4** **RV2903L-3G225S/4** **PV2903L-2G225S/4** **RV2903L-2G225S/4**	67,00 67,00 	571 556 586 671	206 207 	IE3 IE2
	25 30	12797 10804	34,1 34,1	24 26	13 14	**38,82** **32,71**	59 56	1,6 2,1	**PV2902L-3G250M/6** **RV2902L-3G250M/6** **PV2902L-2G250M/6** **RV2902L-2G250M/6**	70,00 69,00 	706 778 646 718	206 207 	IE3 IE2
	38 45 58	8596 7273 5695	34,2 34,3 34,5	26 28 30	13 13 14	**38,82** **32,71** **25,49**	53 50 46	2,3 2,8 3,1	**PV2902L-3G225S/4** **RV2902L-3G225S/4** **PV2902L-2G225S/4** **RV2902L-2G225S/4**	67,00 67,00 	565 637 580 652	206 207 	IE3 IE2
	11 14 16 20 24	27440 22766 19644 15701 13303	32,5 32,6 32,7 32,8 32,8	14 15 15 15 14	8,0 8,0 7,0 7,0 5,0	**130,40** **107,80** **92,73** **73,89** **62,59**	59 56 53 50 47	0,8 1,0 1,1 1,3 1,4	**PV2703L-3G225S/4** **RV2703L-3G225S/4** **PV2703L-2G225S/4** **RV2703L-2G225S/4**	67,00 67,00 	498 483 513 597	202 203 	IE3 IE2
	25	12922	33,9	21	11	**39,38**	46	1,4	**PV2702L-3G250M/6** **RV2702L-3G250M/6** **PV2702L-2G250M/6** **RV2702L-2G250M/6**	70,00 69,00 	644 707 564 667	202 203 	IE3 IE2
	32 37 48 58 68	10307 8702 6826 5654 4870	34,1 34,1 34,4 34,4 34,5	21 22 24 25 25	11 12 12 12 12	**46,73** **39,38** **30,68** **25,36** **21,82**	43 41 38 36 34	1,2 2,1 2,1 2,5 2,9	**PV2702L-3G225S/4** **RV2702L-3G225S/4** **PV2702L-2G225S/4** **RV2702L-2G225S/4**	67,00 67,00 	495 560 510 575	202 203 	IE3 IE2

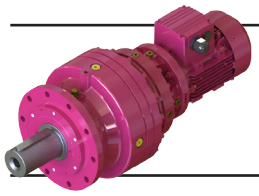
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
37 50	32	10361	34,2	19	10	**46,73**	52	1,0	**PV2402L-3G225S/4**	67,00	459	198	IE3
	37	8768	34,4	21	11	**39,38**	49	1,3	**RV2402L-3G225S/4**		524	199	
	45	7256	34,4	22	11	**30,68**	46	1,7	**PV2402L-2G225S/4**	67,00	474		IE2
	58	5686	34,6	24	12	**25,36**	43	1,9	**RV2402L-2G225S/4**		539		
	68	4897	34,7	24	12	**21,82**	41	2,1					
	32	10291	34,0	17	9,0	**46,73**	52	0,7	**PV2302L-3G225S/4**	67,00	418	194	IE3
	37	8726	34,2	18	9,0	**39,38**	49	0,8	**RV2302L-3G225S/4**		483	195	
	45	7229	34,3	19	10	**32,55**	46	1,0	**PV2302L-2G225S/4**	67,00	433		IE2
	58	5662	34,5	21	10	**25,36**	43	1,2	**RV2302L-2G225S/4**		498		
	68	4877	34,5	21	10	**21,82**	41	1,3					
	85	3889	34,6	20	9,0	**17,39**	38	1,6					
	100	3288	34,5	19	7,0	**14,73**	37	1,8					
	120	2752	34,4	19	7,0	**12,34**	35	2,0					
	158	2135	35,4	34	17	**6,23**	32	2,3	**PV2301L-3G250M/6**	70,00	556	194	IE3
	188	1807	35,6	37	18	**5,25**	30	2,6	**RV2301L-3G250M/6**		571	195	
									PV2301L-2G250M/6	69,00	496		IE2
									RV2301L-2G250M/6		511		
	237	1434	35,5	35	16	**6,23**	28	3,0	**PV2301L-3G225S/4**	67,00	323	194	IE3
									RV2301L-3G225S/4		338	195	
									PV2301L-2G225S/4	67,00	338		IE2
									RV2301L-2G225S/4		353		
	46	7114	34,5	16	8,0	**31,88**	34	0,8	**PV1902L-3G225S/4**	67,00	369	190	IE3
	56	5895	34,6	17	9,0	**26,35**	32	1,0	**RV1902L-3G225S/4**		434	191	
	65	5077	34,6	17	8,0	**22,67**	30	1,1	**PV1902L-2G225S/4**	67,00	384		IE2
	82	4048	34,6	17	7,0	**18,06**	28	1,2	**RV1902L-2G225S/4**		449		
	114	2900	34,6	16	6,0	**12,96**	26	1,6					
	132	2560	35,3	24	14	**7,50**	25	1,4	**PV1901L-3G250M/6**	70,00	499	190	IE3
	159	2129	35,5	28	14	**6,20**	23	1,9	**RV1901L-3G250M/6**		524	191	
	185	1838	35,6	31	16	**5,33**	22	2,1	**PV1901L-2G250M/6**	69,00	439		IE2
									RV1901L-2G250M/6		464		
	197	1719	35,4	27	13	**7,50**	22	2,0	**PV1901L-3G225S/4**	67,00	358	190	IE3
	238	1429	35,6	30	14	**6,20**	21	2,4	**RV1901L-3G225S/4**		393	191	
	277	1233	35,7	32	14	**5,33**	20	2,8	**PV1901L-2G225S/4**	67,00	373		IE2
									RV1901L-2G225S/4		408		
	197	1718	35,4	18	9,0	**7,50**	12	1,2	**PV1601L-3G225S/4**	67,00	334	186	IE3
	238	1427	35,5	21	10	**6,20**	11	1,8	**RV1601L-3G225S/4**		369	187	
	277	1231	35,7	22	9,0	**5,33**	11	2,0	**PV1601L-2G225S/4**	67,00	349		IE2
									RV1601L-2G225S/4		384		
	197	1712	35,3	15	8,0	**7,50**	12	0,8	**PV1501L-3G225S/4**	67,00	322	182	IE3
	238	1422	35,4	17	8,0	**6,20**	11	1,3	**RV1501L-3G225S/4**		357	183	
	277	1227	35,5	18	7,0	**5,33**	11	1,5	**PV1501L-2G225S/4**	67,00	337		IE2
	347	981	35,7	18	6,0	**4,25**	10	1,8	**RV1501L-2G225S/4**		372		
	410	830	35,6	16	3,0	**3,60**	10	2,1					
45 60	7,6	49452	39,5	19	10	**193,60**	114	0,8	**PV3503L-3G225M/4**	80,00	721	210	IE3
	9,0	41702	39,5	19	10	**163,13**	108	1,1	**RV3503L-3G225M/4**		806	211	
	12	32550	39,6	20	11	**127,11**	100	1,3	**PV3503L-2G225M/4**	80,00	706		IE2
	14	27034	39,7	21	11	**105,08**	95	1,6	**RV3503L-2G225M/4**		791		
	16	23336	39,8	22	11	**90,39**	91	1,8					
	20	18667	40,0	21	10	**72,03**	85	2,1					

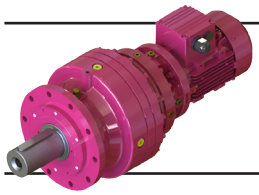
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
45	24	16215	41,5	28	15	**40,50**	80	1,2	**PV3502L-3G280S/6**	88,00	914	210	IE3
60	29	13494	41,6	31	16	**33,65**	76	2,2	**RV3502L-3G280S/6**		1000	211	
									PV3502L-2G280S/6	92,00	864		IE2
									RV3502L-2G280S/6		950		
	36	10941	41,7	31	15	**40,50**	71	1,8	**PV3502L-3G225M/4**	80,00	691	210	IE3
	44	9109	41,8	33	16	**33,65**	67	3,2	**RV3502L-3G225M/4**		776	211	
									PV3502L-2G225M/4	80,00	676		IE2
									RV3502L-2G225M/4		761		
	9,2	41152	39,5	16	8,0	**161,08**	80	0,7	**PV2903L-3G225M/4**	80,00	611	206	IE3
	12	32147	39,6	17	9,0	**125,52**	75	0,9	**RV2903L-3G225M/4**		695	207	
	14	26684	39,7	17	9,0	**103,76**	70	1,1	**PV2903L-2G225M/4**	80,00	594		IE2
	17	23029	39,9	18	9,0	**89,26**	67	1,2	**RV2903L-2G225M/4**		680		
	21	18412	40,0	18	8,0	**71,13**	63	1,4					
	26	15516	41,4	24	13	**38,82**	59	1,3	**PV2902L-3G280S/6**	88,00	814	206	IE3
	30	13100	41,5	26	14	**32,71**	56	1,8	**RV2902L-3G280S/6**		900	207	
									PV2902L-2G280S/6	92,00	764		IE2
									RV2902L-2G280S/6		850		
	38	10455	41,6	26	13	**38,82**	52	1,9	**PV2902L-3G225M/4**	80,00	591	206	IE3
	45	8845	41,8	28	13	**32,71**	50	2,3	**RV2902L-3G225M/4**		676	207	
	58	6927	42,0	30	14	**25,49**	46	2,5	**PV2902L-2G225M/4**	80,00	576		IE2
	69	5845	42,0	30	14	**21,48**	44	2,9	**RV2902L-2G225M/4**		661		
	14	27689	39,7	15	8,0	**107,80**	56	0,8	**PV2703L-3G225M/4**	80,00	536	202	IE3
	16	23891	39,8	15	7,0	**92,73**	53	0,9	**RV2703L-3G225M/4**		620	203	
	20	19096	39,9	15	7,0	**73,89**	50	1,1	**PV2703L-2G225M/4**	80,00	520		IE2
									RV2703L-2G225M/4		605		
	21	18565	41,2	19	10	**46,73**	49	0,7	**PV2702L-3G280S/6**	88,00	754	202	IE3
	25	15669	41,3	21	11	**39,38**	46	1,2	**RV2702L-3G280S/6**		840	203	
									PV2702L-2G280S/6	92,00	704		IE2
									RV2702L-2G280S/6		790		
	32	12536	41,4	21	11	**46,73**	43	1,0	**PV2702L-3G225M/4**	80,00	531	202	IE3
	37	10584	41,5	22	12	**39,38**	41	1,7	**RV2702L-3G225M/4**		616	203	
	48	8302	41,8	24	12	**30,68**	38	1,7	**PV2702L-2G225M/4**	80,00	516		IE2
	58	6876	41,9	25	12	**25,36**	36	2,1	**RV2702L-2G225M/4**		601		
	68	5923	41,9	25	12	**21,82**	34	2,4					
	85	4725	42,0	24	10	**17,39**	32	2,8					
	32	12601	41,7	19	10	**46,73**	52	0,8	**PV2402L-3G225M/4**	80,00	496	198	IE3
	37	10663	41,8	21	11	**39,38**	49	1,0	**RV2402L-3G225M/4**		585	199	
	45	8825	41,9	22	11	**32,55**	46	1,4	**PV2402L-2G225M/4**	80,00	485		IE2
	58	6915	42,1	24	12	**25,36**	43	1,5	**RV2402L-2G225M/4**		566		
	68	5956	42,2	24	12	**21,82**	41	1,7					
	85	4750	42,2	24	10	**17,39**	38	2,1					
	159	2594	43,2	39	20	**6,23**	32	3,1	**PV2401L-3G280S/6**	88,00	640	198	IE3
									RV2401L-3G280S/6		730	199	
									PV2401L-2G280S/6	92,00	590		IE2
									RV2401L-2G280S/6		680		
	37	10612	41,6	18	9,0	**39,38**	49	0,7	**PV2302L-3G225M/4**	80,00	496	194	IE3
	45	8792	41,7	19	10	**32,55**	46	0,8	**RV2302L-3G225M/4**		585	195	
	58	6886	41,9	21	10	**25,36**	43	1,0	**PV2302L-2G225M/4**	80,00	485		IE2
	68	5931	42,0	21	10	**21,82**	41	1,1	**RV2302L-2G225M/4**		566		
	85	4730	42,0	20	9,0	**17,39**	38	1,3					
	100	3999	41,9	19	7,0	**14,73**	37	1,5					

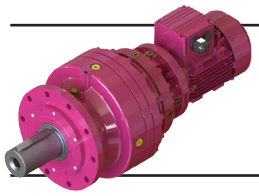
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienzklasse
45 60	120	3347	41,9	19	7,0	**12,34**	34	1,7	**PV2302L-3G225M/4** **RV2302L-3G225M/4** **PV2302L-2G225M/4** **RV2302L-2G225M/4**	80,00 80,00 	496 585 485 566	194 195	IE3 IE2
	159 189	2589 2191	43,1 43,3	34 37	17 18	**6,23** **5,25**	32 30	1,9 2,2	**PV2301L-3G280S/6** **RV2301L-3G280S/6** **PV2301L-2G280S/6** **RV2301L-2G280S/6**	88,00 92,00 	590 680 540 630	194 195	IE3 IE2
	237 281	1744 1475	43,2 43,4	35 37	16 16	**6,23** **5,25**	28 27	2,5 2,8	**PV2301L-3G225M/4** **RV2301L-3G225M/4** **PV2301L-2G225M/4** **RV2301L-2G225M/4**	80,00 80,00 	400 490 350 440	194 195	IE3 IE2
	46 56 65 82 114	8653 7169 6175 4923 3527	41,9 42,0 42,1 42,1 42,0	16 17 17 17 16	8,0 9,0 8,0 7,0 6,0	**31,88** **26,35** **22,67** **18,06** **12,96**	34 32 30 28 26	0,7 0,8 0,9 1,0 1,3	**PV1902L-3G225M/4** **RV1902L-3G225M/4** **PV1902L-2G225M/4** **RV1902L-2G225M/4**	80,00 80,00 	446 535 435 516	190 191	IE3 IE2
	132 160 186	3104 2581 2228	42,9 43,2 43,3	24 28 31	14 14 16	**7,50** **6,20** **5,33**	25 23 22	1,2 1,5 1,7	**PV1901L-3G280S/6** **RV1901L-3G280S/6** **PV1901L-2G280S/6** **RV1901L-2G280S/6**	88,00 92,00 	540 630 490 580	190 191	IE3 IE2
	197 238 277 347 410	2091 1739 1500 1199 1015	43,1 43,3 43,4 43,6 43,5	27 30 32 33 30	13 14 14 13 9,0	**7,50** **6,20** **5,33** **4,25** **3,60**	22 21 20 18 17	1,7 2,0 2,3 2,7 3,1	**PV1901L-3G225M/4** **RV1901L-3G225M/4** **PV1901L-2G225M/4** **RV1901L-2G225M/4**	80,00 80,00 	350 440 300 390	190 191	IE3 IE2
	197 238 277 347	2089 1735 1497 1197	43,0 43,2 43,4 43,5	18 21 22 22	8,0 10 9,0 8,0	**7,50** **6,20** **5,33** **4,25**	12 11 11 10	1,0 1,5 1,7 2,0	**PV1601L-3G225M/4** **RV1601L-3G225M/4** **PV1601L-2G225M/4** **RV1601L-2G225M/4**	80,00 80,00 	300 390 250 340	186 187	IE3 IE2
	197 238 277 347 410	2083 1729 1493 1193 1010	42,9 43,1 43,2 43,4 43,3	15 17 18 18 16	8,0 8,0 7,0 6,0 3,0	**7,50** **6,20** **5,33** **4,25** **3,60**	12 11 11 10 10	0,7 1,1 1,3 1,5 1,7	**PV1501L-3G225M/4** **RV1501L-3G225M/4** **PV1501L-2G225M/4** **RV1501L-2G225M/4**	80,00 80,00 	270 360 220 310	182 183	IE3 IE2
55 75	24 29	19818 16493	50,7 50,8	28 31	15 16	**40,50** **33,65**	80 76	1,0 1,8	**PV3502L-3G280M/6** **RV3502L-3G280M/6** **PV3502L-2G280M/6** **RV3502L-2G280M/6**	107,00 107,00 	965 1050 915 1000	210 211	IE3 IE2
	37 44 57	13328 11095 8532	51,0 51,1 51,2	31 33 35	15 16 17	**40,50** **33,65** **25,81**	71 67 62	1,5 2,6 3,3	**PV3502L-3G250M/4** **RV3502L-3G250M/4** **PV3502L-2G250M/4** **RV3502L-2G250M/4**	96,00 96,00 	780 860 770 851	210 211	IE3 IE2
	26 30	18965 16012	50,6 50,7	24 26	13 14	**38,82** **32,71**	59 56	1,1 1,4	**PV2902L-3G280M/6** **RV2902L-3G280M/6** **PV2902L-2G280M/6** **RV2902L-2G280M/6**	107,00 107,00 	865 950 815 900	206 207	IE3 IE2

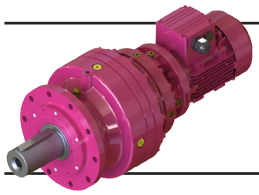
*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor* Verim Snf.** *Motor Eff. Class* Motor Effizienz-klasse
55 75	38 45 58 69 88	12735 10774 8437 7120 5552	50,8 51,0 51,3 51,4 51,4	26 28 30 30 29	13 13 14 14 12	**38,82** **32,71** **25,49** **21,48** **16,74**	52 50 46 44 40	1,5 1,9 2,1 2,4 2,9	**PV2902L-3G250M/4** **RV2902L-3G250M/4** **PV2902L-2G250M/4** **RV2902L-2G250M/4**	96,00 96,00 	680 760 670 751	206 207 	IE3 IE2
	25 32	19151 15029	50,4 50,8	21 22	11 12	**39,38** **30,68**	46 43	1,0 1,0	**PV2702L-3G280M/6** **RV2702L-3G280M/6** **PV2702L-2G280M/6** **RV2702L-2G280M/6**	107,00 107,00 	805 890 755 840	202 203 	IE3 IE2
	38 48 58 68 85 100	12892 10113 8376 7215 5755 4869	50,7 51,1 51,2 51,3 51,3 51,2	22 24 25 25 24 22	12 12 12 12 10 8,0	**39,38** **30,68** **25,36** **21,82** **17,39** **14,73**	41 38 36 34 32 30	1,4 1,4 1,7 1,9 2,3 2,6	**PV2702L-3G250M/4** **RV2702L-3G250M/4** **PV2702L-2G250M/4** **RV2702L-2G250M/4**	96,00 96,00 	620 700 610 691	202 203 	IE3 IE2
	159 189	3170 2682	52,7 53,0	39 43	20 22	**6,23** **5,25**	32 30	2,6 3,0	**PV2401L-3G280M/6** **RV2401L-3G280M/6** **PV2401L-2G280M/6** **RV2401L-2G280M/6**	107,00 107,00 	615 705 565 655	198 199 	IE3 IE2
	159 189	3164 2678	52,6 52,9	34 37	17 18	**6,23** **5,25**	32 30	1,5 1,8	**PV2301L-3G280M/6** **RV2301L-3G280M/6** **PV2301L-2G280M/6** **RV2301L-2G280M/6**	107,00 107,00 	585 675 535 625	194 195 	IE3 IE2
	238 282 362	2124 1797 1404	52,8 53,0 53,2	35 37 38	16 16 13	**6,23** **5,25** **4,09**	28 27 25	2,0 2,3 2,8	**PV2301L-3G250M/4** **RV2301L-3G250M/4** **PV2301L-2G250M/4** **RV2301L-2G250M/4**	96,00 96,00 	480 570 430 520	194 195 	IE3 IE2
	132 160 186	3794 3155 2724	52,5 52,8 52,9	24 28 31	14 14 16	**7,50** **6,20** **5,33**	25 23 22	1,0 1,3 1,4	**PV1901L-3G280M/6** **RV1901L-3G280M/6** **PV1901L-2G280M/6** **RV1901L-2G280M/6**	107,00 107,00 	535 625 485 575	190 191 	IE3 IE2
	197 239 278 348 411	2547 2118 1827 1460 1236	52,6 52,9 53,1 53,2 53,2	27 30 32 33 30	13 14 14 13 9,0	**7,50** **6,20** **5,33** **4,25** **3,60**	22 21 20 18 17	1,4 1,7 1,9 2,2 2,5	**PV1901L-3G250M/4** **RV1901L-3G250M/4** **PV1901L-2G250M/4** **RV1901L-2G250M/4**	96,00 96,00 	430 520 380 470	190 191 	IE3 IE2
75 97	37 44 58 68 88	18113 15079 11595 9789 7638	69,5 69,7 69,9 70,0 70,1	31 33 35 36 35	15 16 17 17 14	**40,50** **33,65** **25,81** **21,75** **16,95**	71 67 62 59 54	1,1 1,9 2,4 2,7 3,3	**PV3502L-3G280S/4** **RV3502L-3G280S/4** **PV3502L-2G280S/4** **RV3502L-2G280S/4**	133,00 133,00 	940 1020 930 1011	210 211 	IE3 IE2
	38 45 58 69 89 106	17307 14643 11467 9677 7546 6312	69,3 69,6 70,0 70,1 70,1 70,0	26 28 30 30 29 26	13 13 14 14 12 9,0	**38,82** **32,71** **25,49** **21,48** **16,74** **14,03**	52 50 46 44 40 38	1,1 1,4 1,5 1,8 2,1 2,5	**PV2902L-3G280S/4** **RV2902L-3G280S/4** **PV2902L-2G280S/4** **RV2902L-2G280S/4**	133,00 133,00 	840 920 830 911	206 207 	IE3 IE2
	38 48 59 68	17521 13743 11383 9805	69,2 69,7 69,8 69,9	22 24 25 25	12 12 12 12	**39,38** **30,68** **25,36** **21,82**	41 38 36 34	1,0 1,0 1,3 1,4	**PV2702L-3G280S/4** **RV2702L-3G280S/4** **PV2702L-2G280S/4** **RV2702L-2G280S/4**	133,00 133,00 	880 860 770 851	202 203 	IE3 IE2

***: IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.



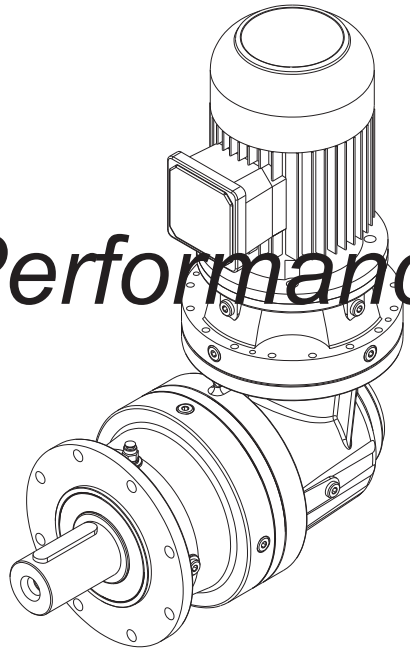
Motorlu Planet Redüktörler
Planetary Geared Motors
Planetengetriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
75	85	7822	70,0	24	10	**17,39**	32	1,7	**PV2702L-3G280S/4**	133,00	880	202	IE3
97	101	6618	69,9	22	8,0	**14,73**	30	1,9	**RV2702L-3G280S/4**		860	203	
									PV2702L-2G280S/4	133,00	770		IE2
									RV2702L-2G280S/4		851		
	238	2893	72,2	41	19	**6,23**	28	2,5	**PV2401L-3G280S/4**	107,00	645	198	IE3
	283	2446	72,5	43	19	**5,25**	27	2,9	**RV2401L-3G280S/4**		735	199	
									PV2401L-2G280S/4	107,00	595		IE2
									RV2401L-2G280S/4		685		
	238	2887	72,1	35	16	**6,23**	28	1,5	**PV2301L-3G280S/4**	107,00	605	194	IE3
	283	2442	72,3	37	16	**5,25**	27	1,7	**RV2301L-3G280S/4**		695	195	
	363	1908	72,5	38	13	**4,09**	25	2,1	**PV2301L-2G280S/4**	107,00	555		IE2
	433	1596	72,4	33	8,0	**3,43**	23	2,4	**RV2301L-2G280S/4**		645		
	198	3462	71,8	27	13	**7,50**	22	1,0	**PV1901L-3G280S/4**	107,00	555	190	IE3
	240	2878	72,2	30	14	**6,20**	21	1,2	**RV1901L-3G280S/4**		645	191	
	278	2483	72,4	32	14	**5,33**	20	1,4	**PV1901L-2G280S/4**	107,00	505		IE2
	349	1984	72,6	33	13	**4,25**	18	1,6	**RV1901L-2G280S/4**		595		
	413	1680	72,6	30	9,0	**3,60**	17	1,9					

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Notlar / *Notes* / Notizen

Güç ve Devir Tabloları



Performances

Leistung und Drehzahlübersicht

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çıkış Gücü *Output Power* Abtriebswelle Leistung **P_2 [kW]**	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 Servis Faktörü *Service Factors* Betriebs-faktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
0,37 0,50	9,8	317	0,32	7,4	4,3	**95,27**	21	3,9	**PV1203K-3E80M/6B** **RV1203K-3E80M/6B** **PV1203K-2E80M/6A** **RV1203K-2E80M/6A**	1,03 1,08 	55 57 54 56	178 179	IE3 IE2
	9,8 12 14	316 265 229	0,32 0,33 0,33	6,3 7,4 8,1	3,7 4,1 4,4	**95,27** **78,84** **67,89**	21 20 19	2,2 3,5 4,0	**PV1103K-3E80M/6B** **RV1103K-3E80M/6B** **PV1103K-2E80M/6A** **RV1103K-2E80M/6A**	1,03 1,08 	49 51 48 50	174 175	IE3 IE2
	15 18 21 26 32 37 47 51 55	204 172 149 120 99 85 68 62 57	0,32 0,33 0,33 0,33 0,33 0,33 0,33 0,33 0,33	7,2 8,4 9,1 9,9 9,8 9,9 9,6 9,7 9,8	3,7 4,2 4,5 4,9 4,9 4,7 4,2 3,7 3,7	**95,27** **78,84** **67,89** **54,21** **44,86** **38,63** **30,84** **28,24** **25,87**	18 17 17 16 15 14 13 13 12	3,3 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**PV1103K-3E71M/4D** **RV1103K-3E71M/4D** **PV1103K-2E71M/4C** **RV1103K-2E71M/4C**	0,97 1,00 	45 47 44 46	174 175	IE3 IE2
	109 132 153 192 210	30 25 22 17 16	0,34 0,35 0,35 0,35 0,35	11 13 13 13 13	5,4 6,0 5,6 5,4 4,6	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 9 8	4,0 4,0 4,0 4,0 4,0	**PV1102K-3E71M/4D** **RV1102K-3E71M/4D** **PV1102K-2E71M/4C** **RV1102K-2E71M/4C**	0,97 1,00 	42 44 41 43	174 175	IE3 IE2
0,55 0,75	1,3 1,5 1,8	3440 2876 2492	0,46 0,46 0,46	9,5 11 12	5,0 5,8 6,4	**739,16** **611,04** **525,63**	101 95 91	1,5 2,3 2,9	**PV1904K-3E80M/6C** **RV1904K-3E80M/6C** **PV1904K-2E80M/6B** **RV1904K-2E80M/6B**	1,47 1,50 	127 142 126 141	190 191	IE3 IE2
	2,0 2,4	2201 1855	0,45 0,46	11 12	5,8 6,6	**739,16** **611,04**	88 83	2,2 3,4	**PV1904K-3E80M/4C** **RV1904K-3E80M/4C** **PV1904K-2E80M/4B** **RV1904K-2E80M/4B**	1,34 1,45 	126 141 125 140	190 191	IE3 IE2
	1,3 1,6 1,8	3295 2762 2389	0,45 0,46 0,46	6,2 7,2 7,8	3,3 3,8 4,2	**714,52** **590,67** **508,10**	55 52 50	1,0 1,5 2,0	**PV1604K-3E80M/6C** **RV1604K-3E80M/6C** **PV1604K-2E80M/6B** **RV1604K-2E80M/6B**	1,47 1,50 	90 100 89 99	186 187	IE3 IE2
	2,0 2,5 2,9	2093 1774 1542	0,44 0,46 0,46	7,0 7,8 8,5	3,7 4,2 4,6	**714,52** **590,67** **508,10**	48 45 43	1,4 2,2 3,1	**PV1604K-3E80M/4C** **RV1604K-3E80M/4C** **PV1604K-2E80M/4B** **RV1604K-2E80M/4B**	1,34 1,45 	87 97 86 96	186 187	IE3 IE2
	1,6 1,8	2729 2370	0,45 0,46	6,3 6,9	3,4 3,7	**590,67** **508,10**	52 50	1,0 1,2	**PV1504K-3E80M/6C** **RV1504K-3E80M/6C** **PV1504K-2E80M/6B** **RV1504K-2E80M/6B**	1,47 1,50 	74 84 73 83	182 183	IE3 IE2
	2,0 2,5 2,9 3,4 4,3 5,0	2035 1738 1517 1268 1023 885	0,43 0,45 0,45 0,46 0,46 0,47	6,1 6,9 7,5 8,0 8,8 9,2	3,2 3,7 4,0 4,3 4,7 4,9	**714,52** **590,67** **508,10** **420,50** **335,09** **288,55**	48 45 43 41 38 37	1,0 1,4 1,8 2,2 3,0 3,5	**PV1504K-3E80M/4C** **RV1504K-3E80M/4C** **PV1504K-2E80M/4B** **RV1504K-2E80M/4B**	1,34 1,45 	71 81 70 80	182 183	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,55 0,75	9,5	489	0,49	9,0	5,1	**98,55**	30	3,5	**PV1503K-3E80M/6C** **RV1503K-3E80M/6C** **PV1503K-2E80M/6B** **RV1503K-2E80M/6B**	1,47 1,50 	69 80 68 79	182 183 	IE3 IE2
	1,9 2,4	2267 1830	0,45 0,46	5,9 6,5	3,1 3,5	**492,23** **392,99**	35 32	0,9 1,1	**PV1204K-3E80M/6C** **RV1204K-3E80M/6C** **PV1204K-2E80M/6B** **RV1204K-2E80M/6B**	1,47 1,50 	61 63 60 62	178 179 	IE3 IE2
	2,5 2,9 3,7 4,5 5,2 6,5 7,8	1658 1452 1176 983 851 683 566	0,44 0,45 0,45 0,46 0,46 0,46 0,46	6,0 6,6 7,3 7,7 8,0 8,3 8,6	3,2 3,5 3,8 4,0 4,2 4,5 4,4	**571,62** **492,23** **392,99** **325,23** **280,06** **223,60** **185,04**	32 30 28 27 25 24 22	1,1 1,4 1,7 2,0 2,3 2,9 3,5	**PV1204K-3E80M/4C** **RV1204K-3E80M/4C** **PV1204K-2E80M/4B** **RV1204K-2E80M/4B**	1,34 1,45 	59 61 58 60	178 179 	IE3 IE2
	9,8	469	0,48	7,2	4,0	**95,27**	21	2,6	**PV1203K-3E80M/6C** **RV1203K-3E80M/6C** **PV1203K-2E80M/6B** **RV1203K-2E80M/6B**	1,47 1,50 	57 59 56 58	178 179 	IE3 IE2
	3,7 4,5 5,2 6,5 7,8 9,1	1148 964 838 676 558 479	0,44 0,45 0,45 0,46 0,46 0,46	6,2 6,5 6,8 7,3 7,6 7,6	3,2 3,4 3,6 3,8 3,7 3,8	**392,99** **325,23** **280,06** **223,60** **185,04** **159,34**	28 27 25 24 22 21	0,9 1,0 1,2 1,5 1,8 2,1	**PV1104K-3E80M/4C** **RV1104K-3E80M/4C** **PV1104K-2E80M/4B** **RV1104K-2E80M/4B**	1,34 1,45 	56 59 55 58	174 175 	IE3 IE2
	9,8 12 14	467 392 339	0,48 0,49 0,49	6,2 7,3 7,9	3,4 4,2 4,5	**95,27** **78,84** **67,89**	21 20 19	1,5 2,3 2,9	**PV1103K-3E80M/6C** **RV1103K-3E80M/6C** **PV1103K-2E80M/6B** **RV1103K-2E80M/6B**	1,47 1,50 	51 53 50 52	174 175 	IE3 IE2
	15 18 21 27 32 38 47 51 56	300 253 219 176 146 126 100 92 84	0,48 0,49 0,49 0,49 0,49 0,49 0,49 0,49 0,49	7,2 8,4 9,1 9,9 9,8 9,9 9,6 9,7 9,8	3,7 4,2 4,5 4,9 4,9 4,7 4,2 3,7 3,7	**95,27** **78,84** **67,89** **54,21** **44,86** **38,63** **30,84** **28,24** **25,87**	17 17 17 16 15 14 13 13 12	2,3 3,5 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**PV1103K-3E80M/4C** **RV1103K-3E80M/4C** **PV1103K-2E80M/4B** **RV1103K-2E80M/4B**	1,34 1,45 	47 49 46 48	174 175 	IE3 IE2
	110 133 155 194 212	44 37 32 25 23	0,51 0,51 0,51 0,52 0,52	11 13 13 13 13	5,4 6,0 5,6 5,4 4,6	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 9 8	4,0 4,0 4,0 4,0 4,0	**PV1102K-3E80M/4C** **RV1102K-3E80M/4C** **PV1102K-2E80M/4B** **RV1102K-2E80M/4B**	1,34 1,45 	44 46 43 45	174 175 	IE3 IE2
0,75 1,0	1,5	3919	0,63	12	6,4	**614,07**	129	3,4	**PV2404K-3E90S/6B** **RV2404K-3E90S/6B** **PV2404K-2E90S/6A** **RV2404K-2E90S/6A**	1,96 2,00 	221 236 219 234	198 199 	IE3 IE2
	1,5 1,8	3859 3293	0,62 0,63	11 12	5,6 6,3	**614,07** **517,41**	129 122	2,6 2,7	**PV2304K-3E90S/6B** **RV2304K-3E90S/6B** **PV2304K-2E90S/6A** **RV2304K-2E90S/6A**	1,96 2,00 	175 191 173 189	194 195 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.*** *Motor Eff. Class* Motor Effizienz-klasse
0,75 1,0	1,3 1,5 1,8	4641 3881 3362	0,62 0,63 0,63	10 11 12	5,0 5,8 6,4	**739,16** **611,04** **525,63**	100 95 90	1,1 1,7 2,1	**PV1904K-3E90S/6B** **RV1904K-3E90S/6B** **PV1904K-2E90S/6A** **RV1904K-2E90S/6A**	1,96 2,00 	130 145 128 143	190 191 	IE3 IE2
	2,0 2,4 2,8	3001 2529 2196	0,62 0,63 0,63	10 12 13	5,8 6,6 7,2	**739,16** **611,04** **525,63**	88 83 79	1,6 2,5 3,2	**PV1904K-3E80M/4D** **RV1904K-3E80M/4D** **PV1904K-2E80M/4C** **RV1904K-2E80M/4C**	1,77 1,89 	127 142 126 141	190 191 	IE3 IE2
	1,6 1,9	3726 3223	0,62 0,63	7,2 7,8	3,8 4,2	**590,67** **508,10**	52 49	1,1 1,5	**PV1604K-3E90S/6B** **RV1604K-3E90S/6B** **PV1604K-2E90S/6A** **RV1604K-2E90S/6A**	1,96 2,00 	93 103 91 101	186 187 	IE3 IE2
	2,0 2,5 2,9 3,4 4,3	2854 2419 2103 1753 1410	0,61 0,62 0,63 0,63 0,64	7,0 7,8 8,5 9,0 10	3,7 4,2 4,6 4,8 5,3	**714,52** **590,67** **508,10** **420,50** **335,09**	48 45 43 41 38	1,0 1,6 2,3 2,7 3,5	**PV1604K-3E80M/4D** **RV1604K-3E80M/4D** **PV1604K-2E80M/4C** **RV1604K-2E80M/4C**	1,77 1,89 	88 98 87 97	186 187 	IE3 IE2
	1,9 2,2	3197 2665	0,62 0,63	6,9 7,3	3,7 3,9	**508,10** **420,50**	49 47	0,9 1,0	**PV1504K-3E90S/6B** **RV1504K-3E90S/6B** **PV1504K-2E90S/6A** **RV1504K-2E90S/6A**	1,96 2,00 	77 87 75 85	182 183 	IE3 IE2
	2,5 2,9 3,4 4,3 5,0 6,3	2370 2068 1729 1395 1207 967	0,61 0,62 0,62 0,63 0,63 0,64	6,9 7,5 8,0 8,8 9,2 9,8	3,7 4,0 4,3 4,7 4,9 5,2	**590,67** **508,10** **420,50** **335,09** **288,55** **230,37**	45 43 41 38 37 34	1,1 1,3 1,6 2,2 2,6 3,2	**PV1504K-3E80M/4D** **RV1504K-3E80M/4D** **PV1504K-2E80M/4C** **RV1504K-2E80M/4C**	1,77 1,89 	71 81 70 80	182 183 	IE3 IE2
	9,6	660	0,66	9,0	5,1	**98,55**	30	2,6	**PV1503K-3E90S/6B** **RV1503K-3E90S/6B** **PV1503K-2E90S/6A** **RV1503K-2E90S/6A**	1,96 2,00 	72 82 70 80	182 183 	IE3 IE2
	2,5 2,9 3,7 4,5 5,2 6,5 7,8 9,1	2261 1980 1604 1340 1161 932 772 665	0,60 0,61 0,62 0,63 0,63 0,63 0,63 0,63	6,0 6,6 7,3 7,7 8,0 8,3 8,6 8,9	3,2 3,5 3,8 4,0 4,2 4,5 4,4 4,4	**571,62** **492,23** **392,99** **325,23** **280,06** **223,60** **185,04** **159,34**	32 30 28 27 25 24 22 21	0,8 1,0 1,2 1,5 1,7 2,1 2,6 3,0	**PV1204K-3E80M/4D** **RV1204K-3E80M/4D** **PV1204K-2E80M/4C** **RV1204K-2E80M/4C**	1,77 1,89 	60 62 59 61	178 179 	IE3 IE2
	9,9 12	633 529	0,66 0,66	7,2 8,5	4,0 4,9	**95,27** **78,84**	21 20	1,9 3,3	**PV1203K-3E90S/6B** **RV1203K-3E90S/6B** **PV1203K-2E90S/6A** **RV1203K-2E90S/6A**	1,96 2,00 	60 62 58 60	178 179 	IE3 IE2
	15	414	0,66	8,1	4,3	**95,27**	18	2,9	**PV1203K-3E80M/4D** **RV1203K-3E80M/4D** **PV1203K-2E80M/4C** **RV1203K-2E80M/4C**	1,77 1,89 	56 58 55 57	178 179 	IE3 IE2
	5,2 6,5 7,8 9,1	1142 921 761 653	0,62 0,63 0,62 0,62	6,8 7,3 7,6 7,6	3,6 3,8 3,7 3,8	**280,06** **223,60** **185,04** **159,34**	25 24 22 21	0,9 1,1 1,3 1,5	**PV1104K-3E80M/4D** **RV1104K-3E80M/4D** **PV1104K-2E80M/4C** **RV1104K-2E80M/4C**	1,77 1,89 	57 60 56 59	174 175 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
0,75 1,0	9,9 12 14	630 529 458	0,65 0,66 0,67	6,2 7,3 7,9	3,4 4,2 4,5	**95,27** **78,84** **67,89**	21 20 19	1,1 1,7 2,2	**PV1103K-3E90S/6B** **RV1103K-3E90S/6B** **PV1103K-2E90S/6A** **RV1103K-2E90S/6A**	1,96 2,00 	54 57 52 55	174 175 	IE3 IE2
	15 18 21 27 32 38 47 51 56	409 345 299 240 199 171 137 125 114	0,65 0,66 0,67 0,67 0,67 0,67 0,67 0,67 0,67	7,2 8,4 9,1 9,9 9,8 9,9 9,6 9,7 9,8	3,7 4,2 4,5 4,9 4,9 4,7 4,2 3,7 3,7	**95,27** **78,84** **67,89** **54,21** **44,86** **38,63** **30,84** **28,24** **25,87**	18 17 17 16 15 14 13 13 12	1,7 2,6 3,3 4,0 4,0 4,0 4,0 4,0 4,0	**PV1103K-3E80M/4D** **RV1103K-3E80M/4D** **PV1103K-2E80M/4C** **RV1103K-2E80M/4C**	1,77 1,89 	48 50 47 49	174 175 	IE3 IE2
	110 133 155 194 212	60 50 43 35 32	0,69 0,70 0,70 0,70 0,70	11 13 13 13 13	5,4 6,0 5,6 5,4 4,6	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 9 8	4,0 4,0 4,0 4,0 4,0	**PV1102K-3E80M/4D** **RV1102K-3E80M/4D** **PV1102K-2E80M/4C** **RV1102K-2E80M/4C**	1,77 1,89 	48 50 47 49	174 175 	IE3 IE2
1,1 1,5	1,6	5662	0,92	14	7,6	**603,61**	108	3,0	**PV2704K-3E90L/6C** **RV2704K-3E90L/6C** **PV2704K-2E90L/6B** **RV2704K-2E90L/6B**	2,75 2,90 	265 330 263 328	202 203 	IE3 IE2
	1,5 1,8	5778 4907	0,93 0,93	12 13	6,4 7,1	**614,07** **517,41**	129 123	2,2 2,6	**PV2404K-3E90L/6C** **RV2404K-3E90L/6C** **PV2404K-2E90L/6B** **RV2404K-2E90L/6B**	2,75 2,90 	223 238 221 236	198 199 	IE3 IE2
	2,4	3767	0,93	13	7,2	**614,07**	113	3,3	**PV2404K-3E90S/4C** **RV2404K-3E90S/4C** **PV2404K-2E90S/4B** **RV2404K-2E90S/4B**	2,46 2,60 	221 236 219 234	198 199 	IE3 IE2
	1,5 1,8 2,2	5690 4855 4005	0,91 0,92 0,92	11 12 12	5,6 6,3 6,6	**614,07** **517,41** **427,73**	129 123 116	1,8 1,8 2,9	**PV2304K-3E90L/6C** **RV2304K-3E90L/6C** **PV2304K-2E90L/6B** **RV2304K-2E90L/6B**	2,75 2,90 	177 193 175 191	194 195 	IE3 IE2
	2,4 2,8	3706 3160	0,92 0,93	12 13	6,3 6,9	**614,07** **517,41**	113 108	2,6 2,7	**PV2304K-3E90S/4C** **RV2304K-3E90S/4C** **PV2304K-2E90S/4B** **RV2304K-2E90S/4B**	2,46 2,60 	175 191 173 189	194 195 	IE3 IE2
	1,5 1,8	5722 4957	0,92 0,93	11 12	5,8 6,4	**611,04** **525,63**	95 90	1,2 1,4	**PV1904K-3E90L/6C** **RV1904K-3E90L/6C** **PV1904K-2E90L/6B** **RV1904K-2E90L/6B**	2,75 2,90 	132 147 130 145	190 191 	IE3 IE2
	2,0 2,4 2,8 3,5 4,2	4401 3709 3221 2592 2150	0,90 0,92 0,93 0,94 0,94	10 12 13 15 15	5,8 6,6 7,2 8,0 8,4	**739,16** **611,04** **525,63** **418,86** **346,26**	89 83 79 74 70	1,1 1,7 2,2 2,7 3,8	**PV1904K-3E90S/4C** **RV1904K-3E90S/4C** **PV1904K-2E90S/4B** **RV1904K-2E90S/4B**	2,46 2,60 	130 145 128 143	190 191 	IE3 IE2
	1,9 2,2	4752 3956	0,92 0,93	7,8 8,3	4,2 4,4	**508,10** **420,50**	50 47	1,0 1,2	**PV1604K-3E90L/6C** **RV1604K-3E90L/6C** **PV1604K-2E90L/6B** **RV1604K-2E90L/6B**	2,75 2,90 	95 105 93 103	186 187 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.*** *Motor Eff. Class* Motor Effizienz-klasse
1,1 1,5	2,5 2,9 3,4 4,3 5,0 6,3	3549 3084 2571 2068 1787 1430	0,91 0,92 0,93 0,94 0,94 0,94	7,8 8,5 9,0 10 10 11	4,2 4,6 4,8 5,3 5,5 5,8	**590,67** **508,10** **420,50** **335,09** **288,55** **230,37**	45 43 41 38 37 34	1,1 1,5 1,8 2,4 2,8 3,5	**PV1604K-3E90S/4C** **RV1604K-3E90S/4C** **PV1604K-2E90S/4B** **RV1604K-2E90S/4B**	2,46 2,60	91 101 89 99	186 187	IE3 IE2
	9,5	982	0,98	10	5,9	**98,55**	30	2,6	**PV1603K-3E90L/6C** **RV1603K-3E90L/6C** **PV1603K-2E90L/6B** **RV1603K-2E90L/6B**	2,75 2,90	90 100 88 98	186 187	IE3 IE2
	2,9 3,4 4,3 5,0 6,3 7,6 8,8	3034 2536 2045 1770 1418 1175 1012	0,91 0,92 0,93 0,93 0,93 0,94 0,94	7,5 8,0 8,8 9,2 9,8 10 10	4,0 4,3 4,7 4,9 5,2 5,1 5,0	**508,10** **420,50** **335,09** **288,55** **230,37** **190,65** **164,17**	43 41 38 37 34 32 31	0,9 1,1 1,5 1,8 2,2 2,6 3,1	**PV1504K-3E90S/4C** **RV1504K-3E90S/4C** **PV1504K-2E90S/4B** **RV1504K-2E90S/4B**	2,46 2,60	74 84 72 82	182 183	IE3 IE2
	9,5 12	974 810	0,97 0,98	9,0 10	5,1 5,6	**98,55** **81,47**	30 28	1,7 3,0	**PV1503K-3E90L/6C** **RV1503K-3E90L/6C** **PV1503K-2E90L/6B** **RV1503K-2E90L/6B**	2,75 2,90	74 85 72 83	182 183	IE3 IE2
	15	632	0,97	10	5,1	**98,55**	26	2,6	**PV1503K-3E90S/4C** **RV1503K-3E90S/4C** **PV1503K-2E90S/4B** **RV1503K-2E90S/4B**	2,46 2,60	72 83 70 81	182 183	IE3 IE2
	3,7 4,5 5,2 6,5 7,8 9,1	2352 1965 1702 1366 1133 975	0,91 0,92 0,92 0,93 0,93 0,93	7,3 7,7 8,0 8,3 8,6 8,9	3,8 4,0 4,2 4,5 4,4 4,4	**392,99** **325,23** **280,06** **223,60** **185,04** **159,34**	28 27 25 24 22 21	0,9 1,0 1,2 1,5 1,8 2,1	**PV1204K-3E90S/4C** **RV1204K-3E90S/4C** **PV1204K-2E90S/4B** **RV1204K-2E90S/4B**	2,46 2,60	63 65 61 63	178 179	IE3 IE2
	9,9 12 14	934 780 675	0,96 0,97 0,98	7,2 8,5 9,2	4,0 4,9 5,2	**95,27** **78,84** **67,89**	21 20 19	1,3 2,2 2,9	**PV1203K-3E90L/6C** **RV1203K-3E90L/6C** **PV1203K-2E90L/6B** **RV1203K-2E90L/6B**	2,75 2,90	62 64 60 62	178 179	IE3 IE2
	15 18	607 508	0,97 0,98	8,1 9,4	4,3 5,0	**95,27** **78,84**	18 17	2,0 3,3	**PV1203K-3E90S/4C** **RV1203K-3E90S/4C** **PV1203K-2E90S/4B** **RV1203K-2E90S/4B**	2,46 2,60	59 61 57 59	178 179	IE3 IE2
	7,8 9,1 11	1116 957 758	0,92 0,91 0,90	7,6 7,6 7,6	3,7 3,8 3,4	**185,04** **159,34** **127,22**	22 21 20	0,9 1,0 1,3	**PV1104K-3E90S/4C** **RV1104K-3E90S/4C** **PV1104K-2E90S/4B** **RV1104K-2E90S/4B**	2,46 2,60	60 63 58 61	174 175	IE3 IE2
	12 14	779 675	0,97 0,98	7,3 7,9	4,2 4,5	**78,84** **67,89**	20 19	1,2 1,5	**PV1103K-3E90L/6C** **RV1103K-3E90L/6C** **PV1103K-2E90L/6B** **RV1103K-2E90L/6B**	2,75 2,90	56 59 54 57	174 175	IE3 IE2
	15 18 21 27	600 505 438 352	0,96 0,97 0,98 0,99	7,2 8,4 9,1 9,9	3,7 4,2 4,5 4,9	**95,27** **78,84** **67,89** **54,21**	18 17 17 16	1,1 1,8 2,3 2,8	**PV1103K-3E90S/4C** **RV1103K-3E90S/4C** **PV1103K-2E90S/4B** **RV1103K-2E90S/4B**	2,46 2,60	50 52 48 50	174 175	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
1,1 1,5	32 38 47 51 56	292 251 200 183 168	0,99 0,99 0,99 0,98 0,99	9,8 9,9 9,6 9,7 9,8	4,9 4,7 4,2 3,7 3,7	**44,86** **38,63** **30,84** **28,24** **25,87**	15 14 13 13 12	3,4 4,0 4,0 4,0 4,0	**PV1103K-3E90S/4C** **RV1103K-3E90S/4C** **PV1103K-2E90S/4B** **RV1103K-2E90S/4B**	2,46 2,60	50 52 48 50	174 175	IE3 IE2
	110 133 155 194 212	88 73 63 51 46	1,02 1,03 1,03 1,03 1,03	11 13 13 13 13	5,4 6,0 5,6 5,4 4,6	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 9 8	4,0 4,0 4,0 4,0 4,0	**PV1102K-3E90S/4C** **RV1102K-3E90S/4C** **PV1102K-2E90S/4B** **RV1102K-2E90S/4B**	2,46 2,60	48 50 46 48	174 175	IE3 IE2
1,5 2,0	1,6 1,9	7600 6437	1,3 1,3	14 16	7,6 8,5	**603,61** **508,59**	107 102	2,2 3,1	**PV2704K-3E100L/6B** **RV2704K-3E100L/6B** **PV2704K-2E100L/6A** **RV2704K-2E100L/6A**	3,50 3,72	272 337 269 334	202 203	IE3 IE2
	2,4	5041	1,3	15	8,4	**603,61**	94	3,2	**PV2704K-3E90L/4D** **RV2704K-3E90L/4D** **PV2704K-2E90L/4C** **RV2704K-2E90L/4C**	3,30 3,40	223 238 222 237	202 203	IE3 IE2
	1,6 1,8 2,2	7756 6587 5438	1,3 1,3 1,3	12 13 14	6,4 7,1 7,5	**614,07** **517,41** **427,73**	129 122 115	1,7 2,0 3,0	**PV2404K-3E100L/6B** **RV2404K-3E100L/6B** **PV2404K-2E100L/6A** **RV2404K-2E100L/6A**	3,50 3,72	230 245 227 242	198 199	IE3 IE2
	2,4 2,8	5137 4365	1,3 1,3	13 15	7,2 7,9	**614,07** **517,41**	113 108	2,4 3,0	**PV2404K-3E90L/4D** **RV2404K-3E90L/4D** **PV2404K-2E90L/4C** **RV2404K-2E90L/4C**	3,30 3,40	213 228 212 227	198 199	IE3 IE2
	1,6 1,8 2,2	7638 6516 5375	1,2 1,3 1,3	11 12 12	5,6 6,3 6,6	**614,07** **517,41** **427,73**	129 122 115	1,3 1,4 2,1	**PV2304K-3E100L/6B** **RV2304K-3E100L/6B** **PV2304K-2E100L/6A** **RV2304K-2E100L/6A**		184 200 181 197	194 195	IE3 IE2
	2,4 2,8 3,4	5053 4309 3569	1,2 1,3 1,3	12 13 13	6,3 6,9 7,3	**614,07** **517,41** **427,73**	113 108 102	1,9 2,0 3,2	**PV2304K-3E90L/4D** **RV2304K-3E90L/4D** **PV2304K-2E90L/4C** **RV2304K-2E90L/4C**	3,30 3,40	177 193 176 192	194 195	IE3 IE2
	1,6 1,8	7681 6654	1,3 1,3	11 12	5,8 6,4	**611,04** **525,63**	94 90	0,9 1,1	**PV1904K-3E100L/6B** **RV1904K-3E100L/6B** **PV1904K-2E100L/6A** **RV1904K-2E100L/6A**	3,50 3,72	139 154 136 151	190 191	IE3 IE2
	2,0 2,4 2,8 3,5 4,2 4,9	6002 5058 4392 3534 2931 2529	1,2 1,3 1,3 1,3 1,3 1,3	10 12 13 15 15 16	5,8 6,6 7,2 8,0 8,4 8,7	**739,16** **611,04** **525,63** **418,86** **346,26** **297,85**	88 83 79 74 70 67	0,8 1,3 1,6 2,0 2,8 3,2	**PV1904K-3E90L/4D** **RV1904K-3E90L/4D** **PV1904K-2E90L/4C** **RV1904K-2E90L/4C**	3,30 3,40	132 147 131 146	190 191	IE3 IE2
	9,9	1300	1,3	16	8,5	**96,88**	54	3,2	**PV1903K-3E100L/6B** **RV1903K-3E100L/6B** **PV1903K-2E100L/6A** **RV1903K-2E100L/6A**	3,50 3,72	143 157 140 154	190 191	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,5 2,0	2,5 2,9 3,4 4,3 5,0 6,3 7,6	4839 4205 3506 2820 2437 1950 1618	1,2 1,3 1,3 1,3 1,3 1,3 1,3	7,8 8,5 9,0 10 10 11 12	4,2 4,6 4,8 5,3 5,5 5,8 5,8	**590,67** **508,10** **420,50** **335,09** **288,55** **230,37** **190,65**	45 43 41 38 37 34 32	0,8 1,1 1,3 1,8 2,1 2,6 3,1	**PV1604K-3E90L/4D** **RV1604K-3E90L/4D** **PV1604K-2E90L/4C** **RV1604K-2E90L/4C**	3,30 3,40 	93 103 92 102	186 187 	IE3 IE2
	9,7 12	1318 1095	1,3 1,3	10 12	5,9 6,4	**98,55** **81,47**	30 28	1,9 3,5	**PV1603K-3E100L/6B** **RV1603K-3E100L/6B** **PV1603K-2E100L/6A** **RV1603K-2E100L/6A**	3,50 3,72 	97 107 94 104	186 187 	IE3 IE2
	15	871	1,3	11	5,9	**98,55**	26	2,9	**PV1603K-3E90L/4D** **RV1603K-3E90L/4D** **PV1603K-2E90L/4C** **RV1603K-2E90L/4C**	3,30 3,40 	90 100 89 99	186 187 	IE3 IE2
	3,4 4,3 5,0 6,3 7,6 8,8	3458 2789 2413 1934 1603 1380	1,2 1,3 1,3 1,3 1,3 1,3	8,0 8,8 9,2 9,8 10 10	4,3 4,7 4,9 5,2 5,1 5,0	**420,50** **335,09** **288,55** **230,37** **190,65** **164,17**	41 38 37 34 32 31	0,8 1,1 1,3 1,6 1,9 2,2	**PV1504K-3E90L/4D** **RV1504K-3E90L/4D** **PV1504K-2E90L/4C** **RV1504K-2E90L/4C**	3,30 3,40 	76 86 75 85	182 183 	IE3 IE2
	9,7 12 14	1307 1087 940	1,3 1,3 1,3	9,0 10 11	5,1 5,6 5,9	**98,55** **81,47** **70,08**	30 28 27	1,3 2,2 2,8	**PV1503K-3E100L/6B** **RV1503K-3E100L/6B** **PV1503K-2E100L/6A** **RV1503K-2E100L/6A**	3,50 3,72 	81 92 78 79	182 183 	IE3 IE2
	15 18	862 719	1,3 1,3	10 12	5,1 5,7	**98,55** **81,47**	26 25	1,9 3,3	**PV1503K-3E90L/4D** **RV1503K-3E90L/4D** **PV1503K-2E90L/4C** **RV1503K-2E90L/4C**	3,30 3,40 	74 85 73 84	182 183 	IE3 IE2
	5,2 6,5 7,8 9,1	2321 1863 1544 1330	1,3 1,3 1,3 1,3	8,0 8,3 8,6 8,9	4,2 4,5 4,4 4,4	**280,06** **223,60** **185,04** **159,34**	25 24 22 21	0,9 1,1 1,3 1,5	**PV1204K-3E90L/4D** **RV1204K-3E90L/4D** **PV1204K-2E90L/4C** **RV1204K-2E90L/4C**	3,30 3,40 	65 67 64 66	178 179 	IE3 IE2
	10 12 14	1253 1047 906	1,3 1,3 1,3	7,2 8,5 9,2	4,0 4,9 5,2	**95,27** **78,84** **67,89**	21 20 19	1,0 1,6 2,2	**PV1203K-3E100L/6B** **RV1203K-3E100L/6B** **PV1203K-2E100L/6A** **RV1203K-2E100L/6A**	3,50 3,72 	72 74 69 71	178 179 	IE3 IE2
	15 18 21	827 693 600	1,3 1,3 1,3	8,1 9,4 10	4,3 5,0 5,3	**95,27** **78,84** **67,89**	18 17 17	1,4 2,4 3,3	**PV1203K-3E90L/4D** **RV1203K-3E90L/4D** **PV1203K-2E90L/4C** **RV1203K-2E90L/4C**	3,30 3,40 	61 63 60 62	178 179 	IE3 IE2
	12 14	1046 906	1,3 1,3	7,3 7,9	4,2 4,5	**78,84** **67,89**	20 19	0,9 1,1	**PV1103K-3E100L/6B** **RV1103K-3E100L/6B** **PV1103K-2E100L/6A** **RV1103K-2E100L/6A**	3,50 3,72 	63 66 60 63	174 175 	IE3 IE2
	15 18 21 27 32 38	819 689 598 480 398 343	1,3 1,3 1,3 1,3 1,3 1,3	7,1 8,3 8,7 9,5 9,9 9,9	3,7 4,2 4,6 4,9 4,6 4,8	**95,27** **78,84** **67,89** **54,21** **44,86** **38,63**	18 17 17 16 15 14	0,8 1,3 1,7 2,1 2,5 2,9	**PV1103K-3E90L/4D** **RV1103K-3E90L/4D** **PV1103K-2E90L/4C** **RV1103K-2E90L/4C**	3,30 3,40 	52 54 51 53	174 175 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,5 2,0	47 51 56	273 250 229	1,3 1,3 1,3	9,6 9,7 9,8	4,2 3,7 3,7	**30,84** **28,24** **25,87**	13 13 12	3,7 4,0 4,0	**PV1103K-3E90L/4D** **RV1103K-3E90L/4D** **PV1103K-2E90L/4C** **RV1103K-2E90L/4C**	3,30 3,40 	52 54 51 53	174 175 	IE3 IE2
	73 88	182 152	1,4 1,4	11 12	5,7 6,4	**13,14** **10,88**	11 11	3,4 4,0	**PV1102K-3E100L/6B** **RV1102K-3E100L/6B** **PV1102K-2E100L/6A** **RV1102K-2E100L/6A**	3,50 3,72 	59 61 56 58	174 175 	IE3 IE2
	110 133 155 194 212	120 100 87 69 63	1,4 1,4 1,4 1,4 1,4	11 13 13 13 13	5,4 6,0 5,6 5,4 4,6	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 9 8	4,0 4,0 4,0 4,0 4,0	**PV1102K-3E90L/4D** **RV1102K-3E90L/4D** **PV1102K-2E90L/4C** **RV1102K-2E90L/4C**	3,5 	47 49 46 48	174 175 	IE3 IE2
2,2 3,0	1,8	9673	1,9	20	11	**523,13**	175	2,7	**PV3504K-3E112M/6B** **RV3504K-3E112M/6B** **PV3504K-2E112M/6A** **RV3504K-2E112M/6A**	4,95 5,32 	463 549 460 546	210 211 	IE3 IE2
	1,9	9382	1,9	18	9,7	**501,46**	129	2,7	**PV2904K-3E112M/6B** **RV2904K-3E112M/6B** **PV2904K-2E112M/6A** **RV2904K-2E112M/6A**	4,95 5,32 	354 426 351 423	206 207 	IE3 IE2
	1,6 1,9	11031 9344	1,8 1,9	14 16	7,6 8,5	**603,61** **508,59**	107 101	1,5 2,1	**PV2704K-3E112M/6B** **RV2704K-3E112M/6B** **PV2704K-2E112M/6A** **RV2704K-2E112M/6A**	4,95 5,32 	282 347 279 344	202 203 	IE3 IE2
	2,4 2,9 3,7	7393 6268 4935	1,9 1,9 1,9	15 17 19	8,4 9,2 10	**603,61** **508,59** **396,31**	94 90 83	2,2 3,2 3,4	**PV2704K-3E100L/4C** **RV2704K-3E100L/4C** **PV2704K-2E100L/4B** **RV2704K-2E100L/4B**	4,65 4,85 	228 243 227 242	202 203 	IE3 IE2
	1,6 1,9 2,3	11257 9560 7893	1,9 1,9 1,9	12 13 14	6,4 7,1 7,5	**614,07** **517,41** **427,73**	128 122 115	1,2 1,4 2,1	**PV2404K-3E112M/6B** **RV2404K-3E112M/6B** **PV2404K-2E112M/6A** **RV2404K-2E112M/6A**	4,95 5,32 	240 255 237 252	198 199 	IE3 IE2
	2,4 2,8 3,4 3,9	7534 6401 5299 4573	1,9 1,9 1,9 1,9	13 15 15 16	7,2 7,9 8,3 8,6	**614,07** **517,41** **427,73** **367,94**	113 108 102 97	1,6 2,0 3,0 3,5	**PV2404K-3E100L/4C** **RV2404K-3E100L/4C** **PV2404K-2E100L/4B** **RV2404K-2E100L/4B**	4,65 4,85 	218 232 217 231	198 199 	IE3 IE2
	1,6 1,9	11086 9458	1,8 1,8	11 12	5,6 6,3	**614,07** **517,41**	128 122	0,9 0,9	**PV2304K-3E112M/6B** **RV2304K-3E112M/6B** **PV2304K-2E112M/6A** **RV2304K-2E112M/6A**	4,95 5,32 	194 210 191 207	194 195 	IE3 IE2
	2,4 2,8 3,4 3,9 5,1	7412 6319 5235 4520 3547	1,8 1,9 1,9 1,9 1,9	12 13 13 14 15	6,3 6,9 7,3 7,6 8,3	**614,07** **517,41** **427,73** **367,94** **286,70**	113 108 102 97 90	1,2 1,3 2,1 2,4 2,9	**PV2304K-3E100L/4C** **RV2304K-3E100L/4C** **PV2304K-2E100L/4B** **RV2304K-2E100L/4B**	4,65 4,85 	182 198 181 197	194 195 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.*** *Motor Eff. Class* Motor Effizienz-klasse
2,2 3,0	2,4 2,8 3,5 4,2 4,9 6,1 7,4	7418 6442 5184 4300 3710 2964 2460	1,8 1,9 1,9 1,9 1,9 1,9 1,9	12 13 15 15 16 17 18	6,6 7,2 8,0 8,4 8,7 9,2 9,1	**611,04** **525,63** **418,86** **346,26** **297,85** **237,35** **196,43**	83 79 74 70 67 62 59	0,9 1,1 1,4 1,9 2,2 2,7 3,3	**PV1904K-3E100L/4C** **RV1904K-3E100L/4C** **PV1904K-2E100L/4B** **RV1904K-2E100L/4B**	4,65 4,85 	137 152 136 151	190 191 	IE3 IE2
	10 12	1886 1569	2,0 2,0	16 18	8,5 9,6	**96,88** **80,08**	54 51	2,2 3,7	**PV1903K-3E112M/6B** **RV1903K-3E112M/6B** **PV1903K-2E112M/6A** **RV1903K-2E112M/6A**	4,95 5,32 	153 167 150 164	190 191 	IE3 IE2
	15	1261	2,0	17	8,9	**96,88**	48	3,2	**PV1903K-3E100L/4C** **RV1903K-3E100L/4C** **PV1903K-2E100L/4B** **RV1903K-2E100L/4B**	4,65 4,85 	141 155 140 154	190 191 	IE3 IE2
	2,9 3,3	6188 5342	1,9 1,9	9,2 9,6	4,9 5,1	**335,09** **288,55**	19 41	0,8 0,9	**PV1604K-3E112M/6B** **RV1604K-3E112M/6B** **PV1604K-2E112M/6A** **RV1604K-2E112M/6A**	4,95 5,32 	112 122 109 119	186 187 	IE3 IE2
	3,4 4,3 5,0 6,3 7,6 8,8	5143 4136 3574 2861 2374 2046	1,9 1,9 1,9 1,9 1,9 1,9	9,0 10 10 11 12 12	4,8 5,3 5,5 5,8 5,8 5,6	**420,50** **335,09** **288,55** **230,37** **190,65** **164,17**	41 38 37 34 32 31	0,9 1,2 1,4 1,7 2,1 2,4	**PV1604K-3E100L/4C** **RV1604K-3E100L/4C** **PV1604K-2E100L/4B** **RV1604K-2E100L/4B**	4,65 4,85 	98 108 97 107	186 187 	IE3 IE2
	9,8 12 14	1914 1589 1371	2,0 2,0 2,0	10 12 13	5,9 6,4 6,7	**98,55** **81,47** **70,08**	29 28 27	1,3 2,4 3,4	**PV1603K-3E112M/6B** **RV1603K-3E112M/6B** **PV1603K-2E112M/6A** **RV1603K-2E112M/6A**	4,95 5,32 	107 117 104 114	186 187 	IE3 IE2
	15	1278	2,0	11	5,9	**98,55**	26	2,0	**PV1603K-3E100L/4C** **RV1603K-3E100L/4C** **PV1603K-2E100L/4B** **RV1603K-2E100L/4B**	4,65 4,85 	95 105 94 104	186 187 	IE3 IE2
	5,0 6,3 7,6 8,8	3539 2837 2351 2024	1,9 1,9 1,9 1,9	9,2 9,8 10 10	4,9 5,2 5,1 5,0	**288,55** **230,37** **190,65** **164,17**	37 34 32 31	0,9 1,1 1,3 1,5	**PV1504K-3E100L/4C** **RV1504K-3E100L/4C** **PV1504K-2E100L/4B** **RV1504K-2E100L/4B**	4,65 4,85 	81 91 80 90	182 183 	IE3 IE2
	9,8 12 14	1897 1578 1364	1,9 2,0 2,0	9,0 10 11	5,1 5,6 5,9	**98,55** **81,47** **70,08**	29 28 27	0,9 1,5 2,0	**PV1503K-3E112M/6B** **RV1503K-3E112M/6B** **PV1503K-2E112M/6A** **RV1503K-2E112M/6A**	4,95 5,32 	91 102 88 99	182 183 	IE3 IE2
	15 18 21 25	1264 1055 912 756	1,9 2,0 2,0 2,0	10 12 12 12	5,1 5,7 6,1 6,1	**98,55** **81,47** **70,08** **58,00**	26 25 24 22	1,3 2,2 2,9 3,5	**PV1503K-3E100L/4C** **RV1503K-3E100L/4C** **PV1503K-2E100L/4B** **RV1503K-2E100L/4B**	4,65 4,85 	79 90 78 89	182 183 	IE3 IE2
	7,8 9,1 11	2265 1950 1553	1,9 1,9 1,9	8,6 8,9 8,9	4,4 4,4 4,0	**185,04** **159,34** **127,22**	22 21 20	0,9 1,0 1,3	**PV1204K-3E100L/4C** **RV1204K-3E100L/4C** **PV1204K-2E100L/4B** **RV1204K-2E100L/4B**	4,65 4,85 	70 72 69 71	178 179 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
2,2 3,0	12 14	1520 1315	1,9 2,0	8,5 9,2	4,9 5,2	**78,84** **67,89**	20 19	1,1 1,5	**PV1203K-3E112M/6B** **RV1203K-3E112M/6B** **PV1203K-2E112M/6A** **RV1203K-2E112M/6A**	4,95 5,32 	82 84 79 81	178 179 	IE3 IE2
	15 18 21 27 32	1213 1016 880 707 586	1,9 2,0 2,0 2,0 2,0	8,1 9,4 10 11 12	4,3 5,0 5,3 5,7 5,8	**95,27** **78,84** **67,89** **54,21** **44,86**	18 17 17 16 15	1,0 1,7 2,2 2,8 3,4	**PV1203K-3E100L/4C** **RV1203K-3E100L/4C** **PV1203K-2E100L/4B** **RV1203K-2E100L/4B**	4,65 4,85 	65 68 64 67	178 179 	IE3 IE2
	14	1271	1,8	7,7	3,4	**106,70**	19	0,8	**PV1104K-3E100L/4C** **RV1104K-3E100L/4C** **PV1104K-2E100L/4B** **RV1104K-2E100L/4B**	4,65 4,85 	67 72 66 71	174 175 	IE3 IE2
	18 21 27 32 38 47 51 56	1011 876 705 584 503 401 366 336	1,9 2,0 2,0 2,0 2,0 2,0 2,0 2,0	8,3 8,7 9,5 9,9 9,9 9,8 9,8 9,8	4,2 4,6 4,9 4,6 4,8 4,4 3,9 4,0	**78,84** **67,89** **54,21** **44,86** **38,63** **30,84** **28,24** **25,87**	17 17 16 15 14 13 13 12	0,9 1,1 1,4 1,7 2,0 2,5 2,7 3,0	**PV1103K-3E100L/4C** **RV1103K-3E100L/4C** **PV1103K-2E100L/4B** **RV1103K-2E100L/4B**	4,65 4,85 	57 59 56 58	174 175 	IE3 IE2
	73 89 103	264 220 190	2,0 2,0 2,1	11 12 13	5,7 6,4 6,7	**13,14** **10,88** **9,36**	11 11 10	2,3 3,7 4,0	**PV1102K-3E112M/6B** **RV1102K-3E112M/6B** **PV1102K-2E112M/6A** **RV1102K-2E112M/6A**	4,95 5,32 	69 71 66 68	174 175 	IE3 IE2
	110 133 155 194 212	176 147 127 102 93	2,0 2,1 2,1 2,1 2,1	11 13 13 13 13	5,4 6,0 5,6 5,4 4,6	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 9 8	3,4 4,0 4,0 4,0 4,0	**PV1102K-3E100L/4C** **RV1102K-3E100L/4C** **PV1102K-2E100L/4B** **RV1102K-2E100L/4B**	4,65 4,85 	57 59 56 58	174 175 	IE3 IE2
3,0 4,0	1,9 2,2	13123 10929	2,5 2,6	20 22	11 12	**523,13** **434,60**	175 166	2,0 3,4	**PV3504K-3E132S/6B** **RV3504K-3E132S/6B** **PV3504K-2E132S/6A** **RV3504K-2E132S/6A**	6,55 6,85 	473 559 468 554	210 211 	IE3 IE2
	2,8	8849	2,6	22	12	**523,13**	155	2,7	**PV3504K-3E100L/4D** **RV3504K-3E100L/4D** **PV3504K-2E100L/4C** **RV3504K-2E100L/4C**	6,26 6,42 	457 542 455 540	210 211 	IE3 IE2
	1,9 2,3	12727 10708	2,6 2,6	18 19	9,7 10	**501,46** **422,52**	129 122	2,0 3,3	**PV2904K-3E132S/6B** **RV2904K-3E132S/6B** **PV2904K-2E132S/6A** **RV2904K-2E132S/6A**	6,55 6,85 	364 436 359 431	206 207 	IE3 IE2
	2,9	8419	2,5	20	10	**501,46**	114	2,8	**PV2904K-3E100L/4D** **RV2904K-3E100L/4D** **PV2904K-2E100L/4C** **RV2904K-2E100L/4C**	6,26 6,42 	348 420 346 418	206 207 	IE3 IE2
	1,6 1,9	14964 12676	2,5 2,5	14 16	7,6 8,5	**603,61** **508,59**	107 101	1,1 1,6	**PV2704K-3E132S/6B** **RV2704K-3E132S/6B** **PV2704K-2E132S/6A** **RV2704K-2E132S/6A**	6,55 6,85 	292 357 287 352	202 203 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
3,0 4,0	2,4 2,9 3,7	10081 8548 6729	2,5 2,6 2,6	14 16 17	7,6 8,5 9,3	**603,61** **508,59** **396,31**	94 90 83	1,6 2,3 2,5	**PV2704K-3E100L/4D** **RV2704K-3E100L/4D** **PV2704K-2E100L/4C** **RV2704K-2E100L/4C**	6,26 6,42	288 353 286 351	202 203	IE3 IE2
	1,6 1,9 2,3	15271 12969 10707	2,5 2,5 2,5	12 13 14	6,4 7,1 7,5	**614,07** **517,41** **427,73**	128 122 115	0,9 1,0 1,5	**PV2404K-3E132S/6B** **RV2404K-3E132S/6B** **PV2404K-2E132S/6A** **RV2404K-2E132S/6A**	6,55 6,85	250 265 245 260	198 199	IE3 IE2
	2,4 2,8 3,4 3,9	10273 8729 7226 6236	2,5 2,6 2,6 2,6	13 15 15 16	7,2 7,9 8,3 8,6	**614,07** **517,41** **427,73** **367,94**	113 108 102 97	1,2 1,5 2,2 2,6	**PV2404K-3E100L/4D** **RV2404K-3E100L/4D** **PV2404K-2E100L/4C** **RV2404K-2E100L/4C**	6,26 6,42	231 245 229 243	198 199	IE3 IE2
	2,4 2,8 3,4 3,9 5,1 6,3	10107 8617 7139 6164 4837 3860	2,5 2,5 2,5 2,5 2,6 2,6	12 13 13 14 15 16	6,3 6,9 7,3 7,6 8,3 8,7	**614,07** **517,41** **427,73** **367,94** **286,70** **228,47**	113 108 102 97 90 84	0,9 1,0 1,6 1,8 2,2 3,2	**PV2304K-3E100L/4D** **RV2304K-3E100L/4D** **PV2304K-2E100L/4C** **RV2304K-2E100L/4C**	6,26 6,42	185 201 183 199	194 195	IE3 IE2
	12	2128	2,7	20	11	**80,48**	69	3,7	**PV2303K-3E132S/6B** **RV2303K-3E132S/6B** **PV2303K-2E132S/6A** **RV2303K-2E132S/6A**	6,55 6,85	195 210 190 205	194 195	IE3 IE2
	2,8 3,5 4,2 4,9 6,1 7,4 8,6	8784 7069 5863 5059 4042 3355 2892	2,5 2,6 2,6 2,6 2,6 2,6 2,6	13 15 15 16 17 18 18	7,2 8,0 8,4 8,7 9,2 9,1 9,0	**525,63** **418,86** **346,26** **297,85** **237,35** **196,43** **169,15**	79 74 70 67 62 59 56	0,8 1,0 1,4 1,6 2,0 2,4 2,8	**PV1904K-3E100L/4D** **RV1904K-3E100L/4D** **PV1904K-2E100L/4C** **RV1904K-2E100L/4C**	6,26 6,42	140 155 138 153	190 191	IE3 IE2
	10 12 14	2559 2128 1836	2,7 2,7 2,7	16 18 19	8,5 9,6 10	**96,88** **80,08** **68,89**	54 51 48	1,6 2,7 3,7	**PV1903K-3E132S/6B** **RV1903K-3E132S/6B** **PV1903K-2E132S/6A** **RV1903K-2E132S/6A**	6,55 6,85	163 177 158 172	190 191	IE3 IE2
	15	1720	2,7	17	8,9	**96,88**	48	2,4	**PV1903K-3E100L/4D** **RV1903K-3E100L/4D** **PV1903K-2E100L/4C** **RV1903K-2E100L/4C**	6,26 6,42	145 159 143 157	190 191	IE3 IE2
	4,3 5,0 6,3 7,6 8,8	5640 4874 3901 3237 2790	2,6 2,6 2,6 2,6 2,6	10 10 11 12 12	5,3 5,5 5,8 5,8 5,6	**335,09** **288,55** **230,37** **190,65** **164,17**	38 37 34 32 31	0,9 1,0 1,3 1,5 1,8	**PV1604K-3E100L/4D** **RV1604K-3E100L/4D** **PV1604K-2E100L/4C** **RV1604K-2E100L/4C**	6,26 6,42	102 112 100 110	186 187	IE3 IE2
	9,8 12 14	2596 2156 1859	2,7 2,7 2,7	10 12 13	5,9 6,4 6,7	**98,55** **81,47** **70,08**	30 28 27	1,0 1,8 2,5	**PV1603K-3E132S/6B** **RV1603K-3E132S/6B** **PV1603K-2E132S/6A** **RV1603K-2E132S/6A**	6,55 6,85	117 127 112 122	186 187	IE3 IE2
	15 18	1742 1449	2,7 2,7	11 13	5,9 6,6	**98,55** **81,47**	26 25	1,4 2,6	**PV1603K-3E100L/4D** **RV1603K-3E100L/4D** **PV1603K-2E100L/4C** **RV1603K-2E100L/4C**	6,26 6,42	99 109 97 107	186 187	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
3,0	6,3	3868	2,5	10	5,2	**230,37**	34	0,8	**PV1504K-3E100L/4D**	6,26	85	182	IE3
4,0	7,6	3206	2,6	10	5,1	**190,65**	32	1,0	**RV1504K-3E100L/4D**		95	183	
	8,8	2760	2,6	10	5,0	**164,17**	31	1,1	**PV1504K-2E100L/4C**	6,42	83		IE2
	11	2199	2,5	10	4,5	**131,07**	29	1,4	**RV1504K-2E100L/4C**		93		
	12	2141	2,7	10	5,6	**81,47**	28	1,1	**PV1503K-3E132S/6B**	6,55	101	182	IE3
	14	1850	2,7	11	5,9	**70,08**	27	1,4	**RV1503K-3E132S/6B**		112	183	
									PV1503K-2E132S/6A	6,85	96		IE2
									RV1503K-2E132S/6A		107		
	15	1724	2,7	10	5,1	**98,55**	26	1,0	**PV1503K-3E100L/4D**	6,26	84	182	IE3
	18	1438	2,7	12	5,7	**81,47**	25	1,6	**RV1503K-3E100L/4D**		94	183	
	21	1243	2,7	12	6,1	**70,08**	24	2,1	**PV1503K-2E100L/4C**	6,42	82		IE2
	25	1031	2,7	12	6,1	**58,00**	22	2,5	**RV1503K-2E100L/4C**		92		
	11	2118	2,5	8,9	4,0	**127,22**	20	0,9	**PV1204K-3E100L/4D**	6,26	74	178	IE3
									RV1204K-3E100L/4D		76	179	
									PV1204K-2E100L/4C	6,42	72		IE2
									RV1204K-2E100L/4C		74		
	12	2063	2,7	8,5	4,9	**78,84**	20	0,8	**PV1203K-3E132S/6B**	6,55	92	178	IE3
	14	1784	2,7	9,2	5,2	**67,89**	19	1,1	**RV1203K-3E132S/6B**		94	179	
									PV1203K-2E132S/6A	6,85	87		IE2
									RV1203K-2E132S/6A		89		
	18	1386	2,7	9,4	5,0	**78,84**	17	1,2	**PV1203K-3E100L/4D**	6,26	69	178	IE3
	21	1200	2,7	10	5,3	**67,89**	17	1,6	**RV1203K-3E100L/4D**		72	179	
	27	964	2,7	11	5,7	**54,21**	16	2,1	**PV1203K-2E100L/4C**	6,42	67		IE2
	32	800	2,7	12	5,8	**44,86**	15	2,5	**RV1203K-2E100L/4C**		70		
	38	689	2,7	12	5,6	**38,63**	14	2,7					
	47	550	2,7	11	5,2	**30,84**	13	3,2					
	74	359	2,8	12	6,3	**13,14**	11	3,1	**PV1202K-3E132S/6B**	6,55	81	178	IE3
	89	300	2,8	14	7,1	**10,88**	11	4,0	**RV1202K-3E132S/6B**		83	179	
									PV1202K-2E132S/6A	6,85	76		IE2
									RV1202K-2E132S/6A		78		
	21	1195	2,7	8,7	4,6	**67,89**	17	0,8	**PV1103K-3E100L/4D**	6,26	61	174	IE3
	27	961	2,7	9,5	4,9	**54,21**	16	1,0	**RV1103K-3E100L/4D**		63	175	
	32	796	2,7	9,9	4,6	**44,86**	15	1,3	**PV1103K-2E100L/4C**	6,42	59		IE2
	38	685	2,7	9,9	4,8	**38,63**	14	1,5	**RV1103K-2E100L/4C**		61		
	47	546	2,7	9,8	4,4	**30,84**	13	1,8					
	51	499	2,7	9,8	3,9	**28,24**	13	2,0					
	56	458	2,7	9,8	4,0	**25,87**	12	2,2					
	74	358	2,8	11	5,7	**13,14**	11	1,7	**PV1102K-3E132S/6B**	6,55	79	174	IE3
	89	299	2,8	12	6,4	**10,88**	11	2,7	**RV1102K-3E132S/6B**		81	175	
	104	258	2,8	13	6,7	**9,36**	11	3,5	**PV1102K-2E132S/6A**	6,85	74		IE2
									RV1102K-2E132S/6A		76		
	110	240	2,8	11	5,4	**13,14**	10	2,5	**PV1102K-3E100L/4D**	6,26	56	174	IE3
	133	200	2,8	13	6,0	**10,88**	10	3,9	**RV1102K-3E100L/4D**		58	175	
	155	173	2,8	13	5,6	**9,36**	9	4,0	**PV1102K-2E100L/4C**	6,42	54		IE2
	194	139	2,8	13	5,4	**7,48**	9	4,0	**RV1102K-2E100L/4C**		56		
	212	127	2,8	13	4,6	**6,85**	8	4,0					
4,0	1,9	17497	3,4	20	11	**523,13**	175	1,5	**PV3504K-3E132M/6C**	8,52	484	210	IE3
5,5	2,2	14572	3,4	22	12	**434,60**	166	2,6	**RV3504K-3E132M/6C**		570	211	
									PV3504K-2E132M/6B	8,80	479		IE2
									RV3504K-2E132M/6B		565		

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çıkış Gücü *Output Power* Abtriebswelle Leistung **P_2 [kW]**	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 Servis Faktörü *Service Factors* Betriebs-faktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
4,0 5,5	2,8 3,4	11718 9781	3,4 3,4	22 24	12 13	**523,13** **434,60**	155 146	2,0 3,6	**PV3504K-3E112M/4D** **RV3504K-3E112M/4D** **PV3504K-2E112M/4C** **RV3504K-2E112M/4C**	8,05 8,20 	467 552 465 550	210 211 	IE3 IE2
	1,9 2,3	16970 14277	3,4 3,4	18 19	9,7 10	**501,46** **422,52**	129 122	1,5 2,5	**PV2904K-3E132M/6C** **RV2904K-3E132M/6C** **PV2904K-2E132M/6B** **RV2904K-2E132M/6B**	8,52 8,80 	375 447 370 442	206 207 	IE3 IE2
	2,9 3,5	11148 9436	3,4 3,4	20 21	10 11	**501,46** **422,52**	114 108	2,1 3,1	**PV2904K-3E112M/4D** **RV2904K-3E112M/4D** **PV2904K-2E112M/4C** **RV2904K-2E112M/4C**	8,05 8,20 	358 430 356 428	206 207 	IE3 IE2
	1,6 1,9	19952 16901	3,4 3,4	14 16	7,6 8,5	**603,61** **508,59**	107 101	0,9 1,2	**PV2704K-3E132M/6C** **RV2704K-3E132M/6C** **PV2704K-2E132M/6B** **RV2704K-2E132M/6B**	8,52 8,80 	303 368 298 363	202 203 	IE3 IE2
	2,4 2,9 3,7 4,5	13349 11319 8910 7355	3,4 3,4 3,4 3,4	15 17 19 20	8,4 9,2 10 10	**603,61** **508,59** **396,31** **327,61**	94 90 83 78	1,2 1,7 1,9 3,1	**PV2704K-3E112M/4D** **RV2704K-3E112M/4D** **PV2704K-2E112M/4C** **RV2704K-2E112M/4C**	8,05 8,20 	285 350 283 348	202 203 	IE3 IE2
	2,4 2,8 3,4 4,0 5,1	13604 11559 9569 8258 6448	3,4 3,4 3,4 3,4 3,4	13 15 15 16 18	7,2 7,9 8,3 8,6 9,4	**614,07** **517,41** **427,73** **367,94** **286,70**	113 107 101 97 90	0,9 1,1 1,7 1,9 2,9	**PV2404K-3E112M/4D** **RV2404K-3E112M/4D** **PV2404K-2E112M/4C** **RV2404K-2E112M/4C**	8,05 8,20 	241 255 239 253	198 199 	IE3 IE2
	2,3 2,6	14112 12174	3,4 3,4	12 13	6,6 6,9	**427,73** **367,94**	96 110	0,8 0,9	**PV2304K-3E132M/6C** **RV2304K-3E132M/6C** **PV2304K-2E132M/6B** **RV2304K-2E132M/6B**	8,52 8,80 	215 231 210 226	194 195 	IE3 IE2
	3,4 4,0 5,1 6,4 7,7 9,0	9453 8162 6405 5112 4250 3668	3,4 3,4 3,4 3,4 3,4 3,4	13 14 15 16 17 17	7,3 7,6 8,3 8,7 8,7 8,4	**427,73** **367,94** **286,70** **228,47** **189,08** **162,82**	101 97 90 84 79 76	1,2 1,4 1,7 2,4 2,9 3,2	**PV2304K-3E112M/4D** **RV2304K-3E112M/4D** **PV2304K-2E112M/4C** **RV2304K-2E112M/4C**	8,05 8,20 	195 211 193 209	194 195 	IE3 IE2
	12 14	2838 2406	3,6 3,6	20 22	11 12	**80,48** **67,81**	69 66	2,7 3,2	**PV2303K-3E132M/6C** **RV2303K-3E132M/6C** **PV2303K-2E132M/6B** **RV2303K-2E132M/6B**	8,52 8,80 	216 231 211 226	194 195 	IE3 IE2
	3,3 4,1	10014 7994	3,4 3,4	15 16	7,8 8,3	**297,85** **237,35**	75 70	0,8 1,0	**PV1904K-3E132M/6C** **RV1904K-3E132M/6C** **PV1904K-2E132M/6B** **RV1904K-2E132M/6B**	8,52 8,80 	170 185 165 180	190 191 	IE3 IE2
	4,2 4,9 6,2 7,4 8,6	7764 6699 5352 4442 3830	3,4 3,4 3,4 3,5 3,5	15 16 17 18 18	8,4 8,7 9,2 9,1 9,0	**346,26** **297,85** **237,35** **196,43** **169,15**	70 67 62 59 56	1,0 1,2 1,5 1,8 2,1	**PV1904K-3E112M/4D** **RV1904K-3E112M/4D** **PV1904K-2E112M/4C** **RV1904K-2E112M/4C**	8,05 8,20 	150 165 148 163	190 191 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
4,0 5,5	10 12 14	3412 2838 2448	3,6 3,6 3,6	16 18 19	8,5 9,6 10	**96,88** **80,08** **68,89**	54 51 48	1,2 2,0 2,8	**PV1903K-3E132M/6C** **RV1903K-3E132M/6C** **PV1903K-2E132M/6B** **RV1903K-2E132M/6B**	8,52 8,80 	174 188 169 183	190 191 	IE3 IE2
	14 17	2375 1977	3,6 3,6	17 19	8,9 10	**96,88** **80,08**	48 45	1,7 2,8	**PV1903K-3E112M/4D** **RV1903K-3E112M/4D** **PV1903K-2E112M/4C** **RV1903K-2E112M/4C**	8,05 8,20 	155 169 153 167	190 191 	IE3 IE2
	5,9	5535	3,4	11	5,9	**164,17**	36	0,9	**PV1604K-3E132M/6C** **RV1604K-3E132M/6C** **PV1604K-2E132M/6B** **RV1604K-2E132M/6B**	8,52 8,80 	133 143 128 138	186 187 	IE3 IE2
	6,3 7,7 8,9 11	5166 4286 3694 2948	3,4 3,4 3,4 3,4	11 12 12 11	5,8 5,8 5,6 5,1	**230,37** **190,65** **164,17** **131,07**	34 32 31 29	1,0 1,2 1,3 1,7	**PV1604K-3E112M/4D** **RV1604K-3E112M/4D** **PV1604K-2E112M/4C** **RV1604K-2E112M/4C**	8,05 8,20 	112 122 110 120	186 187 	IE3 IE2
	12 14	2874 2479	3,6 3,6	12 13	6,4 6,7	**81,47** **70,08**	28 27	1,3 1,9	**PV1603K-3E132M/6C** **RV1603K-3E132M/6C** **PV1603K-2E132M/6B** **RV1603K-2E132M/6B**	8,52 8,80 	128 138 123 133	186 187 	IE3 IE2
	15 18 21 25	2307 1919 1656 1374	3,6 3,6 3,6 3,6	11 13 14 14	5,9 6,6 7,0 7,1	**98,55** **81,47** **70,08** **58,00**	26 25 24 22	1,1 2,0 2,7 3,3	**PV1603K-3E112M/4D** **RV1603K-3E112M/4D** **PV1603K-2E112M/4C** **RV1603K-2E112M/4C**	8,05 8,20 	109 119 107 117	186 187 	IE3 IE2
	8,9 11	3655 2911	3,4 3,4	10 10	5,0 4,5	**164,17** **131,07**	31 29	0,8 1,1	**PV1504K-3E112M/4D** **RV1504K-3E112M/4D** **PV1504K-2E112M/4C** **RV1504K-2E112M/4C**	8,05 8,20 	95 105 93 103	182 183 	IE3 IE2
	12 14 17	2855 2467 2046	3,6 3,6 3,6	10 11 12	5,6 5,9 6,3	**81,47** **70,08** **58,00**	28 27 25	0,8 1,1 1,3	**PV1503K-3E132M/6C** **RV1503K-3E132M/6C** **PV1503K-2E132M/6B** **RV1503K-2E132M/6B**	8,52 8,80 	112 123 107 118	182 183 	IE3 IE2
	18 21 25 32 37	1905 1646 1365 1093 942	3,6 3,6 3,6 3,6 3,6	12 12 12 13 14	5,7 6,1 6,1 6,6 6,5	**81,47** **70,08** **58,00** **46,22** **39,80**	25 24 22 21 20	1,2 1,6 1,9 2,7 3,2	**PV1503K-3E112M/4D** **RV1503K-3E112M/4D** **PV1503K-2E112M/4C** **RV1503K-2E112M/4C**	8,05 8,20 	94 104 92 102	182 183 	IE3 IE2
	75	473	3,7	18	9,7	**12,92**	16	3,1	**PV1502K-3E132M/6C** **RV1502K-3E132M/6C** **PV1502K-2E132M/6B** **RV1502K-2E132M/6B**	8,52 8,80 	102 112 97 107	182 183 	IE3 IE2
	14 18	2378 1908	3,6 3,6	9,2 10	5,2 5,4	**67,89** **54,21**	19 18	0,8 1,0	**PV1203K-3E132M/6C** **RV1203K-3E132M/6C** **PV1203K-2E132M/6B** **RV1203K-2E132M/6B**	8,52 8,80 	103 105 98 100	178 179 	IE3 IE2
	19 22 27 33	1835 1589 1276 1059	3,6 3,6 3,6 3,6	9,4 10 11 12	5,0 5,3 5,7 5,8	**78,84** **67,89** **54,21** **44,86**	17 17 15 15	0,9 1,2 1,6 1,9	**PV1203K-3E112M/4D** **RV1203K-3E112M/4D** **PV1203K-2E112M/4C** **RV1203K-2E112M/4C**	8,05 8,20 	79 82 77 80	178 179 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çıkış Gücü *Output Power* Abtriebswelle Leistung **P_2 [kW]**	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 Servis Faktörü *Service Factors* Betriebs-faktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
4,0 5,5	38 47 52 56	913 728 666 610	3,6 3,6 3,6 3,6	12 11 11 12	5,6 5,2 4,7 4,7	**38,63** **30,84** **28,24** **25,87**	14 13 13 12	2,1 2,4 2,6 2,7	**PV1203K-3E112M/4D** **RV1203K-3E112M/4D** **PV1203K-2E112M/4C** **RV1203K-2E112M/4C**	8,05 8,20 	79 82 77 80	178 179 	IE3 IE2
	74 89 104	479 400 345	3,7 3,7 3,7	12 14 15	6,3 7,1 7,3	**13,14** **10,88** **9,36**	11 11 10	2,3 3,3 3,5	**PV1202K-3E132M/6C** **RV1202K-3E132M/6C** **PV1202K-2E132M/6B** **RV1202K-2E132M/6B**	8,52 8,80 	92 94 87 89	178 179 	IE3 IE2
	111 134 156 195 213	319 266 230 184 169	3,7 3,7 3,8 3,8 3,8	13 14 14 15 14	5,9 6,6 6,7 6,0 5,1	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 8 8	3,4 4,0 4,0 4,0 4,0	**PV1202K-3E112M/4D** **RV1202K-3E112M/4D** **PV1202K-2E112M/4C** **RV1202K-2E112M/4C**	8,05 8,20 	75 77 73 75	178 179 	IE3 IE2
	27 33 38 47 52 56	1272 1054 908 723 661 606	3,6 3,6 3,6 3,6 3,6 3,6	9,5 9,9 9,9 9,8 9,8 9,8	4,9 4,6 4,8 4,4 3,9 4,0	**54,21** **44,86** **38,63** **30,84** **28,24** **25,87**	15 15 14 13 13 12	0,8 0,9 1,1 1,4 1,5 1,6	**PV1103K-3E112M/4D** **RV1103K-3E112M/4D** **PV1103K-2E112M/4C** **RV1103K-2E112M/4C**	8,05 8,20 	71 73 69 71	174 175 	IE3 IE2
	74 89 104	478 398 344	3,7 3,7 3,7	11 12 13	5,7 6,4 6,7	**13,14** **10,88** **9,36**	11 11 10	1,3 2,0 2,6	**PV1102K-3E132M/6C** **RV1102K-3E132M/6C** **PV1102K-2E132M/6B** **RV1102K-2E132M/6B**	8,52 8,80 	90 92 85 87	174 175 	IE3 IE2
	111 134 156 195 213	318 265 229 183 168	3,7 3,7 3,7 3,8 3,7	11 13 13 14 13	5,5 6,1 5,8 5,3 5,0	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 8 8	1,9 2,9 3,5 4,0 4,0	**PV1102K-3E112M/4D** **RV1102K-3E112M/4D** **PV1102K-2E112M/4C** **RV1102K-2E112M/4C**	8,05 8,20 	66 68 64 66	174 175 	IE3 IE2
5,5 7,5	1,9 2,2	24058 20037	4,7 4,7	20 22	11 12	**523,13** **434,60**	175 166	1,1 1,9	**PV3504K-3E132M/6D** **RV3504K-3E132M/6D** **PV3504K-2E132M/6C** **RV3504K-2E132M/6C**	11,55 12,00 	489 575 484 570	210 211 	IE3 IE2
	2,8 3,4	16112 13449	4,7 4,7	22 24	12 13	**523,13** **434,60**	155 146	1,5 2,6	**PV3504K-3E132S/4C** **RV3504K-3E132S/4C** **PV3504K-2E132S/4B** **RV3504K-2E132S/4B**	10,65 11,05 	480 565 474 559	210 211 	IE3 IE2
	7,8	6112	5,0	37	20	**124,88**	113	3,5	**PV3503K-3E132M/6D** **RV3503K-3E132M/6D** **PV3503K-2E132M/6C** **RV3503K-2E132M/6C**	11,55 12,00 	459 545 454 540	210 211 	IE3 IE2
	1,9 2,3	23334 19632	4,7 4,7	18 19	9,7 10	**501,46** **422,52**	129 122	1,1 1,8	**PV2904K-3E132M/6D** **RV2904K-3E132M/6D** **PV2904K-2E132M/6C** **RV2904K-2E132M/6C**	11,55 12,00 	380 452 375 447	206 207 	IE3 IE2
	2,9 3,5 4,4	15329 12975 10151	4,7 4,7 4,7	20 21 23	10 11 12	**501,46** **422,52** **329,24**	114 108 100	1,5 2,2 3,0	**PV2904K-3E132S/4C** **RV2904K-3E132S/4C** **PV2904K-2E132S/4B** **RV2904K-2E132S/4B**	10,65 11,05 	371 443 366 437	206 207 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
5,5 7,5	8,1	5849	5,0	34	18	**119,70**	84	3,6	**PV2903K-3E132M/6D** **RV2903K-3E132M/6D** **PV2903K-2E132M/6C** **RV2903K-2E132M/6C**	11,55 12,00	400 472 395 467	206 207	IE3 IE2
	1,9	23239	4,6	16	8,5	**508,59**	101	0,9	**PV2704K-3E132M/6D** **RV2704K-3E132M/6D** **PV2704K-2E132M/6C** **RV2704K-2E132M/6C**	11,55 12,00	308 373 303 368	202 203	IE3 IE2
	2,4 2,9 3,7 4,5 5,2 6,5	18355 15563 12252 10113 8710 6955	4,6 4,7 4,7 4,7 4,7 4,7	15 17 19 20 20 21	8,4 9,2 10 10 11 11	**603,61** **508,59** **396,31** **327,61** **281,82** **224,57**	94 89 83 78 75 69	0,9 1,3 1,4 2,2 2,7 3,3	**PV2704K-3E132S/4C** **RV2704K-3E132S/4C** **PV2704K-2E132S/4B** **RV2704K-2E132S/4B**	10,65 11,05	298 363 293 358	202 203	IE3 IE2
	10	4658	4,9	26	14	**95,92**	61	2,9	**PV2703K-3E132M/6D** **RV2703K-3E132M/6D** **PV2703K-2E132M/6C** **RV2703K-2E132M/6C**	11,55 12,00	314 379 309 374	202 203	IE3 IE2
	2,3 2,6	19630 16929	4,7 4,7	14 15	7,5 7,9	**427,73** **367,94**	115 110	0,8 1,0	**PV2404K-3E132M/6D** **RV2404K-3E132M/6D** **PV2404K-2E132M/6C** **RV2404K-2E132M/6C**	11,55 12,00	266 281 261 276	198 199	IE3 IE2
	2,8 3,4 4,0 5,1 6,4 7,7	15894 13158 11355 8866 7092 5891	4,7 4,7 4,7 4,7 4,7 4,8	15 15 16 18 19 19	7,9 8,3 8,6 9,4 9,9 9,8	**517,41** **427,73** **367,94** **286,70** **228,47** **189,08**	107 101 97 90 84 79	0,8 1,2 1,4 2,1 2,8 3,4	**PV2404K-3E132S/4C** **RV2404K-3E132S/4C** **PV2404K-2E132S/4B** **RV2404K-2E132S/4B**	10,65 11,05	254 268 249 263	198 199	IE3 IE2
	12 14	3929 3325	5,0 5,0	23 24	12 13	**80,48** **67,81**	69 66	2,7 3,6	**PV2403K-3E132M/6D** **RV2403K-3E132M/6D** **PV2403K-2E132M/6C** **RV2403K-2E132M/6C**	11,55 12,00	262 277 257 272	198 199	IE3 IE2
	3,4 4,0 5,1 6,4 7,7 9,0 11	12998 11223 8807 7029 5844 5044 4032	4,6 4,7 4,7 4,7 4,7 4,7 4,7	13 14 15 16 17 17 17	7,3 7,6 8,3 8,7 8,7 8,4 7,6	**427,73** **367,94** **286,70** **228,47** **189,08** **162,82** **129,99**	101 97 90 84 79 76 71	0,9 1,0 1,2 1,7 2,1 2,4 2,8	**PV2304K-3E132S/4C** **RV2304K-3E132S/4C** **PV2304K-2E132S/4B** **RV2304K-2E132S/4B**	10,65 11,05	208 224 203 219	194 195	IE3 IE2
	12 14 17	3902 3309 2739	4,9 5,0 5,0	20 22 22	11 12 12	**80,48** **67,81** **56,06**	69 66 62	2,0 2,3 3,5	**PV2303K-3E132M/6D** **RV2303K-3E132M/6D** **PV2303K-2E132M/6C** **RV2303K-2E132M/6C**	11,55 12,00	221 236 216 231	194 195	IE3 IE2
	18 22	2608 2212	5,0 5,0	21 23	11 12	**80,48** **67,81**	61 58	2,9 3,4	**PV2303K-3E132S/4C** **RV2303K-3E132S/4C** **PV2303K-2E132S/4B** **RV2303K-2E132S/4B**	10,65 11,05	209 224 204 219	194 195	IE3 IE2
	4,9 6,2 7,4 8,6	9211 7359 6108 5266	4,7 4,7 4,8 4,8	16 17 18 18	8,7 9,2 9,1 9,0	**297,85** **237,35** **196,43** **169,15**	67 62 59 56	0,9 1,1 1,3 1,5	**PV1904K-3E132S/4C** **RV1904K-3E132S/4C** **PV1904K-2E132S/4B** **RV1904K-2E132S/4B**	10,65 11,05	163 178 158 173	190 191	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.** * *Motor Eff. Class* Motor Effizienz-klasse
5,5 7,5	10 12 14	4691 3902 3366	4,9 4,9 5,0	16 18 19	8,5 9,6 10	**96,88** **80,08** **68,89**	54 51 48	0,9 1,5 2,0	**PV1903K-3E132M/6D** **RV1903K-3E132M/6D** **PV1903K-2E132M/6C** **RV1903K-2E132M/6C**	11,55 12,00 	179 193 174 188	190 191 	IE3 IE2
	15 18 21 27	3131 2606 2250 1803	4,9 5,0 5,0 5,0	17 19 21 22	8,9 10 11 11	**96,88** **80,08** **68,89** **54,90**	47 45 43 40	1,3 2,1 2,9 3,3	**PV1903K-3E132S/4C** **RV1903K-3E132S/4C** **PV1903K-2E132S/4B** **RV1903K-2E132S/4B**	10,65 11,05 	168 182 163 177	190 191 	IE3 IE2
	7,7 8,9 11	5893 5080 4054	4,7 4,7 4,7	12 12 11	5,8 5,6 5,1	**190,65** **164,17** **131,07**	32 31 29	0,8 1,0 1,2	**PV1604K-3E132S/4C** **RV1604K-3E132S/4C** **PV1604K-2E132S/4B** **RV1604K-2E132S/4B**	10,65 11,05 	125 135 120 130	186 187 	IE3 IE2
	12 14	3952 3409	4,9 4,9	12 13	6,4 6,7	**81,47** **70,08**	28 27	1,0 1,4	**PV1603K-3E132M/6D** **RV1603K-3E132M/6D** **PV1603K-2E132M/6C** **RV1603K-2E132M/6C**	11,55 12,00 	133 143 128 138	186 187 	IE3 IE2
	15 18 21 25 32	3173 2639 2277 1889 1514	4,9 5,0 5,0 5,0 5,0	11 13 14 14 15	5,9 6,6 7,0 7,1 7,7	**98,55** **81,47** **70,08** **58,00** **46,22**	26 25 24 22 21	0,8 1,4 2,0 2,4 3,2	**PV1603K-3E132S/4C** **RV1603K-3E132S/4C** **PV1603K-2E132S/4B** **RV1603K-2E132S/4B**	10,65 11,05 	122 132 117 127	186 187 	IE3 IE2
	75	653	5,1	20	11	**12,92**	16	3,5	**PV1602K-3E132M/6D** **RV1602K-3E132M/6D** **PV1602K-2E132M/6C** **RV1602K-2E132M/6C**	11,55 12,00 	129 139 124 134	186 187 	IE3 IE2
	12 16	3658 2845	4,7 4,7	10 10	4,3 4,4	**120,04** **93,12**	28 26	0,8 0,9	**PV1504K-3E132S/4C** **RV1504K-3E132S/4C** **PV1504K-2E132S/4B** **RV1504K-2E132S/4B**	10,65 11,05 	108 118 103 113	182 183 	IE3 IE2
	17	2814	4,9	12	6,3	**58,00**	25	0,9	**PV1503K-3E132M/6D** **RV1503K-3E132M/6D** **PV1503K-2E132M/6C** **RV1503K-2E132M/6C**	11,55 12,00 	117 128 112 123	182 183 	IE3 IE2
	18 21 25 32 37 46 59	2619 2264 1877 1503 1295 1034 802	4,9 4,9 4,9 5,0 5,0 5,0 5,0	12 12 12 13 14 13 13	5,7 6,1 6,1 6,6 6,5 5,7 5,3	**81,47** **70,08** **58,00** **46,22** **39,80** **31,78** **24,65**	25 24 22 21 20 19 17	0,9 1,2 1,4 2,0 2,3 2,9 3,2	**PV1503K-3E132S/4C** **RV1503K-3E132S/4C** **PV1503K-2E132S/4B** **RV1503K-2E132S/4B**	10,65 11,05 	107 117 102 112	182 183 	IE3 IE2
	75	651	5,1	18	9,7	**12,92**	16	2,3	**PV1502K-3E132M/6D** **RV1502K-3E132M/6D** **PV1502K-2E132M/6C** **RV1502K-2E132M/6C**	11,55 12,00 	117 127 112 122	182 183 	IE3 IE2
	113	434	5,1	19	9,7	**12,92**	14	3,3	**PV1502K-3E132S/4C** **RV1502K-3E132S/4C** **PV1502K-2E132S/4B** **RV1502K-2E132S/4B**	10,65 11,05 	105 115 100 110	182 183 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
5,5 7,5	22 27 33 38 47 52 56	2185 1755 1456 1255 1001 916 839	4,9 4,9 5,0 5,0 5,0 5,0 5,0	10 11 12 12 11 11 12	5,3 5,7 5,8 5,6 5,2 4,7 4,7	**67,89** **54,21** **44,86** **38,63** **30,84** **28,24** **25,87**	17 15 15 14 13 13 12	0,9 1,1 1,3 1,5 1,8 1,9 2,0	**PV1203K-3E132S/4C** **RV1203K-3E132S/4C** **PV1203K-2E132S/4B** **RV1203K-2E132S/4B**	10,65 11,05 	92 95 87 90	178 179	IE3 IE2
	74 89 104	658 550 475	5,1 5,1 5,2	12 14 15	6,3 7,1 7,3	**13,14** **10,88** **9,36**	11 11 10	1,7 2,4 2,6	**PV1202K-3E132M/6D** **RV1202K-3E132M/6D** **PV1202K-2E132M/6C** **RV1202K-2E132M/6C**	11,55 12,00 	97 99 92 94	178 179	IE3 IE2
	111 134 156 195 213	439 366 316 253 232	5,1 5,2 5,2 5,2 5,2	13 14 15 15 15	6,0 6,7 6,4 5,8 5,5	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 8 8	2,5 3,1 3,4 3,3 3,3	**PV1202K-3E132S/4C** **RV1202K-3E132S/4C** **PV1202K-2E132S/4B** **RV1202K-2E132S/4B**	10,65 11,05 	88 90 83 85	178 179	IE3 IE2
	38 47 52 56	1248 995 909 834	4,9 4,9 4,9 4,9	9,9 9,8 9,8 9,8	4,8 4,4 3,9 4,0	**38,63** **30,84** **28,24** **25,87**	14 13 13 12	0,8 1,0 1,1 1,2	**PV1103K-3E132S/4C** **RV1103K-3E132S/4C** **PV1103K-2E132S/4B** **RV1103K-2E132S/4B**	10,65 11,05 	84 87 79 82	174 175	IE3 IE2
	74 89 104	657 548 474	5,1 5,1 5,1	11 12 13	5,7 6,4 6,7	**13,14** **10,88** **9,36**	11 11 10	0,9 1,5 1,9	**PV1102K-3E132M/6D** **RV1102K-3E132M/6D** **PV1102K-2E132M/6C** **RV1102K-2E132M/6C**	11,55 12,00 	95 97 90 92	174 175	IE3 IE2
	111 134 156 195 213	438 365 315 252 231	5,1 5,1 5,1 5,2 5,2	11 13 13 14 13	5,5 6,1 5,8 5,3 5,0	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 8 8	1,4 2,1 2,5 3,0 3,2	**PV1102K-3E132S/4C** **RV1102K-3E132S/4C** **PV1102K-2E132S/4B** **RV1102K-2E132S/4B**	10,65 11,05 	74 76 69 71	174 175	IE3 IE2
7,5 10	1,9 2,2	32806 27323	6,4 6,4	22 24	12 13	**523,13** **434,60**	175 166	0,8 1,4	**PV3504K-3E160M/6D** **RV3504K-3E160M/6D** **PV3504K-2E160M/6B** **RV3504K-2E160M/6B**	15,55 16,3 	510 595 488 573	210 211	IE3 IE2
	2,8 3,4 4,4	21896 18277 14006	6,4 6,5 6,4	22 24 26	12 13 14	**523,13** **434,60** **333,42**	155 146 135	1,1 1,9 3,0	**PV3504K-3E132M/4D** **RV3504K-3E132M/4D** **PV3504K-2E132M/4C** **RV3504K-2E132M/4C**	14,4 15,0 	490 575 485 570	210 211	IE3 IE2
	1,9 2,3	31819 26770	6,4 6,4	18 20	9,8 11	**501,46** **422,52**	129 122	0,8 1,3	**PV2904K-3E160M/6D** **RV2904K-3E160M/6D** **PV2904K-2E160M/6B** **RV2904K-2E160M/6B**	15,55 16,3 	475 547 453 525	206 207	IE3 IE2
	2,9 3,5 4,4 5,3	20832 17632 13795 11655	6,4 6,4 6,4 6,4	20 21 23 24	10 11 12 12	**501,46** **422,52** **329,24** **277,41**	114 108 100 95	1,1 1,6 2,2 3,0	**PV2904K-3E132M/4D** **RV2904K-3E132M/4D** **PV2904K-2E132M/4C** **RV2904K-2E132M/4C**	14,4 15,0 	381 453 376 448	206 207	IE3 IE2
	8,1	7975	6,8	34	18	**119,70**	84	2,7	**PV2903K-3E160M/6D** **RV2903K-3E160M/6D** **PV2903K-2E160M/6B** **RV2903K-2E160M/6B**	15,55 16,3 	455 527 433 505	206 207	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
7,5 10	2,9 3,7 4,5 5,2 6,5 7,9 9,2	21150 16650 13744 11837 9452 7842 6766	6,4 6,4 6,4 6,4 6,5 6,5 6,5	17 19 20 20 21 22 23	9,2 10 10 11 11 11 11	**508,59** **396,31** **327,61** **281,82** **224,57** **185,65** **159,70**	89 83 78 75 70 66 63	0,9 1,0 1,6 2,0 2,5 2,9 3,4	**PV2704K-3E132M/4D** **RV2704K-3E132M/4D** **PV2704K-2E132M/4C** **RV2704K-2E132M/4C**	14,4 15,0 	308 373 303 368	202 203 	IE3 IE2
	10 12	6352 5362	6,7 6,7	26 29	14 15	**95,92** **80,82**	61 58	2,1 3,6	**PV2703K-3E160M/6D** **RV2703K-3E160M/6D** **PV2703K-2E160M/6B** **RV2703K-2E160M/6B**	15,55 16,3 	369 434 347 412	202 203 	IE3 IE2
	3,4 4,0 5,1 6,4 7,7 9,0 11	17881 15431 12049 9637 8006 6911 5529	6,4 6,4 6,4 6,5 6,5 6,5 6,5	15 16 18 19 19 20 19	8,3 8,6 9,4 9,9 9,8 9,5 9,0	**427,73** **367,94** **286,70** **228,47** **189,08** **162,82** **129,99**	101 97 90 84 79 76 71	0,9 1,0 1,5 2,0 2,5 2,7 2,7	**PV2404K-3E132M/4D** **RV2404K-3E132M/4D** **PV2404K-2E132M/4C** **RV2404K-2E132M/4C**	14,4 15,0 	264 278 259 273	198 199 	IE3 IE2
	12 14	5358 4534	6,8 6,8	23 25	12 14	**80,48** **67,81**	69 66	2,0 2,7	**PV2403K-3E160M/6D** **RV2403K-3E160M/6D** **PV2403K-2E160M/6B** **RV2403K-2E160M/6B**	15,55 16,3 	329 394 307 372	198 199 	IE3 IE2
	18	3569	6,8	24	13	**80,48**	61	2,8	**PV2403K-3E132M/4D** **RV2403K-3E132M/4D** **PV2403K-2E132M/4C** **RV2403K-2E132M/4C**	14,4 15,0 	254 268 249 263	198 199 	IE3 IE2
	4,2	14247	6,8	15	8,4	**228,47**	82	0,9	**PV2304K-3E160M/6D** **RV2304K-3E160M/6D** **PV2304K-2E160M/6B** **RV2304K-2E160M/6B**	15,55 16,3 	278 294 270 290	194 195 	IE3 IE2
	5,1 6,4 7,7 9,0 11	11969 9552 7942 6855 5479	6,4 6,4 6,4 6,5 6,5	15 16 17 17 17	8,3 8,7 8,7 8,4 7,6	**286,70** **228,47** **189,08** **162,82** **129,99**	90 84 79 76 71	0,9 1,3 1,5 1,7 2,0	**PV2304K-3E132M/4D** **RV2304K-3E132M/4D** **PV2304K-2E132M/4C** **RV2304K-2E132M/4C**	14,4 15,0 	218 234 213 229	194 195 	IE3 IE2
	12 14 17	5321 4512 3736	6,7 6,8 6,8	20 22 23	11 12 12	**80,48** **67,81** **56,06**	69 66 62	1,5 1,7 2,6	**PV2303K-3E160M/6D** **RV2303K-3E160M/6D** **PV2303K-2E160M/6B** **RV2303K-2E160M/6B**	15,55 16,3 	273 289 251 267	194 195 	IE3 IE2
	18 22 26	3545 3006 2490	6,8 6,8 6,8	21 23 24	11 12 12	**80,48** **67,81** **56,06**	61 60 55	2,1 2,5 3,4	**PV2303K-3E132M/4D** **RV2303K-3E132M/4D** **PV2303K-2E132M/4C** **RV2303K-2E132M/4C**	14,4 15,0 	208 224 203 219	194 195 	IE3 IE2
	6,2 7,5 8,7	10001 8300 7157	6,5 6,5 6,5	17 18 18	9,2 9,1 9,0	**237,35** **196,43** **169,15**	62 59 56	0,8 1,0 1,1	**PV1904K-3E132M/4D** **RV1904K-3E132M/4D** **PV1904K-2E132M/4C** **RV1904K-2E132M/4C**	14,4 15,0 	173 188 168 183	190 191 	IE3 IE2
	10 12 14	6397 5321 4590	6,7 6,7 6,8	16 18 20	8,6 9,8 11	**96,88** **80,08** **68,89**	54 51 48	0,7 1,1 1,5	**PV1903K-3E160M/6D** **RV1903K-3E160M/6D** **PV1903K-2E160M/6B** **RV1903K-2E160M/6B**	15,55 16,3 	243 255 221 233	190 191 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärmeleistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärmeleistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienzklasse
7,5 10	15 18 21 27 32	4255 3542 3058 2451 2030	6,7 6,8 6,8 6,8 6,9	17 19 21 22 23	8,9 10 11 11 12	**96,88** **80,08** **68,89** **54,90** **45,38**	47 45 43 40 38	1,0 1,6 2,2 2,4 3,2	**PV1903K-3E132M/4D** **RV1903K-3E132M/4D** **PV1903K-2E132M/4C** **RV1903K-2E132M/4C**	14,4 15,0 	178 192 173 187	190 191 	IE3 IE2
	63	1062	7,0	31	17	**15,39**	31	3,6	**PV1902K-3E160M/6D** **RV1902K-3E160M/6D** **PV1902K-2E160M/6B** **RV1902K-2E160M/6B**	15,55 16,3 	263 275 241 253	190 191 	IE3 IE2
	10	5875	6,4	12	6,0	**93,12**	29	0,8	**PV1604K-3E160M/6D** **RV1604K-3E160M/6D** **PV1604K-2E160M/6B** **RV1604K-2E160M/6B**	15,55 16,3 	195 205 175 185	186 187 	IE3 IE2
	11 12	5509 5038	6,4 6,4	11 11	5,1 4,9	**131,07** **120,04**	29 28	0,9 1,0	**PV1604K-3E132M/4D** **RV1604K-3E132M/4D** **PV1604K-2E132M/4C** **RV1604K-2E132M/4C**	14,4 15,0 	135 145 130 140	186 187 	IE3 IE2
	14 17	4648 3857	6,7 6,8	13 13	7,1 7,3	**70,08** **58,00**	27 25	1,0 1,2	**PV1603K-3E160M/6D** **RV1603K-3E160M/6D** **PV1603K-2E160M/6B** **RV1603K-2E160M/6B**	15,55 16,3 	152 162 142 152	186 187 	IE3 IE2
	18 21 25 32 37 46 59	3586 3095 2567 2058 1774 1416 1099	6,8 6,8 6,8 6,8 6,8 6,8 6,8	13 14 14 15 16 15 15	6,6 7,0 7,1 7,7 7,2 6,3 6,1	**81,47** **70,08** **58,00** **46,22** **39,80** **31,78** **24,65**	25 24 22 21 20 19 17	1,0 1,5 1,8 2,4 2,5 2,5 2,5	**PV1603K-3E132M/4D** **RV1603K-3E132M/4D** **PV1603K-2E132M/4C** **RV1603K-2E132M/4C**	14,4 15,0 	132 142 127 137	186 187 	IE3 IE2
	75	890	7,0	20	11	**12,92**	16	2,6	**PV1602K-3E160M/6D** **RV1602K-3E160M/6D** **PV1602K-2E160M/6B** **RV1602K-2E160M/6B**	15,55 16,3 	122 132 112 122	186 187 	IE3 IE2
	21 25 32 37 46 59	3076 2551 2042 1760 1405 1089	6,7 6,7 6,8 6,8 6,8 6,8	12 12 13 14 13 13	6,1 6,1 6,6 6,5 5,7 5,3	**70,08** **58,00** **46,22** **39,80** **31,78** **24,65**	24 22 21 20 19 17	0,8 1,0 1,5 1,7 2,1 2,3	**PV1503K-3E132M/4D** **RV1503K-3E132M/4D** **PV1503K-2E132M/4C** **RV1503K-2E132M/4C**	14,4 15,0 	117 127 112 122	182 183 	IE3 IE2
	75 91	888 737	7,0 7,0	18 20	9,8 11	**12,92** **10,68**	16 15	1,7 2,9	**PV1502K-3E160M/6D** **RV1502K-3E160M/6D** **PV1502K-2E160M/6B** **RV1502K-2E160M/6B**	15,55 16,3 	110 120 100 112	182 183 	IE3 IE2
	113	590	7,0	19	9,7	**12,92**	14	2,4	**PV1502K-3E132M/4D** **RV1502K-3E132M/4D** **PV1502K-2E132M/4C** **RV1502K-2E132M/4C**	14,4 15,0 	115 125 110 120	182 183 	IE3 IE2
	27 33 38 48 52	2385 1978 1705 1361 1244	6,7 6,8 6,8 6,8 6,8	11 12 12 11 11	5,7 5,8 5,6 5,2 4,7	**54,21** **44,86** **38,63** **30,84** **28,24**	15 15 14 13 13	0,8 1,0 1,1 1,3 1,4	**PV1203K-3E132M/4D** **RV1203K-3E132M/4D** **PV1203K-2E132M/4C** **RV1203K-2E132M/4C**	14,4 15,0 	102 105 97 100	178 179 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çıkış Gücü *Output Power* Abtriebswelle Leistung **P_2 [kW]**	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 Servis Faktörü *Service Factors* Betriebs-faktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom **[A]**	Ağırlık *Weight* Gewicht **~ [kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
7,5 10	57	1140	6,8	12	4,7	**25,87**	12	1,5	**PV1203K-3E132M/4D** **RV1203K-3E132M/4D** **PV1203K-2E132M/4C** **RV1203K-2E132M/4C**	14,4 15,0 	102 105 97 100	178 179 	IE3 IE2
	74 89 104	898 749 648	6,9 7,0 7,0	12 14 15	6,4 7,1 7,2	**13,14** **10,88** **9,36**	11 11 10	1,2 1,8 1,9	**PV1202K-3E160M/6D** **RV1202K-3E160M/6D** **PV1202K-2E160M/6B** **RV1202K-2E160M/6B**	15,55 16,3 	128 130 106 108	178 179 	IE3 IE2
	52 57	1236 1133	6,7 6,7	9,8 9,8	3,9 4,0	**28,24** **25,87**	13 12	0,8 0,9	**PV1103K-3E132M/4D** **RV1103K-3E132M/4D** **PV1103K-2E132M/4C** **RV1103K-2E132M/4C**	14,4 15,0 	94 97 89 92	174 175 	IE3 IE2
	89 104	747 646	7,0 7,0	13 13	6,4 6,6	**10,88** **9,36**	11 10	1,1 1,4	**PV1102K-3E160M/6D** **RV1102K-3E160M/6D** **PV1102K-2E160M/6B** **RV1102K-2E160M/6B**	15,55 16,3 	119 121 97 99	174 175 	IE3 IE2
	111 135 156 196 214	595 496 428 343 314	6,9 7,0 7,0 7,0 7,0	11 13 13 14 13	5,5 6,1 5,8 5,3 5,0	**13,14** **10,88** **9,36** **7,48** **6,85**	10 10 9 8 8	1,0 1,6 1,9 2,2 2,4	**PV1102K-3E132M/4D** **RV1102K-3E132M/4D** **PV1102K-2E132M/4C** **RV1102K-2E132M/4C**	14,4 15,0 	89 91 84 86	174 175 	IE3 IE2
11 15	2,2	40074	9,4	23	12	**434,60**	166	0,9	**PV3504K-3E160L/6E** **RV3504K-3E160L/6E** **PV3504K-2E160L/6D** **RV3504K-2E160L/6D**	22,9 22,95 	589 675 582 678	210 211 	IE3 IE2
	2,8 3,4 4,4 5,2 6,7	32004 26715 20472 17264 13475	9,4 9,5 9,5 9,5 9,5	22 24 26 27 29	12 13 14 14 15	**523,13** **434,60** **333,42** **280,94** **218,91**	154 146 135 128 119	0,7 1,3 2,0 2,8 3,4	**PV3504K-3E160M/4C** **RV3504K-3E160M/4C** **PV3504K-2E160M/4B** **RV3504K-2E160M/4B**	21,0 21,3 	567 653 553 539	210 211 	IE3 IE2
	7,8 9,4	12224 10173	9,9 10,0	37 41	20 21	**124,88** **103,74**	113 107	1,7 3,0	**PV3503K-3E160L/6E** **RV3503K-3E160L/6E** **PV3503K-2E160L/6D** **RV3503K-2E160L/6D**	22,9 22,95 	569 655 562 648	210 211 	IE3 IE2
	12	8109	10,0	40	20	**124,88**	100	2,5	**PV3503K-3E160M/4C** **RV3503K-3E160M/4C** **PV3503K-2E160M/4B** **RV3503K-2E160M/4B**	21,0 21,3 	547 633 533 519	210 211 	IE3 IE2
	2,3	39263	9,4	20	10,6	**422,52**	105	0,9	**PV2904K-3E160L/6E** **RV2904K-3E160L/6E** **PV2904K-2E160L/6D** **RV2904K-2E160L/6D**	22,9 22,95 	480 565 472 558	206 207 	IE3 IE2
	2,9 3,5 4,5 5,3 6,8	30449 25773 20163 17036 13308	9,3 9,4 9,4 9,5 9,5	20 21 23 24 26	10 11 12 12 13	**501,46** **422,52** **329,24** **277,41** **216,17**	114 108 100 95 88	0,8 1,1 1,5 2,0 2,4	**PV2904K-3E160M/4C** **RV2904K-3E160M/4C** **PV2904K-2E160M/4B** **RV2904K-2E160M/4B**	21,0 21,3 	457 543 443 429	206 207 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
11	8,1	11697	9,9	34	18	**119,70**	84	1,8	**PV2903K-3E160L/6E**	22,9	480	206	IE3
15	9,6	9876	9,9	37	19	**100,86**	79	2,6	**RV2903K-3E160L/6E**		552	207	
									PV2903K-2E160L/6D	22,95	472		IE2
									RV2903K-2E160L/6D		544		
	12	7748	10,0	37	18	**119,70**	74	2,6	**PV2903K-3E160M/4C**	21,0	458	206	IE3
									RV2903K-3E160M/4C		530	207	
									PV2903K-2E160M/4B	21,3	444		IE2
									RV2903K-2E160M/4B		516		
	3,0	30146	9,3	18	9,9	**327,61**	73	0,8	**PV2704K-3E160L/6E**	22,9	407	202	IE3
	3,4	25966	9,4	19	10	**281,82**	85	0,9	**RV2704K-3E160L/6E**		492	203	
									PV2704K-2E160L/6D	22,95	399		IE2
									RV2704K-2E160L/6D		485		
	3,7	24337	9,5	19	9,9	**396,31**	83	0,7	**PV2704K-3E160M/4C**	21,0	384	202	IE3
	4,5	20089	9,4	20	10	**327,61**	78	1,1	**RV2704K-3E160M/4C**		470	203	
	5,2	17302	9,5	20	11	**281,82**	75	1,3	**PV2704K-2E160M/4B**	21,3	370		IE2
	6,5	13816	9,5	22	11	**224,57**	70	1,7	**RV2704K-2E160M/4B**		356		
	7,9	11462	9,5	22	11	**185,65**	66	2,0					
	9,2	9890	9,5	23	11	**159,70**	63	2,3					
	10	9317	9,9	26	14	**95,92**	61	1,5	**PV2703K-3E160L/6E**	22,9	394	202	IE3
	12	7864	9,9	29	15	**80,82**	58	2,4	**RV2703K-3E160L/6E**		459	203	
									PV2703K-2E160L/6D	22,95	386		IE2
									RV2703K-2E160L/6D		451		
	15	6185	9,9	28	15	**95,92**	54	3,0	**PV2703K-3E160M/4C**	21,0	372	202	IE3
	18	5222	9,9	31	16	**80,82**	51	3,6	**RV2703K-3E160M/4C**		437	203	
									PV2703K-2E160M/4B	21,3	358		IE2
									RV2703K-2E160M/4B		423		
	4,0	22555	9,4	19	9,9	**367,94**	97	0,7	**PV2404K-3E160M/4C**	21,0	342	198	IE3
	5,1	17612	9,5	20	10	**286,70**	90	1,0	**RV2404K-3E160M/4C**		428	199	
	6,4	14087	9,5	20	11	**228,47**	84	1,4	**PV2404K-2E160M/4B**	21,3	328		IE2
	7,8	11702	9,5	22	11	**189,08**	79	1,7	**RV2404K-2E160M/4B**		314		
	9,0	10102	9,6	22	11	**162,82**	75	1,8					
	11	8081	9,6	23	11	**129,99**	70	1,8					
	12	7858	9,9	23	12	**80,48**	69	1,3	**PV2403K-3E160L/6E**	22,9	354	198	IE3
	14	6649	10	25	14	**67,81**	66	1,8	**RV2403K-3E160L/6E**		419	199	
	17	5497	10	25	14	**56,06**	62	2,7	**PV2403K-2E160L/6D**	22,95	346		IE2
									RV2403K-2E160L/6D		411		
	18	5216	10	24	13	**80,48**	61	1,9	**PV2403K-3E160M/4C**	21,0	332	198	IE3
	22	4414	10	26	14	**67,81**	58	2,6	**RV2403K-3E160M/4C**		400	199	
	26	3653	10	27	14	**56,06**	55	3,8	**PV2403K-2E160M/4B**	21,3	318		IE2
	34	2863	10	29	15	**43,68**	51	3,9	**RV2403K-2E160M/4B**		383		
	6,4	13962	9,4	17	8,6	**228,47**	84	0,9	**PV2304K-3E160M/4C**	21,0	322	194	IE3
	7,8	11608	9,5	17	8,7	**189,08**	79	1,0	**RV2304K-3E160M/4C**		408	195	
	9,0	10020	9,5	17	8,2	**162,82**	75	1,2	**PV2304K-2E160M/4B**	21,3	308		IE2
	11	8009	9,5	17	7,7	**129,99**	70	1,4	**RV2304K-2E160M/4B**		296		
	12	7803	9,8	20	11	**80,48**	69	1,0	**PV2303K-3E160L/6E**	22,9	324	194	IE3
	14	6618	9,9	22	12	**67,81**	66	1,2	**RV2303K-3E160L/6E**		399	195	
	17	5479	9,9	23	12	**56,06**	62	1,8	**PV2303K-2E160L/6D**	22,95	326		IE2
									RV2303K-2E160L/6D		391		

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çıkış Gücü *Output Power* Abtriebswelle Leistung **P_2 [kW]**	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 Servis Faktörü *Service Factors* Betriebs-faktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
11	18	5181	9,9	22	11	**80,48**	61	1,4	**PV2303K-3E160M/4C**	21,0	312	194	IE3
15	22	4393	10	24	12	**67,81**	58	1,7	**RV2303K-3E160M/4C**		380	195	
	26	3640	10	24	12	**56,06**	55	2,3	**PV2303K-2E160M/4B**	21,3	298		IE2
	34	2851	10	26	13	**43,68**	51	2,8	**RV2303K-2E160M/4B**		363		
	39	2455	10	27	13	**37,58**	48	3,1					
	49	1958	10	26	12	**29,94**	45	3,6					
	50	1955	10	42	22	**19,21**	45	4,0	**PV2302K-3E160L/6E**	22,9	302	194	IE3
									RV2302K-3E160L/6E		370	195	
									PV2302K-2E160L/6D	22,95	288		IE2
									RV2302K-2E160L/6D		353		
	8,7	10461	9,5	18	8,9	**169,15**	50	0,8	**PV1904K-3E160M/4C**	21,0	277	190	IE3
	11	8351	9,5	18	8,3	**135,05**	52	0,9	**RV1904K-3E160M/4C**		363	191	
									PV1904K-2E160M/4B	21,3	263		IE2
									RV1904K-2E160M/4B		251		
	12	7803	9,9	20	11	**80,08**	51	0,7	**PV1903K-3E160L/6E**	22,9	275	190	IE3
	14	6732	9,9	22	12	**68,89**	48	1,0	**RV1903K-3E160L/6E**		355	191	
									PV1903K-2E160L/6D	22,95	281		IE2
									RV1903K-2E160L/6D		346		
	18	5177	10	19	9,8	**80,08**	45	1,1	**PV1903K-3E160M/4C**	21,0	267	190	IE3
	21	4469	10	21	10	**68,89**	43	1,5	**RV1903K-3E160M/4C**		335	191	
	27	3582	10	23	12	**54,90**	40	1,7	**PV1903K-2E160M/4B**	21,3	253		IE2
	32	2968	10	23	12	**45,38**	38	2,2	**RV1903K-2E160M/4B**		318		
	38	2556	10	24	12	**39,04**	36	2,5					
	63	1558	10,3	31	16	**15,39**	31	2,4	**PV1902K-3E160L/6E**	22,9	269	190	IE3
	76	1295	10,3	35	18	**12,73**	29	3,5	**RV1902K-3E160L/6E**		284	191	
	89	1118	10,4	37	19	**10,95**	28	3,5	**PV1902K-2E160L/6D**	22,95	255		IE2
									RV1902K-2E160L/6D		270		
	95	1032	10,3	33	17	**15,39**	27	3,5	**PV1902K-3E160M/4C**	21,0	247	190	IE3
	116	858	10,3	37	18	**12,73**	26	4,0	**RV1902K-3E160M/4C**		262	191	
									PV1902K-2E160M/4B	21,3	233		IE2
									RV1902K-2E160M/4B		248		
	16	5715	9,4	12	4,8	**93,12**	26	0,8	**PV1604K-3E160M/4C**	21,0	239	186	IE3
									RV1604K-3E160M/4C		325	187	
									PV1604K-2E160M/4B	21,3	225		IE2
									RV1604K-2E160M/4B		213		
	21	4524	9,9	14	6,9	**70,08**	24	1,0	**PV1603K-3E160M/4C**	21,0	247	186	IE3
	25	3752	10	14	7,0	**58,00**	22	1,2	**RV1603K-3E160M/4C**		315	187	
	32	3008	10	15	7,6	**46,22**	21	1,6	**PV1603K-2E160M/4B**	21,3	233		IE2
	37	2593	10	15	7,4	**39,80**	20	1,7	**RV1603K-2E160M/4B**		298		
	46	2070	10	15	6,4	**31,78**	19	1,7					
	60	1606	10	15	5,7	**24,65**	17	1,7					
	75	1306	10,3	20	11	**12,92**	16	1,8	**PV1602K-3E160L/6E**	22,9	249	186	IE3
	91	1083	10,3	23	12	**10,68**	15	2,9	**RV1602K-3E160L/6E**		264	187	
	106	935	10,4	25	12	**9,19**	15	2,9	**PV1602K-2E160L/6D**	22,95	235		IE2
									RV1602K-2E160L/6D		250		
	114	865	10,3	21	11	**12,92**	14	2,5	**PV1602K-3E160M/4C**	21,0	227	186	IE3
	138	718	10,3	24	11	**10,68**	13	3,8	**RV1602K-3E160M/4C**		242	187	
	160	620	10,3	24	12	**9,19**	13	3,8	**PV1602K-2E160M/4B**	21,3	213		IE2
									RV1602K-2E160M/4B		228		

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
11	32	2985	9,9	13	6,6	**46,22**	21	1,0	**PV1503K-3E160M/4C**	21,0	227	182	IE3
15	37	2573	10	13	6,4	**39,80**	20	1,1	**RV1503K-3E160M/4C**		295	183	
	46	2053	9,9	13	5,5	**31,78**	19	1,4	**PV1503K-2E160M/4B**	21,3	213		IE2
	60	1592	9,9	13	5,0	**24,65**	17	1,6	**RV1503K-2E160M/4B**		278		
	75	1302	10,3	18	9,8	**12,92**	16	1,1	**PV1502K-3E160L/6E**	22,9	229	182	IE3
	91	1081	10,3	20	11	**10,68**	15	2,0	**RV1502K-3E160L/6E**		244	183	
	106	932	10,4	22	11	**9,19**	15	2,7	**PV1502K-2E160L/6D**	22,95	215		IE2
									RV1502K-2E160L/6D		230		
	114	862	10,3	19	10	**12,92**	14	1,6	**PV1502K-3E160M/4C**	21,0	207	182	IE3
	138	716	10,3	21	10	**10,68**	13	2,8	**RV1502K-3E160M/4C**		222	183	
									PV1502K-2E160M/4B	21,3	193		IE2
									RV1502K-2E160M/4B		208		
	48	1989	9,9	11	5,0	**30,84**	13	0,9	**PV1203K-3E160M/4C**	21,0	197	178	IE3
	52	1819	9,9	11	4,5	**28,24**	13	0,9	**RV1203K-3E160M/4C**		265	179	
	57	1667	9,9	11	4,5	**25,87**	12	1,0	**PV1203K-2E160M/4B**	21,3	183		IE2
									RV1203K-2E160M/4B		248		
	74	1317	10,3	12	6,4	**13,14**	11	0,8	**PV1202K-3E160L/6E**	22,9	199	178	IE3
	89	1099	10,3	14	7,1	**10,88**	11	1,2	**RV1202K-3E160L/6E**		214	179	
	104	950	10,4	15	7,2	**9,36**	10	1,3	**PV1202K-2E160L/6D**	22,95	185		IE2
									RV1202K-2E160L/6D		200		
	112	872	10,3	13	5,9	**13,14**	10	1,2	**PV1202K-3E160M/4C**	21,0	187	178	IE3
	135	728	10,3	14	6,6	**10,88**	9,4	1,6	**RV1202K-3E160M/4C**		192	179	
	157	629	10,3	14	6,7	**9,36**	9,0	1,7	**PV1202K-2E160M/4B**	21,3	163		IE2
	197	503	10,3	15	6,0	**7,48**	8,4	1,7	**RV1202K-2E160M/4B**		178		
	215	461	10,3	14	5,1	**6,85**	8,2	1,7					
	89	1096	10,3	13	6,4	**10,88**	11	0,7	**PV1102K-3E160L/6E**	22,9	194	174	IE3
	104	947	10,3	13	6,6	**9,36**	10	1,0	**RV1102K-3E160L/6E**		209	175	
									PV1102K-2E160L/6D	22,95	180		IE2
									RV1102K-2E160L/6D		195		
	112	870	10,3	11	5,4	**13,14**	10	0,7	**PV1102K-3E160M/4C**	21,0	182	174	IE3
	135	725	10,3	13	6,0	**10,88**	9,4	1,1	**RV1102K-3E160M/4C**		187	175	
	157	626	10,3	13	5,6	**9,36**	9,0	1,3	**PV1102K-2E160M/4B**	21,3	158		IE2
	197	501	10,3	13	5,4	**7,48**	8,4	1,5	**RV1102K-2E160M/4B**		173		
	215	459	10,3	13	4,6	**6,85**	8,2	1,6					
15	3,4	36430	13	24	13	**434,60**	146	0,9	**PV3504K-3E160L/4D**	28,70	576	210	IE3
20	4,4	27916	13	26	14	**333,42**	135	1,5	**RV3504K-3E160L/4D**		662	211	
	5,2	23541	13	27	14	**280,94**	128	2,1	**PV3504K-2E160L/4C**	28,80	571		IE2
	6,7	18375	13	29	15	**218,91**	119	2,5	**RV3504K-2E160L/4C**		657		
	7,8	16583	14	37	20	**124,88**	113	1,3	**PV3503K-3E180L/6E**	30,80	615	210	IE3
	9,4	13801	14	41	21	**103,74**	107	2,2	**RV3503K-3E180L/6E**		700	211	
									PV3503K-2E180L/6D	31,00	605		IE2
									RV3503K-2E180L/6D		690		
	12	11058	14	40	20	**124,88**	100	1,9	**PV3503K-3E160L/4D**	28,70	557	210	IE3
	14	9206	14	44	22	**103,74**	95	3,3	**RV3503K-3E160L/4D**		643	211	
									PV3503K-2E160L/4C	28,80	552		IE2
									RV3503K-2E160L/4C		638		

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.*** *Motor Eff. Class* Motor Effizienz-klasse
15 20	3,5 4,5 5,3 6,8	35144 27495 23230 18147	13 13 13 13	21 23 24 26	11 12 12 13	**422,52** **329,24** **277,41** **216,17**	108 100 95 88	0,8 1,1 1,5 1,8	**PV2904K-3E160L/4D** **RV2904K-3E160L/4D** **PV2904K-2E160L/4C** **RV2904K-2E160L/4C**	28,70 28,80 	536 622 531 617	206 207 	IE3 IE2
	8,1 9,7	15869 13398	14 14	34 37	18 19	**119,70** **100,86**	83 79	1,3 1,9	**PV2903K-3E180L/6E** **RV2903K-3E180L/6E** **PV2903K-2E180L/6D** **RV2903K-2E180L/6D**	30,80 31,00 	535 597 525 587	206 207 	IE3 IE2
	12 15 19	10566 8939 7000	14 14 14	37 39 42	18 19 21	**119,70** **100,86** **78,59**	74 70 65	1,9 2,8 3,5	**PV2903K-3E160L/4D** **RV2903K-3E160L/4D** **PV2903K-2E160L/4C** **RV2903K-2E160L/4C**	28,70 28,80 	493 591 488 586	206 207 	IE3 IE2
	4,5 5,2 6,5 7,9 9,2	27394 23594 18839 15630 13487	13 13 13 13 13	20 20 22 22 23	10 11 11 11 11	**327,61** **281,82** **224,57** **185,65** **159,70**	78 75 70 66 63	0,8 1,0 1,2 1,5 1,7	**PV2704K-3E160L/4D** **RV2704K-3E160L/4D** **PV2704K-2E160L/4C** **RV2704K-2E160L/4C**	28,70 28,80 	506 592 501 587	202 203 	IE3 IE2
	10 12	12640 10668	14 14	26 29	14 15	**95,92** **80,82**	61 58	1,1 1,8	**PV2703K-3E180L/6E** **RV2703K-3E180L/6E** **PV2703K-2E180L/6D** **RV2703K-2E180L/6D**	30,80 31,00 	439 504 429 494	202 203 	IE3 IE2
	15 18 23 28	8434 7121 5586 4626	14 14 14 14	28 31 33 34	15 16 17 17	**95,92** **80,82** **62,98** **52,06**	54 51 47 45	2,2 2,6 2,7 3,5	**PV2703K-3E160L/4D** **RV2703K-3E160L/4D** **PV2703K-2E160L/4C** **RV2703K-2E160L/4C**	28,70 28,80 	392 457 387 452	202 203 	IE3 IE2
	5,1 6,4 7,8 9,0 11 12 15	24016 19209 15957 13775 11020 10109 8553	13 13 13 13 13 13 13	18 19 19 20 19 19 20	9,3 9,7 9,8 9,6 8,7 7,9 8,5	**286,70** **228,47** **189,08** **162,82** **129,99** **119,05** **100,84**	37 84 79 75 69 65 65	0,8 1,0 1,2 1,3 1,3 1,3 1,3	**PV2404K-3E160L/4D** **RV2404K-3E160L/4D** **PV2404K-2E160L/4C** **RV2404K-2E160L/4C**	28,70 28,80 	456 542 451 537	198 199 	IE3 IE2
	18 22 26 34 39 49	7113 6020 4982 3904 3362 2682	14 14 14 14 14 14	24 26 27 29 30 29	13 14 14 15 15 13	**80,48** **67,81** **56,06** **43,68** **37,58** **29,94**	61 58 55 51 48 45	1,4 1,9 2,8 2,9 2,9 2,9	**PV2403K-3E160L/4D** **RV2403K-3E160L/4D** **PV2403K-2E160L/4C** **RV2403K-2E160L/4C**	28,70 28,80 	362 427 357 422	198 199 	IE3 IE2
	51 60 77 92	2653 2244 1754 1468	14 14 14 14	47 51 55 56	24 25 27 26	**19,21** **16,19** **12,61** **10,57**	45 42 39 37	3,1 3,1 3,1 3,1	**PV2402K-3E180L/6E** **RV2402K-3E180L/6E** **PV2402K-2E180L/6D** **RV2402K-2E180L/6D**	30,80 31,00 	399 414 389 404	198 199 	IE3 IE2
	7,8 9,0 11 12 15	15830 13663 10921 9992 8463	13 13 13 13 13	17 17 17 17 17	8,7 8,2 7,7 6,9 7,5	**189,08** **162,82** **129,99** **119,05** **100,84**	63 75 70 69 65	0,8 0,9 1,0 1,0 1,2	**PV2304K-3E160L/4D** **RV2304K-3E160L/4D** **PV2304K-2E160L/4C** **RV2304K-2E160L/4C**	28,70 28,80 	426 512 421 507	194 195 	IE3 IE2
	18 22 26 34	7065 5991 4963 3887	14 14 14 14	22 24 24 26	11 12 12 13	**80,48** **67,81** **56,06** **43,68**	61 58 55 51	1,1 1,2 1,7 2,0	**PV2303K-3E160L/4D** **RV2303K-3E160L/4D** **PV2303K-2E160L/4C** **RV2303K-2E160L/4C**	28,70 28,80 	332 397 327 392	194 195 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
15	39	3348	14	27	13	**37,58**	48	2,3	**PV2303K-3E160L/4D**	28,70	332	194	IE3
20	49	2670	14	26	12	**29,94**	45	2,7	**RV2303K-3E160L/4D**		397	195	
									PV2303K-2E160L/4C	28,80	327		IE2
									RV2303K-2E160L/4C		392		
	51	2648	14	42	22	**19,21**	45	2,6	**PV2302K-3E180L/6E**	30,80	352	194	IE3
	60	2240	14	46	23	**16,19**	42	3,0	**RV2302K-3E180L/6E**		367	195	
	77	1752	14	50	25	**12,61**	39	3,1	**PV2302K-2E180L/6D**	31,00	342		IE2
	92	1466	14	51	24	**10,57**	37	3,1	**RV2302K-2E180L/6D**		357		
	12	10418	13	18	8,1	**123,68**	51	0,8	**PV1904K-3E160L/4D**	28,70	386	190	IE3
	14	8826	13	19	8,4	**104,76**	48	0,9	**RV1904K-3E160L/4D**		472	191	
									PV1904K-2E160L/4C	28,80	381		IE2
									RV1904K-2E160L/4C		467		
	18	7060	14	19	10	**80,08**	45	0,8	**PV1903K-3E160L/4D**	28,70	292	190	IE3
	21	6095	14	21	10	**68,89**	43	1,1	**RV1903K-3E160L/4D**		357	191	
	27	4884	14	23	12	**54,90**	40	1,2	**PV1903K-2E160L/4C**	28,80	287		IE2
	32	4047	14	23	12	**45,38**	38	1,6	**RV1903K-2E160L/4C**		352		
	38	3486	14	24	12	**39,04**	36	1,8					
	47	2779	14	23	11	**31,11**	34	2,1					
	63	2114	14	31	16	**15,39**	31	1,8	**PV1902K-3E180L/6E**	30,80	314	190	IE3
	77	1757	14	35	18	**12,73**	29	2,6	**RV1902K-3E180L/6E**		329	191	
	89	1517	14	37	19	**10,95**	28	2,6	**PV1902K-2E180L/6D**	31,00	304		IE2
									RV1902K-2E180L/6D		319		
	95	1407	14	33	17	**15,39**	27	2,6	**PV1902K-3E160L/4D**	28,70	267	190	IE3
	116	1170	14	37	18	**12,73**	26	3,4	**RV1902K-3E160L/4D**		282	191	
									PV1902K-2E160L/4C	28,80	262		IE2
									RV1902K-2E160L/4C		277		
	25	5117	14	14	7,0	**58,00**	22	0,9	**PV1603K-3E160L/4D**	28,70	262	186	IE3
	32	4102	14	15	7,6	**46,22**	21	1,2	**RV1603K-3E160L/4D**		327	187	
	37	3536	14	15	7,4	**39,80**	20	1,3	**PV1603K-2E160L/4C**	28,80	257		IE2
	46	2823	14	15	6,4	**31,78**	19	1,3	**RV1603K-2E160L/4C**		322		
	60	2190	14	15	5,7	**24,65**	17	1,3					
	114	1179	14	21	11	**12,92**	14	1,9	**PV1602K-3E160L/4D**	28,70	237	186	IE3
	138	980	14	24	11	**10,68**	13	2,8	**RV1602K-3E160L/4D**		252	187	
	160	845	14	24	12	**9,19**	13	2,8	**PV1602K-2E160L/4C**	28,80	232		IE2
	201	676	14	25	11	**7,32**	12	2,8	**RV1602K-2E160L/4C**		247		
	237	572	14	24	8,9	**6,20**	11	2,8					
	37	3509	14	13	6,4	**39,80**	20	0,8	**PV1503K-3E160L/4D**	28,70	242	182	IE3
	46	2800	14	13	5,5	**31,78**	19	1,0	**RV1503K-3E160L/4D**		307	183	
	60	2171	14	13	5,0	**24,65**	17	1,2	**PV1503K-2E160L/4C**	28,80	237		IE2
									RV1503K-2E160L/4C		302		
	114	1176	14	19	10	**12,92**	14	1,2	**PV1502K-3E160L/4D**	28,70	217	182	IE3
	138	976	14	21	10	**10,68**	13	2,1	**RV1502K-3E160L/4D**		232	183	
	160	843	14	22	10	**9,19**	13	2,6	**PV1502K-2E160L/4C**	28,80	212		IE2
	201	673	14	23	10	**7,32**	12	2,8	**RV1502K-2E160L/4C**		227		
	237	570	14	22	8,2	**6,20**	11	2,8					
	112	1189	14	13	5,9	**13,14**	10	1,2	**PV1202K-3E160L/4D**	28,70	207	178	IE3
	135	992	14	14	6,6	**10,88**	9	2,1	**RV1202K-3E160L/4D**		222	179	
	157	857	14	14	6,7	**9,36**	9	2,6	**PV1202K-2E160L/4C**	28,80	202		IE2
	197	686	14	15	6,0	**7,48**	8	2,8	**RV1202K-2E160L/4C**		217		
	215	628	14	14	5,1	**6,85**	8	2,8					

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çıkış Gücü *Output Power* Abtriebswelle Leistung **P_2 [kW]**	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 Servis Faktörü *Service Factors* Betriebs-faktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
15	135	988	14	13	6,0	**10,88**	9	0,8	**PV1102K-3E160L/4D**	28,70	197	184	IE3
20	157	854	14	13	5,6	**9,36**	9	0,9	**RV1102K-3E160L/4D**		212	185	
	197	683	14	13	5,4	**7,48**	8	1,1	**PV1102K-2E160L/4C**	28,80	192		IE2
	215	625	14	13	4,6	**6,85**	8	1,2	**RV1102K-2E160L/4C**		207		
18,5	7,8	20453	17	37	20	**124,88**	113	1,0	**PV3503K-3G200L/6a**	36,50	650	210	IE3
25	9,4	17021	17	41	21	**103,74**	107	1,8	**RV3503K-3G200L/6a**		735	211	
									PV3503K-2G200L/6a	36,50	650		IE2
									RV3503K-2G200L/6a		735		
	12	13592	17	40	20	**124,88**	100	1,5	**PV3503K-3E180M/4C**	35,00	597	210	IE3
	14	11315	17	44	22	**103,74**	94	2,6	**RV3503K-3E180M/4C**		683	211	
	19	8701	17	46	23	**79,59**	87	3,4	**PV3503K-2E180M/4B**	34,90	582		IE2
									RV3503K-2E180M/4B		668		
	8,1	19572	17	34	18	**119,70**	83	1,1	**PV2903K-3G200L/6a**	36,50	570	206	IE3
	10	16524	17	37	19	**100,86**	79	1,6	**RV2903K-3G200L/6a**		632	207	
									PV2903K-2G200L/6a	36,50	570		IE2
									RV2903K-2G200L/6a		632		
	12	12987	17	37	18	**119,70**	74	1,6	**PV2903K-3E180M/4C**	35,00	508	206	IE3
	15	10988	17	39	19	**100,86**	70	2,3	**RV2903K-3E180M/4C**		580	207	
	19	8605	17	42	21	**78,59**	65	2,8	**PV2903K-2E180M/4B**	34,90	493		IE2
	22	7261	17	42	20	**66,22**	61	3,2	**RV2903K-2E180M/4B**		565		
	10	15589	17	26	14	**95,92**	61	0,9	**PV2703K-3G200L/6a**	36,50	474	202	IE3
	12	13157	17	29	15	**80,82**	58	1,5	**RV2703K-3G200L/6a**		539	203	
									PV2703K-2G200L/6a	36,50	474		IE2
									RV2703K-2G200L/6a		539		
	15	10367	17	29	15	**95,92**	54	1,8	**PV2703K-3E180M/4C**	35,00	422	202	IE3
	18	8753	17	31	16	**80,82**	51	2,1	**RV2703K-3E180M/4C**		487	203	
	23	6866	17	33	17	**62,98**	47	2,2	**PV2703K-2E180M/4B**	34,90	407		IE2
	28	5687	17	34	17	**52,06**	45	2,8	**RV2703K-2E180M/4B**		472		
	33	4898	17	34	17	**44,78**	43	2,8					
	41	3907	17	34	15	**35,69**	40	2,8					
	49	3306	17	33	14	**30,23**	38	2,8					
	51	3272	17	47	24	**19,21**	45	2,5	**PV2402K-3G200L/6a**	36,50	434	198	IE3
	60	2768	17	51	25	**16,19**	42	2,5	**RV2402K-3G200L/6a**		449	199	
									PV2402K-2G200L/6a	36,50	434		IE2
									RV2402K-2G200L/6a		449		
	77	2171	17	48	23	**19,21**	39	3,3	**PV2402K-3E180M/4C**	35,00	385	198	IE3
	91	1836	18	51	24	**16,19**	37	3,2	**RV2402K-3E180M/4C**		400	199	
	117	1434	18	54	23	**12,61**	35	3,2	**PV2402K-2E180M/4B**	34,90	370		IE2
	140	1200	18	52	20	**10,57**	33	3,2	**RV2402K-2E180M/4B**		385		
	51	3266	17	42	22	**19,21**	45	2,1	**PV2302K-3G200L/6a**	36,50	387	194	IE3
	60	2763	17	46	23	**16,19**	42	2,4	**RV2302K-3G200L/6a**		402	195	
									PV2302K-2G200L/6a	36,50	387		IE2
									RV2302K-2G200L/6a		402		
	77	2166	17	44	21	**19,21**	39	2,7	**PV2302K-3E180M/4C**	35,00	337	194	IE3
	91	1832	17	47	22	**16,19**	38	3,1	**RV2302K-3E180M/4C**		352	195	
	117	1432	18	49	21	**12,61**	35	3,2	**PV2302K-2E180M/4B**	34,90	322		IE2
	140	1198	18	48	19	**10,57**	33	3,2	**RV2302K-2E180M/4B**		337		

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
18,5	63	2607	17	31	16	**15,39**	31	1,5	**PV1902K-3G200L/6a**	36,50	349	190	IE3
25	77	2167	17	35	18	**12,73**	29	2,1	**RV1902K-3G200L/6a**		364	191	
	89	1871	17	37	19	**10,95**	28	2,1	**PV1902K-2G200L/6a**	36,50	349		IE2
									RV1902K-2G200L/6a		364		
	96	1729	17	33	17	**15,39**	27	2,1	**PV1902K-3E180M/4C**	35,00	297	190	IE3
	116	1438	17	37	18	**12,73**	26	2,7	**RV1902K-3E180M/4C**		312	191	
	135	1241	18	38	18	**10,95**	24	2,7	**PV1902K-2E180M/4B**	34,90	282		IE2
	169	991	18	40	18	**8,72**	23	2,7	**RV1902K-2E180M/4B**		297		
	200	839	18	40	16	**7,39**	22	2,7					
22	7,8	24322	20	37	20	**124,88**	113	0,9	**PV3503K-3G200L/6b**	43,00	673	210	IE3
30	9,4	20242	20	41	21	**103,74**	107	1,5	**RV3503K-3G200L/6b**		758	211	
									PV3503K-2G200L/6b	43,00	673		IE2
									RV3503K-2G200L/6b		758		
	12	16163	20	40	20	**124,88**	100	1,3	**PV3503K-3E180L/4D**	41,40	607	210	IE3
	14	13456	20	44	22	**103,74**	94	2,2	**RV3503K-3E180L/4D**		693	211	
	19	10347	20	46	23	**79,59**	87	2,8	**PV3503K-2E180L/4C**	41,40	595		IE2
	22	8736	20	46	22	**67,06**	83	2,8	**RV3503K-2E180L/4C**		681		
	28	6816	20	46	21	**52,26**	77	2,8					
	34	5705	20	45	19	**43,80**	73	2,8					
	8,1	23275	20	34	18	**119,70**	83	0,9	**PV2903K-3G200L/6b**	43,00	570	206	IE3
	9,7	19650	20	37	19	**100,86**	79	1,3	**RV2903K-3G200L/6b**		655	207	
									PV2903K-2G200L/6b	43,00	570		IE2
									RV2903K-2G200L/6b		655		
	12	15444	20	37	18	**119,70**	74	1,3	**PV2903K-3E180L/4D**	41,40	518	206	IE3
	15	13067	20	39	19	**100,86**	70	1,9	**RV2903K-3E180L/4D**		590	207	
	19	10232	20	42	21	**78,59**	65	2,4	**PV2903K-2E180L/4C**	41,40	506		IE2
	22	8635	20	42	20	**66,22**	61	2,7	**RV2903K-2E180L/4C**		578		
	29	6734	20	42	19	**51,60**	57	2,8					
	34	5633	20	41	17	**43,25**	54	2,8					
	12	15646	20	29	15	**80,82**	58	1,2	**PV2703K-3G200L/6b**	43,00	497	202	IE3
									RV2703K-3G200L/6b		562	203	
									PV2703K-2G200L/6b	43,00	497		IE2
									RV2703K-2G200L/6b		562		
	15	12328	20	28	15	**95,92**	54	1,5	**PV2703K-3E180L/4D**	41,40	432	202	IE3
	18	10409	20	31	16	**80,82**	51	1,8	**RV2703K-3E180L/4D**		497	203	
	23	8164	20	33	17	**62,98**	47	1,8	**PV2703K-2E180L/4C**	41,40	420		IE2
	28	6762	20	34	17	**52,06**	45	2,4	**RV2703K-2E180L/4C**		485		
	33	5825	20	34	17	**44,78**	43	2,4					
	41	4647	20	34	16	**35,69**	40	2,4					
	49	3931	20	33	14	**30,23**	38	2,4					
	54	3656	21	52	27	**18,17**	37	3,4	**PV2702K-3G200L/6b**	43,00	457	202	IE3
									RV2702K-3G200L/6b		522	203	
									PV2702K-2G200L/6b	43,00	457		IE2
									RV2702K-2G200L/6b		522		
	51	3891	21	47	24	**19,21**	45	2,1	**PV2402K-3G200L/6b**	43,00	427	198	IE3
	60	3292	21	51	25	**16,19**	42	2,1	**RV2402K-3G200L/6b**		452	199	
									PV2402K-2G200L/6b	43,00	427		IE2
									RV2402K-2G200L/6b		452		

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Termik Güç [Açık Alan]** *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	**Termik Güç [Kapalı Alan]** *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nenn-strom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.** * *Motor Eff. Class* Motor Effizienz-klasse
22 30	77 91 117 140	2581 2183 1706 1428	21 21 21 21	48 51 54 52	23 24 23 20	**19,21** **16,19** **12,61** **10,57**	39 37 35 33	2,7 2,7 2,7 2,7	**PV2402K-3E180L/4D** **RV2402K-3E180L/4D** **PV2402K-2E180L/4C** **RV2402K-2E180L/4C**	41,40 41,40 	395 410 383 398	198 199 	IE3 IE2
	51 60	3883 3286	21 21	42 46	22 23	**19,21** **16,19**	45 42	1,8 2,0	**PV2302K-3G200L/6b** **RV2302K-3G200L/6b** **PV2302K-2G200L/6b** **RV2302K-2G200L/6b**	43,00 43,00 	410 425 410 425	194 195 	IE3 IE2
	77 91 117 140	2576 2179 1702 1424	21 21 21 21	44 47 49 48	21 22 21 19	**19,21** **16,19** **12,61** **10,57**	39 37 35 33	2,3 2,6 2,7 2,7	**PV2302K-3E180L/4D** **RV2302K-3E180L/4D** **PV2302K-2E180L/4C** **RV2302K-2E180L/4C**	41,40 41,40 	347 362 335 350	194 195 	IE3 IE2
	63 77 89	3100 2578 2225	21 21 21	31 35 37	16 18 19	**15,39** **12,73** **10,95**	31 29 28	1,2 1,8 1,8	**PV1902K-3G200L/6b** **RV1902K-3G200L/6b** **PV1902K-2G200L/6b** **RV1902K-2G200L/6b**	43,00 43,00 	372 389 372 389	190 191 	IE3 IE2
	96 116 135 169 200	2056 1710 1475 1179 998	21 21 21 21 21	33 37 38 40 40	17 18 18 18 16	**15,39** **12,73** **10,95** **8,72** **7,39**	27 26 24 23 22	1,8 2,3 2,3 2,3 2,3	**PV1902K-3E180L/4D** **RV1902K-3E180L/4D** **PV1902K-2E180L/4C** **RV1902K-2E180L/4C**	41,40 41,40 	307 322 295 310	190 191 	IE3 IE2
30 40	9,5	27322	27	41	22	**103,74**	107	1,1	**PV3503K-3G225M/6** **RV3503K-3G225M/6** **PV3503K-2G225M/6** **RV3503K-2G225M/6**	58,00 58,00 	707 793 707 793	210 211 	IE3 IE2
	12 14 19 22 28 34	22041 18349 14110 11912 9295 7779	27 27 27 27 27 27	40 44 46 46 46 45	20 22 23 22 21 19	**124,88** **103,74** **79,59** **67,06** **52,26** **43,80**	100 94 87 83 77 73	0,9 1,6 2,1 2,1 2,1 2,1	**PV3503K-3G200L/4** **RV3503K-3G200L/4** **PV3503K-2G200L/4** **RV3503K-2G200L/4**	55,00 55,00 	657 743 644 730	210 211 	IE3 IE2
	52 63	5164 4307	28 28	68 72	35 36	**18,96** **15,75**	64 60	3,3 3,3	**PV3502K-3G225M/6** **RV3502K-3G225M/6** **PV3502K-2G225M/6** **RV3502K-2G225M/6**	58,00 58,00 	693 770 693 770	210 211 	IE3 IE2
	8,2 9,8	31416 26524	27 27	35 37	18 20	**119,70** **100,86**	83 79	0,7 1,0	**PV2903K-3G225M/6** **RV2903K-3G225M/6** **PV2903K-2G225M/6** **RV2903K-2G225M/6**	58,00 58,00 	767 753 767 753	206 207 	IE3 IE2
	12 15 19 22 29 34	21060 17818 13953 11775 9182 7681	27 27 27 27 27 27	37 39 42 42 42 41	18 19 21 20 19 17	**119,70** **100,86** **78,59** **66,22** **51,60** **43,25**	74 70 65 61 57 54	1,0 1,4 1,7 2,0 2,1 2,1	**PV2903K-3G200L/4** **RV2903K-3G200L/4** **PV2903K-2G200L/4** **RV2903K-2G200L/4**	55,00 55,00 	568 640 555 627	206 207 	IE3 IE2
	54 64	4953 4190	28 28	64 68	33 34	**18,17** **15,31**	47 45	3,3 3,3	**PV2902K-3G225M/6** **RV2902K-3G225M/6** **PV2902K-2G225M/6** **RV2902K-2G225M/6**	58,00 58,00 	612 684 612 684	206 207 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
30 40	12	21119	27	29	16	**80,82**	58	0,9	**PV2703K-3G225M/6** **RV2703K-3G225M/6** **PV2703K-2G225M/6** **RV2703K-2G225M/6**	58,00 58,00 	667 653 667 653	202 203	IE3 IE2
	15 18 23 28 33 41 49	16811 14194 11133 9221 7943 6336 5361	27 27 27 27 27 27 27	28 31 33 34 34 34 33	15 16 17 17 17 16 14	**95,92** **80,82** **62,98** **52,06** **44,78** **35,69** **30,23**	54 51 47 45 43 40 38	1,1 1,3 1,3 1,7 1,7 1,7 1,7	**PV2703K-3G200L/4** **RV2703K-3G200L/4** **PV2703K-2G200L/4** **RV2703K-2G200L/4**	55,00 55,00 	607 593 594 580	202 203	IE3 IE2
	54 64	4935 4176	28 28	52 57	27 28	**18,17** **15,31**	37 35	2,5 3,3	**PV2702K-3G225M/6** **RV2702K-3G225M/6** **PV2702K-2G225M/6** **RV2702K-2G225M/6**	58,00 58,00 	637 623 637 623	202 203	IE3 IE2
	81	3308	28	53	26	**18,17**	32	3,7	**PV2702K-3G200L/4** **RV2702K-3G200L/4** **PV2702K-2G200L/4** **RV2702K-2G200L/4**	55,00 55,00 	511 576 498 563	202 203	IE3 IE2
	51 61	5251 4443	28 28	47 51	24 25	**19,21** **16,19**	45 42	1,6 1,6	**PV2402K-3G225M/6** **RV2402K-3G225M/6** **PV2402K-2G225M/6** **RV2402K-2G225M/6**	55,00 55,00 	537 523 537 523	198 199	IE3 IE2
	77 91 117 140	3520 2977 2326 1947	28 28 28 28	48 51 54 52	23 24 23 20	**19,21** **16,19** **12,61** **10,57**	39 37 35 33	2,0 2,0 2,0 2,0	**PV2402K-3G200L/4** **RV2402K-3G200L/4** **PV2402K-2G200L/4** **RV2402K-2G200L/4**	55,00 55,00 	507 572 494 559	198 199	IE3 IE2
	51 61	5242 4435	28 28	43 47	22 23	**19,21** **16,19**	45 42	1,3 1,5	**PV2302K-3G225M/6** **RV2302K-3G225M/6** **PV2302K-2G225M/6** **RV2302K-2G225M/6**	55,00 55,00 	507 493 507 493	194 195	IE3 IE2
	77 91 117 140	3513 2971 2321 1942	28 28 28 28	44 47 49 48	21 22 21 19	**19,21** **16,19** **12,61** **10,57**	39 37 35 33	1,7 1,9 2,0 2,0	**PV2302K-3G200L/4** **RV2302K-3G200L/4** **PV2302K-2G200L/4** **RV2302K-2G200L/4**	55,00 55,00 	447 462 434 449	194 195	IE3 IE2
	64 77 90	4184 3479 3003	28 28 28	31 35 38	17 18 19	**15,39** **12,73** **10,95**	31 29 28	0,9 1,3 1,3	**PV1902K-3G225M/6** **RV1902K-3G225M/6** **PV1902K-2G225M/6** **RV1902K-2G225M/6**	55,00 55,00 	457 443 457 443	190 191	IE3 IE2
	96 116 135 169 200	2804 2331 2012 1608 1361	28 28 28 28 28	33 37 38 40 40	17 18 18 18 16	**15,39** **12,73** **10,95** **8,72** **7,39**	27 26 24 23 22	1,3 1,7 1,7 1,7 1,7	**PV1902K-3G200L/4** **RV1902K-3G200L/4** **PV1902K-2G200L/4** **RV1902K-2G200L/4**	55,00 55,00 	407 422 394 409	190 191	IE3 IE2
37 50	12 14 19 22 28 34	27184 22631 17402 14692 11464 9594	34 34 34 34 34 34	40 44 46 46 46 45	20 22 23 22 21 18	**124,88** **103,74** **79,59** **67,06** **52,26** **43,80**	100 94 87 83 77 73	0,8 1,3 1,7 1,7 1,7 1,7	**PV3503K-3G225S/4** **RV3503K-3G225S/4** **PV3503K-2G225S/4** **RV3503K-2G225S/4**	67,00 67,00 	715 792 730 807	210 211	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
37 50	52 63	6356 5301	35 35	68 72	35 36	**18,96** **15,75**	64 60	2,7 2,7	**PV3502K-3G250M/6** **RV3502K-3G250M/6** **PV3502K-2G250M/6** **RV3502K-2G250M/6**	70,00 69,00 	740 817 700 777	210 211 	IE3 IE2
	12 15 19 22 29 34	25974 21976 17209 14523 11325 9473	34 34 34 34 34 34	37 39 42 42 42 41	18 19 21 20 19 16	**119,70** **100,86** **78,59** **66,22** **51,60** **43,25**	74 70 65 61 57 54	0,8 1,1 1,4 1,6 1,7 1,7	**PV2903K-3G225S/4** **RV2903K-3G225S/4** **PV2903K-2G225S/4** **RV2903K-2G225S/4**	67,00 67,00 	720 797 680 757	206 207 	IE3 IE2
	54 64	6096 5158	35 35	64 68	33 34	**18,17** **15,31**	47 45	2,7 2,7	**PV2902K-3G250M/6** **RV2902K-3G250M/6** **PV2902K-2G250M/6** **RV2902K-2G250M/6**	70,00 69,00 	700 777 660 737	206 207 	IE3 IE2
	81 96	4097 3462	35 35	65 68	32 32	**18,17** **15,31**	42 39	3,4 3,4	**PV2902K-3G225S/4** **RV2902K-3G225S/4** **PV2902K-2G225S/4** **RV2902K-2G225S/4**	67,00 67,00 	649 721 609 681	206 207 	IE3 IE2
	15 18 23 28 33 41 49	20734 17505 13731 11373 9797 7815 6612	33 33 34 34 34 34 34	29 31 33 34 34 34 33	15 16 17 17 17 15 14	**95,92** **80,82** **62,98** **52,06** **44,78** **35,69** **30,23**	54 51 47 45 43 40 38	0,9 1,1 1,1 1,4 1,4 1,4 1,4	**PV2703K-3G225S/4** **RV2703K-3G225S/4** **PV2703K-2G225S/4** **RV2703K-2G225S/4**	67,00 67,00 	680 757 640 717	202 203 	IE3 IE2
	54 64	6075 5139	35 35	52 57	27 28	**18,17** **15,31**	37 35	2,1 2,7	**PV2702K-3G250M/6** **RV2702K-3G250M/6** **PV2702K-2G250M/6** **RV2702K-2G250M/6**	70,00 69,00 	660 743 620 697	202 203 	IE3 IE2
	81 96	4079 3451	35 35	53 56	26 26	**18,17** **15,31**	32 31	3,4 3,4	**PV2702K-3G225S/4** **RV2702K-3G225S/4** **PV2702K-2G225S/4** **RV2702K-2G225S/4**	67,00 67,00 	649 721 609 681	202 203 	IE3 IE2
	77 91 117 140	4342 3671 2869 2401	35 35 35 35	48 51 53 52	23 24 23 20	**19,21** **16,19** **12,61** **10,57**	39 37 35 33	1,6 1,6 1,6 1,6	**PV2402K-3G225S/4** **RV2402K-3G225S/4** **PV2402K-2G225S/4** **RV2402K-2G225S/4**	67,00 67,00 	609 681 569 641	198 199 	IE3 IE2
	77 91 117 140	4333 3664 2863 2396	35 35 35 35	44 47 49 48	21 22 21 18	**19,21** **16,19** **12,61** **10,57**	39 37 35 33	1,4 1,6 1,6 1,6	**PV2302K-3G225S/4** **RV2302K-3G225S/4** **PV2302K-2G225S/4** **RV2302K-2G225S/4**	67,00 67,00 	569 641 529 601	194 195 	IE3 IE2
	96 116 135 169 200	3459 2875 2481 1983 1679	35 35 35 35 35	33 37 38 40 39	17 18 18 18 16	**15,39** **12,73** **10,95** **8,72** **7,39**	27 26 24 23 22	1,1 1,4 1,4 1,4 1,4	**PV1902K-3G225S/4** **RV1902K-3G225S/4** **PV1902K-2G225S/4** **RV1902K-2G225S/4**	67,00 67,00 	529 601 489 561	190 191 	IE3 IE2
45 60	14 19 22 28 34	27524 21165 17869 13942 11669	41 41 41 41 41	44 46 46 46 45	22 23 22 21 18	**103,74** **79,59** **67,06** **52,26** **43,80**	94 87 83 77 73	1,1 1,4 1,4 1,4 1,4	**PV3503K-3G225M/4** **RV3503K-3G225M/4** **PV3503K-2G225M/4** **RV3503K-2G225M/4**	80,00 80,00 	741 826 726 811	210 211 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler
Planetary Geared Motors with Bevel Stage Input
Planetengetriebemotoren mit Kegelradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] P_{t1} [kW] 30 °C	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] P_{t2} [kW] 30 °C	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
45 60	78 94	5296 4417	43 43	69 73	34 35	**18,96** **15,75**	56 53	2,8 2,7	**PV3502K-3G225M/4** **RV3502K-3G225M/4** **PV3502K-2G225M/4** **RV3502K-2G225M/4**	80,00 80,00 	701 686 686 771	210 211 	IE3 IE2
	15 19 22 29 34	26727 20930 17663 13774 11522	41 41 41 41 41	39 42 42 42 41	19 21 20 19 16	**100,86** **78,59** **66,22** **51,60** **43,25**	70 65 61 57 54	0,9 1,2 1,3 1,4 1,4	**PV2903K-3G225M/4** **RV2903K-3G225M/4** **PV2903K-2G225M/4** **RV2903K-2G225M/4**	80,00 80,00 	680 760 764 751	206 207 	IE3 IE2
	81 96	4982 4210	42 42	65 68	32 32	**18,17** **15,31**	42 39	2,8 2,8	**PV2902K-3G225M/4** **RV2902K-3G225M/4** **PV2902K-2G225M/4** **RV2902K-2G225M/4**	80,00 80,00 	651 636 636 721	206 207 	IE3 IE2
	15 18 23 28 33 41 49	25217 21290 16700 13832 11915 9504 8042	41 41 41 41 41 41 41	29 31 33 34 34 34 33	15 16 17 17 17 15 14	**95,92** **80,82** **62,98** **52,06** **44,78** **35,69** **30,23**	54 51 47 45 43 40 38	0,7 0,9 0,9 1,2 1,2 1,2 1,2	**PV2703K-3G225M/4** **RV2703K-3G225M/4** **PV2703K-2G225M/4** **RV2703K-2G225M/4**	80,00 80,00 	640 720 724 731	202 203 	IE3 IE2
	81 96 124	4962 4197 3260	42 42 42	53 56 59	26 26 31	**18,17** **15,31** **11,94**	32 31 29	2,4 2,8 3,6	**PV2702K-3G225M/4** **RV2702K-3G225M/4** **PV2702K-2G225M/4** **RV2702K-2G225M/4**	80,00 80,00 	611 596 590 681	202 203 	IE3 IE2
	77 91 117 140	5280 4465 3489 2920	42 43 43 43	48 51 53 52	23 24 23 20	**19,21** **16,19** **12,61** **10,57**	39 37 35 33	1,3 1,3 1,3 1,3	**PV2402K-3G225M/4** **RV2402K-3G225M/4** **PV2402K-2G225M/4** **RV2402K-2G225M/4**	80,00 80,00 	577 556 550 641	198 199 	IE3 IE2
	77 91 117 140	5270 4457 3482 2914	42 43 43 43	44 47 49 48	21 22 21 18	**19,21** **16,19** **12,61** **10,57**	39 37 35 33	1,1 1,3 1,3 1,3	**PV2302K-3G225M/4** **RV2302K-3G225M/4** **PV2302K-2G225M/4** **RV2302K-2G225M/4**	80,00 80,00 	537 516 510 601	194 195 	IE3 IE2
	96 116 135 169 200	4206 3497 3018 2411 2042	42 42 43 43 43	33 37 38 40 39	17 18 18 18 16	**15,39** **12,73** **10,95** **8,72** **7,39**	27 26 24 23 22	0,9 1,1 1,1 1,1 1,1	**PV1902K-3G225M/4** **RV1902K-3G225M/4** **PV1902K-2G225M/4** **RV1902K-2G225M/4**	80,00 80,00 	537 516 510 601	190 191 	IE3 IE2
55 75	78 94 119 143 186	6450 5380 4263 3465 2663	53 53 53 52 52	69 73 75 76 81	34 35 33 39 40	**18,96** **15,75** **12,46** **10,35** **7,94**	56 53 50 47 43	2,3 2,2 3,6 3,7 3,7	**PV3502K-3G250M/4** **RV3502K-3G250M/4** **PV3502K-2G250M/4** **RV3502K-2G250M/4**	96,00 96,00 	800 880 790 871	210 211 	IE3 IE2
	81 97 124 147 189	6069 5129 3988 3370 2632	52 52 52 52 52	35 68 63 68 73	32 32 32 35 37	**18,17** **15,31** **11,94** **10,06** **7,84**	42 39 37 35 32	2,3 2,3 3,6 3,7 3,7	**PV2902K-3G250M/4** **RV2902K-3G250M/4** **PV2902K-2G250M/4** **RV2902K-2G250M/4**	96,00 96,00 	760 840 750 831	206 207 	IE3 IE2

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** */ Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Motorlu Konik Girişli Planet Redüktörler

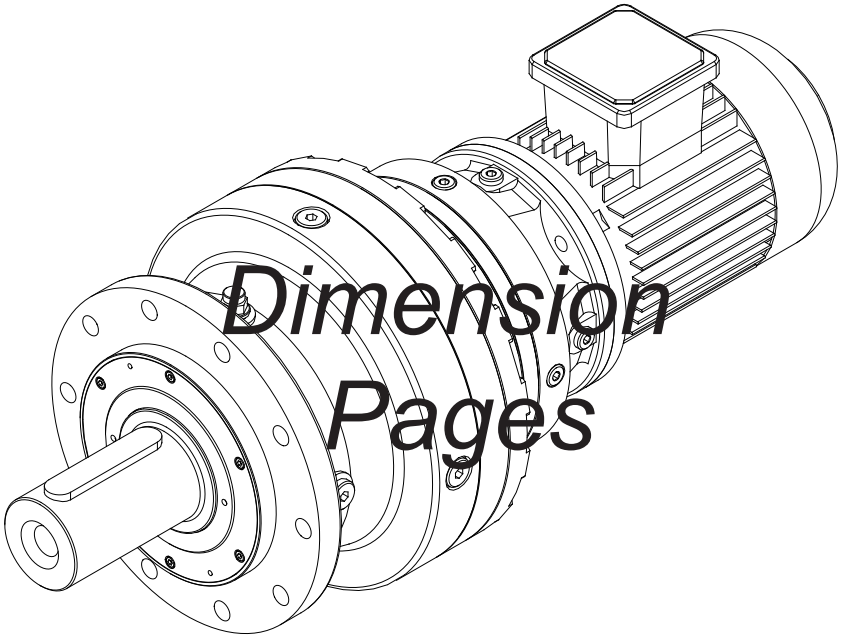
Planetary Geared Motors with Bevel Stage Input

Planetengetriebemotoren mit Kegelradvorstufe

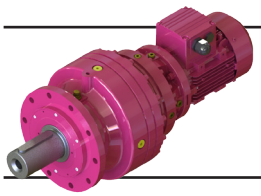
Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çıkış Gücü *Output Power* Abtriebswelle Leistung **P_2 [kW]**	Termik Güç [Açık Alan] *Therm. Power [Outdoor]* Wärme-leistung [Außen] **P_{t1} [kW]** **30 °C**	Termik Güç [Kapalı Alan] *Therm. Power [Indoor]* Wärme-leistung [Innen] **P_{t2} [kW]** **30 °C**	Çevrim Oranı *Ratio* Übersetzung **i**	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 Servis Faktörü *Service Factors* Betriebs-faktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nenn-strom **[A]**	Ağırlık *Weight* Gewicht **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
55	81	6044	52	53	26	**18,17**	32	2,3	**PV2702K-3G250M/4**	96,00	720	202	IE3
75	97	5113	52	56	26	**15,31**	31	2,3	**RV2702K-3G250M/4**		800	203	
	124	3972	52	59	31	**11,94**	29	3,6	**PV2702K-2G250M/4**	96,00	710		IE2
	147	3360	52	65	33	**10,06**	27	3,7	**RV2702K-2G250M/4**		791		
	189	2624	52	64	33	**7,84**	25	3,7					
75	78	8766	72	69	34	**18,96**	56	1,7	**PV3502K-3G280S/4**	96,00	840	210	IE3
97	94	7312	72	73	35	**15,75**	53	1,6	**RV3502K-3G280S/4**		920	211	
	119	5793	72	75	33	**12,46**	50	2,7	**PV3502K-2G280S/4**	96,00	830		IE2
	143	4709	71	76	39	**10,35**	47	2,7	**RV3502K-2G280S/4**		911		
	187	3619	71	81	40	**7,94**	43	2,7					
	82	8248	71	65	32	**18,17**	41	1,7	**PV2902K-3G280S/4**	96,00	790	206	IE3
	97	6970	71	68	32	**15,31**	39	1,7	**RV2902K-3G280S/4**		870	207	
	124	5420	71	63	32	**11,94**	37	2,7	**PV2902K-2G280S/4**	96,00	780		IE2
	148	4580	71	68	35	**10,06**	35	2,7	**RV2902K-2G280S/4**		859		
	189	3577	71	73	37	**7,84**	32	2,7					
	82	8214	70	53	26	**18,17**	32	1,5	**PV2702K-3G280S/4**	96,00	740	202	IE3
	97	6949	71	56	26	**15,31**	31	1,7	**RV2702K-3G280S/4**		820	203	
	124	5397	70	59	31	**11,94**	29	2,2	**PV2702K-2G280S/4**	96,00	730		IE2
	148	4566	71	65	33	**10,06**	27	2,7	**RV2702K-2G280S/4**		809		
	189	3567	71	64	33	**7,84**	25	2,7					

*: **IE2 ve IE3 motorlu redüktör fiyatları farklıdır.** / *Geared motor prices are different for IE2 and IE3 motors.* / Preise von Getrieben mit IE2 und IE3 Motoren sind unterschiedlich.

Ölçü Sayfaları



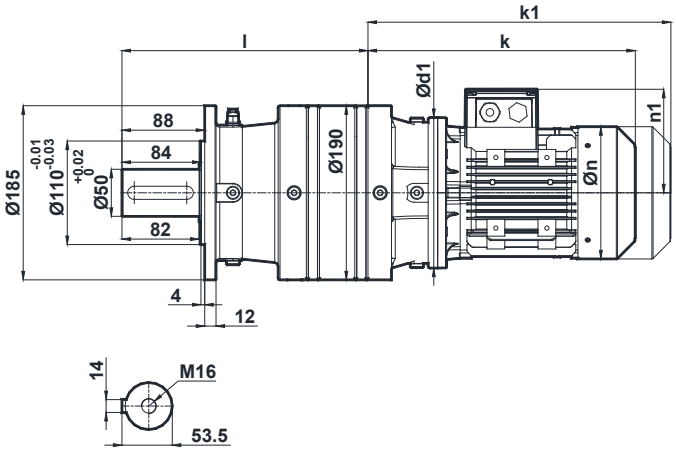
Abmessungs-seiten



Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

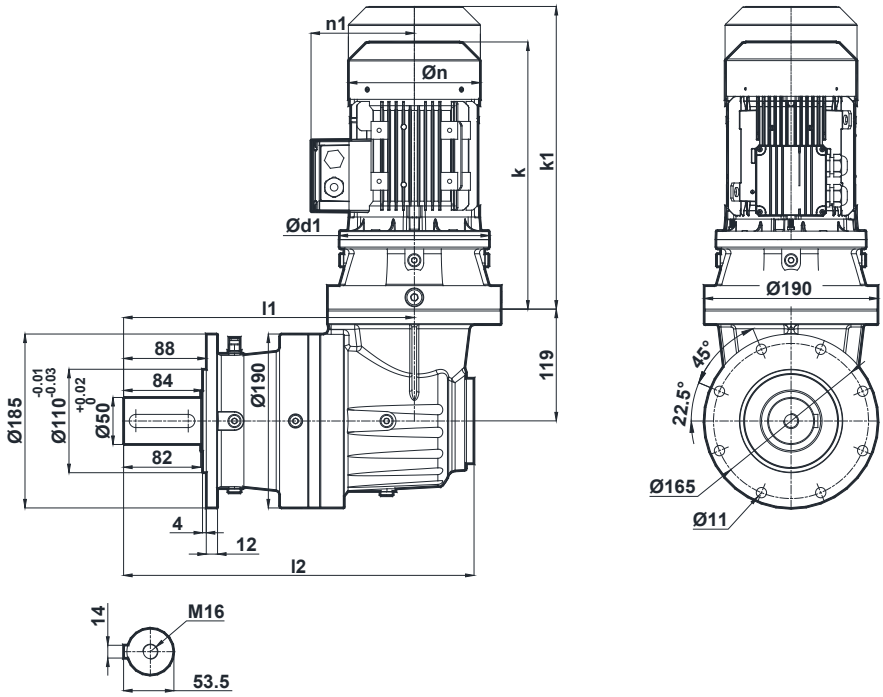
PV110 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	210
2	262
3	313
4	365



PV110 ... Ⓚ. 01 - ...

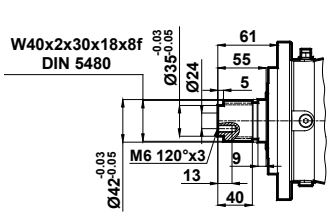
Kademe *Stage* Stufe	l1	l2
2	310	373
3	361	425
4	413	476



k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße									
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160M/B5	160L/B5
k / k1	1	-	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814
	2	2										
	3	3										
	4	4	-									
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224
d1			160	200			250		300		350	

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



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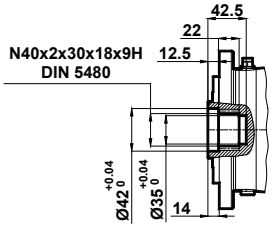

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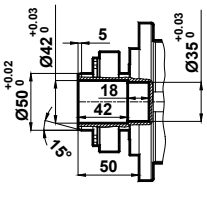
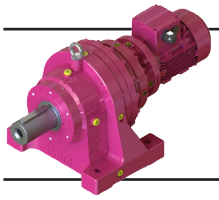


0S

Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shafts see page number 456* / Für optionelle Abtriebswellen siehe Seite 456



Ölçü Sayfaları
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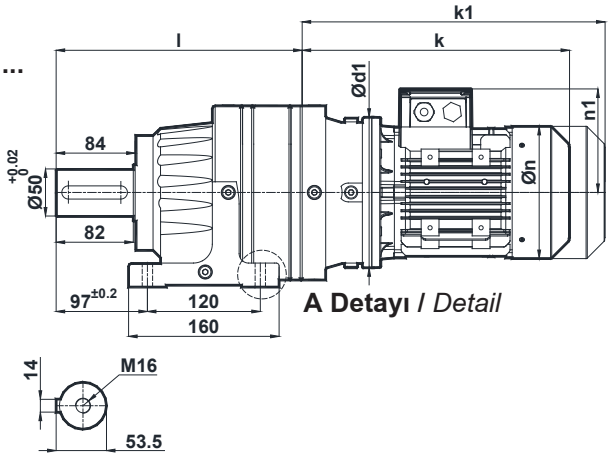
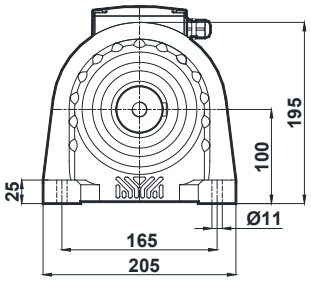
RV110 ... Ⓛ. 01 - ...

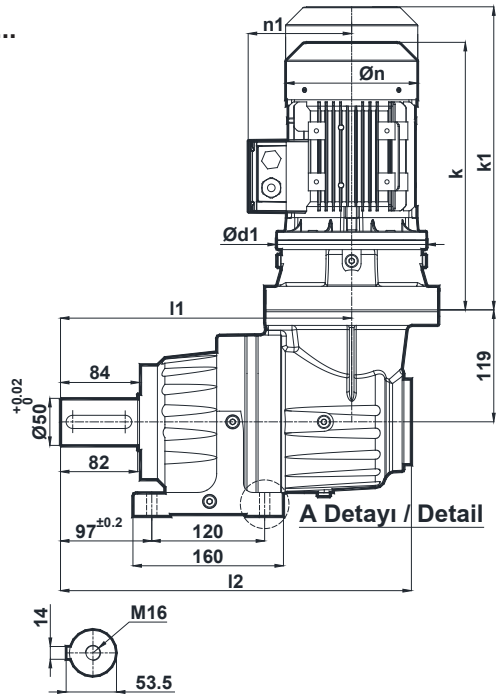
Kademe *Stage* Stufe	l
1	210
2	262
3	313
4	365

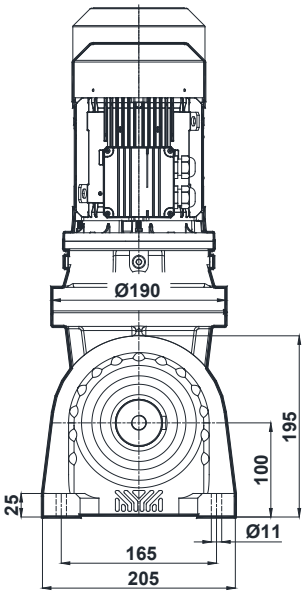


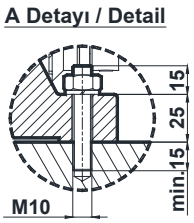


RV110 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2
2	310	373
3	361	425
4	413	476



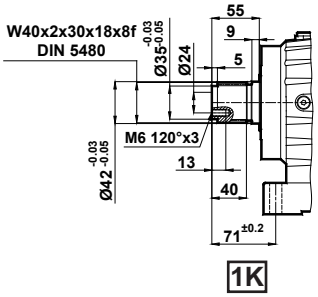




k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

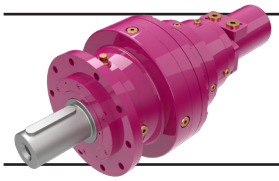
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße									
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160M/B5	160L/B5
k / k1	1	-	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814
	2	2										
	3	3										
	4	4	-									
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224
d1			160	200			250		300		350	

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shaft see page number 456* / Für optionelle Abtriebswellen siehe Seite 456



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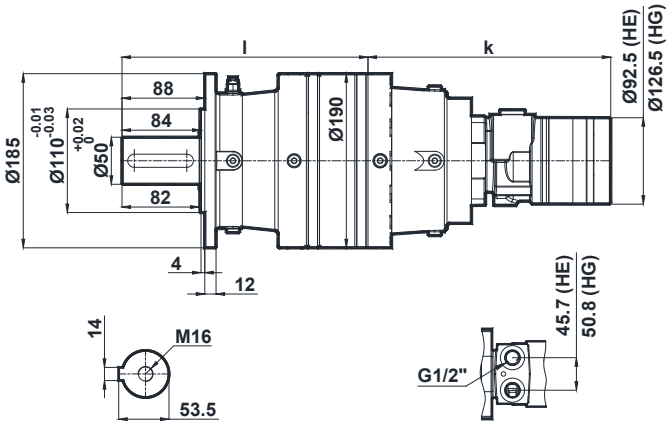
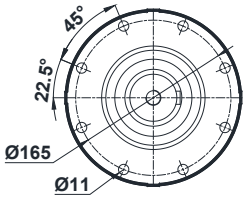
PV110 ... Ⓛ. 01 - H...

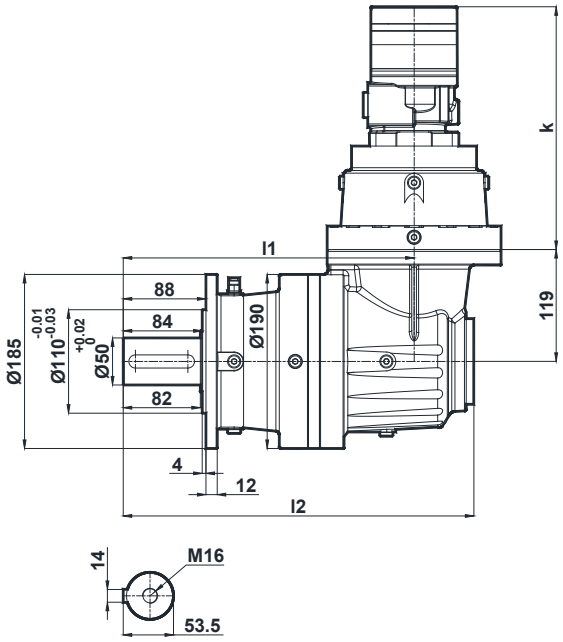
Kademe *Stage* Stufe	l
1	210
2	262
3	313
4	365

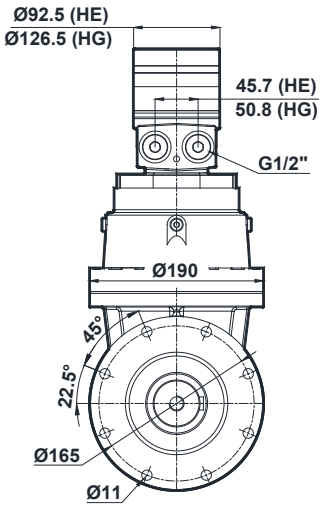




PV110 ... Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2
2	310	373
3	361	425
4	413	476

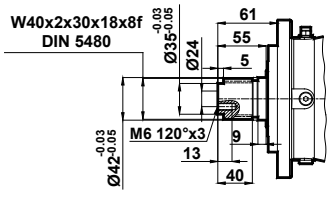




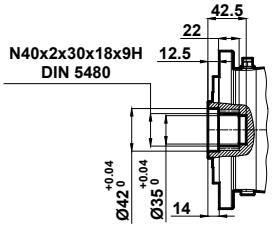
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Tipi / *Motor Type* / Motortyp																				
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	2	2																						
	3	3																						
	4	4																						

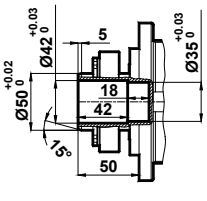
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

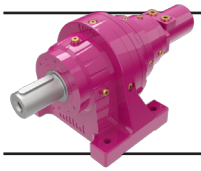


0K



0S

Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shaft see page number 456* / Für optionelle Ausgangswellen siehe Seite 456



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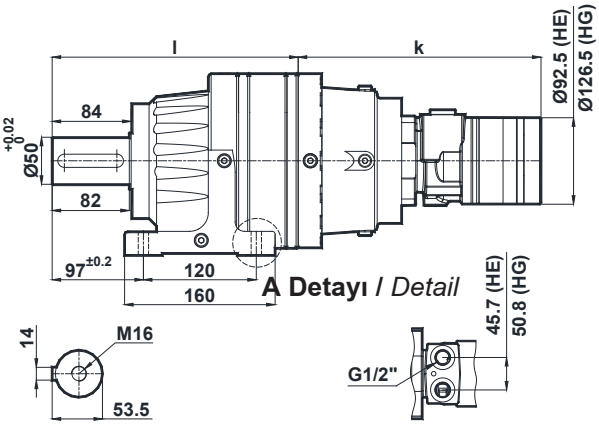
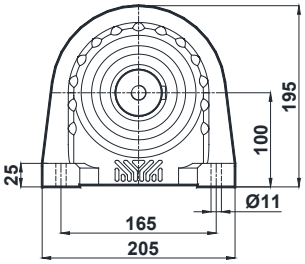
RV110 ... Ⓛ. 01 - H...

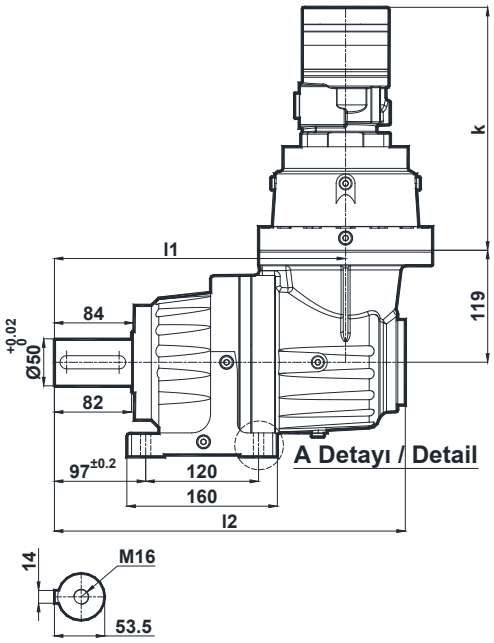
Kademe *Stage* Stufe	l
1	210
2	262
3	313
4	365

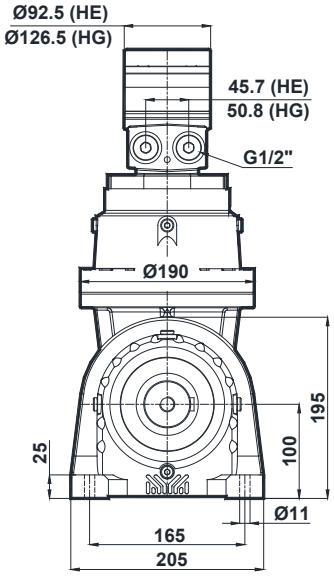


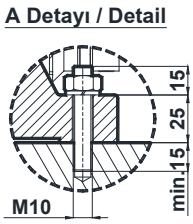


RV110 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2
2	310	373
3	361	425
4	413	476



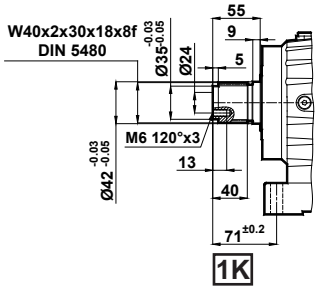




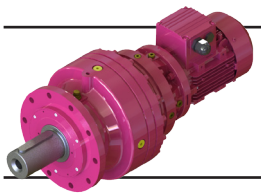
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Tipi / *Motor Type* / Motortyp																						
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	2	2																						
	3	3																						
	4	4																						

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shaft see page number 456* / Für optionelle Ausgangswellen siehe Seite 456



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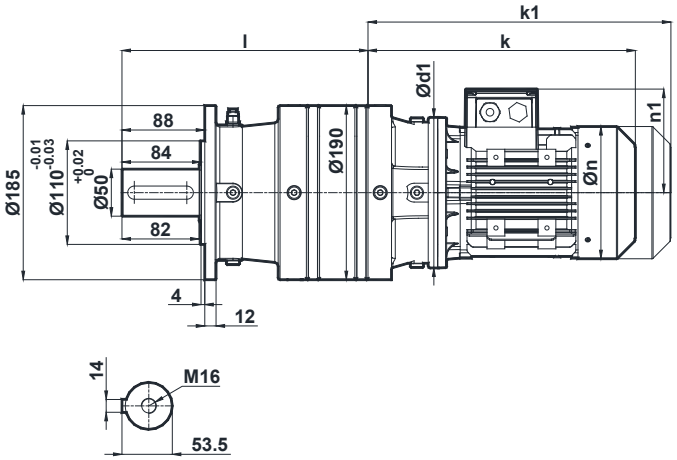
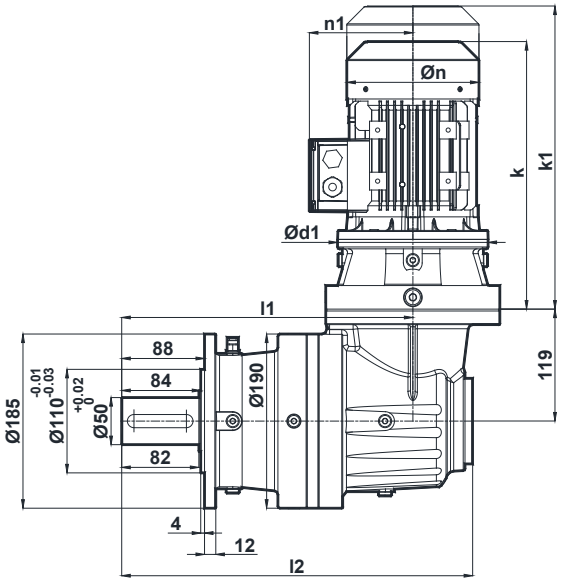
PV120 ... Ⓛ. 01 - ...

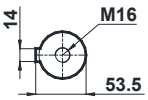
Kademe *Stage* Stufe	l
1	230
2	282
3	333
4	385



PV120 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2
2	330	393
3	381	445
4	433	496

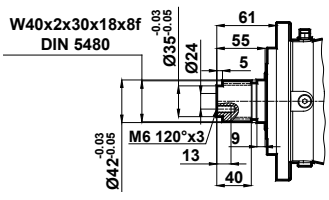




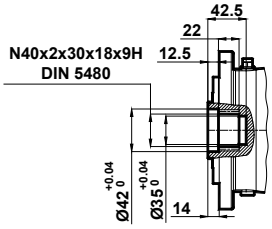
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße									
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160M/B5	160L/B5
k / k1	1	-	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814
	2	2										
	3	3										
	4	4	-									
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224
d1			160	200			250		300		350	

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



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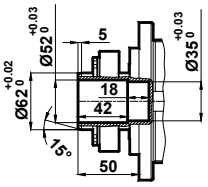
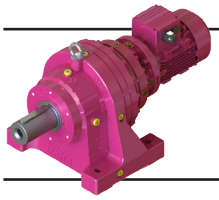


0S

Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shafts see page number 457* / Für optionelle Abtriebswellen siehe Seite 457



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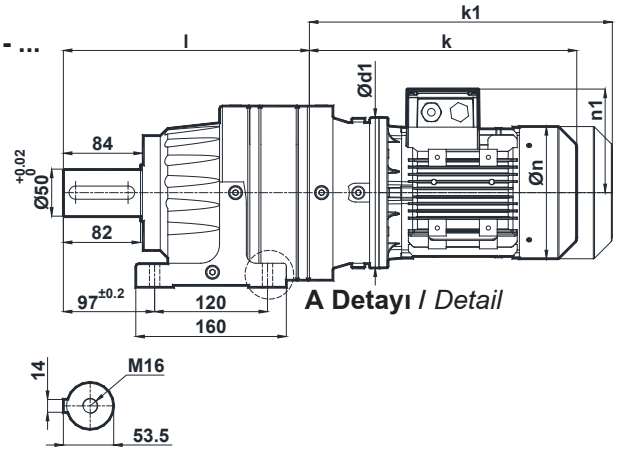
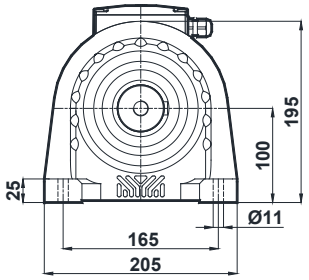
RV120 ... Ⓛ. 01 - ...

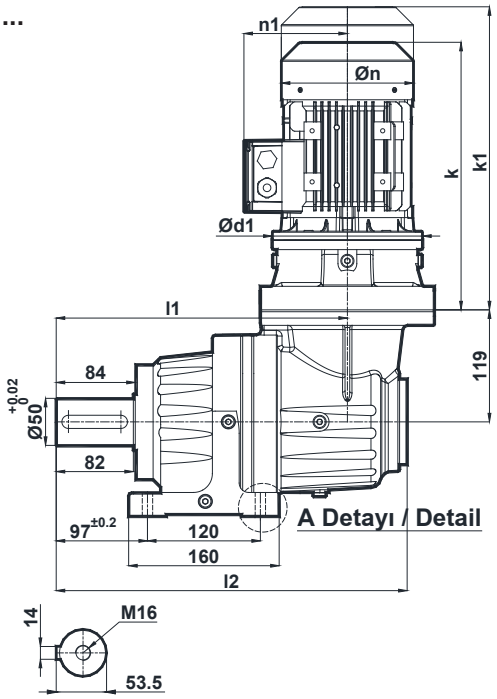
Kademe *Stage* Stufe	l
1	230
2	282
3	333
4	385

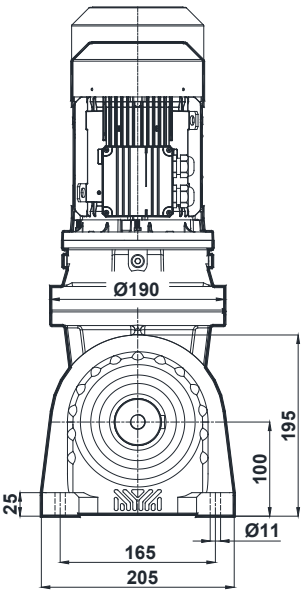


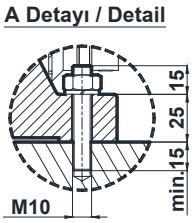


RV120 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2
2	330	393
3	381	445
4	433	496



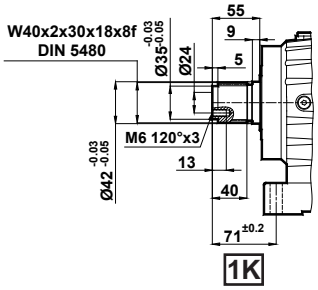




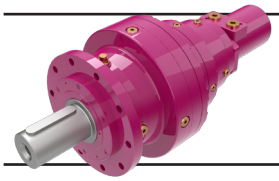
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße									
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160M/B5	160L/B5
k / k1	1	-	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814
	2	2										
	3	3										
	4	4	-									
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224
d1			160	200			250		300		350	

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shaft see page number 457* / Für optionelle Abtriebswellen siehe Seite 457



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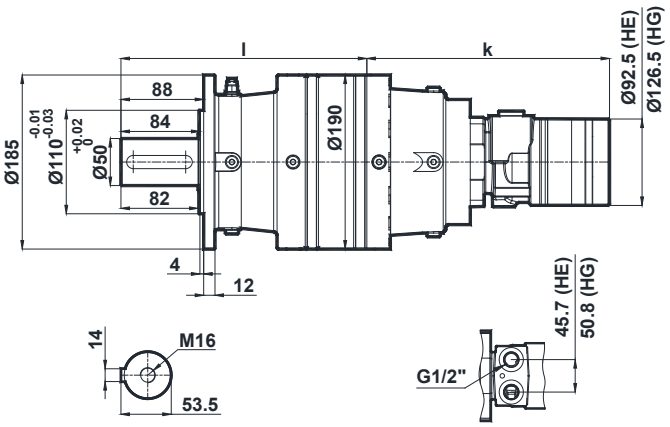
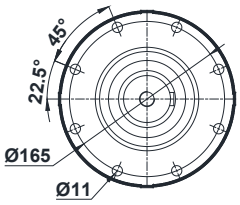
PV120 ... Ⓛ. 01 - H...

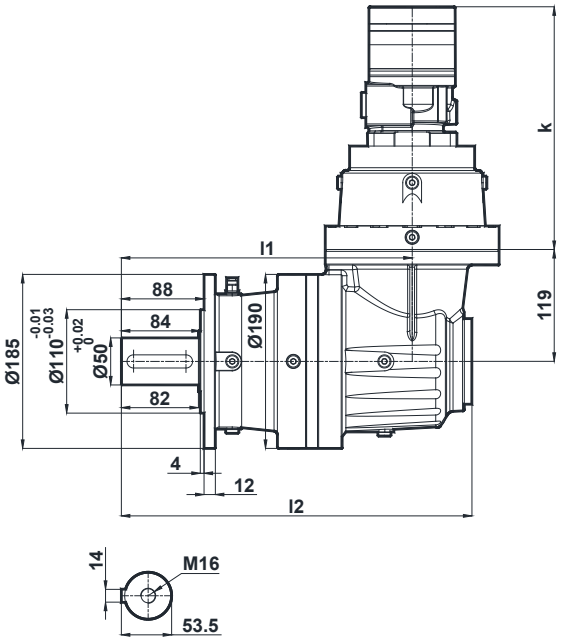
Kademe *Stage* Stufe	l
1	230
2	282
3	333
4	385

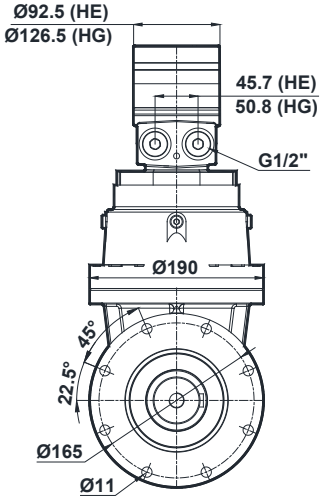




PV120 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2
2	330	393
3	381	445
4	433	496

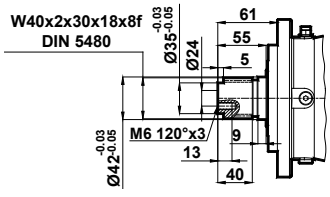




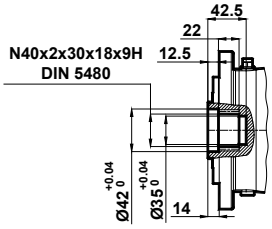
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Tipi / *Motor Type* / Motortyp																				
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	2	2																						
	3	3																						
	4	4																						

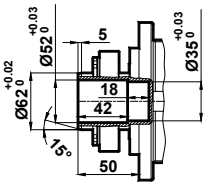
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K

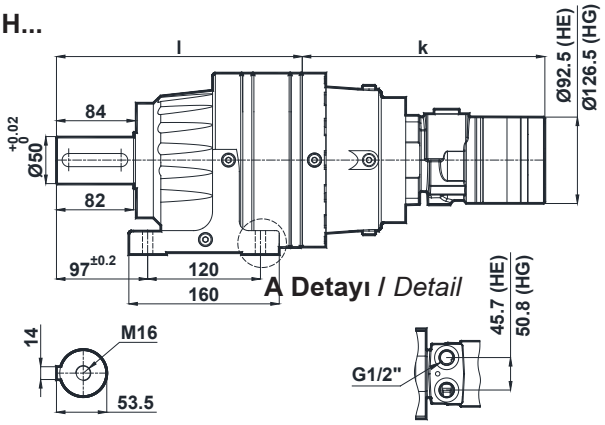


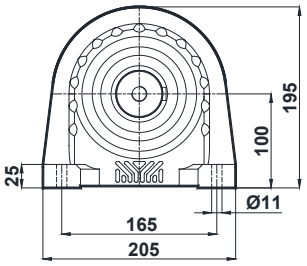
0S

Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shaft see page number 457* / Für optionelle Ausgangswellen siehe Seite 457

RV120 ... Ⓛ . 01 - H...

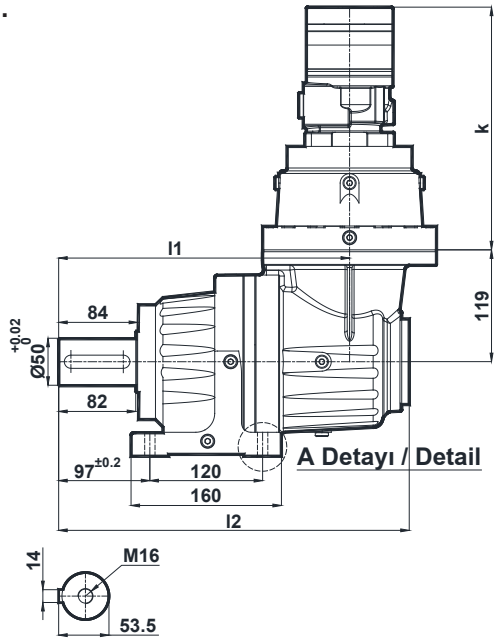
Kademe *Stage* Stufe	l
1	230
2	282
3	333
4	385

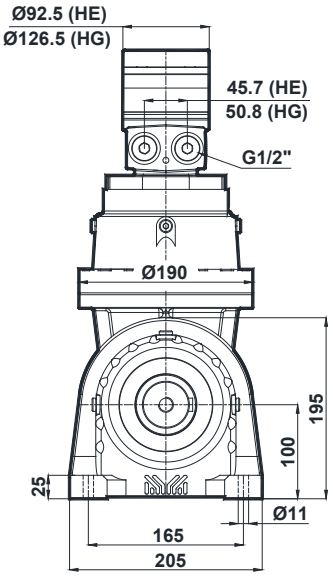


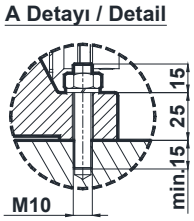


RV120 ... Ⓚ . 01 - H...

Kademe *Stage* Stufe	l1	l2
2	330	393
3	381	445
4	433	496



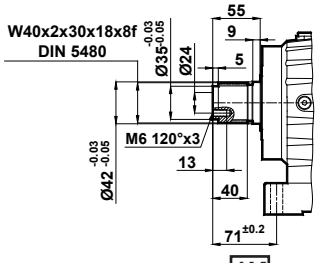




Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

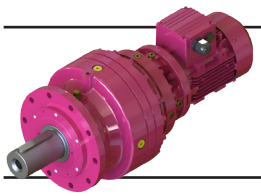
	Kademe *Stage* Stufe		Motor Tipi / *Motor Type* / Motortyp																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	2	2																						
	3	3																						
	4	4																						

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

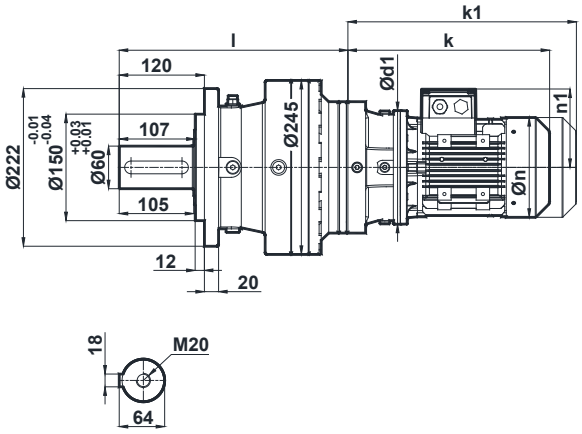
Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shaft see page number 457* / Für optionelle Ausgangswellen siehe Seite 457

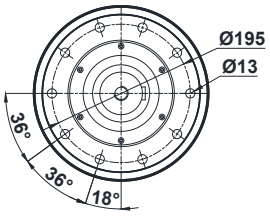


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

PV150 ... Ⓛ. 01 - ...

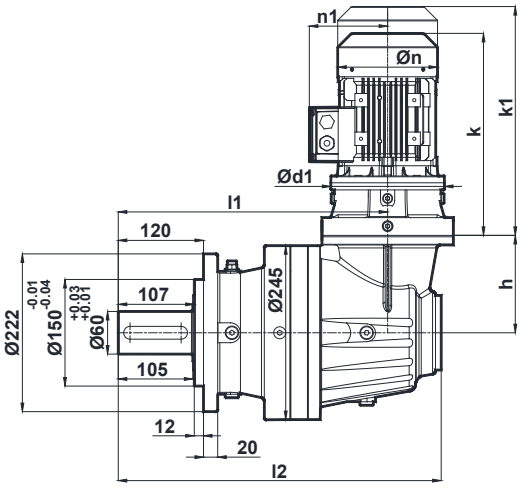
Kademe *Stage* Stufe	l
1	268
2	322
3	374
4	425

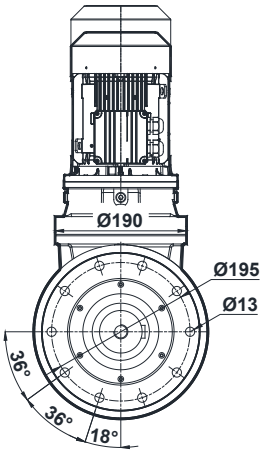


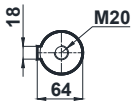


PV150 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2	h
2	379	455	155
3	422	485	119
4	473	537	



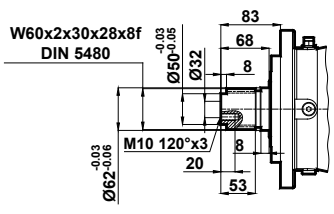




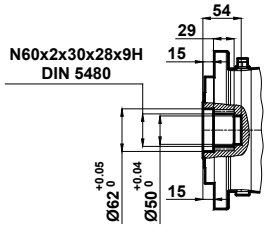
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße														
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5
k / k1	1	-	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860 / 1037	885 / 1066
	2	2	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-
	3	3											-	-	-	-	-
	4	4	-										-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314
d1			160	200			250		300		350				400	450	

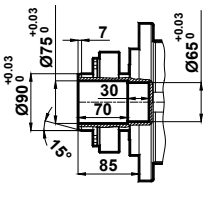
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

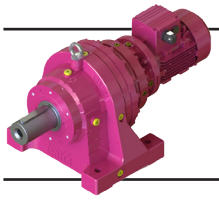


0K



0S

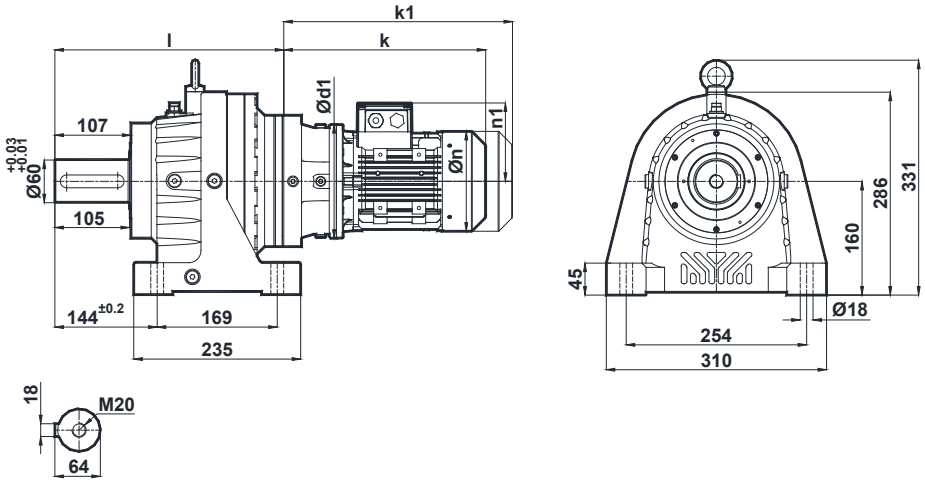
Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shafts see page number 458* / Für optionelle Abtriebswellen siehe Seite 458



Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

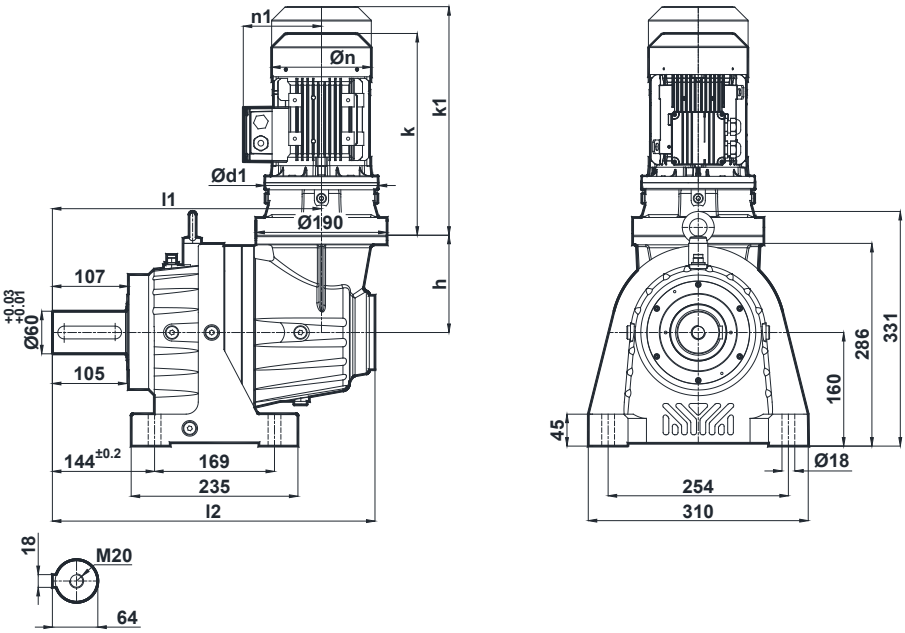
RV150 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	268
2	322
3	374
4	425



RV150 ... Ⓚ. 01 - ...

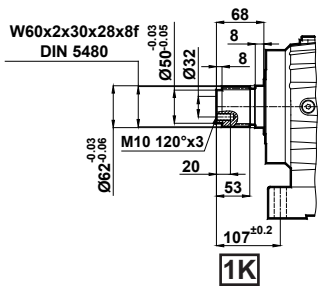
Kademe *Stage* Stufe	l1	l2	h
2	379	455	155
3	422	485	119
4	473	537	



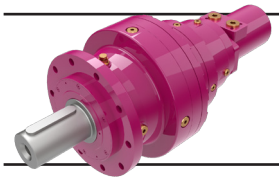
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße														
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5
k / k1	1	-	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860 / 1037	885 / 1066
	2	2	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-
	3	3											-	-	-	-	-
	4	4	-										-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314
d1			160	200			250		300		350				400	450	

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



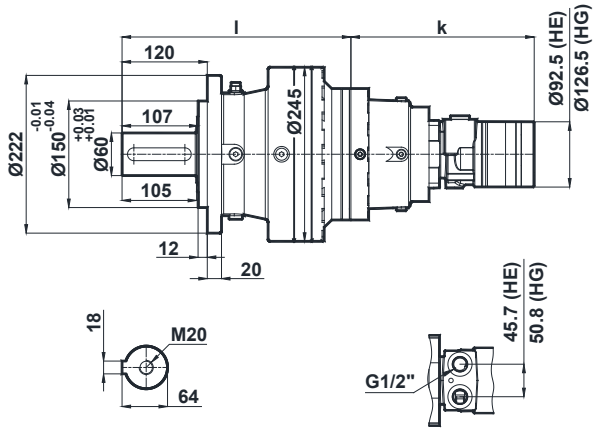
Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shaft see page number 458* / Für optionelle Abtriebswellen siehe Seite 458

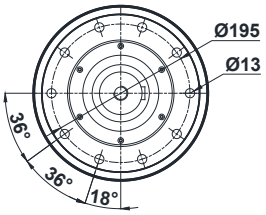


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

PV150 ... Ⓛ. 01 - H...

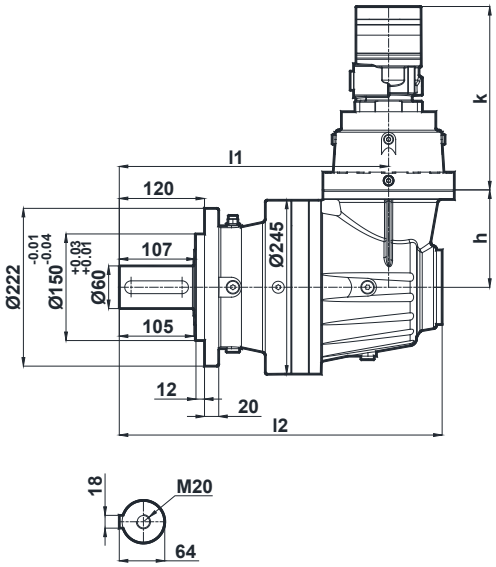
Kademe *Stage* Stufe	l
1	268
2	322
3	374
4	425

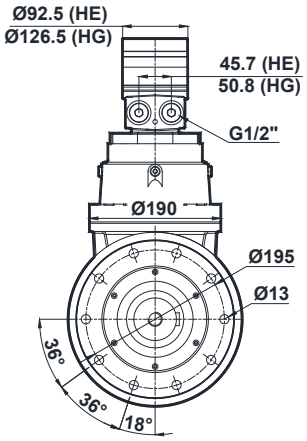




PV150 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h
2	379	455	155
3	422	485	119
4	473	537	

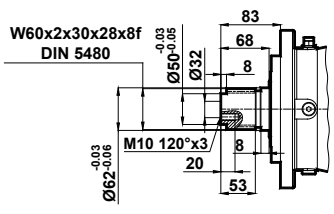




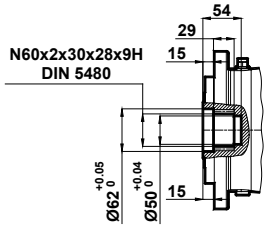
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																				
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	2	2	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	3	3																						
	4	4																						

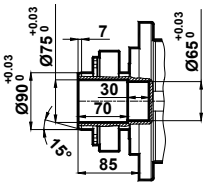
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

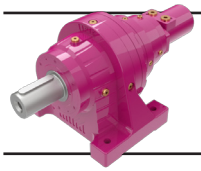


0K



0S

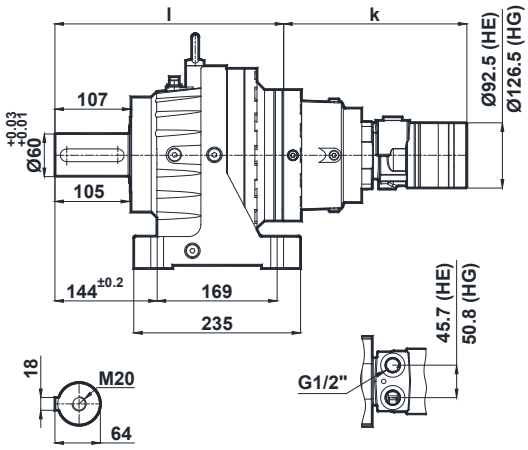
Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shaft see page number 458* / Für optionelle Ausgangswellen siehe Seite 458

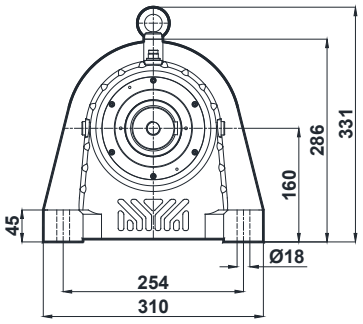


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

RV150 ... Ⓛ . 01 - H...

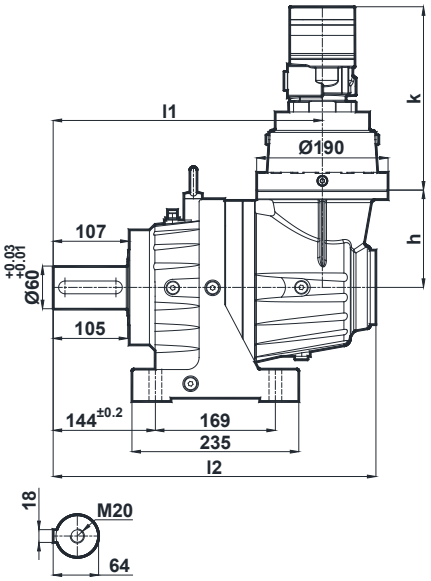
Kademe *Stage* Stufe	l
1	268
2	322
3	374
4	425

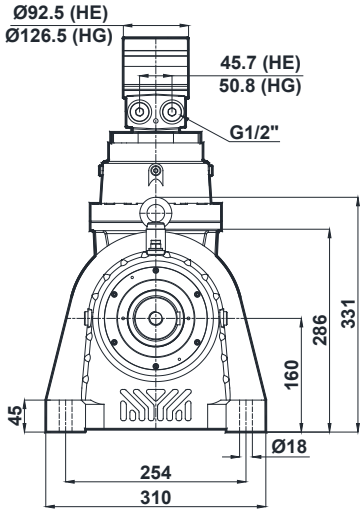




RV150 ... Ⓚ . 01 - H...

Kademe *Stage* Stufe	l1	l2	h
2	379	455	155
3	422	485	119
4	473	537	

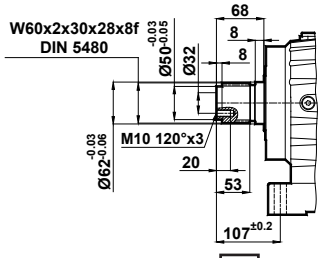




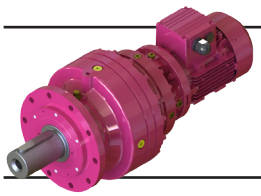
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	2	2	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	3	3																						
	4	4																						

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



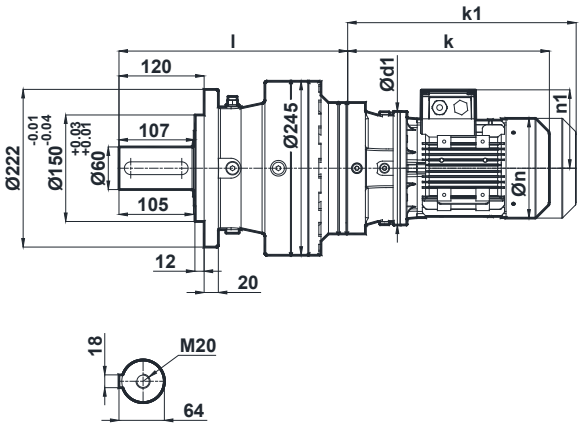
Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shaft see page number 458* / Für optionelle Ausgangswellen siehe Seite 458

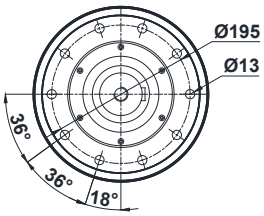


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

PV160 ... Ⓛ. 01 - ...

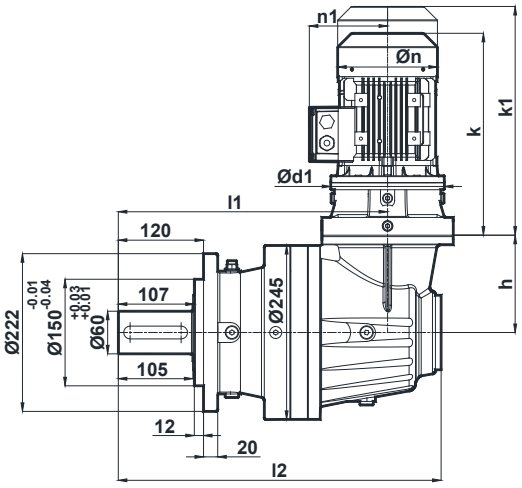
Kademe *Stage* Stufe	l
1	300
2	374
3	426
4	477

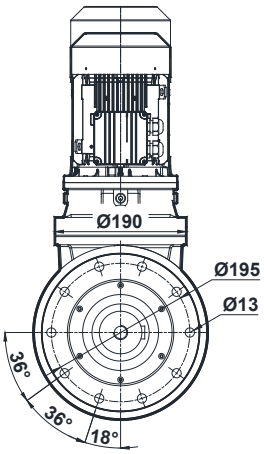


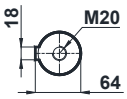


PV160 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2	h
2	411	487	155
3	474	537	119
4	525	589	



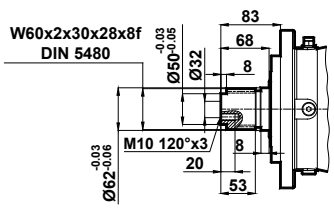




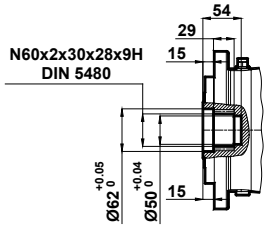
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße														
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5
k / k1	1	-	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066
	2	2	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-
	3	3											-	-	-	-	-
	4	4	-										-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314
d1			160	200			250		300		350				400	450	

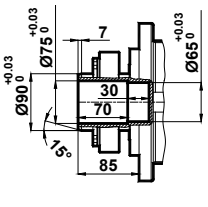
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

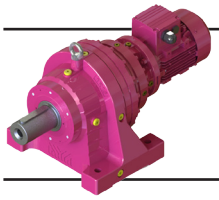


0K



0S

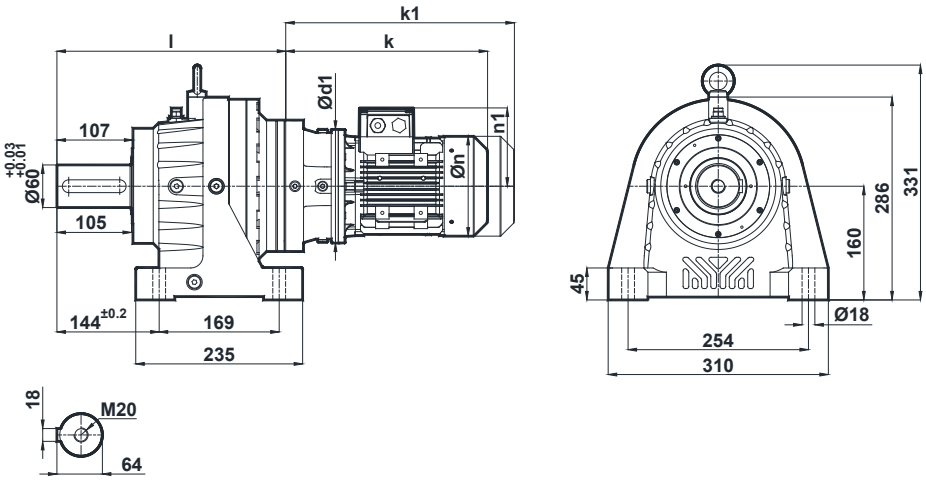
Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shafts see page number 459* / Für optionelle Abtriebswellen siehe Seite 459



Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

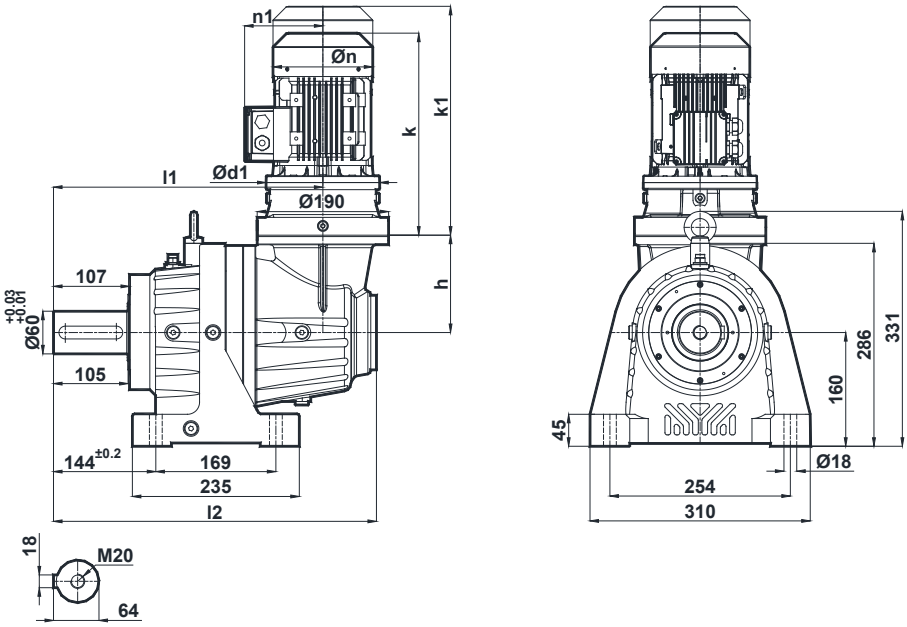
RV160 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	300
2	374
3	426
4	477



RV160 ... Ⓚ. 01 - ...

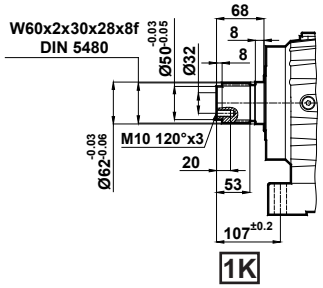
Kademe *Stage* Stufe	l1	l2	h
2	411	487	155
3	474	537	119
4	525	589	



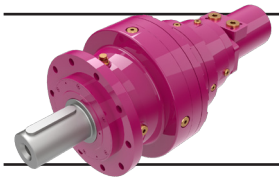
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße														
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5
k / k1	1	-	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066
	2	2	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-
	3	3											-	-	-	-	-
	4	4	-										-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314
d1			160	200			250		300		350				400	450	

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



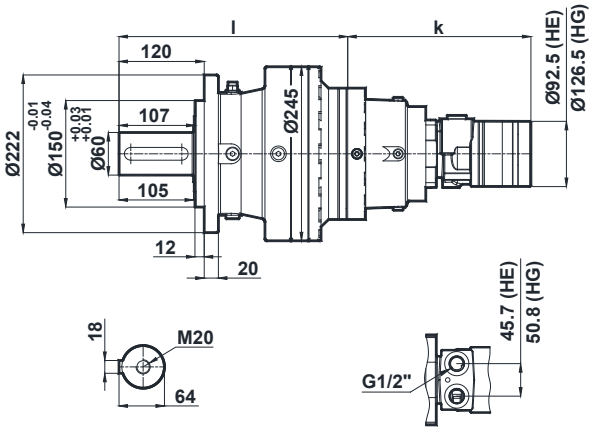
Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shaft see page number 459* / Für optionelle Abtriebswellen siehe Seite 459

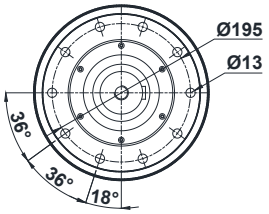


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

PV160 ... Ⓛ. 01 - H...

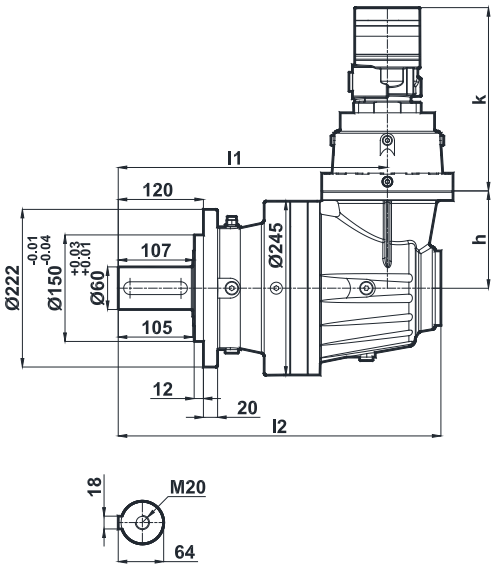
Kademe *Stage* Stufe	l
1	300
2	374
3	426
4	477

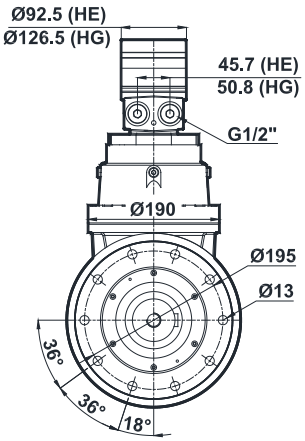




PV160 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h
2	411	487	137
3	474	537	119
4	525	589	

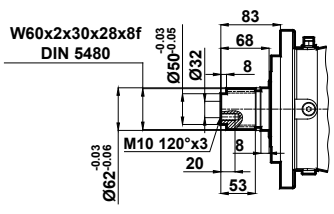




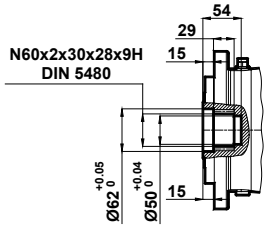
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																				
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	2	2	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	3	3																						
	4	4																						

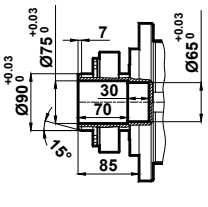
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

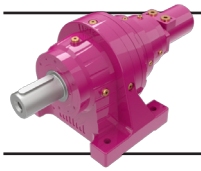


0K



0S

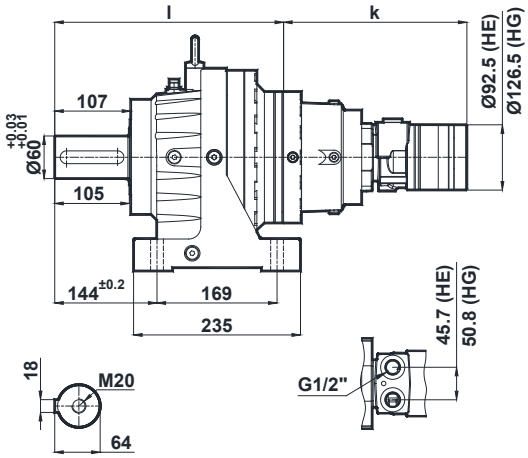
Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shaft see page number 459* / Für optionelle Ausgangswellen siehe Seite 459

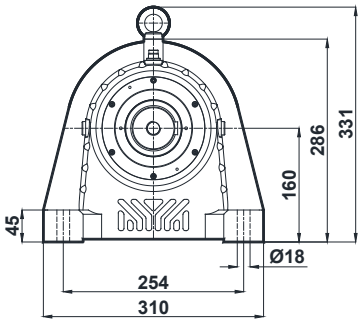


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

RV160 ... Ⓛ . 01 - H...

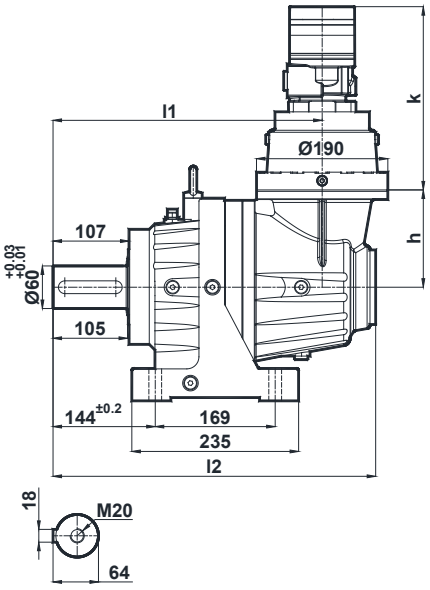
Kademe *Stage* Stufe	l
1	300
2	374
3	426
4	477

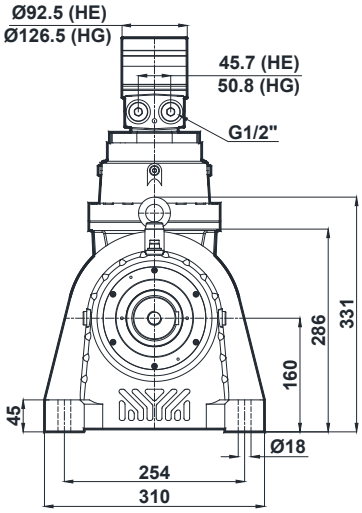




RV160 ... Ⓚ . 01 - H...

Kademe *Stage* Stufe	l1	l2	h
2	411	487	137
3	474	537	119
4	525	589	

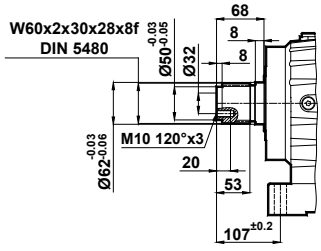




Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

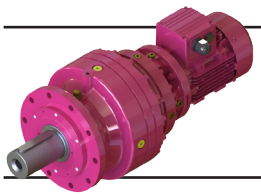
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	2	2	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	3	3																						
	4	4																						

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

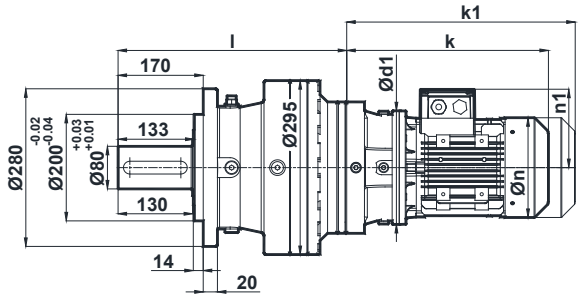
Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shaft see page number 459* / Für optionelle Ausgangswellen siehe Seite 459

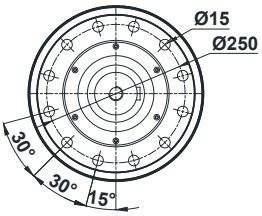


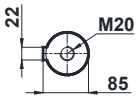
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

PV190 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	361
2	448
3	503
4	554

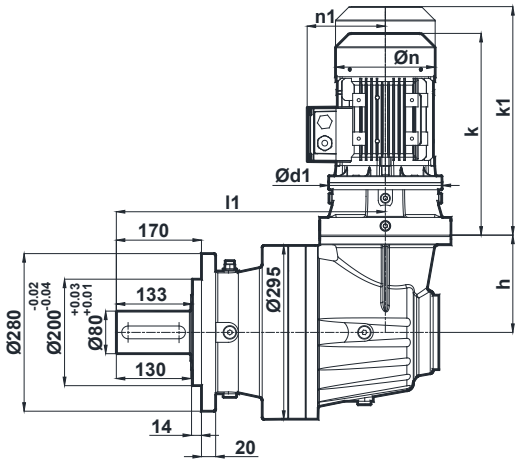


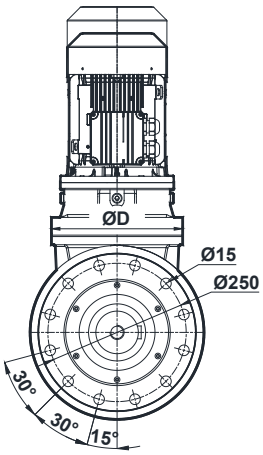


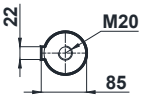


PV190 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2	h	D
2	518	606	198	245
3	560	635	155	185
4	602	665	119	



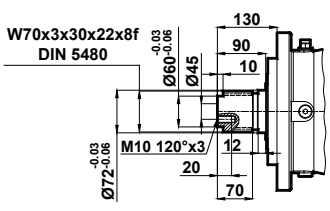




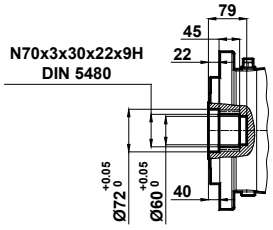
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße															
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	1	-	-	-	-	-	-	-	-	-	666 / 834	666 / 834	745 / 924	745 / 924	796 / 980	861 /1038	886 /1067	962 /1151
	2	2	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066	-
	3	3	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
	4	4	-										-	-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			160	200			250		300		350				400	450		550

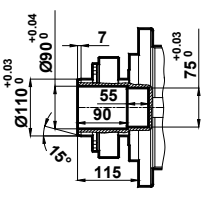
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

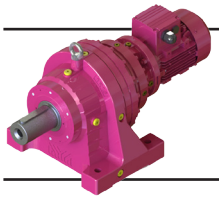


0K



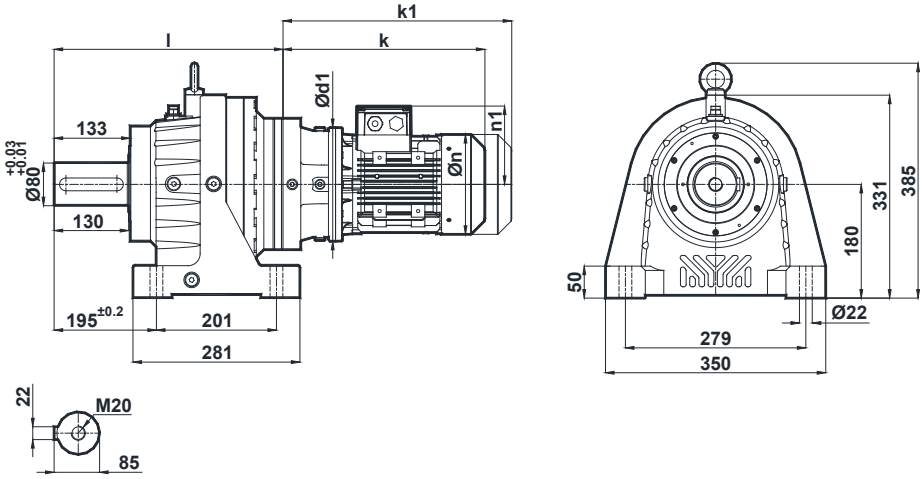
0S

Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shafts see page number 460* / Für optionelle Abtriebswellen siehe Seite 460



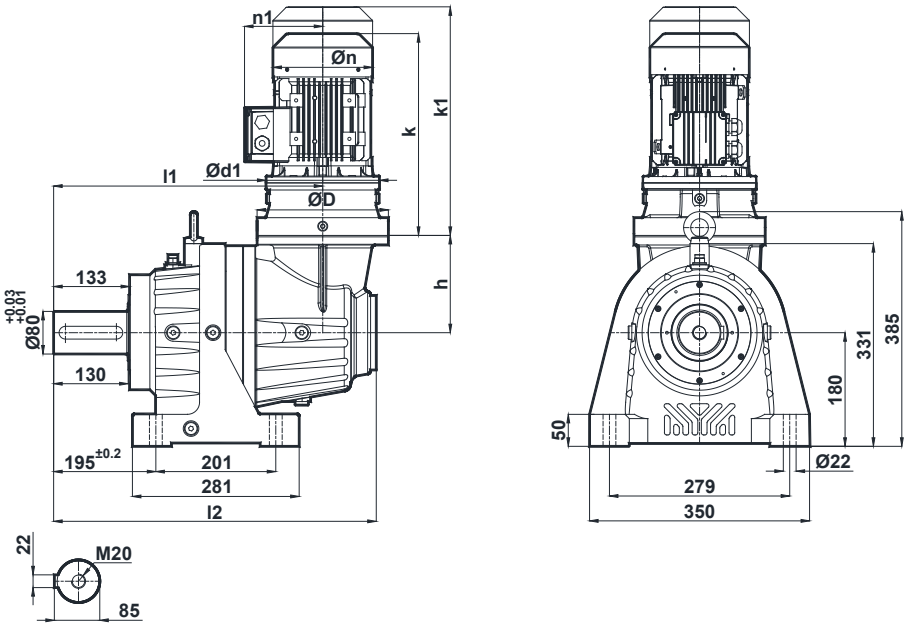
RV190 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	361
2	448
3	503
4	554



RV190 ... Ⓚ. 01 - ...

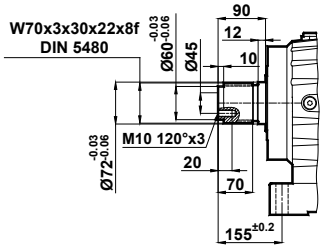
Kademe *Stage* Stufe	l1	l2	h	D
2	518	606	198	245
3	560	635	155	185
4	602	665	119	



k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

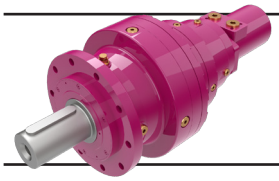
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße														
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	1	-	-	-	-	-	-	-	-	-	666 / 834	666 / 834	745 / 924	745 / 924	796 / 980	861 /1038	886 /1067	962 /1151
	2	2	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066	-
	3	3	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
	4	4	-										-	-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			160	200			250		300		350				400	450		550

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shaft see page number 460* / Für optionelle Abtriebswellen siehe Seite 460



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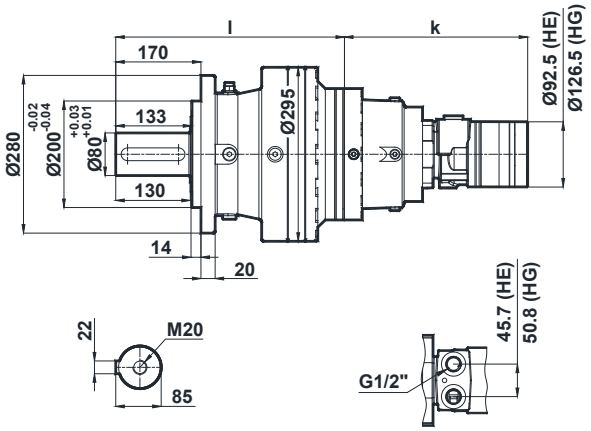
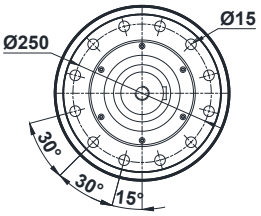
PV190 ... Ⓛ. 01 - H...

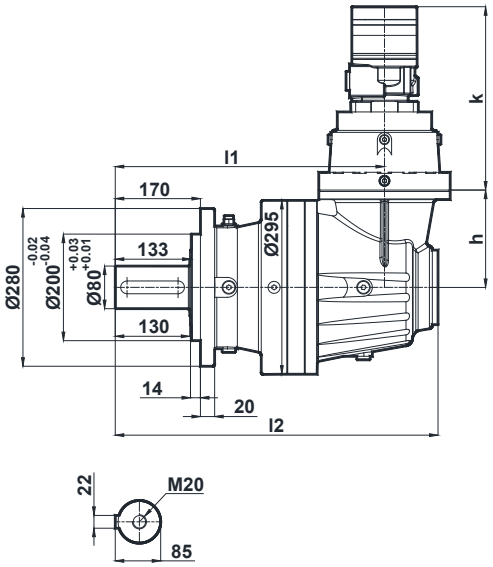
Kademe *Stage* Stufe	l
1	361
2	448
3	503
4	554

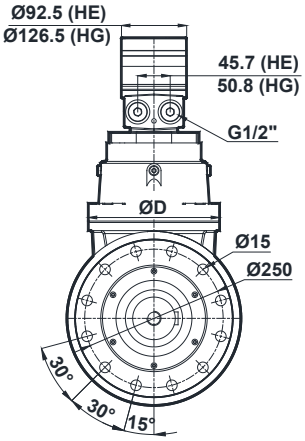




PV190 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	518	606	198	245
3	560	635	155	185
4	602	665	119	

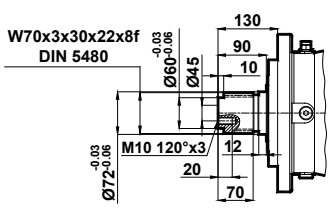




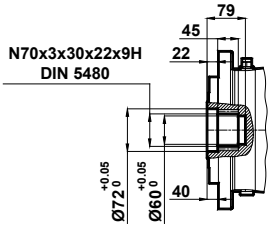
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	261	268	271	277	283	290	296	302	309	315	323	328	327	330	336	340	346	353	362	368	378	397
	2	2	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	3	3	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	4	4																						

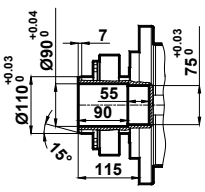
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

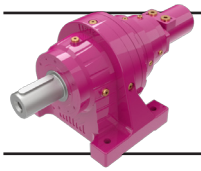


0K



0S

Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shaft see page number 460* / Für optionelle Ausgangswellen siehe Seite 460



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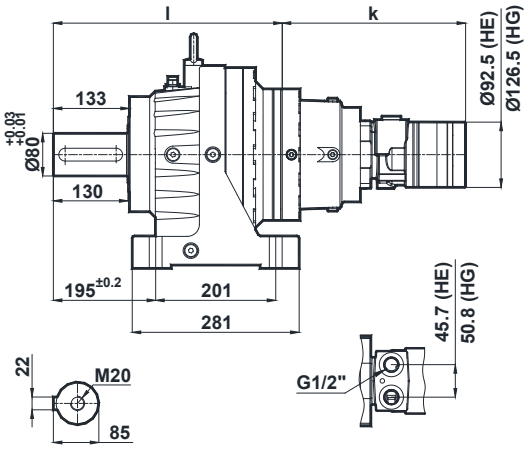
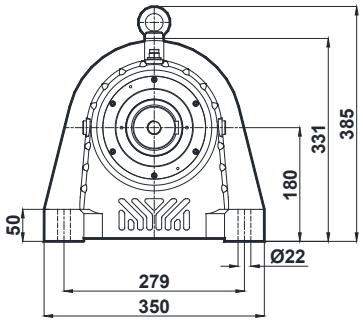
RV190 ... Ⓛ . 01 - H...

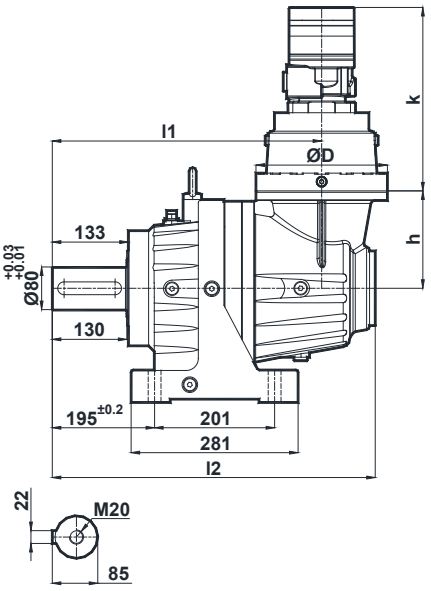
Kademe *Stage* Stufe	l
1	361
2	448
3	503
4	554

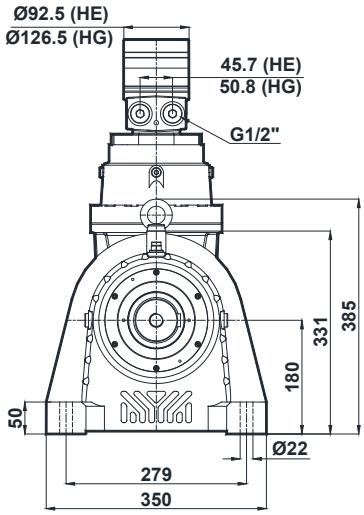




RV190 ... Ⓚ . 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	518	606	198	245
3	560	635	155	185
4	602	665	119	

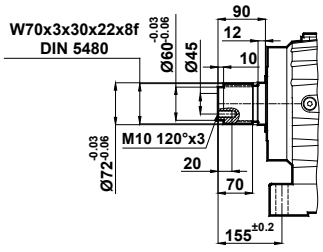




Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

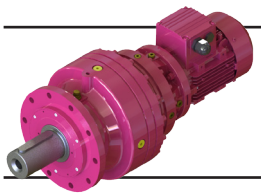
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	261	268	271	277	283	290	296	302	309	315	323	328	327	330	336	340	346	353	362	368	378	397
	2	2	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	3	3	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	4	4																						

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shaft see page number 460* / Für optionelle Ausgangswellen siehe Seite 460



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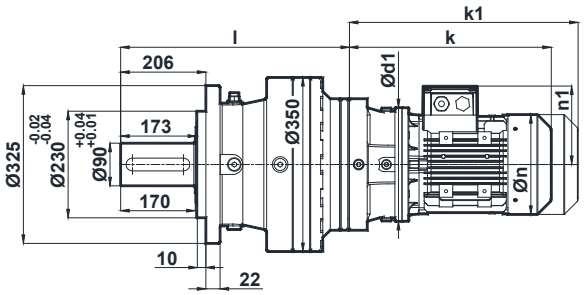
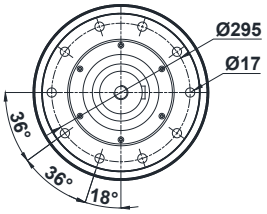
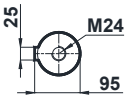
PV230 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	438
2	529
3	584
4	635

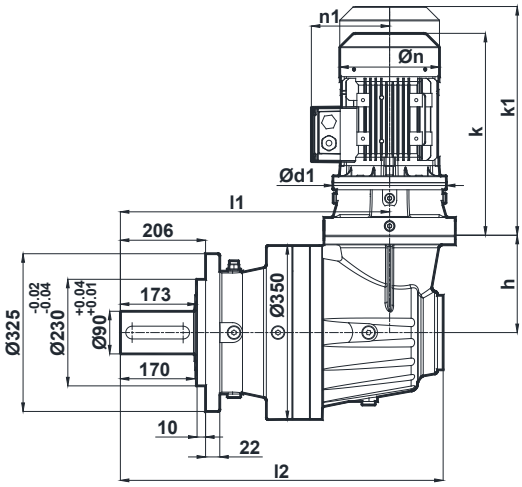


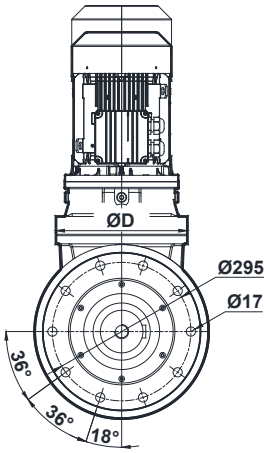


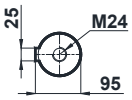


PV230 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2	h	D
2	615	713	223	245
3	641	716	155	185
4	683	747	119	



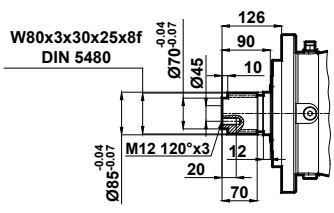




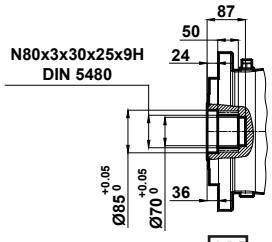
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		**Motor Büyüklüğü** / *Motor Size* / Motorbaugröße														
	Ⓛ	Ⓚ	**71/B5**	**80/B5**	**90S/B5**	**90L/B5**	**100L/B5**	**112M/B5**	**132S/B5**	**132M/B5**	**160L/B5**	**160M/B5**	**180L/B5**	**180M/B5**	**200L/B5**	**225S/B5**	**225M/B5**	**250M/B5**
k / k1	**1**	**-**	-	-	-	-	-	-	-	-	-	-	749 / 928	749 / 928	800 / 984	865 /1042	890 /1071	966 /1155
	2	**2**	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066	-
	3	**3**	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
	4	**4**	-										-	-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			160	200			250		300		350				400	450		550

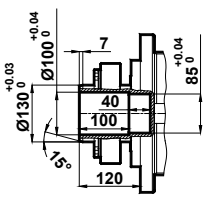
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

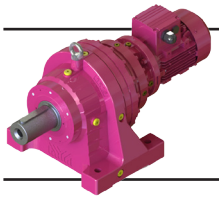


0K



0S

Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shafts see page number 461* / Für optionelle Abtriebswellen siehe Seite 461



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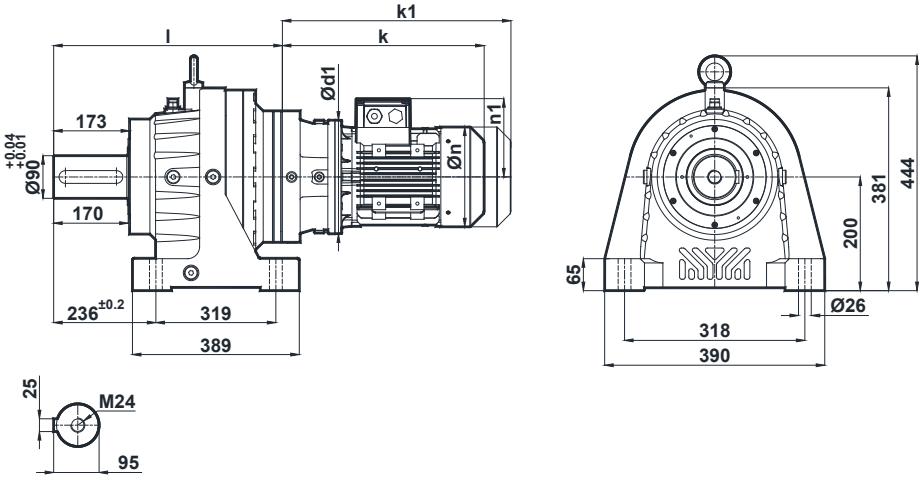
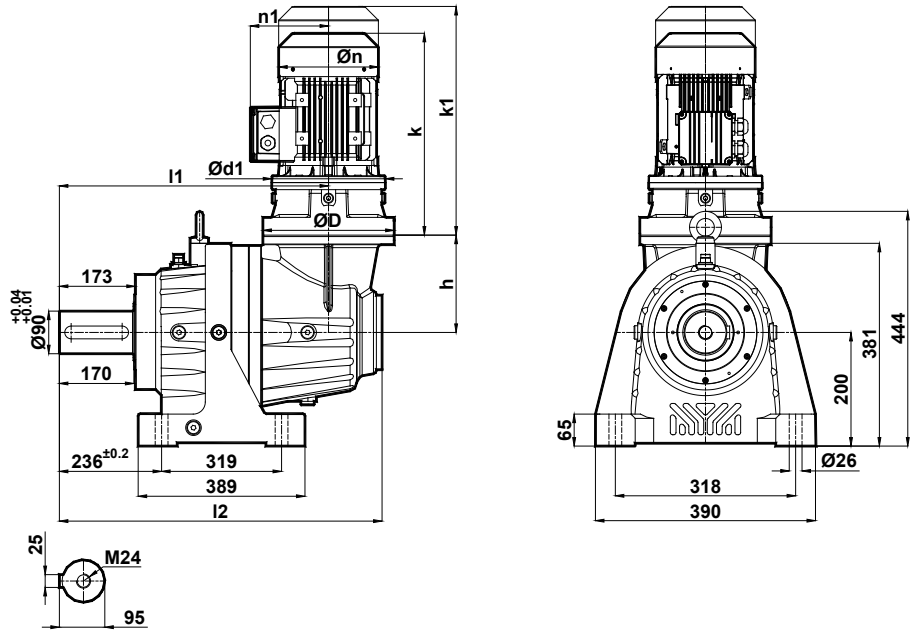
RV230 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	438
2	529
3	584
4	635



RV230 ... Ⓚ. 01 - ...

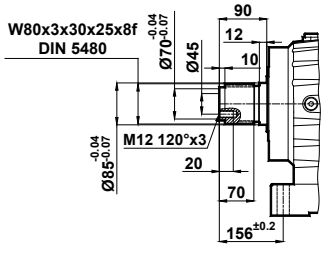
Kademe *Stage* Stufe	l1	l2	h	D
2	615	713	223	245
3	641	716	155	185
4	683	747	119	



k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

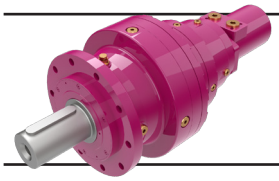
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße														
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	1	-	-	-	-	-	-	-	-	-	-	-	749 / 928	749 / 928	800 / 984	865 /1042	890 /1071	966 /1155
	2	2	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066	-
	3	3	285 / 381	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
	4	4	-										-	-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			160	200			250		300		350				400	450		550

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

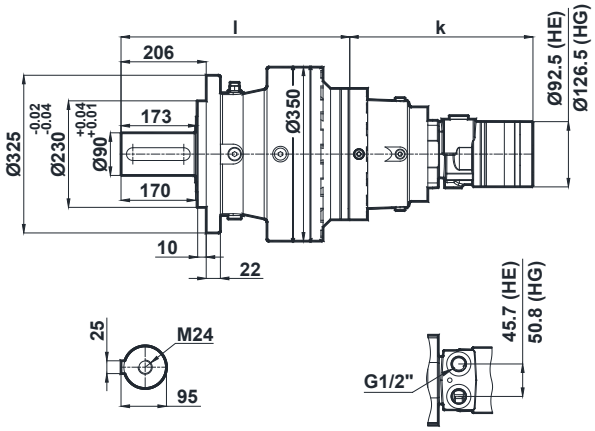
Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shaft see page number 461* / Für optionelle Abtriebswellen siehe Seite 461

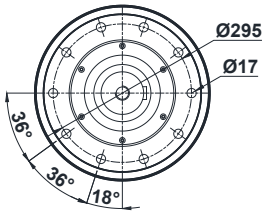


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

PV230 ... Ⓛ. 01 - H...

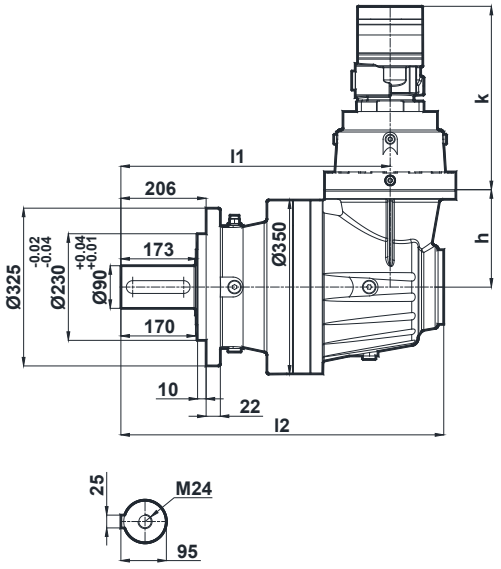
Kademe *Stage* Stufe	l
1	438
2	529
3	584
4	635

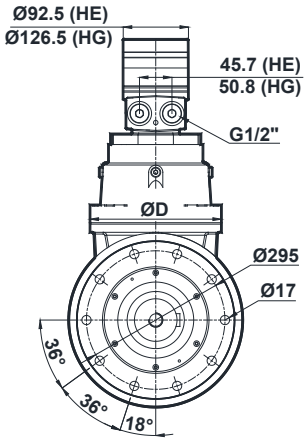




PV230 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	615	713	223	245
3	641	716	155	185
4	683	747	119	

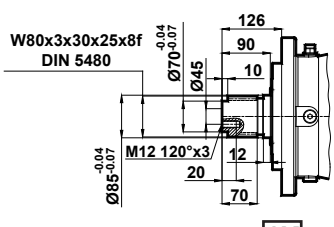




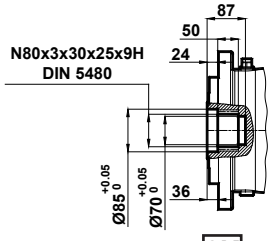
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	265	272	275	281	287	294	300	306	313	319	327	332	331	334	340	344	350	357	366	372	382	401
	2	2	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	3	3	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	4	4																						

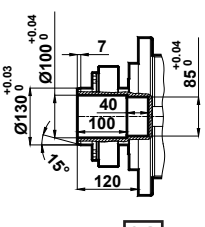
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

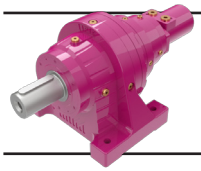


0K



0S

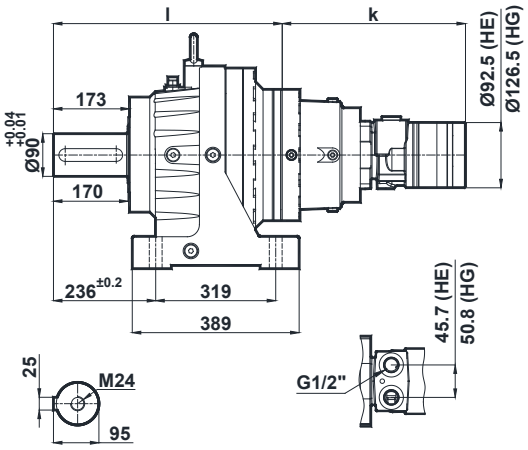
Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shaft see page number 461* / Für optionelle Ausgangswellen siehe Seite 461

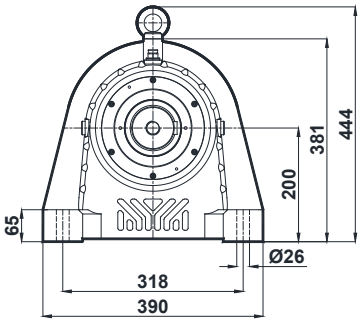


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

RV230 ... Ⓛ . 01 - H...

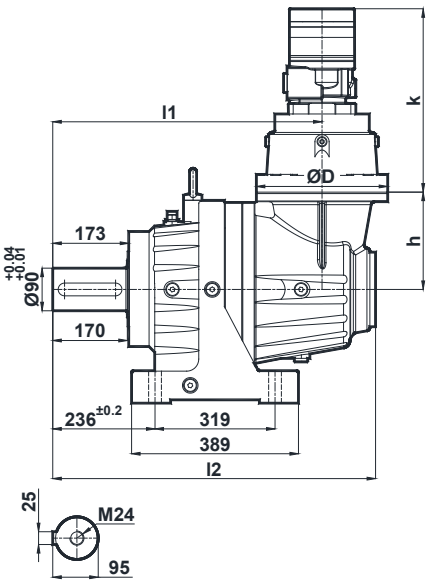
Kademe *Stage* Stufe	l
1	438
2	529
3	584
4	635

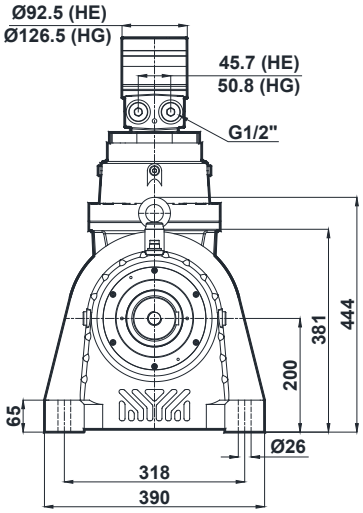




RV230 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	615	713	223	245
3	641	716	155	185
4	683	747	119	

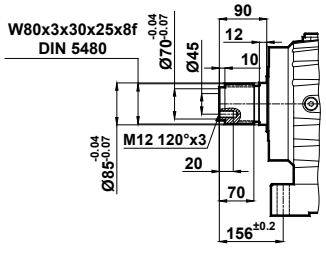




Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

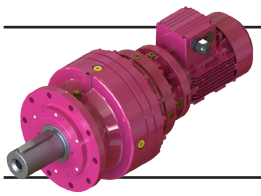
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	265	272	275	281	287	294	300	306	313	319	327	332	331	334	340	344	350	357	366	372	382	401
	2	2	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	3	3	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	4	4																						

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

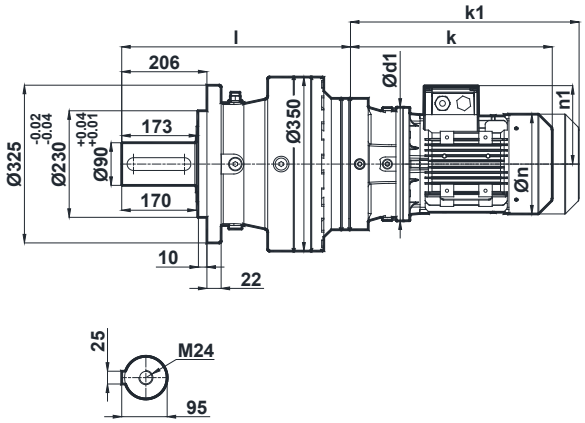
Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shaft see page number 461* / Für optionelle Ausgangswellen siehe Seite 461

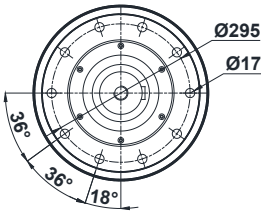


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

PV240 ... Ⓛ. 01 - ...

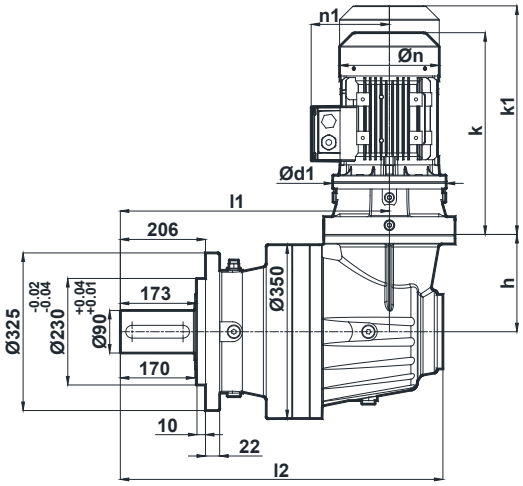
Kademe *Stage* Stufe	l
1	490
2	613
3	688
4	739

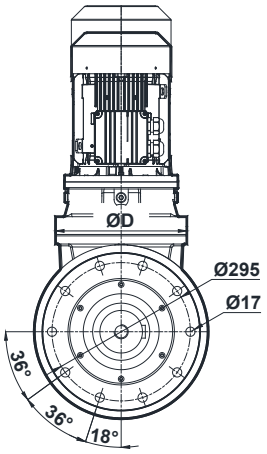


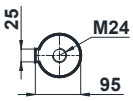


PV240 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2	h	D
2	667	765	223	245
3	725	800	155	185
4	787	851	119	



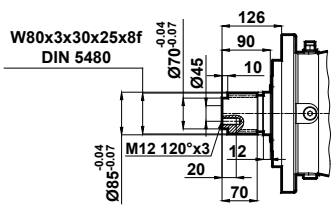




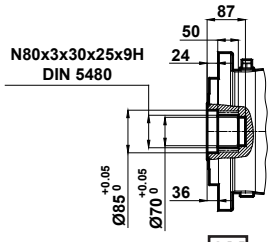
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße															
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	1	-	-	-	-	-	-	-	-	-	-	-	749 / 928	749 / 928	800 / 984	865 /1042	890 /1071	966 /1155
	2	2	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066	-
	3	3	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	646 / 814	-	-	-	-	-	-
	4	4	-										-	-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			160	200			250		300		350				400	450		550

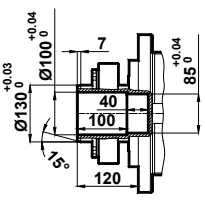
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

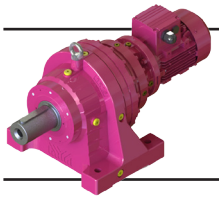


0K



0S

Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shafts see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463



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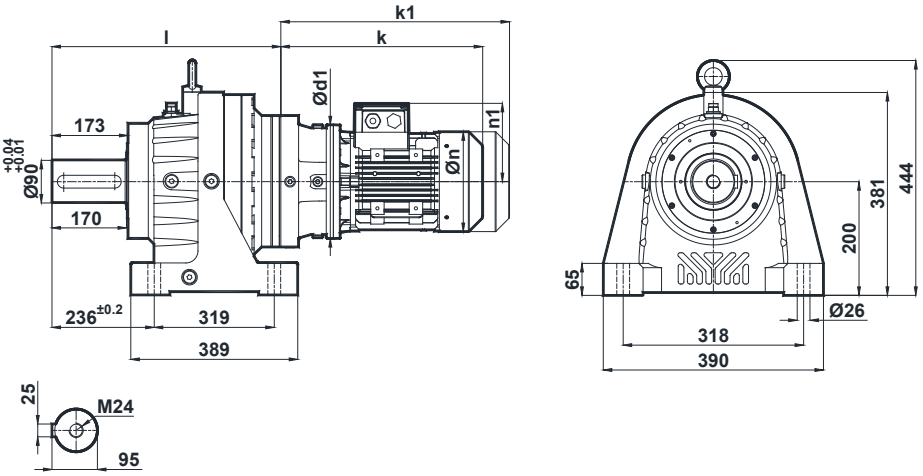
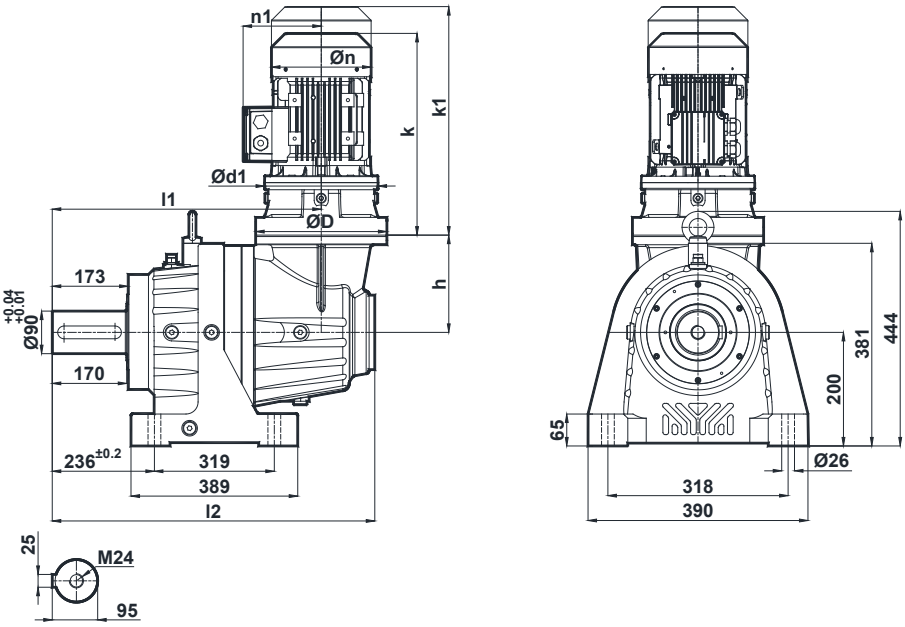
RV240 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	490
2	613
3	688
4	739



RV240 ... Ⓚ. 01 - ...

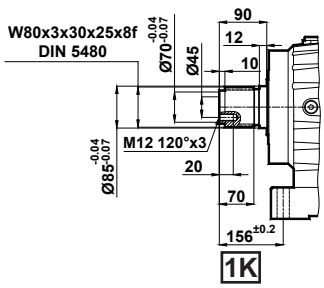
Kademe *Stage* Stufe	l1	l2	h	D
2	667	765	223	245
3	725	800	155	185
4	787	851	119	



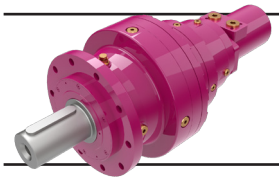
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße															
	Ⓛ	Ⓚ	71/B5	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	1	-	-	-	-	-	-	-	-	-	-	-	749 / 928	749 / 928	800 / 984	865 /1042	890 /1071	966 /1155
	2	2	-	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066	-
	3	3	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	646 / 814	-	-	-	-	-	-
	4	4	-										-	-	-	-	-	-
n / n1			137 / 112	155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			160	200			250		300		350				400	450		550

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shaft see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463



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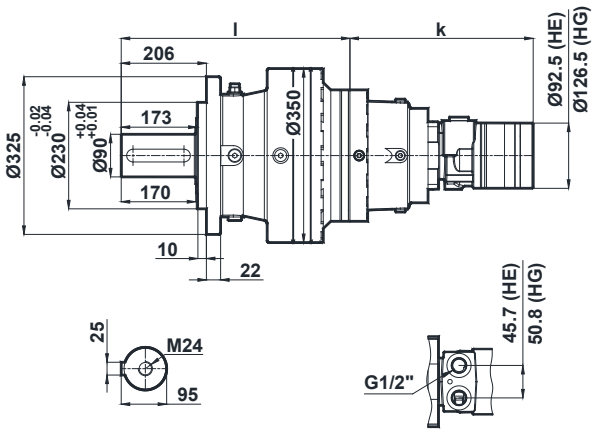
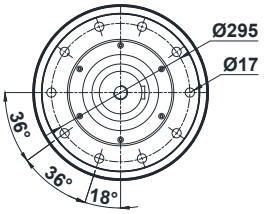
PV240 ... Ⓛ. 01 - H...

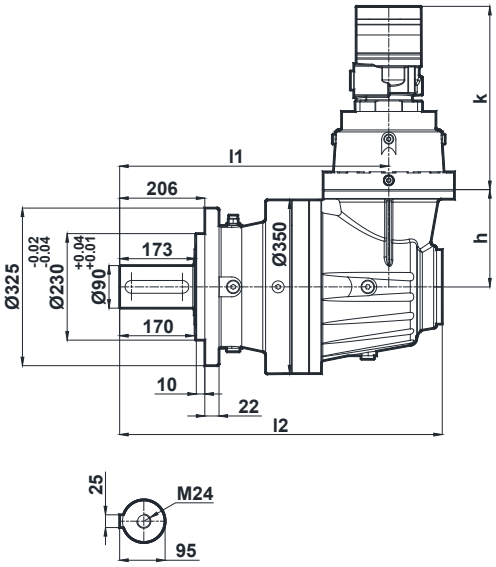
Kademe *Stage* Stufe	l
1	490
2	613
3	688
4	739

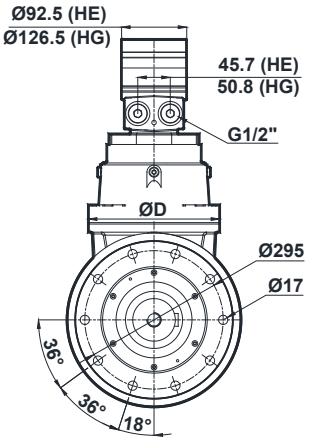




PV240 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	667	765	223	245
3	725	800	155	185
4	787	851	119	

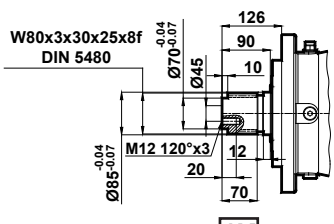




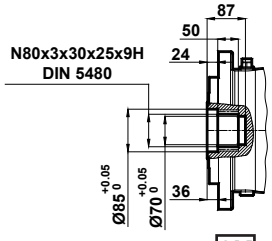
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	265	272	275	281	287	294	300	306	313	319	327	332	331	334	340	344	350	357	366	372	382	401
	2	2	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	3	3	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	4	4																						

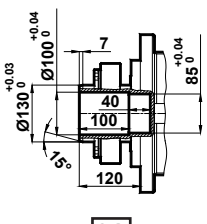
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

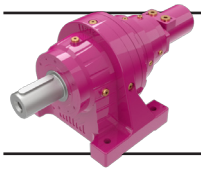


0K



0S

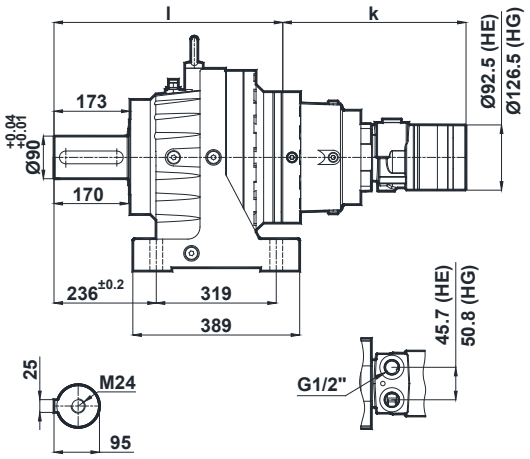
Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shafts see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463

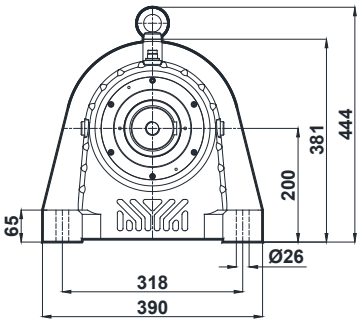


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

RV240 ... Ⓛ . 01 - H...

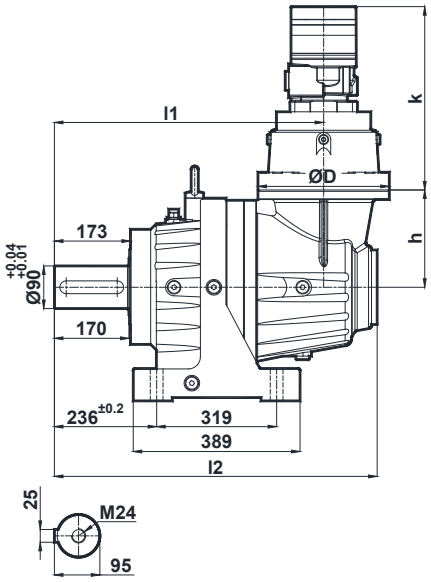
Kademe *Stage* Stufe	l
1	490
2	613
3	688
4	739

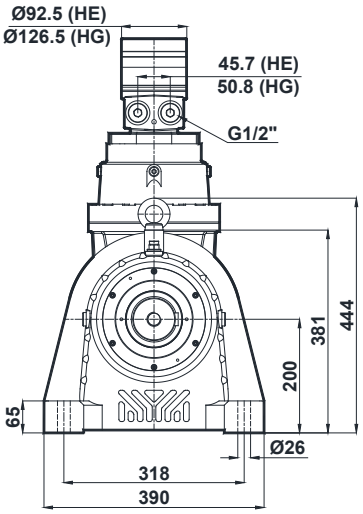




RV240 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	667	765	223	245
3	725	800	155	185
4	787	851	119	

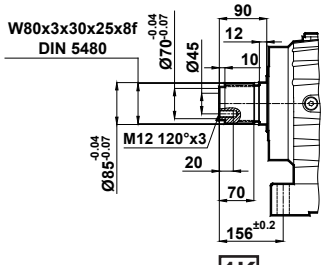




Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

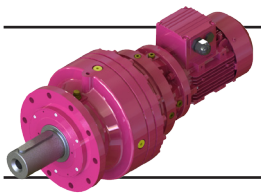
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	1	-	265	272	275	281	287	294	300	306	313	319	327	332	331	334	340	344	350	357	366	372	382	401
	2	2	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	3	3	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379
	4	4																						

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

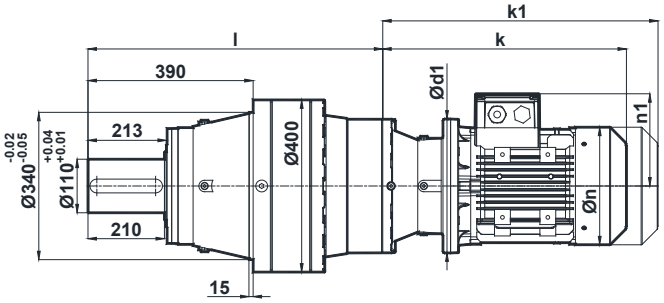
Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shaft see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463

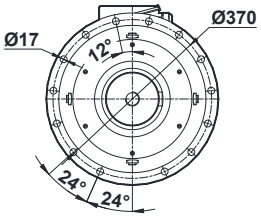


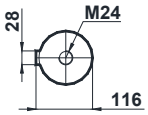
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

PV270 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	492
2	646
3	733
4	788

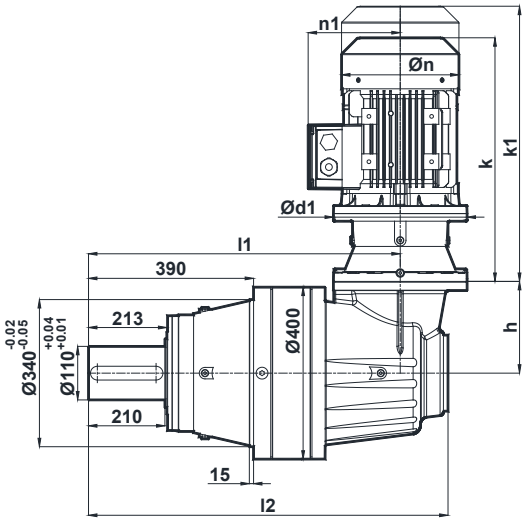


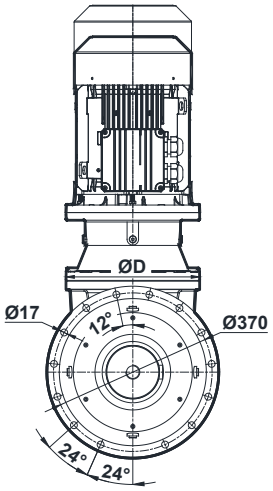


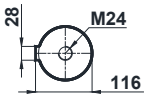


PV270 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2	h	D
2	739	858	291	295
3	803	891	198	245
4	845	920	155	185



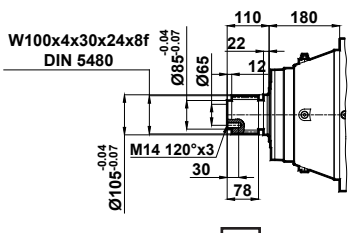




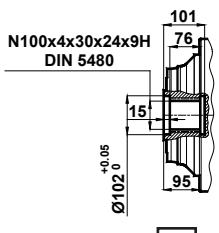
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße														
	Ⓛ	Ⓚ	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	1	-	-	-	-	-	-	-	-	-	-	-	-	848 / 1031	911 / 1088	936 / 1117	1012/1201
	2	2	-	-	-	-	-	-	-	666 / 834	666 / 834	745 / 924	745 / 924	796 / 980	861 / 1038	886 / 1067	962 / 1151
	3	3	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066	-
	4	4	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
n / n1			155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			200			250		300		350				400	450		550

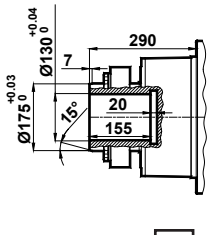
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

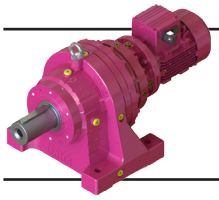


0K



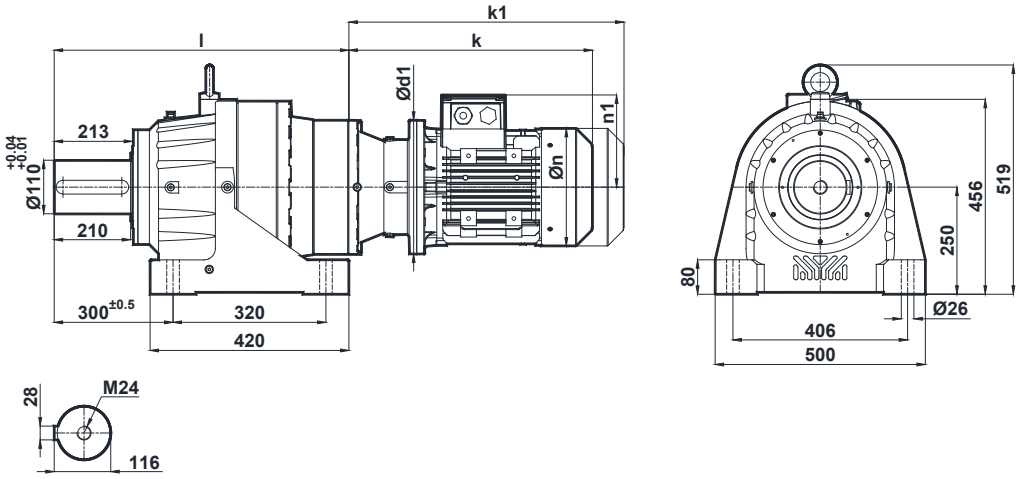
0S

Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shafts see page number 464* / Für optionelle Abtriebswellen siehe Seite 464



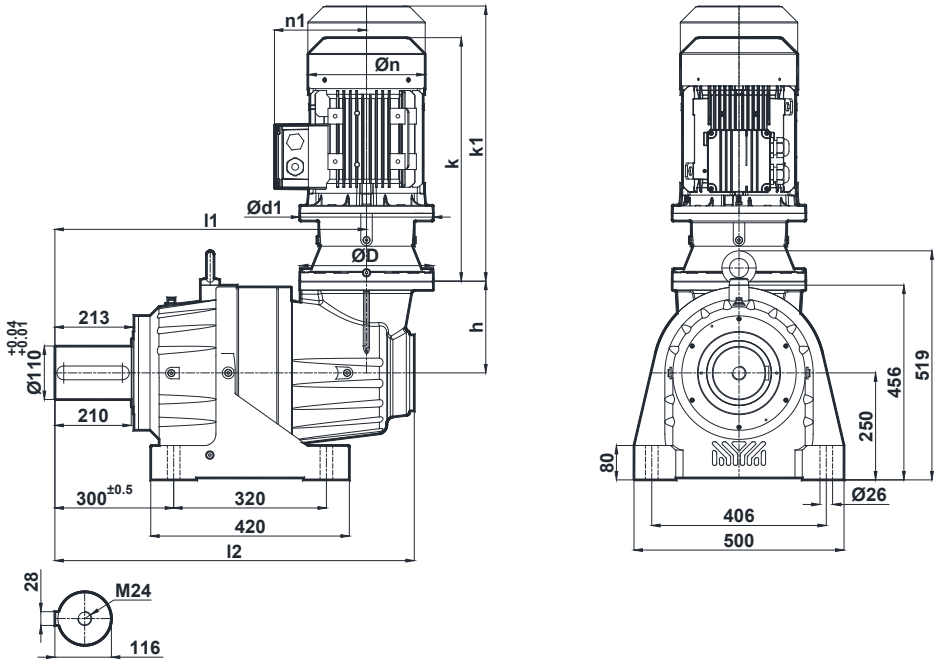
RV270 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
1	492
2	646
3	733
4	788



RV270 ... Ⓚ. 01 - ...

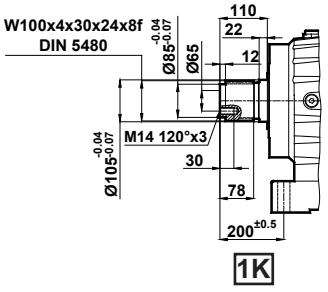
Kademe *Stage* Stufe	l1	l2	h	D
2	739	858	291	295
3	803	891	198	245
4	845	920	155	185



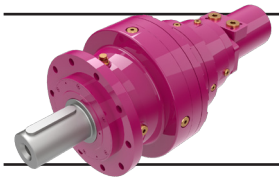
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße														
	Ⓛ	Ⓚ	80/B5	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	1	-	-	-	-	-	-	-	-	-	-	-	-	848 / 1031	911 / 1088	936 / 1117	1012/1201
	2	2	-	-	-	-	-	-	-	666 / 834	666 / 834	745 / 924	745 / 924	796 / 980	861 / 1038	886 / 1067	962 / 1151
	3	3	-	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	779 / 963	860/1037	885/1066	-
	4	4	327 / 459	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
n / n1			155 / 121	176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			200			250		300		350				400	450		550

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



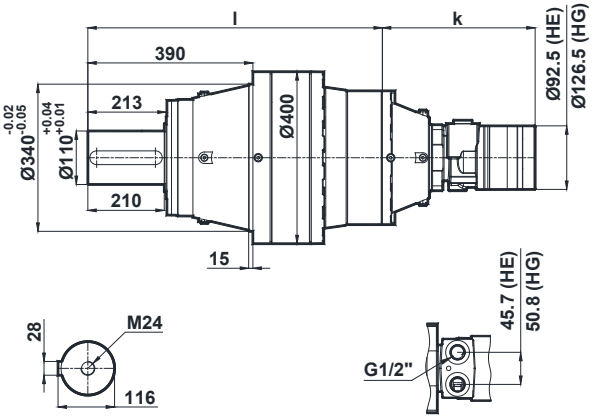
Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shaft see page number 464* / Für optionelle Abtriebswellen siehe Seite 464

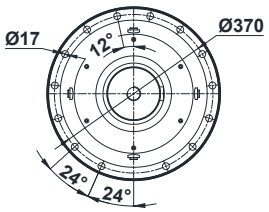


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

PV270 ... Ⓛ. 01 - H...

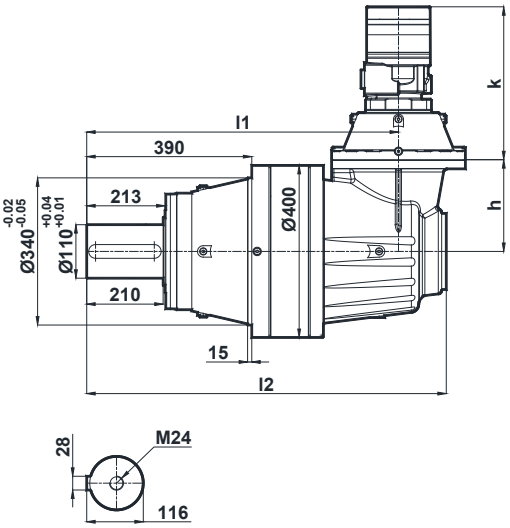
Kademe *Stage* Stufe	l
2	619
3	706
4	761

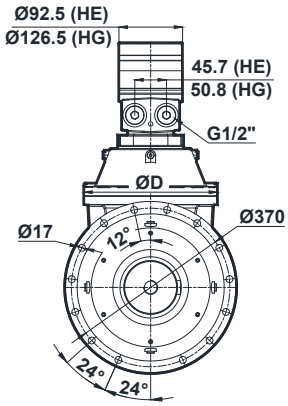




PV270 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	695	814	221	295
3	776	864	177	245
4	818	893	137	185

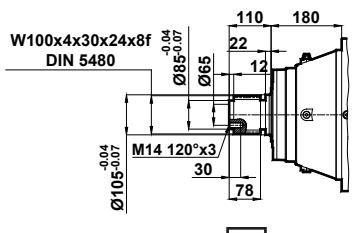




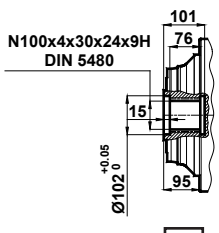
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																						
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	2	2	261	268	271	277	283	290	296	302	309	315	323	328	327	330	336	340	346	353	362	368	378	397
	3	3	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	4	4	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379

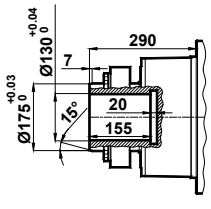
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

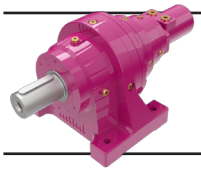


0K



0S

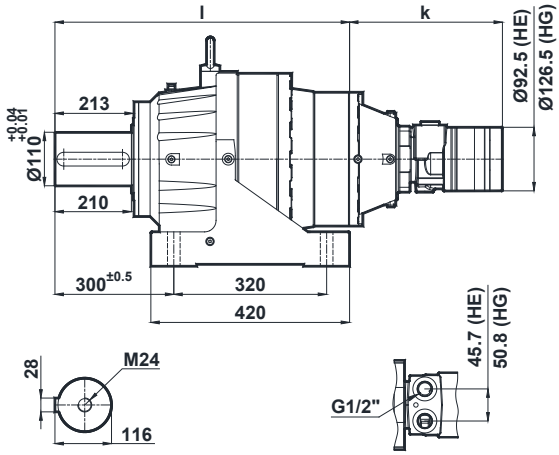
Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shaft see page number 464* / Für optionelle Ausgangswellen siehe Seite 464

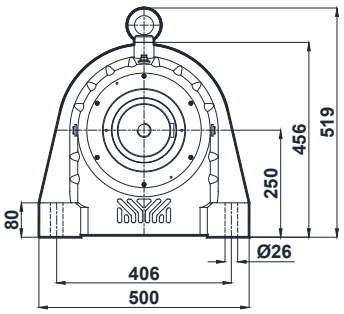


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

RV270 ... Ⓛ . 01 - H...

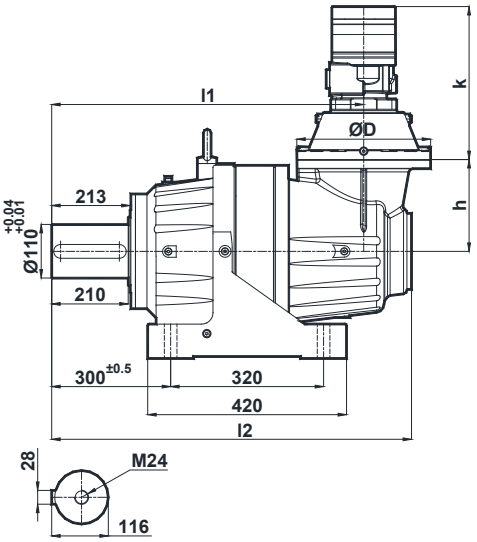
Kademe *Stage* Stufe	l
2	619
3	706
4	760,5

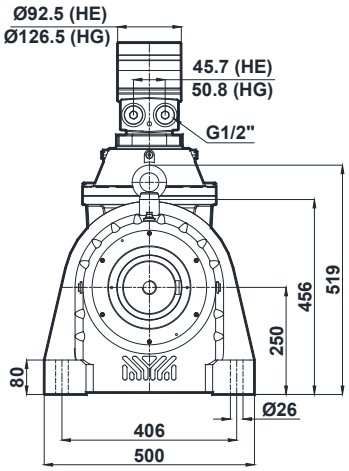




RV270 ... Ⓚ . 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	695	814	221	295
3	776	864	177	245
4	818	893	137	185

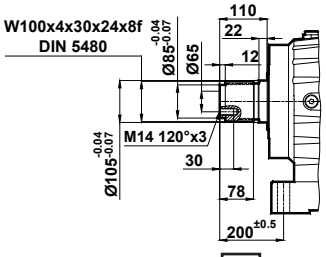




Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

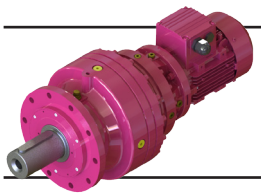
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																						
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	2	2	261	268	271	277	283	290	296	302	309	315	323	328	327	330	336	340	346	353	362	368	378	397
	3	3	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	4	4	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shaft see page number 464* / Für optionelle Ausgangswellen siehe Seite 464



Ölçü Sayfaları
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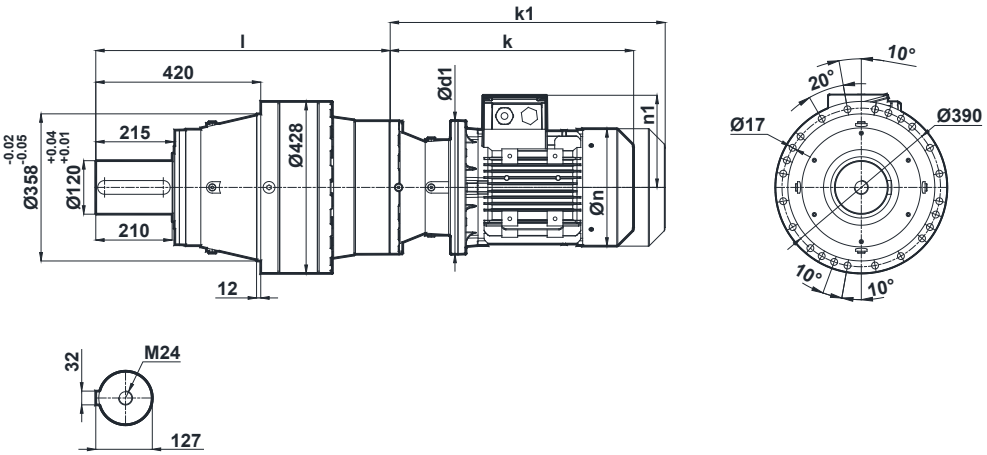
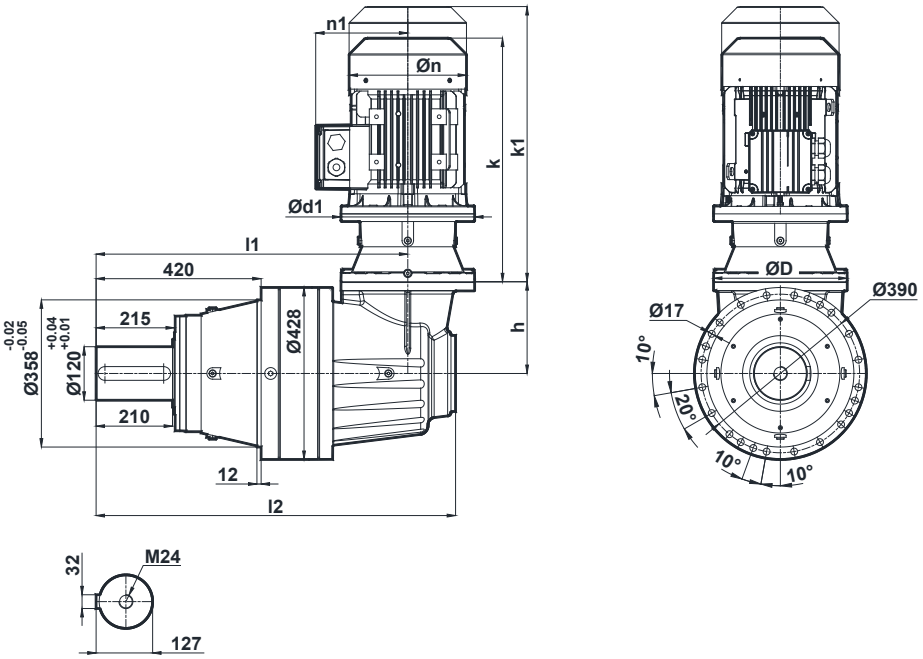
PV290 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
2	717
3	808
4	863



PV290 ... Ⓚ. 01 - ...

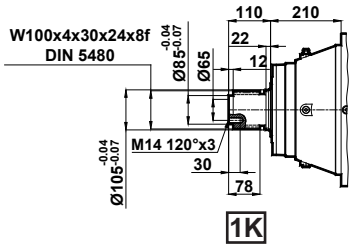
Kademe *Stage* Stufe	l1	l2	h	D
2	815	934	287	350
3	894	992	223	245
4	920	995	119	185



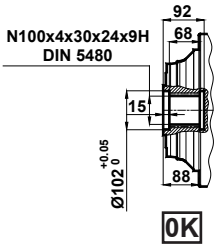
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße													
	Ⓛ	Ⓚ	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	2	2	-	-	-	-	-	-	-	-	749 / 928	749 / 928	800 / 984	865 /1042	890 /1071	966 /1155
	3	3	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	870 /1054	860 /1037	885 /1066	-
	4	4	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
n / n1			176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			200		250		300		350				400	450		550

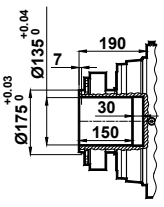
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

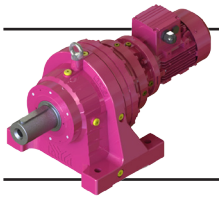


0K



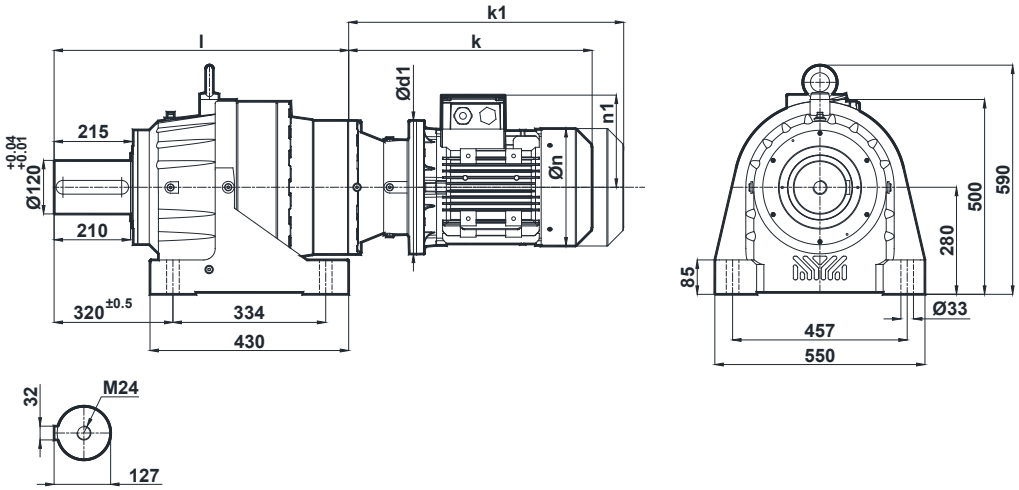
0S

Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shafts see page number 465* / Für optionelle Abtriebswellen siehe Seite 465



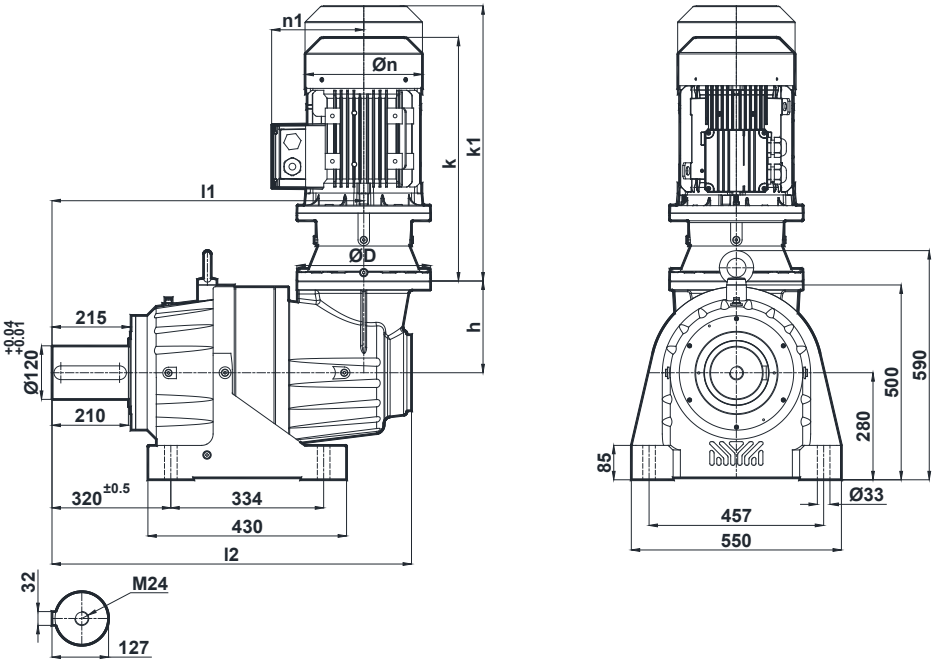
RV290 ... Ⓛ. 01

Kademe *Stage* Stufe	l
2	717
3	808
4	863



RV290 ... Ⓚ. 01

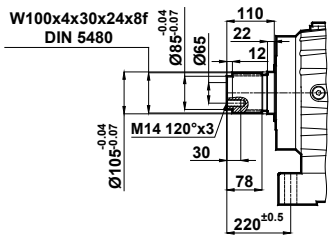
Kademe *Stage* Stufe	l1	l2	h	D
2	815	934	287	350
3	894	992	223	245
4	920	995	119	185



k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

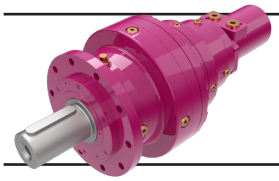
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße													
	Ⓛ	Ⓚ	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	2	2	-	-	-	-	-	-	-	-	749 / 928	749 / 928	800 / 984	865 /1042	890 /1071	966 /1155
	3	3	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	870 /1054	860 /1037	885 /1066	-
	4	4	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
n / n1			176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			200		250		300		350				400	450		550

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shaft see page number 465* / Für optionelle Abtriebswellen siehe Seite 465



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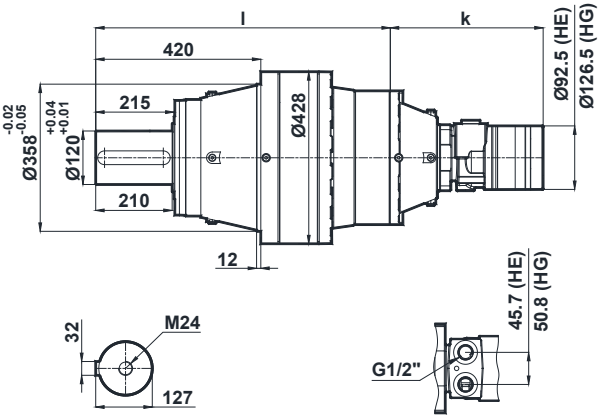
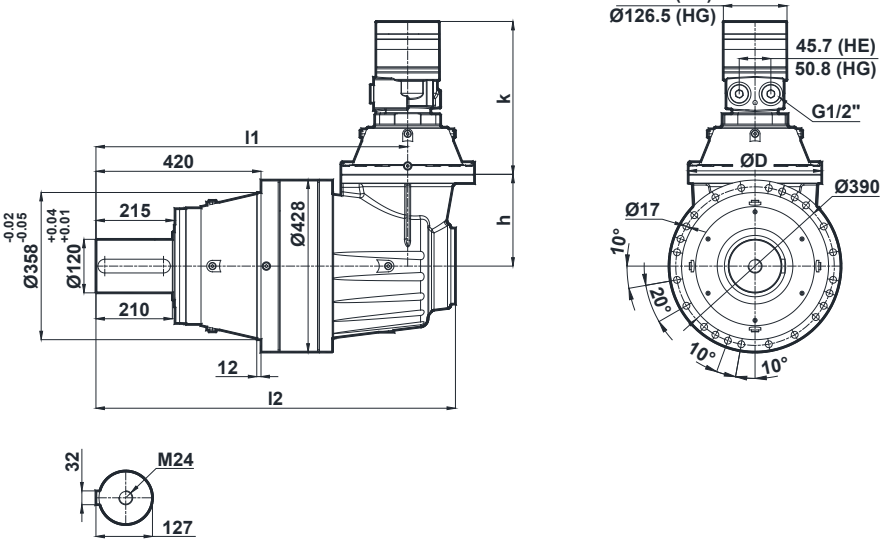
PV290 ... Ⓛ. 01 - H...

Kademe *Stage* Stufe	l
2	717
3	808
4	863



PV290 ...Ⓚ. 01 - H...

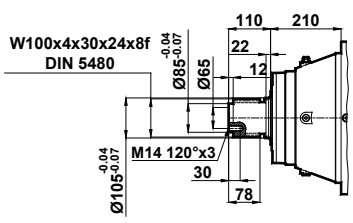
Kademe *Stage* Stufe	l1	l2	h	D
2	815	934	287	350
3	894	992	223	245
4	920	995	119	185



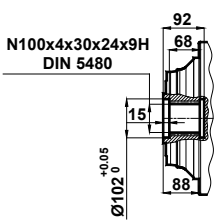
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																						
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	2	2	265	272	275	281	287	294	300	306	313	319	327	332	331	334	340	344	350	357	366	372	382	401
	3	3	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	4	4	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379

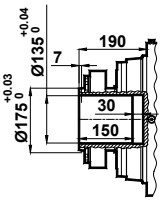
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

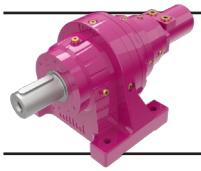


0K



0S

Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shaft see page number 465* / Für optionelle Ausgangswellen siehe Seite 465



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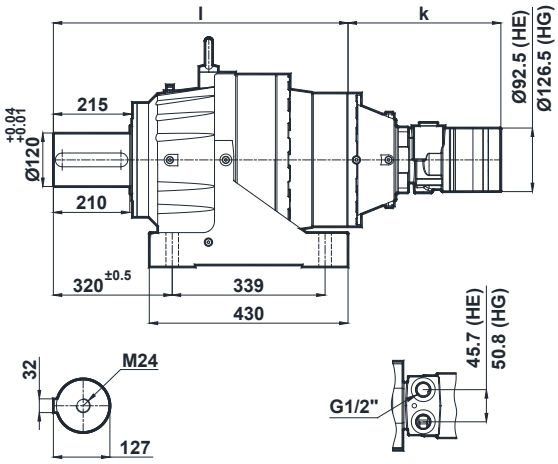
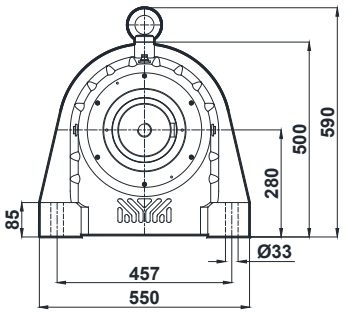
RV290 ... Ⓛ . 01 - H...

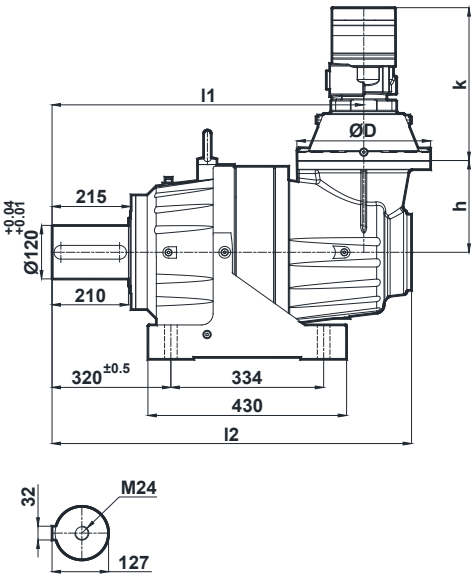
Kademe *Stage* Stufe	l
2	717
3	808
4	863

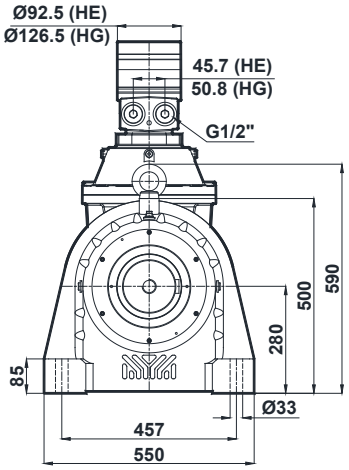




RV290 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	815	934	287	350
3	894	992	223	245
4	920	995	119	185

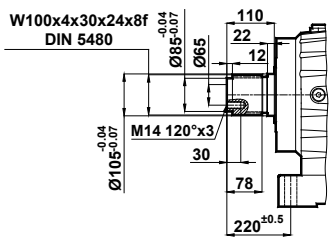




Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

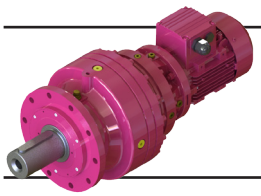
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	2	2	265	272	275	281	287	294	300	306	313	319	327	332	331	334	340	344	350	357	366	372	382	401
	3	3	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	4	4	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



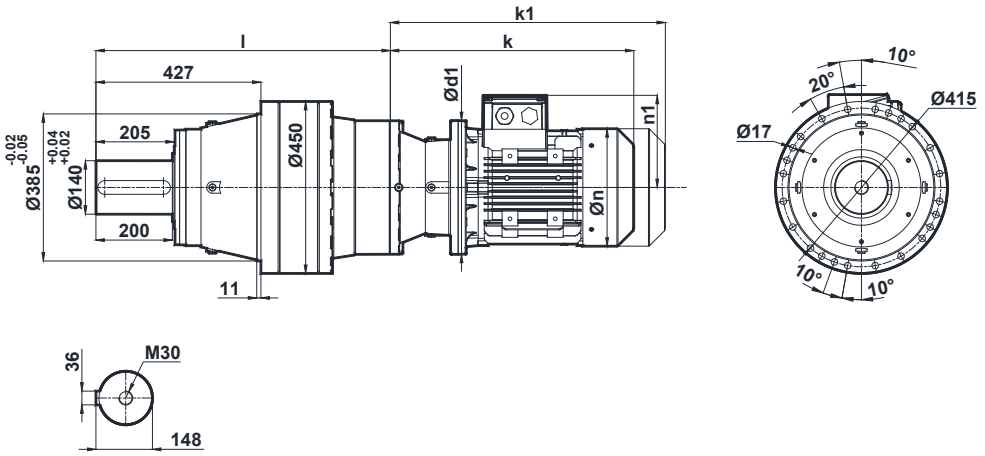
1K

Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shaft see page number 465* / Für optionelle Ausgangswellen siehe Seite 465



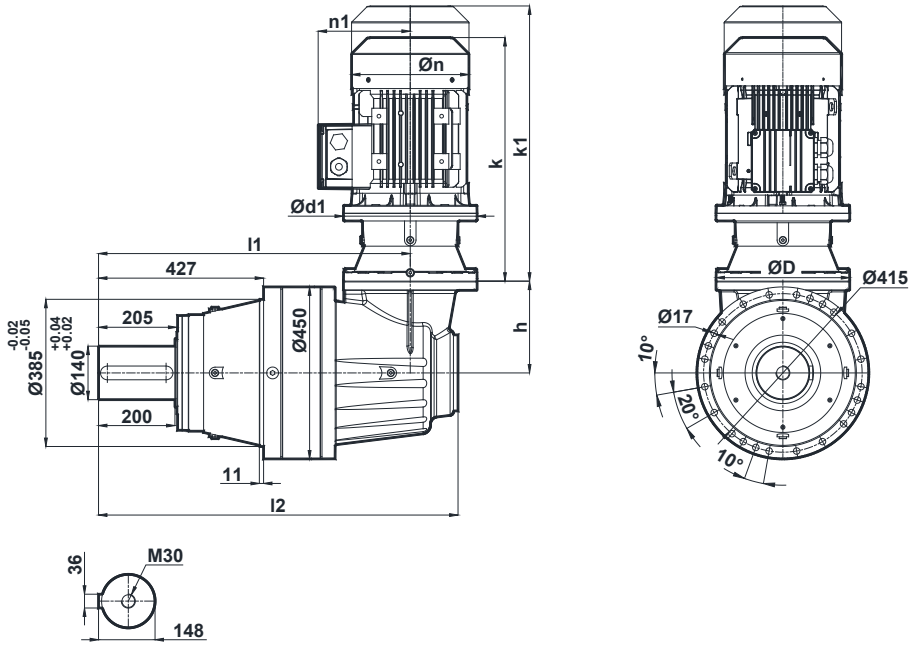
PV350 ... Ⓛ. 01 - ...

Kademe *Stage* Stufe	l
2	800
3	923
4	997



PV350 ... Ⓚ. 01 - ...

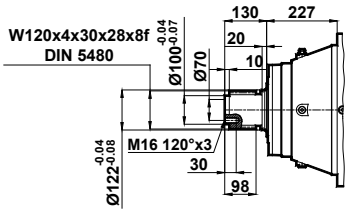
Kademe *Stage* Stufe	l1	l2	h	D
2	846	965	287	350
3	976	1074	223	245
4	1034	1110	119	185



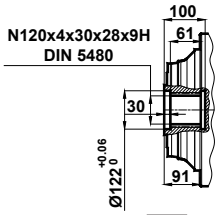
k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße													
	Ⓛ	Ⓚ	90S/B5	90L/B5	100L/B5	112M/B5	132S/B5	132M/B5	160L/B5	160M/B5	180L/B5	180M/B5	200L/B5	225S/B5	225M/B5	250M/B5
k / k1	2	2	-	-	-	-	-	-	-	-	749 / 928	749 / 928	800 / 984	865 /1042	890 /1071	966 /1155
	3	3	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	870 /1054	860 /1037	885 /1066	-
	4	4	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
n / n1			176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			200		250		300		350				400	450		550

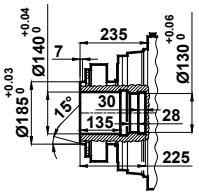
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

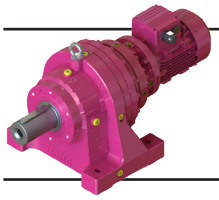


0K



0S

Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shafts see page number 466* / Für optionelle Abtriebswellen siehe Seite 466



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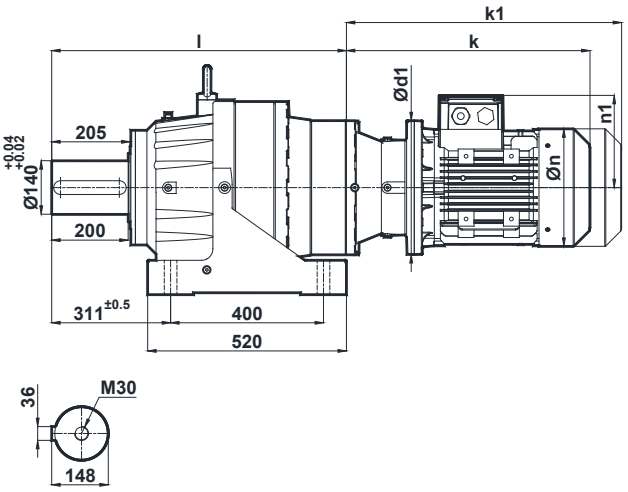
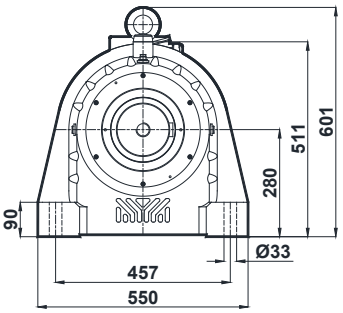
RV350 ... Ⓛ. 01 - ...

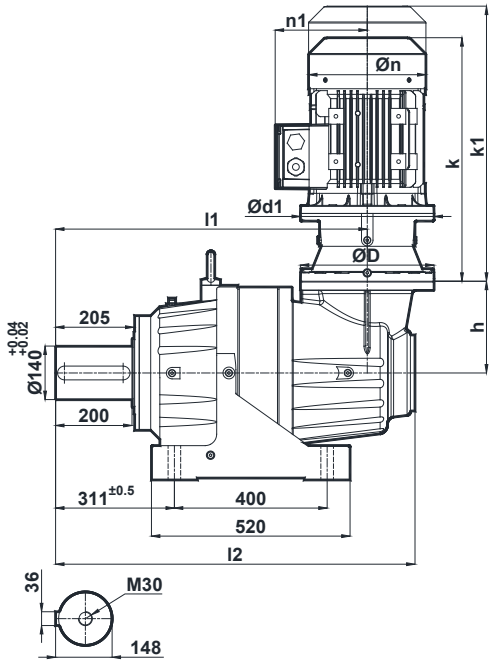
Kademe *Stage* Stufe	l
2	800
3	923
4	997

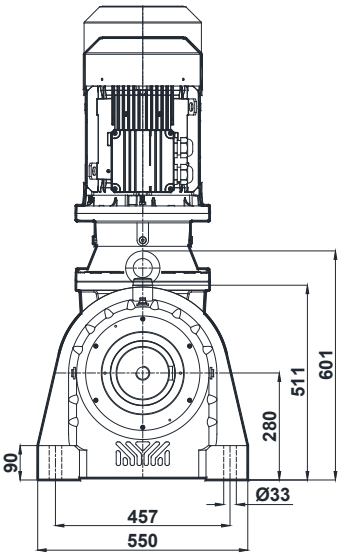




RV350 ... Ⓚ. 01 - ...

Kademe *Stage* Stufe	l1	l2	h	D
2	846	965	287	350
3	976	1074	223	245
4	1034	1110	119	185

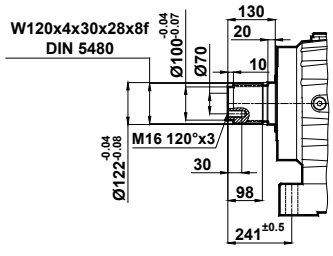




k1 frenli redüktör ölçüsüdür. / *k1 is given for gearbox with brake.* / k1 ist für Getrieben mit Bremse.

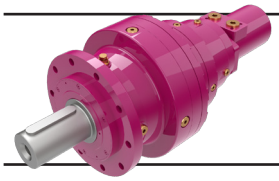
	Kademe *Stage* Stufe		**Motor Büyüklüğü** / *Motor Size* / Motorbaugröße													
	Ⓛ	Ⓚ	**90S/B5**	**90L/B5**	**100L/B5**	**112M/B5**	**132S/B5**	**132M/B5**	**160L/B5**	**160M/B5**	**180L/B5**	**180M/B5**	**200L/B5**	**225S/B5**	**225M/B5**	**250M/B5**
k / k1	2	2	-	-	-	-	-	-	-	-	749 / 928	749 / 928	800 / 984	865 /1042	890 /1071	966 /1155
	3	3	-	-	-	-	540 / 690	540 / 690	649 / 817	649 / 817	728 / 907	728 / 907	870 /1054	860 /1037	885 /1066	-
	4	4	368 / 510	368 / 510	413 / 571	434 / 584	537 / 687	537 / 687	646 / 814	646 / 814	-	-	-	-	-	-
n / n1			176 / 133	176 / 133	193 / 147	215 / 158	257 / 179	257 / 179	316 / 224	316 / 224	354 / 240	354 / 240	399 / 285	438 / 314	438 / 314	481 / 335
d1			200		250		300		350				400	450		550

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



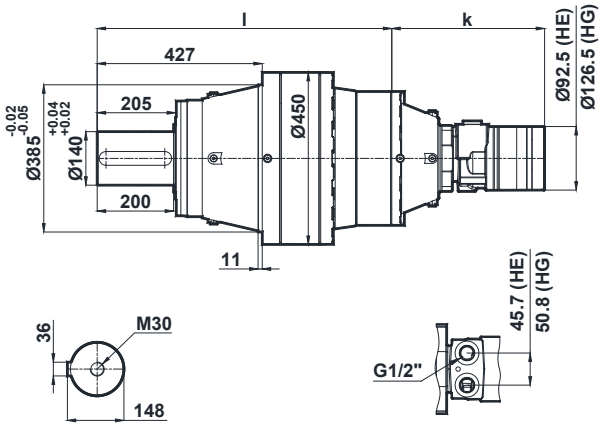
1K

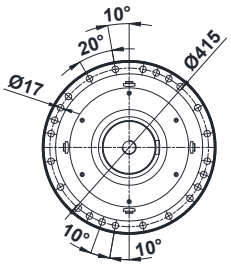
Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shaft see page number 466* / Für optionelle Abtriebswellen siehe Seite 466



PV350 ... Ⓛ. 01 - H...

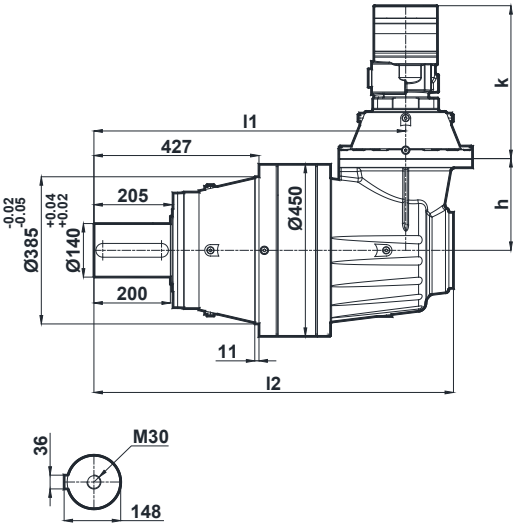
Kademe *Stage* Stufe	l
2	804.5
3	927.5
4	1002

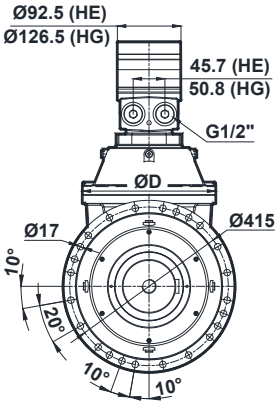




PV350 ...Ⓚ. 01 - H...

Kademe *Stage* Stufe	l1	l2	h	D
2	851	970	287	350
3	981	1079	223	245
4	1039	1115	155	185

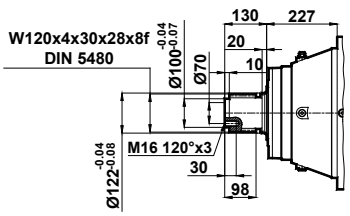




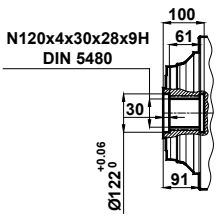
Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																					
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	2	2	265	272	275	281	287	294	300	306	313	319	327	332	331	334	340	344	350	357	366	372	382	401
	3	3	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	4	4	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379

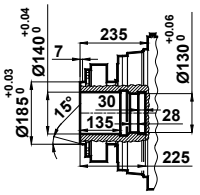
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K

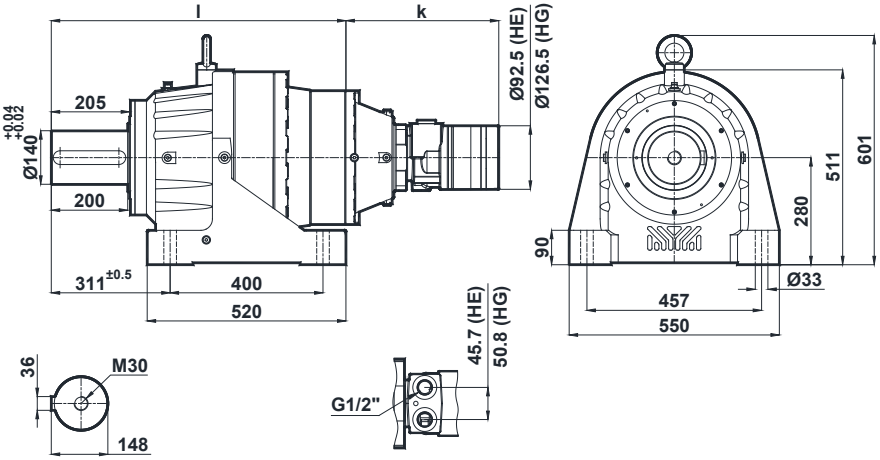


0S

Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shaft see page number 466* / Für optionelle Ausgangswellen siehe Seite 466

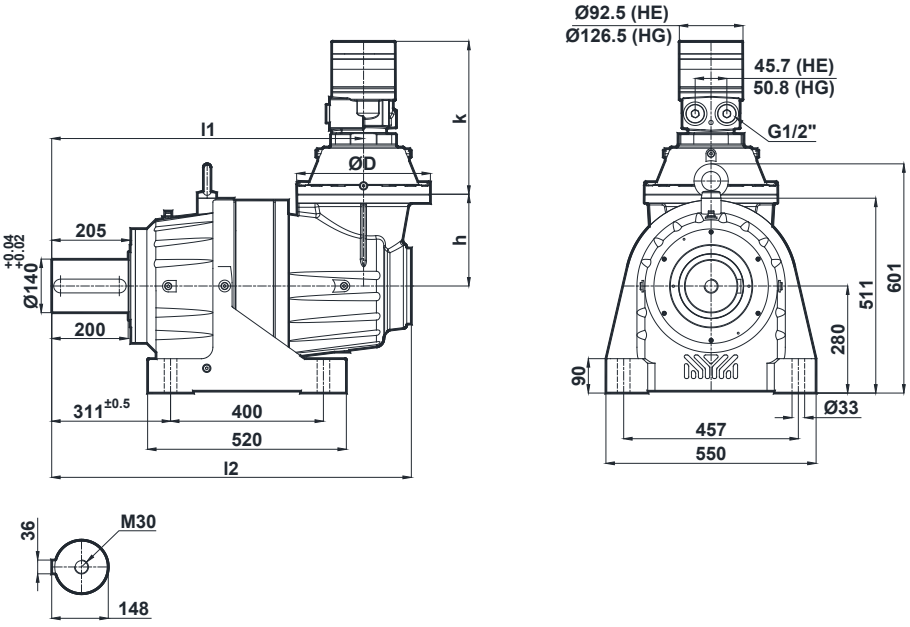
RV350 ... Ⓛ . 01 - H...

Kademe *Stage* Stufe	l
2	771
3	894
4	969



RV350 ... Ⓚ . 01 - H...

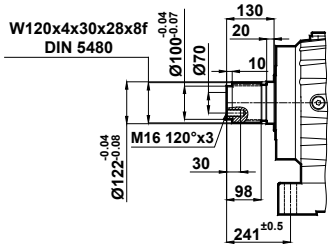
Kademe *Stage* Stufe	l1	l2	h	D
2	851	970	287	350
3	981	1079	223	245
4	1039	1115	155	185



Hidrolik frenler için danışınız. / Please contact *for hydraulic brakes.* / Rücksprache für hydraulische Bremsen.

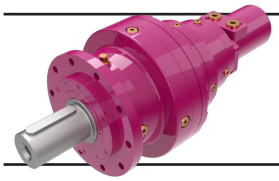
	Kademe *Stage* Stufe		Motor Büyüklüğü / *Motor Size* / Motorbaugröße																						
	Ⓛ	Ⓚ	HE50	HE80	HE100	HE130	HE165	HE195	HE230	HE260	HE295	HE330	HE365	HE390	HG170	HG195	HG240	HG280	HG335	HG405	HG475	HG530	HG625	HG785
k	2	2	265	272	275	281	287	294	300	306	313	319	327	332	331	334	340	344	350	357	366	372	382	401
	3	3	246	254	257	263	269	276	282	288	295	301	309	314	313	316	322	326	332	339	348	354	364	383
	4	4	243	250	253	259	265	272	278	284	291	297	305	310	309	312	318	322	328	335	344	350	360	379

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



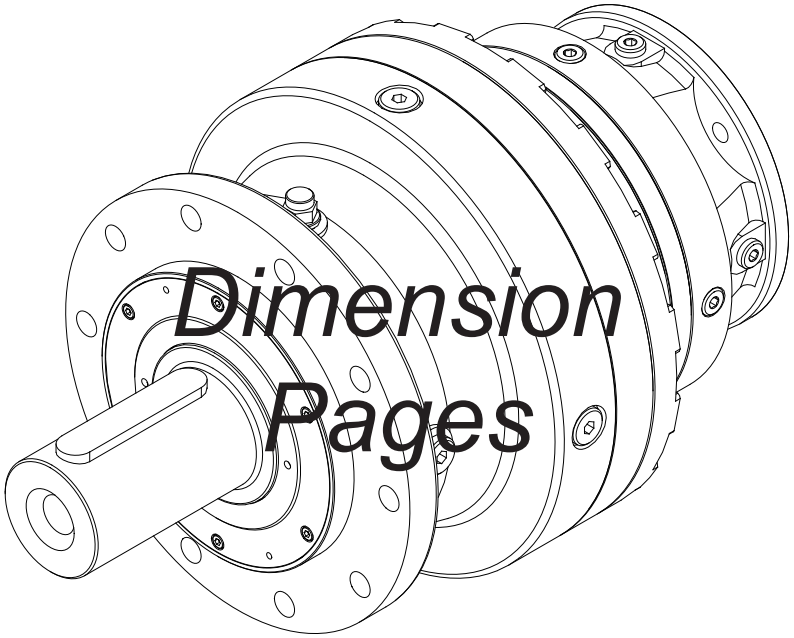
1K

Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shaft see page number 466* / Für optionelle Ausgangswellen siehe Seite 466

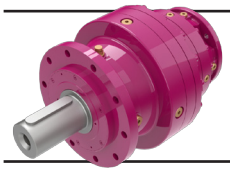


Notlar / *Notes* / Notizen

Ölçü Sayfaları



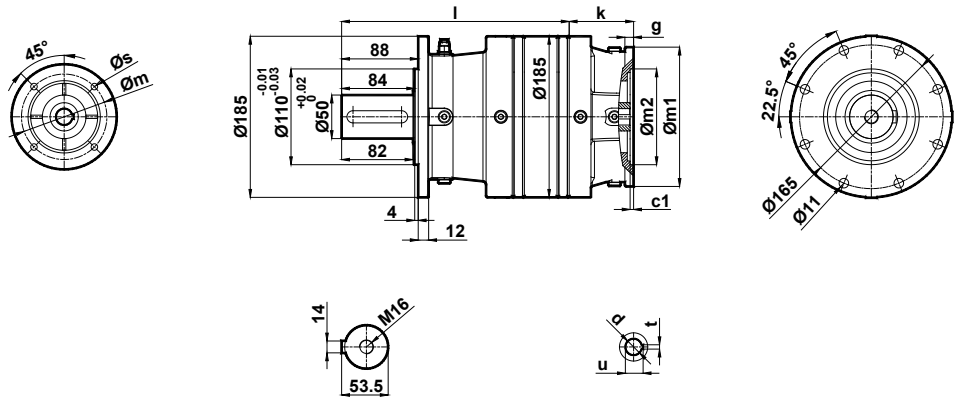
Abmessungs-seiten



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

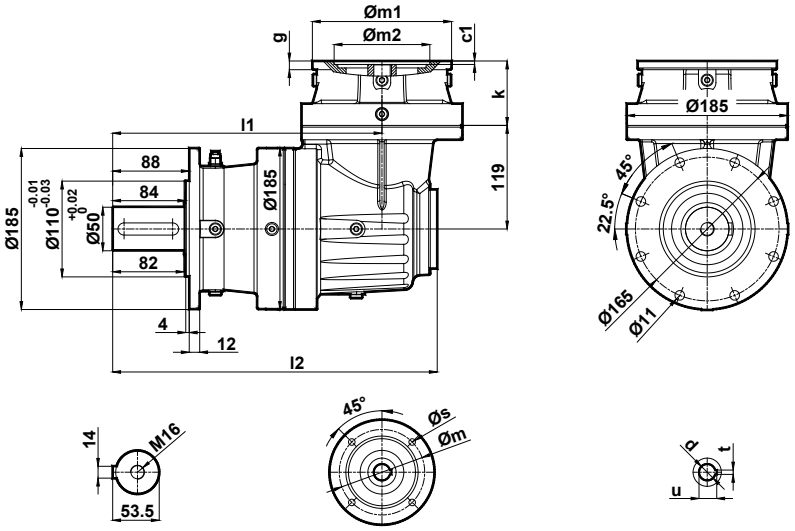
PN110 ... Ⓛ. 01 - A..

Kademe *Stage* Stufe	l
1	210
2	262
3	313
4	365



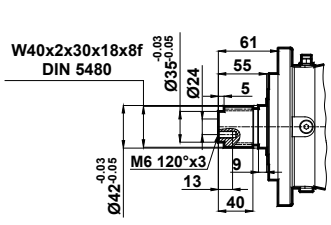
PN110 ...Ⓚ. 01 - A..

Kademe *Stage* Stufe	l1	l2
2	310	373
3	361	425
4	413	476

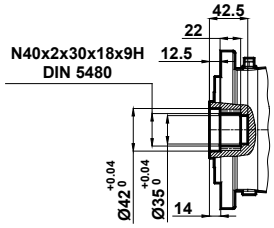


Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5
k	1	-	74	93		103	123	153,5	
	2	2							
	3	3							
	4	4	-						
m / s			130/10	165/12		215/15	265/15	300/19	
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250	
c1 / g			4/10	4/12		5/15	5/20	6/20	
d			14	19	24	28	38	42	48
u / t			16,3/5	21,8/6	27,3/8	31,3/8	41,3/10	45.3/12	51.8/14"

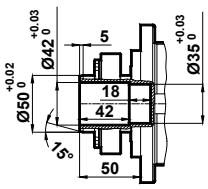
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K



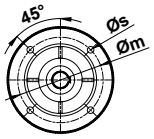
0S

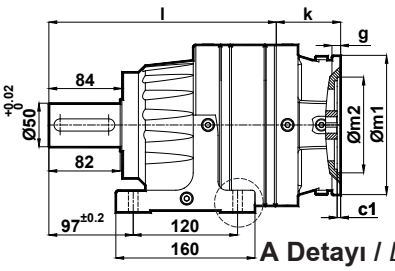
Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shafts see page number 456* / Für optionelle Abtriebswellen siehe Seite 456

-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

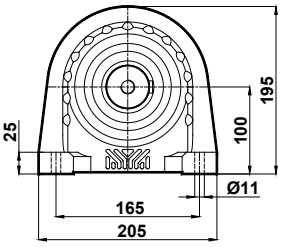
RN110 ... Ⓛ.01 - A..

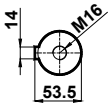
Kademe *Stage* Stufe	l
1	210
2	262
3	313
4	365





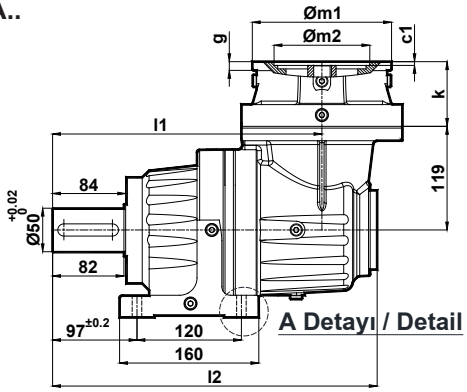
A Detayı / *Detail*



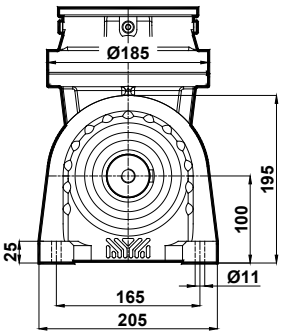


RN110 ...Ⓚ.01 - A..

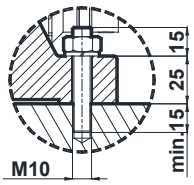
Kademe *Stage* Stufe	l1	l2
2	310	373
3	361	425
4	413	476

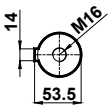


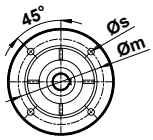
A Detayı / Detail



A Detayı / Detail

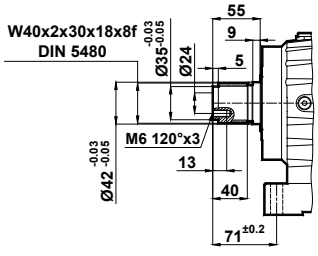






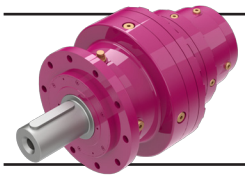
Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5
k	1	-	74	93		103	123	153,5	
	2	2							
	3	3							
	4	4	-						
m / s			130/10	165/12		215/15	265/15	300/19	
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250	
c1 / g			4/10	4/12		5/15	5/20	6/20	
d			14	19	24	28	38	42	48
u / t			16,3/5	21,8/6	27,3/8	31,3/8	41,3/10	45.3/12	51.8/14"

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

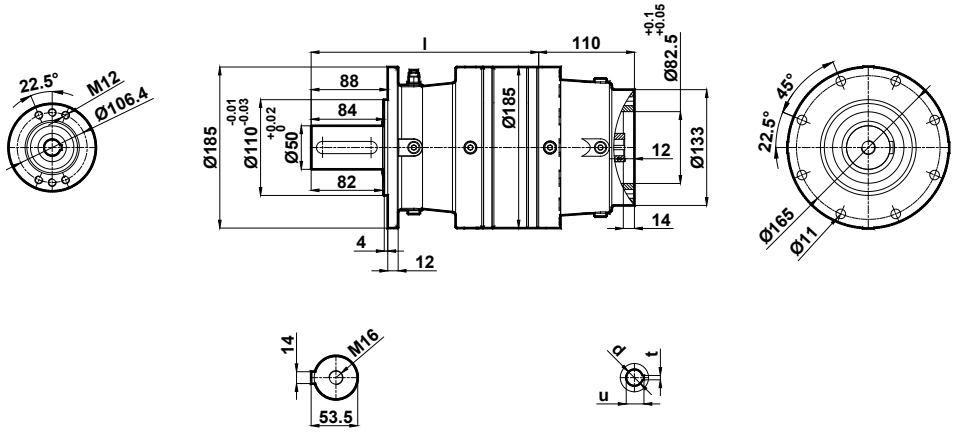
Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shaft see page number 456* / Für optionelle Abtriebswellen siehe Seite 456



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

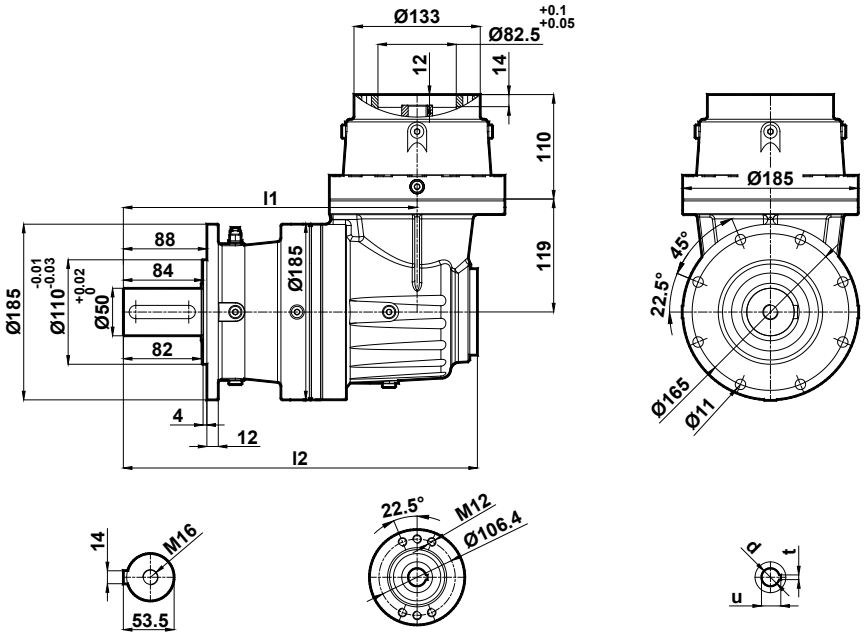
PN110 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l
1	210
2	262
3	313
4	365



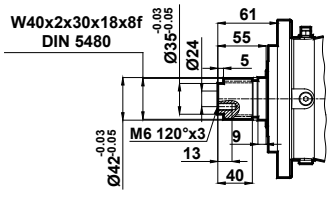
PN110 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2
2	310	373
3	361	425
4	413	476

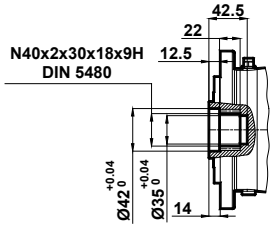


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

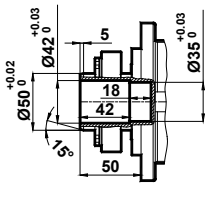
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

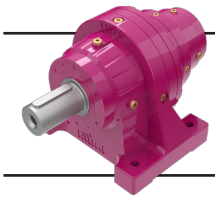


0K



0S

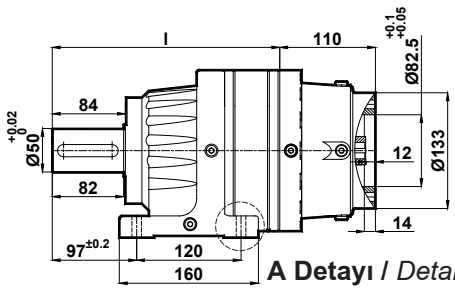
Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shafts see page number 456* / Für optionelle Abtriebswellen siehe Seite 456

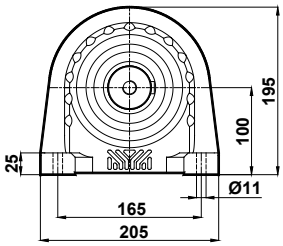


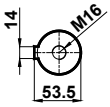
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

RN110 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l
1	210
2	262
3	313
4	365

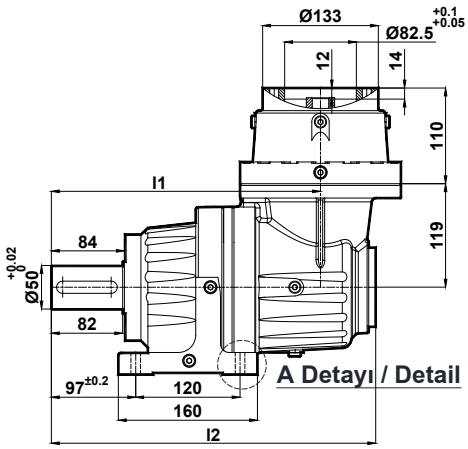


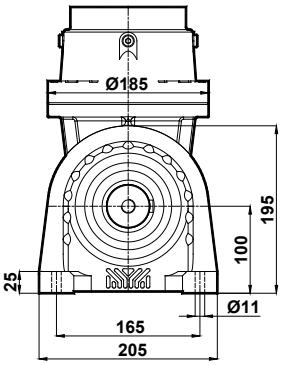


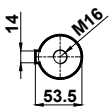


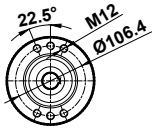
RN110 ... K. 01 - C26/M46

Kademe *Stage* Stufe	I1	I2
2	310	373
3	361	425
4	413	476

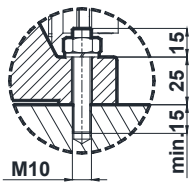






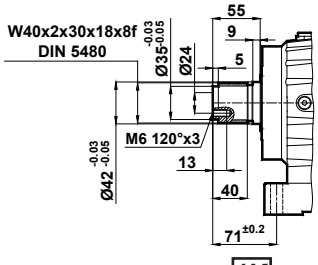


A Detayı / Detail



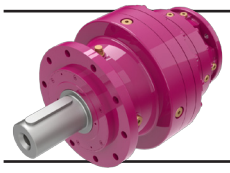
Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

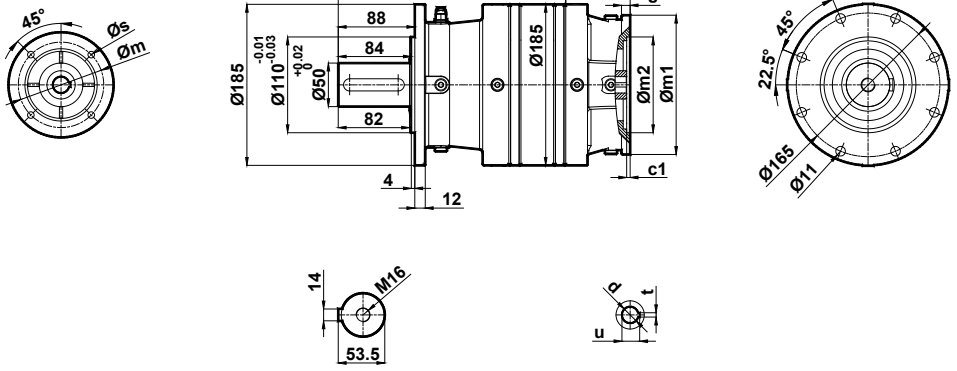
Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shaft see page number 456* / Für optionelle Abtriebswellen siehe Seite 456



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

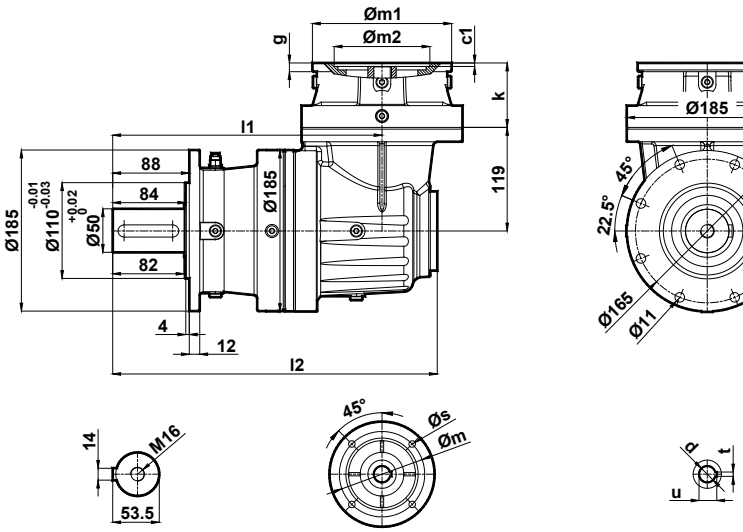
PN120 ... Ⓛ. 01 - A..

Kademe *Stage* Stufe	l
1	230
2	282
3	333
4	385



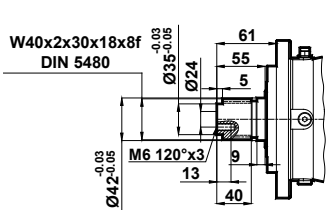
PN120 ... Ⓚ. 01 - A..

Kademe *Stage* Stufe	l1	l2
2	330	393
3	381	445
4	433	496

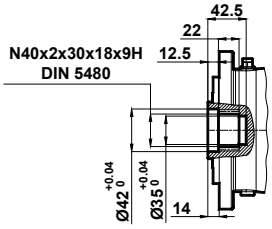


Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5
k	1	-	74	93		103	123	153,5	
	2	2							
	3	3							
	4	4	-						
m / s			130/10	165/12		215/15	265/15	300/19	
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250	
c1 / g			4/10	4/12		5/15	5/20	6/20	
d			14	19	24	28	38	42	48
u / t			16,3/5	21,8/6	27,3/8	31,3/8	41,3/10	45.3/12	51.8/14"

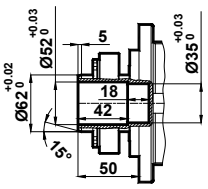
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

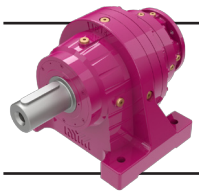


0K



0S

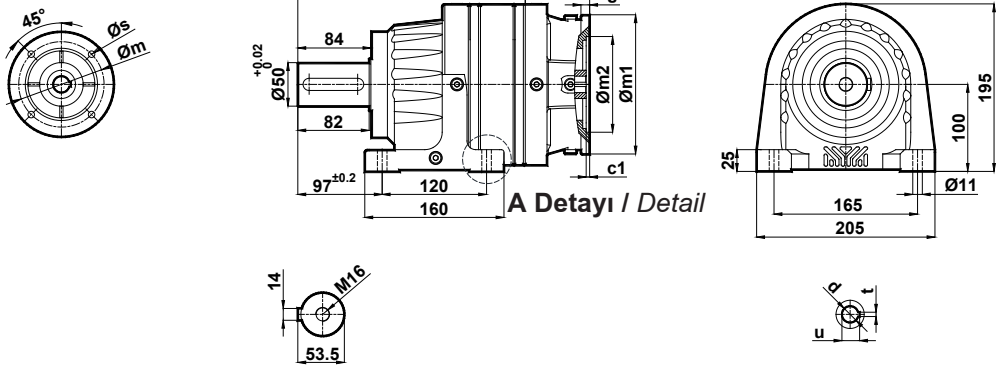
Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shafts see page number 457* / Für optionelle Abtriebswellen siehe Seite 457



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

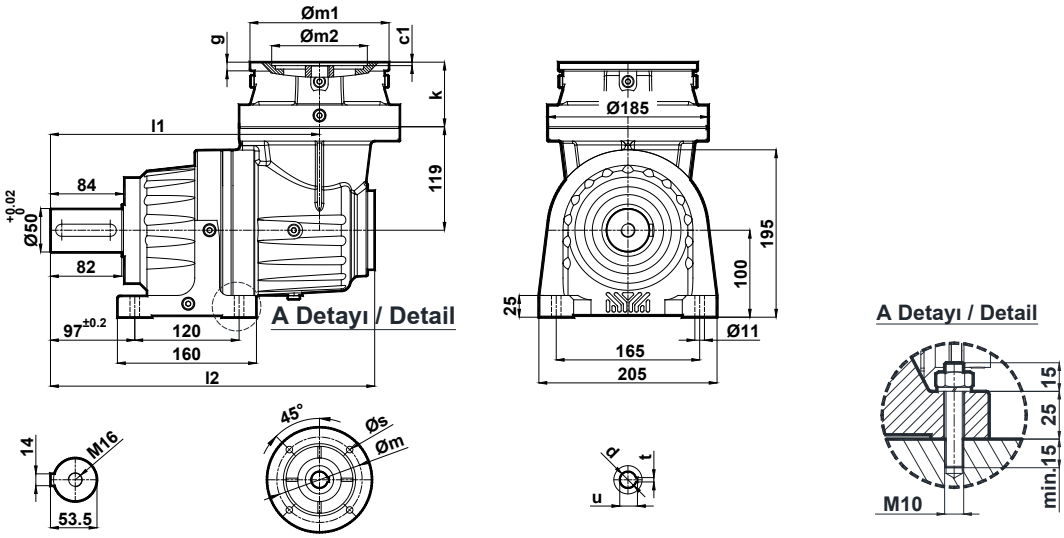
RN120 ...Ⓛ.01 - A..

Kademe *Stage* Stufe	l
1	230
2	282
3	333
4	385



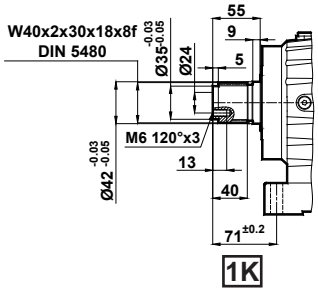
RN120 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2
2	330	393
3	381	445
4	433	496

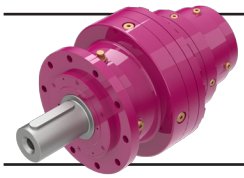


Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5
k	1	-	74	93		103	123	153,5	
	2	2							
	3	3							
	4	4	-						
m / s			130/10	165/12		215/15	265/15	300/19	
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250	
c1 / g			4/10	4/12		5/15	5/20	6/20	
d			14	19	24	28	38	42	48
u / t			16,3/5	21,8/6	27,3/8	31,3/8	41,3/10	45.3/12	51.8/14"

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



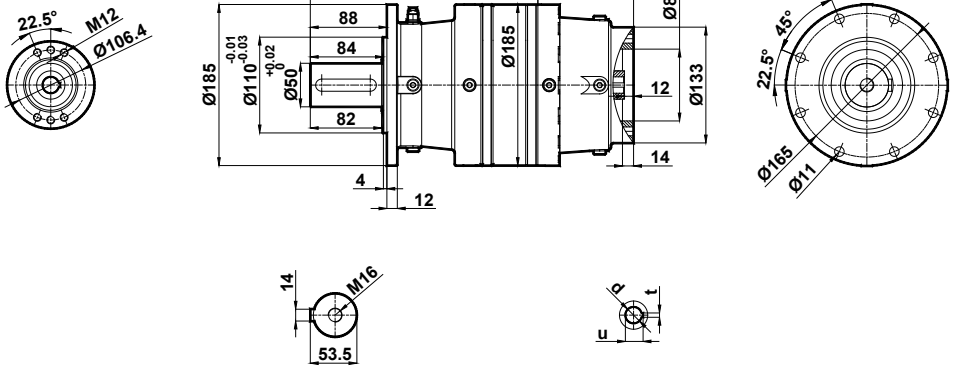
Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shaft see page number 457* / Für optionelle Abtriebswellen siehe Seite 457



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

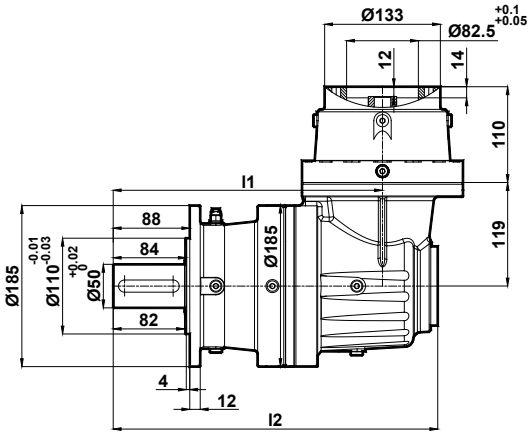
PN120 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l
1	230
2	282
3	333
4	385



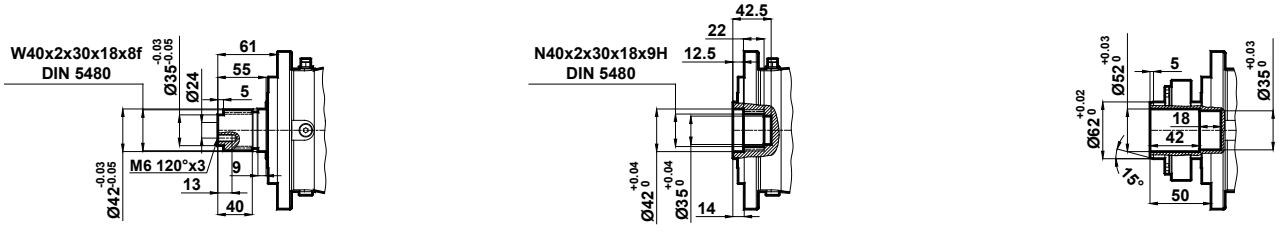
PN120 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2
2	330	393
3	381	445
4	433	496



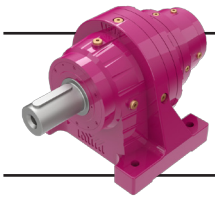
Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K 0K 0S

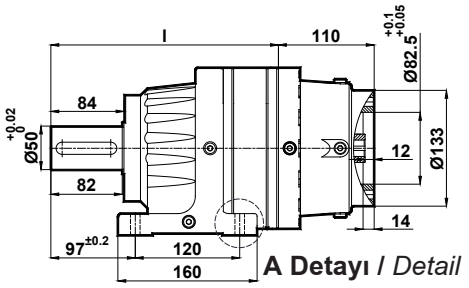
Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shafts see page number 457* / Für optionelle Abtriebswellen siehe Seite 457

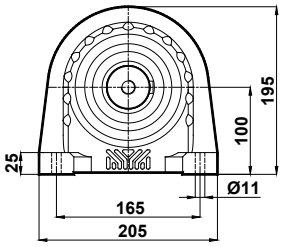


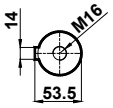
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

RN120 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l
1	230
2	281,5
3	333
4	384,5

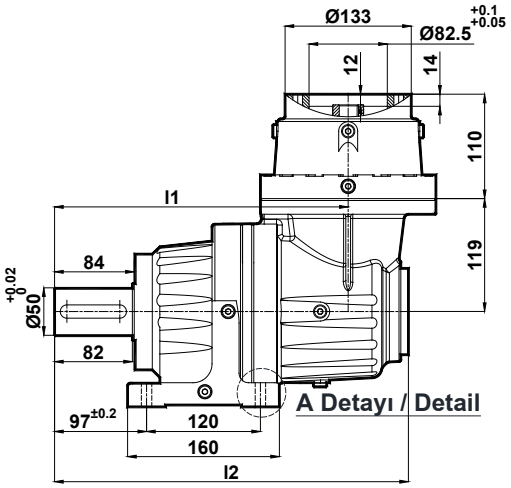


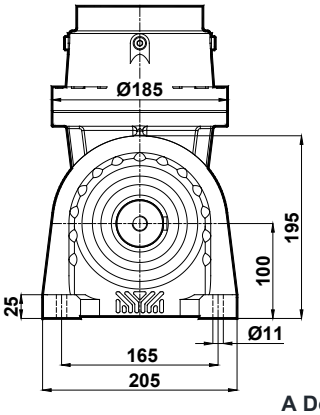


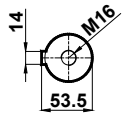


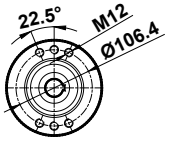
RN120 ... K. 01 - C26/M46

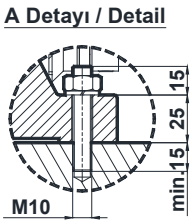
Kademe *Stage* Stufe	l1	l2
2	329,5	393
3	381	444,5
4	432,5	496





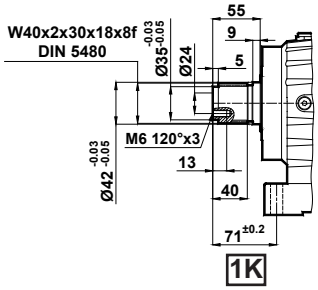




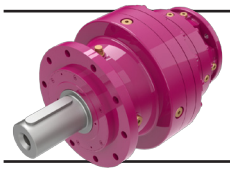


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



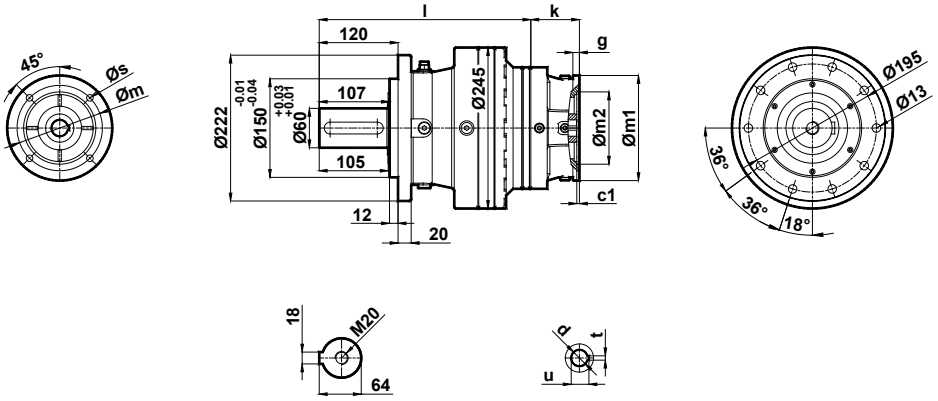
Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shaft see page number 457* / Für optionelle Abtriebswellen siehe Seite 457



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

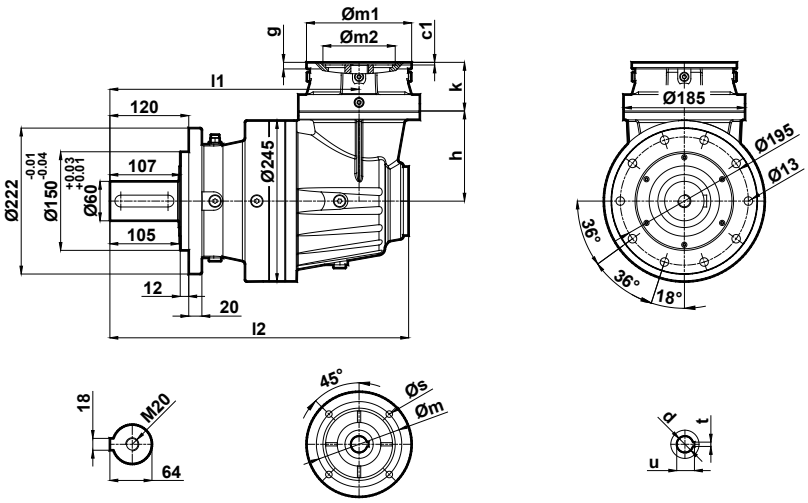
PN150 ...Ⓛ.01 - A..

Kademe *Stage* Stufe	l
1	268
2	322
3	374
4	425



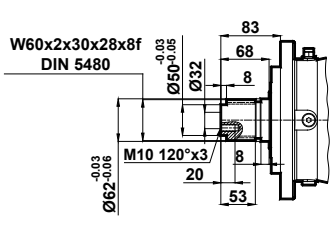
PN150 ...Ⓚ.01 -A..

Kademe *Stage* Stufe	l1	l2	h
2	379	455	155
3	422	485	119
4	473	537	

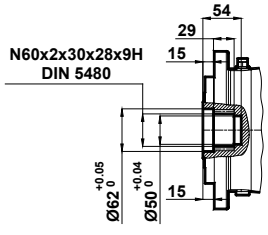


Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5
k	1	-	-	-	-	106	126	157		
	2	2	74	93		103	123	153.5		-
	3	3								-
	4	4	-							-
m / s			130/10	165/12		215/15	265/15	300/19		350/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300
c1 / g			4/10	4/12		5/15	5/20	6/20		
d			14	19	24	28	38	42	48	55
u / t			16,3/5	21,8/6	27,3/8	31,3/8	41,3/10	45,3/12	51,8/14	59,3/16

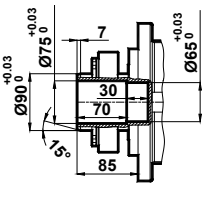
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K



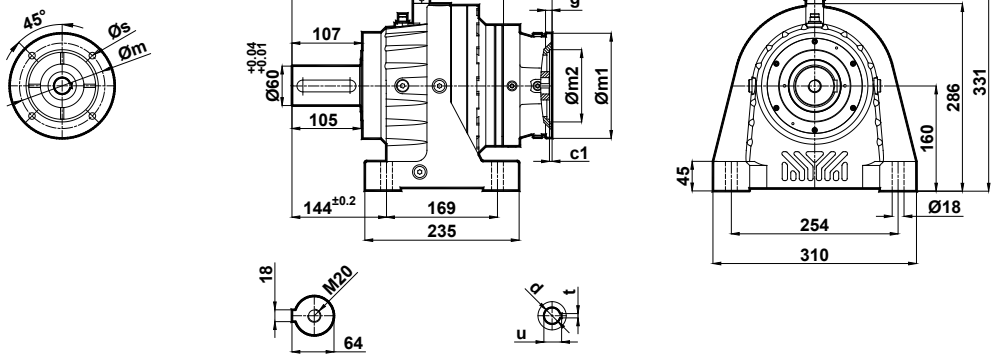
0S

Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shafts see page number 458* / Für optionelle Abtriebswellen siehe Seite 458

-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

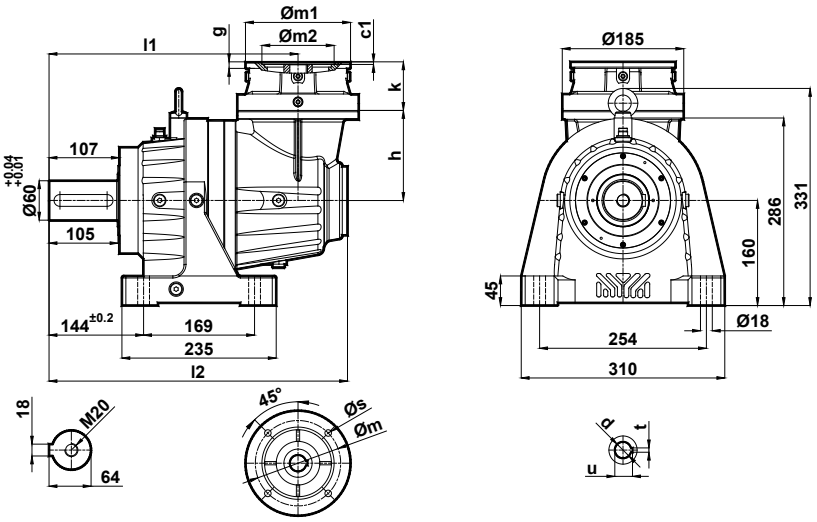
RN150 ... Ⓛ.01 - A..

Kademe *Stage* Stufe	l
1	268
2	322
3	374
4	425



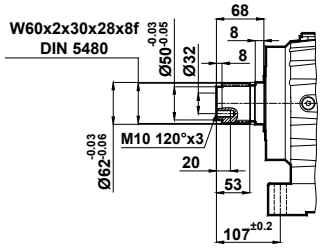
RN150 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h
2	379	455	155
3	422	485	119
4	473	537	



Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5
k	1	-	-	-	-	106	126	157		
	2	2	74	93		103	123	153.5		-
	3	3								-
	4	4	-							-
m / s			130/10	165/12		215/15	265/15	300/19		350/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300
c1 / g			4/10	4/12		5/15	5/20	6/20		
d			14	19	24	28	38	42	48	55
u / t			16,3/5	21,8/6	27,3/8	31,3/8	41,3/10	45,3/12	51,8/14	59,3/16

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



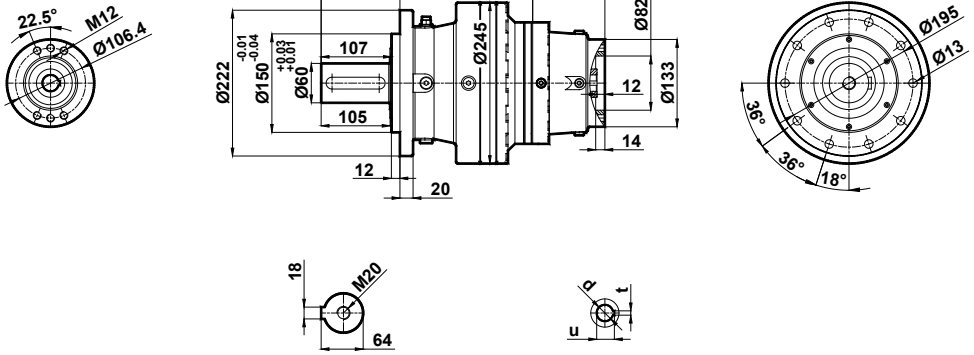
1K

Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shaft see page number 458* / Für optionelle Abtriebswellen siehe Seite 458

-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

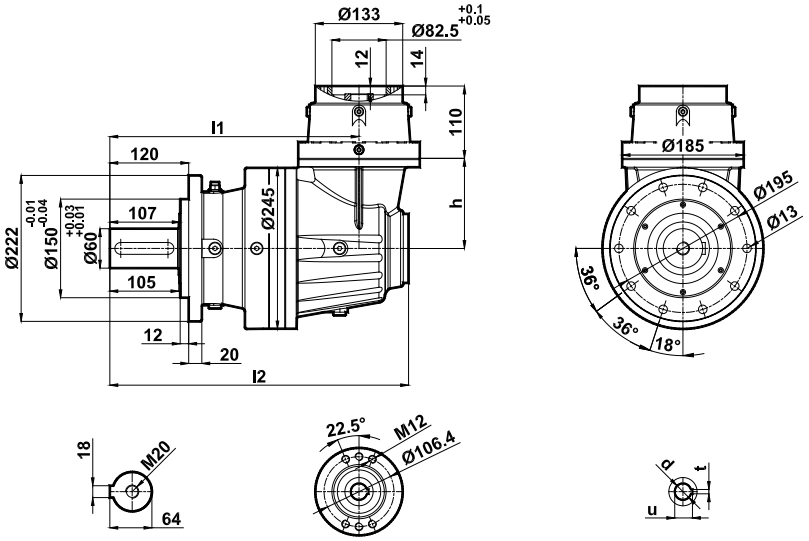
PN150 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	268	114
2	322	110
3	374	
4	425	



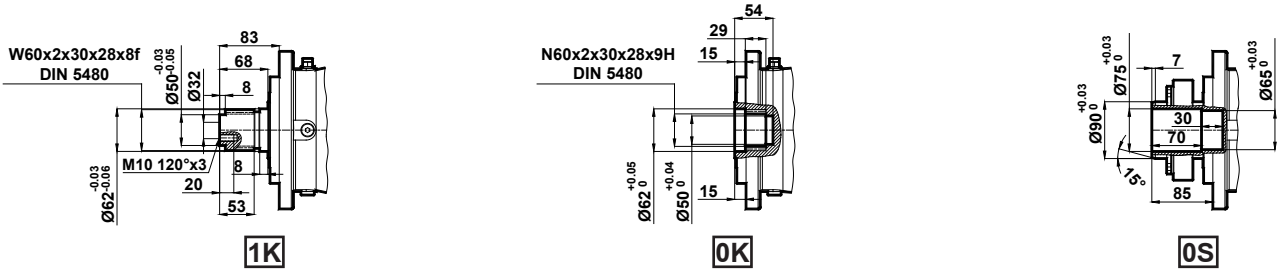
PN150 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	h
2	379	455	155
3	422	485	119
4	473	537	

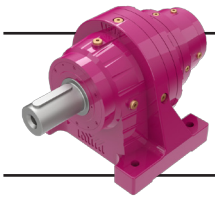


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



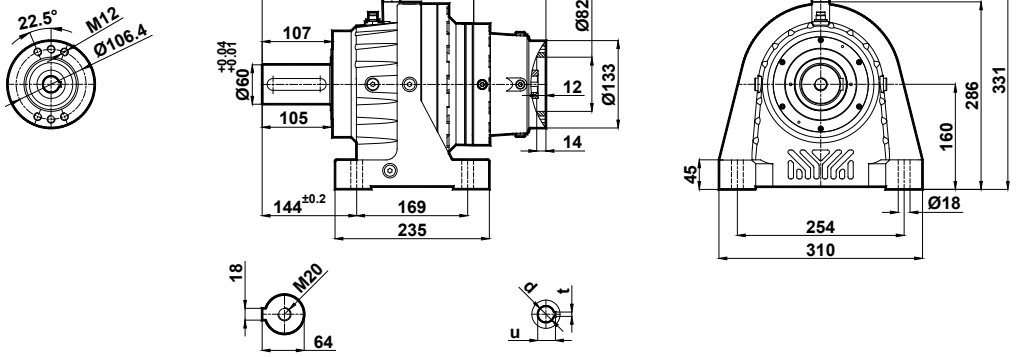
Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shafts see page number 458* / Für optionelle Abtriebswellen siehe Seite 458



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

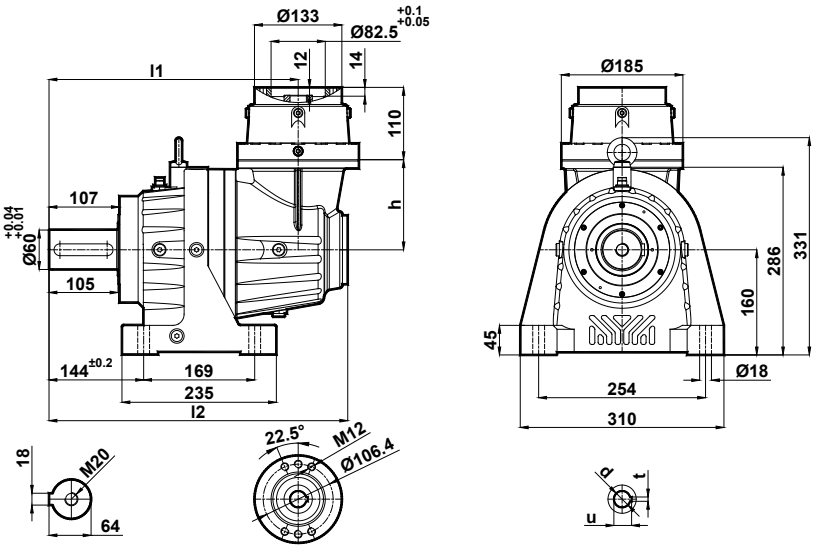
RN150 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	268	114
2	322	110
3	374	
4	425	



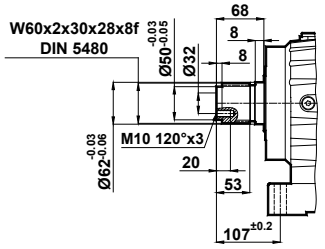
RN150 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	h
2	379	455	155
3	422	485	119
4	473	537	



Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



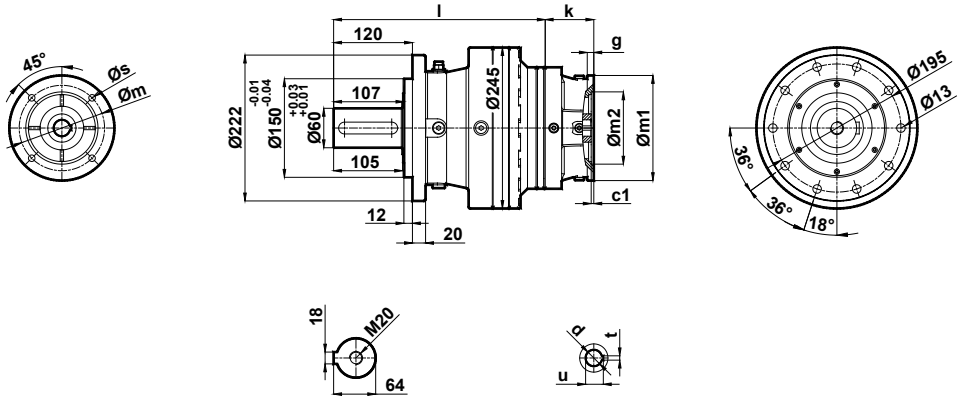
1K

Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shaft see page number 458* / Für optionelle Abtriebswellen siehe Seite 458

-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

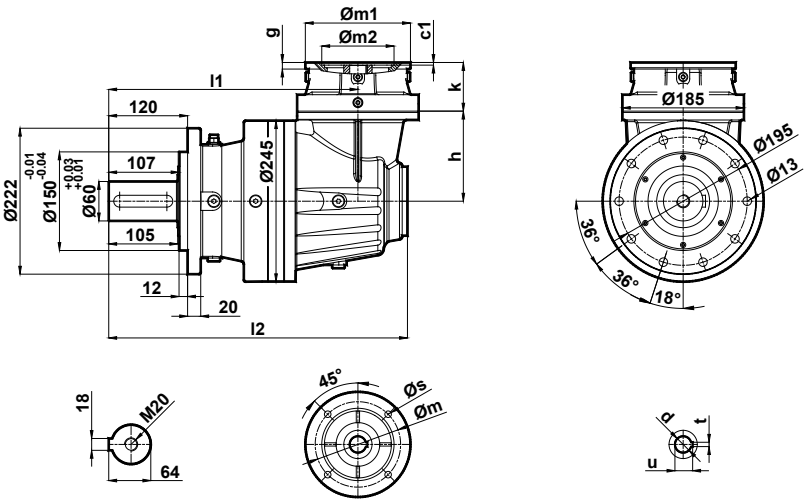
PN160 ... Ⓛ . 01 - A..

Kademe *Stage* Stufe	l
1	300
2	374
3	426
4	477



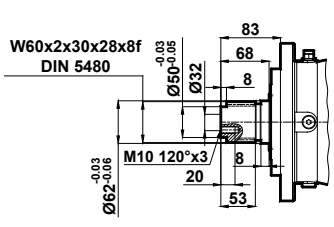
PN160 ... Ⓚ . 01 - A..

Kademe *Stage* Stufe	l1	l2	h
2	411	487	155
3	474	537	119
4	525	589	

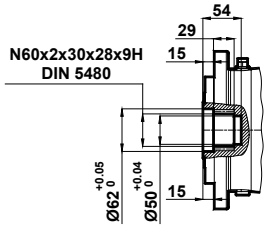


Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5
k	1	-	-	-	-	106	126	157		
	2	2	74	93		103	123	153.5		-
	3	3								-
	4	4	-							-
m / s			130/10	165/12		215/15	265/15	300/19		350/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300
c1 / g			4/10	4/12		5/15	5/20	6/20		
d			14	19	24	28	38	42	48	55
u / t			16,3/5	21,8/6	27,3/8	31,3/8	41,3/10	45,3/12	51,8/14	59,3/16

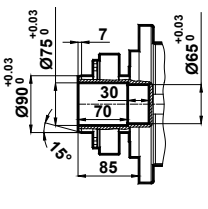
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K



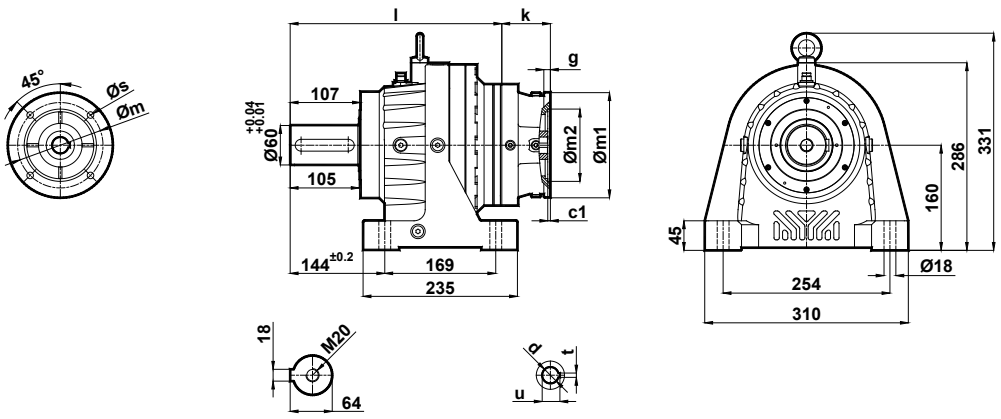
0S

Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shafts see page number 459* / Für optionelle Abtriebswellen siehe Seite 459

-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

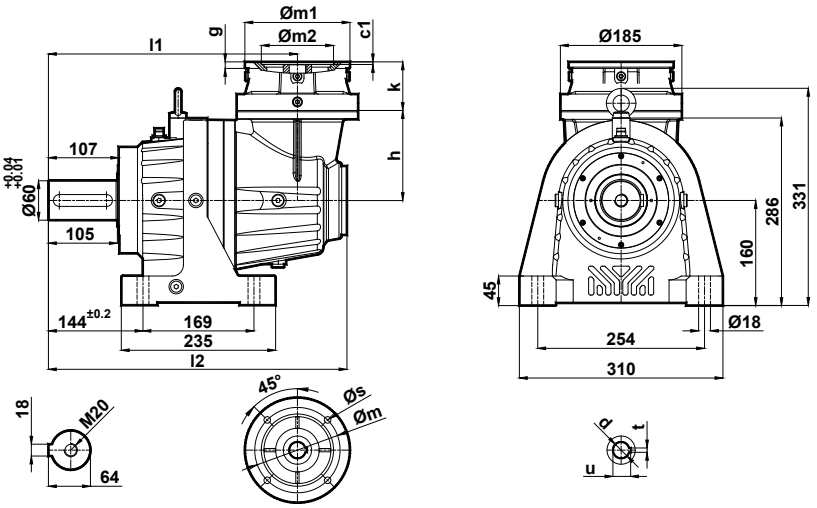
RN160 ... Ⓛ. 01 - A..

Kademe *Stage* Stufe	l
1	300
2	374
3	426
4	477



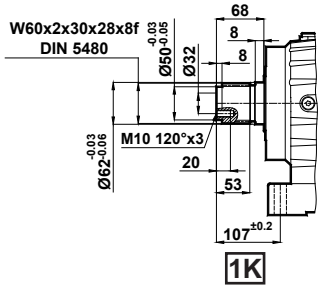
RN160 ...Ⓚ. 01 - A..

Kademe *Stage* Stufe	l1	l2	h
2	411	487	155
3	474	537	119
4	525	589	

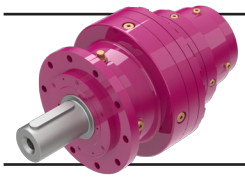


Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5
k	1	-	-	-	-	106	126	157		
	2	2	74	93		103	123	153.5		-
	3	3								-
	4	4	-							-
m / s			130/10	165/12		215/15	265/15	300/19		350/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300
c1 / g			4/10	4/12		5/15	5/20	6/20		
d			14	19	24	28	38	42	48	55
u / t			16,3/5	21,8/6	27,3/8	31,3/8	41,3/10	45,3/12	51,8/14	59,3/16

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



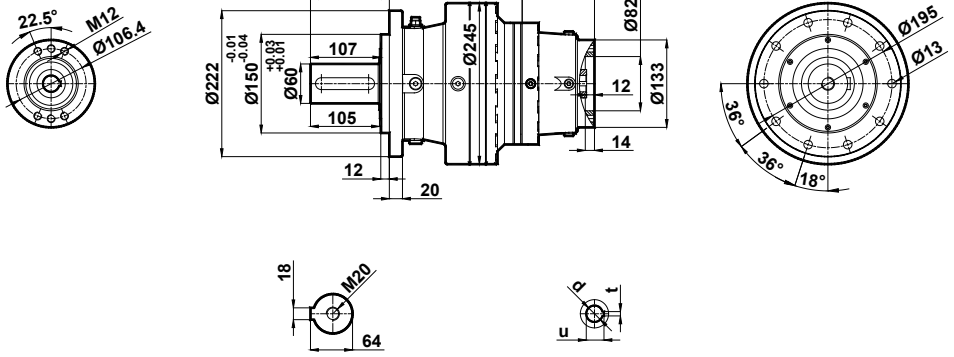
Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shaft see page number 459* / Für optionelle Abtriebswellen siehe Seite 459



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

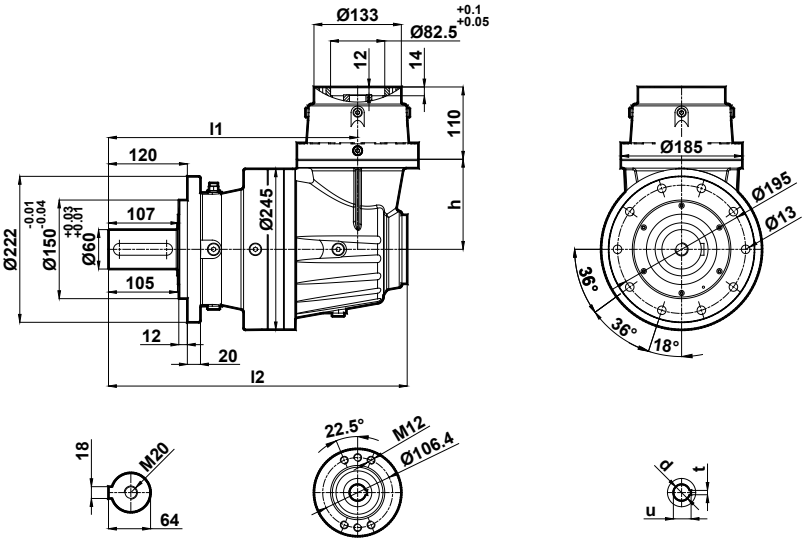
PN160 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	300	114
2	374	110
3	426	
4	477	



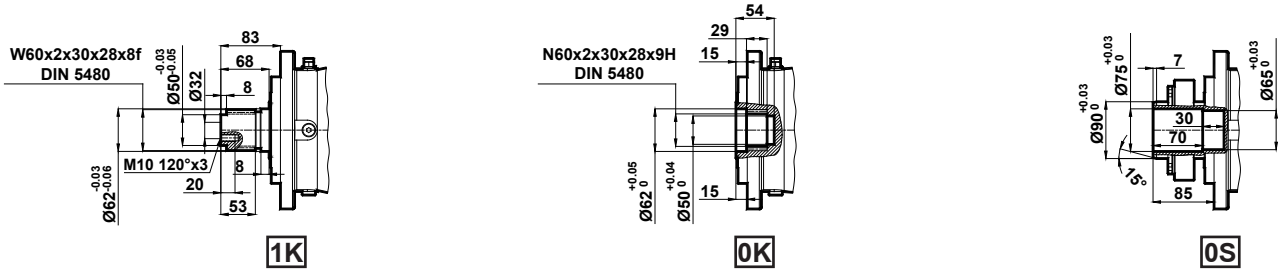
PN160 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	h
2	411	487	155
3	474	537	119
4	525	589	

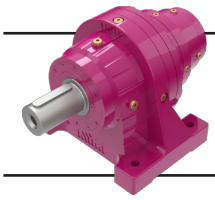


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



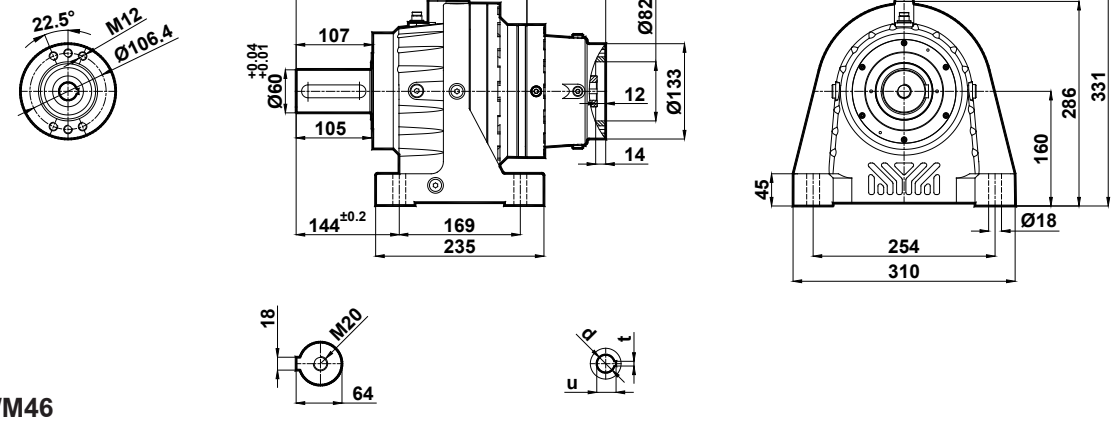
Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shafts see page number 459* / Für optionelle Abtriebswellen siehe Seite 459



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

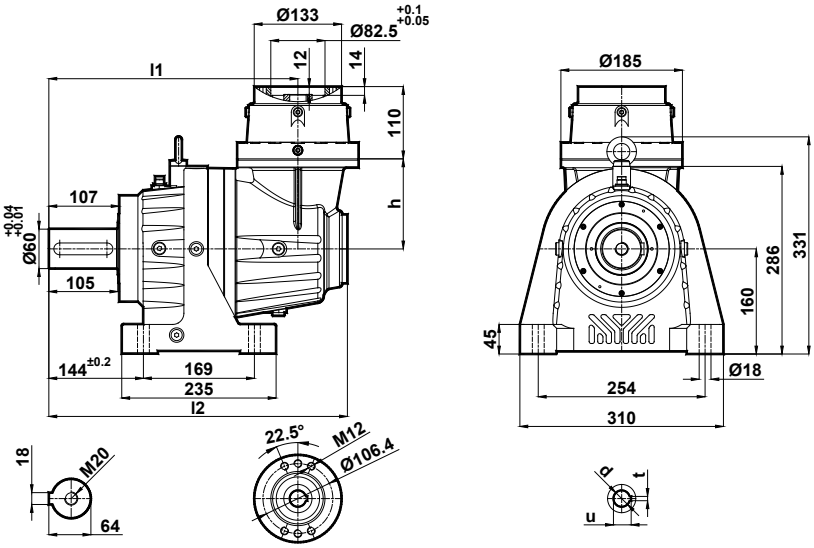
RN160 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	300	114
2	374	110
3	426	
4	477	



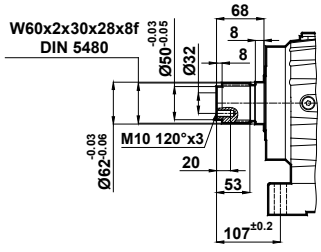
RN160 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	h
2	411	487	155
3	474	537	119
4	525	589	



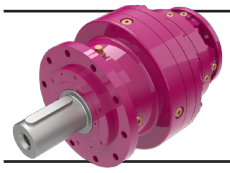
Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

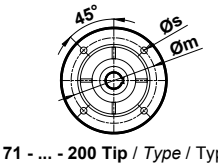
Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shaft see page number 459* / Für optionelle Abtriebswellen siehe Seite 459



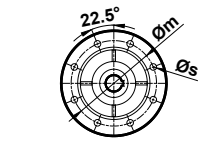
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

PN190 ...Ⓛ.01 - A..

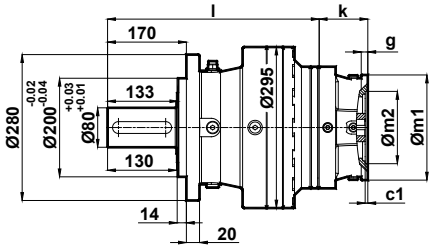
Kademe *Stage* Stufe	l
1	361
2	448
3	503
4	554

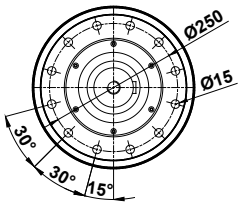


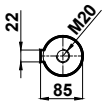
71 - ... - 200 Tip / *Type* / Typ



225-250 Tip / *Type* / Typ

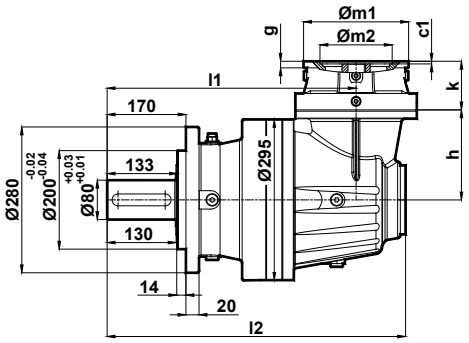


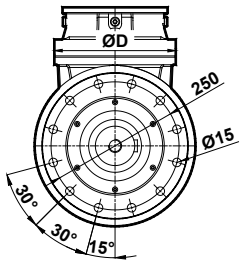


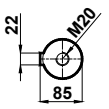


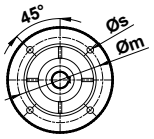
PN190 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	518	606	198	245
3	560	635	155	185
4	602	665	119	

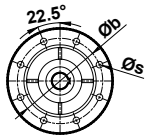








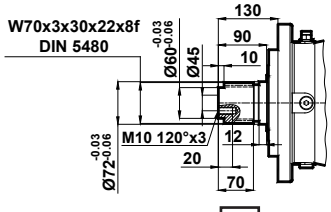
71 - ... - 200 Tip / *Type* / Typ



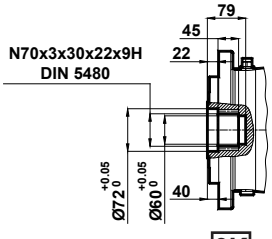
225-250 Tip / *Type* / Typ

Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
k	1	-	-	-	-	-	-	174			206	
	2	2	-	-	-	106	126	157			205	-
	3	3	74	93		103	123	153.5		-	-	-
	4	4	-							-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

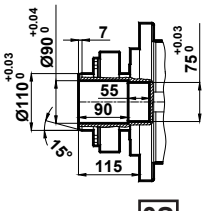
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K



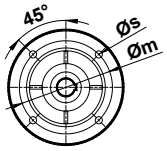
0S

Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shafts see page number 460* / Für optionelle Abtriebswellen siehe Seite 460

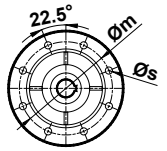
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

RN190 ...Ⓛ.01 - A..

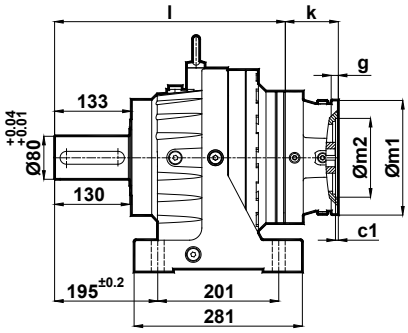
Kademe *Stage* Stufe	l
1	361
2	448
3	503
4	554

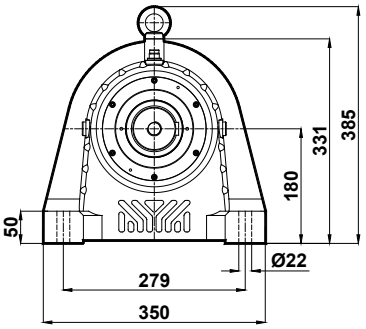


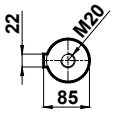
71 - ... - 200 Tip / *Type* / Typ



225-250 Tip / *Type* / Typ

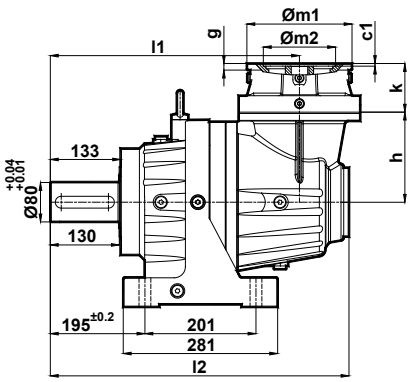


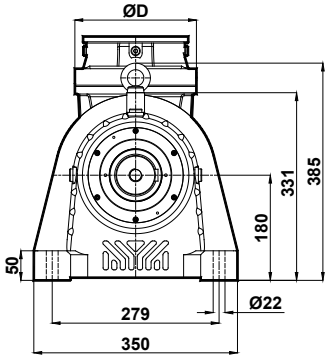


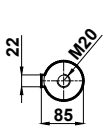


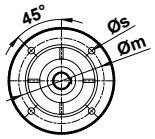
RN190 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	518	606	198	245
3	560	635	155	185
4	602	665	119	

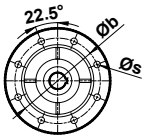








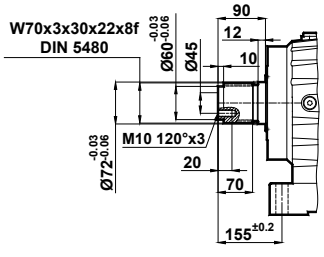
71- ... - 200 Tip / *Type* / Typ



225-250 Tip / *Type* / Typ

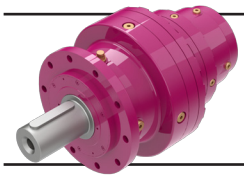
Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
k	1	-	-	-	-	-	-	174			206	
	2	2	-	-	-	106	126	157			205	-
	3	3	74	93		103	123	153.5		-	-	-
	4	4	-							-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

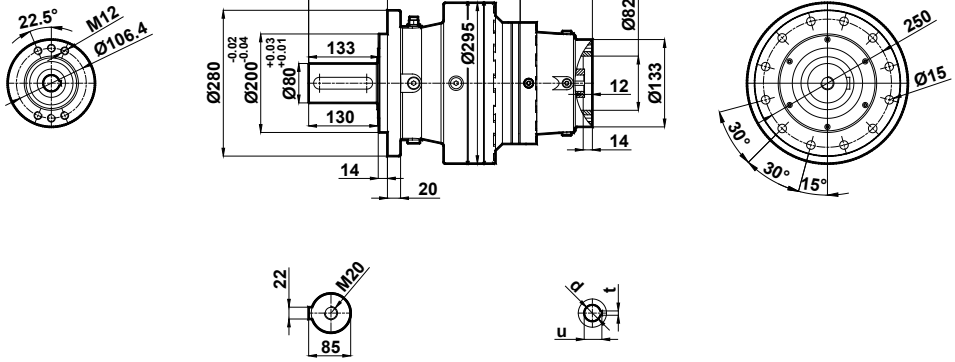
Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shaft see page number 460* / Für optionelle Abtriebswellen siehe Seite 460



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

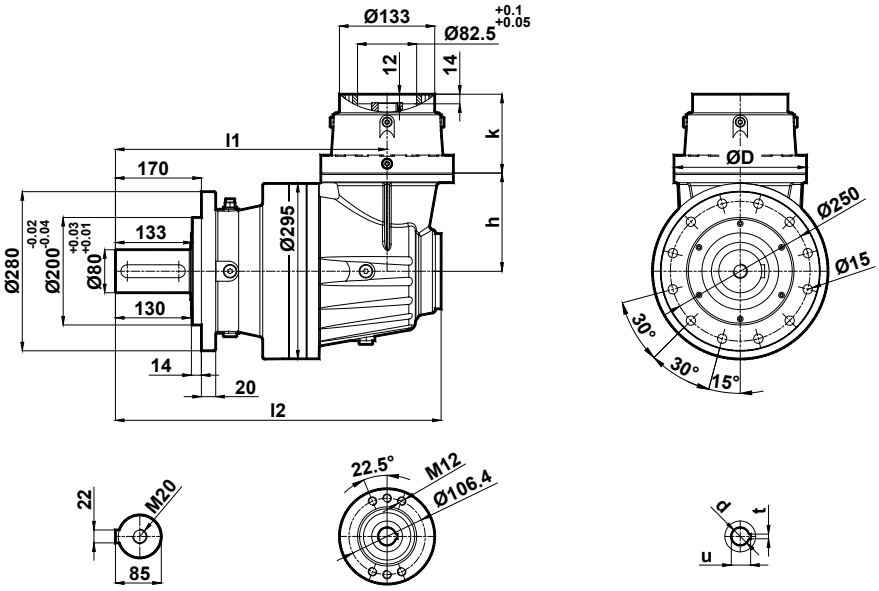
PN190 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	361	128
2	448	114
3	503	110
4	554	



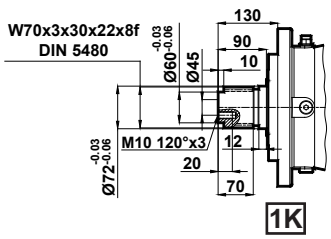
PN190 ... K. 01 - C26/M46

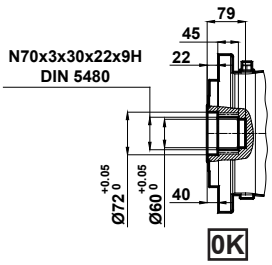
Kademe *Stage* Stufe	l1	l2	k	h	D
2	518	606	114	198	245
3	560	635	110	155	185
4	602	665		119	

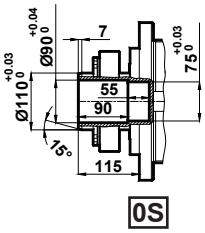


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

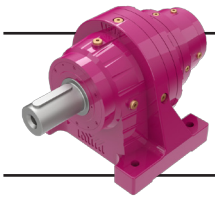
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle







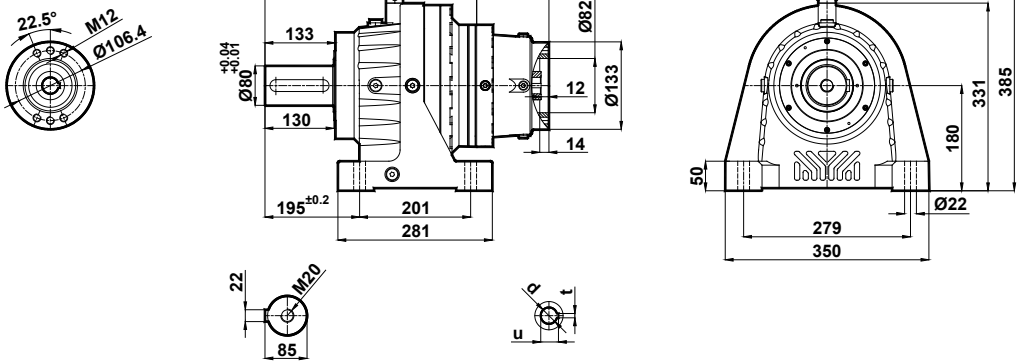
Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shafts see page number 460* / Für optionelle Abtriebswellen siehe Seite 460



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

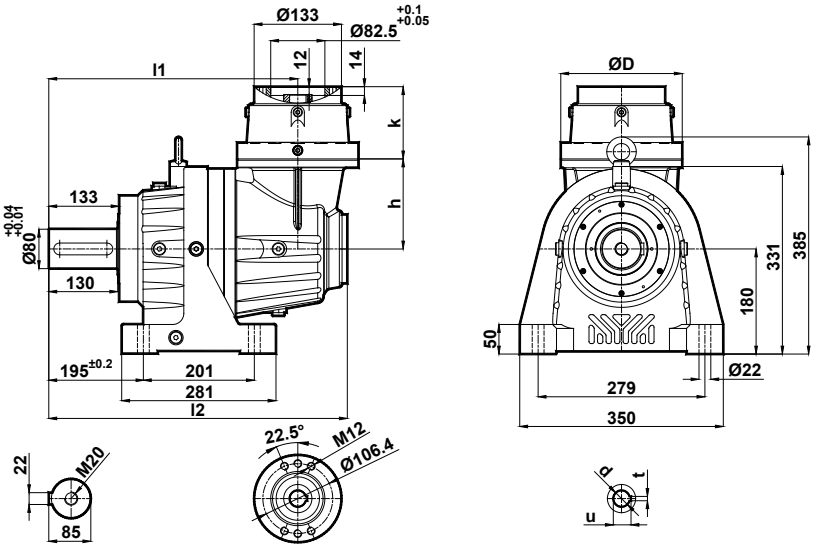
RN190 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	361	128
2	448	114
3	503	110
4	554	



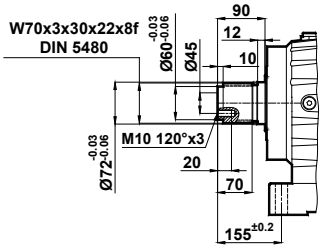
RN190 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	518	606	114	198	245
3	560	635	110	155	185
4	602	665		119	



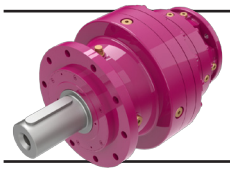
Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

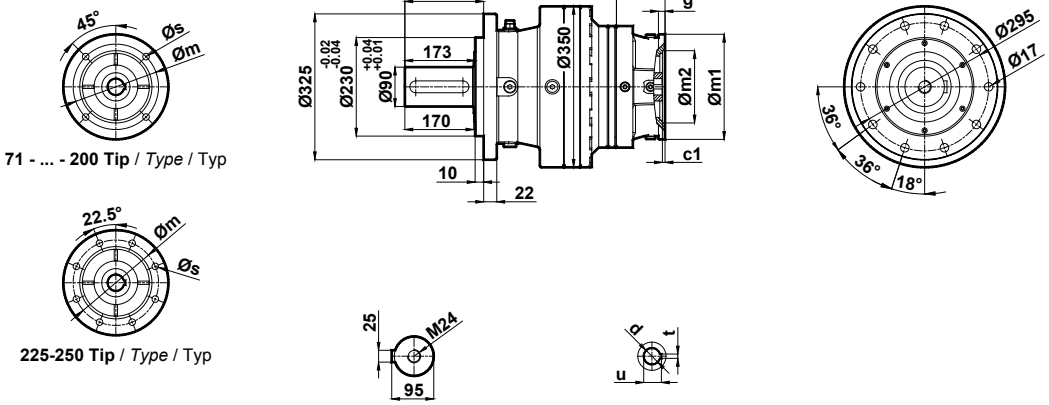
Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shaft see page number 460* / Für optionelle Abtriebswellen siehe Seite 460



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

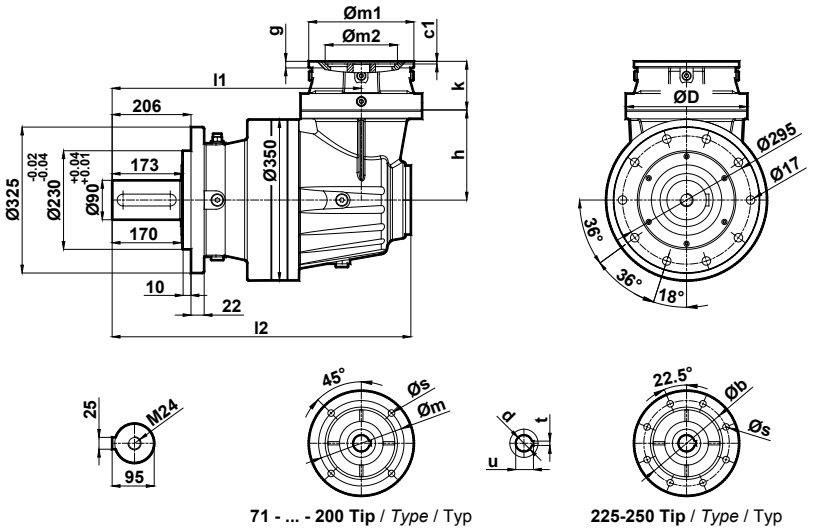
PN230 ...Ⓛ.01 - A..

Kademe *Stage* Stufe	l
1	438
2	529
3	584
4	635



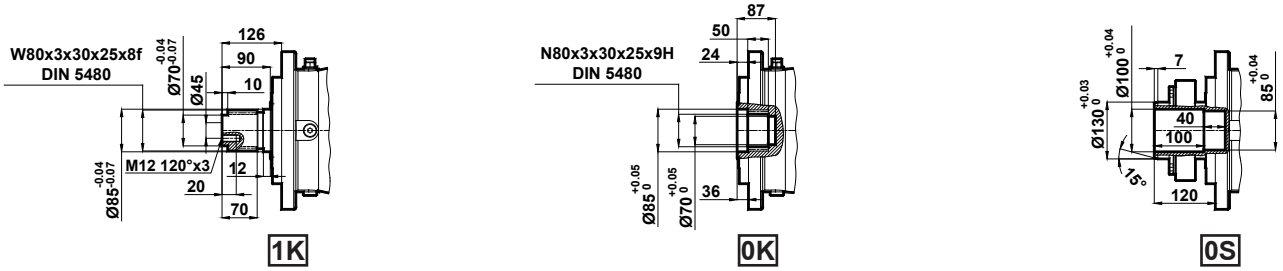
PN230 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	615	713	223	245
3	641	716	155	185
4	683	747	119	

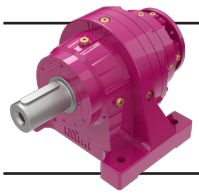


Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
k	1	-	-	-	-	-	-	-	178		210	
	2	2	-	-	-	106	126	157			205	-
	3	3	74	93		103	123	153.5		-	-	-
	4	4	-							-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shafts see page number 461* / Für optionelle Abtriebswellen siehe Seite 461

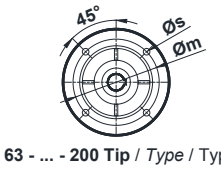


Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

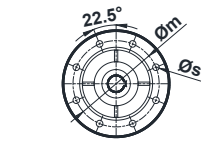
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

RN230 ...Ⓛ.01 - A..

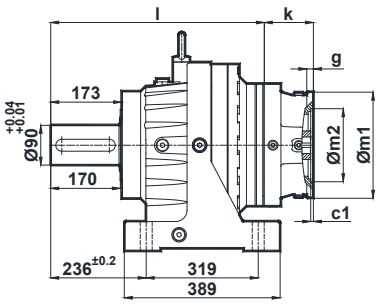
Kademe *Stage* Stufe	l
1	438
2	529
3	584
4	635

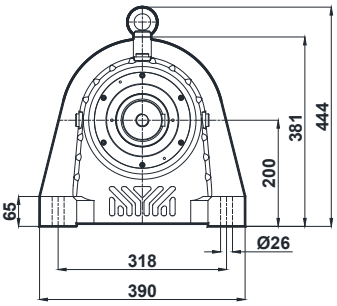


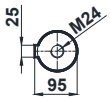
63 - ... - 200 Tip / *Type* / Typ



225-250 Tip / *Type* / Typ

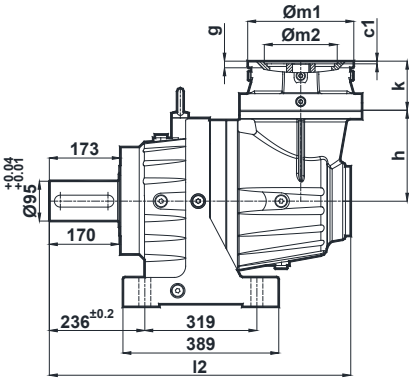


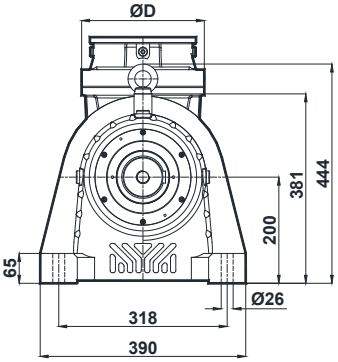


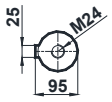


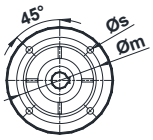
RN230 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	615	713	223	245
3	641	716	155	185
4	683	747	119	

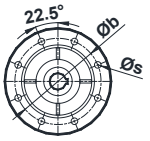








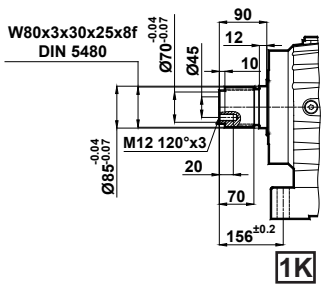
63 - ... - 200 Tip / *Type* / Typ



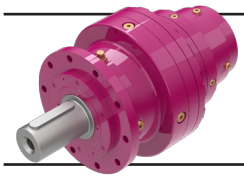
225-250 Tip / *Type* / Typ

Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
k	1	-	-	-	-	-	-	-	178		210	
	2	2	-	-	-	106	126	157			205	-
	3	3	74	93		103	123	153.5		-	-	-
	4	4	-							-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



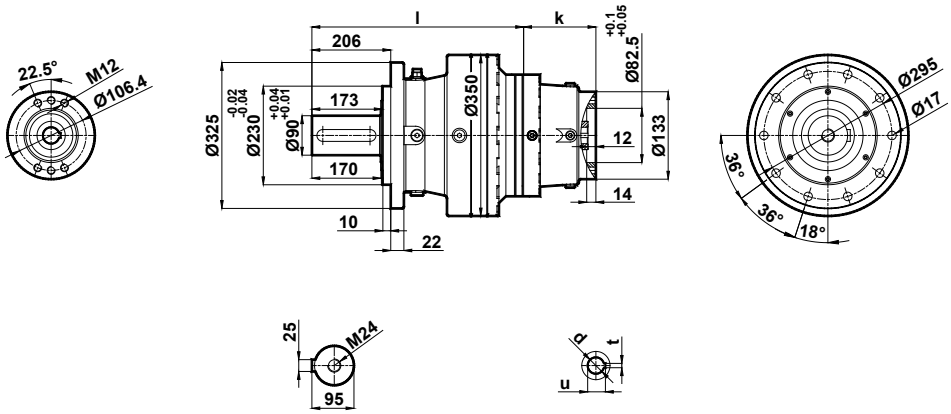
Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shaft see page number 461* / Für optionelle Abtriebswellen siehe Seite 461



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

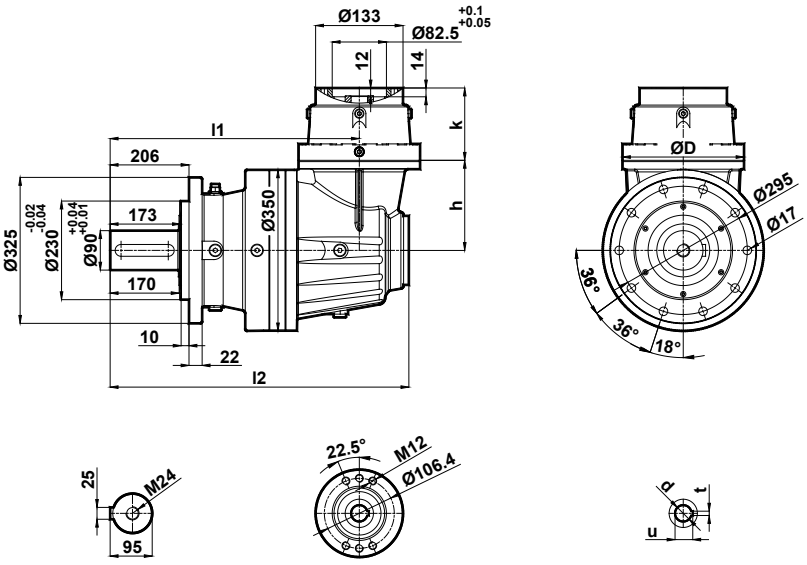
PN230 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	438	132
2	529	114
3	584	110
4	635	



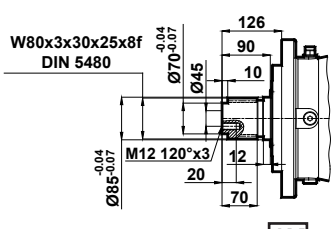
PN230 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	615	713	114	223	245
3	641	716	110	155	185
4	683	747		119	

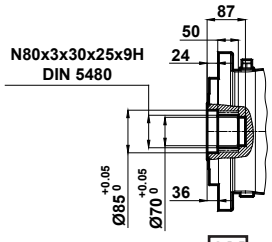


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

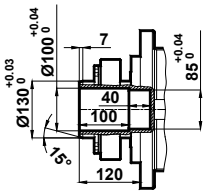
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

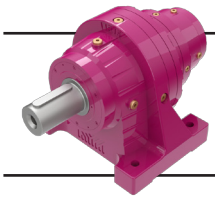


0K



0S

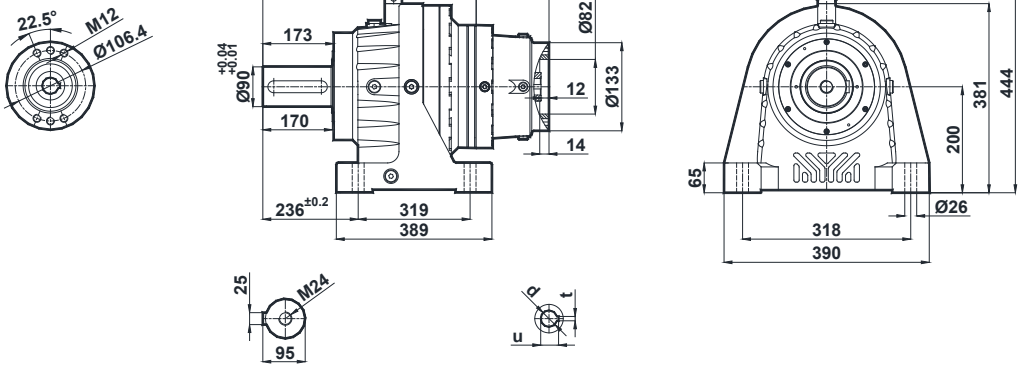
Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shafts see page number 461* / Für optionelle Abtriebswellen siehe Seite 461



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

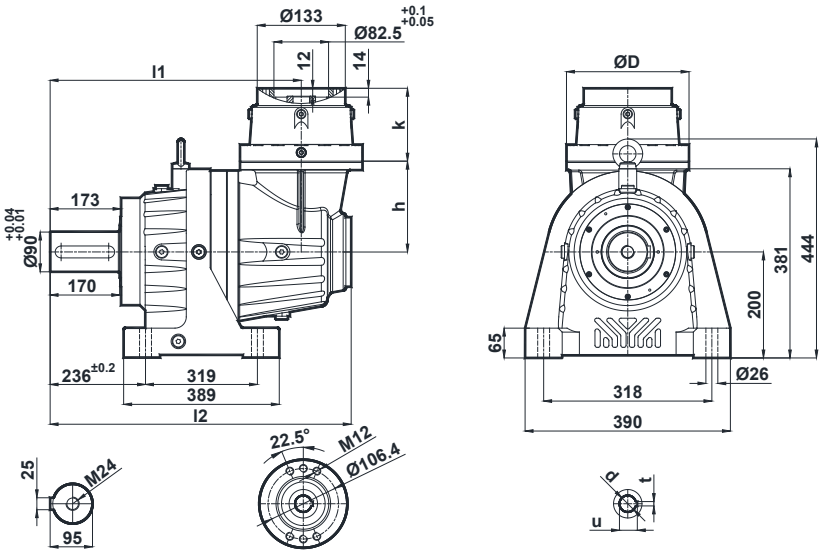
RN230 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	438	132
2	529	114
3	584	110
4	635	



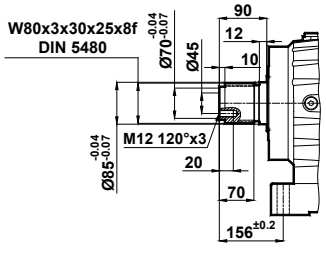
RN230 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	615	713	114	223	245
3	641	716	110	155	185
4	683	747		119	



Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



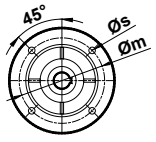
1K

Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shaft see page number 461* / Für optionelle Abtriebswellen siehe Seite 461

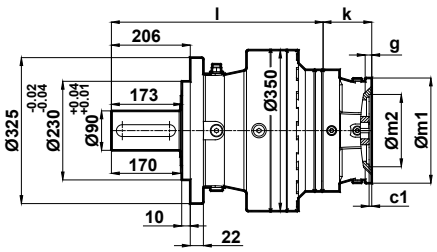
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

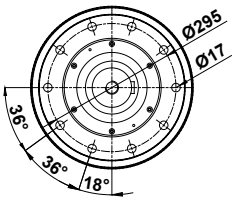
PN240 ...Ⓛ.01 - A..

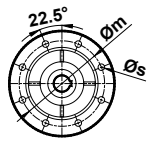
Kademe *Stage* Stufe	l
1	490
2	613
3	688
4	739



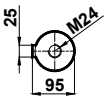
71 - ... - 200 Tip / *Type* / Typ





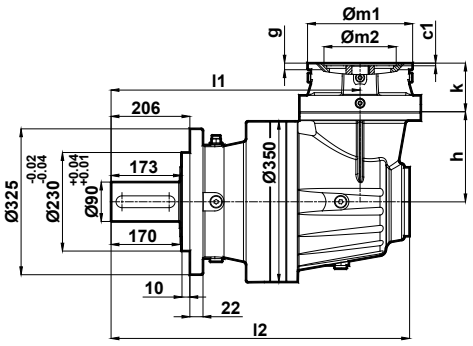


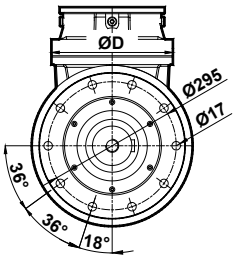
225-250 Tip / *Type* / Typ

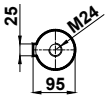


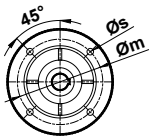
PN240 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	667	765	223	245
3	725	800	155	185
4	787	851	119	

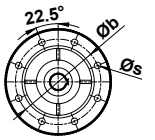








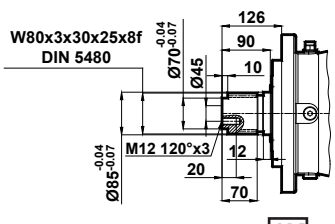
71 - ... - 200 Tip / *Type* / Typ



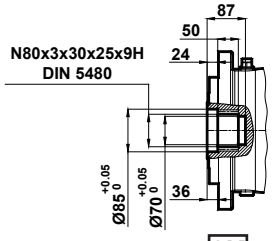
225-250 Tip / *Type* / Typ

Motor *Motor* Motor	Kademe *Stage* Stufe		71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
	L	K										
k	1	-	-	-	-	-	-	-	178		210	
	2	2	-	-	-	106	126	157			205	-
	3	3	74	93		103	123	153.5		-	-	-
	4	4	-							-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

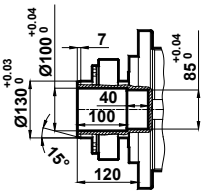
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

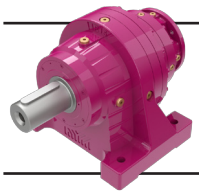


0K



0S

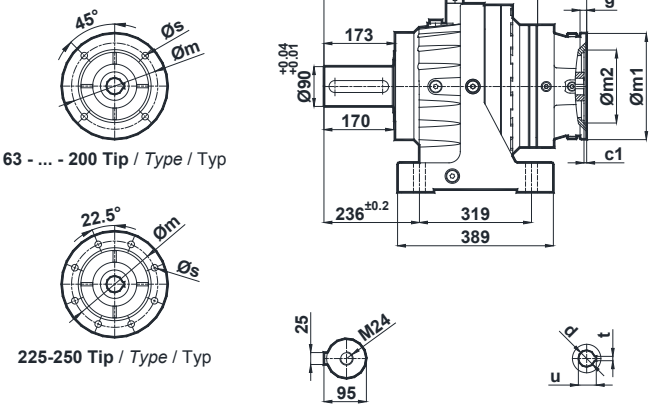
Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shafts see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

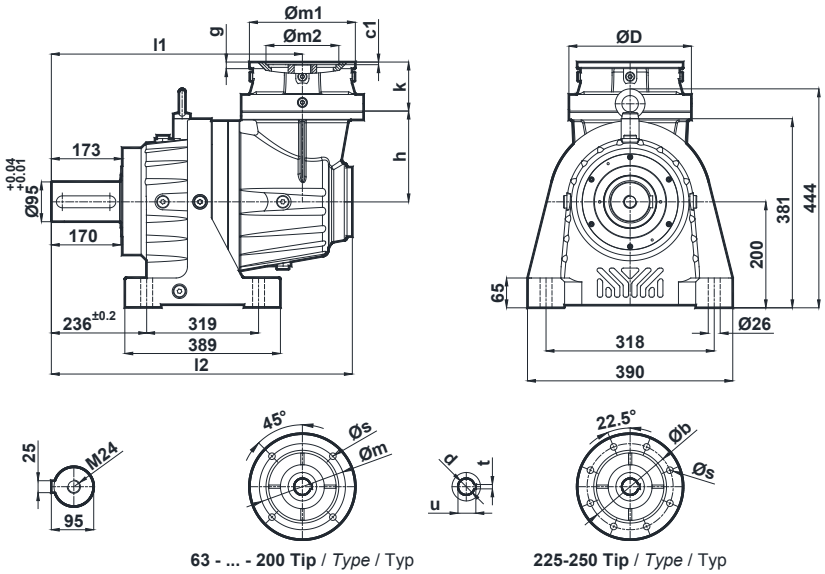
RN240 ... Ⓛ. 01 - A..

Kademe *Stage* Stufe	l
1	490
2	613
3	688
4	739



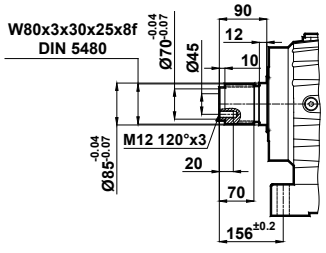
RN240 ...Ⓚ. 01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	651	749	187	245
3	725	800	137	185
4	787	850,5	119	



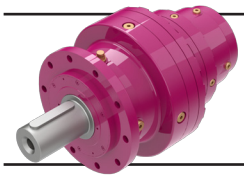
Motor *Motor* Motor	Kademe *Stage* Stufe L	Kademe *Stage* Stufe K	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
k	1	-	-	-	-	-	-	-	178		210	
	2	2	-	-	-	106	126	157			205	-
	3	3	74	93		103	123	153.5		-	-	-
	4	4	-							-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

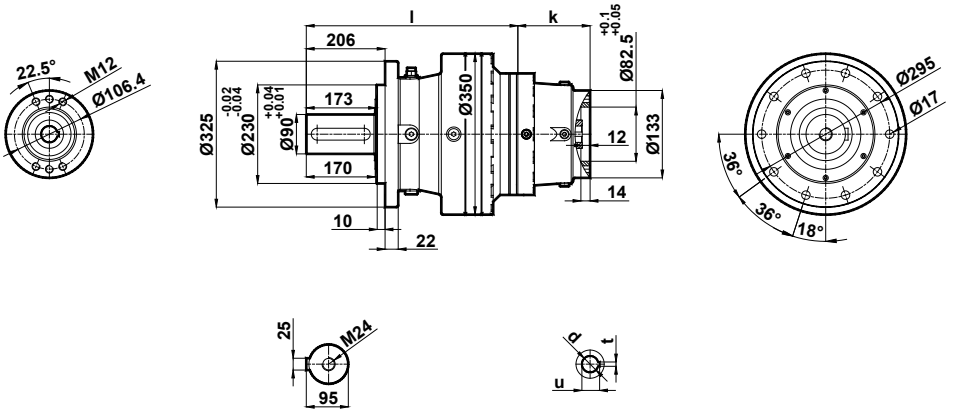
Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shaft see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

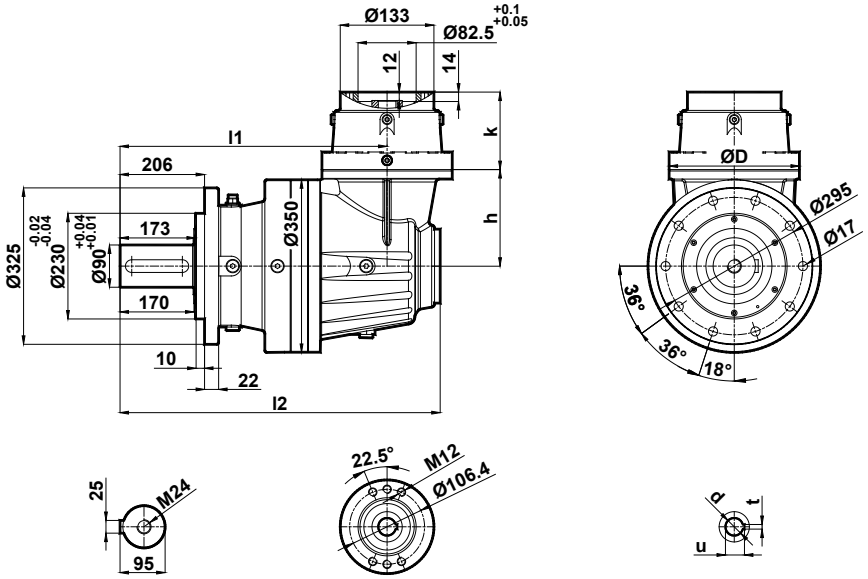
PN240 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	490	132
2	613	114
3	688	110
4	739	



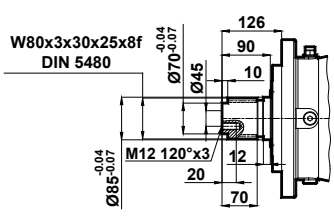
PN240 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	667	765	114	223	245
3	725	800	110	155	185
4	787	851		119	

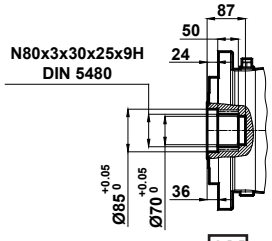


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

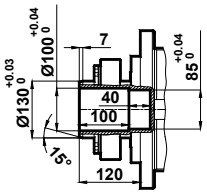
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

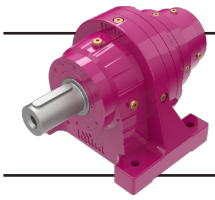


0K



0S

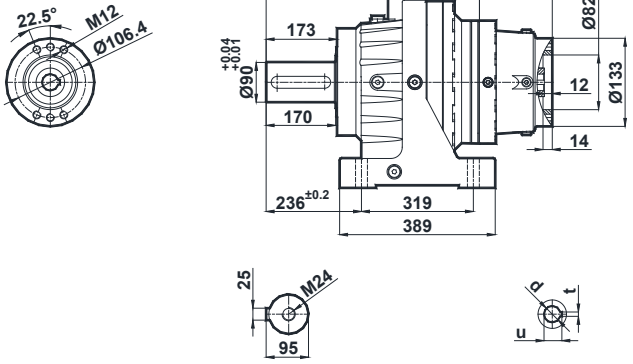
Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shafts see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

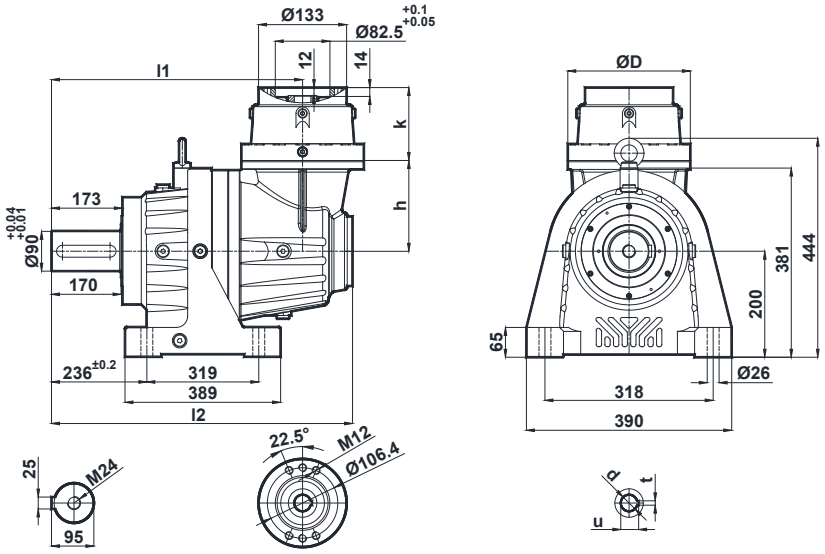
RN240 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l	k
1	490	132
2	613	114
3	688	110
4	739	



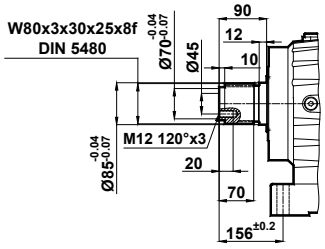
RN240 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	667	765	114	223	245
3	725	800	110	155	185
4	787	851		119	



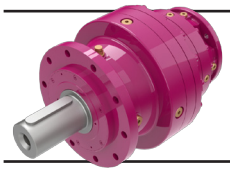
Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

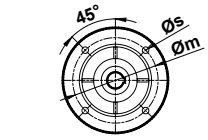
Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shaft see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463



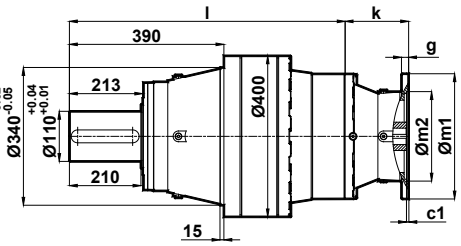
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

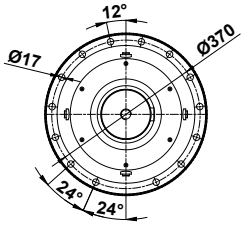
PN270 ...Ⓛ.01 - A..

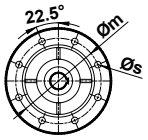
Kademe *Stage* Stufe	l
1	492
2	646
3	733
4	788



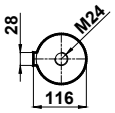
71 - ... - 200 Tip / *Type* / Typ





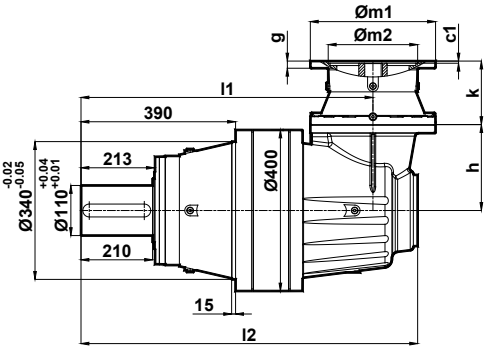


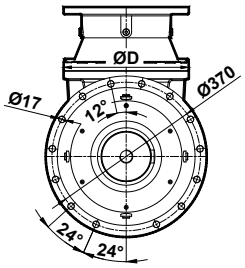
225-250 Tip / *Type* / Typ

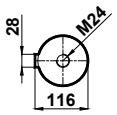


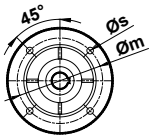
PN270 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	739	858	291	295
3	803	891	198	245
4	845	920	155	185

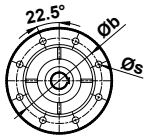








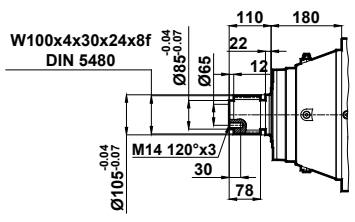
71 - ... - 200 Tip / *Type* / Typ



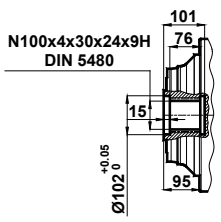
225-250 Tip / *Type* / Typ

Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
k	1	-	-	-	-	-	-	-	-	225	256	
	2	2	-	-	-	-	-	174			206	
	3	3	-	-	-	106	126	157			205	-
	4	4	-	93		103	123	153.5		-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

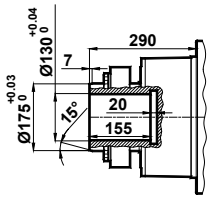
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K



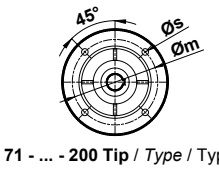
0S

Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shafts see page number 464* / Für optionelle Abtriebswellen siehe Seite 464

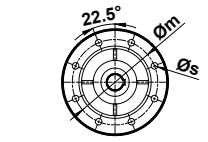
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

RN270 ...Ⓛ.01 - A..

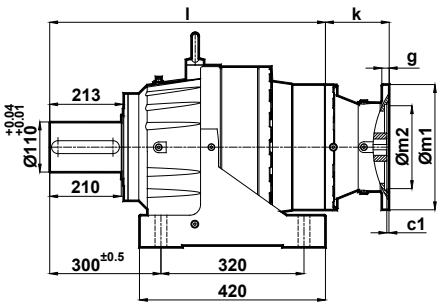
Kademe *Stage* Stufe	l
1	492
2	646
3	733
4	788

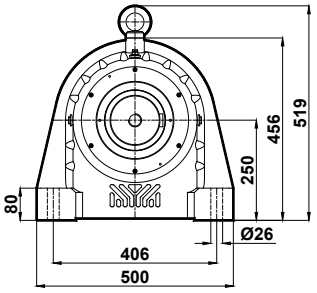


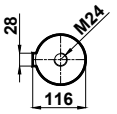
71 - ... - 200 Tip / *Type* / Typ



225-250 Tip / *Type* / Typ

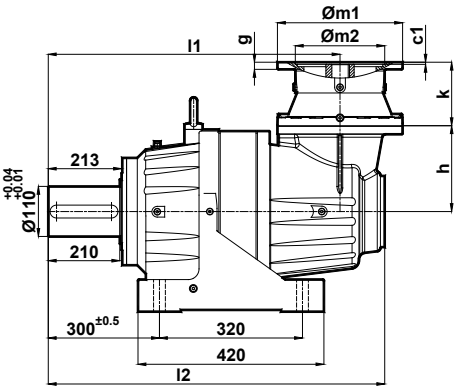


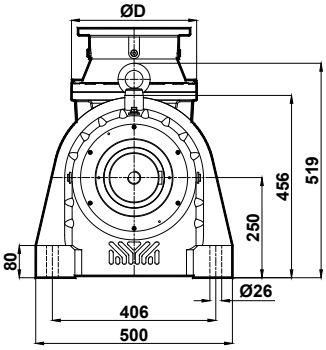


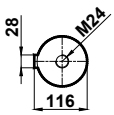


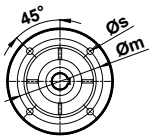
RN270 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	739	858	291	295
3	803	891	198	245
4	845	920	155	185

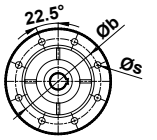








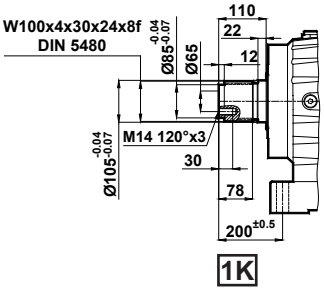
71 - ... - 200 Tip / *Type* / Typ



225-250 Tip / *Type* / Typ

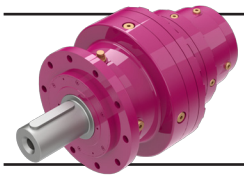
Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
k	1	-	-	-	-	-	-	-	-	225	256	
	2	2	-	-	-	-	-	174			206	
	3	3	-	-	-	106	126	157			205	-
	4	4	-	93		103	123	153.5		-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

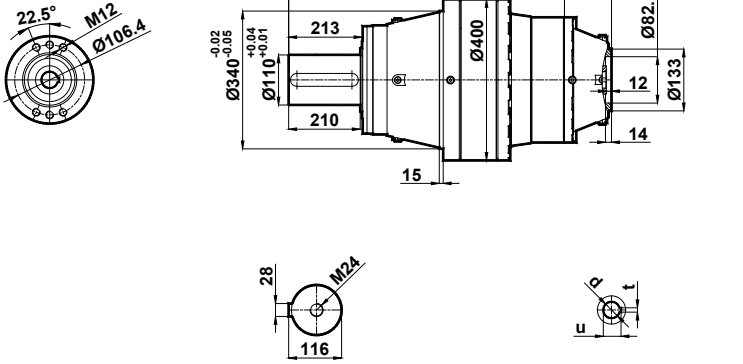
Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shaft see page number 464* / Für optionelle Abtriebswellen siehe Seite 464



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

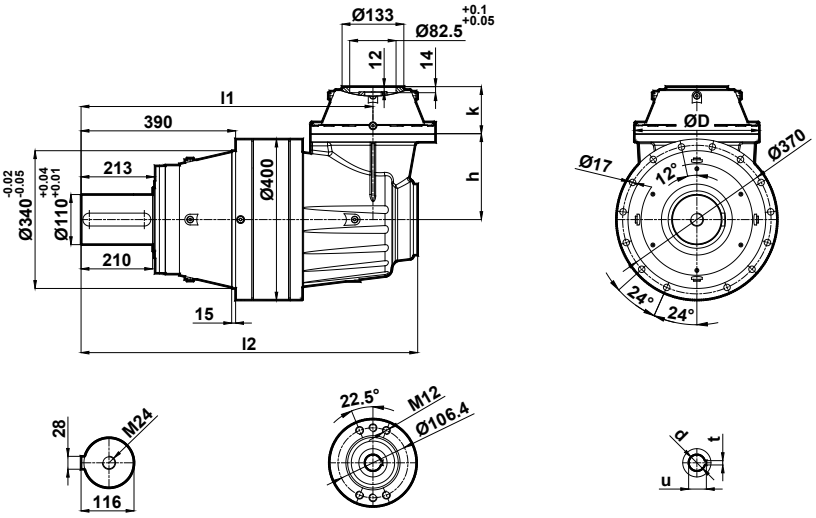
PN270 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l	k
2	646	128
3	733	114
4	788	110



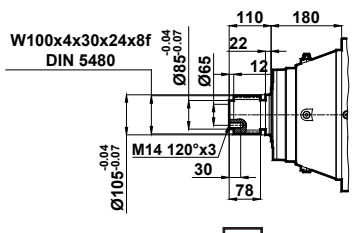
PN270 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	739	858	128	291	295
3	803	891	114	198	245
4	845	920	110	155	185

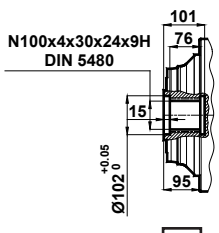


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

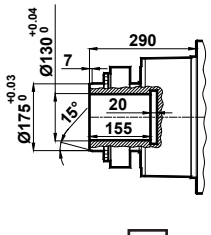
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

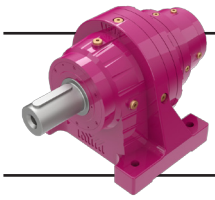


0K



0S

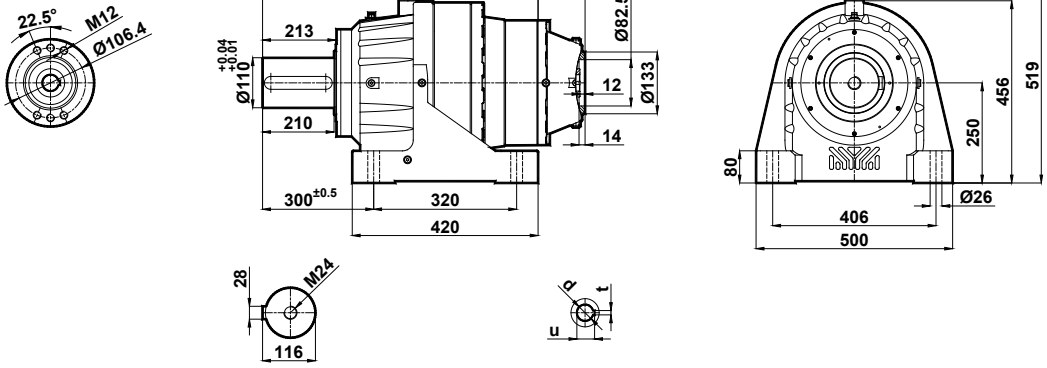
Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shafts see page number 464* / Für optionelle Abtriebswellen siehe Seite 464



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

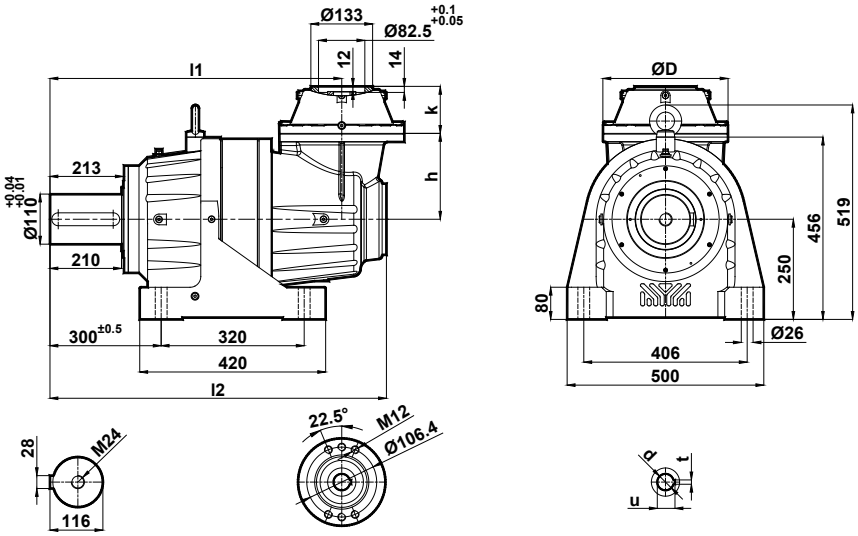
RN270 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l	k
2	646	128
3	733	114
4	788	110



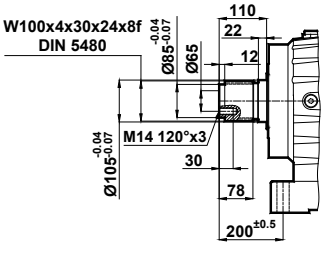
RN270 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	739	858	128	291	295
3	803	891	114	198	245
4	845	920	110	155	185



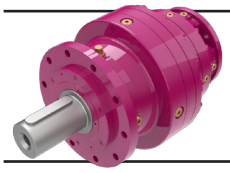
Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

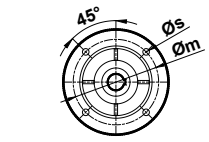
Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shaft see page number 464* / Für optionelle Abtriebswellen siehe Seite 464



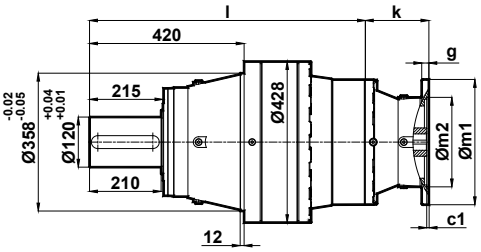
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

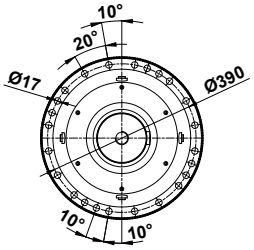
PN290 ...Ⓛ.01 - A..

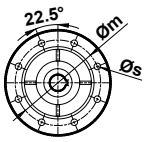
Kademe *Stage* Stufe	l
2	692
3	783
4	837,5



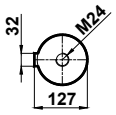
71 - ... - 200 Tip / *Type* / Typ





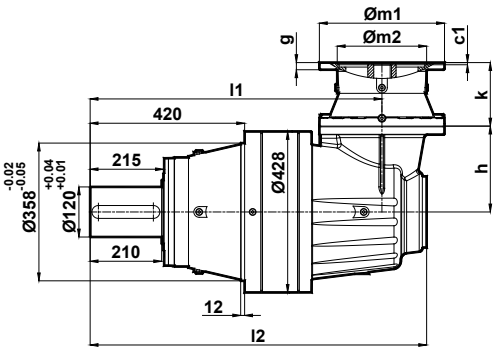


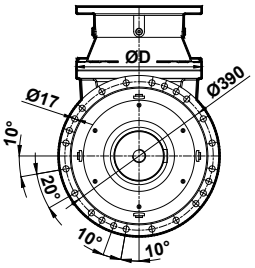
225-250 Tip / *Type* / Typ

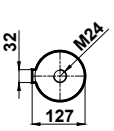


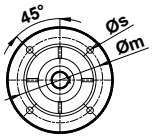
PN290 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	789	914	240	400
3	853	951	187	245
4	894,5	970	137	185

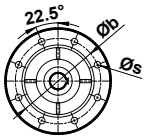








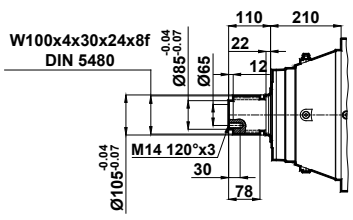
71 - ... - 200 Tip / *Type* / Typ



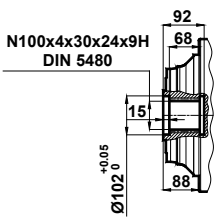
225-250 Tip / *Type* / Typ

Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
k	2	2	-	-	-	-	-	-	178		210	
	3	3	-	-	-	106	126	157			205	-
	4	4	-	93		103	123	153.5		-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

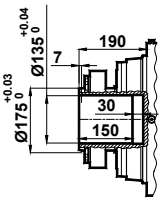
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K



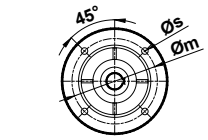
0S

Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shafts see page number 465* / Für optionelle Abtriebswellen siehe Seite 465

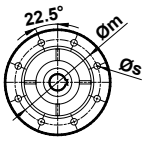
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

RN290 ...Ⓛ.01 - A..

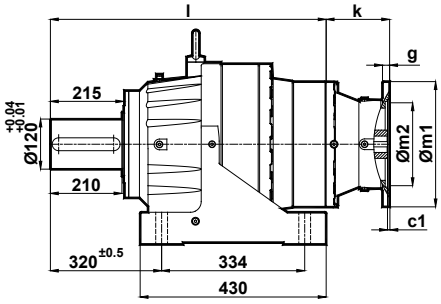
Kademe *Stage* Stufe	l
2	692
3	783
4	837,5

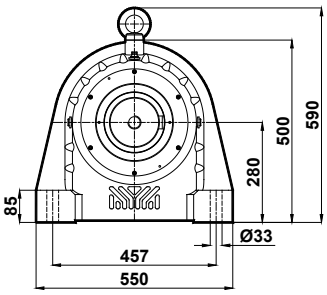


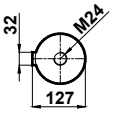
71 - ... - 200 Tip / *Type* / Typ



225-250 Tip / *Type* / Typ

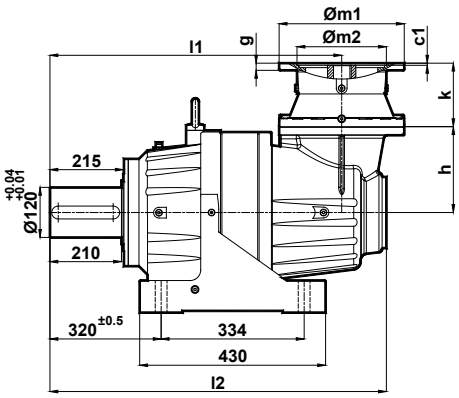


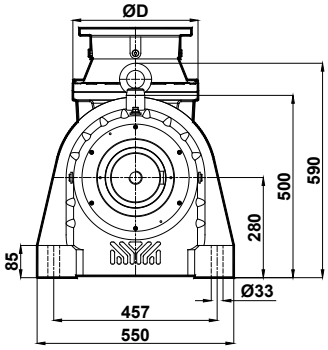


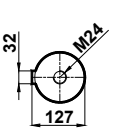


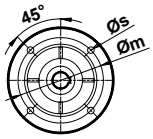
RN290 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	789	914	240	400
3	853	951	187	245
4	894,5	970	137	185

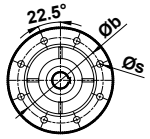








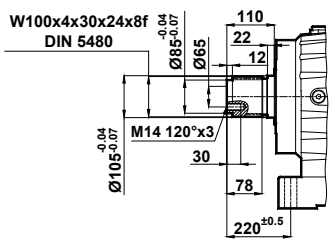
71 - ... - 200 Tip / *Type* / Typ



225-250 Tip / *Type* / Typ

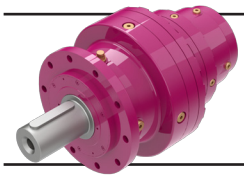
Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Kademe *Stage* Stufe Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5	200/B5	225/B5	250/B5
k	2	2	-	-	-	-	-	-	178		210	
	3	3	-	-	-	106	126	157			205	-
	4	4	-	93		103	123	153.5		-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shaft see page number 465* / Für optionelle Abtriebswellen siehe Seite 465

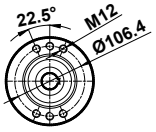


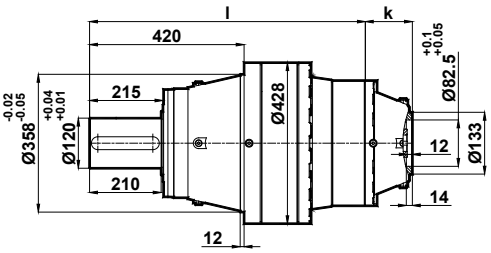
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

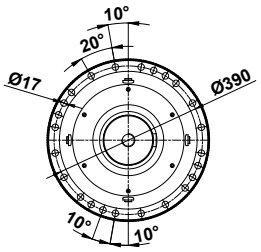
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

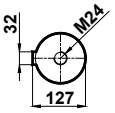
PN290 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l	k
2	717	132
3	808	114
4	863	110



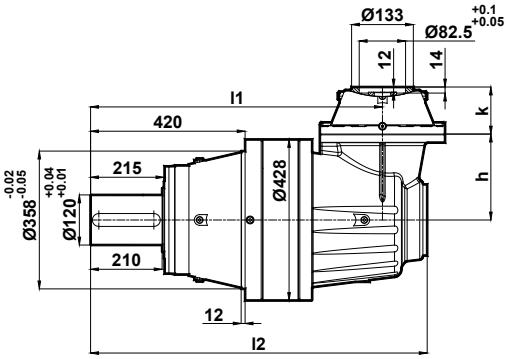


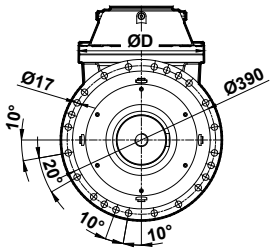


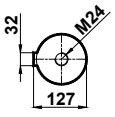


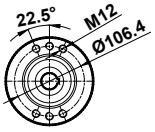
PN290 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	815	934	132	287	350
3	894	992	114	223	245
4	920	995	110	155	185



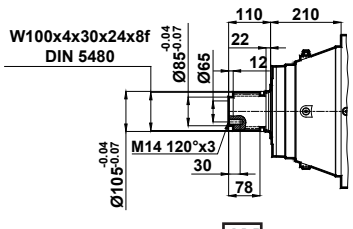




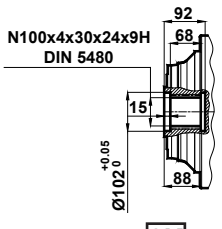


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

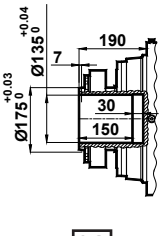
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

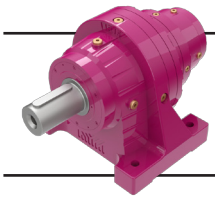


0K



0S

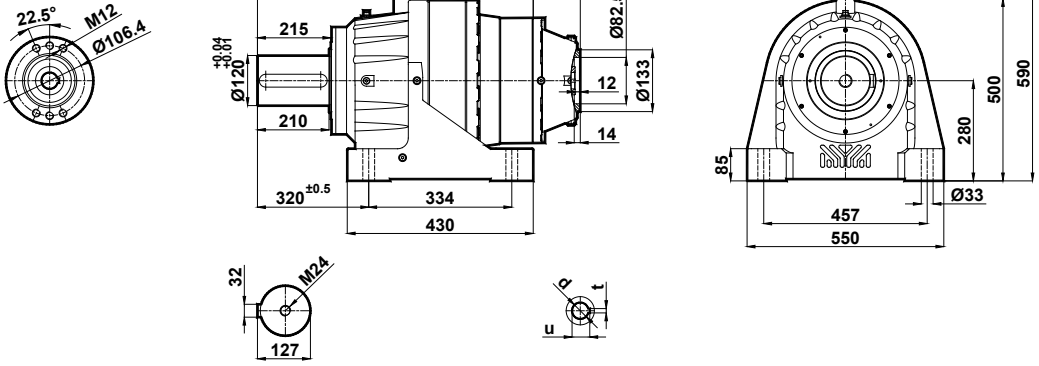
Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shafts see page number 465* / Für optionelle Abtriebswellen siehe Seite 465



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

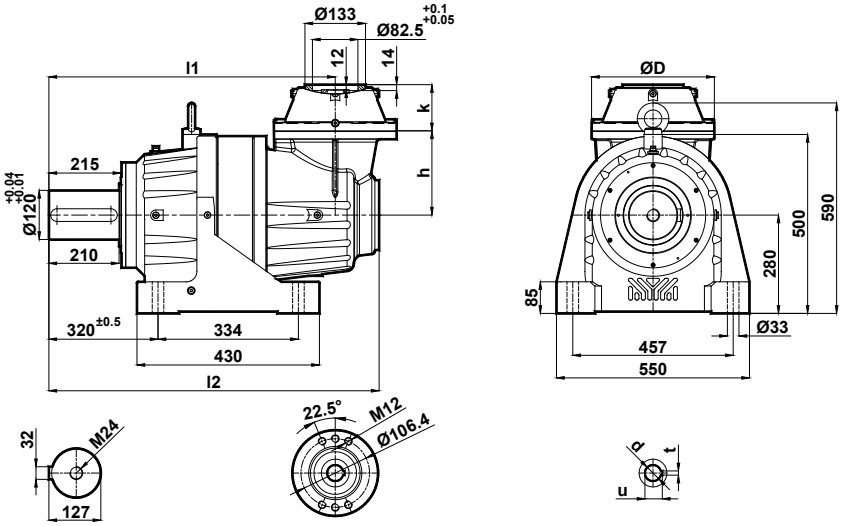
RN290 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l	k
2	717	132
3	808	114
4	863	110



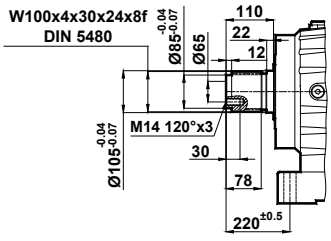
RN290 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	815	934	132	287	350
3	894	992	114	223	245
4	920	995	110	155	185



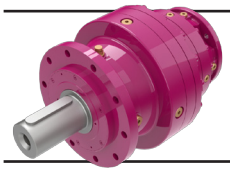
Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

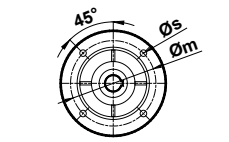
Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shaft see page number 465* / Für optionelle Abtriebswellen siehe Seite 465



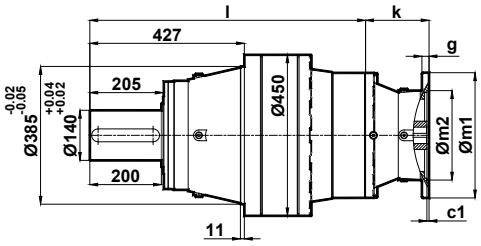
-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

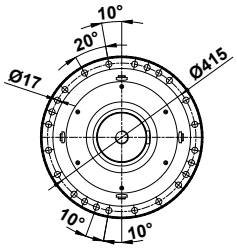
PN350 ...Ⓛ.01 - A..

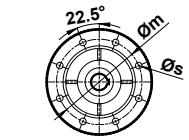
Kademe *Stage* Stufe	l
2	800
3	923
4	997



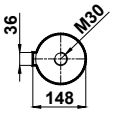
71 - ... - 200 Tip / *Type* / Typ





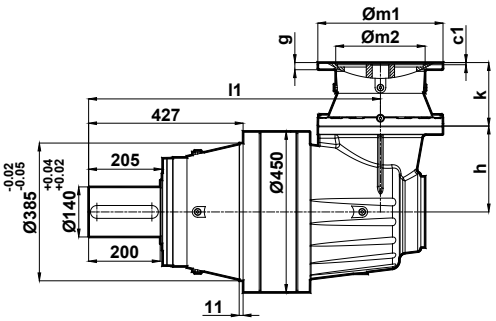


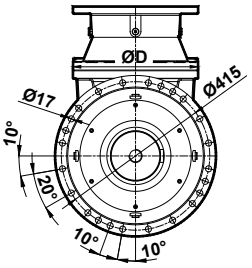
225-250 Tip / *Type* / Typ

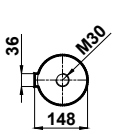


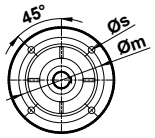
PN350 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	846	965	287	350
3	976	1074	223	245
4	1034	1110	119	185

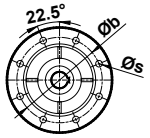








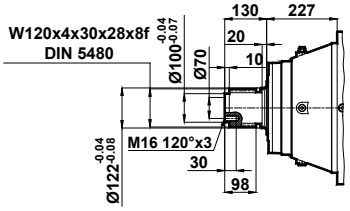
71 - ... - 200 Tip / *Type* / Typ



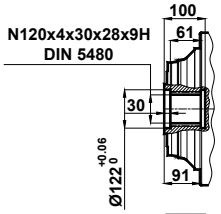
225-250 Tip / *Type* / Typ

Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5		225/B5	250/B5
k	2	2	-	-	-	-	-	-	178		210	
	3	3	-	-	-	106	126	157			205	-
	4	4	-	93		103	123	153.5		-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

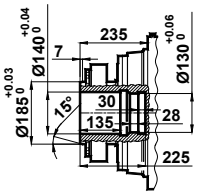
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K



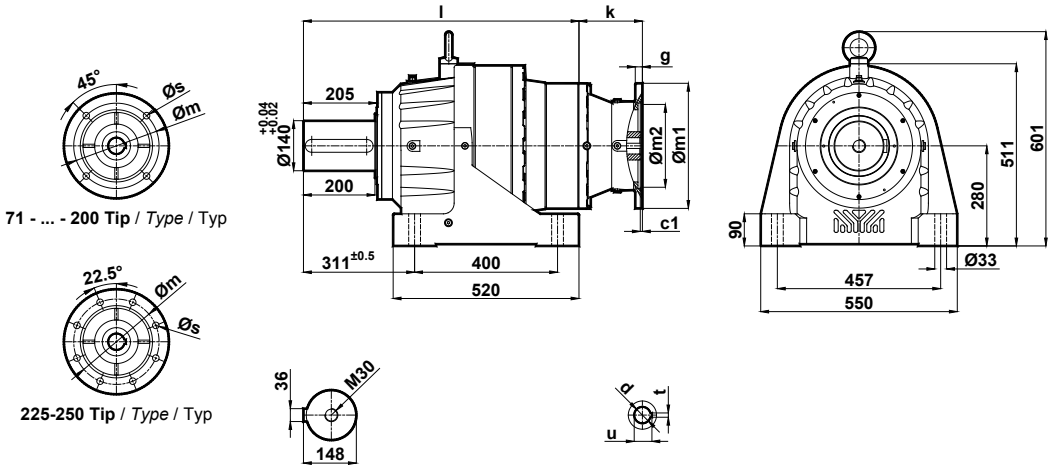
0S

Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shafts see page number 466* / Für optionelle Abtriebswellen siehe Seite 466

-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

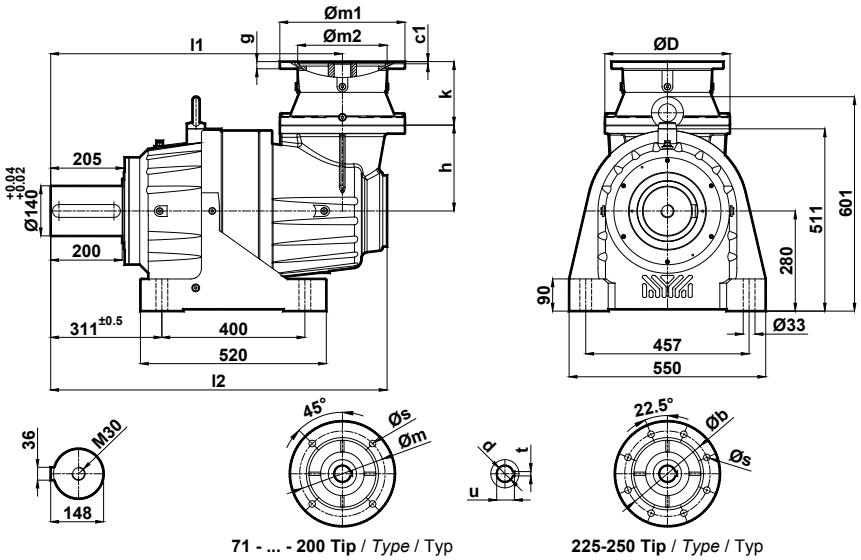
RN350 ...Ⓛ.01 - A..

Kademe *Stage* Stufe	l
2	800
3	923
4	997



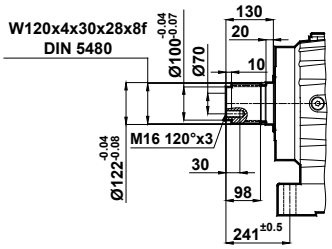
RN350 ...Ⓚ.01 - A..

Kademe *Stage* Stufe	l1	l2	h	D
2	846	965	287	350
3	976	1074	223	245
4	1034	1110	119	185



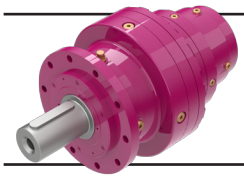
Motor *Motor* Motor	Kademe *Stage* Stufe Ⓛ	Ⓚ	71/B5	80/B5	90/B5	100/112/B5	132/B5	160/B5	180/B5		225/B5	250/B5
k	2	2	-	-	-	-	-	-	178		210	
	3	3	-	-	-	106	126	157			205	-
	4	4	-	93		103	123	153.5		-	-	-
m / s			130/10	165/12		215/15	265/15	300/19		350/19	400/19	500/19
m1 / m2 (H7)			160/110	200/130		250/180	300/230	350/250		400/300	450/350	550/450
c1 / g			4/10	4/12		5/15	5/20	6/20			6/22	6/24
d			14	19	24	28	38	42	48	55	60	65
u / t			16.3/5	21.8/6	27.3/8	31.3/8	41.3/10	45.3/12	51.8/14	59.3/16	64.4/18	69.4/18

Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

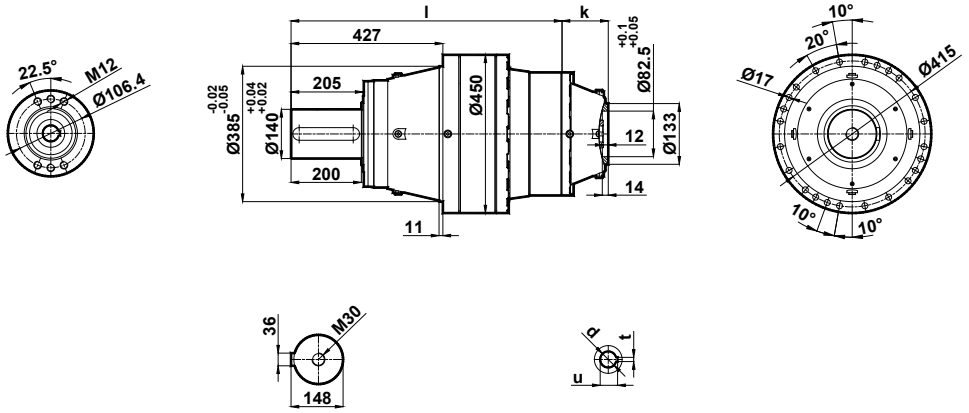
Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shaft see page number 466* / Für optionelle Abtriebswellen siehe Seite 466



-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

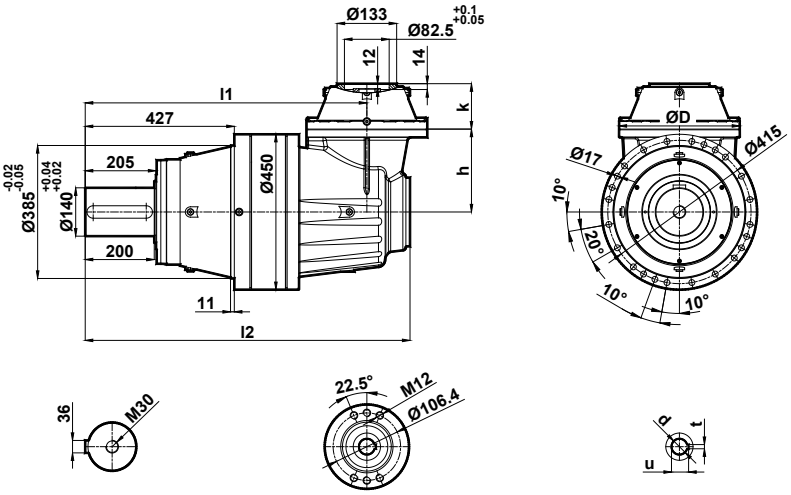
PN350 ... L . 01 - C26/M46

Kademe *Stage* Stufe	l	k
2	800	132
3	923	114
4	997	110



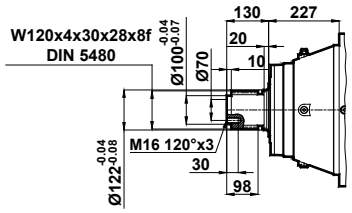
PN350 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	846	965	132	287	350
3	976	1074	114	223	245
4	1034	1110	110	155	185

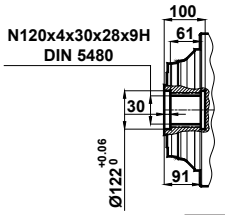


Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

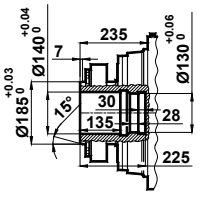
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K



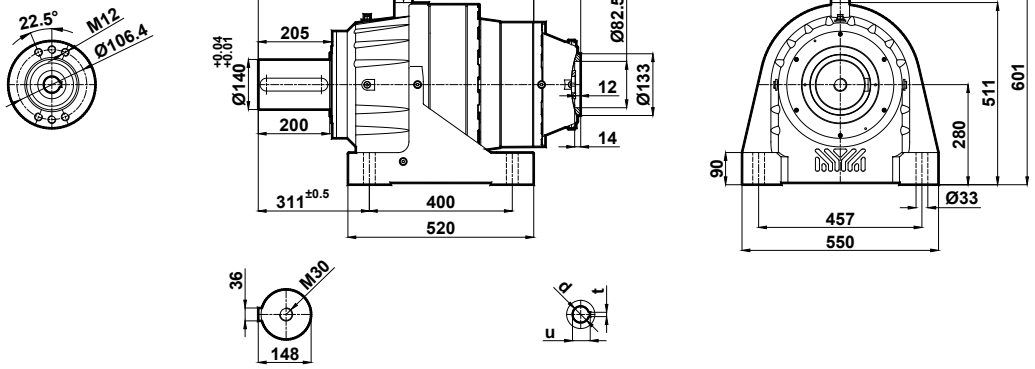
0S

Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shafts see page number 466* / Für optionelle Abtriebswellen siehe Seite 466

-Mil ucu çektirme deliği DIN332 sayfa 2 / *Tapped center hole according to DIN 332 , sheet 2 /* Zentrierung mit Gewinde nach DIN 332, Blatt 2

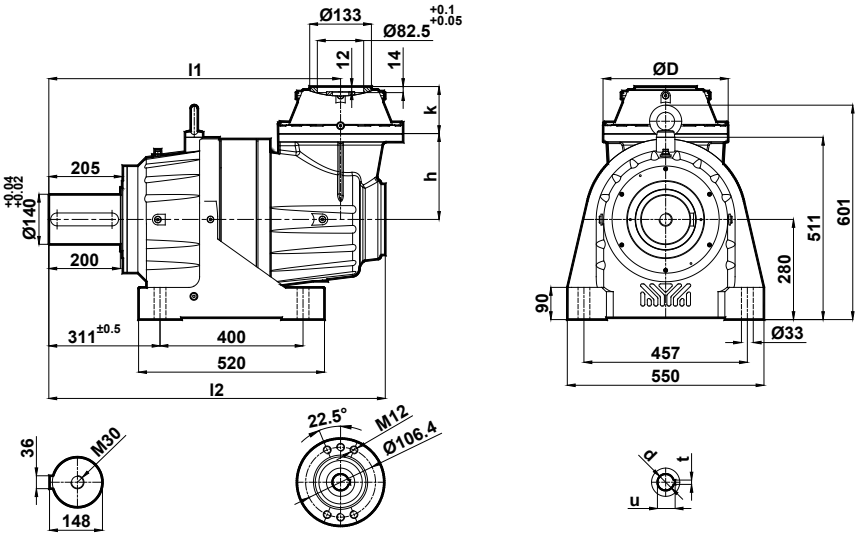
RN350 ... L. 01 - C26/M46

Kademe *Stage* Stufe	l	k
2	800	132
3	923	114
4	997	110



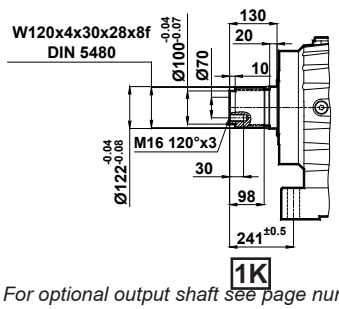
RN350 ... K. 01 - C26/M46

Kademe *Stage* Stufe	l1	l2	k	h	D
2	846	965	132	287	350
3	976	1074	114	223	245
4	1034	1110	110	155	185



Bağlantı Kodu *Connection Code* Verbindungskode	d	u	t
C26	25	28.3	8
M46	32	35.3	10

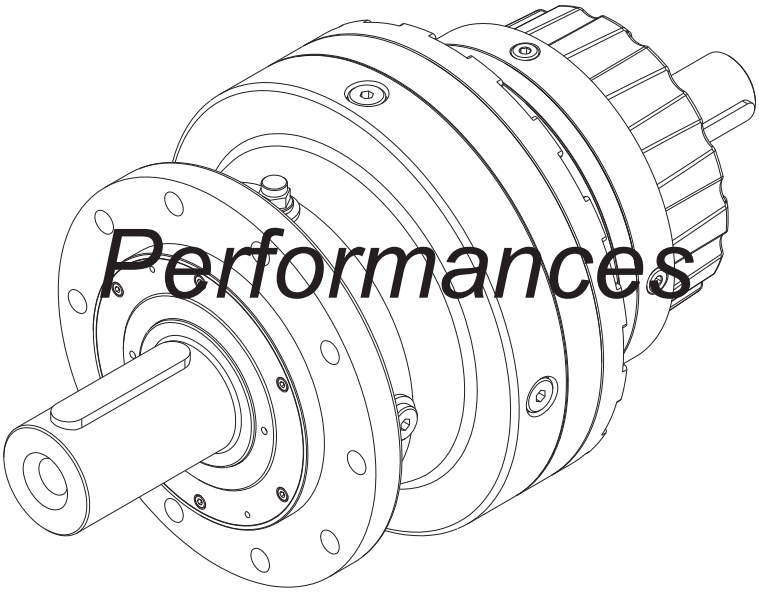
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shaft see page number 466* / Für optionelle Abtriebswellen siehe Seite 466

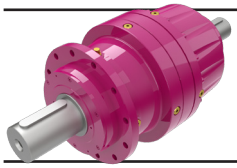
Notlar / *Notes* / Notizen

Güç ve Devir Tabloları



Performances

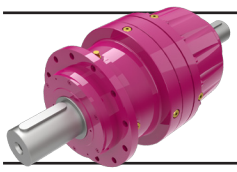
Leistung und Drehzahlübersicht



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

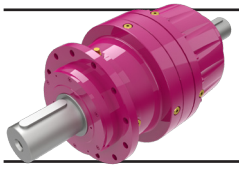
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1101L	**0,63**	0,78	1,00	1,00	**3,78**	**384**	**26**	0,96	1,20	9,6	2,1
RT1101L	**0,64**	0,79	1,00	1,00	**4,13**	**352**	**25**	0,96	1,20	9,9	2,1
	0,67	0,83	0,99	1,00	**5,17**	**281**	**21**	0,96	1,20	11	2,1
	0,69	0,80	0,85	0,89	**6,00**	**242**	**18**	0,95	1,20	11	2,1
	0,57	0,60	0,64	0,68	**7,25**	**200**	**13**	0,95	1,20	12	2,1
PT1102L	**1,00**	1,00	1,00	1,00	**14,27**	**102**	**12**	0,91	1,20	14	2,1
RT1102L	**1,00**	1,00	1,00	1,00	**15,58**	**93**	**11**	0,91	1,20	15	2,1
	1,00	1,00	1,00	1,00	**17,02**	**85**	**9,8**	0,91	1,20	15	2,1
	1,00	1,00	1,00	1,00	**21,31**	**68**	**7,8**	0,92	1,20	16	2,1
	1,00	1,00	1,00	1,00	**24,75**	**59**	**6,7**	0,92	1,20	17	2,1
	1,00	1,00	1,00	1,00	**29,91**	**48**	**5,5**	0,92	1,20	18	2,1
	1,00	1,00	1,00	1,00	**37,46**	**39**	**4,5**	0,91	1,20	19	2,1
	0,86	0,90	0,96	1,00	**43,50**	**33**	**3,3**	0,90	1,20	20	2,1
	0,65	0,69	0,73	0,83	**52,56**	**28**	**2,1**	0,89	1,20	21	2,1
PT1103L	**1,00**	1,00	1,00	1,00	**58,87**	**25**	**3,1**	0,84	1,20	22	2,1
RT1103L	**1,00**	1,00	1,00	1,00	**64,28**	**23**	**2,8**	0,83	1,20	22	2,1
	1,00	1,00	1,00	1,00	**70,19**	**21**	**2,6**	0,84	1,20	23	2,1
	1,00	1,00	1,00	1,00	**87,91**	**16**	**2,0**	0,85	1,20	25	2,1
	1,00	1,00	1,00	1,00	**102,09**	**14**	**1,8**	0,85	1,20	26	2,1
	1,00	1,00	1,00	1,00	**123,36**	**12**	**1,4**	0,85	1,20	28	2,1
	1,00	1,00	1,00	1,00	**154,52**	**9,4**	**1,2**	0,84	1,20	29	2,1
	1,00	1,00	1,00	1,00	**179,44**	**8,1**	**1,0**	0,83	1,20	31	2,1
	1,00	1,00	1,00	1,00	**216,82**	**6,7**	**0,85**	0,82	1,20	32	2,1
	1,00	1,00	1,00	1,00	**271,57**	**5,3**	**0,69**	0,80	1,20	35	2,1
	1,00	1,00	1,00	1,00	**315,38**	**4,6**	**0,61**	0,79	1,20	36	2,1
	0,76	0,90	1,00	1,00	**381,08**	**3,8**	**0,41**	0,74	1,20	39	2,1
PT1104L	**1,00**	1,00	1,00	1,00	**289,53**	**5,0**	**0,78**	0,67	1,20	35	2,1
RT1104L	**1,00**	1,00	1,00	1,00	**362,65**	**4,0**	**0,60**	0,69	1,20	38	2,1
	1,00	1,00	1,00	1,00	**421,14**	**3,4**	**0,51**	0,71	1,20	40	2,1
	1,00	1,00	1,00	1,00	**508,87**	**2,8**	**0,41**	0,72	1,20	41	2,1
	1,00	1,00	1,00	1,00	**637,38**	**2,3**	**0,34**	0,69	1,20	41	2,1
	1,00	1,00	1,00	1,00	**740,18**	**2,0**	**0,30**	0,67	1,20	41	2,1
	1,00	1,00	1,00	1,00	**894,38**	**1,6**	**0,26**	0,64	1,20	41	2,1
	1,00	1,00	1,00	1,00	**1120,24**	**1,3**	**0,22**	0,61	1,20	41	2,1
	1,00	1,00	1,00	1,00	**1300,92**	**1,1**	**0,20**	0,58	1,20	41	2,1
	1,00	1,00	1,00	1,00	**1571,95**	**0,92**	**0,18**	0,55	1,20	41	2,1
	1,00	1,00	1,00	1,00	**1968,90**	**0,74**	**0,15**	0,50	1,20	41	2,1
	1,00	1,00	1,00	1,00	**2286,47**	**0,63**	**0,14**	0,46	1,20	41	2,1
	1,00	1,00	1,00	1,00	**2762,82**	**0,52**	**0,14**	0,41	1,20	41	2,1
PT1201L	**0,89**	1,09	1,44	1,77	**3,78**	**384**	**37**	0,96	2,25	9,6	2,1
RT1201L	**0,91**	1,12	1,47	1,81	**4,13**	**352**	**35**	0,96	2,30	9,9	2,1
	0,95	1,17	1,53	1,88	**5,17**	**281**	**29**	0,96	2,39	11	2,1
	0,97	1,20	1,57	1,66	**6,00**	**242**	**26**	0,96	2,45	11	2,1
	1,01	1,08	1,14	1,18	**7,25**	**200**	**22**	0,95	2,56	12	2,1
PT1202L	**1,41**	1,73	2,00	2,00	**14,27**	**102**	**16**	0,92	3,00	14	2,1
RT1202L	**1,44**	1,77	2,00	2,00	**15,58**	**93**	**15**	0,92	3,00	15	2,1
	1,48	1,82	2,00	2,00	**17,02**	**85**	**14**	0,92	3,00	15	2,1
	1,58	1,95	2,00	2,00	**21,31**	**68**	**12**	0,92	3,00	16	2,1
	1,66	2,00	2,00	2,00	**24,75**	**59**	**11**	0,92	3,00	17	2,1
	1,75	2,00	2,00	2,00	**29,91**	**48**	**9,7**	0,92	3,00	18	2,1
	1,82	1,96	2,00	2,00	**37,46**	**39**	**8,1**	0,91	3,00	19	2,1
	1,64	1,70	1,76	1,78	**43,50**	**33**	**6,3**	0,91	3,00	20	2,1
	1,16	1,21	1,27	1,40	**52,56**	**28**	**3,7**	0,90	2,91	21	2,1
PT1203L	**2,00**	2,00	2,00	2,00	**58,87**	**25**	**6,0**	0,86	3,00	22	2,1
RT1203L	**2,00**	2,00	2,00	2,00	**64,28**	**23**	**5,5**	0,86	3,00	22	2,1
	2,00	2,00	2,00	2,00	**70,19**	**21**	**5,0**	0,86	3,00	23	2,1
	2,00	2,00	2,00	2,00	**87,91**	**16**	**4,0**	0,86	3,00	25	2,1
	2,00	2,00	2,00	2,00	**102,09**	**14**	**3,5**	0,86	3,00	26	2,1
	2,00	2,00	2,00	2,00	**123,36**	**12**	**2,9**	0,86	3,00	28	2,1



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlessenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
3,78	**3,1**	29 E1	116 R1	**-**	27 E1	87 R1	**10**	34 E1	120 R1	**5,3**	31 E1	89 R1	23	382
4,13	**3,9**	30 E1	116 R1	**0,9**	28 E1	86 R1	**11**	35 E1	120 R1	**6,0**	31 E1	89 R1	25	383
5,17	**4,9**	27 E1	105 R1	**2,5**	26 E1	78 R1	**11**	32 E1	108 R1	**6,8**	29 E1	81 R1		
6,00	**5,0**	25 E1	96 R1	**2,9**	24 E1	72 R1	**10**	29 E1	99 R1	**6,7**	26 E1	74 R1		
7,25	**4,6**	22 E1	80 R1	**2,9**	20 E1	60 R1	**9,1**	25 E1	83 R1	**6,0**	23 E1	62 R1		
14,27	**2,4**	15 E1	59 R1	**0,7**	14 E1	44 R1	**6,3**	18 E1	61 R1	**3,6**	16 E1	46 R1	28	382
15,58	**2,4**	15 E1	58 R1	**0,7**	14 E1	43 R1	**6,3**	18 E1	61 R1	**3,6**	16 E1	45 R1	30	383
17,02	**2,7**	15 E1	58 R1	**1,1**	14 E1	43 R1	**6,5**	18 E1	60 R1	**3,9**	16 E1	45 R1		
21,31	**3,3**	15 E1	55 R1	**1,8**	14 E1	42 R1	**6,8**	18 E1	58 R1	**4,4**	16 E1	43 R1		
24,75	**3,4**	14 E1	53 R1	**2,1**	13 E1	40 R1	**6,8**	17 E1	56 R1	**4,4**	15 E1	42 R1		
29,91	**3,4**	14 E1	50 R1	**2,2**	13 E1	38 R1	**6,6**	16 E1	52 R1	**4,4**	14 E1	39 R1		
37,46	**3,2**	13 E1	46 R1	**2,0**	12 E1	35 R1	**6,1**	15 E1	48 R1	**4,1**	13 E1	36 R1		
43,50	**3,0**	12 E1	43 R1	**1,9**	11 E1	32 R1	**5,6**	14 E1	45 R1	**3,8**	12 E1	34 R1		
52,56	**2,6**	10 E1	37 R1	**1,7**	9,4 E1	28 R1	**4,9**	12 E1	39 R1	**3,3**	11 E1	29 R1		
58,87	**1,8**	8,9 E1	34 R1	**0,8**	8,1 E1	25 R1	**4,4**	11 E1	36 R1	**2,7**	9,5 E1	27 R1	34	382
64,28	**1,8**	8,8 E1	34 R1	**0,8**	8,0 E1	25 R1	**4,4**	11 E1	35 R1	**2,6**	9,4 E1	26 R1	36	383
70,19	**2,0**	8,8 E1	33 R1	**1,0**	8,0 E1	25 R1	**4,5**	11 E1	35 R1	**2,8**	9,4 E1	26 R1		
87,91	**2,2**	8,5 E1	31 R1	**1,3**	7,8 E1	24 R1	**4,5**	10 E1	33 R1	**2,9**	9,1 E1	25 R1		
102,09	**2,3**	8,3 E1	30 R1	**1,4**	7,6 E1	23 R1	**4,5**	10 E1	32 R1	**3,0**	8,8 E1	24 R1		
123,36	**2,3**	7,9 E1	28 R1	**1,5**	7,3 E1	21 R1	**4,3**	9,5 E1	30 R1	**2,9**	8,4 E1	22 R1		
154,52	**2,2**	7,5 E1	27 R1	**1,4**	7,0 E1	21 R1	**4,1**	9,1 E1	28 R1	**2,8**	8,0 E1	21 R1		
179,44	**2,1**	7,3 E1	26 R1	**1,4**	6,7 E1	20 R1	**4,0**	8,8 E1	27 R1	**2,7**	7,7 E1	21 R1		
216,82	**2,0**	6,9 E1	25 R1	**1,3**	6,3 E1	19 R1	**3,8**	8,3 E1	26 R1	**2,5**	7,3 E1	19 R1		
271,57	**1,9**	6,4 E1	23 R1	**1,2**	5,9 E1	17 R1	**3,5**	7,7 E1	24 R1	**2,4**	6,8 E1	18 R1		
315,38	**1,7**	5,9 E1	21 R1	**1,1**	5,5 E1	16 R1	**3,2**	7,2 E1	22 R1	**2,2**	6,3 E1	17 R1		
381,08	**1,5**	5,2 E1	19 R1	**1,0**	4,8 E1	14 R1	**2,8**	6,2 E1	20 R1	**1,9**	5,5 E1	15 R1		
289,53	**1,4**	5,4 E1	20 R1	**0,8**	4,9 E1	15 R1	**3,0**	6,7 E1	21 R1	**1,9**	5,8 E1	16 R1	39	382
362,65	**1,5**	5,2 E1	19 R1	**0,9**	4,8 E1	14 R1	**3,0**	6,4 E1	20 R1	**2,0**	5,6 E1	15 R1	41	383
421,14	**1,5**	5,0 E1	18 R1	**1,0**	4,6 E1	14 R1	**2,9**	6,2 E1	19 R1	**2,0**	5,4 E1	14 R1		
508,87	**1,5**	4,8 E1	17 R1	**1,0**	4,4 E1	13 R1	**2,8**	5,9 E1	18 R1	**1,9**	5,1 E1	13 R1		
637,38	**1,4**	4,5 E1	16 R1	**1,0**	4,1 E1	12 R1	**2,7**	5,5 E1	17 R1	**1,8**	4,8 E1	13 R1		
740,18	**1,4**	4,3 E1	15 R1	**0,9**	4,0 E1	12 R1	**2,6**	5,3 E1	16 R1	**1,7**	4,6 E1	12 R1		
894,38	**1,3**	4,1 E1	15 R1	**0,9**	3,7 E1	11 R1	**2,4**	5,0 E1	15 R1	**1,6**	4,4 E1	12 R1		
1120,24	**1,3**	3,9 E1	14 R1	**0,8**	3,6 E1	11 R1	**2,3**	4,8 E1	15 R1	**1,6**	4,2 E1	11 R1		
1300,92	**1,2**	3,8 E1	13 R1	**0,8**	3,5 E1	10 R1	**2,2**	4,6 E1	14 R1	**1,5**	4,0 E1	11 R1		
1571,95	**1,1**	3,6 E1	13 R1	**0,8**	3,3 E1	10 R1	**2,1**	4,4 E1	13 R1	**1,4**	3,8 E1	10 R1		
1968,90	**1,1**	3,3 E1	12 R1	**0,7**	3,1 E1	9,0 R1	**2,0**	4,1 E1	13 R1	**1,3**	3,5 E1	9,0 R1		
2286,47	**1,0**	3,1 E1	11 R1	**0,7**	2,8 E1	8,0 R1	**1,8**	3,8 E1	12 R1	**1,3**	3,3 E1	9,0 R1		
2762,82	**0,9**	2,7 E1	10 R1	**0,6**	2,5 E1	7,0 R1	**1,6**	3,3 E1	10 R1	**1,1**	2,9 E1	8,0 R1		
3,78	**3,9**	55 E2	129 R1	**0,1**	53 E2	96 R1	**12**	38 E1	134 R1	**6,5**	57 E2	99 R1	27	384
4,13	**4,8**	55 E2	128 R1	**1,4**	53 E2	95 R1	**13**	38 E1	133 R1	**7,2**	57 E2	99 R1	29	385
5,17	**5,8**	30 E1	117 R1	**3,0**	49 E2	87 R1	**13**	36 E1	121 R1	**8,0**	32 E1	90 R1		
6,00	**5,9**	28 E1	107 R1	**3,4**	26 E1	80 R1	**12**	33 E1	110 R1	**7,8**	29 E1	82 R1		
7,25	**5,4**	24 E1	90 R1	**3,4**	22 E1	67 R1	**11**	28 E1	93 R1	**7,0**	25 E1	70 R1		
14,27	**3,2**	17 E1	64 R1	**1,2**	27 E2	48 R1	**7,9**	20 E1	67 R1	**4,6**	18 E1	50 R1	33	384
15,58	**3,2**	16 E1	63 R1	**1,2**	15 E1	47 R1	**7,8**	20 E1	66 R1	**4,6**	18 E1	49 R1	35	385
17,02	**3,5**	17 E1	63 R1	**1,7**	15 E1	47 R1	**8,1**	20 E1	66 R1	**5,0**	18 E1	49 R1		
21,31	**4,1**	16 E1	61 R1	**2,4**	15 E1	45 R1	**8,3**	20 E1	63 R1	**5,4**	17 E1	47 R1		
24,75	**4,2**	16 E1	58 R1	**2,6**	15 E1	44 R1	**8,3**	19 E1	61 R1	**5,5**	17 E1	46 R1		
29,91	**4,2**	15 E1	55 R1	**2,7**	14 E1	41 R1	**8,0**	18 E1	58 R1	**5,4**	16 E1	43 R1		
37,46	**3,9**	14 E1	51 R1	**2,5**	13 E1	38 R1	**7,4**	17 E1	53 R1	**5,0**	15 E1	40 R1		
43,50	**3,6**	13 E1	47 R1	**2,4**	12 E1	36 R1	**6,9**	16 E1	49 R1	**4,6**	14 E1	37 R1		
52,56	**3,2**	11 E1	41 R1	**2,1**	10 E1	31 R1	**6,0**	14 E1	43 R1	**4,0**	12 E1	32 R1		
58,87	**2,4**	9,8 E1	37 R1	**1,1**	8,9 E1	27 R1	**5,4**	12 E1	39 R1	**3,3**	11 E1	29 R1	38	384
64,28	**2,3**	9,7 E1	36 R1	**1,1**	8,8 E1	27 R1	**5,3**	12 E1	38 R1	**3,3**	10 E1	28 R1	40	385
70,19	**2,5**	9,7 E1	36 R1	**1,3**	8,8 E1	27 R1	**5,4**	12 E1	38 R1	**3,4**	10 E1	28 R1		
87,91	**2,7**	9,4 E1	34 R1	**1,7**	8,6 E1	25 R1	**5,4**	12 E1	36 R1	**3,6**	10 E1	27 R1		
102,09	**2,8**	9,1 E1	33 R1	**1,8**	8,4 E1	24 R1	**5,3**	11 E1	34 R1	**3,6**	10 E1	26 R1		
123,36	**2,8**	8,7 E1	31 R1	**1,8**	8,0 E1	23 R1	**5,1**	11 E1	32 R1	**3,5**	9,3 E1	24 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
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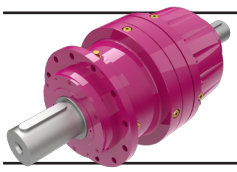
n_1=1450

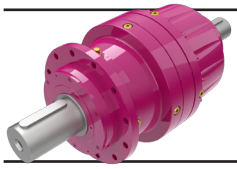
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1203L **RT1203L**	**2,00** **2,00** **2,00** **2,00** **1,78** **1,31**	2,00 2,00 2,00 2,00 1,80 1,48	2,00 2,00 2,00 2,00 1,97 1,75	2,00 2,00 2,00 2,00 2,00 1,88	**154,52** **179,44** **216,82** **271,57** **315,38** **381,08**	**9,4** **8,1** **6,7** **5,3** **4,6** **3,8**	**2,3** **2,0** **1,7** **1,3** **1,0** **0,67**	0,86 0,85 0,84 0,83 0,82 0,78	3,00 3,00 3,00 3,00 3,00 3,00	29 31 32 35 36 39	2,1 2,1 2,1 2,1 2,1 2,1
PT1204L **RT1204L**	**2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **1,82**	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 1,96	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00	**289,53** **362,65** **421,14** **508,87** **637,38** **740,18** **894,38** **1120,24** **1300,92** **1571,95** **1968,90** **2762,82**	**5,0** **4,0** **3,4** **2,8** **2,3** **2,0** **1,6** **1,3** **1,1** **0,92** **0,74** **0,52**	**1,4** **1,1** **0,95** **0,78** **0,64** **0,56** **0,48** **0,39** **0,35** **0,30** **0,25** **0,20**	0,74 0,75 0,76 0,76 0,75 0,73 0,71 0,69 0,67 0,64 0,61 0,51	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00	35 38 39 39 39 39 39 39 39 39 39 39	2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1
PT1501L **RT1501L**	**1,71** **1,79** **1,87** **1,92** **1,40**	2,11 2,21 2,30 2,16 1,48	2,49 2,89 2,52 2,29 1,60	2,53 2,95 2,56 2,32 1,69	**3,60** **4,25** **5,33** **6,20** **7,50**	**403** **341** **272** **234** **193**	**75** **66** **55** **49** **30**	0,96 0,96 0,96 0,96 0,95	3,72 3,72 3,72 3,72 3,50	14 15 16 17 18	5,1 5,1 5,1 5,1 5,1
PT1502L **RT1502L**	**2,27** **2,74** **2,85** **2,93** **2,63** **2,65** **2,34** **1,63**	2,63 3,05 3,07 3,09 2,67 2,69 2,44 1,72	2,70 3,10 3,10 3,10 2,73 2,75 2,49 1,85	2,74 3,10 3,10 3,10 2,77 2,79 2,53 2,09	**13,60** **17,53** **21,96** **25,50** **32,00** **38,67** **44,95** **54,38**	**107** **83** **66** **57** **45** **38** **32** **27**	**27** **26** **21** **19** **14** **11** **8,7** **5,0**	0,92 0,92 0,92 0,92 0,92 0,92 0,91 0,90	3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72	21 23 24 25 27 29 30 32	2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1
PT1503L **RT1503L**	**2,60** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **2,77** **2,79** **2,55** **1,95**	2,69 3,10 3,10 3,10 3,10 3,10 3,10 3,10 2,82 2,83 2,59 2,26	2,81 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,04 3,10 2,93 2,70	2,87 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,00	**51,38** **66,23** **72,32** **90,58** **105,19** **127,10** **159,20** **184,88** **232,00** **280,33** **325,89** **394,22**	**28** **22** **20** **16** **14** **11** **9,1** **7,8** **6,3** **5,2** **4,4** **3,7**	**8,9** **8,2** **7,5** **6,0** **5,2** **4,3** **3,4** **3,0** **2,1** **1,8** **1,4** **0,94**	0,87 0,86 0,87 0,87 0,87 0,87 0,86 0,86 0,85 0,84 0,83 0,80	3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72	31 34 35 37 39 41 44 46 49 52 54 57	2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1
PT1504L **RT1504L**	**2,70** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,07** **2,84**	2,79 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10	2,91 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10	3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10	**194,09** **250,20** **273,20** **298,31** **373,63** **433,90** **524,29** **656,69** **762,61** **921,49** **1154,18** **1340,34** **1619,58** **2032,42** **2362,68** **2858,09**	**7,5** **5,8** **5,3** **4,9** **3,9** **3,3** **2,8** **2,2** **1,9** **1,6** **1,3** **1,1** **0,90** **0,71** **0,61** **0,51**	**2,8** **2,5** **2,3** **2,1** **1,6** **1,4** **1,2** **0,94** **0,82** **0,70** **0,57** **0,50** **0,43** **0,36** **0,32** **0,27**	0,76 0,76 0,75 0,76 0,77 0,77 0,78 0,76 0,75 0,73 0,72 0,70 0,68 0,64 0,61 0,56	3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72	47 50 52 53 57 59 60 60 60 60 60 60 60 60 60 61	2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

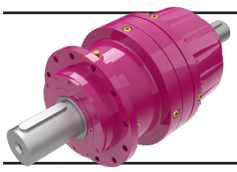
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
154,52	**2,6**	8,3 E1	29 R1	**1,7**	7,6 E1	22 R1	**4,9**	10 E1	31 R1	**3,3**	8,9 E1	23 R1	38	384
179,44	**2,6**	8,0 E1	28 R1	**1,7**	7,4 E1	21 R1	**4,8**	9,9 E1	30 R1	**3,2**	8,6 E1	22 R1	40	385
216,82	**2,4**	7,6 E1	27 R1	**1,6**	7,0 E1	20 R1	**4,5**	9,4 E1	28 R1	**3,1**	8,1 E1	21 R1		
271,57	**2,3**	7,1 E1	25 R1	**1,5**	6,5 E1	19 R1	**4,2**	8,7 E1	26 R1	**2,9**	7,6 E1	20 R1		
315,38	**2,1**	6,6 E1	23 R1	**1,4**	6,1 E1	18 R1	**3,9**	8,1 E1	25 R1	**2,7**	7,1 E1	18 R1		
381,08	**1,8**	5,8 E1	20 R1	**1,2**	5,3 E1	15 R1	**3,4**	7,1 E1	22 R1	**2,3**	6,2 E1	16 R1		
289,53	**1,8**	6,0 E1	22 R1	**1,0**	5,4 E1	16 R1	**3,7**	7,6 E1	23 R1	**2,4**	6,5 E1	17 R1	44	384
362,65	**1,9**	5,8 E1	20 R1	**1,2**	5,2 E1	15 R1	**3,7**	7,3 E1	22 R1	**2,4**	6,2 E1	16 R1	46	385
421,14	**1,9**	5,6 E1	19 R1	**1,2**	5,1 E1	15 R1	**3,6**	7,0 E1	21 R1	**2,4**	6,0 E1	15 R1		
508,87	**1,9**	5,3 E1	18 R1	**1,2**	4,8 E1	14 R1	**3,4**	6,7 E1	19 R1	**2,4**	5,7 E1	15 R1		
637,38	**1,8**	5,0 E1	17 R1	**1,2**	4,6 E1	13 R1	**3,3**	6,3 E1	18 R1	**2,2**	5,4 E1	14 R1		
740,18	**1,7**	4,8 E1	17 R1	**1,1**	4,4 E1	13 R1	**3,1**	6,0 E1	18 R1	**2,1**	5,2 E1	13 R1		
894,38	**1,6**	4,5 E1	16 R1	**1,1**	4,1 E1	12 R1	**2,9**	5,7 E1	17 R1	**2,0**	4,9 E1	13 R1		
1120,24	**1,5**	4,4 E1	15 R1	**1,0**	4,0 E1	11 R1	**2,8**	5,5 E1	16 R1	**1,9**	4,7 E1	12 R1		
1300,92	**1,5**	4,2 E1	15 R1	**1,0**	3,8 E1	11 R1	**2,7**	5,3 E1	15 R1	**1,9**	4,5 E1	12 R1		
1571,95	**1,4**	4,0 E1	14 R1	**1,0**	3,6 E1	11 R1	**2,6**	5,0 E1	15 R1	**1,8**	4,3 E1	11 R1		
1968,90	**1,3**	3,7 E1	13 R1	**0,9**	3,4 E1	10 R1	**2,4**	4,7 E1	14 R1	**1,7**	4,0 E1	10 R1		
2286,47	**1,2**	3,5 E1	12 R1	**0,8**	3,2 E1	9,0 R1	**2,3**	4,4 E1	13 R1	**1,6**	3,7 E1	10 R1		
2762,82	**1,1**	3,1 E1	11 R1	**0,7**	2,8 E1	8,0 R1	**2,0**	3,8 E1	11 R1	**1,4**	3,3 E1	9,0 R1		
3,60	**7,3**	98 E3	150 R1	**1,2**	95 E3	111 R1	**21**	76 E2	159 R1	**12**	101 E3	117 R1	54	386
4,25	**9,6**	66 E2	149 R1	**4,1**	95 E3	111 R1	**23**	76 E2	158 R1	**14**	69 E2	117 R1	64	387
5,33	**11**	60 E2	134 R1	**5,9**	57 E2	100 R1	**22**	69 E2	142 R1	**14**	63 E2	105 R1		
6,20	**10**	55 E2	123 R1	**6,3**	53 E2	91 R1	**21**	64 E2	130 R1	**14**	58 E2	96 R1		
7,50	**9,5**	30 E1	105 R1	**6,1**	45 E2	79 R1	**18**	38 E1	111 R1	**12**	32 E1	83 R1		
13,60	**3,9**	31 E2	71 R1	**1,3**	29 E2	53 R1	**10**	36 E2	75 R1	**5,8**	33 E2	55 R1	46	386
17,53	**4,4**	31 E2	70 R1	**2,0**	29 E2	52 R1	**10**	36 E2	74 R1	**6,3**	32 E2	55 R1	56	387
21,96	**5,3**	30 E2	68 R1	**3,0**	29 E2	51 R1	**11**	23 E1	71 R1	**7,0**	32 E2	53 R1		
25,50	**5,5**	30 E2	65 R1	**3,4**	28 E2	49 R1	**11**	23 E1	69 R1	**7,1**	20 E1	51 R1		
32,00	**5,1**	17 E1	60 R1	**3,1**	15 E1	45 R1	**9,9**	21 E1	63 R1	**6,6**	18 E1	47 R1		
38,67	**5,1**	16 E1	57 R1	**3,3**	15 E1	43 R1	**9,7**	20 E1	60 R1	**6,5**	17 E1	45 R1		
44,95	**4,7**	15 E1	53 R1	**3,1**	14 E1	40 R1	**9,0**	19 E1	56 R1	**6,0**	16 E1	41 R1		
54,38	**4,2**	13 E1	46 R1	**2,7**	12 E1	35 R1	**7,9**	16 E1	49 R1	**5,3**	14 E1	37 R1		
51,38	**2,6**	11 E1	40 R1	**1,0**	10 E1	30 R1	**6,3**	14 E1	43 R1	**3,7**	12 E1	31 R1	52	386
66,23	**2,5**	11 E1	39 R1	**1,0**	9,5 E1	29 R1	**6,2**	14 E1	42 R1	**3,7**	11 E1	31 R1	62	387
72,32	**2,8**	11 E1	39 R1	**1,4**	9,5 E1	29 R1	**6,3**	14 E1	41 R1	**3,9**	12 E1	31 R1		
90,58	**3,2**	10 E1	37 R1	**1,9**	9,4 E1	28 R1	**6,4**	13 E1	39 R1	**4,2**	11 E1	29 R1		
105,19	**3,3**	10 E1	36 R1	**2,1**	9,2 E1	27 R1	**6,3**	13 E1	38 R1	**4,2**	11 E1	28 R1		
127,10	**3,3**	9,7 E1	34 R1	**2,1**	8,8 E1	25 R1	**6,1**	12 E1	36 R1	**4,2**	10 E1	27 R1		
159,20	**3,2**	9,3 E1	32 R1	**2,1**	8,5 E1	24 R1	**5,9**	12 E1	34 R1	**4,0**	10 E1	26 R1		
184,88	**3,0**	9,0 E1	31 R1	**2,0**	8,2 E1	24 R1	**5,7**	11 E1	33 R1	**3,9**	10 E1	25 R1		
232,00	**2,8**	8,4 E1	29 R1	**1,9**	7,6 E1	22 R1	**5,3**	10 E1	31 R1	**3,6**	9,0 E1	23 R1		
280,33	**2,7**	7,9 E1	27 R1	**1,8**	7,2 E1	21 R1	**5,0**	9,9 E1	29 R1	**3,4**	8,5 E1	22 R1		
325,89	**2,5**	7,4 E1	26 R1	**1,7**	6,7 E1	19 R1	**4,7**	9,2 E1	27 R1	**3,2**	7,9 E1	20 R1		
394,22	**2,2**	6,6 E1	23 R1	**1,5**	6,0 E1	17 R1	**4,2**	8,2 E1	24 R1	**2,8**	7,1 E1	18 R1		
194,09	**1,8**	6,7 E1	24 R1	**0,8**	5,9 E1	18 R1	**4,2**	8,6 E1	26 R1	**2,6**	7,3 E1	19 R1	57	386
250,20	**1,8**	6,6 E1	24 R1	**0,8**	5,8 E1	18 R1	**4,1**	8,5 E1	26 R1	**2,5**	7,1 E1	19 R1	67	387
273,20	**1,8**	6,5 E1	24 R1	**0,8**	5,8 E1	18 R1	**4,1**	8,4 E1	25 R1	**2,5**	7,0 E1	19 R1		
298,31	**1,9**	6,5 E1	23 R1	**1,0**	5,8 E1	17 R1	**4,1**	8,3 E1	25 R1	**2,6**	7,0 E1	18 R1		
373,63	**2,1**	6,3 E1	22 R1	**1,3**	5,7 E1	17 R1	**4,1**	8,0 E1	23 R1	**2,7**	6,8 E1	17 R1		
433,90	**2,1**	6,1 E1	21 R1	**1,4**	5,5 E1	16 R1	**4,1**	7,8 E1	22 R1	**2,7**	6,6 E1	17 R1		
524,29	**2,1**	5,8 E1	20 R1	**1,4**	5,3 E1	15 R1	**3,9**	7,4 E1	21 R1	**2,7**	6,3 E1	16 R1		
656,69	**2,0**	5,5 E1	19 R1	**1,3**	5,0 E1	14 R1	**3,7**	7,0 E1	20 R1	**2,5**	6,0 E1	15 R1		
762,61	**1,9**	5,3 E1	18 R1	**1,3**	4,8 E1	14 R1	**3,6**	6,7 E1	19 R1	**2,4**	5,7 E1	14 R1		
921,49	**1,8**	5,0 E1	17 R1	**1,2**	4,5 E1	13 R1	**3,4**	6,3 E1	18 R1	**2,3**	5,4 E1	14 R1		
1154,18	**1,8**	4,8 E1	17 R1	**1,2**	4,4 E1	12 R1	**3,3**	6,1 E1	18 R1	**2,2**	5,2 E1	13 R1		
1340,34	**1,7**	4,7 E1	16 R1	**1,1**	4,2 E1	12 R1	**3,1**	5,9 E1	17 R1	**2,1**	5,0 E1	13 R1		
1619,58	**1,6**	4,4 E1	15 R1	**1,1**	4,0 E1	11 R1	**3,0**	5,6 E1	16 R1	**2,0**	4,8 E1	12 R1		
2032,42	**1,5**	4,1 E1	14 R1	**1,0**	3,7 E1	11 R1	**2,8**	5,2 E1	15 R1	**1,9**	4,4 E1	11 R1		
2362,68	**1,4**	3,9 E1	13 R1	**0,9**	3,5 E1	10 R1	**2,6**	4,9 E1	14 R1	**1,8**	4,2 E1	11 R1		
2858,09	**1,3**	3,4 E1	12 R1	**0,8**	3,1 E1	9,0 R1	**2,3**	4,4 E1	13 R1	**1,6**	3,7 E1	10 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1601L	**2,31**	2,84	3,74	4,59	**3,60**	**403**	**101**	0,97	5,83	14	5,1
RT1601L	**2,41**	2,97	3,91	4,81	**4,25**	**341**	**89**	0,97	6,10	15	5,1
	2,51	3,10	4,07	4,39	**5,33**	**272**	**74**	0,96	6,35	16	5,1
	2,58	3,18	3,58	3,62	**6,20**	**234**	**66**	0,96	6,53	17	5,1
	2,13	2,21	2,32	2,42	**7,50**	**193**	**45**	0,96	5,33	18	5,1
PT1602L	**3,20**	3,94	4,91	5,00	**13,60**	**107**	**38**	0,93	7,50	21	2,1
RT1602L	**3,81**	4,70	5,00	5,00	**17,53**	**83**	**36**	0,93	7,50	23	2,1
	4,02	4,95	5,00	5,00	**21,96**	**66**	**30**	0,93	7,50	24	2,1
	4,13	5,00	5,00	5,00	**25,50**	**57**	**26**	0,93	7,50	25	2,1
	4,45	4,60	4,68	4,74	**32,00**	**45**	**23**	0,92	7,50	27	2,1
	4,57	4,63	4,70	4,76	**38,67**	**38**	**19**	0,92	7,50	29	2,1
	3,78	3,83	3,89	3,94	**44,95**	**32**	**14**	0,92	7,50	30	2,1
	2,43	2,52	2,64	2,88	**54,38**	**27**	**7,4**	0,91	6,07	32	2,1
PT1603L	**4,94**	5,00	5,00	5,00	**51,38**	**28**	**17**	0,88	7,50	31	2,1
RT1603L	**5,00**	5,00	5,00	5,00	**66,23**	**22**	**13**	0,88	7,50	34	2,1
	5,00	5,00	5,00	5,00	**72,32**	**20**	**12**	0,88	7,50	35	2,1
	5,00	5,00	5,00	5,00	**90,58**	**16**	**9,5**	0,88	7,50	37	2,1
	5,00	5,00	5,00	5,00	**105,19**	**14**	**8,2**	0,88	7,50	39	2,1
	5,00	5,00	5,00	5,00	**127,10**	**11**	**6,8**	0,87	7,50	41	2,1
	5,00	5,00	5,00	5,00	**159,20**	**9,1**	**5,5**	0,87	7,50	44	2,1
	5,00	5,00	5,00	5,00	**184,88**	**7,8**	**4,7**	0,87	7,50	46	2,1
	4,75	4,80	5,00	5,00	**232,00**	**6,3**	**3,6**	0,86	7,50	49	2,1
	4,76	4,82	5,00	5,00	**280,33**	**5,2**	**3,0**	0,85	7,50	52	2,1
	3,95	3,99	4,40	4,77	**325,89**	**4,4**	**2,2**	0,85	7,50	54	2,1
	2,73	3,03	3,47	3,78	**394,22**	**3,7**	**1,3**	0,83	6,82	57	2,1
PT1604L	**4,19**	4,35	4,56	5,00	**194,09**	**7,5**	**4,1**	0,79	7,50	47	2,1
RT1604L	**5,00**	5,00	5,00	5,00	**250,20**	**5,8**	**3,8**	0,79	7,50	50	2,1
	5,00	5,00	5,00	5,00	**273,20**	**5,3**	**3,5**	0,78	7,50	52	2,1
	5,00	5,00	5,00	5,00	**298,31**	**4,9**	**3,2**	0,79	7,50	53	2,1
	5,00	5,00	5,00	5,00	**373,63**	**3,9**	**2,6**	0,79	7,50	53	2,1
	5,00	5,00	5,00	5,00	**433,90**	**3,3**	**2,2**	0,80	7,50	53	2,1
	5,00	5,00	5,00	5,00	**524,29**	**2,8**	**1,8**	0,80	7,50	53	2,1
	5,00	5,00	5,00	5,00	**656,69**	**2,2**	**1,5**	0,79	7,50	53	2,1
	5,00	5,00	5,00	5,00	**762,61**	**1,9**	**1,3**	0,78	7,50	53	2,1
	5,00	5,00	5,00	5,00	**921,49**	**1,6**	**1,1**	0,76	7,50	53	2,1
	5,00	5,00	5,00	5,00	**1154,18**	**1,3**	**0,88**	0,75	7,50	53	2,1
	5,00	5,00	5,00	5,00	**1340,34**	**1,1**	**0,76**	0,74	7,50	53	2,1
	5,00	5,00	5,00	5,00	**1619,58**	**0,90**	**0,65**	0,72	7,50	53	2,1
	5,00	5,00	5,00	5,00	**2032,42**	**0,71**	**0,54**	0,70	7,50	53	2,1
	4,60	4,99	5,00	5,00	**2362,68**	**0,61**	**0,44**	0,67	7,50	55	2,1
	3,63	3,96	4,45	4,86	**2858,09**	**0,51**	**0,32**	0,61	7,50	57	2,1
PT1901L	**3,13**	3,85	5,07	6,24	**3,60**	**403**	**136**	0,97	7,90	24	8,9
RT1901L	**3,27**	4,03	5,30	6,53	**4,25**	**341**	**121**	0,97	8,27	25	8,9
	3,41	4,20	5,53	6,31	**5,33**	**272**	**101**	0,97	8,62	27	8,9
	3,50	4,31	5,30	5,59	**6,20**	**234**	**89**	0,96	8,85	28	8,9
	3,50	3,66	3,85	4,01	**7,50**	**193**	**74**	0,96	8,76	30	8,9
PT1902L	**4,59**	5,65	6,53	6,75	**12,96**	**112**	**58**	0,93	11,6	35	5,1
RT1902L	**5,05**	6,22	7,79	7,91	**18,06**	**80**	**45**	0,94	12,8	39	5,1
	5,41	6,66	7,85	7,97	**22,67**	**64**	**39**	0,93	13,7	41	5,1
	5,66	6,96	7,89	8,01	**26,35**	**55**	**35**	0,93	14,3	43	5,1
	5,95	6,30	6,79	7,18	**31,88**	**45**	**30**	0,93	14,9	46	5,1
	6,24	6,67	6,82	6,93	**40,00**	**36**	**26**	0,93	15,8	49	5,1
	5,39	5,67	6,03	6,31	**46,50**	**31**	**19**	0,92	13,5	52	5,1
	3,98	4,13	4,35	4,76	**56,25**	**26**	**12**	0,92	9,95	55	5,1
PT1903L	**7,16**	7,90	8,06	8,18	**57,80**	**25**	**21**	0,88	18,1	55	2,1
RT1903L	**7,53**	7,94	8,09	8,22	**68,24**	**21**	**19**	0,88	19,0	57	2,1
	7,73	7,95	8,11	8,23	**74,51**	**19**	**18**	0,88	19,5	59	2,1
	7,88	8,00	8,16	8,41	**93,32**	**16**	**15**	0,88	19,7	64	2,1
	7,91	8,03	8,18	8,50	**108,38**	**13**	**13**	0,88	19,8	66	2,1



Motorsuz Planet Redüktörler
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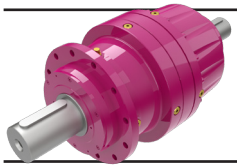
n_1=1450

Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlessenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
3,60	**9,4**	110 E3	168 R1	**2,5**	106 E3	124 R1	**26**	122 E3	179 R1	**15**	113 E3	131 R1	66	388
4,25	**12**	110 E3	167 R1	**5,6**	106 E3	123 R1	**28**	121 E3	177 R1	**17**	113 E3	131 R1	76	389
5,33	**13**	100 E3	150 R1	**7,4**	96 E3	112 R1	**27**	79 E2	160 R1	**17**	103 E3	118 R1		
6,20	**13**	91 E3	137 R1	**7,7**	88 E3	102 R1	**25**	72 E2	146 R1	**16**	65 E2	108 R1		
7,50	**12**	54 E2	118 R1	**7,3**	51 E2	88 R1	**22**	62 E2	125 R1	**15**	56 E2	93 R1		
13,60	**4,9**	52 E3	79 R1	**1,8**	50 E3	59 R1	**12**	40 E2	84 R1	**7,1**	53 E3	62 R1	62	388
17,53	**5,4**	35 E2	78 R1	**2,6**	50 E3	58 R1	**12**	40 E2	83 R1	**7,6**	36 E2	61 R1	72	389
21,96	**6,3**	34 E2	76 R1	**3,7**	32 E2	56 R1	**13**	39 E2	80 R1	**8,3**	36 E2	59 R1		
25,50	**6,5**	33 E2	73 R1	**4,1**	31 E2	55 R1	**13**	26 E1	77 R1	**8,5**	35 E2	57 R1		
32,00	**6,0**	30 E2	67 R1	**3,7**	29 E2	50 R1	**12**	24 E1	71 R1	**7,8**	32 E2	53 R1		
38,67	**6,0**	29 E2	63 R1	**3,9**	27 E2	47 R1	**11**	23 E1	67 R1	**7,7**	20 E1	50 R1		
44,95	**5,6**	17 E1	59 R1	**3,7**	15 E1	44 R1	**11**	21 E1	62 R1	**7,2**	18 E1	46 R1		
54,38	**5,0**	15 E1	52 R1	**3,2**	14 E1	39 R1	**9,4**	19 E1	55 R1	**6,3**	16 E1	41 R1		
51,38	**3,0**	20 E2	44 R1	**1,3**	18 E2	33 R1	**7,2**	23 E2	47 R1	**4,3**	20 E2	35 R1	68	388
66,23	**3,0**	19 E2	43 R1	**1,3**	18 E2	32 R1	**7,1**	15 E1	46 R1	**4,3**	13 E1	34 R1	78	389
72,32	**3,3**	12 E1	43 R1	**1,6**	18 E2	32 R1	**7,3**	15 E1	46 R1	**4,5**	13 E1	34 R1		
90,58	**3,7**	12 E1	41 R1	**2,2**	10 E1	31 R1	**7,4**	15 E1	43 R1	**4,8**	13 E1	32 R1		
105,19	**3,8**	11 E1	39 R1	**2,4**	10 E1	29 R1	**7,3**	14 E1	42 R1	**4,8**	12 E1	31 R1		
127,10	**3,8**	11 E1	37 R1	**2,5**	10 E1	28 R1	**7,0**	14 E1	39 R1	**4,8**	12 E1	29 R1		
159,20	**3,6**	10 E1	36 R1	**2,4**	9,4 E1	27 R1	**6,8**	13 E1	38 R1	**4,6**	11 E1	28 R1		
184,88	**3,5**	10 E1	35 R1	**2,3**	9,1 E1	26 R1	**6,6**	13 E1	37 R1	**4,4**	11 E1	27 R1		
232,00	**3,3**	9,3 E1	32 R1	**2,1**	8,4 E1	24 R1	**6,1**	12 E1	34 R1	**4,1**	10 E1	25 R1		
280,33	**3,1**	8,8 E1	30 R1	**2,0**	8,0 E1	23 R1	**5,8**	11 E1	32 R1	**3,9**	9,5 E1	24 R1		
325,89	**2,9**	8,3 E1	28 R1	**1,9**	7,5 E1	21 R1	**5,4**	10 E1	30 R1	**3,7**	8,9 E1	23 R1		
394,22	**2,6**	7,4 E1	25 R1	**1,7**	6,7 E1	19 R1	**4,8**	9,3 E1	27 R1	**3,3**	8,0 E1	20 R1		
194,09	**2,0**	7,2 E1	27 R1	**0,9**	6,5 E1	20 R1	**4,6**	9,4 E1	28 R1	**2,8**	7,9 E1	21 R1	73	388
250,20	**2,0**	7,1 E1	26 R1	**0,9**	6,4 E1	20 R1	**4,5**	9,3 E1	28 R1	**2,8**	7,8 E1	21 R1	83	389
273,20	**1,9**	7,0 E1	26 R1	**0,9**	6,3 E1	19 R1	**4,5**	9,2 E1	27 R1	**2,7**	7,7 E1	20 R1		
298,31	**2,1**	7,0 E1	25 R1	**1,1**	6,3 E1	19 R1	**4,5**	9,1 E1	27 R1	**2,9**	7,7 E1	20 R1		
373,63	**2,3**	6,9 E1	24 R1	**1,4**	6,2 E1	18 R1	**4,6**	8,8 E1	26 R1	**3,0**	7,4 E1	19 R1		
433,90	**2,3**	6,7 E1	23 R1	**1,5**	6,0 E1	17 R1	**4,5**	8,5 E1	24 R1	**3,0**	7,2 E1	18 R1		
524,29	**2,3**	6,4 E1	22 R1	**1,5**	5,8 E1	16 R1	**4,3**	8,1 E1	23 R1	**2,9**	6,9 E1	17 R1		
656,69	**2,2**	6,0 E1	21 R1	**1,5**	5,5 E1	16 R1	**4,1**	7,7 E1	22 R1	**2,8**	6,5 E1	16 R1		
762,61	**2,1**	5,8 E1	20 R1	**1,4**	5,2 E1	15 R1	**3,9**	7,4 E1	21 R1	**2,7**	6,3 E1	16 R1		
921,49	**2,0**	5,5 E1	19 R1	**1,3**	5,0 E1	14 R1	**3,7**	7,0 E1	20 R1	**2,5**	5,9 E1	15 R1		
1154,18	**1,9**	5,3 E1	18 R1	**1,3**	4,8 E1	14 R1	**3,6**	6,7 E1	19 R1	**2,4**	5,7 E1	14 R1		
1340,34	**1,9**	5,1 E1	18 R1	**1,2**	4,6 E1	13 R1	**3,5**	6,5 E1	19 R1	**2,4**	5,5 E1	14 R1		
1619,58	**1,8**	4,9 E1	17 R1	**1,2**	4,4 E1	13 R1	**3,3**	6,2 E1	18 R1	**2,3**	5,3 E1	13 R1		
2032,42	**1,7**	4,5 E1	16 R1	**1,1**	4,1 E1	12 R1	**3,1**	5,7 E1	16 R1	**2,1**	4,9 E1	12 R1		
2362,68	**1,6**	4,3 E1	15 R1	**1,0**	3,8 E1	11 R1	**2,9**	5,4 E1	15 R1	**2,0**	4,6 E1	12 R1		
2858,09	**1,4**	3,8 E1	13 R1	**0,9**	3,4 E1	10 R1	**2,6**	4,8 E1	14 R1	**1,8**	4,1 E1	10 R1		
3,60	**15**	214 E4	186 R1	**5,1**	208 E4	136 R1	**39**	141 E3	203 R1	**22**	219 E4	148 R1	112	390
4,25	**18**	212 E4	185 R1	**8,9**	207 E4	136 R1	**41**	141 E3	202 R1	**25**	129 E3	148 R1	126	391
5,33	**19**	112 E3	168 R1	**11**	107 E3	124 R1	**39**	128 E3	182 R1	**25**	117 E3	134 R1		
6,20	**18**	103 E3	153 R1	**11**	98 E3	113 R1	**37**	117 E3	166 R1	**24**	107 E3	122 R1		
7,50	**17**	89 E3	132 R1	**11**	85 E3	98 R1	**32**	75 E2	143 R1	**22**	93 E3	106 R1		
12,96	**8,5**	60 E3	90 R1	**3,7**	57 E3	66 R1	**20**	69 E3	98 R1	**12**	63 E3	72 R1	114	390
18,06	**9,8**	60 E3	89 R1	**5,4**	57 E3	66 R1	**21**	50 E2	97 R1	**13**	62 E3	71 R1	128	391
22,67	**11**	40 E2	86 R1	**6,5**	55 E3	64 R1	**21**	49 E2	93 R1	**14**	43 E2	69 R1		
26,35	**11**	39 E2	83 R1	**6,9**	36 E2	62 R1	**21**	35 E1	90 R1	**14**	42 E2	67 R1		
31,88	**11**	37 E2	78 R1	**7,0**	35 E2	58 R1	**20**	33 E1	85 R1	**14**	40 E2	63 R1		
40,00	**9,8**	34 E2	72 R1	**6,4**	32 E2	54 R1	**18**	30 E1	78 R1	**12**	25 E1	58 R1		
46,50	**9,1**	21 E1	67 R1	**6,0**	19 E1	50 R1	**17**	28 E1	72 R1	**12**	23 E1	54 R1		
56,25	**8,0**	19 E1	59 R1	**5,3**	16 E1	44 R1	**15**	25 E1	64 R1	**10**	20 E1	47 R1		
57,80	**6,5**	24 E2	50 R1	**3,6**	21 E2	37 R1	**14**	22 E1	55 R1	**8,7**	25 E2	40 R1	106	390
68,24	**6,4**	23 E2	49 R1	**3,6**	21 E2	36 R1	**14**	22 E1	54 R1	**8,6**	25 E2	40 R1	120	391
74,51	**6,7**	23 E2	49 R1	**4,0**	21 E2	36 R1	**14**	22 E1	54 R1	**8,9**	25 E2	40 R1		
93,32	**7,1**	15 E1	47 R1	**4,5**	21 E2	35 R1	**14**	21 E1	52 R1	**9,1**	17 E1	38 R1		
108,38	**7,1**	15 E1	45 R1	**4,6**	13 E1	34 R1	**13**	20 E1	50 R1	**9,0**	17 E1	37 R1		



Motorsuz Planet Redüktörler
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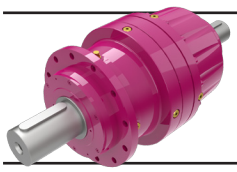
n_1=1450

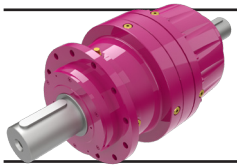
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1903L	**7,94**	8,06	8,22	8,50	**130,95**	**11**	**10**	0,88	19,9	70	2,1
RT1903L	**7,98**	8,10	8,28	8,50	**164,33**	**8,8**	**8,4**	0,88	20,0	75	2,1
	8,01	8,13	8,44	8,50	**191,04**	**7,6**	**7,3**	0,87	20,0	79	2,1
	6,94	7,32	7,86	8,33	**231,09**	**6,3**	**5,2**	0,87	17,3	83	2,1
	6,92	7,03	7,76	8,50	**290,00**	**5,0**	**4,2**	0,86	17,3	89	2,1
	6,23	6,39	7,09	7,70	**337,13**	**4,3**	**3,3**	0,85	15,6	93	2,1
	4,49	5,00	5,78	6,46	**407,81**	**3,6**	**2,0**	0,84	11,2	99	2,1
PT1904L	**8,08**	8,20	8,50	8,50	**281,47**	**5,2**	**5,5**	0,80	20,2	88	2,1
RT1904L	**8,10**	8,22	8,50	8,50	**307,34**	**4,7**	**5,0**	0,80	20,2	91	2,1
	8,14	8,26	8,50	8,50	**384,96**	**3,8**	**4,0**	0,81	20,3	96	2,1
	8,16	8,38	8,50	8,50	**447,05**	**3,2**	**3,4**	0,81	20,4	95	2,1
	8,20	8,50	8,50	8,50	**540,18**	**2,7**	**2,9**	0,81	20,5	95	2,1
	8,24	8,50	8,50	8,50	**676,59**	**2,1**	**2,3**	0,80	23,1	95	2,1
	8,27	8,50	8,50	8,50	**785,72**	**1,8**	**2,0**	0,79	20,7	95	2,1
	8,45	8,50	8,50	8,50	**949,41**	**1,5**	**1,7**	0,78	21,1	95	2,1
	8,50	8,50	8,50	8,50	**1191,42**	**1,2**	**1,4**	0,77	21,3	95	2,1
	8,50	8,50	8,50	8,50	**1385,02**	**1,0**	**1,2**	0,76	21,3	95	2,1
	8,29	8,50	8,50	8,50	**1675,43**	**0,87**	**1,0**	0,75	20,7	95	2,1
	8,15	8,50	8,50	8,50	**2102,50**	**0,69**	**0,81**	0,72	20,4	95	2,1
	7,42	8,06	8,50	8,50	**2444,16**	**0,59**	**0,66**	0,70	18,5	96	2,1
	6,13	6,85	7,77	8,48	**2956,64**	**0,49**	**0,48**	0,65	15,3	98	2,1
PT2301L	**3,83**	4,71	6,20	7,64	**3,43**	**423**	**176**	0,97	9,7	30	8,5
RT2301L	**3,96**	4,88	6,42	7,91	**4,09**	**354**	**152**	0,97	10,0	32	8,5
	4,16	5,12	6,74	8,29	**5,25**	**276**	**125**	0,96	10,5	34	8,5
	4,28	5,27	6,94	7,62	**6,23**	**233**	**109**	0,96	10,8	36	8,5
PT2302L	**5,62**	6,92	8,52	8,67	**12,34**	**117**	**74**	0,93	14,2	44	5,1
RT2302L	**5,82**	7,17	9,43	10,4	**14,73**	**98**	**64**	0,93	14,7	47	5,1
	6,12	7,53	9,92	12,1	**17,39**	**83**	**57**	0,93	15,5	49	5,1
	6,55	8,06	10,3	10,5	**21,82**	**66**	**49**	0,93	16,6	53	5,1
	6,85	8,44	9,35	9,51	**25,36**	**57**	**44**	0,93	17,3	55	5,1
	7,20	8,85	10,7	11,2	**32,55**	**45**	**36**	0,93	18,2	59	5,1
	7,34	7,78	8,39	8,87	**39,38**	**37**	**31**	0,93	18,4	63	5,1
	7,33	7,70	8,22	9,21	**46,73**	**31**	**26**	0,92	18,3	66	5,1
PT2303L	**8,67**	10,7	11,0	11,2	**55,64**	**26**	**27**	0,88	21,9	70	2,1
RT2303L	**9,12**	10,8	11,0	11,2	**65,68**	**22**	**24**	0,88	23,0	73	2,1
	9,36	11,5	12,5	12,5	**71,72**	**20**	**23**	0,88	23,7	74	2,1
	10,0	12,3	12,5	12,5	**89,83**	**16**	**19**	0,88	25,3	80	2,1
	10,5	12,5	12,5	12,5	**104,32**	**14**	**17**	0,88	25,6	85	2,1
	11,1	12,5	12,5	12,5	**126,05**	**12**	**15**	0,87	25,6	89	2,1
	10,8	11,0	11,2	11,4	**158,18**	**9,2**	**12**	0,87	25,6	95	2,1
	10,7	11,3	11,9	12,5	**203,00**	**7,1**	**9,2**	0,87	26,7	102	2,1
	10,9	11,4	12,1	12,5	**235,99**	**6,1**	**8,1**	0,86	27,1	103	2,1
	8,57	9,05	9,71	11,0	**285,47**	**5,1**	**5,3**	0,86	21,4	105	2,1
	8,54	9,64	11,2	12,1	**338,80**	**4,3**	**4,5**	0,85	21,4	105	2,1
PT2304L	**9,56**	9,99	10,2	10,4	**210,18**	**6,9**	**8,6**	0,80	23,9	104	2,1
RT2304L	**10,6**	11,0	11,5	11,7	**248,13**	**5,8**	**8,1**	0,80	25,6	103	2,1
	12,5	12,5	12,5	12,5	**270,94**	**5,4**	**8,8**	0,80	25,6	101	2,1
	12,5	12,5	12,5	12,5	**295,84**	**4,9**	**8,0**	0,80	25,6	101	2,1
	12,5	12,5	12,5	12,5	**370,55**	**3,9**	**6,4**	0,80	25,6	101	2,1
	12,5	12,5	12,5	12,5	**430,31**	**3,4**	**5,5**	0,80	25,6	101	2,1
	12,5	12,5	12,5	12,5	**519,96**	**2,8**	**4,6**	0,80	25,6	101	2,1
	12,5	12,5	12,5	12,5	**651,26**	**2,2**	**3,7**	0,79	25,6	101	2,1
	12,5	12,5	12,5	12,5	**756,31**	**1,9**	**3,2**	0,78	25,6	101	2,1
	12,5	12,5	12,5	12,5	**913,87**	**1,6**	**2,7**	0,77	25,6	101	2,1
	12,1	12,5	12,5	12,5	**1172,80**	**1,2**	**2,1**	0,76	25,6	102	2,1
	12,4	12,5	12,5	12,5	**1471,75**	**0,99**	**1,7**	0,75	30,9	101	2,1
	12,5	12,5	12,5	12,5	**1710,91**	**0,85**	**1,5**	0,74	31,3	101	2,1
	10,2	11,9	12,3	12,5	**2069,65**	**0,70**	**1,0**	0,73	25,6	104	2,1
	11,7	12,5	12,5	12,5	**2456,29**	**0,59**	**1,0**	0,71	29,2	102	2,1



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

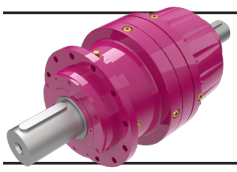
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
130,95	**6,9**	14 E1	42 R1	**4,6**	12 E1	32 R1	**13**	19 E1	47 R1	**8,7**	16 E1	35 R1	106	390
164,33	**6,6**	14 E1	41 R1	**4,4**	12 E1	30 R1	**12**	19 E1	45 R1	**8,3**	15 E1	33 R1	120	391
191,04	**6,4**	13 E1	39 R1	**4,3**	11 E1	29 R1	**12**	18 E1	43 R1	**8,1**	15 E1	32 R1		
231,09	**6,1**	13 E1	37 R1	**4,1**	11 E1	28 R1	**11**	17 E1	41 R1	**7,7**	14 E1	31 R1		
290,00	**5,6**	12 E1	35 R1	**3,8**	10 E1	26 R1	**10**	16 E1	38 R1	**7,1**	13 E1	28 R1		
337,13	**5,3**	11 E1	32 R1	**3,5**	9,3 E1	24 R1	**9,7**	15 E1	36 R1	**6,6**	12 E1	27 R1		
407,81	**4,7**	9,7 E1	29 R1	**3,2**	8,4 E1	22 R1	**8,7**	13 E1	32 R1	**5,9**	11 E1	24 R1		
281,47	**3,9**	9,1 E1	29 R1	**2,2**	7,7 E1	22 R1	**8,1**	13 E1	32 R1	**5,2**	10 E1	24 R1	111	390
307,34	**4,0**	9,1 E1	29 R1	**2,4**	7,7 E1	21 R1	**8,1**	13 E1	32 R1	**5,3**	10 E1	23 R1	126	391
384,96	**4,2**	8,9 E1	27 R1	**2,7**	7,6 E1	20 R1	**8,0**	12 E1	30 R1	**5,3**	10 E1	22 R1		
447,05	**4,2**	8,6 E1	26 R1	**2,7**	7,4 E1	19 R1	**7,8**	12 E1	29 R1	**5,3**	10 E1	21 R1		
540,18	**4,1**	8,2 E1	25 R1	**2,7**	7,1 E1	18 R1	**7,4**	11 E1	27 R1	**5,1**	9,1 E1	20 R1		
676,59	**3,9**	7,8 E1	23 R1	**2,6**	6,7 E1	18 R1	**7,1**	11 E1	26 R1	**4,8**	8,7 E1	19 R1		
785,72	**3,7**	7,5 E1	22 R1	**2,5**	6,5 E1	17 R1	**6,8**	10 E1	25 R1	**4,7**	8,3 E1	18 R1		
949,41	**3,5**	7,1 E1	21 R1	**2,4**	6,1 E1	16 R1	**6,4**	9,7 E1	23 R1	**4,4**	7,9 E1	17 R1		
1191,42	**3,4**	6,8 E1	20 R1	**2,3**	5,9 E1	15 R1	**6,2**	9,3 E1	23 R1	**4,2**	7,6 E1	17 R1		
1385,02	**3,3**	6,6 E1	20 R1	**2,2**	5,7 E1	15 R1	**6,0**	9,0 E1	22 R1	**4,1**	7,3 E1	16 R1		
1675,43	**3,1**	6,3 E1	19 R1	**2,1**	5,4 E1	14 R1	**5,7**	8,6 E1	21 R1	**3,9**	7,0 E1	15 R1		
2102,50	**2,9**	5,8 E1	18 R1	**2,0**	5,0 E1	13 R1	**5,3**	8,0 E1	19 R1	**3,6**	6,5 E1	14 R1		
2444,16	**2,7**	5,5 E1	16 R1	**1,8**	4,7 E1	12 R1	**5,0**	7,5 E1	18 R1	**3,4**	6,1 E1	14 R1		
2956,64	**2,4**	4,9 E1	15 R1	**1,7**	4,3 E1	11 R1	**4,5**	6,7 E1	16 R1	**3,1**	5,5 E1	12 R1		
3,43	**15**	211 E4	183 R1	**3,0**	203 E4	195 R2	**44**	230 E4	204 R1	**24**	216 E4	208 R2	166	392
4,09	**20**	215 E4	188 R1	**8,5**	208 E4	200 R2	**48**	235 E4	209 R1	**29**	221 E4	151 R1	181	393
5,25	**22**	196 E4	171 R1	**12**	189 E4	126 R1	**47**	135 E3	190 R1	**30**	201 E4	139 R1		
6,23	**21**	176 E4	155 R1	**12**	171 E4	114 R1	**43**	122 E3	171 R1	**28**	110 E3	125 R1		
12,34	**10**	103 E4	90 R1	**4,7**	100 E4	96 R2	**24**	112 E4	100 R1	**14**	106 E4	73 R1	158	392
14,73	**10**	104 E4	91 R1	**4,7**	100 E4	67 R1	**24**	71 E3	101 R1	**14**	64 E3	73 R1	173	393
17,39	**12**	62 E3	91 R1	**6,6**	58 E3	67 R1	**25**	72 E3	101 R1	**16**	65 E3	74 R1		
21,82	**13**	60 E3	88 R1	**7,9**	56 E3	65 R1	**25**	53 E2	97 R1	**17**	63 E3	71 R1		
25,36	**13**	58 E3	85 R1	**8,3**	55 E3	63 R1	**25**	51 E2	94 R1	**17**	44 E2	69 R1		
32,55	**12**	38 E2	78 R1	**7,7**	50 E3	58 R1	**23**	47 E2	86 R1	**15**	41 E2	64 R1		
39,38	**12**	36 E2	74 R1	**7,8**	33 E2	55 R1	**22**	34 E1	81 R1	**15**	39 E2	60 R1		
46,73	**11**	33 E2	68 R1	**7,2**	30 E2	50 R1	**20**	31 E1	75 R1	**14**	36 E2	55 R1		
55,64	**5,8**	33 E3	49 R1	**2,9**	31 E3	36 R1	**13**	29 E2	54 R1	**8,0**	35 E3	40 R1	150	392
65,68	**5,8**	33 E3	49 R1	**2,9**	31 E3	36 R1	**13**	29 E2	54 R1	**7,9**	25 E2	40 R1	165	393
71,72	**6,1**	23 E2	49 R1	**3,4**	31 E3	36 R1	**13**	29 E2	54 R1	**8,3**	25 E2	39 R1		
89,83	**6,6**	22 E2	47 R1	**4,1**	20 E2	35 R1	**13**	21 E1	51 R1	**8,6**	24 E2	38 R1		
104,32	**6,7**	22 E2	45 R1	**4,3**	20 E2	33 R1	**13**	20 E1	49 R1	**8,6**	23 E2	37 R1		
126,05	**6,6**	21 E2	42 R1	**4,4**	19 E2	32 R1	**12**	19 E1	47 R1	**8,4**	16 E1	35 R1		
158,18	**6,4**	13 E1	41 R1	**4,2**	12 E1	30 R1	**12**	18 E1	45 R1	**8,0**	15 E1	33 R1		
203,00	**5,9**	13 E1	38 R1	**4,0**	11 E1	28 R1	**11**	17 E1	42 R1	**7,5**	14 E1	31 R1		
235,99	**5,7**	12 E1	37 R1	**3,8**	10 E1	27 R1	**11**	16 E1	40 R1	**7,2**	13 E1	30 R1		
285,47	**5,4**	11 E1	35 R1	**3,6**	10 E1	26 R1	**10**	16 E1	38 R1	**6,9**	13 E1	28 R1		
338,80	**5,0**	11 E1	32 R1	**3,4**	9,2 E1	24 R1	**9,3**	14 E1	35 R1	**6,4**	12 E1	26 R1		
210,18	**3,7**	9,1 E1	30 R1	**1,9**	13 E2	22 R1	**8,0**	13 E1	33 R1	**5,0**	10 E1	24 R1	156	392
248,13	**3,7**	9,0 E1	29 R1	**1,9**	12 E2	22 R1	**8,0**	13 E1	32 R1	**5,0**	10 E1	24 R1	171	393
270,94	**3,6**	8,9 E1	29 R1	**1,9**	12 E2	21 R1	**7,9**	13 E1	32 R1	**4,9**	10 E1	24 R1		
295,84	**3,8**	8,9 E1	29 R1	**2,2**	12 E2	21 R1	**7,9**	13 E1	32 R1	**5,1**	10 E1	23 R1		
370,55	**4,1**	8,8 E1	27 R1	**2,6**	7,5 E1	20 R1	**7,9**	12 E1	30 R1	**5,2**	10 E1	22 R1		
430,31	**4,1**	8,6 E1	26 R1	**2,7**	7,4 E1	19 R1	**7,7**	12 E1	29 R1	**5,2**	9,5 E1	21 R1		
519,96	**4,0**	8,2 E1	25 R1	**2,7**	7,1 E1	18 R1	**7,4**	11 E1	27 R1	**5,0**	9,1 E1	20 R1		
651,26	**3,8**	7,8 E1	23 R1	**2,6**	6,7 E1	18 R1	**7,0**	11 E1	26 R1	**4,8**	8,7 E1	19 R1		
756,31	**3,7**	7,5 E1	23 R1	**2,5**	6,5 E1	17 R1	**6,7**	10 E1	25 R1	**4,6**	8,3 E1	18 R1		
913,87	**3,5**	7,1 E1	21 R1	**2,3**	6,1 E1	16 R1	**6,4**	9,7 E1	23 R1	**4,4**	7,9 E1	17 R1		
1172,80	**3,2**	6,6 E1	20 R1	**2,2**	5,7 E1	15 R1	**6,0**	9,1 E1	22 R1	**4,1**	7,4 E1	16 R1		
1471,75	**3,1**	6,4 E1	19 R1	**2,1**	5,5 E1	14 R1	**5,7**	8,7 E1	21 R1	**3,9**	7,1 E1	16 R1		
1710,91	**3,0**	6,1 E1	19 R1	**2,0**	5,3 E1	14 R1	**5,5**	8,4 E1	20 R1	**3,8**	6,8 E1	15 R1		
2069,65	**2,9**	5,8 E1	18 R1	**1,9**	5,0 E1	13 R1	**5,3**	8,0 E1	19 R1	**3,6**	6,5 E1	14 R1		
2456,29	**2,7**	5,4 E1	16 R1	**1,8**	4,7 E1	12 R1	**4,9**	7,4 E1	18 R1	**3,3**	6,0 E1	13 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

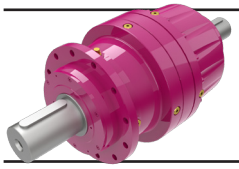
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2401L	**6,43**	7,92	10,4	12,8	**3,43**	**423**	**294**	0,97	16,3	30	8,5
RT2401L	**6,66**	8,20	10,8	13,3	**4,09**	**354**	**255**	0,97	16,8	32	8,5
	6,98	8,60	11,3	13,9	**5,25**	**276**	**209**	0,97	17,6	34	8,5
	7,20	8,86	9,62	10,0	**6,23**	**233**	**182**	0,96	18,2	36	8,5
PT2402L	**7,90**	9,73	12,8	15,7	**12,34**	**117**	**104**	0,94	20,0	44	5,1
RT2402L	**9,43**	11,6	15,3	18,8	**14,73**	**98**	**104**	0,94	23,8	47	5,1
	9,87	12,2	16,0	19,6	**17,39**	**83**	**92**	0,94	24,9	49	5,1
	10,3	12,7	16,7	17,9	**21,82**	**66**	**76**	0,94	26,0	53	5,1
	10,6	13,0	14,6	14,8	**25,36**	**57**	**68**	0,94	26,7	55	5,1
	12,1	14,6	15,3	15,9	**32,55**	**45**	**61**	0,93	30,0	59	5,1
	11,2	11,6	12,2	12,7	**39,38**	**37**	**46**	0,93	28,0	63	5,1
	10,0	10,4	10,9	12,0	**46,73**	**31**	**35**	0,93	24,9	66	5,1
PT2403L	**13,1**	16,1	20,0	20,0	**55,64**	**26**	**40**	0,89	30,0	70	2,1
RT2403L	**13,1**	16,1	20,0	20,0	**65,68**	**22**	**34**	0,89	30,0	73	2,1
	15,6	19,2	20,0	20,0	**71,72**	**20**	**37**	0,89	30,0	74	2,1
	16,5	19,8	20,0	20,0	**89,83**	**16**	**31**	0,89	30,0	80	2,1
	16,9	19,9	20,0	20,0	**104,32**	**14**	**28**	0,88	30,0	85	2,1
	16,9	20,0	20,0	20,0	**126,05**	**12**	**23**	0,88	30,0	89	2,1
	18,7	18,9	19,2	19,5	**158,18**	**9,2**	**20**	0,88	30,0	90	2,1
	15,3	16,1	16,9	18,2	**203,00**	**7,1**	**13**	0,88	30,0	97	2,1
	15,6	16,1	17,1	18,5	**235,99**	**6,1**	**11**	0,87	30,0	97	2,1
	12,7	13,2	13,9	15,1	**285,47**	**5,1**	**7,8**	0,87	30,0	101	2,1
	11,3	12,6	14,4	15,5	**338,80**	**4,3**	**5,9**	0,86	28,2	102	2,1
PT2404L	**15,5**	15,7	15,9	16,1	**210,18**	**6,9**	**14**	0,82	30,0	97	2,1
RT2404L	**20,0**	20,0	20,0	20,0	**248,13**	**5,8**	**15**	0,82	30,0	85	2,1
	20,0	20,0	20,0	20,0	**270,94**	**5,4**	**14**	0,81	30,0	85	2,1
	20,0	20,0	20,0	20,0	**295,84**	**4,9**	**13**	0,81	30,0	85	2,1
	20,0	20,0	20,0	20,0	**370,55**	**3,9**	**10**	0,81	30,0	85	2,1
	20,0	20,0	20,0	20,0	**430,31**	**3,4**	**8,7**	0,81	30,0	85	2,1
	20,0	20,0	20,0	20,0	**519,96**	**2,8**	**7,2**	0,81	30,0	85	2,1
	20,0	20,0	20,0	20,0	**651,26**	**2,2**	**5,8**	0,80	30,0	85	2,1
	20,0	20,0	20,0	20,0	**756,31**	**1,9**	**5,0**	0,80	30,0	85	2,1
	20,0	20,0	20,0	20,0	**913,87**	**1,6**	**4,2**	0,79	30,0	85	2,1
	17,1	18,5	20,0	20,0	**1172,80**	**1,2**	**2,8**	0,78	30,0	95	2,1
	17,6	18,9	20,0	20,0	**1471,75**	**0,99**	**2,3**	0,77	30,0	95	2,1
	17,8	19,2	20,0	20,0	**1710,91**	**0,85**	**2,1**	0,77	30,0	95	2,1
	14,3	15,9	18,2	19,8	**2069,65**	**0,70**	**1,4**	0,76	30,0	99	2,1
	15,0	16,1	17,9	19,3	**2456,29**	**0,59**	**1,3**	0,74	30,0	98	2,1
PT2701L	**10,2**	12,5	16,5	20,3	**4,09**	**354**	**393**	0,96	25,7	32	17
RT2701L	**10,7**	13,2	17,3	18,0	**5,25**	**276**	**322**	0,96	27,0	34	17
	11,0	11,9	12,6	13,1	**6,23**	**233**	**280**	0,96	27,8	35	17
PT2702L	**12,8**	15,7	20,7	22,9	**14,73**	**98**	**142**	0,93	32,3	46	8,9
RT2702L	**13,4**	16,5	21,7	23,0	**17,39**	**83**	**125**	0,93	33,8	49	8,9
	14,0	17,2	22,6	23,2	**21,82**	**66**	**104**	0,93	35,3	52	8,9
	14,3	17,6	21,7	22,9	**25,36**	**57**	**92**	0,93	36,2	55	8,9
	14,3	15,0	15,8	16,4	**30,68**	**47**	**76**	0,93	35,8	58	8,9
	18,2	18,9	19,3	19,5	**39,38**	**37**	**76**	0,92	45,4	62	8,9
	12,9	13,4	14,1	15,5	**46,73**	**31**	**45**	0,92	32,2	66	8,9
PT2703L	**18,8**	23,0	23,4	23,7	**53,02**	**27**	**61**	0,89	47,5	68	5,1
RT2703L	**18,8**	23,1	23,5	23,8	**62,59**	**23**	**51**	0,89	47,5	72	5,1
	20,7	23,7	24,2	24,5	**73,89**	**20**	**48**	0,89	52,2	75	5,1
	22,1	23,9	24,3	24,9	**92,73**	**16**	**41**	0,88	55,9	81	5,1
	23,1	23,9	24,3	25,0	**107,80**	**13**	**37**	0,88	58,5	84	5,1
	23,2	23,5	23,9	25,0	**130,40**	**11**	**31**	0,88	57,9	89	5,1
	23,3	23,6	24,0	25,0	**163,64**	**8,9**	**25**	0,88	58,2	95	5,1
	22,0	23,2	24,4	25,0	**190,23**	**7,6**	**20**	0,88	55,1	100	5,1
	16,3	16,9	17,8	19,5	**230,11**	**6,3**	**12**	0,88	40,7	106	5,1
	19,5	19,8	21,4	23,0	**295,31**	**4,9**	**12**	0,87	48,9	114	5,1
	14,7	16,4	19,0	20,9	**350,48**	**4,1**	**7,4**	0,86	36,6	120	5,1



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlessenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
3,43	**19**	414 E5	296 R2	**4,7**	406 E5	364 R3	**52**	435 E5	319 R2	**29**	420 E5	377 R3	195	394
4,09	**24**	421 E5	302 R2	**11**	413 E5	370 R3	**56**	264 E4	325 R2	**34**	427 E5	384 R3	210	395
5,25	**26**	219 E4	274 R2	**14**	211 E4	335 R3	**54**	240 E4	213 R1	**35**	225 E4	217 R2		
6,23	**25**	197 E4	247 R2	**15**	190 E4	183 R2	**50**	216 E4	192 R1	**33**	203 E4	196 R2		
12,34	**12**	115 E4	145 R2	**5,7**	111 E4	107 R2	**28**	126 E4	112 R1	**17**	118 E4	114 R2	199	394
14,73	**12**	116 E4	102 R1	**5,8**	112 E4	108 R2	**28**	127 E4	113 R1	**17**	119 E4	115 R2	215	395
17,39	**14**	116 E4	102 R1	**7,9**	112 E4	108 R2	**29**	127 E4	113 R1	**19**	119 E4	115 R2		
21,82	**15**	112 E4	98 R1	**9,3**	108 E4	104 R2	**29**	78 E3	109 R1	**19**	115 E4	80 R1		
25,36	**15**	108 E4	95 R1	**10**	104 E4	70 R1	**29**	76 E3	105 R1	**19**	68 E3	78 R1		
32,55	**14**	60 E3	87 R1	**9,0**	96 E4	65 R1	**27**	70 E3	97 R1	**18**	63 E3	71 R1		
39,38	**14**	57 E3	83 R1	**9,1**	53 E3	62 R1	**26**	51 E2	92 R1	**17**	60 E3	68 R1		
46,73	**13**	37 E2	76 R1	**8,4**	34 E2	57 R1	**23**	35 E1	84 R1	**16**	40 E2	62 R1		
55,64	**6,9**	63 E4	55 R1	**3,6**	61 E4	41 R1	**15**	44 E3	61 R1	**9,4**	65 E4	45 R1	195	394
65,68	**6,8**	37 E3	55 R1	**3,5**	35 E3	40 R1	**15**	43 E3	61 R1	**9,3**	39 E3	44 R1	210	395
71,72	**7,2**	37 E3	54 R1	**4,1**	60 E4	40 R1	**15**	43 E3	60 R1	**10**	39 E3	44 R1		
89,83	**7,8**	36 E3	52 R1	**4,9**	33 E3	39 R1	**15**	31 E2	58 R1	**10**	37 E3	43 R1		
104,32	**7,8**	34 E3	50 R1	**5,1**	32 E3	37 R1	**15**	30 E2	56 R1	**10**	36 E3	41 R1		
126,05	**7,7**	23 E2	48 R1	**5,1**	31 E3	36 R1	**14**	29 E2	53 R1	**10**	25 E2	39 R1		
158,18	**7,4**	22 E2	46 R1	**4,9**	20 E2	34 R1	**14**	21 E1	50 R1	**9,3**	24 E2	37 R1		
203,00	**6,9**	14 E1	43 R1	**4,6**	19 E2	32 R1	**13**	20 E1	47 R1	**8,7**	16 E1	35 R1		
235,99	**6,7**	14 E1	41 R1	**4,5**	12 E1	31 R1	**12**	19 E1	45 R1	**8,4**	15 E1	34 R1		
285,47	**6,3**	13 E1	39 R1	**4,2**	11 E1	29 R1	**12**	18 E1	43 R1	**8,0**	15 E1	32 R1		
338,80	**5,9**	12 E1	36 R1	**3,9**	10 E1	27 R1	**11**	17 E1	40 R1	**7,4**	13 E1	30 R1		
210,18	**4,3**	16 E2	33 R1	**2,3**	14 E2	24 R1	**9,3**	15 E1	36 R1	**5,9**	17 E2	27 R1	201	394
248,13	**4,3**	15 E2	32 R1	**2,3**	20 E3	24 R1	**9,2**	15 E1	36 R1	**5,8**	17 E2	26 R1	216	395
270,94	**4,2**	15 E2	32 R1	**2,3**	14 E2	24 R1	**9,1**	14 E1	36 R1	**5,7**	16 E2	26 R1		
295,84	**4,5**	15 E2	32 R1	**2,6**	14 E2	23 R1	**9,2**	14 E1	35 R1	**5,9**	16 E2	26 R1		
370,55	**4,7**	9,9 E1	30 R1	**3,0**	13 E2	22 R1	**9,1**	14 E1	33 R1	**6,0**	11 E1	25 R1		
430,31	**4,7**	9,6 E1	29 R1	**3,1**	13 E2	22 R1	**8,9**	13 E1	32 R1	**6,0**	11 E1	24 R1		
519,96	**4,6**	9,2 E1	27 R1	**3,1**	7,9 E1	20 R1	**8,5**	13 E1	30 R1	**5,8**	10 E1	23 R1		
651,26	**4,4**	8,8 E1	26 R1	**3,0**	7,5 E1	20 R1	**8,1**	12 E1	29 R1	**5,5**	10 E1	21 R1		
756,31	**4,2**	8,4 E1	25 R1	**2,8**	7,3 E1	19 R1	**7,8**	12 E1	28 R1	**5,3**	9,4 E1	21 R1		
913,87	**4,0**	8,0 E1	24 R1	**2,7**	6,9 E1	18 R1	**7,4**	11 E1	26 R1	**5,0**	8,9 E1	19 R1		
1172,80	**3,8**	7,5 E1	22 R1	**2,5**	6,4 E1	17 R1	**6,9**	10 E1	25 R1	**4,7**	8,3 E1	18 R1		
1471,75	**3,6**	7,2 E1	21 R1	**2,4**	6,2 E1	16 R1	**6,6**	9,9 E1	24 R1	**4,5**	8,0 E1	18 R1		
1710,91	**3,5**	6,9 E1	21 R1	**2,3**	6,0 E1	15 R1	**6,4**	9,6 E1	23 R1	**4,4**	7,7 E1	17 R1		
2069,65	**3,3**	6,6 E1	20 R1	**2,2**	5,7 E1	15 R1	**6,1**	9,1 E1	22 R1	**4,2**	7,4 E1	16 R1		
2456,29	**3,1**	6,1 E1	18 R1	**2,1**	5,3 E1	14 R1	**5,7**	8,5 E1	20 R1	**3,9**	6,8 E1	15 R1		
4,09	**21**	533 E6	449 R3	**8,8**	526 E6	450 R4	**51**	400 E5	470 R3	**30**	385 E5	463 R4	243	396
5,25	**24**	351 E5	416 R3	**13**	344 E5	416 R4	**51**	371 E5	435 R3	**32**	357 E5	321 R3	308	397
6,23	**23**	318 E5	376 R3	**14**	312 E5	279 R3	**48**	335 E5	393 R3	**31**	323 E5	291 R3		
14,73	**12**	199 E5	143 R2	**5,3**	195 E5	175 R3	**29**	210 E5	155 R2	**17**	202 E5	182 R3	243	396
17,39	**14**	198 E5	143 R2	**7,6**	194 E5	174 R3	**30**	126 E4	155 R2	**19**	201 E5	182 R3	308	397
21,82	**15**	110 E4	138 R2	**9,2**	106 E4	102 R2	**30**	122 E4	109 R1	**20**	113 E4	110 R2		
25,36	**15**	106 E4	94 R1	**10**	102 E4	99 R2	**30**	118 E4	105 R1	**20**	110 E4	106 R2		
30,68	**15**	101 E4	89 R1	**10**	98 E4	94 R2	**29**	112 E4	100 R1	**20**	104 E4	101 R2		
39,38	**14**	94 E4	83 R1	**9,3**	91 E4	88 R2	**27**	104 E4	93 R1	**18**	97 E4	94 R2		
46,73	**13**	52 E3	76 R1	**8,6**	49 E3	56 R1	**25**	48 E2	85 R1	**17**	55 E3	63 R1		
53,02	**7,8**	66 E4	83 R2	**3,8**	64 E4	61 R2	**18**	74 E4	66 R1	**11**	68 E4	66 R2	245	396
62,59	**7,8**	66 E4	58 R1	**3,8**	63 E4	61 R2	**18**	73 E4	65 R1	**11**	68 E4	66 R2	310	397
73,89	**8,7**	65 E4	57 R1	**5,0**	62 E4	60 R2	**18**	72 E4	64 R1	**12**	67 E4	47 R1		
92,73	**9,2**	62 E4	55 R1	**5,8**	59 E4	40 R1	**18**	45 E3	61 R1	**12**	64 E4	45 R1		
107,80	**9,3**	36 E3	53 R1	**6,0**	57 E4	39 R1	**18**	43 E3	59 R1	**12**	38 E3	43 R1		
130,40	**9,1**	35 E3	50 R1	**6,1**	32 E3	37 R1	**17**	32 E2	56 R1	**12**	36 E3	41 R1		
163,64	**8,7**	24 E2	48 R1	**5,8**	31 E3	36 R1	**16**	31 E2	54 R1	**11**	26 E2	40 R1		
190,23	**8,5**	23 E2	46 R1	**5,6**	21 E2	34 R1	**16**	23 E1	52 R1	**11**	25 E2	38 R1		
230,11	**8,1**	15 E1	44 R1	**5,4**	13 E1	33 R1	**15**	22 E1	50 R1	**10**	17 E1	37 R1		
295,31	**7,5**	14 E1	41 R1	**5,0**	12 E1	31 R1	**14**	20 E1	46 R1	**9,5**	16 E1	34 R1		
350,48	**7,0**	13 E1	38 R1	**4,6**	11 E1	28 R1	**13**	19 E1	43 R1	**8,8**	15 E1	31 R1		



Motorsuz Planet Redüktörler
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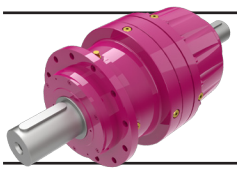
n_1=1450

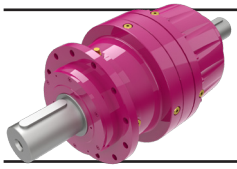
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2704L **RT2704L**	**22,0**	23,2	24,5	25,0	**200,29**	**7,2**	**20**	0,82	55,1	101	2,1
	23,5	23,8	25,0	25,0	**236,45**	**6,1**	**18**	0,82	58,6	107	2,1
	23,5	23,8	25,0	25,0	**279,15**	**5,2**	**16**	0,82	58,8	112	2,1
	23,6	23,9	25,0	25,0	**304,80**	**4,8**	**14**	0,82	58,9	115	2,1
	23,7	24,0	25,0	25,0	**381,78**	**3,8**	**12**	0,82	59,2	123	2,1
	23,7	24,2	25,0	25,0	**443,35**	**3,3**	**10**	0,81	59,4	128	2,1
	23,8	24,7	25,0	25,0	**535,72**	**2,7**	**8,3**	0,81	59,6	128	2,1
	23,9	25,0	25,0	25,0	**672,27**	**2,2**	**6,7**	0,80	59,9	128	2,1
	24,0	25,0	25,0	25,0	**781,52**	**1,9**	**5,8**	0,80	60,0	128	2,1
	24,4	25,0	25,0	25,0	**945,38**	**1,5**	**5,0**	0,79	61,0	128	2,1
	25,0	25,0	25,0	25,0	**1186,36**	**1,2**	**4,1**	0,79	62,5	127	2,1
	25,0	25,0	25,0	25,0	**1379,15**	**1,1**	**3,5**	0,78	62,5	127	2,1
	18,4	20,5	23,7	25,0	**1668,32**	**0,87**	**2,2**	0,77	45,9	139	2,1
	22,3	24,0	25,0	25,0	**2141,02**	**0,68**	**2,1**	0,76	55,7	133	2,1
	20,0	21,9	24,4	25,0	**2540,99**	**0,57**	**1,6**	0,74	50,1	135	2,1
PT2902L **RT2902L**	**15,7**	19,3	25,4	31,2	**14,03**	**103**	**182**	0,93	39,6	55	8,5
	16,2	20,0	26,3	32,4	**16,74**	**87**	**157**	0,93	41,0	58	8,5
	17,0	20,9	27,6	33,9	**21,48**	**68**	**129**	0,93	43,0	63	8,5
	17,5	21,6	28,4	31,2	**25,49**	**57**	**112**	0,93	44,3	66	8,5
	20,3	25,0	26,4	28,7	**32,71**	**44**	**101**	0,93	51,2	71	8,5
	19,7	20,5	21,6	23,1	**38,82**	**37**	**83**	0,92	49,2	75	8,5
PT2903L **RT2903L**	**23,0**	28,3	34,7	35,0	**50,49**	**29**	**78**	0,89	58,1	81	5,1
	25,0	30,8	35,0	35,0	**71,13**	**20**	**60**	0,89	63,2	89	5,1
	26,8	33,0	35,0	35,0	**89,26**	**16**	**51**	0,89	67,7	95	5,1
	28,0	34,5	35,0	35,0	**103,76**	**14**	**46**	0,89	70,8	102	5,1
	28,3	28,3	28,3	28,3	**125,52**	**12**	**39**	0,88	70,8	107	5,1
	30,0	31,8	34,3	35,0	**161,08**	**9,0**	**32**	0,88	75,1	114	5,1
	30,0	31,5	33,6	35,0	**191,17**	**7,6**	**27**	0,87	74,9	120	5,1
	26,9	30,1	32,4	34,9	**245,34**	**5,9**	**19**	0,87	67,4	130	5,1
	21,9	24,5	27,3	29,3	**291,17**	**5,0**	**13**	0,87	54,9	137	5,1
PT2904L **RT2904L**	**34,7**	35,0	35,0	35,0	**190,75**	**7,6**	**34**	0,82	86,7	120	2,1
	34,8	35,0	35,0	35,0	**227,60**	**6,4**	**28**	0,83	87,0	127	2,1
	34,9	35,0	35,0	35,0	**268,70**	**5,4**	**24**	0,82	87,3	133	2,1
	35,0	35,0	35,0	35,0	**293,39**	**4,9**	**22**	0,82	87,4	137	2,1
	35,0	35,0	35,0	35,0	**367,48**	**3,9**	**18**	0,81	87,5	147	2,1
	35,0	35,0	35,0	35,0	**426,76**	**3,4**	**15**	0,81	87,5	153	2,1
	35,0	35,0	35,0	35,0	**515,66**	**2,8**	**13**	0,81	87,5	163	2,1
	35,0	35,0	35,0	35,0	**647,11**	**2,2**	**10**	0,80	87,5	169	2,1
	35,0	35,0	35,0	35,0	**752,26**	**1,9**	**8,9**	0,80	87,5	169	2,1
	35,0	35,0	35,0	35,0	**909,99**	**1,6**	**7,4**	0,79	87,5	169	2,1
	35,0	35,0	35,0	35,0	**1167,83**	**1,2**	**5,8**	0,79	87,5	169	2,1
	35,0	35,0	35,0	35,0	**1385,99**	**1,0**	**4,9**	0,78	87,4	169	2,1
	33,7	35,0	35,0	35,0	**1778,69**	**0,82**	**3,7**	0,77	84,3	171	2,1
	28,4	30,5	33,5	35,0	**2110,97**	**0,69**	**2,7**	0,76	71,1	176	2,1
PT3502L **RT3502L**	**23,6**	29,0	38,2	45,8	**14,20**	**102**	**270**	0,93	59,6	67	8,5
	24,9	30,6	40,3	46,5	**16,95**	**86**	**238**	0,93	62,8	71	8,5
	26,8	33,0	43,4	48,3	**21,75**	**67**	**200**	0,93	67,7	76	8,5
	28,2	34,7	39,9	41,5	**25,81**	**56**	**178**	0,93	71,3	80	8,5
	28,7	29,9	31,5	34,2	**33,65**	**43**	**140**	0,93	71,9	87	8,5
	19,7	20,5	21,6	23,4	**40,50**	**36**	**80**	0,93	49,3	92	8,5
PT3503L **RT3503L**	**32,7**	40,3	49,0	50,0	**51,13**	**28**	**109**	0,89	82,7	98	5,1
	38,4	44,9	50,0	50,0	**72,03**	**20**	**91**	0,89	97,0	109	5,1
	41,1	46,0	50,0	50,0	**90,39**	**16**	**78**	0,89	104	117	5,1
	43,0	47,1	50,0	50,0	**105,08**	**14**	**70**	0,88	109	122	5,1
	43,8	48,5	50,0	50,0	**127,11**	**11**	**59**	0,88	111	129	5,1
	45,0	48,0	50,0	50,0	**163,13**	**8,9**	**48**	0,88	112	139	5,1
	41,3	42,9	45,2	49,6	**193,60**	**7,5**	**37**	0,88	103	146	5,1
	32,1	36,0	41,2	44,6	**252,35**	**5,7**	**22**	0,88	80,3	159	5,1
	22,0	24,6	28,5	31,7	**303,75**	**4,8**	**13**	0,87	55,0	168	5,1



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

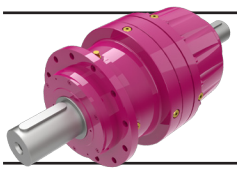
Çevrim Oranı / *Ratio* / Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
200,29	**5,2**	24 E3	35 R1	**2,8**	22 E3	26 R1	**11**	22 E2	39 R1	**7,0**	25 E3	29 R1	237	396
236,45	**5,2**	23 E3	34 R1	**2,8**	22 E3	25 R1	**11**	22 E2	39 R1	**7,0**	18 E2	28 R1	302	397
279,15	**5,0**	16 E2	34 R1	**2,7**	21 E3	25 R1	**11**	16 E1	38 R1	**6,8**	18 E2	28 R1		
304,80	**5,3**	16 E2	33 R1	**3,1**	14 E2	25 R1	**11**	16 E1	37 R1	**7,0**	18 E2	27 R1		
381,78	**5,6**	16 E2	32 R1	**3,5**	14 E2	24 R1	**11**	16 E1	36 R1	**7,2**	12 E1	26 R1		
443,35	**5,6**	11 E1	31 R1	**3,7**	14 E2	23 R1	**11**	15 E1	34 R1	**7,1**	12 E1	25 R1		
535,72	**5,5**	10 E1	29 R1	**3,7**	8,6 E1	22 R1	**10**	14 E1	33 R1	**6,9**	12 E1	24 R1		
672,27	**5,2**	9,7 E1	27 R1	**3,5**	8,2 E1	21 R1	**9,6**	14 E1	31 R1	**6,5**	11 E1	23 R1		
781,52	**5,0**	9,3 E1	26 R1	**3,4**	7,9 E1	20 R1	**9,2**	13 E1	30 R1	**6,3**	11 E1	22 R1		
945,38	**4,7**	8,8 E1	25 R1	**3,2**	7,5 E1	19 R1	**8,7**	13 E1	28 R1	**6,0**	10 E1	21 R1		
1186,36	**4,6**	8,5 E1	24 R1	**3,1**	7,2 E1	18 R1	**8,4**	12 E1	27 R1	**5,7**	9,5 E1	20 R1		
1379,15	**4,4**	8,2 E1	23 R1	**3,0**	6,9 E1	17 R1	**8,1**	12 E1	26 R1	**5,6**	9,2 E1	19 R1		
1668,32	**4,2**	7,8 E1	22 R1	**2,8**	6,6 E1	17 R1	**7,8**	11 E1	25 R1	**5,3**	8,8 E1	19 R1		
2141,02	**4,0**	7,3 E1	21 R1	**2,7**	6,2 E1	16 R1	**7,3**	10 E1	23 R1	**5,0**	8,2 E1	17 R1		
2540,99	**3,7**	6,8 E1	19 R1	**2,5**	5,7 E1	14 R1	**6,7**	9,6 E1	22 R1	**4,6**	7,6 E1	16 R1		
14,03	**14**	211 E5	250 R3	**5,2**	206 E5	184 R3	**34**	225 E5	263 R3	**20**	215 E5	194 R3	325	398
16,74	**16**	212 E5	251 R3	**8,2**	208 E5	186 R3	**36**	226 E5	168 R2	**22**	217 E5	195 R3	397	399
21,48	**18**	205 E5	148 R2	**11**	200 E5	179 R3	**37**	133 E4	162 R2	**24**	209 E5	188 R3		
25,49	**18**	115 E4	143 R2	**11**	110 E4	172 R3	**36**	129 E4	115 R1	**24**	119 E4	115 R2		
32,71	**17**	107 E4	133 R2	**11**	102 E4	161 R3	**34**	120 E4	107 R1	**22**	111 E4	107 R2		
38,82	**16**	100 E4	88 R1	**10**	95 E4	92 R2	**32**	112 E4	100 R1	**21**	103 E4	100 R2		
50,49	**9,3**	121 E5	87 R2	**4,6**	118 E5	105 R3	**21**	79 E4	96 R2	**13**	123 E5	111 R3	317	398
71,13	**10**	69 E4	61 R1	**5,9**	66 E4	63 R2	**22**	78 E4	69 R1	**14**	72 E4	69 R2	390	399
89,26	**11**	66 E4	58 R1	**6,7**	63 E4	61 R2	**22**	74 E4	66 R1	**14**	68 E4	66 R2		
103,76	**11**	64 E4	56 R1	**7,0**	61 E4	58 R2	**21**	48 E3	64 R1	**14**	66 E4	47 R1		
125,52	**11**	60 E4	53 R1	**7,0**	58 E4	39 R1	**20**	45 E3	61 R1	**14**	40 E3	45 R1		
161,08	**10**	36 E3	51 R1	**6,7**	33 E3	38 R1	**19**	35 E2	58 R1	**13**	38 E3	43 R1		
191,17	**10**	35 E3	49 R1	**6,5**	32 E3	36 R1	**19**	33 E2	56 R1	**13**	28 E2	41 R1		
245,34	**9,3**	24 E2	46 R1	**6,1**	21 E2	34 R1	**18**	25 E1	53 R1	**12**	19 E1	39 R1		
291,17	**8,7**	16 E1	43 R1	**5,7**	13 E1	32 R1	**16**	23 E1	49 R1	**11**	18 E1	36 R1		
190,75	**6,3**	42 E4	37 R1	**3,5**	40 E4	38 R2	**13**	47 E4	42 R1	**8,5**	43 E4	42 R2	309	398
227,60	**6,3**	42 E4	37 R1	**3,5**	40 E4	27 R1	**13**	31 E3	42 R1	**8,5**	27 E3	31 R1	382	399
268,70	**6,2**	25 E3	36 R1	**3,4**	23 E3	26 R1	**13**	24 E2	41 R1	**8,3**	27 E3	30 R1		
293,39	**6,4**	25 E3	35 R1	**3,8**	23 E3	26 R1	**13**	24 E2	41 R1	**8,5**	26 E3	30 R1		
367,48	**6,7**	24 E3	34 R1	**4,3**	22 E3	25 R1	**13**	23 E2	39 R1	**8,6**	19 E2	28 R1		
426,76	**6,7**	23 E3	33 R1	**4,4**	21 E3	24 R1	**13**	22 E2	37 R1	**8,5**	19 E2	27 R1		
515,66	**6,5**	16 E2	31 R1	**4,4**	15 E2	23 R1	**12**	21 E2	35 R1	**8,3**	18 E2	26 R1		
647,11	**6,2**	11 E1	29 R1	**4,2**	9,0 E1	22 R1	**12**	16 E1	34 R1	**7,9**	13 E1	25 R1		
752,26	**6,0**	11 E1	28 R1	**4,0**	9,0 E1	21 R1	**11**	16 E1	32 R1	**7,6**	12 E1	24 R1		
909,99	**5,7**	10 E1	27 R1	**3,8**	9,0 E1	20 R1	**11**	15 E1	31 R1	**7,2**	12 E1	23 R1		
1167,83	**5,5**	10 E1	26 R1	**3,7**	8,0 E1	19 R1	**10**	14 E1	29 R1	**6,9**	11 E1	22 R1		
1385,99	**5,3**	10 E1	25 R1	**3,5**	8,0 E1	19 R1	**9,8**	14 E1	28 R1	**6,7**	11 E1	21 R1		
1778,69	**5,0**	9,0 E1	23 R1	**3,3**	8,0 E1	17 R1	**9,2**	13 E1	27 R1	**6,3**	10 E1	20 R1		
2110,97	**4,7**	9,0 E1	22 R1	**3,1**	7,0 E1	16 R1	**8,6**	12 E1	25 R1	**5,9**	10 E1	19 R1		
14,20	**17**	311 E6	353 R4	**7,4**	305 E6	301 R5	**41**	327 E6	280 R3	**24**	315 E6	312 R5	422	400
16,95	**20**	311 E6	264 R3	**11**	305 E6	262 R4	**43**	240 E5	280 R3	**27**	315 E6	273 R4	509	401
21,75	**21**	215 E5	253 R3	**13**	209 E5	252 R4	**43**	231 E5	269 R3	**28**	220 E5	199 R3		
25,81	**22**	207 E5	244 R3	**14**	201 E5	181 R3	**43**	222 E5	258 R3	**28**	211 E5	191 R3		
33,65	**21**	195 E5	142 R2	**13**	190 E5	171 R3	**40**	209 E5	157 R2	**27**	199 E5	115 R2		
40,50	**19**	104 E4	92 R1	**12**	99 E4	96 R2	**37**	79 E3	107 R1	**24**	108 E4	77 R1		
51,13	**12**	129 E5	152 R3	**6,1**	125 E5	113 R3	**26**	139 E5	162 R3	**16**	132 E5	119 R3	427	400
72,03	**13**	126 E5	92 R2	**7,4**	122 E5	110 R3	**26**	135 E5	102 R2	**17**	129 E5	117 R3	513	401
90,39	**13**	120 E5	88 R2	**8,3**	116 E5	105 R3	**26**	81 E4	97 R2	**17**	122 E5	111 R3		
105,08	**13**	115 E5	85 R2	**8,5**	112 E5	101 R3	**25**	78 E4	70 R1	**17**	71 E4	69 R2		
127,11	**13**	65 E4	80 R2	**8,5**	62 E4	60 R2	**24**	74 E4	67 R1	**16**	67 E4	65 R2		
163,13	**12**	62 E4	55 R1	**8,2**	59 E4	57 R2	**23**	48 E3	64 R1	**16**	65 E4	47 R1		
193,60	**12**	37 E3	53 R1	**7,9**	57 E4	39 R1	**22**	37 E2	62 R1	**15**	40 E3	45 R1		
252,35	**11**	26 E2	50 R1	**7,5**	23 E2	37 R1	**21**	28 E1	58 R1	**14**	22 E1	43 R1		
303,75	**10**	18 E1	46 R1	**6,9**	14 E1	34 R1	**20**	26 E1	53 R1	**13**	20 E1	39 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

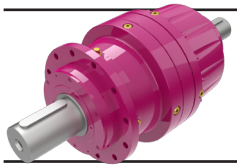
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3504L **RT3504L**	**46,2**	48,0	50,0	50,0	**193,18**	**7,5**	**44**	0,82	115	146	2,1
	47,5	50,0	50,0	50,0	**230,49**	**6,3**	**38**	0,83	119	154	2,1
	48,8	50,0	50,0	50,0	**272,11**	**5,3**	**33**	0,82	122	162	2,1
	49,5	50,0	50,0	50,0	**297,12**	**4,9**	**31**	0,82	124	167	2,1
	50,0	50,0	50,0	50,0	**372,15**	**3,9**	**25**	0,82	128	178	2,1
	50,0	50,0	50,0	50,0	**432,18**	**3,4**	**21**	0,82	129	186	2,1
	50,0	50,0	50,0	50,0	**522,21**	**2,8**	**18**	0,81	129	197	2,1
	50,0	50,0	50,0	50,0	**655,32**	**2,2**	**14**	0,81	130	211	2,1
	50,0	50,0	50,0	50,0	**761,81**	**1,9**	**12**	0,80	130	221	2,1
	50,0	50,0	50,0	50,0	**921,55**	**1,6**	**10**	0,79	132	234	2,1
	50,0	50,0	50,0	50,0	**1182,66**	**1,2**	**8,1**	0,79	132	252	2,1
	46,7	50,0	50,0	50,0	**1403,59**	**1,0**	**6,4**	0,79	117	258	2,1
	43,0	46,5	50,0	50,0	**1829,51**	**0,79**	**4,6**	0,78	107	263	2,1
	30,0	33,5	38,8	43,5	**2202,19**	**0,66**	**2,7**	0,77	75,0	274	2,1



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=1450

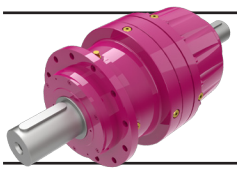
Çevrim Oranı / *Ratio* / Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
193,18	**7,9**	45 E4	56 R2	**4,5**	43 E4	67 R3	**16**	52 E4	47 R1	**11**	47 E4	46 R2	423	400
230,49	**7,9**	45 E4	40 R1	**4,5**	43 E4	41 R2	**16**	51 E4	47 R1	**11**	47 E4	46 R2	509	401
272,11	**7,7**	44 E4	39 R1	**4,4**	42 E4	40 R2	**16**	34 E3	46 R1	**10**	46 E4	33 R1		
297,12	**8,0**	43 E4	39 R1	**4,7**	41 E4	40 R2	**16**	34 E3	45 R1	**10**	45 E4	33 R1		
372,15	**8,2**	26 E3	37 R1	**5,2**	39 E4	27 R1	**16**	26 E2	43 R1	**11**	28 E3	31 R1		
432,18	**8,2**	25 E3	36 R1	**5,3**	23 E3	26 R1	**15**	25 E2	41 R1	**10**	27 E3	30 R1		
522,21	**7,9**	18 E2	34 R1	**5,3**	22 E3	25 R1	**15**	19 E1	39 R1	**10**	20 E2	29 R1		
655,32	**7,5**	17 E2	32 R1	**5,1**	15 E2	24 R1	**14**	18 E1	37 R1	**9,5**	14 E1	27 R1		
761,81	**7,3**	16 E2	31 R1	**4,9**	14 E2	23 R1	**13**	18 E1	36 R1	**9,1**	14 E1	26 R1		
921,55	**6,9**	11 E1	29 R1	**4,6**	14 E2	22 R1	**13**	17 E1	34 R1	**8,7**	13 E1	25 R1		
1182,66	**6,6**	11 E1	28 R1	**4,4**	8,9 E1	21 R1	**12**	16 E1	33 R1	**8,3**	12 E1	24 R1		
1403,59	**6,4**	11 E1	27 R1	**4,3**	8,6 E1	20 R1	**12**	16 E1	31 R1	**8,0**	12 E1	23 R1		
1829,51	**6,1**	9,9 E1	26 R1	**4,1**	8,1 E1	19 R1	**11**	15 E1	30 R1	**7,6**	11 E1	22 R1		
2202,19	**5,6**	9,1 E1	24 R1	**3,8**	7,5 E1	18 R1	**10**	14 E1	27 R1	**7,0**	11 E1	20 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1101L	**0,72**	0,88	1,00	1,00	**3,78**	**251**	**20**	0,96	1,20	11	2,4
RT1101L	**0,73**	0,90	1,00	1,00	**4,13**	**230**	**18**	0,96	1,20	11	2,4
	0,76	0,94	1,00	1,00	**5,17**	**184**	**15**	0,95	1,20	12	2,4
	0,78	0,82	0,88	0,92	**6,00**	**158**	**14**	0,95	1,20	13	2,4
	0,59	0,62	0,66	0,70	**7,25**	**131**	**8,6**	0,94	1,20	13	2,4
PT1102L	**1,00**	1,00	1,00	1,00	**14,27**	**67**	**7,6**	0,91	1,20	16	2,4
RT1102L	**1,00**	1,00	1,00	1,00	**15,58**	**61**	**7,0**	0,91	1,20	17	2,4
	1,00	1,00	1,00	1,00	**17,02**	**56**	**6,4**	0,91	1,20	17	2,4
	1,00	1,00	1,00	1,00	**21,31**	**45**	**5,1**	0,92	1,20	19	2,4
	1,00	1,00	1,00	1,00	**24,75**	**38**	**4,4**	0,91	1,20	19	2,4
	1,00	1,00	1,00	1,00	**29,91**	**32**	**3,6**	0,91	1,20	20	2,4
	1,00	1,00	1,00	1,00	**37,46**	**25**	**2,9**	0,91	1,20	22	2,4
	0,88	0,92	1,00	1,00	**43,50**	**22**	**2,2**	0,90	1,20	23	2,4
	0,67	0,70	0,78	0,92	**52,56**	**18**	**1,4**	0,89	1,20	24	2,4
PT1103L	**1,00**	1,00	1,00	1,00	**58,87**	**16**	**2,0**	0,85	1,20	25	2,4
RT1103L	**1,00**	1,00	1,00	1,00	**64,28**	**15**	**1,8**	0,85	1,20	26	2,4
	1,00	1,00	1,00	1,00	**70,19**	**14**	**1,7**	0,85	1,20	26	2,4
	1,00	1,00	1,00	1,00	**87,91**	**11**	**1,3**	0,86	1,20	28	2,4
	1,00	1,00	1,00	1,00	**102,09**	**9,3**	**1,1**	0,86	1,20	30	2,4
	1,00	1,00	1,00	1,00	**123,36**	**7,7**	**0,94**	0,86	1,20	31	2,4
	1,00	1,00	1,00	1,00	**154,52**	**6,1**	**0,75**	0,85	1,20	34	2,4
	1,00	1,00	1,00	1,00	**179,44**	**5,3**	**0,65**	0,85	1,20	35	2,4
	1,00	1,00	1,00	1,00	**216,82**	**4,4**	**0,55**	0,84	1,20	37	2,4
	1,00	1,00	1,00	1,00	**271,57**	**3,5**	**0,44**	0,83	1,20	40	2,4
	1,00	1,00	1,00	1,00	**315,38**	**3,0**	**0,39**	0,82	1,20	41	2,4
	0,84	0,99	1,00	1,00	**381,08**	**2,5**	**0,28**	0,79	1,20	41	2,4
PT1104L	**1,00**	1,00	1,00	1,00	**289,53**	**3,3**	**0,47**	0,72	1,20	41	2,4
RT1104L	**1,00**	1,00	1,00	1,00	**362,65**	**2,6**	**0,37**	0,74	1,20	41	2,4
	1,00	1,00	1,00	1,00	**421,14**	**2,3**	**0,31**	0,76	1,20	41	2,4
	1,00	1,00	1,00	1,00	**508,87**	**1,9**	**0,26**	0,76	1,20	41	2,4
	1,00	1,00	1,00	1,00	**637,38**	**1,5**	**0,21**	0,75	1,20	41	2,4
	1,00	1,00	1,00	1,00	**740,18**	**1,3**	**0,18**	0,73	1,20	41	2,4
	1,00	1,00	1,00	1,00	**894,38**	**1,1**	**0,16**	0,71	1,20	41	2,4
	1,00	1,00	1,00	1,00	**1120,24**	**0,85**	**0,13**	0,69	1,20	41	2,4
	1,00	1,00	1,00	1,00	**1300,92**	**0,73**	**0,11**	0,68	1,20	41	2,4
	1,00	1,00	1,00	1,00	**1571,95**	**0,60**	**0,10**	0,65	1,20	41	2,4
	1,00	1,00	1,00	1,00	**1968,90**	**0,48**	**0,08**	0,62	1,20	41	2,4
	1,00	1,00	1,00	1,00	**2286,47**	**0,42**	**0,07**	0,58	1,20	41	2,4
	1,00	1,00	1,00	1,00	**2762,82**	**0,34**	**0,07**	0,53	1,20	41	2,4
PT1201L	**1,01**	1,24	1,63	2,00	**3,78**	**251**	**28**	0,96	2,25	11	2,4
RT1201L	**1,03**	1,27	1,67	2,00	**4,13**	**230**	**26**	0,96	2,30	11	2,4
	1,07	1,32	1,74	1,92	**5,17**	**184**	**22**	0,96	2,39	12	2,4
	1,10	1,36	1,66	1,70	**6,00**	**158**	**19**	0,95	2,45	13	2,4
	1,08	1,11	1,17	1,21	**7,25**	**131**	**16**	0,94	2,56	13	2,4
PT1202L	**1,60**	1,97	2,00	2,00	**14,27**	**67**	**12**	0,92	3,00	16	2,4
RT1202L	**1,64**	2,00	2,00	2,00	**15,58**	**61**	**11**	0,92	3,00	17	2,4
	1,68	2,00	2,00	2,00	**17,02**	**56**	**11**	0,92	3,00	17	2,4
	1,80	2,00	2,00	2,00	**21,31**	**45**	**9,1**	0,92	3,00	19	2,4
	1,88	2,00	2,00	2,00	**24,75**	**38**	**8,3**	0,92	3,00	19	2,4
	1,99	2,00	2,00	2,00	**29,91**	**32**	**7,3**	0,91	3,00	20	2,4
	1,95	1,98	2,00	2,00	**37,46**	**25**	**5,7**	0,91	3,00	22	2,4
	1,68	1,74	1,78	1,80	**43,50**	**22**	**4,2**	0,90	3,00	23	2,4
	1,19	1,23	1,34	1,51	**52,56**	**18**	**2,5**	0,89	2,91	24	2,4
PT1203L	**2,00**	2,00	2,00	2,00	**58,87**	**16**	**3,9**	0,86	3,00	25	2,4
RT1203L	**2,00**	2,00	2,00	2,00	**64,28**	**15**	**3,6**	0,86	3,00	26	2,4
	2,00	2,00	2,00	2,00	**70,19**	**14**	**3,3**	0,86	3,00	26	2,4
	2,00	2,00	2,00	2,00	**87,91**	**11**	**2,6**	0,86	3,00	28	2,4
	2,00	2,00	2,00	2,00	**102,09**	**9,3**	**2,3**	0,86	3,00	30	2,4
	2,00	2,00	2,00	2,00	**123,36**	**7,7**	**1,9**	0,86	3,00	31	2,4



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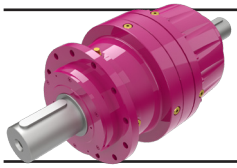
n_1=950

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
3,78	**5,5**	27 E1	103 R1	**3,2**	26 E1	77 R1	**11**	32 E1	106 R1	**7,2**	29 E1	79 R1	23	382
4,13	**5,7**	27 E1	102 R1	**3,4**	26 E1	76 R1	**11**	32 E1	105 R1	**7,4**	29 E1	79 R1	25	383
5,17	**5,6**	25 E1	92 R1	**3,6**	24 E1	69 R1	**11**	29 E1	95 R1	**7,1**	26 E1	71 R1		
6,00	**5,3**	22 E1	83 R1	**3,5**	22 E1	63 R1	**10**	26 E1	86 R1	**6,7**	24 E1	65 R1		
7,25	**4,6**	19 E1	70 R1	**3,1**	18 E1	53 R1	**8,4**	22 E1	72 R1	**5,8**	20 E1	54 R1		
14,27	**3,4**	14 E1	52 R1	**2,1**	13 E1	39 R1	**6,6**	17 E1	54 R1	**4,4**	15 E1	40 R1	28	382
15,58	**3,3**	14 E1	51 R1	**2,0**	13 E1	39 R1	**6,6**	17 E1	53 R1	**4,3**	15 E1	40 R1	30	383
17,02	**3,4**	14 E1	51 R1	**2,2**	13 E1	38 R1	**6,6**	17 E1	53 R1	**4,4**	15 E1	40 R1		
21,31	**3,5**	13 E1	49 R1	**2,3**	13 E1	37 R1	**6,5**	16 E1	51 R1	**4,4**	14 E1	38 R1		
24,75	**3,4**	13 E1	47 R1	**2,3**	12 E1	35 R1	**6,3**	15 E1	49 R1	**4,3**	14 E1	36 R1		
29,91	**3,3**	12 E1	44 R1	**2,3**	12 E1	33 R1	**6,0**	14 E1	46 R1	**4,1**	13 E1	34 R1		
37,46	**3,1**	11 E1	41 R1	**2,1**	11 E1	31 R1	**5,6**	13 E1	42 R1	**3,8**	12 E1	32 R1		
43,50	**2,8**	10 E1	37 R1	**1,9**	10 E1	28 R1	**5,1**	12 E1	39 R1	**3,5**	11 E1	29 R1		
52,56	**2,5**	9,0 E1	32 R1	**1,7**	8,5 E1	24 R1	**4,4**	11 E1	34 R1	**3,1**	10 E1	25 R1		
58,87	**2,3**	8,2 E1	30 R1	**1,5**	8,0 E1	23 R1	**4,4**	10 E1	31 R1	**3,0**	8,7 E1	23 R1	34	382
64,28	**2,3**	8,2 E1	30 R1	**1,5**	7,5 E1	22 R1	**4,4**	9,9 E1	31 R1	**2,9**	8,7 E1	23 R1	36	383
70,19	**2,3**	8,2 E1	29 R1	**1,5**	7,5 E1	22 R1	**4,4**	9,9 E1	30 R1	**3,0**	8,7 E1	23 R1		
87,91	**2,3**	7,8 E1	27 R1	**1,5**	7,5 E1	21 R1	**4,2**	9,3 E1	29 R1	**2,9**	8,1 E1	22 R1		
102,09	**2,3**	7,4 E1	26 R1	**1,5**	7,0 E1	20 R1	**4,1**	9,0 E1	28 R1	**2,8**	7,8 E1	21 R1		
123,36	**2,2**	7,0 E1	25 R1	**1,5**	6,5 E1	19 R1	**3,9**	8,4 E1	26 R1	**2,7**	7,5 E1	20 R1		
154,52	**2,1**	6,8 E1	24 R1	**1,4**	6,5 E1	18 R1	**3,7**	8,1 E1	25 R1	**2,6**	7,2 E1	19 R1		
179,44	**2,0**	6,4 E1	23 R1	**1,4**	6,0 E1	17 R1	**3,6**	7,8 E1	24 R1	**2,5**	6,9 E1	18 R1		
216,82	**1,9**	6,2 E1	22 R1	**1,3**	6,0 E1	16 R1	**3,4**	7,5 E1	23 R1	**2,4**	6,6 E1	17 R1		
271,57	**1,8**	5,6 E1	20 R1	**1,2**	5,5 E1	15 R1	**3,1**	6,9 E1	21 R1	**2,2**	6,0 E1	16 R1		
315,38	**1,6**	5,2 E1	19 R1	**1,1**	5,0 E1	14 R1	**2,9**	6,3 E1	20 R1	**2,0**	5,7 E1	15 R1		
381,08	**1,4**	4,6 E1	16 R1	**1,0**	4,5 E1	12 R1	**2,6**	5,7 E1	17 R1	**1,8**	4,8 E1	13 R1		
289,53	**1,5**	5,0 E1	18 R1	**1,0**	4,5 E1	13 R1	**2,9**	6,0 E1	18 R1	**2,0**	5,4 E1	14 R1	39	382
362,65	**1,5**	4,8 E1	17 R1	**1,0**	4,5 E1	13 R1	**2,8**	5,7 E1	17 R1	**1,9**	5,1 E1	13 R1	41	383
421,14	**1,5**	4,6 E1	16 R1	**1,0**	4,5 E1	12 R1	**2,7**	5,7 E1	17 R1	**1,8**	4,8 E1	13 R1		
508,87	**1,4**	4,2 E1	15 R1	**1,0**	4,0 E1	11 R1	**2,5**	5,4 E1	16 R1	**1,8**	4,5 E1	12 R1		
637,38	**1,3**	4,0 E1	14 R1	**0,9**	4,0 E1	11 R1	**2,4**	5,1 E1	15 R1	**1,7**	4,5 E1	11 R1		
740,18	**1,3**	3,8 E1	13 R1	**0,9**	3,5 E1	10 R1	**2,3**	4,8 E1	14 R1	**1,6**	4,2 E1	11 R1		
894,38	**1,2**	3,6 E1	13 R1	**0,8**	3,5 E1	10 R1	**2,2**	4,5 E1	13 R1	**1,5**	3,9 E1	10 R1		
1120,24	**1,2**	3,6 E1	12 R1	**0,8**	3,5 E1	9,0 R1	**2,1**	4,2 E1	13 R1	**1,4**	3,9 E1	10 R1		
1300,92	**1,1**	3,4 E1	12 R1	**0,8**	3,5 E1	9,0 R1	**2,0**	4,2 E1	12 R1	**1,4**	3,6 E1	9,0 R1		
1571,95	**1,1**	3,2 E1	11 R1	**0,7**	3,0 E1	9,0 R1	**1,9**	3,9 E1	12 R1	**1,3**	3,6 E1	9,0 R1		
1968,90	**1,0**	3,0 E1	10 R1	**0,7**	3,0 E1	8,0 R1	**1,8**	3,6 E1	11 R1	**1,2**	3,3 E1	8,0 R1		
2286,47	**0,9**	2,8 E1	10 R1	**0,7**	2,5 E1	7,0 R1	**1,6**	3,3 E1	10 R1	**1,2**	3,0 E1	8,0 R1		
2762,82	**0,8**	2,4 E1	9,0 R1	**0,6**	2,5 E1	7,0 R1	**1,4**	3,0 E1	9,0 R1	**1,0**	2,7 E1	7,0 R1		
3,78	**6,4**	30 E1	114 R1	**3,8**	29 E1	86 R1	**13**	35 E1	119 R1	**8,5**	32 E1	89 R1	27	384
4,13	**6,6**	30 E1	113 R1	**4,1**	28 E1	85 R1	**13**	35 E1	117 R1	**8,7**	32 E1	88 R1	29	385
5,17	**6,5**	27 E1	102 R1	**4,2**	26 E1	77 R1	**12**	32 E1	106 R1	**8,3**	29 E1	79 R1		
6,00	**6,2**	25 E1	93 R1	**4,1**	24 E1	70 R1	**12**	29 E1	97 R1	**7,8**	26 E1	72 R1		
7,25	**5,3**	21 E1	78 R1	**3,6**	20 E1	59 R1	**9,8**	25 E1	81 R1	**6,7**	23 E1	61 R1		
14,27	**4,1**	15 E1	56 R1	**2,6**	15 E1	42 R1	**8,0**	19 E1	59 R1	**5,3**	17 E1	44 R1	33	384
15,58	**4,1**	15 E1	56 R1	**2,6**	15 E1	42 R1	**8,0**	19 E1	58 R1	**5,3**	16 E1	44 R1	35	385
17,02	**4,2**	15 E1	56 R1	**2,7**	15 E1	42 R1	**8,0**	19 E1	58 R1	**5,4**	16 E1	43 R1		
21,31	**4,2**	15 E1	53 R1	**2,8**	14 E1	40 R1	**7,9**	18 E1	55 R1	**5,4**	16 E1	42 R1		
24,75	**4,2**	14 E1	51 R1	**2,8**	14 E1	38 R1	**7,7**	17 E1	53 R1	**5,2**	15 E1	40 R1		
29,91	**4,0**	14 E1	48 R1	**2,7**	13 E1	36 R1	**7,3**	16 E1	50 R1	**5,0**	14 E1	38 R1		
37,46	**3,7**	12 E1	44 R1	**2,5**	12 E1	33 R1	**6,7**	15 E1	46 R1	**4,6**	13 E1	35 R1		
43,50	**3,5**	12 E1	41 R1	**2,4**	11 E1	31 R1	**6,2**	14 E1	43 R1	**4,3**	12 E1	32 R1		
52,56	**3,0**	10 E1	36 R1	**2,1**	9,5 E1	27 R1	**5,4**	12 E1	37 R1	**3,7**	11 E1	28 R1		
58,87	**2,8**	9,2 E1	32 R1	**1,8**	8,5 E1	24 R1	**5,3**	11 E1	34 R1	**3,6**	10 E1	25 R1	38	384
64,28	**2,8**	9,0 E1	32 R1	**1,8**	8,5 E1	24 R1	**5,3**	11 E1	34 R1	**3,5**	10 E1	25 R1	40	385
70,19	**2,8**	9,0 E1	31 R1	**1,8**	8,5 E1	24 R1	**5,2**	11 E1	33 R1	**3,5**	10 E1	25 R1		
87,91	**2,8**	8,6 E1	30 R1	**1,9**	8,0 E1	22 R1	**5,0**	11 E1	31 R1	**3,5**	9,0 E1	23 R1		
102,09	**2,7**	8,2 E1	28 R1	**1,8**	7,5 E1	21 R1	**4,9**	10 E1	30 R1	**3,4**	8,7 E1	22 R1		
123,36	**2,6**	7,8 E1	27 R1	**1,8**	7,5 E1	20 R1	**4,6**	9,6 E1	28 R1	**3,2**	8,4 E1	21 R1		



Motorsuz Planet Redüktörler
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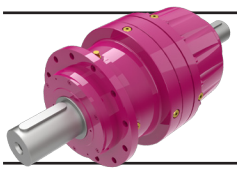
n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1203L	**2,00**	2,00	2,00	2,00	**154,52**	**6,1**	**1,5**	0,86	3,00	34	2,4
RT1203L	**2,00**	2,00	2,00	2,00	**179,44**	**5,3**	**1,3**	0,85	3,00	35	2,4
	2,00	2,00	2,00	2,00	**216,82**	**4,4**	**1,1**	0,85	3,00	37	2,4
	2,00	2,00	2,00	2,00	**271,57**	**3,5**	**0,88**	0,84	3,00	39	2,4
	1,80	1,87	2,00	2,00	**315,38**	**3,0**	**0,68**	0,83	3,00	39	2,4
	1,42	1,60	1,84	1,97	**381,08**	**2,5**	**0,46**	0,81	3,00	40	2,4
PT1204L	**2,00**	2,00	2,00	2,00	**289,53**	**3,3**	**0,90**	0,77	3,00	39	2,4
RT1204L	**2,00**	2,00	2,00	2,00	**362,65**	**2,6**	**0,71**	0,77	3,00	39	2,4
	2,00	2,00	2,00	2,00	**421,14**	**2,3**	**0,61**	0,78	3,00	39	2,4
	2,00	2,00	2,00	2,00	**508,87**	**1,9**	**0,50**	0,78	3,00	39	2,4
	2,00	2,00	2,00	2,00	**637,38**	**1,5**	**0,41**	0,77	3,00	39	2,4
	2,00	2,00	2,00	2,00	**740,18**	**1,3**	**0,35**	0,76	3,00	39	2,4
	2,00	2,00	2,00	2,00	**894,38**	**1,1**	**0,30**	0,74	3,00	39	2,4
	2,00	2,00	2,00	2,00	**1120,24**	**0,85**	**0,24**	0,73	3,00	39	2,4
	2,00	2,00	2,00	2,00	**1300,92**	**0,73**	**0,21**	0,72	3,00	39	2,4
	2,00	2,00	2,00	2,00	**1571,95**	**0,60**	**0,18**	0,70	3,00	39	2,4
	2,00	2,00	2,00	2,00	**1968,90**	**0,48**	**0,15**	0,68	3,00	39	2,4
	2,00	2,00	2,00	2,00	**2286,47**	**0,42**	**0,13**	0,65	3,00	39	2,4
	1,91	2,00	2,00	2,00	**2762,82**	**0,34**	**0,11**	0,60	3,00	39	2,4
PT1501L	**1,94**	2,39	2,58	2,62	**3,60**	**264**	**56**	0,96	3,72	16	5,9
RT1501L	**2,03**	2,50	2,99	3,03	**4,25**	**224**	**50**	0,96	3,72	17	5,9
	2,12	2,53	2,59	2,63	**5,33**	**178**	**41**	0,96	3,72	18	5,9
	2,11	2,23	2,35	2,39	**6,20**	**153**	**36**	0,95	3,72	19	5,9
	1,46	1,54	1,66	1,75	**7,50**	**127**	**20**	0,95	3,50	20	5,9
PT1502L	**2,56**	2,64	2,74	2,79	**13,60**	**70**	**20**	0,92	3,72	24	2,4
RT1502L	**3,05**	3,09	3,10	3,10	**17,53**	**54**	**19**	0,92	3,72	26	2,4
	3,07	3,10	3,10	3,10	**21,96**	**43**	**15**	0,92	3,72	28	2,4
	3,08	3,10	3,10	3,10	**25,50**	**37**	**13**	0,92	3,72	29	2,4
	2,67	2,71	2,77	2,81	**32,00**	**30**	**9,1**	0,91	3,72	31	2,4
	2,68	2,72	2,78	2,83	**38,67**	**25**	**7,6**	0,91	3,72	33	2,4
	2,41	2,47	2,53	2,57	**44,95**	**21**	**5,9**	0,91	3,72	34	2,4
	1,68	1,78	1,98	2,29	**54,38**	**17**	**3,4**	0,90	3,72	36	2,4
PT1503L	**2,63**	2,72	2,84	2,90	**51,38**	**18**	**5,9**	0,87	3,72	35	2,4
RT1503L	**3,10**	3,10	3,10	3,10	**66,23**	**14**	**5,4**	0,87	3,72	38	2,4
	3,10	3,10	3,10	3,10	**72,32**	**13**	**4,9**	0,87	3,72	40	2,4
	3,10	3,10	3,10	3,10	**90,58**	**10**	**3,9**	0,87	3,72	42	2,4
	3,10	3,10	3,10	3,10	**105,19**	**9,0**	**3,4**	0,87	3,72	44	2,4
	3,10	3,10	3,10	3,10	**127,10**	**7,5**	**2,8**	0,86	3,72	47	2,4
	3,10	3,10	3,10	3,10	**159,20**	**6,0**	**2,2**	0,86	3,72	50	2,4
	3,10	3,10	3,10	3,10	**184,88**	**5,1**	**1,9**	0,86	3,72	52	2,4
	2,80	2,85	3,10	3,10	**232,00**	**4,1**	**1,4**	0,85	3,72	56	2,4
	2,81	2,92	3,10	3,10	**280,33**	**3,4**	**1,2**	0,85	3,72	59	2,4
	2,56	2,72	3,10	3,10	**325,89**	**2,9**	**0,9**	0,84	3,72	62	2,4
	2,11	2,45	2,87	3,10	**394,22**	**2,4**	**0,65**	0,82	3,72	63	2,4
PT1504L	**2,74**	2,83	3,10	3,10	**194,09**	**4,9**	**1,8**	0,78	3,72	53	2,4
RT1504L	**3,10**	3,10	3,10	3,10	**250,20**	**3,8**	**1,6**	0,78	3,72	57	2,4
	3,10	3,10	3,10	3,10	**273,20**	**3,5**	**1,5**	0,77	3,72	59	2,4
	3,10	3,10	3,10	3,10	**298,31**	**3,2**	**1,3**	0,78	3,72	60	2,4
	3,10	3,10	3,10	3,10	**373,63**	**2,5**	**1,1**	0,79	3,72	60	2,4
	3,10	3,10	3,10	3,10	**433,90**	**2,2**	**0,9**	0,79	3,72	60	2,4
	3,10	3,10	3,10	3,10	**524,29**	**1,8**	**0,7**	0,79	3,72	60	2,4
	3,10	3,10	3,10	3,10	**656,69**	**1,4**	**0,60**	0,78	3,72	60	2,4
	3,10	3,10	3,10	3,10	**762,61**	**1,2**	**0,52**	0,77	3,72	60	2,4
	3,10	3,10	3,10	3,10	**921,49**	**1,0**	**0,44**	0,76	3,72	60	2,4
	3,10	3,10	3,10	3,10	**1154,18**	**0,82**	**0,35**	0,75	3,72	60	2,4
	3,10	3,10	3,10	3,10	**1340,34**	**0,71**	**0,31**	0,75	3,72	60	2,4
	3,10	3,10	3,10	3,10	**1619,58**	**0,59**	**0,26**	0,73	3,72	60	2,4
	3,10	3,10	3,10	3,10	**2032,42**	**0,47**	**0,21**	0,71	3,72	60	2,4
	3,10	3,10	3,10	3,10	**2362,68**	**0,40**	**0,19**	0,69	3,72	60	2,4
	3,02	3,10	3,10	3,10	**2858,09**	**0,33**	**0,16**	0,65	3,72	60	2,4



Motorsuz Planet Redüktörler
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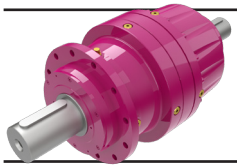
Planetengetriebe

n_1=950

Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												**Ağırlık** *Weight* Gewicht ~ [kg]	**Ölçü Sayfası** *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
154,52	**2,5**	7,4 E1	26 R1	**1,7**	7,0 E1	19 R1	**4,4**	9,0 E1	27 R1	**3,1**	8,1 E1	20 R1	38	384
179,44	**2,4**	7,2 E1	25 R1	**1,6**	6,5 E1	19 R1	**4,3**	8,7 E1	26 R1	**3,0**	7,8 E1	20 R1	40	385
216,82	**2,3**	6,8 E1	23 R1	**1,6**	6,5 E1	18 R1	**4,1**	8,4 E1	25 R1	**2,8**	7,2 E1	19 R1		
271,57	**2,1**	6,4 E1	22 R1	**1,5**	6,0 E1	17 R1	**3,8**	7,8 E1	23 R1	**2,6**	6,9 E1	17 R1		
315,38	**2,0**	5,8 E1	20 R1	**1,4**	5,5 E1	15 R1	**3,5**	7,2 E1	21 R1	**2,4**	6,3 E1	16 R1		
381,08	**1,7**	5,2 E1	18 R1	**1,2**	5,0 E1	14 R1	**3,1**	6,3 E1	19 R1	**2,1**	5,4 E1	14 R1		
289,53	**1,9**	5,6 E1	19 R1	**1,3**	5,0 E1	14 R1	**3,5**	6,9 E1	20 R1	**2,4**	6,0 E1	15 R1	44	384
362,65	**1,9**	5,2 E1	18 R1	**1,3**	5,0 E1	13 R1	**3,4**	6,6 E1	19 R1	**2,3**	5,7 E1	14 R1	46	385
421,14	**1,8**	5,0 E1	17 R1	**1,2**	4,5 E1	13 R1	**3,2**	6,3 E1	18 R1	**2,2**	5,4 E1	14 R1		
508,87	**1,7**	4,8 E1	16 R1	**1,2**	4,5 E1	12 R1	**3,1**	6,0 E1	17 R1	**2,1**	5,1 E1	13 R1		
637,38	**1,6**	4,4 E1	15 R1	**1,1**	4,0 E1	11 R1	**2,9**	5,7 E1	16 R1	**2,0**	4,8 E1	12 R1		
740,18	**1,6**	4,2 E1	15 R1	**1,1**	4,0 E1	11 R1	**2,8**	5,4 E1	15 R1	**1,9**	4,8 E1	12 R1		
894,38	**1,5**	4,0 E1	14 R1	**1,0**	4,0 E1	10 R1	**2,6**	5,1 E1	15 R1	**1,8**	4,5 E1	11 R1		
1120,24	**1,4**	3,8 E1	13 R1	**1,0**	3,5 E1	10 R1	**2,5**	4,8 E1	14 R1	**1,8**	4,2 E1	11 R1		
1300,92	**1,4**	3,8 E1	13 R1	**1,0**	3,5 E1	10 R1	**2,4**	4,8 E1	13 R1	**1,7**	4,2 E1	10 R1		
1571,95	**1,3**	3,6 E1	12 R1	**0,9**	3,5 E1	9,0 R1	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1		
1968,90	**1,2**	3,4 E1	11 R1	**0,9**	3,0 E1	9,0 R1	**2,2**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1		
2286,47	**1,1**	3,2 E1	11 R1	**0,8**	3,0 E1	8,0 R1	**2,0**	3,9 E1	11 R1	**1,4**	3,3 E1	8,0 R1		
2762,82	**1,0**	2,8 E1	9,0 R1	**0,7**	2,5 E1	7,0 R1	**1,8**	3,6 E1	10 R1	**1,2**	3,0 E1	8,0 R1		
3,60	**11**	61 E2	134 R1	**6,5**	58 E2	100 R1	**23**	70 E2	142 R1	**15**	63 E2	105 R1	54	386
4,25	**12**	60 E2	132 R1	**7,3**	57 E2	99 R1	**23**	69 E2	140 R1	**15**	63 E2	104 R1	64	387
5,33	**11**	54 E2	118 R1	**7,3**	52 E2	89 R1	**21**	43 E1	125 R1	**14**	56 E2	93 R1		
6,20	**11**	49 E2	108 R1	**7,0**	47 E2	81 R1	**20**	39 E1	114 R1	**13**	34 E1	85 R1		
7,50	**9,1**	27 E2	92 R1	**6,2**	25 E1	69 R1	**17**	33 E1	97 R1	**12**	29 E1	72 R1		
13,60	**5,3**	28 E2	63 R1	**3,3**	27 E2	47 R1	**10**	22 E1	66 R1	**6,9**	19 E1	50 R1	46	386
17,53	**5,4**	28 E2	62 R1	**3,5**	27 E2	46 R1	**10**	22 E1	65 R1	**7,0**	19 E1	49 R1	56	387
21,96	**5,5**	17 E1	60 R1	**3,7**	16 E1	45 R1	**10**	21 E1	63 R1	**7,0**	18 E1	47 R1		
25,50	**5,5**	17 E1	57 R1	**3,7**	16 E1	43 R1	**10**	20 E1	60 R1	**6,9**	18 E1	45 R1		
32,00	**5,0**	15 E1	53 R1	**3,4**	14 E1	39 R1	**9,2**	19 E1	55 R1	**6,3**	16 E1	41 R1		
38,67	**4,8**	14 E1	50 R1	**3,3**	14 E1	37 R1	**8,8**	18 E1	52 R1	**6,1**	15 E1	39 R1		
44,95	**4,5**	13 E1	46 R1	**3,1**	13 E1	35 R1	**8,2**	17 E1	48 R1	**5,6**	14 E1	36 R1		
54,38	**4,0**	12 E1	41 R1	**2,7**	11 E1	31 R1	**7,2**	15 E1	43 R1	**5,0**	13 E1	32 R1		
51,38	**3,3**	10 E1	36 R1	**2,1**	9,5 E1	27 R1	**6,3**	13 E1	38 R1	**4,2**	11 E1	28 R1	52	386
66,23	**3,2**	10 E1	35 R1	**2,0**	9,0 E1	26 R1	**6,2**	13 E1	37 R1	**4,2**	11 E1	28 R1	62	387
72,32	**3,3**	10 E1	34 R1	**2,1**	9,0 E1	26 R1	**6,2**	13 E1	36 R1	**4,2**	11 E1	27 R1		
90,58	**3,3**	10 E1	33 R1	**2,2**	9,0 E1	25 R1	**6,0**	12 E1	34 R1	**4,1**	10 E1	26 R1		
105,19	**3,2**	9,2 E1	31 R1	**2,2**	8,5 E1	24 R1	**5,8**	11 E1	33 R1	**4,0**	10 E1	25 R1		
127,10	**3,1**	8,6 E1	29 R1	**2,1**	8,0 E1	22 R1	**5,6**	11 E1	31 R1	**3,8**	9,3 E1	23 R1		
159,20	**3,0**	8,4 E1	28 R1	**2,0**	8,0 E1	21 R1	**5,3**	11 E1	30 R1	**3,7**	9,0 E1	22 R1		
184,88	**2,9**	8,0 E1	27 R1	**2,0**	7,5 E1	21 R1	**5,2**	10 E1	29 R1	**3,6**	8,7 E1	22 R1		
232,00	**2,7**	7,4 E1	25 R1	**1,8**	7,0 E1	19 R1	**4,8**	9,3 E1	27 R1	**3,3**	8,1 E1	20 R1		
280,33	**2,5**	7,0 E1	24 R1	**1,7**	6,5 E1	18 R1	**4,5**	8,7 E1	25 R1	**3,1**	7,5 E1	19 R1		
325,89	**2,4**	6,6 E1	22 R1	**1,6**	6,0 E1	17 R1	**4,2**	8,4 E1	24 R1	**2,9**	7,2 E1	18 R1		
394,22	**2,1**	5,8 E1	20 R1	**1,5**	5,5 E1	15 R1	**3,8**	7,5 E1	21 R1	**2,6**	6,3 E1	16 R1		
194,09	**2,2**	6,4 E1	22 R1	**1,4**	6,0 E1	16 R1	**4,2**	8,1 E1	23 R1	**2,8**	6,9 E1	17 R1	57	386
250,20	**2,2**	6,2 E1	21 R1	**1,4**	6,0 E1	16 R1	**4,1**	7,8 E1	23 R1	**2,8**	6,9 E1	17 R1	67	387
273,20	**2,1**	6,2 E1	21 R1	**1,4**	5,5 E1	16 R1	**4,1**	7,8 E1	22 R1	**2,7**	6,6 E1	17 R1		
298,31	**2,1**	6,0 E1	21 R1	**1,4**	5,5 E1	15 R1	**4,0**	7,8 E1	22 R1	**2,7**	6,6 E1	16 R1		
373,63	**2,1**	5,8 E1	19 R1	**1,4**	5,5 E1	15 R1	**3,9**	7,2 E1	21 R1	**2,6**	6,3 E1	15 R1		
433,90	**2,1**	5,6 E1	18 R1	**1,4**	5,0 E1	14 R1	**3,7**	6,9 E1	20 R1	**2,6**	6,0 E1	15 R1		
524,29	**2,0**	5,2 E1	17 R1	**1,4**	5,0 E1	13 R1	**3,5**	6,6 E1	19 R1	**2,5**	5,7 E1	14 R1		
656,69	**1,9**	5,0 E1	17 R1	**1,3**	4,5 E1	12 R1	**3,3**	6,3 E1	18 R1	**2,3**	5,4 E1	13 R1		
762,61	**1,8**	4,8 E1	16 R1	**1,2**	4,5 E1	12 R1	**3,2**	6,0 E1	17 R1	**2,2**	5,1 E1	13 R1		
921,49	**1,7**	4,4 E1	15 R1	**1,2**	4,0 E1	11 R1	**3,0**	5,7 E1	16 R1	**2,1**	4,8 E1	12 R1		
1154,18	**1,6**	4,4 E1	14 R1	**1,1**	4,0 E1	11 R1	**2,9**	5,4 E1	15 R1	**2,0**	4,8 E1	12 R1		
1340,34	**1,6**	4,2 E1	14 R1	**1,1**	4,0 E1	11 R1	**2,8**	5,4 E1	15 R1	**2,0**	4,5 E1	11 R1		
1619,58	**1,5**	4,0 E1	13 R1	**1,1**	4,0 E1	10 R1	**2,7**	5,1 E1	14 R1	**1,9**	4,2 E1	11 R1		
2032,42	**1,4**	3,6 E1	12 R1	**1,0**	3,5 E1	9,0 R1	**2,5**	4,8 E1	13 R1	**1,7**	3,9 E1	10 R1		
2362,68	**1,3**	3,4 E1	12 R1	**0,9**	3,5 E1	9,0 R1	**2,3**	4,5 E1	12 R1	**1,6**	3,9 E1	9,0 R1		
2858,09	**1,2**	3,2 E1	10 R1	**0,8**	3,0 E1	8,0 R1	**2,1**	3,9 E1	11 R1	**1,5**	3,3 E1	8,0 R1		



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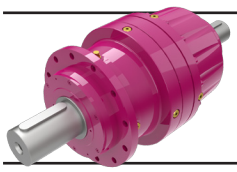
n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1601L **RT1601L**	**2,62** **2,74** **2,85** **2,93** **2,21**	3,22 3,37 3,51 3,61 2,30	4,24 4,44 4,45 3,68 2,41	4,76 5,00 4,51 3,73 2,51	**3,60** **4,25** **5,33** **6,20** **7,50**	**264** **224** **178** **153** **127**	**75** **67** **56** **49** **31**	0,96 0,96 0,96 0,96 0,95	5,83 6,10 6,35 6,53 5,33	16 17 18 19 20	5,9 5,9 5,9 5,9 5,9
PT1602L **RT1602L**	**3,63** **4,33** **4,57** **4,69** **4,60** **4,62** **3,82** **2,48**	4,47 5,00 5,00 5,00 4,65 4,67 3,87 2,57	5,00 5,00 5,00 5,00 4,73 4,75 3,94 2,77	5,00 5,00 5,00 5,00 4,79 4,81 3,98 3,08	**13,60** **17,53** **21,96** **25,50** **32,00** **38,67** **44,95** **54,38**	**70** **54** **43** **37** **30** **25** **21** **17**	**29** **27** **22** **20** **16** **13** **9,3** **5,0**	0,93 0,93 0,92 0,92 0,92 0,92 0,91 0,91	7,50 7,50 7,50 7,50 7,50 7,50 7,50 6,07	24 26 28 29 31 33 34 36	2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4
PT1603L **RT1603L**	**5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **4,79** **4,80** **3,98** **2,92**	5,00 5,00 5,00 5,00 5,00 5,00 5,00 4,85 4,94 4,17 3,25	5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 4,63 3,66	5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 4,00	**51,38** **66,23** **72,32** **90,58** **105,19** **127,10** **159,20** **184,88** **232,00** **280,33** **325,89** **394,22**	**18** **14** **13** **10** **9,0** **7,5** **6,0** **5,1** **4,1** **3,4** **2,9** **2,4**	**11** **8,6** **7,9** **6,3** **5,4** **4,5** **3,6** **3,1** **2,4** **2,0** **1,4** **0,88**	0,87 0,87 0,87 0,87 0,87 0,87 0,87 0,87 0,86 0,85 0,85 0,84	7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 6,82	35 38 40 42 44 47 50 52 54 54 58 61	2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4
PT1604L **RT1604L**	**4,28** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **4,84** **3,85**	4,44 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 4,20	4,81 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 4,72	5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00	**194,09** **250,20** **273,20** **298,31** **373,63** **433,90** **524,29** **656,69** **762,61** **921,49** **1154,18** **1340,34** **1619,58** **2032,42** **2362,68** **2858,09**	**4,9** **3,8** **3,5** **3,2** **2,5** **2,2** **1,8** **1,4** **1,2** **1,0** **0,82** **0,71** **0,59** **0,47** **0,40** **0,33**	**2,7** **2,5** **2,3** **2,1** **1,7** **1,4** **1,2** **1,0** **0,83** **0,70** **0,56** **0,48** **0,41** **0,33** **0,28** **0,19**	0,80 0,80 0,80 0,80 0,80 0,80 0,80 0,79 0,79 0,78 0,77 0,77 0,76 0,74 0,72 0,69	7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50	53 57 59 53 53 53 53 53 53 53 53 53 53 53 53 58	2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4
PT1901L **RT1901L**	**3,55** **3,71** **3,87** **3,98** **3,64**	4,37 4,57 4,77 4,89 3,79	5,75 6,02 6,28 5,49 3,98	6,71 7,41 6,50 5,77 4,14	**3,60** **4,25** **5,33** **6,20** **7,50**	**264** **224** **178** **153** **127**	**102** **90** **75** **67** **51**	0,97 0,97 0,96 0,96 0,95	7,90 8,27 8,62 8,85 8,76	27 29 31 32 34	10 10 10 10 10
PT1902L **RT1902L**	**5,21** **5,73** **6,14** **6,42** **6,19** **6,65** **5,54** **4,07**	6,28 7,06 7,56 7,91 6,55 6,76 5,82 4,22	6,56 7,90 7,95 7,99 7,06 6,90 6,30 4,57	6,78 8,02 8,07 8,11 7,45 7,01 6,39 5,09	**12,96** **18,06** **22,67** **26,35** **31,88** **40,00** **46,50** **56,25**	**73** **53** **42** **36** **30** **24** **20** **17**	**43** **34** **29** **26** **21** **18** **13** **7,9**	0,93 0,93 0,93 0,93 0,93 0,92 0,92 0,91	11,6 12,8 13,7 14,3 14,9 15,8 13,5 9,95	40 44 47 50 53 56 59 62	5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9
PT1903L **RT1903L**	**7,87** **7,90** **7,92** **7,96** **7,99**	7,99 8,02 8,04 8,08 8,11	8,15 8,18 8,20 8,24 8,31	8,37 8,50 8,50 8,50 8,50	**57,80** **68,24** **74,51** **93,32** **108,38**	**16** **14** **13** **10** **8,8**	**15** **13** **12** **10** **8,4**	0,88 0,88 0,88 0,88 0,88	18,1 19,0 19,5 19,7 19,8	62 66 68 73 76	2,4 2,4 2,4 2,4 2,4



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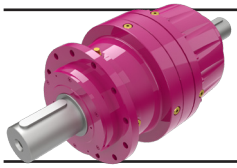
n_1=950

Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlessenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
3,60	**13**	100 E3	150 R1	**8,0**	96 E3	112 R1	**27**	79 E2	159 R1	**18**	103 E3	118 R1	66	388
4,25	**14**	68 E2	148 R1	**8,9**	95 E3	110 R1	**27**	78 E2	157 R1	**18**	71 E2	117 R1	76	389
5,33	**13**	61 E2	132 R1	**8,8**	58 E2	99 R1	**25**	70 E2	141 R1	**17**	64 E2	105 R1		
6,20	**13**	56 E2	121 R1	**8,4**	53 E2	90 R1	**23**	64 E2	128 R1	**16**	58 E2	95 R1		
7,50	**11**	30 E1	103 R1	**7,4**	45 E2	77 R1	**20**	38 E1	109 R1	**14**	33 E1	81 R1		
13,60	**6,3**	32 E2	70 R1	**3,9**	31 E2	53 R1	**12**	37 E2	74 R1	**8,2**	33 E2	55 R1	62	388
17,53	**6,4**	32 E2	69 R1	**4,1**	30 E2	52 R1	**12**	36 E2	73 R1	**8,2**	33 E2	55 R1	72	389
21,96	**6,5**	30 E2	66 R1	**4,4**	29 E2	50 R1	**12**	24 E1	70 R1	**8,3**	32 E2	52 R1		
25,50	**6,5**	29 E2	64 R1	**4,4**	28 E2	48 R1	**12**	23 E1	68 R1	**8,1**	20 E1	51 R1		
32,00	**5,9**	17 E1	59 R1	**4,0**	16 E1	44 R1	**11**	21 E1	62 R1	**7,5**	19 E1	46 R1		
38,67	**5,7**	16 E1	55 R1	**3,9**	15 E1	42 R1	**10**	20 E1	59 R1	**7,1**	17 E1	44 R1		
44,95	**5,3**	15 E1	51 R1	**3,6**	14 E1	39 R1	**9,6**	19 E1	54 R1	**6,6**	16 E1	41 R1		
54,38	**4,7**	13 E1	45 R1	**3,2**	13 E1	34 R1	**8,5**	17 E1	48 R1	**5,9**	14 E1	36 R1		
51,38	**3,8**	11 E1	39 R1	**2,4**	17 E2	29 R1	**7,2**	14 E1	41 R1	**4,8**	12 E1	31 R1	68	388
66,23	**3,7**	11 E1	38 R1	**2,4**	10 E1	29 R1	**7,1**	14 E1	41 R1	**4,8**	12 E1	30 R1	78	389
72,32	**3,8**	11 E1	38 R1	**2,4**	10 E1	28 R1	**7,1**	14 E1	40 R1	**4,8**	12 E1	30 R1		
90,58	**3,7**	11 E1	36 R1	**2,5**	10 E1	27 R1	**6,9**	13 E1	38 R1	**4,7**	11 E1	28 R1		
105,19	**3,7**	10 E1	34 R1	**2,5**	9,5 E1	26 R1	**6,7**	13 E1	36 R1	**4,6**	11 E1	27 R1		
127,10	**3,5**	10 E1	32 R1	**2,4**	9,0 E1	24 R1	**6,4**	12 E1	34 R1	**4,4**	11 E1	26 R1		
159,20	**3,4**	9,2 E1	31 R1	**2,3**	8,5 E1	24 R1	**6,1**	12 E1	33 R1	**4,2**	10 E1	25 R1		
184,88	**3,3**	9,0 E1	30 R1	**2,3**	8,5 E1	23 R1	**5,9**	11 E1	32 R1	**4,1**	10 E1	24 R1		
232,00	**3,1**	8,4 E1	28 R1	**2,1**	7,5 E1	21 R1	**5,5**	11 E1	30 R1	**3,8**	9,0 E1	22 R1		
280,33	**2,9**	7,8 E1	27 R1	**2,0**	7,5 E1	20 R1	**5,2**	9,9 E1	28 R1	**3,6**	8,4 E1	21 R1		
325,89	**2,7**	7,4 E1	25 R1	**1,9**	7,0 E1	19 R1	**4,9**	9,3 E1	26 R1	**3,4**	8,1 E1	20 R1		
394,22	**2,4**	6,6 E1	22 R1	**1,7**	6,0 E1	17 R1	**4,3**	8,4 E1	23 R1	**3,0**	7,2 E1	18 R1		
194,09	**2,4**	6,8 E1	23 R1	**1,5**	6,5 E1	18 R1	**4,6**	8,7 E1	25 R1	**3,1**	7,5 E1	19 R1	73	388
250,20	**2,4**	6,8 E1	23 R1	**1,5**	6,5 E1	17 R1	**4,5**	8,7 E1	25 R1	**3,0**	7,5 E1	18 R1	83	389
273,20	**2,3**	6,6 E1	23 R1	**1,5**	6,0 E1	17 R1	**4,4**	8,4 E1	24 R1	**3,0**	7,2 E1	18 R1		
298,31	**2,3**	6,6 E1	22 R1	**1,5**	6,0 E1	17 R1	**4,4**	8,4 E1	24 R1	**3,0**	7,2 E1	18 R1		
373,63	**2,3**	6,2 E1	21 R1	**1,6**	6,0 E1	16 R1	**4,2**	8,1 E1	22 R1	**2,9**	6,9 E1	17 R1		
433,90	**2,3**	6,0 E1	20 R1	**1,6**	5,5 E1	15 R1	**4,1**	7,5 E1	21 R1	**2,8**	6,6 E1	16 R1		
524,29	**2,2**	5,8 E1	19 R1	**1,5**	5,5 E1	14 R1	**3,9**	7,2 E1	20 R1	**2,7**	6,3 E1	15 R1		
656,69	**2,1**	5,4 E1	18 R1	**1,4**	5,0 E1	14 R1	**3,7**	6,9 E1	19 R1	**2,6**	6,0 E1	14 R1		
762,61	**2,0**	5,2 E1	17 R1	**1,4**	5,0 E1	13 R1	**3,5**	6,6 E1	18 R1	**2,5**	5,7 E1	14 R1		
921,49	**1,9**	5,0 E1	16 R1	**1,3**	4,5 E1	12 R1	**3,3**	6,3 E1	17 R1	**2,3**	5,4 E1	13 R1		
1154,18	**1,8**	4,8 E1	16 R1	**1,3**	4,5 E1	12 R1	**3,2**	6,0 E1	17 R1	**2,2**	5,1 E1	13 R1		
1340,34	**1,7**	4,6 E1	15 R1	**1,2**	4,5 E1	12 R1	**3,1**	5,7 E1	16 R1	**2,2**	5,1 E1	12 R1		
1619,58	**1,7**	4,4 E1	15 R1	**1,2**	4,0 E1	11 R1	**3,0**	5,4 E1	15 R1	**2,1**	4,8 E1	12 R1		
2032,42	**1,5**	4,0 E1	14 R1	**1,1**	4,0 E1	10 R1	**2,8**	5,1 E1	14 R1	**1,9**	4,5 E1	11 R1		
2362,68	**1,5**	3,8 E1	13 R1	**1,0**	3,5 E1	10 R1	**2,6**	4,8 E1	14 R1	**1,8**	4,2 E1	10 R1		
2858,09	**1,3**	3,4 E1	11 R1	**0,9**	3,4 E1	9,0 R1	**2,3**	4,2 E1	12 R1	**1,6**	3,6 E1	9,0 R1		
3,60	**20**	113 E3	167 R1	**12**	107 E3	124 R1	**40**	128 E3	182 R1	**26**	117 E3	134 R1	112	390
4,25	**21**	112 E3	165 R1	**13**	106 E3	123 R1	**40**	94 E2	179 R1	**27**	116 E3	132 R1	126	391
5,33	**20**	100 E3	148 R1	**13**	96 E3	110 R1	**37**	85 E2	161 R1	**25**	75 E2	119 R1		
6,20	**18**	64 E2	135 R1	**12**	87 E3	100 R1	**34**	77 E2	146 R1	**23**	68 E2	108 R1		
7,50	**16**	55 E2	116 R1	**11**	52 E2	86 R1	**29**	49 E1	125 R1	**20**	59 E2	93 R1		
12,96	**10**	54 E3	81 R1	**6,5**	52 E3	60 R1	**20**	46 E2	88 R1	**13**	41 E2	65 R1	114	390
18,06	**11**	38 E2	79 R1	**6,9**	35 E2	59 R1	**20**	33 E1	86 R1	**14**	40 E2	64 R1	128	391
22,67	**11**	36 E2	76 R1	**7,1**	34 E2	56 R1	**19**	32 E1	82 R1	**13**	38 E2	61 R1		
26,35	**10**	35 E2	73 R1	**7,0**	33 E2	54 R1	**19**	31 E1	79 R1	**13**	26 E1	59 R1		
31,88	**9,9**	22 E1	69 R1	**6,7**	31 E2	51 R1	**18**	29 E1	75 R1	**12**	24 E1	55 R1		
40,00	**9,1**	20 E1	63 R1	**6,2**	18 E1	47 R1	**16**	27 E1	68 R1	**11**	22 E1	51 R1		
46,50	**8,4**	19 E1	58 R1	**5,8**	17 E1	44 R1	**15**	25 E1	63 R1	**11**	21 E1	47 R1		
56,25	**7,4**	17 E1	51 R1	**5,1**	15 E1	39 R1	**13**	22 E1	56 R1	**9,3**	18 E1	42 R1		
57,80	**6,9**	22 E2	44 R1	**4,6**	20 E2	33 R1	**13**	20 E1	49 R1	**8,8**	16 E1	36 R1	106	390
68,24	**6,9**	14 E1	44 R1	**4,5**	20 E2	33 R1	**13**	20 E1	48 R1	**8,7**	16 E1	36 R1	120	391
74,51	**6,9**	14 E1	43 R1	**4,6**	13 E1	32 R1	**13**	20 E1	48 R1	**8,7**	16 E1	35 R1		
93,32	**6,8**	14 E1	41 R1	**4,6**	12 E1	31 R1	**12**	19 E1	45 R1	**8,5**	15 E1	34 R1		
108,38	**6,6**	13 E1	39 R1	**4,5**	12 E1	29 R1	**12**	18 E1	43 R1	**8,2**	15 E1	32 R1		



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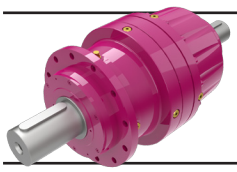
n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1903L	**8,02**	8,14	8,50	8,50	**130,95**	**7,3**	**7,0**	0,87	19,9	80	2,4
RT1903L	**8,06**	8,18	8,50	8,50	**164,33**	**5,8**	**5,6**	0,87	20,0	86	2,4
	8,09	8,21	8,50	8,50	**191,04**	**5,0**	**4,8**	0,87	20,0	90	2,4
	7,15	7,55	8,39	8,50	**231,09**	**4,1**	**3,5**	0,87	17,3	95	2,4
	6,99	7,28	8,23	8,50	**290,00**	**3,3**	**2,8**	0,86	17,3	97	2,4
	6,36	6,70	7,47	8,12	**337,13**	**2,8**	**2,2**	0,86	15,6	98	2,4
	4,80	5,36	6,20	6,93	**407,81**	**2,3**	**1,4**	0,85	11,2	99	2,4
PT1904L	**8,16**	8,35	8,50	8,50	**281,47**	**3,4**	**3,6**	0,81	20,2	95	2,4
RT1904L	**8,18**	8,45	8,50	8,50	**307,34**	**3,1**	**3,3**	0,81	20,2	95	2,4
	8,22	8,50	8,50	8,50	**384,96**	**2,5**	**2,6**	0,81	20,3	95	2,4
	8,24	8,50	8,50	8,50	**447,05**	**2,1**	**2,3**	0,81	20,4	95	2,4
	8,31	8,50	8,50	8,50	**540,18**	**1,8**	**1,9**	0,80	20,5	95	2,4
	8,50	8,50	8,50	8,50	**676,59**	**1,4**	**1,6**	0,80	23,1	95	2,4
	8,50	8,50	8,50	8,50	**785,72**	**1,2**	**1,4**	0,79	20,7	95	2,4
	8,50	8,50	8,50	8,50	**949,41**	**1,0**	**1,1**	0,78	21,1	95	2,4
	8,50	8,50	8,50	8,50	**1191,42**	**0,80**	**0,91**	0,78	21,3	95	2,4
	8,50	8,50	8,50	8,50	**1385,02**	**0,69**	**0,79**	0,78	21,3	95	2,4
	8,50	8,50	8,50	8,50	**1675,43**	**0,57**	**0,66**	0,77	20,7	95	2,4
	8,50	8,50	8,50	8,50	**2102,50**	**0,45**	**0,53**	0,75	20,4	95	2,4
	7,81	8,49	8,50	8,50	**2444,16**	**0,39**	**0,43**	0,74	18,5	96	2,4
	6,58	7,32	8,22	8,50	**2956,64**	**0,32**	**0,31**	0,71	15,3	97	2,4
PT2301L	**4,35**	5,35	7,04	8,67	**3,43**	**277**	**131**	0,96	9,7	34	9,8
RT2301L	**4,50**	5,54	7,29	8,98	**4,09**	**232**	**113**	0,96	10,0	36	9,8
	4,72	5,81	7,65	9,42	**5,25**	**181**	**93**	0,96	10,5	39	9,8
	4,86	5,99	7,48	7,86	**6,23**	**152**	**81**	0,96	10,8	41	9,8
PT2302L	**6,38**	7,86	8,83	8,98	**12,34**	**77**	**56**	0,93	14,2	49	5,9
RT2302L	**6,61**	8,14	10,5	10,7	**14,73**	**65**	**48**	0,93	14,7	53	5,9
	6,95	8,55	11,3	12,4	**17,39**	**55**	**43**	0,93	15,5	56	5,9
	7,44	9,15	10,6	10,8	**21,82**	**44**	**37**	0,93	16,6	60	5,9
	7,78	9,12	9,61	9,77	**25,36**	**37**	**33**	0,93	17,3	63	5,9
	8,16	10,0	11,1	11,3	**32,55**	**29**	**27**	0,92	18,2	68	5,9
	7,65	8,10	8,72	9,21	**39,38**	**24**	**21**	0,92	18,4	72	5,9
	7,52	7,90	8,77	9,83	**46,73**	**20**	**18**	0,91	18,3	75	5,9
PT2303L	**9,85**	10,8	11,2	11,4	**55,64**	**17**	**20**	0,87	21,9	80	2,4
RT2303L	**10,3**	10,8	11,2	11,4	**65,68**	**14**	**18**	0,87	23,0	83	2,4
	10,6	12,5	12,5	12,5	**71,72**	**13**	**17**	0,87	23,7	85	2,4
	11,4	12,5	12,5	12,5	**89,83**	**11**	**14**	0,87	25,3	92	2,4
	11,9	12,5	12,5	12,5	**104,32**	**9,1**	**13**	0,87	25,6	96	2,4
	12,5	12,5	12,5	12,5	**126,05**	**7,5**	**11**	0,86	25,6	101	2,4
	11,0	11,1	11,4	11,6	**158,18**	**6,0**	**8,0**	0,86	25,6	103	2,4
	11,3	11,4	12,5	12,5	**203,00**	**4,7**	**6,4**	0,86	26,7	103	2,4
	11,3	11,5	12,5	12,5	**235,99**	**4,0**	**5,6**	0,85	27,1	103	2,4
	8,84	9,32	10,4	12,0	**285,47**	**3,3**	**3,6**	0,86	21,4	105	2,4
	9,25	10,3	11,8	12,5	**338,80**	**2,8**	**3,2**	0,85	21,4	104	2,4
PT2304L	**9,84**	10,1	10,3	10,5	**210,18**	**4,5**	**5,8**	0,80	23,9	104	2,4
RT2304L	**10,8**	11,1	11,6	11,9	**248,13**	**3,8**	**5,4**	0,80	25,6	103	2,4
	12,5	12,5	12,5	12,5	**270,94**	**3,5**	**5,8**	0,80	25,6	101	2,4
	12,5	12,5	12,5	12,5	**295,84**	**3,2**	**5,3**	0,80	25,6	101	2,4
	12,5	12,5	12,5	12,5	**370,55**	**2,6**	**4,2**	0,80	25,6	101	2,4
	12,5	12,5	12,5	12,5	**430,31**	**2,2**	**3,6**	0,79	25,6	101	2,4
	12,5	12,5	12,5	12,5	**519,96**	**1,8**	**3,0**	0,79	25,6	101	2,4
	12,5	12,5	12,5	12,5	**651,26**	**1,5**	**2,4**	0,78	25,6	101	2,4
	12,5	12,5	12,5	12,5	**756,31**	**1,3**	**2,1**	0,78	25,6	101	2,4
	12,5	12,5	12,5	12,5	**913,87**	**1,0**	**1,8**	0,77	25,6	101	2,4
	12,5	12,5	12,5	12,5	**1172,80**	**0,81**	**1,4**	0,76	25,6	101	2,4
	12,5	12,5	12,5	12,5	**1471,75**	**0,65**	**1,1**	0,76	30,9	101	2,4
	12,5	12,5	12,5	12,5	**1710,91**	**0,56**	**1,0**	0,75	31,3	101	2,4
	11,1	12,5	12,5	12,5	**2069,65**	**0,46**	**0,71**	0,75	25,6	103	2,4
	12,3	12,5	12,5	12,5	**2456,29**	**0,39**	**0,68**	0,73	29,2	101	2,4



Motorsuz Planet Redüktörler
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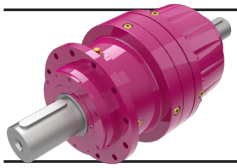
n_1=950

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
130,95	**6,3**	13 E1	37 R1	**4,4**	11 E1	28 R1	**11**	17 E1	41 R1	**7,8**	14 E1	30 R1	106	390
164,33	**6,0**	12 E1	36 R1	**4,2**	11 E1	27 R1	**11**	17 E1	39 R1	**7,5**	14 E1	29 R1	120	391
191,04	**5,8**	12 E1	34 R1	**4,0**	11 E1	26 R1	**11**	16 E1	38 R1	**7,3**	13 E1	28 R1		
231,09	**5,6**	11 E1	33 R1	**3,8**	10 E1	25 R1	**10**	15 E1	36 R1	**6,9**	12 E1	27 R1		
290,00	**5,1**	10 E1	30 R1	**3,6**	9,0 E1	23 R1	**9,2**	14 E1	33 R1	**6,4**	11 E1	25 R1		
337,13	**4,8**	10 E1	28 R1	**3,3**	8,5 E1	21 R1	**8,6**	13 E1	31 R1	**6,0**	11 E1	23 R1		
407,81	**4,3**	8,6 E1	25 R1	**3,0**	7,5 E1	19 R1	**7,7**	12 E1	28 R1	**5,3**	10 E1	21 R1		
281,47	**4,1**	8,6 E1	26 R1	**2,7**	7,5 E1	19 R1	**7,7**	12 E1	28 R1	**5,2**	10 E1	21 R1	111	390
307,34	**4,1**	8,4 E1	25 R1	**2,7**	7,5 E1	19 R1	**7,6**	12 E1	28 R1	**5,2**	10 E1	21 R1	126	391
384,96	**4,0**	8,0 E1	24 R1	**2,7**	7,0 E1	18 R1	**7,2**	11 E1	26 R1	**5,0**	9,0 E1	20 R1		
447,05	**3,9**	7,8 E1	23 R1	**2,7**	7,0 E1	17 R1	**7,0**	11 E1	25 R1	**4,8**	8,7 E1	19 R1		
540,18	**3,7**	7,4 E1	21 R1	**2,6**	6,5 E1	16 R1	**6,6**	9,9 E1	24 R1	**4,6**	8,1 E1	18 R1		
676,59	**3,5**	7,0 E1	20 R1	**2,4**	6,0 E1	15 R1	**6,3**	9,6 E1	22 R1	**4,4**	7,8 E1	17 R1		
785,72	**3,4**	6,6 E1	20 R1	**2,3**	6,0 E1	15 R1	**6,0**	9,0 E1	22 R1	**4,2**	7,5 E1	16 R1		
949,41	**3,2**	6,4 E1	19 R1	**2,2**	5,5 E1	14 R1	**5,7**	8,7 E1	20 R1	**4,0**	7,2 E1	15 R1		
1191,42	**3,1**	6,0 E1	18 R1	**2,1**	5,5 E1	13 R1	**5,5**	8,4 E1	20 R1	**3,8**	6,9 E1	15 R1		
1385,02	**3,0**	5,8 E1	17 R1	**2,1**	5,5 E1	13 R1	**5,3**	8,1 E1	19 R1	**3,7**	6,6 E1	14 R1		
1675,43	**2,8**	5,6 E1	16 R1	**2,0**	5,0 E1	12 R1	**5,0**	7,8 E1	18 R1	**3,5**	6,3 E1	14 R1		
2102,50	**2,6**	5,2 E1	15 R1	**1,8**	4,5 E1	12 R1	**4,7**	7,2 E1	17 R1	**3,3**	5,7 E1	13 R1		
2444,16	**2,5**	4,8 E1	14 R1	**1,7**	4,5 E1	11 R1	**4,4**	6,6 E1	16 R1	**3,1**	5,4 E1	12 R1		
2956,64	**2,2**	4,4 E1	13 R1	**1,5**	4,0 E1	10 R1	**3,9**	6,0 E1	14 R1	**2,8**	4,8 E1	11 R1		
3,43	**22**	190 E4	166 R1	**13**	184 E4	177 R2	**46**	132 E3	184 R1	**30**	195 E4	135 R1	166	392
4,09	**24**	115 E3	169 R1	**15**	187 E4	125 R1	**48**	134 E3	187 R1	**32**	121 E3	137 R1	181	393
5,25	**23**	104 E3	152 R1	**15**	98 E3	113 R1	**44**	92 E2	168 R1	**30**	109 E3	124 R1		
6,23	**21**	94 E3	137 R1	**14**	89 E3	102 R1	**40**	83 E2	151 R1	**27**	98 E3	111 R1		
12,34	**12**	55 E3	81 R1	**7,7**	89 E4	60 R1	**23**	64 E3	89 R1	**16**	58 E3	66 R1	158	392
14,73	**12**	55 E3	81 R1	**7,7**	53 E3	60 R1	**24**	49 E2	90 R1	**16**	58 E3	66 R1	173	393
17,39	**13**	55 E3	81 R1	**8,3**	53 E3	60 R1	**24**	49 E2	89 R1	**16**	42 E2	66 R1		
21,82	**13**	38 E2	77 R1	**8,5**	35 E2	58 R1	**23**	36 E1	85 R1	**16**	41 E2	63 R1		
25,36	**12**	37 E2	75 R1	**8,4**	34 E2	56 R1	**23**	35 E1	82 R1	**15**	39 E2	61 R1		
32,55	**11**	34 E2	69 R1	**7,7**	31 E2	51 R1	**21**	32 E1	76 R1	**14**	26 E1	56 R1		
39,38	**11**	22 E1	65 R1	**7,4**	30 E2	48 R1	**20**	30 E1	71 R1	**14**	24 E1	53 R1		
46,73	**9,9**	20 E1	59 R1	**6,8**	18 E1	44 R1	**18**	27 E1	65 R1	**12**	22 E1	48 R1		
55,64	**6,6**	21 E2	44 R1	**4,3**	20 E2	33 R1	**13**	20 E1	48 R1	**8,4**	23 E2	36 R1	150	392
65,68	**6,5**	21 E2	44 R1	**4,2**	20 E2	33 R1	**12**	20 E1	48 R1	**8,4**	23 E2	36 R1	165	393
71,72	**6,6**	21 E2	43 R1	**4,4**	20 E2	32 R1	**12**	20 E1	47 R1	**8,4**	16 E1	35 R1		
89,83	**6,5**	20 E2	41 R1	**4,4**	19 E2	31 R1	**12**	19 E1	45 R1	**8,2**	15 E1	33 R1		
104,32	**6,4**	13 E1	39 R1	**4,4**	18 E2	30 R1	**12**	18 E1	43 R1	**8,0**	15 E1	32 R1		
126,05	**6,1**	13 E1	37 R1	**4,2**	11 E1	28 R1	**11**	17 E1	41 R1	**7,6**	14 E1	30 R1		
158,18	**5,9**	12 E1	36 R1	**4,1**	11 E1	27 R1	**11**	16 E1	39 R1	**7,3**	13 E1	29 R1		
203,00	**5,5**	11 E1	33 R1	**3,8**	10 E1	25 R1	**9,8**	15 E1	36 R1	**6,8**	12 E1	27 R1		
235,99	**5,3**	11 E1	32 R1	**3,6**	9,5 E1	24 R1	**9,5**	15 E1	35 R1	**6,6**	12 E1	26 R1		
285,47	**5,0**	10 E1	30 R1	**3,5**	9,0 E1	23 R1	**9,0**	14 E1	33 R1	**6,2**	11 E1	25 R1		
338,80	**4,6**	9,4 E1	28 R1	**3,2**	8,5 E1	21 R1	**8,3**	13 E1	31 R1	**5,8**	11 E1	23 R1		
210,18	**4,1**	8,6 E1	26 R1	**2,7**	7,5 E1	20 R1	**7,8**	12 E1	29 R1	**5,2**	10 E1	22 R1	156	392
248,13	**4,1**	8,6 E1	26 R1	**2,7**	7,5 E1	20 R1	**7,7**	12 E1	29 R1	**5,2**	10 E1	21 R1	171	393
270,94	**4,0**	8,6 E1	26 R1	**2,6**	7,5 E1	19 R1	**7,6**	12 E1	28 R1	**5,1**	10 E1	21 R1		
295,84	**4,0**	8,4 E1	25 R1	**2,7**	7,5 E1	19 R1	**7,5**	12 E1	28 R1	**5,1**	9,3 E1	21 R1		
370,55	**4,0**	8,0 E1	24 R1	**2,7**	7,0 E1	18 R1	**7,2**	11 E1	26 R1	**4,9**	9,0 E1	20 R1		
430,31	**3,8**	7,8 E1	23 R1	**2,6**	7,0 E1	17 R1	**6,9**	11 E1	25 R1	**4,8**	8,7 E1	19 R1		
519,96	**3,7**	7,4 E1	22 R1	**2,5**	6,5 E1	16 R1	**6,6**	9,9 E1	24 R1	**4,6**	8,1 E1	18 R1		
651,26	**3,5**	7,0 E1	20 R1	**2,4**	6,0 E1	15 R1	**6,2**	9,6 E1	23 R1	**4,3**	7,8 E1	17 R1		
756,31	**3,4**	6,6 E1	20 R1	**2,3**	6,0 E1	15 R1	**6,0**	9,0 E1	22 R1	**4,2**	7,5 E1	16 R1		
913,87	**3,2**	6,4 E1	19 R1	**2,2**	5,5 E1	14 R1	**5,7**	8,7 E1	20 R1	**3,9**	7,2 E1	15 R1		
1172,80	**3,0**	6,0 E1	17 R1	**2,1**	5,5 E1	13 R1	**5,3**	8,1 E1	19 R1	**3,7**	6,6 E1	14 R1		
1471,75	**2,9**	5,6 E1	17 R1	**2,0**	5,0 E1	13 R1	**5,1**	7,8 E1	18 R1	**3,5**	6,3 E1	14 R1		
1710,91	**2,8**	5,6 E1	16 R1	**1,9**	5,0 E1	12 R1	**4,9**	7,5 E1	18 R1	**3,4**	6,0 E1	13 R1		
2069,65	**2,6**	5,2 E1	15 R1	**1,8**	4,5 E1	12 R1	**4,7**	7,2 E1	17 R1	**3,3**	5,7 E1	13 R1		
2456,29	**2,4**	4,8 E1	14 R1	**1,7**	4,5 E1	11 R1	**4,4**	6,6 E1	16 R1	**3,0**	5,4 E1	12 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
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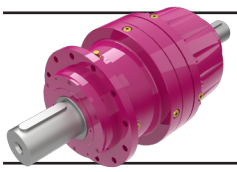
n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2401L	**7,30**	8,99	11,8	14,6	**3,43**	**277**	**220**	0,96	16,3	34	9,8
RT2401L	**7,56**	9,31	12,3	15,1	**4,09**	**232**	**190**	0,97	16,8	36	9,8
	7,93	9,76	12,9	14,8	**5,25**	**181**	**156**	0,96	17,6	39	9,8
	8,17	9,47	9,98	10,4	**6,23**	**152**	**136**	0,96	18,2	41	9,8
PT2402L	**8,97**	11,0	14,5	16,3	**12,34**	**77**	**78**	0,93	20,0	49	5,9
RT2402L	**10,7**	13,2	17,4	19,5	**14,73**	**65**	**78**	0,93	23,8	53	5,9
	11,2	13,8	18,2	19,9	**17,39**	**55**	**69**	0,93	24,9	56	5,9
	11,7	14,4	18,2	18,4	**21,82**	**44**	**57**	0,93	26,0	60	5,9
	12,0	14,8	15,1	15,3	**25,36**	**37**	**51**	0,93	26,7	63	5,9
	13,7	14,9	15,9	16,1	**32,55**	**29**	**45**	0,92	30,0	68	5,9
	11,6	12,1	12,7	13,2	**39,38**	**24**	**32**	0,92	28,0	72	5,9
	10,2	10,6	11,5	12,8	**46,73**	**20**	**24**	0,92	24,9	75	5,9
PT2403L	**14,9**	18,3	20,0	20,0	**55,64**	**17**	**30**	0,88	30,0	80	2,4
RT2403L	**14,9**	18,3	20,0	20,0	**65,68**	**14**	**26**	0,88	30,0	83	2,4
	17,7	19,9	20,0	20,0	**71,72**	**13**	**28**	0,88	30,0	85	2,4
	18,7	20,0	20,0	20,0	**89,83**	**11**	**24**	0,88	30,0	89	2,4
	19,2	20,0	20,0	20,0	**104,32**	**9,1**	**21**	0,87	30,0	87	2,4
	19,2	20,0	20,0	20,0	**126,05**	**7,5**	**17**	0,87	30,0	87	2,4
	18,9	19,1	19,4	19,7	**158,18**	**6,0**	**14**	0,87	30,0	89	2,4
	16,0	16,2	17,7	19,1	**203,00**	**4,7**	**9,1**	0,87	30,0	97	2,4
	16,1	16,3	18,0	19,4	**235,99**	**4,0**	**7,8**	0,86	30,0	97	2,4
	13,0	13,5	14,5	16,2	**285,47**	**3,3**	**5,2**	0,87	30,0	100	2,4
	12,1	13,4	15,1	16,3	**338,80**	**2,8**	**4,1**	0,86	28,2	101	2,4
PT2404L	**15,6**	15,8	16,1	16,3	**210,18**	**4,5**	**9,1**	0,81	30,0	97	2,4
RT2404L	**20,0**	20,0	20,0	20,0	**248,13**	**3,8**	**9,9**	0,81	30,0	85	2,4
	20,0	20,0	20,0	20,0	**270,94**	**3,5**	**9,1**	0,81	30,0	85	2,4
	20,0	20,0	20,0	20,0	**295,84**	**3,2**	**8,3**	0,81	30,0	85	2,4
	20,0	20,0	20,0	20,0	**370,55**	**2,6**	**6,7**	0,81	30,0	85	2,4
	20,0	20,0	20,0	20,0	**430,31**	**2,2**	**5,8**	0,80	30,0	85	2,4
	20,0	20,0	20,0	20,0	**519,96**	**1,8**	**4,8**	0,80	30,0	85	2,4
	20,0	20,0	20,0	20,0	**651,26**	**1,5**	**3,8**	0,79	30,0	85	2,4
	20,0	20,0	20,0	20,0	**756,31**	**1,3**	**3,3**	0,79	30,0	85	2,4
	20,0	20,0	20,0	20,0	**913,87**	**1,0**	**2,8**	0,78	30,0	85	2,4
	18,0	19,4	20,0	20,0	**1172,80**	**0,81**	**2,0**	0,78	30,0	95	2,4
	18,4	19,9	20,0	20,0	**1471,75**	**0,65**	**1,6**	0,77	30,0	95	2,4
	18,7	20,0	20,0	20,0	**1710,91**	**0,56**	**1,4**	0,77	30,0	95	2,4
	15,3	17,0	19,2	20,0	**2069,65**	**0,46**	**1,0**	0,77	30,0	99	2,4
	15,7	16,9	18,7	20,0	**2456,29**	**0,39**	**0,84**	0,75	30,0	99	2,4
PT2701L	**11,6**	14,2	18,7	22,1	**4,09**	**232**	**293**	0,96	25,7	36	19
RT2701L	**12,2**	15,0	18,2	18,5	**5,25**	**181**	**241**	0,96	27,0	39	19
	11,8	12,3	13,0	13,5	**6,23**	**152**	**199**	0,95	27,8	41	19
PT2702L	**14,5**	17,9	22,9	23,2	**14,73**	**65**	**106**	0,93	32,3	53	10
RT2702L	**15,2**	18,7	23,0	23,3	**17,39**	**55**	**94**	0,93	33,8	56	10
	15,8	19,5	23,2	23,5	**21,82**	**44**	**78**	0,93	35,3	60	10
	16,3	20,0	22,4	23,6	**25,36**	**37**	**69**	0,92	36,2	62	10
	14,9	15,5	16,3	16,9	**30,68**	**31**	**52**	0,92	35,8	66	10
	18,5	19,2	19,5	19,7	**39,38**	**24**	**51**	0,92	45,4	71	10
	13,2	13,7	14,9	16,6	**46,73**	**20**	**31**	0,92	32,2	75	10
PT2703L	**21,3**	23,3	23,7	24,0	**53,02**	**18**	**46**	0,88	47,5	78	5,9
RT2703L	**21,3**	23,3	23,8	24,4	**62,59**	**15**	**39**	0,88	47,5	82	5,9
	23,1	23,4	23,8	24,9	**73,89**	**13**	**35**	0,88	52,2	86	5,9
	23,2	23,5	23,9	25,0	**92,73**	**10**	**28**	0,88	55,9	92	5,9
	23,3	23,6	24,0	25,0	**107,80**	**8,8**	**25**	0,87	58,5	96	5,9
	23,4	23,7	24,6	25,0	**130,40**	**7,3**	**21**	0,87	57,9	102	5,9
	23,5	23,8	25,0	25,0	**163,64**	**5,8**	**16**	0,87	58,2	109	5,9
	22,7	23,8	25,0	25,0	**190,23**	**5,0**	**14**	0,87	55,1	114	5,9
	16,6	17,3	18,7	20,8	**230,11**	**4,1**	**8,3**	0,87	40,7	121	5,9
	19,7	20,4	22,4	24,1	**295,31**	**3,2**	**7,7**	0,86	48,9	130	5,9
	15,7	17,5	20,3	22,0	**350,48**	**2,7**	**5,2**	0,86	36,6	137	5,9



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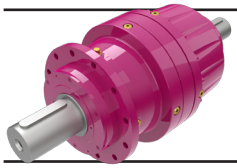
Planetengetriebe

n_1=950

Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
3,43	**26**	212 E4	266 R2	**15**	361 E5	324 R3	**54**	232 E4	285 R2	**35**	218 E4	336 R3	195	394
4,09	**28**	215 E4	189 R1	**17**	208 E4	200 R2	**56**	236 E4	210 R1	**37**	221 E4	213 R2	210	395
5,25	**27**	194 E4	170 R1	**17**	188 E4	180 R2	**51**	212 E4	189 R1	**34**	200 E4	192 R2		
6,23	**25**	174 E4	153 R1	**16**	169 E4	162 R2	**47**	191 E4	170 R1	**31**	179 E4	173 R2		
12,34	**14**	103 E4	91 R1	**9,0**	100 E4	96 R2	**27**	112 E4	100 R1	**18**	106 E4	102 R2	199	394
14,73	**14**	103 E4	91 R1	**9,1**	100 E4	96 R2	**27**	113 E4	101 R1	**18**	106 E4	103 R2	215	395
17,39	**15**	103 E4	91 R1	**10**	100 E4	67 R1	**28**	73 E3	100 R1	**19**	106 E4	74 R1		
21,82	**15**	60 E3	87 R1	**10**	57 E3	65 R1	**27**	70 E3	96 R1	**18**	63 E3	71 R1		
25,36	**14**	58 E3	84 R1	**10**	54 E3	62 R1	**26**	52 E2	92 R1	**18**	60 E3	68 R1		
32,55	**13**	53 E3	77 R1	**9,0**	50 E3	57 R1	**24**	47 E2	85 R1	**17**	55 E3	63 R1		
39,38	**13**	36 E2	73 R1	**8,6**	33 E2	54 R1	**23**	34 E1	80 R1	**16**	39 E2	59 R1		
46,73	**12**	23 E1	66 R1	**7,9**	31 E2	50 R1	**21**	32 E1	74 R1	**14**	26 E1	55 R1		
55,64	**7,7**	34 E3	49 R1	**5,0**	32 E3	37 R1	**15**	30 E2	54 R1	**10**	35 E3	40 R1	195	394
65,68	**7,6**	33 E3	49 R1	**5,0**	32 E3	36 R1	**15**	30 E2	54 R1	**10**	26 E2	40 R1	210	395
71,72	**7,7**	33 E3	48 R1	**5,1**	32 E3	36 R1	**14**	29 E2	53 R1	**10**	35 E3	40 R1		
89,83	**7,6**	32 E3	46 R1	**5,2**	30 E3	34 R1	**14**	28 E2	51 R1	**10**	24 E2	38 R1		
104,32	**7,4**	22 E2	44 R1	**5,1**	20 E2	33 R1	**14**	27 E2	49 R1	**9,3**	23 E2	36 R1		
126,05	**7,1**	21 E2	42 R1	**4,9**	19 E2	31 R1	**13**	20 E1	46 R1	**8,8**	22 E2	34 R1		
158,18	**6,8**	14 E1	40 R1	**4,7**	18 E2	30 R1	**12**	19 E1	44 R1	**8,5**	15 E1	33 R1		
203,00	**6,4**	13 E1	37 R1	**4,4**	11 E1	28 R1	**11**	17 E1	41 R1	**7,9**	14 E1	31 R1		
235,99	**6,1**	12 E1	36 R1	**4,2**	11 E1	27 R1	**11**	17 E1	40 R1	**7,6**	14 E1	29 R1		
285,47	**5,8**	12 E1	34 R1	**4,0**	10 E1	26 R1	**11**	16 E1	38 R1	**7,2**	13 E1	28 R1		
338,80	**5,4**	11 E1	32 R1	**3,7**	9,5 E1	24 R1	**9,7**	15 E1	35 R1	**6,7**	12 E1	26 R1		
210,18	**4,7**	10 E1	29 R1	**3,1**	13 E2	22 R1	**8,9**	14 E1	32 R1	**6,0**	11 E1	24 R1	201	394
248,13	**4,7**	10 E1	29 R1	**3,1**	13 E2	22 R1	**8,9**	14 E1	32 R1	**6,0**	11 E1	24 R1	216	395
270,94	**4,7**	10 E1	29 R1	**3,1**	13 E2	21 R1	**8,7**	13 E1	32 R1	**5,9**	11 E1	23 R1		
295,84	**4,7**	9,4 E1	28 R1	**3,1**	8,5 E1	21 R1	**8,7**	13 E1	31 R1	**5,9**	11 E1	23 R1		
370,55	**4,6**	9,0 E1	27 R1	**3,1**	8,0 E1	20 R1	**8,3**	13 E1	29 R1	**5,7**	10 E1	22 R1		
430,31	**4,4**	8,8 E1	25 R1	**3,0**	7,5 E1	19 R1	**8,0**	12 E1	28 R1	**5,5**	10 E1	21 R1		
519,96	**4,2**	8,2 E1	24 R1	**2,9**	7,5 E1	18 R1	**7,6**	11 E1	26 R1	**5,3**	9,3 E1	20 R1		
651,26	**4,0**	7,8 E1	23 R1	**2,8**	7,0 E1	17 R1	**7,2**	11 E1	25 R1	**5,0**	8,7 E1	19 R1		
756,31	**3,9**	7,6 E1	22 R1	**2,7**	6,5 E1	16 R1	**6,9**	11 E1	24 R1	**4,8**	8,4 E1	18 R1		
913,87	**3,7**	7,2 E1	21 R1	**2,5**	6,5 E1	16 R1	**6,5**	9,9 E1	23 R1	**4,5**	8,1 E1	17 R1		
1172,80	**3,4**	6,6 E1	19 R1	**2,4**	6,0 E1	15 R1	**6,1**	9,3 E1	21 R1	**4,3**	7,5 E1	16 R1		
1471,75	**3,3**	6,4 E1	19 R1	**2,3**	5,5 E1	14 R1	**5,9**	8,7 E1	21 R1	**4,1**	7,2 E1	15 R1		
1710,91	**3,2**	6,2 E1	18 R1	**2,2**	5,5 E1	14 R1	**5,7**	8,4 E1	20 R1	**4,0**	6,9 E1	15 R1		
2069,65	**3,0**	6,0 E1	17 R1	**2,1**	5,5 E1	13 R1	**5,4**	8,1 E1	19 R1	**3,8**	6,6 E1	14 R1		
2456,29	**2,8**	5,6 E1	16 R1	**2,0**	5,0 E1	12 R1	**5,0**	7,5 E1	18 R1	**3,5**	6,3 E1	13 R1		
4,09	**26**	341 E5	404 R3	**16**	335 E5	300 R3	**52**	360 E5	422 R3	**34**	347 E5	312 R3	243	396
5,25	**26**	314 E5	371 R3	**16**	308 E5	276 R3	**50**	331 E5	245 R2	**33**	319 E5	287 R3	308	397
6,23	**24**	283 E5	205 R2	**15**	278 E5	249 R3	**46**	299 E5	221 R2	**30**	288 E5	259 R3		
14,73	**15**	103 E4	129 R2	**9,2**	174 E5	156 R3	**29**	114 E4	139 R2	**19**	106 E4	102 R2	243	396
17,39	**15**	102 E4	90 R1	**10**	99 E4	95 R2	**29**	113 E4	101 R1	**20**	106 E4	102 R2	308	397
21,82	**15**	98 E4	86 R1	**10**	95 E4	91 R2	**29**	108 E4	97 R1	**19**	101 E4	98 R2		
25,36	**15**	95 E4	83 R1	**10**	92 E4	88 R2	**28**	68 E3	93 R1	**19**	97 E4	69 R1		
30,68	**14**	55 E3	79 R1	**10**	51 E3	59 R1	**26**	50 E2	89 R1	**18**	58 E3	65 R1		
39,38	**13**	51 E3	74 R1	**9,1**	81 E4	55 R1	**25**	60 E3	82 R1	**17**	53 E3	61 R1		
46,73	**12**	34 E2	67 R1	**8,4**	31 E2	50 R1	**23**	33 E1	75 R1	**16**	36 E2	55 R1		
53,02	**9,1**	60 E4	53 R1	**5,8**	58 E4	55 R2	**18**	66 E4	59 R1	**12**	61 E4	60 R2	245	396
62,59	**9,0**	59 E4	52 R1	**5,8**	57 E4	39 R1	**17**	43 E3	59 R1	**12**	38 E3	43 R1	310	397
73,89	**9,2**	35 E3	51 R1	**6,0**	56 E4	38 R1	**17**	42 E3	57 R1	**12**	37 E3	42 R1		
92,73	**9,0**	33 E3	48 R1	**6,1**	32 E3	36 R1	**17**	31 E2	54 R1	**11**	35 E3	40 R1		
107,80	**8,8**	23 E2	47 R1	**6,0**	30 E3	35 R1	**16**	30 E2	52 R1	**11**	26 E2	39 R1		
130,40	**8,4**	22 E2	44 R1	**5,8**	20 E2	33 R1	**15**	22 E1	49 R1	**11**	24 E2	36 R1		
163,64	**8,1**	21 E2	42 R1	**5,5**	20 E2	32 R1	**15**	21 E1	47 R1	**10**	17 E1	35 R1		
190,23	**7,8**	14 E1	41 R1	**5,4**	19 E2	30 R1	**14**	20 E1	46 R1	**10**	16 E1	34 R1		
230,11	**7,4**	14 E1	39 R1	**5,1**	12 E1	29 R1	**13**	19 E1	43 R1	**9,3**	16 E1	32 R1		
295,31	**6,9**	13 E1	36 R1	**4,8**	11 E1	27 R1	**13**	18 E1	40 R1	**8,6**	14 E1	30 R1		
350,48	**6,4**	12 E1	33 R1	**4,4**	11 E1	25 R1	**12**	17 E1	37 R1	**8,0**	13 E1	28 R1		



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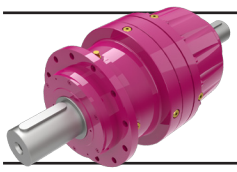
n_1=950

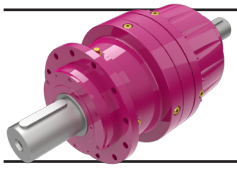
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2704L **RT2704L**	**22,7** **23,7** **23,7** **23,8** **23,9** **24,0** **24,1** **25,0** **25,0** **25,0** **25,0** **25,0** **19,6** **23,3** **21,5**	23,8 24,0 24,2 24,4 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 21,9 25,0 23,4	25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0	25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0	**200,29** **236,45** **279,15** **304,80** **381,78** **443,35** **535,72** **672,27** **781,52** **945,38** **1186,36** **1379,15** **1668,32** **2141,02** **2540,99**	**4,7** **4,0** **3,4** **3,1** **2,5** **2,1** **1,8** **1,4** **1,2** **1,0** **0,80** **0,69** **0,57** **0,44** **0,37**	**14** **12** **10** **10** **7,7** **6,7** **5,6** **4,7** **4,0** **3,4** **2,7** **2,3** **1,5** **1,4** **1,1**	0,81 0,81 0,81 0,81 0,81 0,81 0,80 0,79 0,79 0,78 0,78 0,78 0,78 0,77 0,75	55,1 58,6 58,8 58,9 59,2 59,4 59,6 59,9 60,0 61,0 62,5 62,5 45,9 55,7 50,1	116 122 128 129 129 129 129 127 127 127 127 127 136 130 134	2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4
PT2901L **RT2901L**	**12,7** **13,3** **13,8**	15,6 16,4 17,0	20,5 21,6 20,1	25,3 25,7 20,9	**4,09** **5,25** **6,23**	**232** **181** **152**	**320** **263** **230**	0,96 0,96 0,96	32,2 33,8 35,0	44 47 49	14 14 14
PT2902L **RT2902L**	**17,8** **18,4** **19,3** **19,9** **23,0** **20,1**	21,9 22,7 23,8 24,5 25,6 20,9	28,8 29,8 31,3 30,6 27,4 22,4	34,4 34,6 34,8 32,2 30,3 24,9	**14,03** **16,74** **21,48** **25,49** **32,71** **38,82**	**68** **57** **44** **37** **29** **24**	**135** **117** **96** **83** **76** **56**	0,93 0,93 0,93 0,93 0,92 0,92	39,6 41,0 43,0 44,3 51,2 49,2	63 66 71 75 81 85	10 10 10 10 10 10
PT2903L **RT2903L**	**26,1** **28,4** **30,4** **31,8** **28,3** **31,3** **30,8** **28,8** **23,5**	32,1 34,7 34,9 35,0 28,3 33,1 32,3 30,8 26,0	35,0 35,0 35,0 35,0 28,3 35,0 35,0 33,9 28,6	35,0 35,0 35,0 35,0 30,9 35,0 35,0 35,0 30,7	**50,49** **71,13** **89,26** **103,76** **125,52** **161,08** **191,17** **245,34** **291,17**	**19** **13** **11** **9,2** **7,6** **5,9** **5,0** **3,9** **3,3**	**58** **45** **38** **35** **25** **22** **18** **13** **9,1**	0,89 0,89 0,89 0,88 0,88 0,88 0,88 0,88 0,88	58,1 63,2 67,7 70,8 70,8 75,1 74,9 67,4 54,9	92 102 110 114 121 131 138 148 156	5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9
PT2904L **RT2904L**	**35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **29,7**	35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 31,9	35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0	35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0	**190,75** **227,60** **268,70** **293,39** **367,48** **426,76** **515,66** **647,11** **752,26** **909,99** **1167,83** **1385,99** **1778,69** **2110,97**	**5,0** **4,2** **3,5** **3,2** **2,6** **2,2** **1,8** **1,5** **1,3** **1,0** **0,81** **0,69** **0,53** **0,45**	**22** **19** **16** **15** **12** **10** **8,3** **6,7** **5,8** **4,8** **3,8** **3,2** **2,5** **1,8**	0,82 0,82 0,82 0,82 0,82 0,81 0,81 0,80 0,80 0,79 0,79 0,78 0,77 0,76	86,7 87,0 87,3 87,4 87,5 87,5 87,5 87,5 87,5 87,5 87,5 87,4 84,3 71,1	138 144 153 156 169 169 169 169 169 169 169 169 169 176	2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4
PT3501L **RT3501L**	**18,5** **19,3** **18,3**	22,8 23,8 18,9	30,0 29,3 19,9	36,9 30,5 20,7	**4,14** **5,40** **6,50**	**229** **176** **146**	**462** **371** **293**	0,96 0,96 0,96	47,0 49,1 45,8	53 57 61	14 14 14
PT3502L **RT3502L**	**26,8** **28,2** **30,4** **32,0** **29,3** **20,2**	33,0 34,8 37,5 39,2 30,5 21,0	43,4 45,2 46,1 41,3 32,7 22,4	48,4 49,7 50,0 43,0 36,6 25,0	**14,20** **16,95** **21,75** **25,81** **33,65** **40,50**	**67** **56** **44** **37** **28** **23**	**202** **178** **150** **133** **94** **54**	0,93 0,93 0,93 0,92 0,92 0,92	59,6 62,8 67,7 71,3 71,9 49,3	77 81 87 91 99 105	9,8 9,8 9,8 9,8 9,8 9,8



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=950

Çevrim Oranı *Ratio* Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
200,29	**5,7**	16 E2	31 R1	**3,7**	14 E2	23 R1	**11**	16 E1	35 R1	**7,2**	17 E2	26 R1	237	396
236,45	**5,6**	15 E2	31 R1	**3,7**	14 E2	23 R1	**11**	15 E1	35 R1	**7,2**	12 E1	26 R1	302	397
279,15	**5,5**	11 E1	30 R1	**3,6**	14 E2	22 R1	**10**	15 E1	34 R1	**7,0**	12 E1	25 R1		
304,80	**5,5**	10 E1	30 R1	**3,7**	14 E2	22 R1	**10**	15 E1	33 R1	**7,0**	12 E1	25 R1		
381,78	**5,4**	10 E1	28 R1	**3,7**	8,5 E1	21 R1	**9,9**	14 E1	32 R1	**6,8**	11 E1	23 R1		
443,35	**5,3**	10 E1	27 R1	**3,6**	8,5 E1	20 R1	**9,5**	14 E1	30 R1	**6,6**	11 E1	22 R1		
535,72	**5,0**	9,2 E1	25 R1	**3,5**	8,0 E1	19 R1	**9,0**	13 E1	29 R1	**6,3**	10 E1	21 R1		
672,27	**4,8**	8,6 E1	24 R1	**3,3**	7,5 E1	18 R1	**8,6**	12 E1	27 R1	**5,9**	10 E1	20 R1		
781,52	**4,6**	8,4 E1	23 R1	**3,2**	7,5 E1	17 R1	**8,2**	12 E1	26 R1	**5,7**	9,3 E1	19 R1		
945,38	**4,4**	8,0 E1	22 R1	**3,0**	7,0 E1	16 R1	**7,8**	11 E1	25 R1	**5,4**	9,0 E1	18 R1		
1186,36	**4,2**	7,6 E1	21 R1	**2,9**	6,5 E1	16 R1	**7,5**	11 E1	24 R1	**5,2**	8,7 E1	18 R1		
1379,15	**4,1**	7,4 E1	20 R1	**2,8**	6,5 E1	15 R1	**7,3**	10 E1	23 R1	**5,0**	8,4 E1	17 R1		
1668,32	**3,9**	7,0 E1	20 R1	**2,7**	6,0 E1	15 R1	**6,9**	9,9 E1	22 R1	**4,8**	7,8 E1	16 R1		
2141,02	**3,6**	6,6 E1	18 R1	**2,5**	6,0 E1	14 R1	**6,5**	9,3 E1	20 R1	**4,5**	7,5 E1	15 R1		
2540,99	**3,3**	6,0 E1	17 R1	**2,3**	5,5 E1	13 R1	**6,0**	8,4 E1	19 R1	**4,2**	6,9 E1	14 R1		
4,09	**32**	371 E5	438 R3	**19**	363 E5	325 R3	**63**	394 E5	291 R3	**41**	378 E5	340 R3	287	398
5,25	**31**	198 E5	403 R3	**20**	334 E5	300 R3	**60**	363 E5	269 R3	**40**	348 E5	313 R3	359	397
6,23	**30**	183 E5	227 R2	**19**	307 E5	275 R3	**56**	333 E5	247 R2	**37**	319 E5	288 R3		
14,03	**17**	110 E5	137 R2	**11**	185 E5	165 R3	**34**	201 E5	150 R2	**23**	192 E5	173 R3	325	398
16,74	**18**	111 E5	137 R2	**12**	185 E5	166 R3	**35**	124 E4	150 R2	**23**	114 E4	174 R3	397	399
21,48	**18**	106 E4	94 R1	**12**	102 E4	98 R2	**34**	119 E4	106 R1	**23**	110 E4	106 R2		
25,49	**18**	102 E4	90 R1	**12**	98 E4	94 R2	**33**	114 E4	102 R1	**23**	106 E4	102 R2		
32,71	**17**	95 E4	84 R1	**11**	91 E4	87 R2	**31**	106 E4	95 R1	**21**	98 E4	95 R2		
38,82	**16**	55 E3	78 R1	**10**	85 E4	58 R1	**29**	66 E3	89 R1	**20**	58 E3	65 R1		
50,49	**11**	63 E4	78 R2	**6,8**	60 E4	58 R2	**21**	71 E4	63 R1	**14**	65 E4	63 R2	317	398
71,13	**11**	62 E4	54 R1	**7,1**	59 E4	57 R2	**21**	46 E3	62 R1	**14**	64 E4	45 R1	390	399
89,26	**11**	58 E4	52 R1	**7,1**	56 E4	38 R1	**20**	44 E3	59 R1	**14**	39 E3	43 R1		
103,76	**10**	35 E3	50 R1	**7,0**	54 E4	37 R1	**19**	42 E3	57 R1	**13**	37 E3	42 R1		
125,52	**10**	25 E2	47 R1	**6,7**	31 E3	35 R1	**18**	32 E2	53 R1	**13**	27 E2	39 R1		
161,08	**10**	24 E2	45 R1	**6,5**	21 E2	34 R1	**18**	24 E1	51 R1	**12**	26 E2	38 R1		
191,17	**9,2**	23 E2	43 R1	**6,3**	20 E2	32 R1	**17**	24 E1	49 R1	**12**	19 E1	36 R1		
245,34	**8,6**	15 E1	41 R1	**5,9**	13 E1	30 R1	**16**	22 E1	46 R1	**11**	17 E1	34 R1		
291,17	**8,1**	15 E1	38 R1	**5,5**	12 E1	28 R1	**15**	21 E1	43 R1	**10**	16 E1	32 R1		
190,75	**6,8**	23 E3	33 R1	**4,4**	21 E3	24 R1	**13**	23 E2	38 R1	**8,6**	25 E3	28 R1	309	398
227,60	**6,8**	23 E3	33 R1	**4,4**	21 E3	24 R1	**13**	22 E2	38 R1	**8,6**	19 E2	28 R1	382	399
268,70	**6,6**	17 E2	32 R1	**4,3**	15 E2	24 R1	**13**	22 E2	37 R1	**8,4**	18 E2	27 R1		
293,39	**6,6**	17 E2	32 R1	**4,4**	15 E2	23 R1	**12**	17 E1	36 R1	**8,4**	14 E1	27 R1		
367,48	**6,5**	12 E1	30 R1	**4,4**	14 E2	22 R1	**12**	17 E1	34 R1	**8,1**	13 E1	25 R1		
426,76	**6,3**	11 E1	29 R1	**4,3**	9,0 E1	21 R1	**11**	16 E1	33 R1	**7,9**	13 E1	24 R1		
515,66	**6,0**	11 E1	27 R1	**4,1**	9,0 E1	20 R1	**11**	15 E1	31 R1	**7,5**	12 E1	23 R1		
647,11	**5,7**	10 E1	26 R1	**3,9**	9,0 E1	19 R1	**10**	14 E1	29 R1	**7,1**	11 E1	22 R1		
752,26	**5,5**	10 E1	25 R1	**3,8**	8,0 E1	19 R1	**9,9**	14 E1	28 R1	**6,8**	11 E1	21 R1		
909,99	**5,2**	9,0 E1	24 R1	**3,6**	8,0 E1	18 R1	**9,4**	13 E1	27 R1	**6,5**	10 E1	20 R1		
1167,83	**5,0**	9,0 E1	23 R1	**3,5**	8,0 E1	17 R1	**9,0**	13 E1	26 R1	**6,2**	10 E1	19 R1		
1385,99	**4,8**	9,0 E1	22 R1	**3,3**	7,0 E1	16 R1	**8,7**	12 E1	25 R1	**6,0**	10 E1	18 R1		
1778,69	**4,5**	8,0 E1	21 R1	**3,1**	7,0 E1	15 R1	**8,2**	11 E1	23 R1	**5,7**	9,0 E1	17 R1		
2110,97	**4,3**	8,0 E1	19 R1	**3,0**	7,0 E1	14 R1	**7,7**	11 E1	22 R1	**5,3**	9,0 E1	16 R1		
4,14	**35**	531 E6	449 R3	**22**	522 E6	448 R4	**70**	555 E6	475 R3	**46**	538 E6	464 R4	357	400
5,40	**35**	494 E6	419 R3	**22**	487 E6	418 R4	**68**	380 E5	443 R3	**45**	362 E5	433 R4	444	401
6,50	**32**	319 E5	376 R3	**21**	311 E5	279 R3	**62**	340 E5	396 R3	**41**	325 E5	293 R3		
14,20	**21**	200 E5	235 R3	**13**	195 E5	234 R4	**41**	215 E5	250 R3	**27**	204 E5	243 R4	422	400
16,95	**22**	199 E5	235 R3	**14**	195 E5	175 R3	**42**	214 E5	249 R3	**28**	204 E5	184 R3	509	401
21,75	**22**	191 E5	224 R3	**14**	186 E5	167 R3	**41**	205 E5	154 R2	**27**	195 E5	176 R3		
25,81	**21**	183 E5	134 R2	**14**	179 E5	160 R3	**39**	196 E5	148 R2	**27**	187 E5	169 R3		
33,65	**20**	102 E4	90 R1	**13**	97 E4	94 R2	**37**	115 E4	104 R1	**25**	106 E4	103 R2		
40,50	**18**	58 E3	82 R1	**12**	53 E3	61 R1	**34**	57 E2	95 R1	**23**	62 E3	69 R1		



Motorsuz Planet Redüktörler
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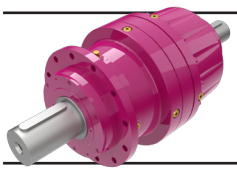
n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3503L **RT3503L**	**37,2**	45,1	50,0	50,0	**51,13**	**19**	**82**	0,88	82,7	112	5,9
	43,6	47,6	50,0	50,0	**72,03**	**13**	**68**	0,88	97,0	124	5,9
	44,5	49,3	50,0	50,0	**90,39**	**11**	**56**	0,88	104	133	5,9
	45,0	50,0	50,0	50,0	**105,08**	**9,0**	**49**	0,87	109	139	5,9
	46,4	50,0	50,0	50,0	**127,11**	**7,5**	**42**	0,87	111	147	5,9
	48,1	50,0	50,0	50,0	**163,13**	**5,8**	**34**	0,87	112	159	5,9
	42,2	43,9	47,6	50,0	**193,60**	**4,9**	**25**	0,87	103	167	5,9
	34,4	38,6	43,3	46,9	**252,35**	**3,8**	**16**	0,87	80,3	181	5,9
	23,6	26,4	30,5	34,0	**303,75**	**3,1**	**8,9**	0,87	55,0	191	5,9
PT3504L **RT3504L**	**48,1**	50,0	50,0	50,0	**193,18**	**4,9**	**31**	0,81	115	167	2,4
	50,0	50,0	50,0	50,0	**230,49**	**4,1**	**26**	0,81	119	176	2,4
	50,0	50,0	50,0	50,0	**272,11**	**3,5**	**22**	0,81	122	185	2,4
	50,0	50,0	50,0	50,0	**297,12**	**3,2**	**21**	0,81	124	190	2,4
	50,0	50,0	50,0	50,0	**372,15**	**2,6**	**17**	0,81	128	203	2,4
	50,0	50,0	50,0	50,0	**432,18**	**2,2**	**14**	0,81	129	213	2,4
	50,0	50,0	50,0	50,0	**522,21**	**1,8**	**12**	0,80	129	225	2,4
	50,0	50,0	50,0	50,0	**655,32**	**1,4**	**10**	0,79	130	241	2,4
	50,0	50,0	50,0	50,0	**761,81**	**1,2**	**8,3**	0,79	130	252	2,4
	50,0	50,0	50,0	50,0	**921,55**	**1,0**	**6,9**	0,78	132	256	2,4
	50,0	50,0	50,0	50,0	**1182,66**	**0,80**	**5,4**	0,78	132	256	2,4
	50,0	50,0	50,0	50,0	**1403,59**	**0,68**	**4,5**	0,78	117	256	2,4
	45,3	49,0	50,0	50,0	**1829,51**	**0,52**	**3,2**	0,78	107	261	2,4
	32,2	36,0	41,7	46,8	**2202,19**	**0,43**	**1,9**	0,77	75,0	273	2,4



Motorsuz Planet Redüktörler
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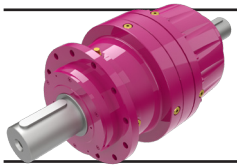
Planetengetriebe

n_1=950

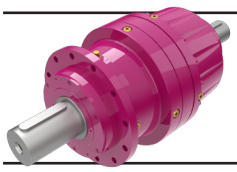
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
51,13	**13**	115 E5	84 R2	**8,4**	112 E5	101 R3	**25**	123 E5	93 R2	**17**	117 E5	106 R3	427	400
72,03	**13**	66 E4	82 R2	**8,6**	109 E5	98 R3	**25**	75 E4	68 R1	**17**	69 E4	67 R2	513	401
90,39	**13**	63 E4	56 R1	**8,6**	60 E4	58 R2	**24**	71 E4	65 R1	**16**	65 E4	63 R2		
105,08	**13**	60 E4	54 R1	**8,5**	58 E4	56 R2	**23**	47 E3	62 R1	**16**	63 E4	46 R1		
127,11	**12**	57 E4	51 R1	**8,1**	55 E4	53 R2	**22**	44 E3	59 R1	**15**	59 E4	43 R1		
163,13	**12**	34 E3	49 R1	**7,8**	52 E4	36 R1	**21**	34 E2	56 R1	**14**	37 E3	41 R1		
193,60	**11**	25 E2	47 R1	**7,5**	31 E3	35 R1	**20**	27 E1	54 R1	**14**	27 E2	40 R1		
252,35	**10**	17 E1	44 R1	**7,1**	21 E2	33 R1	**19**	25 E1	51 R1	**13**	20 E1	38 R1		
303,75	**9,6**	16 E1	41 R1	**6,5**	13 E1	30 R1	**17**	23 E1	47 R1	**12**	18 E1	35 R1		
193,18	**8,3**	40 E4	36 R1	**5,5**	39 E4	37 R2	**16**	32 E3	42 R1	**11**	42 E4	31 R1	423	400
230,49	**8,3**	25 E3	36 R1	**5,4**	39 E4	27 R1	**16**	26 E2	42 R1	**11**	27 E3	31 R1	509	401
272,11	**8,1**	25 E3	35 R1	**5,3**	23 E3	26 R1	**15**	25 E2	41 R1	**10**	26 E3	30 R1		
297,12	**8,1**	24 E3	35 R1	**5,4**	23 E3	26 R1	**15**	20 E1	40 R1	**10**	20 E2	29 R1		
372,15	**7,8**	17 E2	33 R1	**5,3**	22 E3	24 R1	**14**	19 E1	38 R1	**10**	19 E2	28 R1		
432,18	**7,6**	17 E2	31 R1	**5,2**	15 E2	23 R1	**14**	18 E1	36 R1	**9,5**	14 E1	27 R1		
522,21	**7,3**	12 E1	30 R1	**5,0**	14 E2	22 R1	**13**	17 E1	34 R1	**9,0**	14 E1	25 R1		
655,32	**6,9**	11 E1	28 R1	**4,7**	9,5 E1	21 R1	**12**	16 E1	33 R1	**8,6**	13 E1	24 R1		
761,81	**6,6**	11 E1	27 R1	**4,6**	9,0 E1	20 R1	**12**	16 E1	31 R1	**8,3**	12 E1	23 R1		
921,55	**6,3**	10 E1	26 R1	**4,3**	8,5 E1	19 R1	**11**	15 E1	30 R1	**7,8**	12 E1	22 R1		
1182,66	**6,0**	10 E1	25 R1	**4,2**	8,0 E1	18 R1	**11**	14 E1	29 R1	**7,5**	11 E1	21 R1		
1403,59	**5,8**	9,4 E1	24 R1	**4,0**	8,0 E1	18 R1	**11**	14 E1	27 R1	**7,2**	11 E1	20 R1		
1829,51	**5,5**	8,8 E1	23 R1	**3,8**	7,5 E1	17 R1	**9,9**	13 E1	26 R1	**6,9**	10 E1	19 R1		
2202,19	**5,1**	8,2 E1	21 R1	**3,5**	7,0 E1	16 R1	**9,1**	12 E1	24 R1	**6,3**	9,3 E1	18 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=725

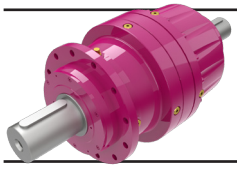
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1101L	**0,78**	0,95	1,00	1,00	**3,78**	**192**	**16**	0,95	1,20	12	2,6
RT1101L	**0,79**	0,98	1,00	1,00	**4,13**	**176**	**15**	0,95	1,20	12	2,6
	0,83	0,98	1,00	1,00	**5,17**	**140**	**13**	0,95	1,20	13	2,6
	0,79	0,83	0,89	0,93	**6,00**	**121**	**11**	0,95	1,20	13	2,6
	0,60	0,63	0,67	0,71	**7,25**	**100**	**6,6**	0,94	1,20	14	2,6
PT1102L	**1,00**	1,00	1,00	1,00	**14,27**	**51**	**5,8**	0,91	1,20	17	2,6
RT1102L	**1,00**	1,00	1,00	1,00	**15,58**	**47**	**5,3**	0,91	1,20	18	2,6
	1,00	1,00	1,00	1,00	**17,02**	**43**	**4,9**	0,91	1,20	18	2,6
	1,00	1,00	1,00	1,00	**21,31**	**34**	**3,9**	0,91	1,20	20	2,6
	1,00	1,00	1,00	1,00	**24,75**	**29**	**3,4**	0,91	1,20	20	2,6
	1,00	1,00	1,00	1,00	**29,91**	**24**	**2,8**	0,91	1,20	22	2,6
	1,00	1,00	1,00	1,00	**37,46**	**19**	**2,2**	0,90	1,20	23	2,6
	0,89	0,94	1,00	1,00	**43,50**	**17**	**1,7**	0,90	1,20	24	2,6
	0,68	0,71	0,82	0,95	**52,56**	**14**	**1,1**	0,89	1,20	26	2,6
PT1103L	**1,00**	1,00	1,00	1,00	**58,87**	**12**	**1,5**	0,85	1,20	26	2,6
RT1103L	**1,00**	1,00	1,00	1,00	**64,28**	**11**	**1,4**	0,85	1,20	27	2,6
	1,00	1,00	1,00	1,00	**70,19**	**10**	**1,3**	0,86	1,20	28	2,6
	1,00	1,00	1,00	1,00	**87,91**	**8,2**	**1,0**	0,86	1,20	30	2,6
	1,00	1,00	1,00	1,00	**102,09**	**7,1**	**0,86**	0,86	1,20	31	2,6
	1,00	1,00	1,00	1,00	**123,36**	**5,9**	**0,72**	0,85	1,20	33	2,6
	1,00	1,00	1,00	1,00	**154,52**	**4,7**	**0,58**	0,85	1,20	35	2,6
	1,00	1,00	1,00	1,00	**179,44**	**4,0**	**0,50**	0,84	1,20	37	2,6
	1,00	1,00	1,00	1,00	**216,82**	**3,3**	**0,42**	0,84	1,20	39	2,6
	1,00	1,00	1,00	1,00	**271,57**	**2,7**	**0,34**	0,82	1,20	41	2,6
	1,00	1,00	1,00	1,00	**315,38**	**2,3**	**0,30**	0,81	1,20	41	2,6
	0,88	1,00	1,00	1,00	**381,08**	**1,9**	**0,22**	0,78	1,20	41	2,6
PT1104L	**1,00**	1,00	1,00	1,00	**289,53**	**2,5**	**0,35**	0,74	1,20	41	2,6
RT1104L	**1,00**	1,00	1,00	1,00	**362,65**	**2,0**	**0,27**	0,76	1,20	41	2,6
	1,00	1,00	1,00	1,00	**421,14**	**1,7**	**0,23**	0,77	1,20	41	2,6
	1,00	1,00	1,00	1,00	**508,87**	**1,4**	**0,20**	0,76	1,20	41	2,6
	1,00	1,00	1,00	1,00	**637,38**	**1,1**	**0,16**	0,74	1,20	41	2,6
	1,00	1,00	1,00	1,00	**740,18**	**1,0**	**0,14**	0,73	1,20	41	2,6
	1,00	1,00	1,00	1,00	**894,38**	**0,81**	**0,12**	0,71	1,20	41	2,6
	1,00	1,00	1,00	1,00	**1120,24**	**0,65**	**0,10**	0,69	1,20	41	2,6
	1,00	1,00	1,00	1,00	**1300,92**	**0,56**	**0,09**	0,67	1,20	41	2,6
	1,00	1,00	1,00	1,00	**1571,95**	**0,46**	**0,07**	0,64	1,20	41	2,6
	1,00	1,00	1,00	1,00	**1968,90**	**0,37**	**0,06**	0,61	1,20	41	2,6
	1,00	1,00	1,00	1,00	**2286,47**	**0,32**	**0,06**	0,58	1,20	41	2,6
	1,00	1,00	1,00	1,00	**2762,82**	**0,26**	**0,05**	0,52	1,20	41	2,6
PT1201L	**1,09**	1,35	1,77	2,00	**3,78**	**192**	**23**	0,96	2,25	12	2,6
RT1201L	**1,12**	1,38	1,81	2,00	**4,13**	**176**	**21**	0,96	2,30	12	2,6
	1,17	1,43	1,89	1,94	**5,17**	**140**	**18**	0,95	2,39	13	2,6
	1,20	1,47	1,67	1,71	**6,00**	**121**	**16**	0,95	2,45	13	2,6
	1,09	1,13	1,18	1,23	**7,25**	**100**	**12**	0,94	2,56	14	2,6
PT1202L	**1,73**	2,00	2,00	2,00	**14,27**	**51**	**10**	0,91	3,00	17	2,6
RT1202L	**1,77**	2,00	2,00	2,00	**15,58**	**47**	**9,4**	0,91	3,00	18	2,6
	1,82	2,00	2,00	2,00	**17,02**	**43**	**8,9**	0,92	3,00	18	2,6
	1,95	2,00	2,00	2,00	**21,31**	**34**	**7,6**	0,91	3,00	20	2,6
	2,00	2,00	2,00	2,00	**24,75**	**29**	**6,7**	0,91	3,00	20	2,6
	2,00	2,00	2,00	2,00	**29,91**	**24**	**5,6**	0,91	3,00	22	2,6
	1,96	1,99	2,00	2,00	**37,46**	**19**	**4,4**	0,90	3,00	23	2,6
	1,69	1,75	1,79	1,83	**43,50**	**17**	**3,3**	0,90	3,00	24	2,6
	1,20	1,24	1,38	1,56	**52,56**	**14**	**1,9**	0,89	2,91	26	2,6
PT1203L	**2,00**	2,00	2,00	2,00	**58,87**	**12**	**3,0**	0,86	3,00	26	2,6
RT1203L	**2,00**	2,00	2,00	2,00	**64,28**	**11**	**2,7**	0,86	3,00	27	2,6
	2,00	2,00	2,00	2,00	**70,19**	**10**	**2,5**	0,86	3,00	28	2,6
	2,00	2,00	2,00	2,00	**87,91**	**8,2**	**2,0**	0,86	3,00	30	2,6
	2,00	2,00	2,00	2,00	**102,09**	**7,1**	**1,7**	0,86	3,00	31	2,6
	2,00	2,00	2,00	2,00	**123,36**	**5,9**	**1,4**	0,85	3,00	33	2,6



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=725

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
3,78	5,7	26 E1	97 R1	3,6	24 E1	73 R1	11	30 E1	101 R1	7,4	27 E1	75 R1	23	382
4,13	5,8	26 E1	96 R1	3,7	24 E1	72 R1	11	30 E1	99 R1	7,4	27 E1	74 R1	25	383
5,17	5,6	23 E1	87 R1	3,7	22 E1	65 R1	10	27 E1	90 R1	7,0	25 E1	67 R1		
6,00	5,2	21 E1	79 R1	3,5	20 E1	59 R1	9,5	25 E1	82 R1	6,5	22 E1	61 R1		
7,25	4,4	18 E1	66 R1	3,0	17 E1	50 R1	8,0	21 E1	68 R1	5,5	19 E1	51 R1		
14,27	3,4	14 E1	49 R1	2,2	13 E1	37 R1	6,5	16 E1	51 R1	4,4	14 E1	38 R1	28	382
15,58	3,4	13 E1	49 R1	2,2	12 E1	37 R1	6,4	16 E1	51 R1	4,3	14 E1	38 R1	30	383
17,02	3,4	13 E1	48 R1	2,3	12 E1	36 R1	6,4	16 E1	50 R1	4,4	14 E1	38 R1		
21,31	3,4	13 E1	46 R1	2,3	12 E1	35 R1	6,3	15 E1	48 R1	4,3	14 E1	36 R1		
24,75	3,3	12 E1	44 R1	2,3	11 E1	33 R1	6,1	14 E1	46 R1	4,2	13 E1	34 R1		
29,91	3,2	11 E1	42 R1	2,2	11 E1	31 R1	5,7	14 E1	43 R1	3,9	12 E1	32 R1		
37,46	2,9	11 E1	38 R1	2,0	10 E1	29 R1	5,3	13 E1	40 R1	3,6	11 E1	30 R1		
43,50	2,7	10 E1	35 R1	1,9	9,3 E1	27 R1	4,9	12 E1	37 R1	3,4	11 E1	28 R1		
52,56	2,3	8,4 E1	30 R1	1,6	7,8 E1	23 R1	4,2	9,9 E1	32 R1	2,9	9,0 E1	24 R1		
58,87	2,3	8,1 E1	28 R1	1,5	7,5 E1	21 R1	4,3	9,6 E1	30 R1	2,9	8,4 E1	22 R1	34	382
64,28	2,3	7,8 E1	28 R1	1,5	7,2 E1	21 R1	4,3	9,6 E1	29 R1	2,9	8,4 E1	22 R1	36	383
70,19	2,3	7,8 E1	28 R1	1,5	7,2 E1	21 R1	4,2	9,3 E1	29 R1	2,9	8,4 E1	22 R1		
87,91	2,2	7,5 E1	26 R1	1,5	6,9 E1	20 R1	4,1	9,0 E1	27 R1	2,8	7,8 E1	20 R1		
102,09	2,2	7,2 E1	25 R1	1,5	6,6 E1	19 R1	3,9	8,4 E1	26 R1	2,7	7,5 E1	20 R1		
123,36	2,1	6,6 E1	23 R1	1,4	6,3 E1	18 R1	3,7	8,1 E1	24 R1	2,6	7,2 E1	18 R1		
154,52	2,0	6,3 E1	22 R1	1,4	6,0 E1	17 R1	3,5	7,8 E1	23 R1	2,4	6,9 E1	18 R1		
179,44	1,9	6,3 E1	22 R1	1,3	5,7 E1	16 R1	3,4	7,5 E1	23 R1	2,4	6,6 E1	17 R1		
216,82	1,8	5,7 E1	20 R1	1,2	5,4 E1	15 R1	3,2	6,9 E1	21 R1	2,2	6,3 E1	16 R1		
271,57	1,7	5,4 E1	19 R1	1,2	5,1 E1	14 R1	3,0	6,6 E1	20 R1	2,1	5,7 E1	15 R1		
315,38	1,6	5,1 E1	18 R1	1,1	4,8 E1	13 R1	2,8	6,0 E1	18 R1	1,9	5,4 E1	14 R1		
381,08	1,4	4,5 E1	15 R1	0,9	4,2 E1	12 R1	2,4	5,4 E1	16 R1	1,7	4,8 E1	12 R1		
289,53	1,5	4,8 E1	17 R1	1,0	4,5 E1	13 R1	2,8	6,0 E1	17 R1	1,9	5,1 E1	13 R1	39	382
362,65	1,5	4,5 E1	16 R1	1,0	4,2 E1	12 R1	2,6	5,4 E1	16 R1	1,8	4,8 E1	12 R1	41	383
421,14	1,4	4,2 E1	15 R1	1,0	3,9 E1	11 R1	2,5	5,4 E1	16 R1	1,8	4,5 E1	12 R1		
508,87	1,3	4,2 E1	14 R1	0,9	3,9 E1	11 R1	2,4	5,1 E1	15 R1	1,7	4,5 E1	11 R1		
637,38	1,3	3,9 E1	13 R1	0,9	3,6 E1	10 R1	2,3	4,8 E1	14 R1	1,6	4,2 E1	11 R1		
740,18	1,2	3,6 E1	13 R1	0,9	3,3 E1	10 R1	2,2	4,5 E1	13 R1	1,5	3,9 E1	10 R1		
894,38	1,2	3,6 E1	12 R1	0,8	3,3 E1	9,0 R1	2,0	4,2 E1	13 R1	1,4	3,6 E1	10 R1		
1120,24	1,1	3,3 E1	12 R1	0,8	3,0 E1	9,0 R1	2,0	4,2 E1	12 R1	1,4	3,6 E1	9,0 R1		
1300,92	1,1	3,3 E1	11 R1	0,7	3,0 E1	8,0 R1	1,9	3,9 E1	12 R1	1,3	3,3 E1	9,0 R1		
1571,95	1,0	3,0 E1	11 R1	0,7	2,7 E1	8,0 R1	1,8	3,6 E1	11 R1	1,3	3,3 E1	8,0 R1		
1968,90	0,9	3,0 E1	10 R1	0,7	2,7 E1	8,0 R1	1,7	3,6 E1	10 R1	1,2	3,0 E1	8,0 R1		
2286,47	0,9	2,7 E1	9,0 R1	0,6	2,4 E1	7,0 R1	1,6	3,3 E1	10 R1	1,1	3,0 E1	7,0 R1		
2762,82	0,8	2,4 E1	8,0 R1	0,6	2,1 E1	6,0 R1	1,4	3,0 E1	8,0 R1	1,0	2,4 E1	6,0 R1		
3,78	6,7	29 E1	108 R1	4,2	27 E1	81 R1	13	34 E1	112 R1	8,6	30 E1	84 R1	27	384
4,13	6,8	29 E1	107 R1	4,4	27 E1	80 R1	13	34 E1	111 R1	8,7	30 E1	83 R1	29	385
5,17	6,5	26 E1	97 R1	4,3	25 E1	73 R1	12	31 E1	100 R1	8,2	28 E1	75 R1		
6,00	6,0	24 E1	88 R1	4,1	23 E1	66 R1	11	28 E1	91 R1	7,6	25 E1	68 R1		
7,25	5,1	20 E1	74 R1	3,5	19 E1	56 R1	9,3	23 E1	77 R1	6,4	21 E1	57 R1		
14,27	4,2	15 E1	53 R1	2,7	14 E1	40 R1	7,8	18 E1	56 R1	5,3	16 E1	42 R1	33	384
15,58	4,1	15 E1	53 R1	2,7	14 E1	40 R1	7,8	18 E1	55 R1	5,2	16 E1	41 R1	35	385
17,02	4,2	15 E1	53 R1	2,8	14 E1	40 R1	7,8	18 E1	55 R1	5,3	16 E1	41 R1		
21,31	4,1	14 E1	50 R1	2,8	13 E1	38 R1	7,6	17 E1	52 R1	5,2	15 E1	39 R1		
24,75	4,0	14 E1	48 R1	2,8	13 E1	36 R1	7,3	16 E1	50 R1	5,0	14 E1	38 R1		
29,91	3,8	13 E1	45 R1	2,6	12 E1	34 R1	6,9	15 E1	47 R1	4,8	14 E1	36 R1		
37,46	3,5	12 E1	42 R1	2,4	11 E1	32 R1	6,4	14 E1	44 R1	4,4	13 E1	33 R1		
43,50	3,3	11 E1	39 R1	2,3	10 E1	29 R1	5,9	13 E1	41 R1	4,1	12 E1	30 R1		
52,56	2,8	10 E1	34 R1	2,0	8,7 E1	25 R1	5,1	11 E1	35 R1	3,5	10 E1	26 R1		
58,87	2,8	8,7 E1	31 R1	1,8	8,1 E1	23 R1	5,1	11 E1	32 R1	3,5	9,3 E1	24 R1	38	384
64,28	2,8	8,7 E1	30 R1	1,8	8,1 E1	23 R1	5,1	11 E1	32 R1	3,5	9,3 E1	24 R1	40	385
70,19	2,7	8,7 E1	30 R1	1,9	7,8 E1	22 R1	5,0	11 E1	31 R1	3,5	9,3 E1	23 R1		
87,91	2,7	8,1 E1	28 R1	1,8	7,5 E1	21 R1	4,8	9,9 E1	30 R1	3,3	8,7 E1	22 R1		
102,09	2,6	7,8 E1	27 R1	1,8	7,2 E1	20 R1	4,6	9,6 E1	28 R1	3,2	8,4 E1	21 R1		
123,36	2,4	7,5 E1	25 R1	1,7	6,9 E1	19 R1	4,4	9,0 E1	27 R1	3,0	7,8 E1	20 R1		



Motorsuz Planet Redüktörler
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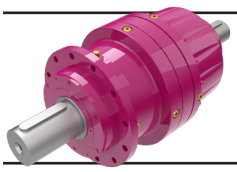
n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1203L	**2,00**	2,00	2,00	2,00	**154,52**	**4,7**	**1,2**	0,85	3,00	35	2,6
RT1203L	**2,00**	2,00	2,00	2,00	**179,44**	**4,0**	**1,0**	0,85	3,00	37	2,6
	2,00	2,00	2,00	2,00	**216,82**	**3,3**	**0,83**	0,84	3,00	39	2,6
	2,00	2,00	2,00	2,00	**271,57**	**2,7**	**0,67**	0,83	3,00	39	2,6
	1,80	1,91	2,00	2,00	**315,38**	**2,3**	**0,53**	0,82	3,00	39	2,6
	1,46	1,65	1,87	2,00	**381,08**	**1,9**	**0,36**	0,80	3,00	39	2,6
PT1204L	**2,00**	2,00	2,00	2,00	**289,53**	**2,5**	**0,68**	0,77	3,00	39	2,6
RT1204L	**2,00**	2,00	2,00	2,00	**362,65**	**2,0**	**0,54**	0,78	3,00	39	2,6
	2,00	2,00	2,00	2,00	**421,14**	**1,7**	**0,46**	0,78	3,00	39	2,6
	2,00	2,00	2,00	2,00	**508,87**	**1,4**	**0,39**	0,77	3,00	39	2,6
	2,00	2,00	2,00	2,00	**637,38**	**1,1**	**0,31**	0,76	3,00	39	2,6
	2,00	2,00	2,00	2,00	**740,18**	**1,0**	**0,27**	0,75	3,00	39	2,6
	2,00	2,00	2,00	2,00	**894,38**	**0,81**	**0,23**	0,74	3,00	39	2,6
	2,00	2,00	2,00	2,00	**1120,24**	**0,65**	**0,19**	0,72	3,00	39	2,6
	2,00	2,00	2,00	2,00	**1300,92**	**0,56**	**0,16**	0,71	3,00	39	2,6
	2,00	2,00	2,00	2,00	**1571,95**	**0,46**	**0,14**	0,70	3,00	39	2,6
	2,00	2,00	2,00	2,00	**1968,90**	**0,37**	**0,12**	0,67	3,00	39	2,6
	2,00	2,00	2,00	2,00	**2286,47**	**0,32**	**0,10**	0,65	3,00	39	2,6
	1,95	2,00	2,00	2,00	**2762,82**	**0,26**	**0,09**	0,60	3,00	39	2,6
PT1501L	**2,11**	2,55	2,61	2,65	**3,60**	**201**	**46**	0,96	3,72	17	6,3
RT1501L	**2,21**	2,72	3,02	3,06	**4,25**	**171**	**41**	0,96	3,72	18	6,3
	2,30	2,56	2,61	2,65	**5,33**	**136**	**34**	0,96	3,72	19	6,3
	2,14	2,26	2,37	2,41	**6,20**	**117**	**28**	0,95	3,72	20	6,3
	1,48	1,56	1,68	1,78	**7,50**	**97**	**16**	0,95	3,50	21	6,3
PT1502L	**2,56**	2,65	2,76	2,81	**13,60**	**53**	**16**	0,92	3,72	25	2,6
RT1502L	**3,06**	3,10	3,10	3,10	**17,53**	**41**	**14**	0,92	3,72	27	2,6
	3,08	3,10	3,10	3,10	**21,96**	**33**	**12**	0,92	3,72	29	2,6
	3,10	3,10	3,10	3,10	**25,50**	**28**	**10**	0,92	3,72	31	2,6
	2,68	2,72	2,78	2,83	**32,00**	**23**	**7,0**	0,91	3,72	33	2,6
	2,69	2,74	2,79	2,84	**38,67**	**19**	**5,8**	0,91	3,72	35	2,6
	2,43	2,48	2,54	2,64	**44,95**	**16**	**4,5**	0,90	3,72	36	2,6
	1,71	1,80	2,05	2,37	**54,38**	**13**	**2,6**	0,90	3,72	38	2,6
PT1503L	**2,64**	2,73	2,85	2,92	**51,38**	**14**	**4,5**	0,87	3,72	37	2,6
RT1503L	**3,10**	3,10	3,10	3,10	**66,23**	**11**	**4,1**	0,87	3,72	41	2,6
	3,10	3,10	3,10	3,10	**72,32**	**10**	**3,7**	0,87	3,72	42	2,6
	3,10	3,10	3,10	3,10	**90,58**	**8,0**	**3,0**	0,87	3,72	45	2,6
	3,10	3,10	3,10	3,10	**105,19**	**6,9**	**2,6**	0,86	3,72	47	2,6
	3,10	3,10	3,10	3,10	**127,10**	**5,7**	**2,2**	0,86	3,72	49	2,6
	3,10	3,10	3,10	3,10	**159,20**	**4,6**	**1,7**	0,86	3,72	53	2,6
	3,10	3,10	3,10	3,10	**184,88**	**3,9**	**1,5**	0,85	3,72	55	2,6
	2,81	2,92	3,10	3,10	**232,00**	**3,1**	**1,1**	0,85	3,72	59	2,6
	2,83	2,99	3,10	3,10	**280,33**	**2,6**	**0,91**	0,84	3,72	61	2,6
	2,57	2,79	3,10	3,10	**325,89**	**2,2**	**0,72**	0,83	3,72	61	2,6
	2,20	2,54	2,94	3,10	**394,22**	**1,8**	**0,52**	0,82	3,72	62	2,6
PT1504L	**2,76**	2,85	3,10	3,10	**194,09**	**3,7**	**1,4**	0,79	3,72	56	2,6
RT1504L	**3,10**	3,10	3,10	3,10	**250,20**	**2,9**	**1,2**	0,79	3,72	61	2,6
	3,10	3,10	3,10	3,10	**273,20**	**2,7**	**1,1**	0,79	3,72	61	2,6
	3,10	3,10	3,10	3,10	**298,31**	**2,4**	**1,0**	0,79	3,72	61	2,6
	3,10	3,10	3,10	3,10	**373,63**	**1,9**	**0,79**	0,79	3,72	61	2,6
	3,10	3,10	3,10	3,10	**433,90**	**1,7**	**0,68**	0,79	3,72	61	2,6
	3,10	3,10	3,10	3,10	**524,29**	**1,4**	**0,57**	0,78	3,72	61	2,6
	3,10	3,10	3,10	3,10	**656,69**	**1,1**	**0,46**	0,77	3,72	61	2,6
	3,10	3,10	3,10	3,10	**762,61**	**1,0**	**0,40**	0,77	3,72	61	2,6
	3,10	3,10	3,10	3,10	**921,49**	**0,79**	**0,34**	0,75	3,72	61	2,6
	3,10	3,10	3,10	3,10	**1154,18**	**0,63**	**0,27**	0,75	3,72	61	2,6
	3,10	3,10	3,10	3,10	**1340,34**	**0,54**	**0,24**	0,74	3,72	61	2,6
	3,10	3,10	3,10	3,10	**1619,58**	**0,45**	**0,20**	0,73	3,72	61	2,6
	3,10	3,10	3,10	3,10	**2032,42**	**0,36**	**0,16**	0,70	3,72	61	2,6
	3,10	3,10	3,10	3,10	**2362,68**	**0,31**	**0,15**	0,68	3,72	61	2,6
	3,09	3,10	3,10	3,10	**2858,09**	**0,25**	**0,13**	0,64	3,72	61	2,6



Motorsuz Planet Redüktörler
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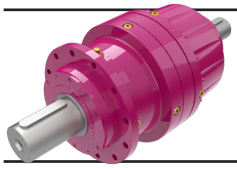
n_1=725

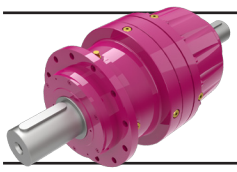
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
154,52	**2,3**	7,2 E1	24 R1	**1,6**	6,6 E1	18 R1	**4,2**	8,7 E1	26 R1	**2,9**	7,5 E1	19 R1	38	384
179,44	**2,3**	6,9 E1	23 R1	**1,6**	6,3 E1	18 R1	**4,0**	8,4 E1	25 R1	**2,8**	7,2 E1	19 R1	40	385
216,82	**2,1**	6,6 E1	22 R1	**1,5**	6,0 E1	17 R1	**3,8**	7,8 E1	23 R1	**2,7**	6,9 E1	18 R1		
271,57	**2,0**	6,0 E1	21 R1	**1,4**	5,4 E1	16 R1	**3,6**	7,2 E1	22 R1	**2,5**	6,3 E1	16 R1		
315,38	**1,9**	5,7 E1	19 R1	**1,3**	5,1 E1	15 R1	**3,3**	6,9 E1	20 R1	**2,3**	6,0 E1	15 R1		
381,08	**1,6**	4,8 E1	17 R1	**1,1**	4,5 E1	13 R1	**2,9**	6,0 E1	18 R1	**2,0**	5,1 E1	13 R1		
289,53	**1,9**	5,4 E1	18 R1	**1,3**	4,8 E1	14 R1	**3,4**	6,6 E1	19 R1	**2,3**	5,7 E1	14 R1	44	384
362,65	**1,8**	5,1 E1	17 R1	**1,2**	4,5 E1	13 R1	**3,2**	6,3 E1	18 R1	**2,2**	5,4 E1	13 R1	46	385
421,14	**1,7**	4,8 E1	16 R1	**1,2**	4,5 E1	12 R1	**3,1**	6,0 E1	17 R1	**2,2**	5,1 E1	13 R1		
508,87	**1,6**	4,5 E1	15 R1	**1,1**	4,2 E1	11 R1	**2,9**	5,7 E1	16 R1	**2,0**	4,8 E1	12 R1		
637,38	**1,5**	4,2 E1	14 R1	**1,1**	3,9 E1	11 R1	**2,7**	5,4 E1	15 R1	**1,9**	4,5 E1	11 R1		
740,18	**1,5**	4,2 E1	14 R1	**1,0**	3,9 E1	10 R1	**2,6**	5,1 E1	15 R1	**1,8**	4,5 E1	11 R1		
894,38	**1,4**	3,9 E1	13 R1	**1,0**	3,6 E1	10 R1	**2,5**	4,8 E1	14 R1	**1,7**	4,2 E1	10 R1		
1120,24	**1,3**	3,6 E1	12 R1	**0,9**	3,3 E1	9,0 R1	**2,4**	4,5 E1	13 R1	**1,7**	3,9 E1	10 R1		
1300,92	**1,3**	3,6 E1	12 R1	**0,9**	3,3 E1	9,0 R1	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1		
1571,95	**1,2**	3,3 E1	11 R1	**0,9**	3,0 E1	9,0 R1	**2,2**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1		
1968,90	**1,2**	3,3 E1	11 R1	**0,8**	3,0 E1	8,0 R1	**2,0**	3,9 E1	11 R1	**1,4**	3,3 E1	9,0 R1		
2286,47	**1,1**	3,0 E1	10 R1	**0,8**	2,7 E1	8,0 R1	**1,9**	3,6 E1	11 R1	**1,3**	3,3 E1	8,0 R1		
2762,82	**1,0**	2,7 E1	9,0 R1	**0,7**	2,4 E1	7,0 R1	**1,7**	3,3 E1	9,0 R1	**1,2**	2,7 E1	7,0 R1		
3,60	**12**	58 E2	127 R1	**7,5**	55 E2	95 R1	**23**	67 E2	135 R1	**15**	61 E2	100 R1	54	386
4,25	**12**	57 E2	125 R1	**7,9**	54 E2	94 R1	**23**	45 E1	133 R1	**15**	60 E2	99 R1	64	387
5,33	**11**	52 E2	112 R1	**7,4**	49 E2	84 R1	**20**	41 E1	118 R1	**14**	35 E1	88 R1		
6,20	**10**	30 E1	102 R1	**6,9**	44 E2	76 R1	**19**	37 E1	108 R1	**13**	32 E1	80 R1		
7,50	**8,7**	26 E1	87 R1	**5,9**	23 E1	65 R1	**16**	32 E1	92 R1	**11**	27 E1	68 R1		
13,60	**5,5**	17 E1	60 R1	**3,6**	16 E1	45 R1	**10**	21 E1	63 R1	**7,0**	18 E1	47 R1	46	386
17,53	**5,5**	17 E1	59 R1	**3,7**	15 E1	44 R1	**10**	21 E1	62 R1	**6,9**	18 E1	46 R1	56	387
21,96	**5,4**	16 E1	56 R1	**3,7**	15 E1	42 R1	**9,9**	20 E1	59 R1	**6,8**	17 E1	44 R1		
25,50	**5,3**	16 E1	54 R1	**3,6**	14 E1	41 R1	**9,6**	20 E1	57 R1	**6,6**	17 E1	43 R1		
32,00	**4,9**	14 E1	50 R1	**3,4**	13 E1	37 R1	**8,8**	18 E1	52 R1	**6,1**	16 E1	39 R1		
38,67	**4,6**	14 E1	47 R1	**3,2**	13 E1	35 R1	**8,3**	17 E1	49 R1	**5,7**	15 E1	37 R1		
44,95	**4,3**	13 E1	43 R1	**2,9**	12 E1	33 R1	**7,7**	16 E1	46 R1	**5,3**	14 E1	34 R1		
54,38	**3,8**	11 E1	38 R1	**2,6**	10 E1	29 R1	**6,8**	14 E1	40 R1	**4,7**	12 E1	30 R1		
51,38	**3,4**	10 E1	34 R1	**2,2**	9,0 E1	25 R1	**6,2**	12 E1	36 R1	**4,2**	11 E1	27 R1	52	386
66,23	**3,3**	10 E1	33 R1	**2,2**	8,7 E1	25 R1	**6,1**	12 E1	35 R1	**4,2**	11 E1	26 R1	62	387
72,32	**3,3**	10 E1	33 R1	**2,2**	8,7 E1	25 R1	**6,1**	12 E1	34 R1	**4,1**	10 E1	26 R1		
90,58	**3,2**	9,0 E1	31 R1	**2,2**	8,4 E1	23 R1	**5,8**	11 E1	33 R1	**4,0**	10 E1	24 R1		
105,19	**3,1**	8,7 E1	30 R1	**2,1**	8,1 E1	22 R1	**5,6**	11 E1	31 R1	**3,9**	9,3 E1	23 R1		
127,10	**2,9**	8,1 E1	28 R1	**2,0**	7,5 E1	21 R1	**5,2**	10 E1	29 R1	**3,6**	8,7 E1	22 R1		
159,20	**2,8**	7,8 E1	27 R1	**1,9**	7,2 E1	20 R1	**5,0**	9,9 E1	28 R1	**3,5**	8,4 E1	21 R1		
184,88	**2,7**	7,8 E1	26 R1	**1,9**	6,9 E1	19 R1	**4,9**	9,6 E1	27 R1	**3,4**	8,1 E1	20 R1		
232,00	**2,5**	7,2 E1	24 R1	**1,7**	6,6 E1	18 R1	**4,5**	8,7 E1	25 R1	**3,1**	7,5 E1	19 R1		
280,33	**2,4**	6,6 E1	23 R1	**1,7**	6,0 E1	17 R1	**4,3**	8,4 E1	24 R1	**3,0**	7,2 E1	18 R1		
325,89	**2,2**	6,3 E1	21 R1	**1,6**	5,7 E1	16 R1	**4,0**	7,8 E1	22 R1	**2,8**	6,6 E1	17 R1		
394,22	**2,0**	5,7 E1	19 R1	**1,4**	5,1 E1	14 R1	**3,6**	6,9 E1	20 R1	**2,5**	6,0 E1	15 R1		
194,09	**2,2**	6,0 E1	20 R1	**1,5**	5,4 E1	15 R1	**4,1**	7,8 E1	22 R1	**2,8**	6,6 E1	16 R1	57	386
250,20	**2,2**	6,0 E1	20 R1	**1,5**	5,4 E1	15 R1	**4,0**	7,5 E1	21 R1	**2,8**	6,6 E1	16 R1	67	387
273,20	**2,2**	6,0 E1	20 R1	**1,5**	5,4 E1	15 R1	**4,0**	7,5 E1	21 R1	**2,7**	6,3 E1	16 R1		
298,31	**2,1**	5,7 E1	19 R1	**1,5**	5,4 E1	15 R1	**3,9**	7,2 E1	21 R1	**2,7**	6,3 E1	16 R1		
373,63	**2,1**	5,4 E1	18 R1	**1,4**	5,1 E1	14 R1	**3,7**	6,9 E1	19 R1	**2,6**	6,0 E1	15 R1		
433,90	**2,0**	5,4 E1	17 R1	**1,4**	4,8 E1	13 R1	**3,5**	6,6 E1	19 R1	**2,5**	5,7 E1	14 R1		
524,29	**1,9**	5,1 E1	16 R1	**1,3**	4,5 E1	12 R1	**3,3**	6,3 E1	17 R1	**2,3**	5,4 E1	13 R1		
656,69	**1,8**	4,8 E1	16 R1	**1,2**	4,2 E1	12 R1	**3,2**	6,0 E1	17 R1	**2,2**	5,1 E1	12 R1		
762,61	**1,7**	4,5 E1	15 R1	**1,2**	4,2 E1	11 R1	**3,0**	5,7 E1	16 R1	**2,1**	4,8 E1	12 R1		
921,49	**1,6**	4,2 E1	14 R1	**1,1**	3,9 E1	11 R1	**2,9**	5,4 E1	15 R1	**2,0**	4,5 E1	11 R1		
1154,18	**1,6**	4,2 E1	14 R1	**1,1**	3,9 E1	10 R1	**2,8**	5,1 E1	14 R1	**1,9**	4,5 E1	11 R1		
1340,34	**1,5**	3,9 E1	13 R1	**1,0**	3,6 E1	10 R1	**2,7**	5,1 E1	14 R1	**1,9**	4,2 E1	11 R1		
1619,58	**1,4**	3,9 E1	13 R1	**1,0**	3,6 E1	10 R1	**2,5**	4,8 E1	13 R1	**1,8**	4,2 E1	10 R1		
2032,42	**1,3**	3,6 E1	12 R1	**0,9**	3,3 E1	9,0 R1	**2,4**	4,5 E1	12 R1	**1,6**	3,9 E1	9,0 R1		
2362,68	**1,2**	3,3 E1	11 R1	**0,9**	3,0 E1	8,0 R1	**2,2**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1		
2858,09	**1,1**	3,0 E1	10 R1	**0,8**	2,7 E1	7,0 R1	**2,0**	3,6 E1	10 R1	**1,4**	3,3 E1	8,0 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1601L	**2,84**	3,49	4,60	4,82	**3,60**	**201**	**62**	0,96	5,83	17	6,3
RT1601L	**2,97**	3,66	4,81	5,00	**4,25**	**171**	**55**	0,96	6,10	18	6,3
	3,10	3,81	4,49	4,55	**5,33**	**136**	**46**	0,96	6,35	19	6,3
	3,18	3,66	3,72	3,76	**6,20**	**117**	**41**	0,95	6,53	20	6,3
	2,14	2,21	2,33	2,41	**7,50**	**97**	**23**	0,95	5,33	21	6,3
PT1602L	**3,94**	4,85	5,00	5,00	**13,60**	**53**	**24**	0,92	7,50	25	2,6
RT1602L	**4,70**	5,00	5,00	5,00	**17,53**	**41**	**22**	0,92	7,50	27	2,6
	4,95	5,00	5,00	5,00	**21,96**	**33**	**19**	0,92	7,50	29	2,6
	5,00	5,00	5,00	5,00	**25,50**	**28**	**16**	0,92	7,50	31	2,6
	4,62	4,67	4,75	4,81	**32,00**	**23**	**12**	0,92	7,50	33	2,6
	4,64	4,69	4,77	4,83	**38,67**	**19**	**10**	0,91	7,50	35	2,6
	3,84	3,89	3,95	4,07	**44,95**	**16**	**7,1**	0,91	7,50	36	2,6
	2,50	2,60	2,85	3,17	**54,38**	**13**	**3,9**	0,91	6,07	38	2,6
PT1603L	**5,00**	5,00	5,00	5,00	**51,38**	**14**	**8,5**	0,87	7,50	37	2,6
RT1603L	**5,00**	5,00	5,00	5,00	**66,23**	**11**	**6,6**	0,87	7,50	41	2,6
	5,00	5,00	5,00	5,00	**72,32**	**10**	**6,0**	0,87	7,50	42	2,6
	5,00	5,00	5,00	5,00	**90,58**	**8,0**	**4,8**	0,87	7,50	45	2,6
	5,00	5,00	5,00	5,00	**105,19**	**6,9**	**4,2**	0,87	7,50	47	2,6
	5,00	5,00	5,00	5,00	**127,10**	**5,7**	**3,5**	0,86	7,50	49	2,6
	5,00	5,00	5,00	5,00	**159,20**	**4,6**	**2,8**	0,86	7,50	53	2,6
	5,00	5,00	5,00	5,00	**184,88**	**3,9**	**2,4**	0,86	7,50	53	2,6
	4,80	4,94	5,00	5,00	**232,00**	**3,1**	**1,8**	0,85	7,50	53	2,6
	4,82	5,00	5,00	5,00	**280,33**	**2,6**	**1,5**	0,85	7,50	53	2,6
	3,99	4,26	4,73	5,00	**325,89**	**2,2**	**1,1**	0,84	7,50	53	2,6
	3,00	3,34	3,75	4,09	**394,22**	**1,8**	**0,69**	0,83	6,82	57	2,6
PT1604L	**4,32**	4,48	4,96	5,00	**194,09**	**3,7**	**2,1**	0,81	7,50	53	2,6
RT1604L	**5,00**	5,00	5,00	5,00	**250,20**	**2,9**	**1,9**	0,80	7,50	53	2,6
	5,00	5,00	5,00	5,00	**273,20**	**2,7**	**1,7**	0,80	7,50	53	2,6
	5,00	5,00	5,00	5,00	**298,31**	**2,4**	**1,6**	0,80	7,50	53	2,6
	5,00	5,00	5,00	5,00	**373,63**	**1,9**	**1,3**	0,80	7,50	53	2,6
	5,00	5,00	5,00	5,00	**433,90**	**1,7**	**1,1**	0,80	7,50	53	2,6
	5,00	5,00	5,00	5,00	**524,29**	**1,4**	**0,91**	0,79	7,50	53	2,6
	5,00	5,00	5,00	5,00	**656,69**	**1,1**	**0,74**	0,79	7,50	53	2,6
	5,00	5,00	5,00	5,00	**762,61**	**1,0**	**0,64**	0,78	7,50	53	2,6
	5,00	5,00	5,00	5,00	**921,49**	**0,79**	**0,54**	0,77	7,50	53	2,6
	5,00	5,00	5,00	5,00	**1154,18**	**0,63**	**0,43**	0,76	7,50	53	2,6
	5,00	5,00	5,00	5,00	**1340,34**	**0,54**	**0,37**	0,76	7,50	53	2,6
	5,00	5,00	5,00	5,00	**1619,58**	**0,45**	**0,31**	0,75	7,50	53	2,6
	5,00	5,00	5,00	5,00	**2032,42**	**0,36**	**0,26**	0,73	7,50	53	2,6
	4,94	5,00	5,00	5,00	**2362,68**	**0,31**	**0,22**	0,71	7,50	53	2,6
	3,93	4,29	4,83	5,00	**2858,09**	**0,25**	**0,15**	0,68	7,50	53	2,6
PT1901L	**3,85**	4,74	6,24	6,72	**3,60**	**201**	**84**	0,96	7,90	29	11
RT1901L	**4,03**	4,96	6,53	7,64	**4,25**	**171**	**75**	0,96	8,27	30	11
	4,20	5,17	6,46	6,57	**5,33**	**136**	**62**	0,96	8,62	33	11
	4,31	5,19	5,56	5,84	**6,20**	**117**	**55**	0,96	8,85	34	11
	3,69	3,83	4,03	4,19	**7,50**	**97**	**39**	0,95	8,76	36	11
PT1902L	**5,65**	6,30	6,58	6,79	**12,96**	**56**	**36**	0,93	11,6	42	6,3
RT1902L	**6,22**	7,66	7,94	8,06	**18,06**	**40**	**28**	0,93	12,8	47	6,3
	6,66	7,84	7,99	8,11	**22,67**	**32**	**24**	0,93	13,7	50	6,3
	6,96	7,87	8,03	8,15	**26,35**	**28**	**22**	0,93	14,3	52	6,3
	6,29	6,65	7,16	7,56	**31,88**	**23**	**16**	0,92	14,9	56	6,3
	6,69	6,79	6,94	7,07	**40,00**	**18**	**14**	0,92	15,8	59	6,3
	5,60	5,89	6,32	6,54	**46,50**	**16**	**10**	0,92	13,5	62	6,3
	4,11	4,26	4,70	5,23	**56,25**	**13**	**6,1**	0,91	9,95	66	6,3
PT1903L	**7,91**	8,02	8,18	8,50	**57,80**	**13**	**12**	0,88	18,1	66	2,6
RT1903L	**7,94**	8,06	8,22	8,50	**68,24**	**11**	**10**	0,88	19,0	70	2,6
	7,95	8,07	8,23	8,50	**74,51**	**10**	**9,2**	0,88	19,5	72	2,6
	7,99	8,11	8,34	8,50	**93,32**	**7,8**	**7,4**	0,88	19,7	77	2,6
	8,02	8,14	8,50	8,50	**108,38**	**6,7**	**6,4**	0,87	19,8	80	2,6



Motorsuz Planet Redüktörler
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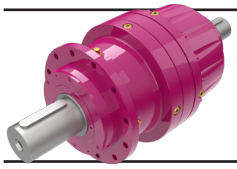
Planetengetriebe

n_1=725

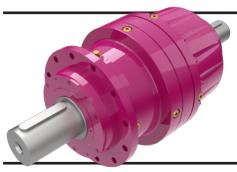
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
3,60	**14**	65 E2	143 R1	**9,1**	91 E3	106 R1	**27**	75 E2	151 R1	**18**	68 E2	112 R1	66	388
4,25	**14**	64 E2	140 R1	**9,4**	61 E2	105 R1	**27**	75 E2	149 R1	**18**	67 E2	111 R1	76	389
5,33	**13**	58 E2	125 R1	**8,9**	55 E2	94 R1	**24**	67 E2	133 R1	**17**	61 E2	99 R1		
6,20	**12**	53 E2	114 R1	**8,2**	50 E2	85 R1	**22**	43 E1	121 R1	**15**	55 E2	90 R1		
7,50	**10**	29 E1	97 R1	**7,1**	26 E1	73 R1	**19**	36 E1	103 R1	**13**	31 E1	77 R1		
13,60	**6,5**	31 E2	67 R1	**4,3**	29 E2	50 R1	**12**	24 E1	71 R1	**8,2**	32 E2	53 R1	62	388
17,53	**6,5**	30 E2	66 R1	**4,4**	29 E2	49 R1	**12**	24 E1	69 R1	**8,2**	32 E2	52 R1	72	389
21,96	**6,4**	19 E1	63 R1	**4,4**	28 E2	47 R1	**12**	23 E1	66 R1	**8,0**	20 E1	50 R1		
25,50	**6,3**	18 E1	60 R1	**4,3**	26 E2	45 R1	**11**	22 E1	64 R1	**7,8**	19 E1	48 R1		
32,00	**5,8**	17 E1	56 R1	**4,0**	15 E1	42 R1	**10**	20 E1	59 R1	**7,2**	18 E1	44 R1		
38,67	**5,4**	15 E1	52 R1	**3,7**	14 E1	39 R1	**9,8**	19 E1	55 R1	**6,8**	17 E1	41 R1		
44,95	**5,0**	14 E1	49 R1	**3,5**	13 E1	36 R1	**9,1**	18 E1	51 R1	**6,3**	15 E1	38 R1		
54,38	**4,5**	13 E1	43 R1	**3,1**	11 E1	32 R1	**8,0**	16 E1	45 R1	**5,6**	14 E1	34 R1		
51,38	**3,8**	11 E1	37 R1	**2,6**	10 E1	28 R1	**7,1**	14 E1	39 R1	**4,8**	12 E1	29 R1	68	388
66,23	**3,8**	11 E1	36 R1	**2,5**	10 E1	27 R1	**7,0**	14 E1	39 R1	**4,8**	11 E1	29 R1	78	389
72,32	**3,8**	11 E1	36 R1	**2,5**	10 E1	27 R1	**6,9**	13 E1	38 R1	**4,7**	11 E1	28 R1		
90,58	**3,7**	10 E1	34 R1	**2,5**	9,3 E1	26 R1	**6,6**	13 E1	36 R1	**4,6**	11 E1	27 R1		
105,19	**3,5**	10 E1	33 R1	**2,4**	8,7 E1	24 R1	**6,4**	12 E1	34 R1	**4,4**	11 E1	26 R1		
127,10	**3,3**	9,3 E1	31 R1	**2,3**	8,4 E1	23 R1	**6,0**	11 E1	32 R1	**4,2**	10 E1	24 R1		
159,20	**3,2**	8,7 E1	29 R1	**2,2**	8,1 E1	22 R1	**5,8**	11 E1	31 R1	**4,0**	10 E1	23 R1		
184,88	**3,1**	8,4 E1	28 R1	**2,2**	7,8 E1	21 R1	**5,6**	11 E1	30 R1	**3,9**	9,3 E1	23 R1		
232,00	**2,9**	7,8 E1	26 R1	**2,0**	7,2 E1	20 R1	**5,2**	9,9 E1	28 R1	**3,6**	8,4 E1	21 R1		
280,33	**2,7**	7,5 E1	25 R1	**1,9**	6,9 E1	19 R1	**4,9**	9,3 E1	27 R1	**3,4**	8,1 E1	20 R1		
325,89	**2,6**	6,9 E1	23 R1	**1,8**	6,3 E1	18 R1	**4,6**	8,7 E1	25 R1	**3,2**	7,5 E1	19 R1		
394,22	**2,3**	6,3 E1	21 R1	**1,6**	5,7 E1	16 R1	**4,1**	7,8 E1	22 R1	**2,9**	6,6 E1	17 R1		
194,09	**2,4**	6,6 E1	22 R1	**1,6**	6,0 E1	17 R1	**4,5**	8,4 E1	24 R1	**3,1**	7,2 E1	18 R1	73	388
250,20	**2,4**	6,6 E1	22 R1	**1,6**	6,0 E1	17 R1	**4,4**	8,4 E1	23 R1	**3,0**	7,2 E1	17 R1	83	389
273,20	**2,4**	6,6 E1	22 R1	**1,6**	5,7 E1	16 R1	**4,3**	8,1 E1	23 R1	**3,0**	6,9 E1	17 R1		
298,31	**2,3**	6,3 E1	21 R1	**1,6**	5,7 E1	16 R1	**4,3**	8,1 E1	23 R1	**2,9**	6,9 E1	17 R1		
373,63	**2,3**	6,0 E1	20 R1	**1,6**	5,4 E1	15 R1	**4,1**	7,5 E1	21 R1	**2,8**	6,6 E1	16 R1		
433,90	**2,2**	5,7 E1	19 R1	**1,5**	5,1 E1	14 R1	**3,9**	7,2 E1	20 R1	**2,7**	6,3 E1	15 R1		
524,29	**2,1**	5,4 E1	18 R1	**1,4**	4,8 E1	14 R1	**3,7**	6,9 E1	19 R1	**2,5**	6,0 E1	14 R1		
656,69	**1,9**	5,1 E1	17 R1	**1,4**	4,8 E1	13 R1	**3,5**	6,6 E1	18 R1	**2,4**	5,7 E1	14 R1		
762,61	**1,9**	5,1 E1	16 R1	**1,3**	4,5 E1	12 R1	**3,3**	6,3 E1	17 R1	**2,3**	5,4 E1	13 R1		
921,49	**1,8**	4,8 E1	15 R1	**1,2**	4,2 E1	12 R1	**3,2**	6,0 E1	16 R1	**2,2**	5,1 E1	12 R1		
1154,18	**1,7**	4,5 E1	15 R1	**1,2**	4,2 E1	11 R1	**3,0**	5,7 E1	16 R1	**2,1**	4,8 E1	12 R1		
1340,34	**1,7**	4,5 E1	14 R1	**1,2**	3,9 E1	11 R1	**2,9**	5,4 E1	15 R1	**2,1**	4,8 E1	12 R1		
1619,58	**1,6**	4,2 E1	14 R1	**1,1**	3,9 E1	10 R1	**2,8**	5,1 E1	15 R1	**2,0**	4,5 E1	11 R1		
2032,42	**1,5**	3,9 E1	13 R1	**1,0**	3,6 E1	10 R1	**2,6**	4,8 E1	14 R1	**1,8**	4,2 E1	10 R1		
2362,68	**1,4**	3,6 E1	12 R1	**1,0**	3,3 E1	9,0 R1	**2,4**	4,5 E1	13 R1	**1,7**	3,9 E1	10 R1		
2858,09	**1,2**	3,3 E1	11 R1	**0,9**	3,0 E1	8,0 R1	**2,2**	4,2 E1	11 R1	**1,5**	3,6 E1	9,0 R1		
3,60	**21**	108 E3	159 R1	14	102 E3	118 R1	**39**	91 E2	173 R1	**26**	112 E3	128 R1	112	390
4,25	**21**	106 E3	157 R1	14	101 E3	117 R1	**39**	90 E2	170 R1	**27**	79 E2	126 R1	126	391
5,33	**19**	67 E2	141 R1	13	91 E3	105 R1	**35**	81 E2	152 R1	**24**	71 E2	113 R1		
6,20	**18**	61 E2	128 R1	12	57 E2	95 R1	**32**	73 E2	138 R1	**22**	65 E2	103 R1		
7,50	**15**	52 E2	109 R1	10	49 E2	82 R1	**28**	46 E1	119 R1	**19**	55 E2	88 R1		
12,96	**11**	37 E2	77 R1	7,0	49 E3	57 R1	**20**	44 E2	83 R1	**13**	39 E2	62 R1	114	390
18,06	**11**	36 E2	75 R1	7,1	33 E2	56 R1	**19**	32 E1	81 R1	**13**	38 E2	60 R1	128	391
22,67	**10**	35 E2	72 R1	7,0	32 E2	54 R1	**19**	31 E1	78 R1	**13**	25 E1	58 R1		
26,35	**9,9**	22 E1	69 R1	6,8	31 E2	51 R1	**18**	29 E1	75 R1	**12**	24 E1	56 R1		
31,88	**9,4**	21 E1	65 R1	6,4	19 E1	49 R1	**17**	28 E1	70 R1	**12**	23 E1	52 R1		
40,00	**8,6**	19 E1	59 R1	5,9	17 E1	45 R1	**16**	26 E1	64 R1	**11**	21 E1	48 R1		
46,50	**8,0**	18 E1	55 R1	5,5	16 E1	41 R1	**14**	23 E1	60 R1	**10**	20 E1	44 R1		
56,25	**7,0**	16 E1	49 R1	4,8	14 E1	36 R1	**13**	21 E1	53 R1	**8,8**	17 E1	39 R1		
57,80	**6,9**	14 E1	42 R1	**4,7**	12 E1	31 R1	**13**	19 E1	46 R1	**8,7**	16 E1	34 R1	106	390
68,24	**6,9**	14 E1	41 R1	**4,7**	12 E1	31 R1	**13**	19 E1	46 R1	**8,6**	16 E1	34 R1	120	391
74,51	**6,8**	14 E1	41 R1	**4,7**	12 E1	31 R1	**12**	19 E1	45 R1	**8,5**	15 E1	33 R1		
93,32	**6,6**	13 E1	39 R1	**4,5**	11 E1	29 R1	**12**	18 E1	43 R1	**8,2**	15 E1	32 R1		
108,38	**6,3**	13 E1	37 R1	**4,4**	11 E1	28 R1	**11**	17 E1	41 R1	**7,9**	14 E1	30 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1903L	**8,06**	8,18	8,50	8,50	**130,95**	**5,5**	**5,4**	0,87	19,9	85	2,6
RT1903L	**8,10**	8,22	8,50	8,50	**164,33**	**4,4**	**4,3**	0,87	20,0	91	2,6
	8,12	8,25	8,50	8,50	**191,04**	**3,8**	**3,7**	0,86	20,0	95	2,6
	7,25	7,65	8,50	8,50	**231,09**	**3,1**	**2,8**	0,86	17,3	95	2,6
	7,02	7,46	8,44	8,50	**290,00**	**2,5**	**2,1**	0,86	17,3	95	2,6
	6,38	6,85	7,64	8,30	**337,13**	**2,2**	**1,7**	0,85	15,6	95	2,6
	4,94	5,51	6,38	7,13	**407,81**	**1,8**	**1,1**	0,84	11,2	97	2,6
PT1904L	**8,19**	8,50	8,50	8,50	**281,47**	**2,6**	**2,7**	0,81	20,2	95	2,6
RT1904L	**8,21**	8,50	8,50	8,50	**307,34**	**2,4**	**2,5**	0,81	20,2	95	2,6
	8,25	8,50	8,50	8,50	**384,96**	**1,9**	**2,0**	0,81	20,3	95	2,6
	8,30	8,50	8,50	8,50	**447,05**	**1,6**	**1,8**	0,81	20,4	95	2,6
	8,50	8,50	8,50	8,50	**540,18**	**1,3**	**1,5**	0,80	20,5	95	2,6
	8,50	8,50	8,50	8,50	**676,59**	**1,1**	**1,2**	0,79	23,1	95	2,6
	8,50	8,50	8,50	8,50	**785,72**	**0,92**	**1,0**	0,79	20,7	95	2,6
	8,50	8,50	8,50	8,50	**949,41**	**0,76**	**0,87**	0,78	21,1	95	2,6
	8,50	8,50	8,50	8,50	**1191,42**	**0,61**	**0,70**	0,77	21,3	95	2,6
	8,50	8,50	8,50	8,50	**1385,02**	**0,52**	**0,61**	0,77	21,3	95	2,6
	8,50	8,50	8,50	8,50	**1675,43**	**0,43**	**0,51**	0,76	20,7	95	2,6
	8,50	8,50	8,50	8,50	**2102,50**	**0,34**	**0,41**	0,75	20,4	95	2,6
	8,50	8,50	8,50	8,50	**2444,16**	**0,30**	**0,36**	0,73	18,5	95	2,6
	6,78	7,49	8,42	8,50	**2956,64**	**0,25**	**0,25**	0,70	15,3	95	2,6
PT2301L	**4,71**	5,80	7,64	9,40	**3,43**	**211**	**108**	0,96	9,7	36	10
RT2301L	**4,88**	6,01	7,91	9,74	**4,09**	**177**	**94**	0,96	10,0	38	10
	5,12	6,30	8,29	10,2	**5,25**	**138**	**77**	0,96	10,5	41	10
	5,27	6,49	7,57	7,95	**6,23**	**116**	**67**	0,96	10,8	44	10
PT2302L	**6,92**	8,52	8,93	9,08	**12,34**	**59**	**46**	0,92	14,2	53	6,3
RT2302L	**7,17**	8,82	10,7	10,8	**14,73**	**49**	**40**	0,93	14,7	56	6,3
	7,53	9,27	12,2	12,5	**17,39**	**42**	**35**	0,93	15,5	59	6,3
	8,06	9,93	10,7	10,9	**21,82**	**33**	**30**	0,92	16,6	63	6,3
	8,44	9,23	9,70	9,86	**25,36**	**29**	**27**	0,92	17,3	66	6,3
	8,85	10,5	11,2	11,4	**32,55**	**22**	**22**	0,92	18,2	71	6,3
	7,76	8,21	8,84	9,33	**39,38**	**18**	**16**	0,92	18,4	76	6,3
	7,61	7,99	9,06	10,1	**46,73**	**16**	**14**	0,91	18,3	80	6,3
PT2303L	**10,5**	10,8	11,3	11,5	**55,64**	**13**	**16**	0,87	21,9	85	2,6
RT2303L	**10,5**	10,8	11,3	11,5	**65,68**	**11**	**14**	0,87	23,0	89	2,6
	11,5	12,5	12,5	12,5	**71,72**	**10**	**14**	0,87	23,7	92	2,6
	12,3	12,5	12,5	12,5	**89,83**	**8,1**	**12**	0,87	25,3	97	2,6
	12,5	12,5	12,5	12,5	**104,32**	**6,9**	**11**	0,86	25,6	101	2,6
	12,5	12,5	12,5	12,5	**126,05**	**5,8**	**8,8**	0,86	25,6	101	2,6
	11,0	11,2	11,4	11,6	**158,18**	**4,6**	**6,2**	0,86	25,6	102	2,6
	11,3	11,5	12,5	12,5	**203,00**	**3,6**	**5,0**	0,85	26,7	101	2,6
	11,3	11,7	12,5	12,5	**235,99**	**3,1**	**4,3**	0,85	27,1	101	2,6
	8,95	9,44	10,8	12,5	**285,47**	**2,5**	**2,8**	0,85	21,4	103	2,6
	9,52	10,6	12,0	12,5	**338,80**	**2,1**	**2,5**	0,84	21,4	101	2,6
PT2304L	**10,0**	10,2	10,4	10,8	**210,18**	**3,4**	**4,5**	0,80	23,9	103	2,6
RT2304L	**10,8**	11,2	11,7	11,9	**248,13**	**2,9**	**4,1**	0,80	25,6	102	2,6
	12,5	12,5	12,5	12,5	**270,94**	**2,7**	**4,4**	0,80	25,6	101	2,6
	12,5	12,5	12,5	12,5	**295,84**	**2,5**	**4,0**	0,80	25,6	101	2,6
	12,5	12,5	12,5	12,5	**370,55**	**2,0**	**3,2**	0,79	25,6	101	2,6
	12,5	12,5	12,5	12,5	**430,31**	**1,7**	**2,8**	0,79	25,6	101	2,6
	12,5	12,5	12,5	12,5	**519,96**	**1,4**	**2,3**	0,78	25,6	101	2,6
	12,5	12,5	12,5	12,5	**651,26**	**1,1**	**1,9**	0,78	25,6	101	2,6
	12,5	12,5	12,5	12,5	**756,31**	**1,0**	**1,6**	0,77	25,6	101	2,6
	12,5	12,5	12,5	12,5	**913,87**	**0,79**	**1,4**	0,76	25,6	101	2,6
	12,5	12,5	12,5	12,5	**1172,80**	**0,62**	**1,1**	0,75	25,6	101	2,6
	12,5	12,5	12,5	12,5	**1471,75**	**0,49**	**0,86**	0,75	30,9	101	2,6
	12,5	12,5	12,5	12,5	**1710,91**	**0,42**	**0,74**	0,74	31,3	101	2,6
	11,5	12,5	12,5	12,5	**2069,65**	**0,35**	**0,57**	0,74	25,6	101	2,6
	12,5	12,5	12,5	12,5	**2456,29**	**0,30**	**0,54**	0,72	29,2	101	2,6



Motorsuz Planet Redüktörler
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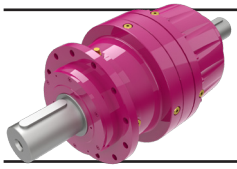
n_1=725

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
130,95	**6,0**	12 E1	35 R1	**4,1**	11 E1	26 R1	**11**	16 E1	39 R1	**7,4**	13 E1	29 R1	106	390
164,33	**5,7**	11 E1	34 R1	**4,0**	10 E1	25 R1	**10**	16 E1	37 R1	**7,1**	13 E1	28 R1	120	391
191,04	**5,5**	11 E1	32 R1	**3,8**	10 E1	24 R1	**9,9**	15 E1	36 R1	**6,9**	12 E1	27 R1		
231,09	**5,3**	11 E1	31 R1	**3,6**	9,3 E1	23 R1	**9,4**	14 E1	34 R1	**6,5**	12 E1	25 R1		
290,00	**4,9**	10 E1	29 R1	**3,4**	8,4 E1	21 R1	**8,7**	13 E1	31 R1	**6,0**	11 E1	23 R1		
337,13	**4,5**	9,0 E1	27 R1	**3,2**	7,8 E1	20 R1	**8,1**	12 E1	29 R1	**5,6**	10 E1	22 R1		
407,81	**4,1**	8,1 E1	24 R1	**2,8**	7,2 E1	18 R1	**7,3**	11 E1	26 R1	**5,1**	9,0 E1	20 R1		
281,47	**4,1**	8,4 E1	24 R1	**2,8**	7,2 E1	18 R1	**7,4**	11 E1	27 R1	**5,1**	9,3 E1	20 R1	111	390
307,34	**4,1**	8,1 E1	24 R1	**2,8**	6,9 E1	18 R1	**7,3**	11 E1	26 R1	**5,1**	9,0 E1	20 R1	126	391
384,96	**3,9**	7,8 E1	23 R1	**2,7**	6,6 E1	17 R1	**6,9**	11 E1	25 R1	**4,8**	8,4 E1	19 R1		
447,05	**3,7**	7,5 E1	22 R1	**2,6**	6,3 E1	16 R1	**6,6**	9,9 E1	24 R1	**4,6**	8,1 E1	18 R1		
540,18	**3,5**	6,9 E1	20 R1	**2,4**	6,0 E1	15 R1	**6,2**	9,3 E1	22 R1	**4,3**	7,8 E1	17 R1		
676,59	**3,3**	6,6 E1	19 R1	**2,3**	5,7 E1	15 R1	**5,9**	9,0 E1	21 R1	**4,1**	7,2 E1	16 R1		
785,72	**3,2**	6,3 E1	19 R1	**2,2**	5,4 E1	14 R1	**5,7**	8,7 E1	20 R1	**4,0**	6,9 E1	15 R1		
949,41	**3,0**	6,0 E1	18 R1	**2,1**	5,1 E1	13 R1	**5,4**	8,1 E1	19 R1	**3,7**	6,6 E1	14 R1		
1191,42	**2,9**	5,7 E1	17 R1	**2,0**	5,1 E1	13 R1	**5,2**	7,8 E1	19 R1	**3,6**	6,3 E1	14 R1		
1385,02	**2,8**	5,7 E1	16 R1	**2,0**	4,8 E1	12 R1	**5,0**	7,5 E1	18 R1	**3,5**	6,3 E1	13 R1		
1675,43	**2,7**	5,4 E1	16 R1	**1,9**	4,8 E1	12 R1	**4,8**	7,2 E1	17 R1	**3,3**	6,0 E1	13 R1		
2102,50	**2,5**	5,1 E1	14 R1	**1,7**	4,2 E1	11 R1	**4,4**	6,6 E1	16 R1	**3,1**	5,4 E1	12 R1		
2444,16	**2,3**	4,8 E1	14 R1	**1,6**	4,2 E1	10 R1	**4,2**	6,3 E1	15 R1	**2,9**	5,1 E1	11 R1		
2956,64	**2,1**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1	**3,7**	5,7 E1	13 R1	**2,6**	4,5 E1	10 R1		
3,43	**24**	181 E4	159 R1	**15**	175 E4	117 R1	**46**	126 E3	175 R1	**31**	113 E3	129 R1	166	392
4,09	**25**	110 E3	161 R1	**16**	103 E3	119 R1	**47**	97 E2	178 R1	**32**	115 E3	131 R1	181	393
5,25	**23**	99 E3	145 R1	**15**	93 E3	107 R1	**43**	88 E2	160 R1	**29**	104 E3	118 R1		
6,23	**21**	89 E3	130 R1	**14**	84 E3	96 R1	**38**	79 E2	143 R1	**26**	93 E3	106 R1		
12,34	**13**	52 E3	77 R1	**8,4**	49 E3	57 R1	**23**	61 E3	85 R1	**16**	55 E3	63 R1	158	392
14,73	**13**	53 E3	77 R1	**8,4**	50 E3	58 R1	**23**	47 E2	85 R1	**16**	41 E2	63 R1	173	393
17,39	**13**	38 E2	77 R1	**8,6**	50 E3	57 R1	**23**	47 E2	85 R1	**16**	41 E2	63 R1		
21,82	**12**	36 E2	73 R1	**8,4**	33 E2	55 R1	**22**	34 E1	81 R1	**15**	39 E2	60 R1		
25,36	**12**	35 E2	71 R1	**8,1**	32 E2	53 R1	**21**	33 E1	78 R1	**15**	37 E2	58 R1		
32,55	**11**	32 E2	65 R1	**7,5**	29 E2	48 R1	**20**	30 E1	71 R1	**14**	24 E1	53 R1		
39,38	**10**	21 E1	61 R1	**7,1**	18 E1	46 R1	**19**	28 E1	67 R1	**13**	23 E1	50 R1		
46,73	**9,4**	19 E1	56 R1	**6,5**	17 E1	42 R1	**17**	26 E1	62 R1	**12**	21 E1	46 R1		
55,64	**6,7**	20 E2	42 R1	**4,6**	19 E2	31 R1	**12**	19 E1	46 R1	**8,4**	22 E2	34 R1	150	392
65,68	**6,7**	14 E1	41 R1	**4,5**	19 E2	31 R1	**12**	19 E1	45 R1	**8,3**	15 E1	34 R1	165	393
71,72	**6,6**	14 E1	41 R1	**4,5**	18 E2	31 R1	**12**	19 E1	45 R1	**8,3**	15 E1	33 R1		
89,83	**6,4**	13 E1	39 R1	**4,4**	17 E2	29 R1	**12**	18 E1	43 R1	**7,9**	14 E1	32 R1		
104,32	**6,1**	13 E1	37 R1	**4,2**	11 E1	28 R1	**11**	17 E1	41 R1	**7,6**	14 E1	30 R1		
126,05	**5,8**	12 E1	35 R1	**4,0**	10 E1	26 R1	**10**	16 E1	38 R1	**7,2**	13 E1	29 R1		
158,18	**5,6**	11 E1	34 R1	**3,8**	10 E1	25 R1	**10**	15 E1	37 R1	**6,9**	13 E1	27 R1		
203,00	**5,2**	11 E1	31 R1	**3,6**	9,3 E1	24 R1	**9,3**	14 E1	34 R1	**6,4**	12 E1	26 R1		
235,99	**5,0**	10 E1	30 R1	**3,5**	9,0 E1	23 R1	**8,9**	14 E1	33 R1	**6,2**	11 E1	25 R1		
285,47	**4,7**	10 E1	29 R1	**3,3**	8,4 E1	22 R1	**8,5**	13 E1	31 R1	**5,9**	11 E1	23 R1		
338,80	**4,4**	9,0 E1	27 R1	**3,0**	7,8 E1	20 R1	**7,8**	12 E1	29 R1	**5,4**	10 E1	22 R1		
210,18	**4,2**	8,4 E1	25 R1	**2,8**	9,3 E1	19 R1	**7,6**	11 E1	27 R1	**5,2**	9,3 E1	20 R1	156	392
248,13	**4,1**	8,4 E1	25 R1	**2,8**	7,2 E1	19 R1	**7,5**	11 E1	27 R1	**5,2**	9,3 E1	20 R1	171	393
270,94	**4,1**	8,1 E1	24 R1	**2,8**	7,2 E1	18 R1	**7,4**	11 E1	27 R1	**5,1**	9,0 E1	20 R1		
295,84	**4,0**	8,1 E1	24 R1	**2,8**	6,9 E1	18 R1	**7,3**	11 E1	26 R1	**5,0**	9,0 E1	20 R1		
370,55	**3,8**	7,8 E1	23 R1	**2,7**	6,6 E1	17 R1	**6,9**	11 E1	25 R1	**4,8**	8,4 E1	19 R1		
430,31	**3,7**	7,5 E1	22 R1	**2,6**	6,3 E1	16 R1	**6,6**	9,9 E1	24 R1	**4,6**	8,1 E1	18 R1		
519,96	**3,5**	6,9 E1	20 R1	**2,4**	6,0 E1	15 R1	**6,2**	9,3 E1	22 R1	**4,3**	7,8 E1	17 R1		
651,26	**3,3**	6,6 E1	19 R1	**2,3**	5,7 E1	15 R1	**5,9**	9,0 E1	21 R1	**4,1**	7,2 E1	16 R1		
756,31	**3,2**	6,3 E1	19 R1	**2,2**	5,4 E1	14 R1	**5,7**	8,7 E1	20 R1	**3,9**	6,9 E1	15 R1		
913,87	**3,0**	6,0 E1	18 R1	**2,1**	5,1 E1	13 R1	**5,4**	8,1 E1	19 R1	**3,7**	6,6 E1	14 R1		
1172,80	**2,8**	5,7 E1	16 R1	**2,0**	4,8 E1	12 R1	**5,0**	7,5 E1	18 R1	**3,5**	6,3 E1	14 R1		
1471,75	**2,7**	5,4 E1	16 R1	**1,9**	4,8 E1	12 R1	**4,8**	7,2 E1	17 R1	**3,3**	6,0 E1	13 R1		
1710,91	**2,6**	5,1 E1	15 R1	**1,8**	4,5 E1	12 R1	**4,6**	7,2 E1	17 R1	**3,2**	5,7 E1	13 R1		
2069,65	**2,5**	5,1 E1	15 R1	**1,7**	4,2 E1	11 R1	**4,4**	6,6 E1	16 R1	**3,1**	5,4 E1	12 R1		
2456,29	**2,3**	4,5 E1	14 R1	**1,6**	3,9 E1	10 R1	**4,1**	6,3 E1	15 R1	**2,9**	5,1 E1	11 R1		



Motorsuz Planet Redüktörler
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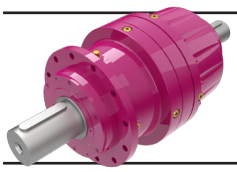
n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2401L	**7,92**	9,75	12,8	15,8	**3,43**	**211**	**182**	0,96	16,3	36	10
RT2401L	**8,20**	10,1	13,3	16,4	**4,09**	**177**	**158**	0,96	16,8	38	10
	8,60	10,6	13,9	15,0	**5,25**	**138**	**129**	0,96	17,6	41	10
	8,86	9,59	10,1	10,5	**6,23**	**116**	**113**	0,96	18,2	44	10
PT2402L	**9,73**	12,0	15,8	16,5	**12,34**	**59**	**64**	0,93	20,0	53	6,3
RT2402L	**11,6**	14,3	18,8	19,7	**14,73**	**49**	**64**	0,93	23,8	56	6,3
	12,2	15,0	19,7	20,0	**17,39**	**42**	**57**	0,93	24,9	59	6,3
	12,7	15,6	18,4	18,6	**21,82**	**33**	**47**	0,93	26,0	63	6,3
	13,0	15,0	15,2	15,4	**25,36**	**29**	**42**	0,93	26,7	66	6,3
	14,4	15,0	16,0	16,2	**32,55**	**22**	**37**	0,92	30,0	71	6,3
	11,2	11,6	12,2	12,7	**39,38**	**18**	**23**	0,92	28,0	76	6,3
	10,3	10,7	11,8	13,2	**46,73**	**16**	**18**	0,92	24,9	80	6,3
PT2403L	**16,1**	19,8	20,0	20,0	**55,64**	**13**	**25**	0,88	30,0	85	2,6
RT2403L	**16,1**	19,8	20,0	20,0	**65,68**	**11**	**21**	0,88	30,0	85	2,6
	19,2	20,0	20,0	20,0	**71,72**	**10**	**23**	0,87	30,0	85	2,6
	19,8	20,0	20,0	20,0	**89,83**	**8,1**	**19**	0,87	30,0	85	2,6
	19,9	20,0	20,0	20,0	**104,32**	**6,9**	**17**	0,87	30,0	85	2,6
	20,0	20,0	20,0	20,0	**126,05**	**5,8**	**14**	0,86	30,0	85	2,6
	19,0	19,2	19,5	19,8	**158,18**	**4,6**	**11**	0,86	30,0	86	2,6
	16,1	16,3	18,0	19,4	**203,00**	**3,6**	**7,0**	0,86	30,0	86	2,6
	16,1	16,6	18,3	19,8	**235,99**	**3,1**	**6,0**	0,86	30,0	86	2,6
	13,1	13,6	14,9	16,6	**285,47**	**2,5**	**4,1**	0,86	30,0	96	2,6
	12,4	13,8	15,4	16,6	**338,80**	**2,1**	**3,3**	0,85	28,2	96	2,6
PT2404L	**15,7**	15,9	16,2	16,6	**210,18**	**3,4**	**7,0**	0,81	30,0	96	2,6
RT2404L	**20,0**	20,0	20,0	20,0	**248,13**	**2,9**	**7,6**	0,81	30,0	85	2,6
	20,0	20,0	20,0	20,0	**270,94**	**2,7**	**6,9**	0,81	30,0	85	2,6
	20,0	20,0	20,0	20,0	**295,84**	**2,5**	**6,4**	0,81	30,0	85	2,6
	20,0	20,0	20,0	20,0	**370,55**	**2,0**	**5,1**	0,80	30,0	85	2,6
	20,0	20,0	20,0	20,0	**430,31**	**1,7**	**4,4**	0,80	30,0	85	2,6
	20,0	20,0	20,0	20,0	**519,96**	**1,4**	**3,7**	0,79	30,0	85	2,6
	20,0	20,0	20,0	20,0	**651,26**	**1,1**	**3,0**	0,79	30,0	85	2,6
	20,0	20,0	20,0	20,0	**756,31**	**1,0**	**2,6**	0,78	30,0	85	2,6
	20,0	20,0	20,0	20,0	**913,87**	**0,79**	**2,1**	0,77	30,0	85	2,6
	18,3	19,8	20,0	20,0	**1172,80**	**0,62**	**1,5**	0,77	30,0	85	2,6
	18,8	20,0	20,0	20,0	**1471,75**	**0,49**	**1,3**	0,76	30,0	85	2,6
	19,1	20,0	20,0	20,0	**1710,91**	**0,42**	**1,1**	0,76	30,0	85	2,6
	15,7	17,5	19,7	20,0	**2069,65**	**0,35**	**0,76**	0,76	30,0	85	2,6
	16,0	17,3	19,1	20,0	**2456,29**	**0,30**	**0,66**	0,74	30,0	85	2,6
PT2701L	**12,5**	15,4	20,3	22,3	**4,09**	**177**	**243**	0,96	25,7	38	20
RT2701L	**13,2**	16,2	18,4	18,6	**5,25**	**138**	**200**	0,96	27,0	41	20
	12,0	12,5	13,2	13,7	**6,23**	**116**	**153**	0,95	27,8	43	20
PT2702L	**15,7**	19,4	23,1	23,4	**14,73**	**49**	**88**	0,92	32,3	56	11
RT2702L	**16,5**	20,3	23,2	23,5	**17,39**	**42**	**78**	0,92	33,8	59	11
	17,2	21,2	23,3	23,6	**21,82**	**33**	**65**	0,92	35,3	63	11
	17,6	21,2	22,7	23,7	**25,36**	**29**	**57**	0,92	36,2	66	11
	15,1	15,7	16,5	17,1	**30,68**	**24**	**41**	0,92	35,8	70	11
	18,7	19,2	19,6	19,8	**39,38**	**18**	**39**	0,91	45,4	75	11
	13,3	13,8	15,3	17,1	**46,73**	**16**	**24**	0,91	32,2	79	11
PT2703L	**23,0**	23,3	23,8	24,5	**53,02**	**14**	**38**	0,87	47,5	82	6,3
RT2703L	**23,1**	23,4	23,8	25,0	**62,59**	**12**	**32**	0,88	47,5	86	6,3
	23,7	24,0	24,5	25,0	**73,89**	**10**	**28**	0,88	52,2	91	6,3
	23,8	24,2	24,7	25,0	**92,73**	**7,8**	**22**	0,87	55,9	97	6,3
	23,9	24,2	25,0	25,0	**107,80**	**6,7**	**19**	0,87	58,5	101	6,3
	24,0	24,3	25,0	25,0	**130,40**	**5,6**	**16**	0,86	57,9	107	6,3
	24,1	24,4	25,0	25,0	**163,64**	**4,4**	**13**	0,86	58,2	115	6,3
	22,9	24,1	25,0	25,0	**190,23**	**3,8**	**11**	0,86	55,1	121	6,3
	16,8	17,4	19,2	21,4	**230,11**	**3,2**	**6,4**	0,87	40,7	127	6,3
	19,8	20,8	22,9	24,6	**295,31**	**2,5**	**5,9**	0,86	48,9	127	6,3
	16,4	18,3	21,0	22,9	**350,48**	**2,1**	**4,2**	0,85	36,6	130	6,3



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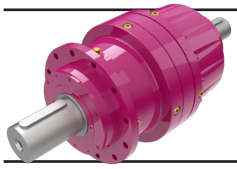
n_1=725

Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
3,43	**28**	202 E4	252 R2	**18**	195 E4	188 R2	**54**	221 E4	197 R1	**36**	208 E4	200 R2	195	394
4,09	**29**	205 E4	180 R1	**19**	198 E4	190 R2	**55**	224 E4	199 R1	**37**	210 E4	203 R2	210	395
5,25	**27**	184 E4	162 R1	**18**	178 E4	171 R2	**50**	201 E4	179 R1	**34**	189 E4	132 R1		
6,23	**24**	165 E4	145 R1	**16**	160 E4	154 R2	**45**	116 E3	161 R1	**30**	170 E4	119 R1		
12,34	**15**	98 E4	86 R1	**10**	94 E4	91 R2	**27**	69 E3	95 R1	**18**	100 E4	70 R1	199	394
14,73	**15**	98 E4	87 R1	**10**	95 E4	92 R2	**27**	69 E3	96 R1	**18**	101 E4	71 R1	215	395
17,39	**15**	59 E3	86 R1	**10**	94 E4	64 R1	**27**	69 E3	95 R1	**18**	62 E3	70 R1		
21,82	**14**	57 E3	82 R1	**10**	53 E3	61 R1	**26**	51 E2	91 R1	**18**	59 E3	67 R1		
25,36	**14**	55 E3	79 R1	**9,4**	51 E3	59 R1	**25**	49 E2	87 R1	**17**	57 E3	65 R1		
32,55	**13**	50 E3	73 R1	**8,7**	47 E3	54 R1	**23**	45 E2	80 R1	**16**	39 E2	60 R1		
39,38	**12**	24 E1	68 R1	**8,2**	31 E2	51 R1	**22**	32 E1	76 R1	**15**	26 E1	56 R1		
46,73	**11**	22 E1	63 R1	**7,5**	19 E1	47 R1	**20**	30 E1	69 R1	**14**	24 E1	51 R1		
55,64	**7,8**	32 E3	47 R1	**5,3**	30 E3	35 R1	**14**	29 E2	52 R1	**10**	34 E3	38 R1	195	394
65,68	**7,7**	23 E2	46 R1	**5,3**	30 E3	35 R1	**14**	28 E2	51 R1	**10**	24 E2	38 R1	210	395
71,72	**7,7**	32 E3	46 R1	**5,3**	30 E3	34 R1	**14**	28 E2	51 R1	**10**	24 E2	38 R1		
89,83	**7,4**	22 E2	44 R1	**5,1**	20 E2	33 R1	**13**	20 E1	48 R1	**9,2**	17 E1	36 R1		
104,32	**7,1**	21 E2	42 R1	**4,9**	19 E2	31 R1	**13**	20 E1	46 R1	**8,9**	16 E1	34 R1		
126,05	**6,7**	14 E1	39 R1	**4,7**	12 E1	29 R1	**12**	18 E1	43 R1	**8,4**	15 E1	32 R1		
158,18	**6,5**	13 E1	38 R1	**4,5**	11 E1	28 R1	**12**	18 E1	42 R1	**8,0**	14 E1	31 R1		
203,00	**6,0**	12 E1	35 R1	**4,2**	11 E1	26 R1	**11**	16 E1	39 R1	**7,5**	13 E1	29 R1		
235,99	**5,8**	12 E1	34 R1	**4,0**	10 E1	25 R1	**10**	16 E1	37 R1	**7,2**	13 E1	28 R1		
285,47	**5,5**	11 E1	32 R1	**3,8**	10 E1	24 R1	**9,9**	15 E1	35 R1	**6,9**	12 E1	26 R1		
338,80	**5,1**	10 E1	30 R1	**3,5**	9,0 E1	22 R1	**9,1**	14 E1	33 R1	**6,3**	11 E1	24 R1		
210,18	**4,8**	9,3 E1	28 R1	**3,3**	8,1 E1	21 R1	**8,7**	13 E1	31 R1	**6,0**	11 E1	23 R1	201	394
248,13	**4,8**	9,3 E1	27 R1	**3,2**	8,1 E1	21 R1	**8,6**	13 E1	30 R1	**5,9**	11 E1	23 R1	216	395
270,94	**4,7**	9,3 E1	27 R1	**3,2**	8,1 E1	20 R1	**8,5**	13 E1	30 R1	**5,9**	10 E1	22 R1		
295,84	**4,6**	9,0 E1	27 R1	**3,2**	7,8 E1	20 R1	**8,4**	13 E1	29 R1	**5,8**	10 E1	22 R1		
370,55	**4,4**	8,7 E1	25 R1	**3,1**	7,5 E1	19 R1	**7,9**	12 E1	28 R1	**5,5**	10 E1	21 R1		
430,31	**4,3**	8,4 E1	24 R1	**2,9**	7,2 E1	18 R1	**7,6**	11 E1	27 R1	**5,3**	9,3 E1	20 R1		
519,96	**4,0**	7,8 E1	23 R1	**2,8**	6,9 E1	17 R1	**7,2**	11 E1	25 R1	**5,0**	8,7 E1	19 R1		
651,26	**3,8**	7,5 E1	21 R1	**2,6**	6,6 E1	16 R1	**6,8**	10 E1	24 R1	**4,7**	8,4 E1	18 R1		
756,31	**3,7**	7,2 E1	21 R1	**2,5**	6,3 E1	16 R1	**6,5**	9,9 E1	23 R1	**4,5**	8,1 E1	17 R1		
913,87	**3,5**	6,9 E1	20 R1	**2,4**	6,0 E1	15 R1	**6,2**	9,3 E1	22 R1	**4,3**	7,5 E1	16 R1		
1172,80	**3,2**	6,3 E1	18 R1	**2,3**	5,4 E1	14 R1	**5,8**	8,7 E1	20 R1	**4,0**	7,2 E1	15 R1		
1471,75	**3,1**	6,0 E1	18 R1	**2,2**	5,4 E1	13 R1	**5,6**	8,4 E1	19 R1	**3,9**	6,9 E1	15 R1		
1710,91	**3,0**	6,0 E1	17 R1	**2,1**	5,1 E1	13 R1	**5,4**	8,1 E1	19 R1	**3,7**	6,6 E1	14 R1		
2069,65	**2,9**	5,7 E1	16 R1	**2,0**	4,8 E1	12 R1	**5,1**	7,8 E1	18 R1	**3,6**	6,3 E1	13 R1		
2456,29	**2,7**	5,1 E1	15 R1	**1,9**	4,5 E1	11 R1	**4,8**	7,2 E1	17 R1	**3,3**	5,7 E1	12 R1		
4,09	**27**	326 E5	385 R3	**17**	320 E5	286 R3	**52**	344 E5	254 R2	**35**	331 E5	298 R3	243	396
5,25	**26**	299 E5	216 R2	**17**	293 E5	263 R3	**48**	315 E5	233 R2	**32**	304 E5	274 R3	308	397
6,23	**23**	269 E5	195 R2	**15**	264 E5	237 R3	**44**	172 E4	210 R2	**30**	161 E4	247 R3		
14,73	**15**	98 E4	123 R2	**10**	94 E4	91 R2	**29**	108 E4	97 R1	**19**	101 E4	98 R2	243	396
17,39	**15**	97 E4	86 R1	**10**	94 E4	90 R2	**29**	107 E4	96 R1	**19**	100 E4	97 R2	308	397
21,82	**15**	93 E4	82 R1	**10**	90 E4	87 R2	**27**	67 E3	92 R1	**19**	96 E4	68 R1		
25,36	**15**	90 E4	79 R1	**10**	87 E4	59 R1	**27**	65 E3	89 R1	**18**	93 E4	65 R1		
30,68	**14**	52 E3	75 R1	**9,3**	49 E3	56 R1	**25**	47 E2	84 R1	**17**	55 E3	62 R1		
39,38	**13**	48 E3	70 R1	**8,7**	45 E3	52 R1	**23**	44 E2	78 R1	**16**	51 E3	57 R1		
46,73	**12**	44 E3	64 R1	**8,0**	41 E3	47 R1	**21**	31 E1	71 R1	**15**	25 E1	53 R1		
53,02	**9,4**	57 E4	50 R1	**6,3**	55 E4	53 R2	**17**	41 E3	56 R1	**12**	58 E4	41 R1	245	396
62,59	**9,3**	34 E3	50 R1	**6,3**	54 E4	37 R1	**17**	41 E3	56 R1	**12**	36 E3	41 R1	310	397
73,89	**9,2**	34 E3	49 R1	**6,2**	31 E3	36 R1	**17**	31 E2	54 R1	**12**	26 E2	40 R1		
92,73	**8,8**	23 E2	46 R1	**6,0**	30 E3	34 R1	**16**	23 E1	52 R1	**11**	18 E1	38 R1		
107,80	**8,4**	22 E2	44 R1	**5,8**	20 E2	33 R1	**15**	22 E1	49 R1	**11**	18 E1	37 R1		
130,40	**8,0**	21 E2	42 R1	**5,5**	19 E2	31 R1	**14**	21 E1	47 R1	**10**	17 E1	35 R1		
163,64	**7,7**	14 E1	40 R1	**5,3**	18 E2	30 R1	**14**	20 E1	45 R1	**9,5**	16 E1	33 R1		
190,23	**7,4**	14 E1	39 R1	**5,1**	12 E1	29 R1	**13**	19 E1	43 R1	**9,2**	15 E1	32 R1		
230,11	**7,0**	13 E1	37 R1	**4,9**	11 E1	27 R1	**13**	18 E1	41 R1	**8,8**	15 E1	30 R1		
295,31	**6,6**	12 E1	34 R1	**4,5**	11 E1	26 R1	**12**	17 E1	38 R1	**8,2**	14 E1	28 R1		
350,48	**6,1**	11 E1	31 R1	**4,2**	10 E1	24 R1	**11**	16 E1	35 R1	**7,5**	13 E1	26 R1		



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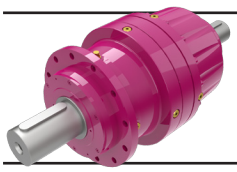
Planetengetriebe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2704L	**22,9**	24,1	25,0	25,0	**200,29**	**3,6**	**11**	0,81	55,1	123	2,6
RT2704L	**24,3**	24,6	25,0	25,0	**236,45**	**3,1**	**10**	0,81	58,6	126	2,6
	24,3	25,0	25,0	25,0	**279,15**	**2,6**	**8,2**	0,81	58,8	126	2,6
	24,4	25,0	25,0	25,0	**304,80**	**2,4**	**7,5**	0,81	58,9	126	2,6
	24,5	25,0	25,0	25,0	**381,78**	**1,9**	**6,1**	0,81	59,2	126	2,6
	22,2	24,0	25,0	25,0	**443,35**	**1,6**	**4,7**	0,80	59,4	126	2,6
	25,0	25,0	25,0	25,0	**535,72**	**1,4**	**4,5**	0,79	59,6	126	2,6
	25,0	25,0	25,0	25,0	**672,27**	**1,1**	**3,6**	0,79	59,9	126	2,6
	25,0	25,0	25,0	25,0	**781,52**	**0,93**	**3,1**	0,78	60,0	126	2,6
	25,0	25,0	25,0	25,0	**945,38**	**0,77**	**2,6**	0,78	61,0	126	2,6
	25,0	25,0	25,0	25,0	**1186,36**	**0,61**	**2,1**	0,77	62,5	126	2,6
	25,0	25,0	25,0	25,0	**1379,15**	**0,53**	**1,8**	0,77	62,5	126	2,6
	20,2	22,5	25,0	25,0	**1668,32**	**0,43**	**1,2**	0,77	45,9	126	2,6
	23,7	25,0	25,0	25,0	**2141,02**	**0,34**	**1,1**	0,76	55,7	126	2,6
	22,0	23,9	25,0	25,0	**2540,99**	**0,29**	**0,89**	0,74	50,1	126	2,6
PT2901L	**13,7**	16,9	22,3	27,4	**4,09**	**177**	**265**	0,96	34,0	46	14
RT2901L	**14,4**	17,8	23,4	25,9	**5,25**	**138**	**218**	0,96	35,7	50	14
	14,9	18,4	20,3	21,1	**6,23**	**116**	**191**	0,96	37,0	52	14
PT2902L	**19,3**	23,7	31,2	34,6	**14,03**	**52**	**113**	0,93	39,6	67	10
RT2902L	**20,0**	24,6	32,4	34,8	**16,74**	**43**	**98**	0,93	41,0	70	10
	20,9	25,8	33,9	35,0	**21,48**	**34**	**80**	0,93	43,0	75	10
	21,6	26,6	31,0	32,5	**25,49**	**28**	**70**	0,92	44,3	80	10
	24,8	25,8	28,2	30,4	**32,71**	**22**	**63**	0,92	51,2	86	10
	20,3	21,1	23,0	25,3	**38,82**	**19**	**43**	0,92	49,2	91	10
PT2903L	**28,3**	34,6	35,0	35,0	**50,49**	**14**	**49**	0,87	58,1	97	6,3
RT2903L	**30,8**	34,8	35,0	35,0	**71,13**	**10**	**38**	0,88	63,2	107	6,3
	33,0	35,0	35,0	35,0	**89,26**	**8,1**	**32**	0,87	67,7	116	6,3
	34,5	35,0	35,0	35,0	**103,76**	**7,0**	**29**	0,87	70,8	121	6,3
	28,3	28,3	28,3	28,3	**125,52**	**5,8**	**20**	0,87	70,8	128	6,3
	31,8	33,6	35,0	35,0	**161,08**	**4,5**	**17**	0,86	75,1	138	6,3
	31,1	32,7	35,0	35,0	**191,17**	**3,8**	**14**	0,86	74,9	146	6,3
	29,6	31,4	34,6	35,0	**245,34**	**3,0**	**11**	0,86	67,4	156	6,3
	24,1	26,5	29,1	31,2	**291,17**	**2,5**	**7,4**	0,85	54,9	164	6,3
PT2904L	**35,0**	35,0	35,0	35,0	**190,75**	**3,8**	**17**	0,80	86,7	146	2,6
RT2904L	**35,0**	35,0	35,0	35,0	**227,60**	**3,2**	**15**	0,81	87,0	153	2,6
	35,0	35,0	35,0	35,0	**268,70**	**2,7**	**12**	0,80	87,3	161	2,6
	35,0	35,0	35,0	35,0	**293,39**	**2,5**	**11**	0,80	87,4	164	2,6
	35,0	35,0	35,0	35,0	**367,48**	**2,0**	**9,0**	0,80	87,5	169	2,6
	35,0	35,0	35,0	35,0	**426,76**	**1,7**	**7,8**	0,80	87,5	169	2,6
	35,0	35,0	35,0	35,0	**515,66**	**1,4**	**6,5**	0,79	87,5	169	2,6
	35,0	35,0	35,0	35,0	**647,11**	**1,1**	**5,2**	0,78	87,5	169	2,6
	35,0	35,0	35,0	35,0	**752,26**	**1,0**	**4,5**	0,78	87,5	169	2,6
	35,0	35,0	35,0	35,0	**909,99**	**0,80**	**3,8**	0,77	87,5	169	2,6
	35,0	35,0	35,0	35,0	**1167,83**	**0,62**	**3,0**	0,77	87,5	169	2,6
	35,0	35,0	35,0	35,0	**1385,99**	**0,52**	**2,5**	0,77	87,4	169	2,6
	35,0	35,0	35,0	35,0	**1778,69**	**0,41**	**2,0**	0,76	84,3	169	2,6
	30,2	32,5	35,0	35,0	**2110,97**	**0,34**	**1,4**	0,76	71,1	176	2,6
PT3501L	**20,1**	24,7	32,5	39,6	**4,14**	**175**	**383**	0,96	49,6	56	14
RT3501L	**20,9**	25,8	29,6	30,9	**5,40**	**134**	**307**	0,96	51,8	61	14
	18,4	19,1	20,2	21,0	**6,50**	**112**	**225**	0,95	46,0	64	14
PT3502L	**29,0**	35,7	45,3	49,7	**14,20**	**51**	**168**	0,92	59,6	81	10
RT3502L	**30,6**	37,7	45,6	50,0	**16,95**	**43**	**148**	0,93	62,8	85	10
	33,0	40,6	47,3	50,0	**21,75**	**33**	**125**	0,92	67,7	92	10
	34,7	39,7	41,9	43,5	**25,81**	**28**	**111**	0,92	71,3	97	10
	29,6	30,8	33,6	37,7	**33,65**	**22**	**72**	0,92	71,9	105	10
	20,3	21,1	23,0	25,7	**40,50**	**18**	**41**	0,92	49,3	111	10



Motorsuz Planet Redüktörler
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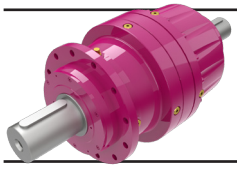
n_1=725

Çevrim Oranı *Ratio* Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
200,29	5,8	11 E1	30 R1	3,9	14 E2	22 R1	11	15 E1	33 R1	7,2	12 E1	25 R1	237	396
236,45	5,7	11 E1	29 R1	3,9	13 E2	22 R1	10	15 E1	33 R1	7,1	12 E1	24 R1	302	397
279,15	5,6	10 E1	29 R1	3,8	8,7 E1	21 R1	10	14 E1	32 R1	7,0	11 E1	24 R1		
304,80	5,5	10 E1	28 R1	3,8	8,4 E1	21 R1	10	14 E1	32 R1	6,9	11 E1	23 R1		
381,78	5,2	10 E1	27 R1	3,6	8,1 E1	20 R1	9,4	14 E1	30 R1	6,5	11 E1	22 R1		
443,35	5,0	9,3 E1	25 R1	3,5	7,8 E1	19 R1	9,1	13 E1	29 R1	6,3	10 E1	21 R1		
535,72	4,8	8,7 E1	24 R1	3,3	7,5 E1	18 R1	8,5	12 E1	27 R1	5,9	10 E1	20 R1		
672,27	4,5	8,4 E1	23 R1	3,1	6,9 E1	17 R1	8,1	11 E1	26 R1	5,6	9,3 E1	19 R1		
781,52	4,3	7,8 E1	22 R1	3,0	6,9 E1	16 R1	7,8	11 E1	25 R1	5,4	9,0 E1	18 R1		
945,38	4,1	7,5 E1	21 R1	2,9	6,3 E1	16 R1	7,4	11 E1	23 R1	5,1	8,4 E1	17 R1		
1186,36	4,0	7,2 E1	20 R1	2,7	6,3 E1	15 R1	7,1	10 E1	22 R1	4,9	8,1 E1	17 R1		
1379,15	3,8	6,9 E1	19 R1	2,7	6,0 E1	15 R1	6,9	9,9 E1	22 R1	4,8	7,8 E1	16 R1		
1668,32	3,7	6,6 E1	18 R1	2,5	5,7 E1	14 R1	6,5	9,3 E1	21 R1	4,5	7,5 E1	15 R1		
2141,02	3,4	6,3 E1	17 R1	2,4	5,4 E1	13 R1	6,1	8,7 E1	19 R1	4,2	6,9 E1	14 R1		
2540,99	3,2	5,7 E1	16 R1	2,2	4,8 E1	12 R1	5,6	8,1 E1	18 R1	3,9	6,6 E1	13 R1		
4,09	32	356 E5	420 R3	20	348 E5	312 R3	62	377 E5	280 R2	41	362 E5	326 R3	287	398
5,25	31	326 E5	236 R2	20	319 E5	286 R3	58	346 E5	257 R2	39	332 E5	299 R3	359	399
6,23	29	299 E5	217 R2	19	293 E5	262 R3	54	317 E5	236 R2	36	304 E5	274 R3		
14,03	18	180 E5	131 R2	11	176 E5	158 R3	34	118 E4	143 R2	22	183 E5	165 R3	325	398
16,74	18	106 E4	131 R2	12	101 E4	158 R3	34	118 E4	106 R1	23	109 E4	105 R2	397	399
21,48	18	101 E4	89 R1	12	97 E4	93 R2	33	113 E4	101 R1	23	105 E4	101 R2		
25,49	17	97 E4	86 R1	12	93 E4	89 R2	32	72 E3	97 R1	22	100 E4	71 R1		
32,71	16	90 E4	80 R1	11	87 E4	83 R2	30	67 E3	90 R1	20	93 E4	66 R1		
38,82	15	52 E3	74 R1	10	48 E3	55 R1	28	49 E2	84 R1	19	55 E3	62 R1		
50,49	11	60 E4	53 R1	7,0	57 E4	55 R2	20	67 E4	60 R1	14	62 E4	60 R2	317	398
71,13	11	59 E4	52 R1	7,2	56 E4	38 R1	20	44 E3	59 R1	14	39 E3	43 R1	390	399
89,26	10	35 E3	49 R1	7,0	53 E4	36 R1	19	42 E3	56 R1	13	37 E3	41 R1		
103,76	10	33 E3	47 R1	6,8	31 E3	35 R1	18	32 E2	54 R1	13	35 E3	39 R1		
125,52	10	23 E2	44 R1	6,5	21 E2	33 R1	17	24 E1	51 R1	12	25 E2	37 R1		
161,08	9,1	22 E2	43 R1	6,2	20 E2	32 R1	17	23 E1	49 R1	11	18 E1	36 R1		
191,17	8,8	16 E1	41 R1	6,0	19 E2	31 R1	16	22 E1	47 R1	11	18 E1	34 R1		
245,34	8,2	15 E1	38 R1	5,6	12 E1	29 R1	15	21 E1	44 R1	10	17 E1	32 R1		
291,17	7,7	14 E1	36 R1	5,3	12 E1	27 R1	14	20 E1	41 R1	10	16 E1	30 R1		
190,75	6,7	22 E3	31 R1	4,5	21 E3	23 R1	12	22 E2	36 R1	8,4	18 E2	26 R1	309	398
227,60	6,7	17 E2	31 R1	4,5	15 E2	23 R1	12	17 E1	36 R1	8,4	18 E2	26 R1	382	399
268,70	6,5	16 E2	31 R1	4,4	14 E2	23 R1	12	17 E1	35 R1	8,2	13 E1	26 R1		
293,39	6,5	12 E1	30 R1	4,4	14 E2	22 R1	12	17 E1	34 R1	8,1	13 E1	25 R1		
367,48	6,3	11 E1	28 R1	4,3	9,0 E1	21 R1	11	16 E1	32 R1	7,8	13 E1	24 R1		
426,76	6,0	11 E1	27 R1	4,2	9,0 E1	20 R1	11	15 E1	31 R1	7,5	12 E1	23 R1		
515,66	5,7	10 E1	26 R1	3,9	9,0 E1	19 R1	10	14 E1	29 R1	7,1	11 E1	22 R1		
647,11	5,4	10 E1	24 R1	3,7	8,0 E1	18 R1	9,7	14 E1	28 R1	6,7	11 E1	21 R1		
752,26	5,2	9,0 E1	23 R1	3,6	8,0 E1	18 R1	9,4	13 E1	27 R1	6,5	10 E1	20 R1		
909,99	4,9	9,0 E1	22 R1	3,4	7,0 E1	17 R1	8,9	12 E1	25 R1	6,1	10 E1	19 R1		
1167,83	4,8	8,0 E1	21 R1	3,3	7,0 E1	16 R1	8,5	12 E1	24 R1	5,9	10 E1	18 R1		
1385,99	4,6	8,0 E1	21 R1	3,2	7,0 E1	15 R1	8,2	12 E1	24 R1	5,7	9,0 E1	17 R1		
1778,69	4,3	8,0 E1	19 R1	3,0	7,0 E1	15 R1	7,7	11 E1	22 R1	5,4	9,0 E1	16 R1		
2110,97	4,2	8,0 E1	19 R1	2,9	6,0 E1	14 R1	7,6	11 E1	22 R1	5,3	9,0 E1	16 R1		
4,14	36	506 E6	429 R3	24	498 E6	428 R4	70	530 E6	453 R3	46	513 E6	443 R4	357	400
5,40	35	339 E5	400 R3	23	331 E5	398 R4	66	362 E5	422 R3	44	346 E5	413 R4	444	401
6,50	32	303 E5	357 R3	21	296 E5	266 R3	59	323 E5	242 R2	40	309 E5	279 R3		
14,20	22	190 E5	224 R3	14	185 E5	223 R4	41	204 E5	237 R3	27	194 E5	176 R3	422	400
16,95	22	190 E5	223 R3	15	185 E5	166 R3	41	203 E5	153 R2	28	194 E5	175 R3	509	401
21,75	21	181 E5	133 R2	14	177 E5	159 R3	39	194 E5	147 R2	27	185 E5	168 R3		
25,81	20	174 E5	127 R2	14	169 E5	152 R3	38	116 E4	140 R2	26	177 E5	161 R3		
33,65	19	97 E4	86 R1	13	92 E4	89 R2	35	109 E4	99 R1	24	100 E4	97 R2		
40,50	18	55 E3	78 R1	12	50 E3	58 R1	32	43 E1	90 R1	22	45 E2	66 R1		



Motorsuz Planet Redüktörler
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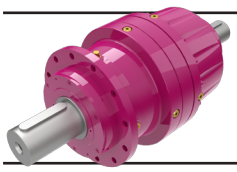
Planetengetriebe

n_1=725

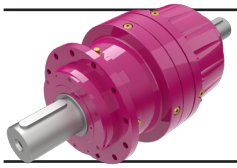
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3503L **RT3503L**	**40,3**	46,4	50,0	50,0	**51,13**	**14**	**68**	0,87	82,7	119	6,3
	44,4	48,9	50,0	50,0	**72,03**	**10**	**53**	0,88	97,0	131	6,3
	45,2	50,0	50,0	50,0	**90,39**	**8,0**	**44**	0,87	104	141	6,3
	46,3	50,0	50,0	50,0	**105,08**	**6,9**	**39**	0,87	109	147	6,3
	47,7	50,0	50,0	50,0	**127,11**	**5,7**	**33**	0,86	111	156	6,3
	46,5	48,1	50,0	50,0	**163,13**	**4,4**	**25**	0,86	112	168	6,3
	42,6	44,3	48,9	50,0	**193,60**	**3,7**	**19**	0,86	103	177	6,3
	35,5	39,8	44,2	47,9	**252,35**	**2,9**	**12**	0,86	80,3	191	6,3
	24,3	27,1	31,3	35,0	**303,75**	**2,4**	**7,0**	0,86	55,0	202	6,3
PT3504L **RT3504L**	**46,5**	48,1	50,0	50,0	**193,18**	**3,8**	**23**	0,81	115	176	2,6
	50,0	50,0	50,0	50,0	**230,49**	**3,1**	**20**	0,81	119	186	2,6
	50,0	50,0	50,0	50,0	**272,11**	**2,7**	**17**	0,81	122	195	2,6
	50,0	50,0	50,0	50,0	**297,12**	**2,4**	**16**	0,81	124	201	2,6
	50,0	50,0	50,0	50,0	**372,15**	**1,9**	**13**	0,80	128	215	2,6
	50,0	50,0	50,0	50,0	**432,18**	**1,7**	**11**	0,80	129	224	2,6
	50,0	50,0	50,0	50,0	**522,21**	**1,4**	**9,2**	0,79	129	238	2,6
	50,0	50,0	50,0	50,0	**655,32**	**1,1**	**7,4**	0,79	130	255	2,6
	50,0	50,0	50,0	50,0	**761,81**	**1,0**	**6,4**	0,78	130	255	2,6
	50,0	50,0	50,0	50,0	**921,55**	**0,79**	**5,3**	0,78	132	255	2,6
	50,0	50,0	50,0	50,0	**1182,66**	**0,61**	**4,1**	0,77	132	255	2,6
	50,0	50,0	50,0	50,0	**1403,59**	**0,52**	**3,5**	0,77	117	255	2,6
	46,2	50,0	50,0	50,0	**1829,51**	**0,40**	**2,5**	0,77	107	260	2,6
	33,1	37,1	43,0	48,2	**2202,19**	**0,33**	**1,5**	0,76	75,0	272	2,6



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=725

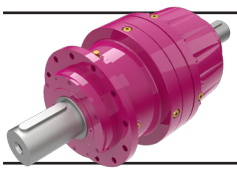
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
51,13	**13**	109 E5	80 R2	**9,0**	106 E5	96 R3	**25**	73 E4	89 R2	**17**	111 E5	101 R3	427	400
72,03	**13**	63 E4	56 R1	**8,9**	60 E4	58 R2	**24**	71 E4	65 R1	**16**	65 E4	64 R2	513	401
90,39	**13**	60 E4	53 R1	**8,5**	57 E4	55 R2	**23**	46 E3	61 R1	**16**	62 E4	45 R1		
105,08	**12**	57 E4	51 R1	**8,2**	54 E4	53 R2	**22**	44 E3	59 R1	**15**	59 E4	43 R1		
127,11	**11**	34 E3	48 R1	**7,8**	51 E4	36 R1	**21**	34 E2	56 R1	**14**	36 E3	41 R1		
163,13	**11**	33 E3	46 R1	**7,4**	30 E3	34 R1	**20**	26 E1	53 R1	**14**	27 E2	39 R1		
193,60	**11**	23 E2	44 R1	**7,2**	21 E2	33 R1	**19**	25 E1	51 R1	**13**	20 E1	38 R1		
252,35	**9,9**	17 E1	42 R1	**6,8**	14 E1	31 R1	**18**	24 E1	48 R1	**12**	19 E1	36 R1		
303,75	**9,1**	15 E1	38 R1	**6,2**	12 E1	29 R1	**17**	22 E1	44 R1	**11**	17 E1	33 R1		
193,18	**8,3**	24 E3	34 R1	**5,7**	37 E4	25 R1	**15**	24 E2	40 R1	**10**	26 E3	29 R1	423	400
230,49	**8,3**	24 E3	34 R1	**5,7**	22 E3	25 R1	**15**	24 E2	40 R1	**10**	26 E3	29 R1	509	401
272,11	**8,1**	18 E2	33 R1	**5,5**	22 E3	25 R1	**15**	19 E1	39 R1	**10**	20 E2	28 R1		
297,12	**8,0**	17 E2	33 R1	**5,5**	21 E3	24 R1	**15**	19 E1	38 R1	**10**	19 E2	28 R1		
372,15	**7,6**	17 E2	31 R1	**5,2**	15 E2	23 R1	**14**	18 E1	36 R1	**9,5**	14 E1	26 R1		
432,18	**7,3**	12 E1	30 R1	**5,0**	14 E2	22 R1	**13**	17 E1	34 R1	**9,1**	14 E1	25 R1		
522,21	**6,9**	11 E1	28 R1	**4,7**	13 E2	21 R1	**12**	16 E1	32 R1	**8,6**	13 E1	24 R1		
655,32	**6,5**	11 E1	27 R1	**4,5**	8,7 E1	20 R1	**12**	15 E1	31 R1	**8,1**	12 E1	23 R1		
761,81	**6,3**	10 E1	26 R1	**4,3**	8,4 E1	19 R1	**11**	15 E1	30 R1	**7,8**	12 E1	22 R1		
921,55	**5,9**	10 E1	24 R1	**4,1**	8,1 E1	18 R1	**11**	14 E1	28 R1	**7,4**	11 E1	21 R1		
1182,66	**5,7**	9,3 E1	23 R1	**3,9**	7,8 E1	17 R1	**10**	14 E1	27 R1	**7,1**	11 E1	20 R1		
1403,59	**5,5**	9,0 E1	22 R1	**3,8**	7,5 E1	17 R1	**9,9**	13 E1	26 R1	**6,9**	10 E1	19 R1		
1829,51	**5,2**	8,4 E1	21 R1	**3,6**	6,9 E1	16 R1	**9,4**	12 E1	25 R1	**6,5**	10 E1	18 R1		
2202,19	**4,8**	7,8 E1	20 R1	**3,3**	6,6 E1	15 R1	**8,6**	11 E1	23 R1	**6,0**	9,0 E1	17 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=475

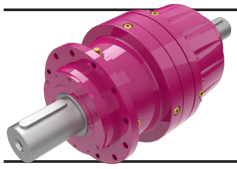
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1101L	**0,88**	1,00	1,00	1,00	**3,78**	**126**	**12**	0,95	1,20	14	3,1
RT1101L	**0,90**	1,00	1,00	1,00	**4,13**	**115**	**11**	0,95	1,20	14	3,1
	0,94	1,00	1,00	1,00	**5,17**	**92**	**10**	0,95	1,20	15	3,1
	0,82	0,86	0,91	0,96	**6,00**	**79**	**7,2**	0,94	1,20	16	3,1
	0,62	0,65	0,69	0,73	**7,25**	**66**	**4,5**	0,93	1,20	16	3,1
PT1102L	**1,00**	1,00	1,00	1,00	**14,27**	**33**	**3,8**	0,91	1,20	20	3,1
RT1102L	**1,00**	1,00	1,00	1,00	**15,58**	**30**	**3,5**	0,91	1,20	21	3,1
	1,00	1,00	1,00	1,00	**17,02**	**28**	**3,2**	0,91	1,20	21	3,1
	1,00	1,00	1,00	1,00	**21,31**	**22**	**2,6**	0,91	1,20	23	3,1
	1,00	1,00	1,00	1,00	**24,75**	**19**	**2,2**	0,91	1,20	24	3,1
	1,00	1,00	1,00	1,00	**29,91**	**16**	**1,8**	0,90	1,20	25	3,1
	1,00	1,00	1,00	1,00	**37,46**	**13**	**1,5**	0,89	1,20	27	3,1
	0,92	0,98	1,00	1,00	**43,50**	**11**	**1,2**	0,89	1,20	28	3,1
	0,70	0,74	0,91	1,00	**52,56**	**9,0**	**0,76**	0,88	1,20	30	3,1
PT1103L	**1,00**	1,00	1,00	1,00	**58,87**	**8,1**	**1,0**	0,86	1,20	31	3,1
RT1103L	**1,00**	1,00	1,00	1,00	**64,28**	**7,4**	**0,90**	0,86	1,20	32	3,1
	1,00	1,00	1,00	1,00	**70,19**	**6,8**	**0,83**	0,86	1,20	33	3,1
	1,00	1,00	1,00	1,00	**87,91**	**5,4**	**0,66**	0,85	1,20	35	3,1
	1,00	1,00	1,00	1,00	**102,09**	**4,7**	**0,58**	0,85	1,20	36	3,1
	1,00	1,00	1,00	1,00	**123,36**	**3,9**	**0,48**	0,84	1,20	39	3,1
	1,00	1,00	1,00	1,00	**154,52**	**3,1**	**0,39**	0,83	1,20	41	3,1
	1,00	1,00	1,00	1,00	**179,44**	**2,6**	**0,33**	0,83	1,20	41	3,1
	1,00	1,00	1,00	1,00	**216,82**	**2,2**	**0,28**	0,82	1,20	41	3,1
	1,00	1,00	1,00	1,00	**271,57**	**1,7**	**0,23**	0,81	1,20	41	3,1
	1,00	1,00	1,00	1,00	**315,38**	**1,5**	**0,20**	0,79	1,20	41	3,1
	0,99	1,00	1,00	1,00	**381,08**	**1,2**	**0,17**	0,76	1,20	41	3,1
PT1104L	**1,00**	1,00	1,00	1,00	**289,53**	**1,6**	**0,22**	0,78	1,20	41	3,1
RT1104L	**1,00**	1,00	1,00	1,00	**362,65**	**1,3**	**0,18**	0,76	1,20	41	3,1
	1,00	1,00	1,00	1,00	**421,14**	**1,1**	**0,16**	0,75	1,20	41	3,1
	1,00	1,00	1,00	1,00	**508,87**	**0,93**	**0,13**	0,74	1,20	41	3,1
	1,00	1,00	1,00	1,00	**637,38**	**0,75**	**0,11**	0,72	1,20	41	3,1
	1,00	1,00	1,00	1,00	**740,18**	**0,64**	**0,10**	0,71	1,20	41	3,1
	1,00	1,00	1,00	1,00	**894,38**	**0,53**	**0,08**	0,69	1,20	41	3,1
	1,00	1,00	1,00	1,00	**1120,24**	**0,42**	**0,07**	0,67	1,20	41	3,1
	1,00	1,00	1,00	1,00	**1300,92**	**0,37**	**0,06**	0,65	1,20	41	3,1
	1,00	1,00	1,00	1,00	**1571,95**	**0,30**	**0,05**	0,62	1,20	41	3,1
	1,00	1,00	1,00	1,00	**1968,90**	**0,24**	**0,04**	0,59	1,20	41	3,1
	1,00	1,00	1,00	1,00	**2286,47**	**0,21**	**0,04**	0,55	1,20	41	3,1
	1,00	1,00	1,00	1,00	**2762,82**	**0,17**	**0,04**	0,50	1,20	41	3,1
PT1201L	**1,24**	1,53	2,00	2,00	**3,78**	**126**	**17**	0,95	2,25	14	3,1
RT1201L	**1,27**	1,56	2,00	2,00	**4,13**	**115**	**16**	0,95	2,30	14	3,1
	1,32	1,63	1,95	1,98	**5,17**	**92**	**13**	0,95	2,39	15	3,1
	1,36	1,63	1,72	1,74	**6,00**	**79**	**12**	0,94	2,45	16	3,1
	1,12	1,16	1,22	1,26	**7,25**	**66**	**8,2**	0,94	2,56	16	3,1
PT1202L	**1,97**	2,00	2,00	2,00	**14,27**	**33**	**7,6**	0,91	3,00	20	3,1
RT1202L	**2,00**	2,00	2,00	2,00	**15,58**	**30**	**7,0**	0,91	3,00	21	3,1
	2,00	2,00	2,00	2,00	**17,02**	**28**	**6,4**	0,91	3,00	21	3,1
	2,00	2,00	2,00	2,00	**21,31**	**22**	**5,2**	0,91	3,00	23	3,1
	2,00	2,00	2,00	2,00	**24,75**	**19**	**4,4**	0,90	3,00	24	3,1
	2,00	2,00	2,00	2,00	**29,91**	**16**	**3,7**	0,90	3,00	25	3,1
	1,98	2,00	2,00	2,00	**37,46**	**13**	**2,9**	0,89	3,00	27	3,1
	1,73	1,77	1,80	1,93	**43,50**	**11**	**2,2**	0,89	3,00	28	3,1
	1,23	1,28	1,50	1,70	**52,56**	**9,0**	**1,3**	0,88	2,91	30	3,1
PT1203L	**2,00**	2,00	2,00	2,00	**58,87**	**8,1**	**2,0**	0,86	3,00	31	3,1
RT1203L	**2,00**	2,00	2,00	2,00	**64,28**	**7,4**	**1,8**	0,86	3,00	32	3,1
	2,00	2,00	2,00	2,00	**70,19**	**6,8**	**1,7**	0,86	3,00	33	3,1
	2,00	2,00	2,00	2,00	**87,91**	**5,4**	**1,3**	0,85	3,00	35	3,1
	2,00	2,00	2,00	2,00	**102,09**	**4,7**	**1,2**	0,85	3,00	36	3,1
	2,00	2,00	2,00	2,00	**123,36**	**3,9**	**1,0**	0,84	3,00	39	3,1



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=475

Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
3,78	**5,5**	23 E1	83 R1	**3,8**	21 E1	62 R1	**10**	26 E1	86 R1	**6,9**	23 E1	64 R1	23	382
4,13	**5,5**	22 E1	82 R1	**3,7**	21 E1	62 R1	**9,9**	26 E1	85 R1	**6,8**	23 E1	64 R1	25	383
5,17	**4,9**	20 E1	74 R1	**3,4**	19 E1	56 R1	**9,0**	23 E1	76 R1	**6,2**	21 E1	57 R1		
6,00	**4,5**	18 E1	67 R1	**3,1**	17 E1	50 R1	**8,2**	21 E1	69 R1	**5,6**	19 E1	52 R1		
7,25	**3,8**	15 E1	56 R1	**2,6**	14 E1	42 R1	**6,8**	18 E1	58 R1	**4,7**	16 E1	44 R1		
14,27	**3,2**	12 E1	42 R1	**2,2**	11 E1	32 R1	**5,8**	14 E1	44 R1	**4,0**	12 E1	33 R1	28	382
15,58	**3,2**	11 E1	42 R1	**2,2**	11 E1	31 R1	**5,7**	14 E1	43 R1	**4,0**	12 E1	32 R1	30	383
17,02	**3,2**	11 E1	41 R1	**2,2**	11 E1	31 R1	**5,7**	14 E1	43 R1	**3,9**	12 E1	32 R1		
21,31	**3,0**	11 E1	39 R1	**2,1**	10 E1	29 R1	**5,4**	13 E1	41 R1	**3,7**	11 E1	31 R1		
24,75	**2,9**	11 E1	37 R1	**2,0**	10 E1	28 R1	**5,2**	12 E1	39 R1	**3,6**	11 E1	29 R1		
29,91	**2,7**	10 E1	35 R1	**1,9**	9,3 E1	27 R1	**4,9**	12 E1	37 R1	**3,4**	10 E1	28 R1		
37,46	**2,5**	9,0 E1	32 R1	**1,7**	8,4 E1	25 R1	**4,5**	11 E1	34 R1	**3,1**	10 E1	25 R1		
43,50	**2,3**	8,4 E1	30 R1	**1,6**	7,8 E1	23 R1	**4,2**	9,9 E1	31 R1	**2,9**	8,7 E1	24 R1		
52,56	**2,0**	7,2 E1	26 R1	**1,4**	6,9 E1	20 R1	**3,6**	8,4 E1	27 R1	**2,5**	7,5 E1	20 R1		
58,87	**2,1**	6,9 E1	24 R1	**1,5**	6,3 E1	18 R1	**3,8**	8,4 E1	25 R1	**2,7**	7,2 E1	19 R1	34	382
64,28	**2,1**	6,9 E1	24 R1	**1,5**	6,3 E1	18 R1	**3,8**	8,1 E1	25 R1	**2,6**	7,2 E1	19 R1	36	383
70,19	**2,1**	6,6 E1	23 R1	**1,4**	6,3 E1	18 R1	**3,7**	8,1 E1	25 R1	**2,6**	7,2 E1	19 R1		
87,91	**2,0**	6,3 E1	22 R1	**1,4**	6,0 E1	17 R1	**3,5**	7,5 E1	23 R1	**2,4**	6,6 E1	17 R1		
102,09	**1,9**	6,0 E1	21 R1	**1,3**	5,7 E1	16 R1	**3,3**	7,2 E1	22 R1	**2,3**	6,3 E1	17 R1		
123,36	**1,8**	5,7 E1	20 R1	**1,2**	5,4 E1	15 R1	**3,1**	6,9 E1	21 R1	**2,2**	6,0 E1	16 R1		
154,52	**1,7**	5,4 E1	19 R1	**1,2**	5,1 E1	14 R1	**3,0**	6,6 E1	20 R1	**2,1**	5,7 E1	15 R1		
179,44	**1,6**	5,1 E1	18 R1	**1,1**	4,8 E1	14 R1	**2,9**	6,3 E1	19 R1	**2,0**	5,7 E1	14 R1		
216,82	**1,5**	5,1 E1	17 R1	**1,1**	4,5 E1	13 R1	**2,7**	6,0 E1	18 R1	**1,9**	5,4 E1	14 R1		
271,57	**1,4**	4,5 E1	16 R1	**1,0**	4,2 E1	12 R1	**2,5**	5,4 E1	17 R1	**1,8**	4,8 E1	13 R1		
315,38	**1,3**	4,2 E1	15 R1	**0,9**	3,9 E1	11 R1	**2,4**	5,1 E1	16 R1	**1,7**	4,5 E1	12 R1		
381,08	**1,2**	3,9 E1	13 R1	**0,8**	3,6 E1	10 R1	**2,1**	4,5 E1	14 R1	**1,4**	3,9 E1	10 R1		
289,53	**1,4**	4,2 E1	14 R1	**1,0**	3,9 E1	11 R1	**2,4**	5,1 E1	15 R1	**1,7**	4,5 E1	11 R1	39	382
362,65	**1,3**	3,9 E1	13 R1	**0,9**	3,6 E1	10 R1	**2,3**	4,8 E1	14 R1	**1,6**	4,2 E1	11 R1	41	383
421,14	**1,2**	3,6 E1	13 R1	**0,9**	3,3 E1	10 R1	**2,2**	4,5 E1	13 R1	**1,5**	3,9 E1	10 R1		
508,87	**1,2**	3,6 E1	12 R1	**0,8**	3,3 E1	9,0 R1	**2,0**	4,2 E1	13 R1	**1,4**	3,6 E1	10 R1		
637,38	**1,1**	3,3 E1	11 R1	**0,8**	3,0 E1	9,0 R1	**1,9**	3,9 E1	12 R1	**1,4**	3,6 E1	9,0 R1		
740,18	**1,1**	3,3 E1	11 R1	**0,7**	3,0 E1	8,0 R1	**1,8**	3,9 E1	11 R1	**1,3**	3,3 E1	9,0 R1		
894,38	**1,0**	3,0 E1	10 R1	**0,7**	2,7 E1	8,0 R1	**1,7**	3,6 E1	11 R1	**1,2**	3,3 E1	8,0 R1		
1120,24	**1,0**	3,0 E1	10 R1	**0,7**	2,7 E1	8,0 R1	**1,7**	3,6 E1	10 R1	**1,2**	3,0 E1	8,0 R1		
1300,92	**0,9**	2,7 E1	9,0 R1	**0,7**	2,7 E1	7,0 R1	**1,6**	3,3 E1	10 R1	**1,1**	3,0 E1	8,0 R1		
1571,95	**0,9**	2,7 E1	9,0 R1	**0,6**	2,4 E1	7,0 R1	**1,5**	3,3 E1	9,0 R1	**1,1**	2,7 E1	7,0 R1		
1968,90	**0,8**	2,4 E1	8,0 R1	**0,6**	2,4 E1	6,0 R1	**1,4**	3,0 E1	9,0 R1	**1,0**	2,7 E1	7,0 R1		
2286,47	**0,8**	2,4 E1	8,0 R1	**0,5**	2,1 E1	6,0 R1	**1,3**	2,7 E1	8,0 R1	**0,9**	2,4 E1	6,0 R1		
2762,82	**0,7**	2,1 E1	7,0 R1	**0,5**	1,8 E1	5,0 R1	**1,2**	2,4 E1	7,0 R1	**0,8**	2,1 E1	6,0 R1		
3,78	**6,4**	25 E1	93 R1	**4,4**	24 E1	70 R1	**12**	29 E1	96 R1	**8,0**	26 E1	72 R1	27	384
4,13	**6,3**	25 E1	92 R1	**4,3**	23 E1	69 R1	**12**	29 E1	95 R1	**7,9**	26 E1	71 R1	29	385
5,17	**5,8**	23 E1	83 R1	**3,9**	21 E1	62 R1	**10**	26 E1	86 R1	**7,2**	24 E1	64 R1		
6,00	**5,3**	20 E1	75 R1	**3,6**	19 E1	56 R1	**9,5**	24 E1	78 R1	**6,6**	22 E1	58 R1		
7,25	**4,4**	17 E1	63 R1	**3,0**	16 E1	47 R1	**8,0**	20 E1	65 R1	**5,5**	18 E1	49 R1		
14,27	**3,9**	13 E1	46 R1	**2,7**	12 E1	34 R1	**7,0**	16 E1	48 R1	**4,8**	14 E1	36 R1	33	384
15,58	**3,8**	13 E1	45 R1	**2,6**	12 E1	34 R1	**6,9**	15 E1	47 R1	**4,8**	14 E1	35 R1	35	385
17,02	**3,8**	13 E1	45 R1	**2,6**	12 E1	34 R1	**6,8**	15 E1	47 R1	**4,7**	14 E1	35 R1		
21,31	**3,6**	12 E1	43 R1	**2,5**	11 E1	32 R1	**6,5**	14 E1	45 R1	**4,5**	13 E1	33 R1		
24,75	**3,5**	12 E1	41 R1	**2,4**	11 E1	31 R1	**6,3**	14 E1	43 R1	**4,3**	12 E1	32 R1		
29,91	**3,3**	11 E1	39 R1	**2,3**	10 E1	29 R1	**5,9**	13 E1	40 R1	**4,1**	12 E1	30 R1		
37,46	**3,0**	10 E1	36 R1	**2,1**	9,3 E1	27 R1	**5,4**	12 E1	37 R1	**3,8**	11 E1	28 R1		
43,50	**2,8**	9,3 E1	33 R1	**2,0**	8,7 E1	25 R1	**5,1**	11 E1	34 R1	**3,5**	10 E1	26 R1		
52,56	**2,4**	8,1 E1	29 R1	**1,7**	7,5 E1	22 R1	**4,4**	9,6 E1	30 R1	**3,0**	8,7 E1	22 R1		
58,87	**2,5**	7,5 E1	26 R1	**1,8**	6,9 E1	20 R1	**4,5**	9,3 E1	27 R1	**3,1**	8,1 E1	21 R1	38	384
64,28	**2,5**	7,5 E1	26 R1	**1,7**	6,9 E1	20 R1	**4,5**	9,3 E1	27 R1	**3,1**	8,1 E1	20 R1	40	385
70,19	**2,5**	7,5 E1	25 R1	**1,7**	6,9 E1	19 R1	**4,4**	9,0 E1	27 R1	**3,1**	7,8 E1	20 R1		
87,91	**2,3**	6,9 E1	24 R1	**1,6**	6,3 E1	18 R1	**4,1**	8,4 E1	25 R1	**2,9**	7,5 E1	19 R1		
102,09	**2,2**	6,6 E1	23 R1	**1,5**	6,0 E1	17 R1	**4,0**	8,1 E1	24 R1	**2,8**	7,2 E1	18 R1		
123,36	**2,1**	6,3 E1	22 R1	**1,5**	5,7 E1	16 R1	**3,7**	7,8 E1	23 R1	**2,6**	6,6 E1	17 R1		



Motorsuz Planet Redüktörler
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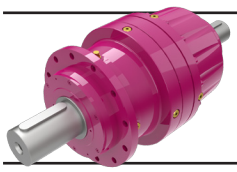
Planetengetriebe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1203L **RT1203L**	**2,00** **2,00** **2,00** **2,00** **1,87** **1,60**	2,00 2,00 2,00 2,00 2,00 1,79	2,00 2,00 2,00 2,00 2,00 1,97	2,00 2,00 2,00 2,00 2,00 2,00	**154,52** **179,44** **216,82** **271,57** **315,38** **381,08**	**3,1** **2,6** **2,2** **1,7** **1,5** **1,2**	**0,77** **0,67** **0,56** **0,45** **0,37** **0,27**	0,84 0,83 0,83 0,82 0,80 0,78	3,00 3,00 3,00 3,00 3,00 3,00	39 39 39 39 39 40	3,1 3,1 3,1 3,1 3,1 3,1
PT1204L **RT1204L**	**2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00**	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00	**289,53** **362,65** **421,14** **508,87** **637,38** **740,18** **894,38** **1120,24** **1300,92** **1571,95** **1968,90** **2286,47** **2762,82**	**1,6** **1,3** **1,1** **0,93** **0,75** **0,64** **0,53** **0,42** **0,37** **0,30** **0,24** **0,21** **0,17**	**0,44** **0,36** **0,31** **0,26** **0,21** **0,18** **0,16** **0,13** **0,11** **0,09** **0,08** **0,07** **0,06**	0,78 0,77 0,76 0,75 0,74 0,73 0,71 0,70 0,69 0,67 0,65 0,62 0,57	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00	39 39 39 39 39 39 39 39 39 39 39 39 39	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1501L **RT1501L**	**2,39** **2,50** **2,57** **2,22** **1,54**	2,62 3,02 2,61 2,33 1,63	2,68 3,08 2,67 2,42 1,75	2,72 3,10 2,71 2,46 1,84	**3,60** **4,25** **5,33** **6,20** **7,50**	**132** **112** **89** **77** **63**	**35** **31** **25** **19** **11**	0,96 0,95 0,95 0,95 0,94	3,72 3,72 3,72 3,72 3,50	20 21 22 23 25	7,4 7,4 7,4 7,4 7,4
PT1502L **RT1502L**	**2,59** **3,10** **3,10** **3,10** **2,72** **2,73** **2,48** **1,77**	2,68 3,10 3,10 3,10 2,76 2,77 2,52 1,87	2,79 3,10 3,10 3,10 2,82 2,83 2,57 2,28	2,85 3,10 3,10 3,10 2,97 3,05 2,84 2,61	**13,60** **17,53** **21,96** **25,50** **32,00** **38,67** **44,95** **54,38**	**35** **27** **22** **19** **15** **12** **11** **8,7**	**10** **10** **7,7** **6,7** **4,7** **3,9** **3,1** **1,8**	0,91 0,91 0,91 0,91 0,90 0,90 0,89 0,89	3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72	29 32 34 35 38 40 42 45	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1503L **RT1503L**	**2,68** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **2,85** **2,92** **2,72** **2,44**	2,77 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,00 2,77	2,89 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10	3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10	**51,38** **66,23** **72,32** **90,58** **105,19** **127,10** **159,20** **184,88** **232,00** **280,33** **325,89** **394,22**	**9,2** **7,2** **6,6** **5,2** **4,5** **3,7** **3,0** **2,6** **2,0** **1,7** **1,5** **1,2**	**3,0** **2,7** **2,5** **2,0** **1,7** **1,4** **1,1** **1,0** **0,73** **0,63** **0,51** **0,39**	0,86 0,86 0,86 0,86 0,85 0,84 0,84 0,84 0,83 0,83 0,82 0,80	3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72	44 47 49 52 54 58 60 60 61 61 62 62	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1504L **RT1504L**	**2,81** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10**	2,90 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10	3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10	3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10 3,10	**194,09** **250,20** **273,20** **298,31** **373,63** **433,90** **524,29** **656,69** **762,61** **921,49** **1154,18** **1340,34** **1619,58** **2032,42** **2362,68** **2858,09**	**2,4** **1,9** **1,7** **1,6** **1,3** **1,1** **0,91** **0,72** **0,62** **0,52** **0,41** **0,35** **0,29** **0,23** **0,20** **0,17**	**0,91** **0,78** **0,71** **0,65** **0,53** **0,46** **0,39** **0,31** **0,27** **0,23** **0,18** **0,16** **0,14** **0,11** **0,10** **0,09**	0,79 0,79 0,79 0,79 0,78 0,77 0,76 0,75 0,74 0,73 0,72 0,72 0,70 0,68 0,66 0,61	3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72	61 61 61 61 61 61 61 61 61 61 61 61 61 61 61 61	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1



Motorsuz Planet Redüktörler
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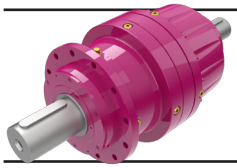
Planetengetriebe

n_1=475

Çevrim Oranı *Ratio* Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
154,52	**2,0**	6,0 E1	21 R1	**1,4**	5,4 E1	16 R1	**3,6**	7,2 E1	22 R1	**2,5**	6,3 E1	16 R1	38	384
179,44	**1,9**	5,7 E1	20 R1	**1,4**	5,4 E1	15 R1	**3,5**	7,2 E1	21 R1	**2,4**	6,3 E1	16 R1	40	385
216,82	**1,8**	5,4 E1	19 R1	**1,3**	5,1 E1	14 R1	**3,3**	6,6 E1	20 R1	**2,3**	6,0 E1	15 R1		
271,57	**1,7**	5,1 E1	18 R1	**1,2**	4,8 E1	13 R1	**3,0**	6,3 E1	18 R1	**2,1**	5,4 E1	14 R1		
315,38	**1,6**	4,8 E1	16 R1	**1,1**	4,5 E1	12 R1	**2,8**	5,7 E1	17 R1	**2,0**	5,1 E1	13 R1		
381,08	**1,4**	4,2 E1	14 R1	**1,0**	3,9 E1	11 R1	**2,5**	5,1 E1	15 R1	**1,7**	4,5 E1	11 R1		
289,53	**1,7**	4,5 E1	15 R1	**1,2**	4,2 E1	12 R1	**2,9**	5,7 E1	16 R1	**2,1**	4,8 E1	12 R1	44	384
362,65	**1,6**	4,2 E1	14 R1	**1,1**	3,9 E1	11 R1	**2,8**	5,4 E1	15 R1	**1,9**	4,5 E1	11 R1	46	385
421,14	**1,5**	4,2 E1	14 R1	**1,0**	3,6 E1	10 R1	**2,6**	5,1 E1	14 R1	**1,8**	4,5 E1	11 R1		
508,87	**1,4**	3,9 E1	13 R1	**1,0**	3,6 E1	10 R1	**2,5**	4,8 E1	14 R1	**1,7**	4,2 E1	10 R1		
637,38	**1,3**	3,6 E1	12 R1	**0,9**	3,3 E1	9,0 R1	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1		
740,18	**1,3**	3,6 E1	12 R1	**0,9**	3,3 E1	9,0 R1	**2,2**	4,2 E1	12 R1	**1,6**	3,9 E1	9,0 R1		
894,38	**1,2**	3,3 E1	11 R1	**0,8**	3,0 E1	8,0 R1	**2,1**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1		
1120,24	**1,2**	3,3 E1	11 R1	**0,8**	3,0 E1	8,0 R1	**2,0**	3,9 E1	11 R1	**1,4**	3,3 E1	9,0 R1		
1300,92	**1,1**	3,0 E1	10 R1	**0,8**	2,7 E1	8,0 R1	**2,0**	3,9 E1	11 R1	**1,4**	3,3 E1	8,0 R1		
1571,95	**1,1**	3,0 E1	10 R1	**0,7**	2,7 E1	7,0 R1	**1,9**	3,6 E1	10 R1	**1,3**	3,0 E1	8,0 R1		
1968,90	**1,0**	2,7 E1	9,0 R1	**0,7**	2,4 E1	7,0 R1	**1,7**	3,3 E1	10 R1	**1,2**	3,0 E1	7,0 R1		
2286,47	**0,9**	2,7 E1	9,0 R1	**0,7**	2,4 E1	7,0 R1	**1,6**	3,3 E1	9,0 R1	**1,1**	2,7 E1	7,0 R1		
2762,82	**0,8**	2,4 E1	8,0 R1	**0,6**	2,1 E1	6,0 R1	**1,4**	2,7 E1	8,0 R1	**1,0**	2,4 E1	6,0 R1		
3,60	**11**	50 E2	110 R1	**7,5**	48 E2	82 R1	**20**	40 E1	116 R1	**14**	34 E1	86 R1	54	386
4,25	**11**	32 E1	107 R1	**7,4**	47 E2	81 R1	**20**	39 E1	114 R1	**14**	34 E1	85 R1	64	387
5,33	**9,7**	28 E1	96 R1	**6,6**	26 E1	72 R1	**18**	35 E1	101 R1	**12**	30 E1	75 R1		
6,20	**8,8**	26 E1	87 R1	**6,0**	23 E1	65 R1	**16**	32 E1	92 R1	**11**	27 E1	68 R1		
7,50	**7,6**	22 E1	74 R1	**5,2**	20 E1	55 R1	**14**	27 E1	78 R1	**9,4**	23 E1	58 R1		
13,60	**5,0**	15 E1	51 R1	**3,5**	14 E1	38 R1	**9,1**	18 E1	54 R1	**6,3**	16 E1	40 R1	46	386
17,53	**5,0**	15 E1	50 R1	**3,4**	14 E1	38 R1	**8,9**	18 E1	53 R1	**6,2**	16 E1	40 R1	56	387
21,96	**4,8**	14 E1	48 R1	**3,3**	13 E1	36 R1	**8,5**	17 E1	51 R1	**5,9**	15 E1	38 R1		
25,50	**4,6**	14 E1	46 R1	**3,2**	12 E1	35 R1	**8,2**	17 E1	49 R1	**5,7**	14 E1	36 R1		
32,00	**4,2**	12 E1	42 R1	**2,9**	11 E1	32 R1	**7,5**	15 E1	44 R1	**5,2**	13 E1	33 R1		
38,67	**4,0**	12 E1	40 R1	**2,7**	11 E1	30 R1	**7,1**	14 E1	42 R1	**4,9**	12 E1	31 R1		
44,95	**3,7**	11 E1	37 R1	**2,5**	10 E1	28 R1	**6,6**	13 E1	39 R1	**4,6**	11 E1	29 R1		
54,38	**3,2**	10 E1	32 R1	**2,3**	8,7 E1	24 R1	**5,8**	12 E1	34 R1	**4,0**	10 E1	26 R1		
51,38	**3,0**	8,4 E1	29 R1	**2,1**	7,8 E1	22 R1	**5,4**	11 E1	30 R1	**3,8**	9,3 E1	23 R1	52	386
66,23	**3,0**	8,4 E1	28 R1	**2,1**	7,8 E1	21 R1	**5,4**	11 E1	30 R1	**3,7**	9,0 E1	22 R1	62	387
72,32	**2,9**	8,4 E1	28 R1	**2,0**	7,5 E1	21 R1	**5,3**	10 E1	29 R1	**3,7**	9,0 E1	22 R1		
90,58	**2,8**	7,8 E1	26 R1	**1,9**	7,2 E1	20 R1	**5,0**	9,6 E1	28 R1	**3,5**	8,4 E1	21 R1		
105,19	**2,7**	7,5 E1	25 R1	**1,9**	6,9 E1	19 R1	**4,8**	9,3 E1	27 R1	**3,3**	8,1 E1	20 R1		
127,10	**2,5**	6,9 E1	24 R1	**1,7**	6,3 E1	18 R1	**4,5**	8,7 E1	25 R1	**3,1**	7,5 E1	19 R1		
159,20	**2,4**	6,9 E1	23 R1	**1,7**	6,3 E1	17 R1	**4,3**	8,4 E1	24 R1	**3,0**	7,2 E1	18 R1		
184,88	**2,3**	6,6 E1	22 R1	**1,6**	6,0 E1	17 R1	**4,2**	8,1 E1	23 R1	**2,9**	6,9 E1	17 R1		
232,00	**2,2**	6,0 E1	20 R1	**1,5**	5,4 E1	15 R1	**3,8**	7,5 E1	21 R1	**2,7**	6,6 E1	16 R1		
280,33	**2,0**	5,7 E1	19 R1	**1,4**	5,1 E1	15 R1	**3,6**	7,2 E1	20 R1	**2,5**	6,0 E1	15 R1		
325,89	**1,9**	5,4 E1	18 R1	**1,3**	4,8 E1	14 R1	**3,4**	6,6 E1	19 R1	**2,4**	5,7 E1	14 R1		
394,22	**1,7**	4,8 E1	16 R1	**1,2**	4,5 E1	12 R1	**3,0**	6,0 E1	17 R1	**2,1**	5,1 E1	13 R1		
194,09	**2,0**	5,4 E1	18 R1	**1,4**	4,8 E1	13 R1	**3,6**	6,6 E1	19 R1	**2,5**	5,7 E1	14 R1	57	386
250,20	**2,0**	5,1 E1	17 R1	**1,4**	4,8 E1	13 R1	**3,5**	6,6 E1	18 R1	**2,4**	5,7 E1	14 R1	67	387
273,20	**1,9**	5,1 E1	17 R1	**1,4**	4,8 E1	13 R1	**3,5**	6,6 E1	18 R1	**2,4**	5,4 E1	14 R1		
298,31	**1,9**	5,1 E1	17 R1	**1,3**	4,5 E1	13 R1	**3,4**	6,3 E1	18 R1	**2,4**	5,4 E1	13 R1		
373,63	**1,8**	4,8 E1	16 R1	**1,2**	4,2 E1	12 R1	**3,2**	6,0 E1	17 R1	**2,2**	5,1 E1	12 R1		
433,90	**1,7**	4,5 E1	15 R1	**1,2**	4,2 E1	11 R1	**3,0**	5,7 E1	16 R1	**2,1**	4,8 E1	12 R1		
524,29	**1,6**	4,2 E1	14 R1	**1,1**	3,9 E1	11 R1	**2,8**	5,4 E1	15 R1	**2,0**	4,5 E1	11 R1		
656,69	**1,5**	3,9 E1	13 R1	**1,1**	3,6 E1	10 R1	**2,7**	5,1 E1	14 R1	**1,9**	4,2 E1	11 R1		
762,61	**1,5**	3,9 E1	13 R1	**1,0**	3,6 E1	10 R1	**2,6**	4,8 E1	14 R1	**1,8**	4,2 E1	10 R1		
921,49	**1,4**	3,6 E1	12 R1	**1,0**	3,3 E1	9,0 R1	**2,4**	4,5 E1	13 R1	**1,7**	3,9 E1	10 R1		
1154,18	**1,3**	3,6 E1	12 R1	**0,9**	3,3 E1	9,0 R1	**2,4**	4,5 E1	12 R1	**1,6**	3,9 E1	9,0 R1		
1340,34	**1,3**	3,3 E1	11 R1	**0,9**	3,0 E1	9,0 R1	**2,3**	4,2 E1	12 R1	**1,6**	3,6 E1	9,0 R1		
1619,58	**1,2**	3,3 E1	11 R1	**0,9**	3,0 E1	8,0 R1	**2,2**	4,2 E1	11 R1	**1,5**	3,6 E1	9,0 R1		
2032,42	**1,1**	3,0 E1	10 R1	**0,8**	2,7 E1	8,0 R1	**2,0**	3,9 E1	11 R1	**1,4**	3,3 E1	8,0 R1		
2362,68	**1,1**	2,7 E1	9,0 R1	**0,8**	2,7 E1	7,0 R1	**1,9**	3,6 E1	10 R1	**1,3**	3,0 E1	8,0 R1		
2858,09	**1,0**	2,4 E1	8,0 R1	**0,7**	2,4 E1	6,0 R1	**1,7**	3,3 E1	9,0 R1	**1,2**	2,7 E1	7,0 R1		



Motorsuz Planet Redüktörler
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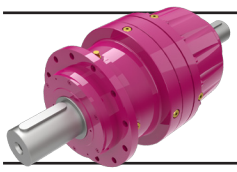
Planetengetriebe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1601L **RT1601L**	**3,22** **3,37** **3,51** **3,61** **2,32**	3,97 4,15 4,33 3,73 2,41	4,87 5,00 4,59 3,80 2,53	4,95 5,00 4,64 3,84 2,62	**3,60** **4,25** **5,33** **6,20** **7,50**	**132** **112** **89** **77** **63**	**46** **41** **34** **30** **16**	0,96 0,96 0,95 0,95 0,95	5,83 6,10 6,35 6,53 5,33	20 21 22 23 25	7,4 7,4 7,4 7,4 7,4
PT1602L **RT1602L**	**4,47** **5,00** **5,00** **5,00** **4,67** **4,69** **3,88** **2,57**	5,00 5,00 5,00 5,00 4,73 4,74 3,93 2,67	5,00 5,00 5,00 5,00 4,80 4,82 3,99 3,07	5,00 5,00 5,00 5,00 5,00 5,00 4,32 3,40	**13,60** **17,53** **21,96** **25,50** **32,00** **38,67** **44,95** **54,38**	**35** **27** **22** **19** **15** **12** **11** **8,7**	**18** **15** **12** **11** **8,0** **6,7** **4,8** **2,6**	0,91 0,92 0,91 0,91 0,91 0,90 0,90 0,90	7,50 7,50 7,50 7,50 7,50 7,50 7,50 6,07	29 32 34 35 38 40 42 45	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1603L **RT1603L**	**5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **4,85** **4,94** **4,17** **3,24**	5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 4,52 3,56	5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 4,00	5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 4,37	**51,38** **66,23** **72,32** **90,58** **105,19** **127,10** **159,20** **184,88** **232,00** **280,33** **325,89** **394,22**	**9,2** **7,2** **6,6** **5,2** **4,5** **3,7** **3,0** **2,6** **2,0** **1,7** **1,5** **1,2**	**5,6** **4,3** **4,0** **3,2** **2,8** **2,3** **1,8** **1,6** **1,2** **1,1** **0,77** **0,50**	0,86 0,86 0,86 0,86 0,86 0,85 0,85 0,85 0,84 0,83 0,83 0,81	7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 6,82	44 47 49 52 53 53 53 53 54 54 57 60	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1604L **RT1604L**	**4,42** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00** **4,18**	4,61 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 4,57	5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00	5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00 5,00	**194,09** **250,20** **273,20** **298,31** **373,63** **433,90** **524,29** **656,69** **762,61** **921,49** **1154,18** **1340,34** **1619,58** **2032,42** **2362,68** **2858,09**	**2,4** **1,9** **1,7** **1,6** **1,3** **1,1** **0,91** **0,72** **0,62** **0,52** **0,41** **0,35** **0,29** **0,23** **0,20** **0,17**	**1,4** **1,2** **1,1** **1,0** **0,85** **0,73** **0,62** **0,50** **0,43** **0,36** **0,29** **0,25** **0,21** **0,17** **0,15** **0,11**	0,80 0,80 0,80 0,80 0,79 0,78 0,77 0,76 0,76 0,75 0,74 0,74 0,72 0,71 0,69 0,65	7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50	56 53 53 53 53 53 53 53 53 53 53 53 53 53 53 57	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1901L **RT1901L**	**4,37** **4,57** **4,77** **4,89** **3,80**	5,38 5,63 5,87 5,37 3,95	6,53 7,41 6,61 5,74 4,15	6,74 7,82 6,72 6,00 4,31	**3,60** **4,25** **5,33** **6,20** **7,50**	**132** **112** **89** **77** **63**	**63** **56** **46** **41** **27**	0,96 0,96 0,96 0,95 0,95	7,90 8,27 8,62 8,85 8,76	34 35 38 40 42	13 13 13 13 13
PT1902L **RT1902L**	**6,14** **7,06** **7,56** **7,86** **6,54** **6,78** **5,79** **4,21**	6,35 7,90 7,94 7,97 6,91 6,88 6,11 4,40	6,63 8,05 8,10 8,13 7,42 7,03 6,41 5,07	6,85 8,18 8,22 8,26 7,83 7,59 6,95 5,66	**12,96** **18,06** **22,67** **26,35** **31,88** **40,00** **46,50** **56,25**	**37** **26** **21** **18** **15** **12** **10** **8,4**	**26** **21** **18** **16** **11** **9,3** **6,8** **4,1**	0,92 0,92 0,92 0,92 0,92 0,91 0,91 0,90	11,6 12,8 13,7 14,3 14,9 15,8 13,5 9,95	49 55 58 61 65 69 72 77	7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4
PT1903L **RT1903L**	**8,00** **8,03** **8,05** **8,09** **8,11**	8,12 8,15 8,17 8,21 8,24	8,38 8,50 8,50 8,50 8,50	8,50 8,50 8,50 8,50 8,50	**57,80** **68,24** **74,51** **93,32** **108,38**	**8,2** **7,0** **6,4** **5,1** **4,4**	**8,0** **6,8** **6,2** **5,0** **4,3**	0,86 0,87 0,87 0,86 0,86	18,1 19,0 19,5 19,7 19,8	77 81 84 89 93	3,1 3,1 3,1 3,1 3,1



Motorsuz Planet Redüktörler
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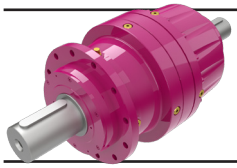
n_1=475

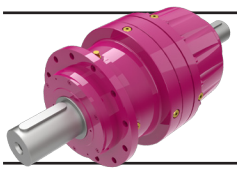
Çevrim Oranı *Ratio* Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
3,60	**13**	57 E2	123 R1	**8,9**	54 E2	92 R1	**24**	46 E1	130 R1	**16**	59 E2	97 R1	66	388
4,25	**13**	56 E2	120 R1	**8,8**	53 E2	90 R1	**24**	45 E1	128 R1	**16**	58 E2	95 R1	76	389
5,33	**12**	50 E2	107 R1	**7,9**	47 E2	80 R1	**21**	40 E1	114 R1	**15**	34 E1	85 R1		
6,20	**11**	29 E1	97 R1	**7,2**	43 E2	73 R1	**19**	36 E1	103 R1	**13**	31 E1	77 R1		
7,50	**9,0**	25 E1	83 R1	**6,2**	23 E1	62 R1	**16**	31 E1	88 R1	**11**	27 E1	66 R1		
13,60	**5,9**	17 E1	57 R1	**4,1**	25 E2	43 R1	**11**	21 E1	60 R1	**7,4**	18 E1	45 R1	62	388
17,53	**5,8**	17 E1	56 R1	**4,0**	15 E1	42 R1	**11**	20 E1	59 R1	**7,3**	18 E1	44 R1	72	389
21,96	**5,6**	16 E1	54 R1	**3,9**	14 E1	40 R1	**10**	20 E1	57 R1	**7,0**	17 E1	42 R1		
25,50	**5,4**	15 E1	51 R1	**3,7**	14 E1	39 R1	**9,7**	19 E1	54 R1	**6,7**	16 E1	41 R1		
32,00	**5,0**	14 E1	47 R1	**3,4**	13 E1	36 R1	**8,9**	17 E1	50 R1	**6,2**	15 E1	37 R1		
38,67	**4,7**	13 E1	44 R1	**3,2**	12 E1	33 R1	**8,4**	16 E1	47 R1	**5,8**	14 E1	35 R1		
44,95	**4,3**	12 E1	41 R1	**3,0**	11 E1	31 R1	**7,8**	15 E1	44 R1	**5,4**	13 E1	33 R1		
54,38	**3,8**	11 E1	36 R1	**2,7**	10 E1	27 R1	**6,9**	14 E1	38 R1	**4,8**	12 E1	29 R1		
51,38	**3,5**	10 E1	32 R1	**2,4**	8,7 E1	24 R1	**6,2**	12 E1	33 R1	**4,3**	10 E1	25 R1	68	388
66,23	**3,4**	9,3 E1	31 R1	**2,4**	8,4 E1	23 R1	**6,1**	12 E1	33 R1	**4,2**	10 E1	25 R1	78	389
72,32	**3,4**	9,3 E1	31 R1	**2,3**	8,4 E1	23 R1	**6,0**	11 E1	32 R1	**4,2**	10 E1	24 R1		
90,58	**3,2**	8,7 E1	29 R1	**2,2**	7,8 E1	22 R1	**5,7**	11 E1	31 R1	**3,9**	9,3 E1	23 R1		
105,19	**3,0**	8,4 E1	28 R1	**2,1**	7,5 E1	21 R1	**5,4**	11 E1	29 R1	**3,8**	9,0 E1	22 R1		
127,10	**2,9**	7,8 E1	26 R1	**2,0**	7,2 E1	20 R1	**5,1**	9,6 E1	28 R1	**3,6**	8,4 E1	21 R1		
159,20	**2,8**	7,5 E1	25 R1	**1,9**	6,9 E1	19 R1	**4,9**	9,3 E1	27 R1	**3,4**	8,1 E1	20 R1		
184,88	**2,7**	7,2 E1	24 R1	**1,9**	6,6 E1	18 R1	**4,8**	9,0 E1	26 R1	**3,3**	7,8 E1	19 R1		
232,00	**2,5**	6,6 E1	22 R1	**1,7**	6,0 E1	17 R1	**4,4**	8,4 E1	24 R1	**3,1**	7,2 E1	18 R1		
280,33	**2,4**	6,3 E1	21 R1	**1,6**	5,7 E1	16 R1	**4,2**	8,1 E1	23 R1	**2,9**	6,9 E1	17 R1		
325,89	**2,2**	6,0 E1	20 R1	**1,5**	5,4 E1	15 R1	**3,9**	7,5 E1	21 R1	**2,7**	6,3 E1	16 R1		
394,22	**2,0**	5,4 E1	18 R1	**1,4**	4,8 E1	13 R1	**3,5**	6,6 E1	19 R1	**2,4**	5,7 E1	14 R1		
194,09	**2,2**	5,7 E1	19 R1	**1,5**	5,1 E1	14 R1	**3,9**	7,2 E1	20 R1	**2,7**	6,3 E1	15 R1	73	388
250,20	**2,2**	5,7 E1	19 R1	**1,5**	5,1 E1	14 R1	**3,8**	7,2 E1	20 R1	**2,7**	6,0 E1	15 R1	83	389
273,20	**2,1**	5,7 E1	18 R1	**1,5**	5,1 E1	14 R1	**3,8**	6,9 E1	20 R1	**2,6**	6,0 E1	15 R1		
298,31	**2,1**	5,4 E1	18 R1	**1,5**	5,1 E1	14 R1	**3,7**	6,9 E1	19 R1	**2,6**	6,0 E1	14 R1		
373,63	**2,0**	5,1 E1	17 R1	**1,4**	4,8 E1	13 R1	**3,5**	6,6 E1	18 R1	**2,4**	5,4 E1	14 R1		
433,90	**1,9**	4,8 E1	16 R1	**1,3**	4,5 E1	12 R1	**3,3**	6,3 E1	17 R1	**2,3**	5,4 E1	13 R1		
524,29	**1,8**	4,5 E1	15 R1	**1,2**	4,2 E1	12 R1	**3,1**	5,7 E1	16 R1	**2,2**	5,1 E1	12 R1		
656,69	**1,7**	4,5 E1	14 R1	**1,2**	3,9 E1	11 R1	**3,0**	5,4 E1	15 R1	**2,1**	4,8 E1	12 R1		
762,61	**1,6**	4,2 E1	14 R1	**1,1**	3,9 E1	11 R1	**2,8**	5,4 E1	15 R1	**2,0**	4,5 E1	11 R1		
921,49	**1,5**	3,9 E1	13 R1	**1,1**	3,6 E1	10 R1	**2,7**	5,1 E1	14 R1	**1,9**	4,2 E1	11 R1		
1154,18	**1,5**	3,9 E1	13 R1	**1,0**	3,6 E1	10 R1	**2,6**	4,8 E1	13 R1	**1,8**	4,2 E1	10 R1		
1340,34	**1,4**	3,6 E1	12 R1	**1,0**	3,3 E1	9,0 R1	**2,5**	4,8 E1	13 R1	**1,8**	3,9 E1	10 R1		
1619,58	**1,4**	3,6 E1	12 R1	**0,9**	3,3 E1	9,0 R1	**2,4**	4,5 E1	12 R1	**1,7**	3,9 E1	9,0 R1		
2032,42	**1,3**	3,3 E1	11 R1	**0,9**	3,0 E1	8,0 R1	**2,2**	4,2 E1	12 R1	**1,6**	3,6 E1	9,0 R1		
2362,68	**1,2**	3,0 E1	10 R1	**0,8**	2,7 E1	8,0 R1	**2,1**	3,9 E1	11 R1	**1,5**	3,3 E1	8,0 R1		
2858,09	**1,1**	2,7 E1	9,0 R1	**0,8**	2,7 E1	7,0 R1	**1,9**	3,6 E1	10 R1	**1,3**	3,0 E1	7,0 R1		
3,60	**19**	66 E2	137 R1	**13**	61 E2	102 R1	**35**	79 E2	149 R1	**24**	70 E2	110 R1	112	390
4,25	**19**	65 E2	135 R1	**13**	60 E2	101 R1	**34**	57 E1	146 R1	**24**	68 E2	108 R1	126	391
5,33	**17**	58 E2	120 R1	**12**	54 E2	90 R1	**31**	51 E1	130 R1	**21**	61 E2	97 R1		
6,20	**15**	52 E2	109 R1	**10**	49 E2	81 R1	**28**	46 E1	118 R1	**19**	55 E2	88 R1		
7,50	**13**	30 E1	93 R1	**9,0**	26 E1	70 R1	**24**	39 E1	101 R1	**16**	33 E1	75 R1		
12,96	**9,5**	32 E2	66 R1	**6,5**	29 E2	49 R1	**17**	28 E1	71 R1	**12**	34 E2	53 R1	114	390
18,06	**9,3**	21 E1	64 R1	**6,4**	29 E2	48 R1	**17**	27 E1	70 R1	**12**	23 E1	52 R1	128	391
22,67	**8,9**	20 E1	61 R1	**6,1**	17 E1	46 R1	**16**	26 E1	66 R1	**11**	22 E1	49 R1		
26,35	**8,5**	19 E1	59 R1	**5,9**	17 E1	44 R1	**15**	25 E1	64 R1	**11**	21 E1	47 R1		
31,88	**8,1**	18 E1	55 R1	**5,6**	16 E1	41 R1	**15**	24 E1	60 R1	**10**	20 E1	45 R1		
40,00	**7,4**	17 E1	51 R1	**5,1**	14 E1	38 R1	**13**	22 E1	55 R1	**9,2**	18 E1	41 R1		
46,50	**6,8**	15 E1	47 R1	**4,7**	14 E1	35 R1	**12**	20 E1	51 R1	**8,5**	17 E1	38 R1		
56,25	**6,0**	14 E1	41 R1	**4,2**	12 E1	31 R1	**11**	18 E1	45 R1	**7,5**	15 E1	33 R1		
57,80	**6,1**	12 E1	36 R1	**4,2**	11 E1	27 R1	**11**	17 E1	39 R1	**7,6**	14 E1	29 R1	106	390
68,24	**6,0**	12 E1	35 R1	**4,2**	11 E1	27 R1	**11**	17 E1	39 R1	**7,5**	14 E1	29 R1	120	391
74,51	**6,0**	12 E1	35 R1	**4,1**	11 E1	26 R1	**11**	16 E1	38 R1	**7,4**	13 E1	29 R1		
93,32	**5,6**	11 E1	33 R1	**3,9**	10 E1	25 R1	**10**	15 E1	36 R1	**7,0**	13 E1	27 R1		
108,38	**5,4**	11 E1	32 R1	**3,8**	9,3 E1	24 R1	**9,7**	15 E1	35 R1	**6,7**	12 E1	26 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1903L	**8,15**	8,27	8,50	8,50	**130,95**	**3,6**	**3,6**	0,85	19,9	95	3,1
RT1903L	**8,19**	8,50	8,50	8,50	**164,33**	**2,9**	**2,9**	0,85	20,0	95	3,1
	8,21	8,50	8,50	8,50	**191,04**	**2,5**	**2,5**	0,85	20,0	95	3,1
	7,51	7,95	8,50	8,50	**231,09**	**2,1**	**1,9**	0,85	17,3	96	3,1
	7,28	7,99	8,50	8,50	**290,00**	**1,6**	**1,5**	0,84	17,3	97	3,1
	6,71	7,28	8,12	8,50	**337,13**	**1,4**	**1,2**	0,83	15,6	97	3,1
	5,35	5,98	6,93	7,61	**407,81**	**1,2**	**0,79**	0,82	11,2	99	3,1
PT1904L	**8,36**	8,50	8,50	8,50	**281,47**	**1,7**	**1,8**	0,80	20,2	95	3,1
RT1904L	**8,46**	8,50	8,50	8,50	**307,34**	**1,5**	**1,7**	0,80	20,2	95	3,1
	8,50	8,50	8,50	8,50	**384,96**	**1,2**	**1,4**	0,79	20,3	95	3,1
	8,50	8,50	8,50	8,50	**447,05**	**1,1**	**1,2**	0,78	20,4	95	3,1
	8,50	8,50	8,50	8,50	**540,18**	**0,88**	**1,0**	0,77	20,5	95	3,1
	8,50	8,50	8,50	8,50	**676,59**	**0,70**	**0,81**	0,77	23,1	95	3,1
	8,50	8,50	8,50	8,50	**785,72**	**0,60**	**0,70**	0,76	20,7	95	3,1
	8,50	8,50	8,50	8,50	**949,41**	**0,50**	**0,59**	0,75	21,1	95	3,1
	8,50	8,50	8,50	8,50	**1191,42**	**0,40**	**0,47**	0,75	21,3	95	3,1
	8,50	8,50	8,50	8,50	**1385,02**	**0,34**	**0,41**	0,75	21,3	95	3,1
	8,50	8,50	8,50	8,50	**1675,43**	**0,28**	**0,34**	0,74	20,7	95	3,1
	8,50	8,50	8,50	8,50	**2102,50**	**0,23**	**0,28**	0,72	20,4	95	3,1
	8,50	8,50	8,50	8,50	**2444,16**	**0,19**	**0,25**	0,70	18,5	95	3,1
	7,32	7,99	8,50	8,50	**2956,64**	**0,16**	**0,18**	0,67	15,3	97	3,1
PT2301L	**5,35**	6,59	8,67	10,7	**3,43**	**139**	**81**	0,96	9,7	42	12
RT2301L	**5,54**	6,82	8,98	11,1	**4,09**	**116**	**70**	0,96	10,0	45	12
	5,81	7,15	9,42	10,8	**5,25**	**90**	**58**	0,95	10,5	48	12
	5,99	7,31	7,81	8,20	**6,23**	**76**	**50**	0,95	10,8	51	12
PT2302L	**7,86**	8,97	9,17	9,33	**12,34**	**38**	**35**	0,91	14,2	62	7,4
RT2302L	**8,14**	10,0	10,9	11,1	**14,73**	**32**	**30**	0,92	14,7	66	7,4
	8,55	10,5	12,5	12,5	**17,39**	**27**	**27**	0,92	15,5	69	7,4
	9,15	10,7	10,9	11,1	**21,82**	**22**	**23**	0,92	16,6	74	7,4
	9,07	9,55	9,92	10,1	**25,36**	**19**	**19**	0,91	17,3	77	7,4
	10,0	10,7	11,4	11,9	**32,55**	**15**	**17**	0,91	18,2	83	7,4
	8,07	8,53	9,17	9,68	**39,38**	**12**	**11**	0,91	18,4	88	7,4
	7,85	8,34	9,79	10,9	**46,73**	**10**	**9,3**	0,90	18,3	93	7,4
PT2303L	**10,6**	10,9	11,4	11,7	**55,64**	**8,5**	**11**	0,86	21,9	98	3,1
RT2303L	**10,6**	10,9	11,4	11,7	**65,68**	**7,2**	**9,3**	0,86	23,0	102	3,1
	12,5	12,5	12,5	12,5	**71,72**	**6,6**	**10**	0,85	23,7	101	3,1
	12,5	12,5	12,5	12,5	**89,83**	**5,3**	**8,1**	0,85	25,3	101	3,1
	12,5	12,5	12,5	12,5	**104,32**	**4,6**	**7,0**	0,85	25,6	101	3,1
	12,5	12,5	12,5	12,5	**126,05**	**3,8**	**5,9**	0,84	25,6	101	3,1
	11,2	11,3	11,6	12,5	**158,18**	**3,0**	**4,2**	0,84	25,6	102	3,1
	11,4	12,2	12,5	12,5	**203,00**	**2,3**	**3,3**	0,84	26,7	102	3,1
	11,5	12,4	12,5	12,5	**235,99**	**2,0**	**2,9**	0,83	27,1	102	3,1
	9,27	9,82	12,0	12,5	**285,47**	**1,7**	**1,9**	0,83	21,4	104	3,1
	10,3	11,5	12,5	12,5	**338,80**	**1,4**	**1,8**	0,82	21,4	104	3,1
PT2304L	**10,1**	10,3	10,5	11,6	**210,18**	**2,3**	**3,0**	0,79	23,9	104	3,1
RT2304L	**11,0**	11,3	11,8	12,5	**248,13**	**1,9**	**2,8**	0,79	25,6	104	3,1
	12,5	12,5	12,5	12,5	**270,94**	**1,8**	**2,9**	0,79	25,6	101	3,1
	12,5	12,5	12,5	12,5	**295,84**	**1,6**	**2,7**	0,78	25,6	101	3,1
	12,5	12,5	12,5	12,5	**370,55**	**1,3**	**2,2**	0,77	25,6	101	3,1
	12,5	12,5	12,5	12,5	**430,31**	**1,1**	**1,9**	0,77	25,6	101	3,1
	12,5	12,5	12,5	12,5	**519,96**	**0,91**	**1,6**	0,76	25,6	101	3,1
	12,5	12,5	12,5	12,5	**651,26**	**0,73**	**1,3**	0,75	25,6	101	3,1
	12,5	12,5	12,5	12,5	**756,31**	**0,63**	**1,1**	0,75	25,6	101	3,1
	12,5	12,5	12,5	12,5	**913,87**	**0,52**	**0,92**	0,74	25,6	101	3,1
	12,5	12,5	12,5	12,5	**1172,80**	**0,41**	**0,73**	0,73	25,6	101	3,1
	12,5	12,5	12,5	12,5	**1471,75**	**0,32**	**0,58**	0,72	30,9	101	3,1
	12,5	12,5	12,5	12,5	**1710,91**	**0,28**	**0,51**	0,72	31,3	101	3,1
	12,5	12,5	12,5	12,5	**2069,65**	**0,23**	**0,42**	0,71	25,6	101	3,1
	12,5	12,5	12,5	12,5	**2456,29**	**0,19**	**0,37**	0,69	29,2	101	3,1



Motorsuz Planet Redüktörler
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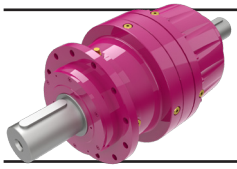
Planetengetriebe

n_1=475

Çevrim Oranı *Ratio* Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
130,95	**5,1**	10 E1	30 R1	**3,5**	9,0 E1	22 R1	**9,1**	14 E1	33 R1	**6,3**	11 E1	24 R1	106	390
164,33	**4,9**	10 E1	29 R1	**3,4**	8,4 E1	21 R1	**8,7**	13 E1	31 R1	**6,1**	11 E1	23 R1	120	391
191,04	**4,7**	10 E1	28 R1	**3,3**	8,1 E1	21 R1	**8,4**	13 E1	30 R1	**5,9**	11 E1	23 R1		
231,09	**4,5**	9,0 E1	26 R1	**3,1**	7,8 E1	20 R1	**8,0**	12 E1	29 R1	**5,6**	10 E1	22 R1		
290,00	**4,2**	8,4 E1	24 R1	**2,9**	7,2 E1	18 R1	**7,4**	11 E1	27 R1	**5,1**	9,3 E1	20 R1		
337,13	**3,9**	7,8 E1	23 R1	**2,7**	6,9 E1	17 R1	**6,9**	11 E1	25 R1	**4,8**	8,7 E1	19 R1		
407,81	**3,5**	6,9 E1	20 R1	**2,4**	6,0 E1	15 R1	**6,2**	9,3 E1	22 R1	**4,3**	7,8 E1	17 R1		
281,47	**3,6**	7,2 E1	21 R1	**2,5**	6,3 E1	16 R1	**6,4**	9,6 E1	23 R1	**4,5**	7,8 E1	17 R1	111	390
307,34	**3,5**	6,9 E1	20 R1	**2,5**	6,0 E1	15 R1	**6,3**	9,6 E1	22 R1	**4,4**	7,8 E1	17 R1	126	391
384,96	**3,3**	6,6 E1	19 R1	**2,3**	5,7 E1	14 R1	**5,9**	9,0 E1	21 R1	**4,1**	7,2 E1	16 R1		
447,05	**3,2**	6,3 E1	18 R1	**2,2**	5,4 E1	14 R1	**5,6**	8,4 E1	20 R1	**3,9**	6,9 E1	15 R1		
540,18	**3,0**	6,0 E1	17 R1	**2,1**	5,1 E1	13 R1	**5,3**	8,1 E1	19 R1	**3,7**	6,6 E1	14 R1		
676,59	**2,8**	5,7 E1	16 R1	**2,0**	4,8 E1	12 R1	**5,0**	7,5 E1	18 R1	**3,5**	6,3 E1	14 R1		
785,72	**2,7**	5,4 E1	16 R1	**1,9**	4,8 E1	12 R1	**4,8**	7,2 E1	17 R1	**3,4**	6,0 E1	13 R1		
949,41	**2,6**	5,1 E1	15 R1	**1,8**	4,5 E1	11 R1	**4,6**	6,9 E1	16 R1	**3,2**	5,7 E1	12 R1		
1191,42	**2,5**	4,8 E1	14 R1	**1,7**	4,2 E1	11 R1	**4,4**	6,6 E1	16 R1	**3,1**	5,4 E1	12 R1		
1385,02	**2,4**	4,8 E1	14 R1	**1,7**	4,2 E1	11 R1	**4,2**	6,6 E1	15 R1	**3,0**	5,4 E1	11 R1		
1675,43	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1	**4,0**	6,0 E1	15 R1	**2,8**	5,1 E1	11 R1		
2102,50	**2,1**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1	**3,8**	5,7 E1	14 R1	**2,6**	4,8 E1	10 R1		
2444,16	**2,0**	3,9 E1	12 R1	**1,4**	3,6 E1	9,0 R1	**3,5**	5,4 E1	13 R1	**2,5**	4,5 E1	10 R1		
2956,64	**1,8**	3,6 E1	10 R1	**1,3**	3,0 E1	8,0 R1	**3,2**	4,8 E1	11 R1	**2,2**	3,9 E1	9,0 R1		
3,43	**22**	94 E3	137 R1	**15**	89 E3	102 R1	**41**	83 E2	151 R1	**28**	99 E3	112 R1	166	392
4,09	**23**	68 E2	138 R1	**15**	90 E3	103 R1	**41**	84 E2	153 R1	**28**	73 E2	113 R1	181	393
5,25	**20**	61 E2	124 R1	**14**	56 E2	92 R1	**37**	57 E1	137 R1	**25**	65 E2	101 R1		
6,23	**18**	55 E2	111 R1	**12**	50 E2	83 R1	**33**	51 E1	122 R1	**23**	58 E2	90 R1		
12,34	**11**	33 E2	66 R1	**7,7**	43 E3	49 R1	**20**	40 E2	73 R1	**14**	35 E2	54 R1	158	392
14,73	**11**	33 E2	66 R1	**7,7**	30 E2	50 R1	**20**	31 E1	73 R1	**14**	35 E2	54 R1	173	393
17,39	**11**	32 E2	66 R1	**7,6**	30 E2	49 R1	**20**	30 E1	72 R1	**14**	35 E2	54 R1		
21,82	**11**	31 E2	63 R1	**7,3**	29 E2	47 R1	**19**	29 E1	69 R1	**13**	24 E1	51 R1		
25,36	**10**	20 E1	60 R1	**7,0**	18 E1	45 R1	**18**	28 E1	66 R1	**13**	23 E1	49 R1		
32,55	**9,3**	19 E1	55 R1	**6,5**	16 E1	41 R1	**17**	26 E1	61 R1	**12**	21 E1	45 R1		
39,38	**8,8**	18 E1	52 R1	**6,1**	15 E1	39 R1	**16**	24 E1	57 R1	**11**	20 E1	42 R1		
46,73	**8,1**	16 E1	48 R1	**5,6**	14 E1	36 R1	**15**	22 E1	52 R1	**10**	18 E1	39 R1		
55,64	**5,9**	12 E1	36 R1	**4,1**	11 E1	27 R1	**11**	16 E1	39 R1	**7,3**	14 E1	29 R1	150	392
65,68	**5,9**	12 E1	35 R1	**4,1**	11 E1	27 R1	**11**	16 E1	39 R1	**7,3**	13 E1	29 R1	165	393
71,72	**5,8**	12 E1	35 R1	**4,0**	10 E1	26 R1	**10**	16 E1	38 R1	**7,2**	13 E1	29 R1		
89,83	**5,5**	11 E1	33 R1	**3,8**	10 E1	25 R1	**9,8**	15 E1	36 R1	**6,8**	12 E1	27 R1		
104,32	**5,2**	11 E1	32 R1	**3,6**	9,3 E1	24 R1	**9,4**	14 E1	35 R1	**6,5**	12 E1	26 R1		
126,05	**4,9**	10 E1	30 R1	**3,4**	8,7 E1	22 R1	**8,8**	14 E1	33 R1	**6,1**	11 E1	24 R1		
158,18	**4,7**	10 E1	29 R1	**3,3**	8,4 E1	21 R1	**8,5**	13 E1	31 R1	**5,9**	11 E1	23 R1		
203,00	**4,4**	9,0 E1	27 R1	**3,1**	7,8 E1	20 R1	**7,9**	12 E1	29 R1	**5,5**	10 E1	22 R1		
235,99	**4,3**	8,7 E1	26 R1	**3,0**	7,5 E1	19 R1	**7,6**	12 E1	28 R1	**5,3**	10 E1	21 R1		
285,47	**4,0**	8,4 E1	24 R1	**2,8**	7,2 E1	18 R1	**7,2**	11 E1	27 R1	**5,0**	9,0 E1	20 R1		
338,80	**3,7**	7,8 E1	23 R1	**2,6**	6,6 E1	17 R1	**6,7**	10 E1	25 R1	**4,6**	8,4 E1	18 R1		
210,18	**3,7**	7,2 E1	21 R1	**2,5**	6,3 E1	16 R1	**6,5**	9,9 E1	24 R1	**4,5**	8,1 E1	18 R1	156	392
248,13	**3,6**	7,2 E1	21 R1	**2,5**	6,3 E1	16 R1	**6,5**	9,9 E1	23 R1	**4,5**	8,1 E1	17 R1	171	393
270,94	**3,6**	7,2 E1	21 R1	**2,5**	6,3 E1	16 R1	**6,4**	9,6 E1	23 R1	**4,4**	7,8 E1	17 R1		
295,84	**3,5**	6,9 E1	20 R1	**2,4**	6,0 E1	15 R1	**6,3**	9,6 E1	23 R1	**4,4**	7,8 E1	17 R1		
370,55	**3,3**	6,6 E1	19 R1	**2,3**	5,7 E1	14 R1	**5,9**	9,0 E1	21 R1	**4,1**	7,2 E1	16 R1		
430,31	**3,1**	6,3 E1	18 R1	**2,2**	5,4 E1	14 R1	**5,6**	8,4 E1	20 R1	**3,9**	6,9 E1	15 R1		
519,96	**3,0**	6,0 E1	17 R1	**2,1**	5,1 E1	13 R1	**5,3**	8,1 E1	19 R1	**3,7**	6,6 E1	14 R1		
651,26	**2,8**	5,7 E1	16 R1	**2,0**	4,8 E1	12 R1	**5,0**	7,5 E1	18 R1	**3,5**	6,3 E1	14 R1		
756,31	**2,7**	5,4 E1	16 R1	**1,9**	4,8 E1	12 R1	**4,8**	7,2 E1	17 R1	**3,4**	6,0 E1	13 R1		
913,87	**2,6**	5,1 E1	15 R1	**1,8**	4,5 E1	11 R1	**4,5**	6,9 E1	16 R1	**3,2**	5,7 E1	12 R1		
1172,80	**2,4**	4,8 E1	14 R1	**1,7**	4,2 E1	11 R1	**4,3**	6,6 E1	15 R1	**3,0**	5,4 E1	12 R1		
1471,75	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1	**4,1**	6,3 E1	15 R1	**2,8**	5,1 E1	11 R1		
1710,91	**2,2**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1	**3,9**	6,0 E1	14 R1	**2,8**	4,8 E1	11 R1		
2069,65	**2,1**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1	**3,8**	5,7 E1	14 R1	**2,6**	4,8 E1	10 R1		
2456,29	**2,0**	3,9 E1	12 R1	**1,4**	3,6 E1	9,0 R1	**3,5**	5,4 E1	13 R1	**2,4**	4,5 E1	10 R1		



Motorsuz Planet Redüktörler
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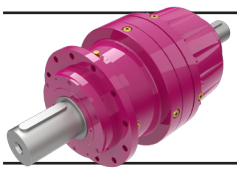
Planetengetriebe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2401L	**8,99**	11,1	14,6	17,9	**3,43**	**139**	**136**	0,96	16,3	42	12
RT2401L	**9,31**	11,5	15,1	18,6	**4,09**	**116**	**118**	0,96	16,8	45	12
	9,76	12,0	14,8	15,4	**5,25**	**90**	**97**	0,96	17,6	48	12
	9,53	9,90	10,4	10,8	**6,23**	**76**	**80**	0,95	18,2	51	12
PT2402L	**11,0**	13,6	16,7	17,0	**12,34**	**38**	**48**	0,92	20,0	62	7,4
RT2402L	**13,2**	16,2	19,9	20,0	**14,73**	**32**	**48**	0,92	23,8	66	7,4
	13,8	17,0	19,9	20,0	**17,39**	**27**	**43**	0,92	24,9	69	7,4
	14,4	17,7	18,8	19,0	**21,82**	**22**	**36**	0,92	26,0	74	7,4
	14,8	15,3	15,5	15,7	**25,36**	**19**	**32**	0,92	26,7	77	7,4
	14,8	15,4	16,1	16,8	**32,55**	**15**	**25**	0,91	30,0	83	7,4
	12,2	12,6	13,3	13,8	**39,38**	**12**	**17**	0,91	28,0	88	7,4
	10,5	11,1	12,7	14,1	**46,73**	**10**	**12**	0,91	24,9	93	7,4
PT2403L	**18,3**	20,0	20,0	20,0	**55,64**	**8,5**	**19**	0,86	30,0	90	3,1
RT2403L	**18,3**	20,0	20,0	20,0	**65,68**	**7,2**	**16**	0,86	30,0	90	3,1
	19,9	20,0	20,0	20,0	**71,72**	**6,6**	**16**	0,86	30,0	85	3,1
	20,0	20,0	20,0	20,0	**89,83**	**5,3**	**13**	0,86	30,0	85	3,1
	20,0	20,0	20,0	20,0	**104,32**	**4,6**	**11**	0,85	30,0	85	3,1
	20,0	20,0	20,0	20,0	**126,05**	**3,8**	**9,3**	0,85	30,0	85	3,1
	19,2	19,4	19,7	20,0	**158,18**	**3,0**	**7,1**	0,85	30,0	87	3,1
	16,2	17,3	19,1	20,0	**203,00**	**2,3**	**4,7**	0,85	30,0	96	3,1
	16,3	17,6	19,4	20,0	**235,99**	**2,0**	**4,1**	0,84	30,0	96	3,1
	13,5	14,0	16,1	17,8	**285,47**	**1,7**	**2,8**	0,85	30,0	100	3,1
	13,4	14,7	16,3	17,6	**338,80**	**1,4**	**2,4**	0,84	28,2	100	3,1
PT2404L	**15,9**	16,1	16,3	17,7	**210,18**	**2,3**	**4,7**	0,80	30,0	97	3,1
RT2404L	**20,0**	20,0	20,0	20,0	**248,13**	**1,9**	**5,1**	0,79	30,0	85	3,1
	20,0	20,0	20,0	20,0	**270,94**	**1,8**	**4,6**	0,79	30,0	85	3,1
	20,0	20,0	20,0	20,0	**295,84**	**1,6**	**4,3**	0,79	30,0	85	3,1
	20,0	20,0	20,0	20,0	**370,55**	**1,3**	**3,4**	0,78	30,0	85	3,1
	20,0	20,0	20,0	20,0	**430,31**	**1,1**	**3,0**	0,78	30,0	85	3,1
	20,0	20,0	20,0	20,0	**519,96**	**0,91**	**2,5**	0,77	30,0	85	3,1
	20,0	20,0	20,0	20,0	**651,26**	**0,73**	**2,0**	0,76	30,0	85	3,1
	20,0	20,0	20,0	20,0	**756,31**	**0,63**	**1,7**	0,76	30,0	85	3,1
	20,0	20,0	20,0	20,0	**913,87**	**0,52**	**1,5**	0,75	30,0	85	3,1
	19,4	20,0	20,0	20,0	**1172,80**	**0,41**	**1,1**	0,74	30,0	87	3,1
	19,8	20,0	20,0	20,0	**1471,75**	**0,32**	**0,91**	0,74	30,0	85	3,1
	20,0	20,0	20,0	20,0	**1710,91**	**0,28**	**0,79**	0,73	30,0	85	3,1
	17,0	18,7	20,0	20,0	**2069,65**	**0,23**	**0,56**	0,73	30,0	96	3,1
	17,0	18,3	20,0	20,0	**2456,29**	**0,19**	**0,48**	0,71	30,0	96	3,1
PT2701L	**14,2**	17,5	22,5	22,8	**4,09**	**116**	**181**	0,95	25,7	44	24
RT2701L	**15,0**	18,1	18,8	19,0	**5,25**	**90**	**149**	0,95	27,0	48	24
	12,3	12,8	13,5	14,1	**6,23**	**76**	**104**	0,95	27,8	50	24
PT2702L	**17,9**	22,0	23,4	23,7	**14,73**	**32**	**66**	0,92	32,3	65	13
RT2702L	**18,7**	23,0	23,4	23,8	**17,39**	**27**	**58**	0,92	33,8	69	13
	19,5	23,2	23,6	23,9	**21,82**	**22**	**49**	0,91	35,3	73	13
	20,0	21,9	23,5	24,0	**25,36**	**19**	**43**	0,91	36,2	77	13
	15,6	16,2	17,0	17,6	**30,68**	**15**	**28**	0,91	35,8	81	13
	19,2	19,4	19,8	21,0	**39,38**	**12**	**27**	0,91	45,4	88	13
	13,6	14,3	16,5	18,5	**46,73**	**10**	**16**	0,90	32,2	92	13
PT2703L	**23,3**	23,6	24,0	25,0	**53,02**	**9,0**	**25**	0,86	47,5	96	7,4
RT2703L	**23,4**	23,7	24,5	25,0	**62,59**	**7,6**	**21**	0,86	47,5	101	7,4
	23,4	23,8	24,9	25,0	**73,89**	**6,4**	**18**	0,86	52,2	106	7,4
	23,6	23,9	25,0	25,0	**92,73**	**5,1**	**15**	0,86	55,9	113	7,4
	23,6	23,9	25,0	25,0	**107,80**	**4,4**	**13**	0,86	58,5	118	7,4
	23,7	24,0	25,0	25,0	**130,40**	**3,6**	**11**	0,85	57,9	125	7,4
	23,8	24,6	25,0	25,0	**163,64**	**2,9**	**8,5**	0,85	58,2	131	7,4
	23,7	25,0	25,0	25,0	**190,23**	**2,5**	**7,3**	0,85	55,1	129	7,4
	17,2	18,0	20,8	23,2	**230,11**	**2,1**	**4,4**	0,85	40,7	128	7,4
	20,4	21,9	24,1	25,0	**295,31**	**1,6**	**4,1**	0,84	48,9	136	7,4
	17,5	19,6	22,0	23,9	**350,48**	**1,4**	**3,0**	0,83	36,6	140	7,4



Motorsuz Planet Redüktörler
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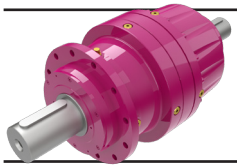
n_1=475

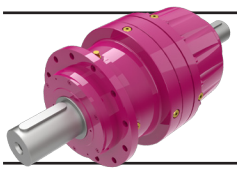
Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlessenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
3,43	**26**	175 E4	153 R1	**17**	169 E4	162 R2	**48**	191 E4	170 R1	**32**	179 E4	173 R2	195	394
4,09	**26**	176 E4	155 R1	**18**	170 E4	115 R1	**48**	124 E3	172 R1	**33**	181 E4	127 R1	210	395
5,25	**24**	96 E3	139 R1	**16**	152 E4	103 R1	**43**	112 E3	154 R1	**30**	100 E3	113 R1		
6,23	**21**	85 E3	124 R1	**14**	80 E3	92 R1	**39**	76 E2	137 R1	**27**	90 E3	102 R1		
12,34	**13**	51 E3	74 R1	**8,9**	48 E3	55 R1	**23**	59 E3	82 R1	**16**	54 E3	61 R1	199	394
14,73	**13**	51 E3	74 R1	**9,0**	48 E3	56 R1	**23**	60 E3	82 R1	**16**	54 E3	61 R1	215	395
17,39	**13**	51 E3	74 R1	**8,9**	48 E3	55 R1	**23**	46 E2	82 R1	**16**	53 E3	60 R1		
21,82	**12**	35 E2	70 R1	**8,5**	46 E3	52 R1	**22**	43 E2	78 R1	**15**	38 E2	58 R1		
25,36	**12**	34 E2	67 R1	**8,1**	31 E2	50 R1	**21**	32 E1	75 R1	**15**	36 E2	55 R1		
32,55	**11**	31 E2	62 R1	**7,5**	28 E2	46 R1	**20**	29 E1	68 R1	**14**	24 E1	51 R1		
39,38	**10**	20 E1	58 R1	**7,1**	17 E1	44 R1	**18**	28 E1	64 R1	**13**	23 E1	48 R1		
46,73	**9,4**	19 E1	53 R1	**6,5**	16 E1	40 R1	**17**	25 E1	59 R1	**12**	20 E1	44 R1		
55,64	**6,9**	20 E2	40 R1	**4,8**	18 E2	30 R1	**12**	19 E1	44 R1	**8,5**	21 E2	33 R1	195	394
65,68	**6,8**	20 E2	40 R1	**4,7**	18 E2	30 R1	**12**	19 E1	44 R1	**8,5**	15 E1	33 R1	210	395
71,72	**6,7**	20 E2	39 R1	**4,7**	18 E2	29 R1	**12**	18 E1	43 R1	**8,4**	15 E1	32 R1		
89,83	**6,4**	13 E1	37 R1	**4,4**	17 E2	28 R1	**11**	17 E1	41 R1	**7,9**	14 E1	30 R1		
104,32	**6,1**	12 E1	36 R1	**4,2**	11 E1	27 R1	**11**	17 E1	39 R1	**7,6**	14 E1	29 R1		
126,05	**5,7**	11 E1	33 R1	**4,0**	10 E1	25 R1	**10**	16 E1	37 R1	**7,1**	13 E1	27 R1		
158,18	**5,5**	11 E1	32 R1	**3,8**	10 E1	24 R1	**9,9**	15 E1	35 R1	**6,8**	12 E1	26 R1		
203,00	**5,1**	10 E1	30 R1	**3,6**	9,0 E1	22 R1	**9,2**	14 E1	33 R1	**6,4**	11 E1	24 R1		
235,99	**5,0**	10 E1	29 R1	**3,4**	8,7 E1	22 R1	**8,9**	14 E1	32 R1	**6,1**	11 E1	24 R1		
285,47	**4,7**	9,3 E1	27 R1	**3,3**	8,1 E1	21 R1	**8,4**	13 E1	30 R1	**5,8**	11 E1	22 R1		
338,80	**4,4**	8,7 E1	25 R1	**3,0**	7,5 E1	19 R1	**7,8**	12 E1	28 R1	**5,4**	10 E1	21 R1		
210,18	**4,2**	8,1 E1	24 R1	**2,9**	7,2 E1	18 R1	**7,5**	11 E1	26 R1	**5,2**	9,0 E1	20 R1	201	394
248,13	**4,2**	8,1 E1	23 R1	**2,9**	7,2 E1	18 R1	**7,4**	11 E1	26 R1	**5,2**	9,0 E1	19 R1	216	395
270,94	**4,1**	8,1 E1	23 R1	**2,9**	6,9 E1	17 R1	**7,3**	11 E1	26 R1	**5,1**	9,0 E1	19 R1		
295,84	**4,0**	7,8 E1	23 R1	**2,8**	6,9 E1	17 R1	**7,2**	11 E1	25 R1	**5,0**	8,7 E1	19 R1		
370,55	**3,8**	7,5 E1	21 R1	**2,6**	6,3 E1	16 R1	**6,8**	10 E1	24 R1	**4,7**	8,1 E1	18 R1		
430,31	**3,6**	7,2 E1	20 R1	**2,5**	6,0 E1	15 R1	**6,5**	9,6 E1	23 R1	**4,5**	7,8 E1	17 R1		
519,96	**3,4**	6,6 E1	19 R1	**2,4**	5,7 E1	14 R1	**6,1**	9,0 E1	21 R1	**4,2**	7,5 E1	16 R1		
651,26	**3,2**	6,3 E1	18 R1	**2,3**	5,4 E1	14 R1	**5,8**	8,7 E1	20 R1	**4,0**	6,9 E1	15 R1		
756,31	**3,1**	6,0 E1	18 R1	**2,2**	5,4 E1	13 R1	**5,6**	8,4 E1	19 R1	**3,9**	6,9 E1	15 R1		
913,87	**3,0**	5,7 E1	17 R1	**2,1**	5,1 E1	13 R1	**5,3**	7,8 E1	18 R1	**3,7**	6,3 E1	14 R1		
1172,80	**2,8**	5,4 E1	16 R1	**1,9**	4,8 E1	12 R1	**4,9**	7,5 E1	17 R1	**3,4**	6,0 E1	13 R1		
1471,75	**2,7**	5,1 E1	15 R1	**1,9**	4,5 E1	11 R1	**4,7**	7,2 E1	17 R1	**3,3**	5,7 E1	12 R1		
1710,91	**2,6**	5,1 E1	14 R1	**1,8**	4,5 E1	11 R1	**4,6**	6,9 E1	16 R1	**3,2**	5,7 E1	12 R1		
2069,65	**2,4**	4,8 E1	14 R1	**1,7**	4,2 E1	10 R1	**4,3**	6,6 E1	15 R1	**3,0**	5,4 E1	11 R1		
2456,29	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1	**4,0**	6,0 E1	14 R1	**2,8**	4,8 E1	11 R1		
4,09	**25**	284 E5	206 R2	**17**	279 E5	250 R3	**47**	182 E4	222 R2	**32**	289 E5	260 R3	243	396
5,25	**23**	151 E4	188 R2	**16**	145 E4	228 R3	**43**	166 E4	148 R1	**29**	155 E4	150 R2	308	397
6,23	**21**	135 E4	119 R1	**14**	130 E4	126 R2	**39**	149 E4	133 R1	**26**	139 E4	135 R2		
14,73	**14**	85 E4	75 R1	**9,4**	82 E4	79 R2	**25**	94 E4	84 R1	**17**	88 E4	85 R2	243	396
17,39	**14**	84 E4	74 R1	**9,4**	81 E4	78 R2	**25**	61 E3	83 R1	**17**	87 E4	61 R1	308	397
21,82	**13**	49 E3	71 R1	**9,0**	77 E4	53 R1	**24**	58 E3	79 R1	**16**	52 E3	58 R1		
25,36	**13**	47 E3	68 R1	**8,6**	44 E3	51 R1	**23**	43 E2	76 R1	**16**	37 E3	56 R1		
30,68	**12**	32 E2	65 R1	**8,2**	29 E2	48 R1	**22**	32 E1	72 R1	**15**	26 E1	53 R1		
39,38	**11**	30 E2	60 R1	**7,6**	27 E2	45 R1	**20**	29 E1	67 R1	**14**	23 E2	49 R1		
46,73	**10**	19 E1	55 R1	**7,0**	17 E1	41 R1	**18**	27 E1	61 R1	**13**	22 E1	45 R1		
53,02	**8,3**	30 E3	43 R1	**5,7**	28 E3	32 R1	**15**	28 E2	49 R1	**10**	24 E2	36 R1	245	396
62,59	**8,2**	22 E2	43 R1	**5,7**	20 E2	32 R1	**15**	21 E1	48 R1	**10**	23 E2	36 R1	310	397
73,89	**8,0**	21 E2	42 R1	**5,5**	19 E2	31 R1	**15**	21 E1	47 R1	**10**	17 E1	35 R1		
92,73	**7,6**	14 E1	39 R1	**5,2**	12 E1	29 R1	**14**	20 E1	44 R1	**9,4**	16 E1	33 R1		
107,80	**7,3**	14 E1	38 R1	**5,0**	11 E1	28 R1	**13**	19 E1	42 R1	**9,1**	15 E1	31 R1		
130,40	**6,9**	13 E1	36 R1	**4,7**	11 E1	27 R1	**12**	18 E1	40 R1	**8,5**	14 E1	30 R1		
163,64	**6,6**	12 E1	34 R1	**4,6**	11 E1	26 R1	**12**	17 E1	38 R1	**8,2**	14 E1	28 R1		
190,23	**6,4**	12 E1	33 R1	**4,4**	10 E1	25 R1	**11**	17 E1	37 R1	**7,9**	13 E1	27 R1		
230,11	**6,1**	11 E1	31 R1	**4,2**	10 E1	23 R1	**11**	16 E1	35 R1	**7,5**	13 E1	26 R1		
295,31	**5,6**	11 E1	29 R1	**3,9**	9,0 E1	22 R1	**10**	15 E1	33 R1	**7,0**	12 E1	24 R1		
350,48	**5,2**	10 E1	27 R1	**3,6**	8,1 E1	20 R1	**9,3**	14 E1	30 R1	**6,5**	11 E1	22 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=475

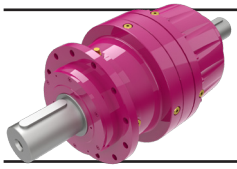
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2704L **RT2704L**	**23,7** **24,5** **24,6** **25,0** **25,0** **25,0** **25,0** **25,0** **25,0** **25,0** **25,0** **21,9** **25,0** **23,4**	25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 24,5 25,0 25,0	25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0	25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0 25,0	**200,29** **236,45** **279,15** **304,80** **381,78** **443,35** **535,72** **672,27** **781,52** **945,38** **1186,36** **1379,15** **1668,32** **2141,02** **2540,99**	**2,4** **2,0** **1,7** **1,6** **1,2** **1,1** **0,89** **0,71** **0,61** **0,50** **0,40** **0,34** **0,28** **0,22** **0,19**	**7,4** **6,5** **5,5** **5,2** **4,1** **3,6** **3,0** **2,4** **2,1** **1,7** **1,4** **1,2** **0,88** **0,80** **0,64**	0,79 0,79 0,79 0,79 0,79 0,78 0,77 0,76 0,76 0,75 0,75 0,75 0,75 0,73 0,71	55,1 58,6 58,8 58,9 59,2 59,4 59,6 59,9 60,0 61,0 62,5 62,5 45,9 55,7 50,1	130 128 128 127 127 127 127 127 127 127 127 127 133 127 130	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT2901L **RT2901L**	**15,6** **16,4** **17,0**	19,2 20,2 19,8	25,3 25,6 20,9	31,1 26,6 21,7	**4,09** **5,25** **6,23**	**116** **90** **76**	**198** **163** **143**	0,96 0,95 0,95	39,6 41,6 43,1	54 58 61	17 17 17
PT2902L **RT2902L**	**21,9** **22,7** **23,8** **24,5** **25,4** **20,8**	26,9 27,9 29,3 29,9 26,4 21,6	34,6 34,7 34,9 31,9 30,3 24,6	35,0 35,0 35,0 33,5 31,6 26,6	**14,03** **16,74** **21,48** **25,49** **32,71** **38,82**	**34** **28** **22** **19** **15** **12**	**85** **73** **60** **52** **42** **29**	0,92 0,92 0,92 0,91 0,91 0,91	39,6 41,0 43,0 44,3 51,2 49,2	78 82 88 92 99 104	12 12 12 12 12 12
PT2903L **RT2903L**	**32,1** **34,8** **34,9** **35,0** **28,3** **33,0** **32,1** **30,9** **26,1**	35,0 35,0 35,0 35,0 28,3 34,9 34,1 33,2 28,1	35,0 35,0 35,0 35,0 28,3 35,0 35,0 35,0 30,8	35,0 35,0 35,0 35,0 28,3 35,0 35,0 35,0 33,1	**50,49** **71,13** **89,26** **103,76** **125,52** **161,08** **191,17** **245,34** **291,17**	**9,4** **6,7** **5,3** **4,6** **3,8** **2,9** **2,5** **1,9** **1,6**	**37** **28** **23** **20** **13** **12** **9,9** **7,4** **5,3**	0,86 0,86 0,86 0,85 0,85 0,85 0,85 0,84 0,84	58,1 63,2 67,7 70,8 70,8 75,1 74,9 67,4 54,9	114 126 135 141 149 160 168 168 168	7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4
PT2904L **RT2904L**	**35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **35,0** **31,9**	35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 34,3	35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0	35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0 35,0	**190,75** **227,60** **268,70** **293,39** **367,48** **426,76** **515,66** **647,11** **752,26** **909,99** **1167,83** **1385,99** **1778,69** **2110,97**	**2,5** **2,1** **1,8** **1,6** **1,3** **1,1** **0,92** **0,73** **0,63** **0,52** **0,41** **0,34** **0,27** **0,23**	**12** **9,7** **8,2** **7,5** **6,1** **5,3** **4,4** **3,5** **3,1** **2,6** **2,0** **1,7** **1,3** **1,0**	0,78 0,79 0,79 0,79 0,78 0,78 0,77 0,76 0,76 0,75 0,75 0,74 0,73 0,72	86,7 87,0 87,3 87,4 87,5 87,5 87,5 87,5 87,5 87,5 87,5 87,4 84,3 71,1	168 168 168 168 168 168 168 168 168 168 168 168 168 168	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT3501L **RT3501L**	**22,8** **23,8** **19,0**	28,0 28,9 19,8	36,9 30,5 20,8	45,4 31,7 21,7	**4,14** **5,40** **6,50**	**115** **88** **73**	**286** **230** **153**	0,96 0,95 0,95	57,9 60,4 47,5	65 71 75	17 17 17
PT3502L **RT3502L**	**33,0** **34,8** **37,5** **39,4** **30,3** **20,9**	40,6 42,8 44,8 41,0 31,5 21,7	47,9 49,2 50,0 43,2 36,4 24,9	50,0 50,0 50,0 44,9 40,2 27,8	**14,20** **16,95** **21,75** **25,81** **33,65** **40,50**	**33** **28** **22** **18** **14** **12**	**126** **111** **94** **83** **49** **28**	0,92 0,92 0,91 0,91 0,91 0,91	59,6 62,8 67,7 71,3 71,9 49,3	94 99 107 113 122 129	12 12 12 12 12 12



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=475

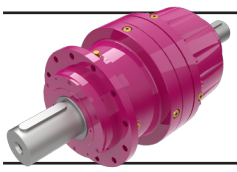
Çevrim Oranı *Ratio* Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
200,29	5,0	9,3 E1	25 R1	3,5	7,8 E1	19 R1	9,0	13 E1	29 R1	6,3	10 E1	21 R1	237	396
236,45	5,0	9,0 E1	25 R1	3,5	7,8 E1	19 R1	9,0	13 E1	28 R1	6,2	10 E1	21 R1	302	397
279,15	4,9	9,0 E1	25 R1	3,4	7,5 E1	18 R1	8,7	13 E1	28 R1	6,1	10 E1	20 R1		
304,80	4,8	8,7 E1	24 R1	3,3	7,5 E1	18 R1	8,6	12 E1	27 R1	6,0	10 E1	20 R1		
381,78	4,5	8,1 E1	23 R1	3,1	6,9 E1	17 R1	8,1	11 E1	25 R1	5,6	9,3 E1	19 R1		
443,35	4,3	7,8 E1	22 R1	3,0	6,6 E1	16 R1	7,7	11 E1	24 R1	5,4	8,7 E1	18 R1		
535,72	4,1	7,5 E1	20 R1	2,8	6,3 E1	15 R1	7,3	11 E1	23 R1	5,1	8,4 E1	17 R1		
672,27	3,9	6,9 E1	19 R1	2,7	6,0 E1	15 R1	6,9	9,9 E1	22 R1	4,8	7,8 E1	16 R1		
781,52	3,7	6,9 E1	19 R1	2,6	5,7 E1	14 R1	6,6	9,3 E1	21 R1	4,6	7,5 E1	16 R1		
945,38	3,5	6,3 E1	18 R1	2,4	5,4 E1	13 R1	6,3	9,0 E1	20 R1	4,4	7,2 E1	15 R1		
1186,36	3,4	6,3 E1	17 R1	2,4	5,4 E1	13 R1	6,0	8,7 E1	19 R1	4,2	6,9 E1	14 R1		
1379,15	3,3	6,0 E1	16 R1	2,3	5,1 E1	12 R1	5,8	8,4 E1	18 R1	4,1	6,6 E1	14 R1		
1668,32	3,1	5,7 E1	16 R1	2,2	4,8 E1	12 R1	5,6	7,8 E1	18 R1	3,9	6,3 E1	13 R1		
2141,02	2,9	5,4 E1	15 R1	2,0	4,5 E1	11 R1	5,2	7,5 E1	16 R1	3,6	6,0 E1	12 R1		
2540,99	2,7	4,8 E1	14 R1	1,9	4,2 E1	10 R1	4,8	6,9 E1	15 R1	3,3	5,4 E1	11 R1		
4,09	30	431 E6	489 R4	20	425 E6	419 R5	56	449 E6	384 R3	38	436 E6	431 R5	287	398
5,25	28	283 E5	333 R3	19	277 E5	333 R4	52	300 E5	350 R3	35	288 E5	260 R3	359	399
6,23	26	259 E5	188 R2	17	253 E5	227 R3	47	274 E5	204 R2	32	263 E5	237 R3		
14,03	17	155 E5	182 R3	11	152 E5	136 R3	30	165 E5	192 R3	21	158 E5	143 R3	325	398
16,74	17	155 E5	113 R2	11	151 E5	136 R3	30	165 E5	123 R2	21	158 E5	142 R3	397	399
21,48	16	87 E4	108 R2	11	84 E4	130 R3	29	98 E4	87 R1	20	90 E4	87 R2		
25,49	15	84 E4	74 R1	10	80 E4	77 R2	28	93 E4	84 R1	19	86 E4	83 R2		
32,71	14	78 E4	68 R1	10	74 E4	51 R1	26	58 E3	78 R1	18	51 E3	57 R1		
38,82	13	45 E3	64 R1	9,0	42 E3	47 R1	24	43 E2	72 R1	17	36 E2	53 R1		
50,49	10	52 E4	46 R1	6,7	50 E4	48 R2	18	39 E3	52 R1	12	54 E4	38 R1	317	398
71,13	10	32 E3	44 R1	6,6	29 E3	33 R1	17	30 E2	51 R1	12	33 E3	37 R1	390	399
89,26	9,1	22 E2	42 R1	6,2	28 E3	31 R1	16	29 E2	48 R1	11	24 E2	35 R1		
103,76	8,7	21 E2	40 R1	6,0	19 E2	30 R1	16	22 E1	46 R1	11	23 E2	34 R1		
125,52	8,2	15 E1	38 R1	5,6	12 E1	28 R1	15	21 E1	43 R1	10	16 E1	32 R1		
161,08	7,9	14 E1	36 R1	5,4	12 E1	27 R1	14	20 E1	41 R1	10	16 E1	31 R1		
191,17	7,6	14 E1	35 R1	5,2	11 E1	26 R1	14	19 E1	40 R1	9,4	15 E1	29 R1		
245,34	7,1	13 E1	33 R1	4,9	11 E1	24 R1	13	18 E1	37 R1	8,8	14 E1	28 R1		
291,17	6,6	12 E1	31 R1	4,6	10 E1	23 R1	12	17 E1	35 R1	8,3	13 E1	26 R1		
190,75	6,0	11 E1	27 R1	4,2	13 E2	20 R1	11	15 E1	31 R1	7,5	12 E1	23 R1	309	398
227,60	6,0	11 E1	27 R1	4,1	9,0 E1	20 R1	11	15 E1	31 R1	7,4	12 E1	23 R1	382	399
268,70	5,9	10 E1	26 R1	4,1	9,0 E1	20 R1	11	15 E1	30 R1	7,3	12 E1	22 R1		
293,39	5,7	10 E1	26 R1	4,0	9,0 E1	19 R1	10	14 E1	29 R1	7,1	11 E1	22 R1		
367,48	5,4	10 E1	24 R1	3,7	8,0 E1	18 R1	9,7	14 E1	28 R1	6,7	11 E1	20 R1		
426,76	5,2	9,0 E1	23 R1	3,6	8,0 E1	17 R1	9,3	13 E1	26 R1	6,4	10 E1	20 R1		
515,66	4,9	9,0 E1	22 R1	3,4	7,0 E1	16 R1	8,7	12 E1	25 R1	6,1	10 E1	18 R1		
647,11	4,6	8,0 E1	21 R1	3,2	7,0 E1	16 R1	8,3	12 E1	24 R1	5,8	9,0 E1	18 R1		
752,26	4,5	8,0 E1	20 R1	3,1	7,0 E1	15 R1	8,0	11 E1	23 R1	5,5	9,0 E1	17 R1		
909,99	4,2	8,0 E1	19 R1	2,9	6,0 E1	14 R1	7,6	11 E1	22 R1	5,2	8,0 E1	16 R1		
1167,83	4,1	7,0 E1	18 R1	2,8	6,0 E1	14 R1	7,3	10 E1	21 R1	5,0	8,0 E1	15 R1		
1385,99	3,9	7,0 E1	18 R1	2,7	6,0 E1	13 R1	7,0	10 E1	20 R1	4,9	8,0 E1	15 R1		
1778,69	3,7	7,0 E1	17 R1	2,6	6,0 E1	12 R1	6,6	9,0 E1	19 R1	4,6	7,0 E1	14 R1		
2110,97	3,5	6,0 E1	16 R1	2,4	5,0 E1	12 R1	6,2	9,0 E1	18 R1	4,3	7,0 E1	13 R1		
4,14	33	318 E5	231 R3	22	311 E5	279 R3	62	339 E5	395 R3	42	324 E5	293 R3	357	400
5,40	31	295 E5	215 R3	21	288 E5	259 R3	58	314 E5	235 R2	40	301 E5	272 R3	444	401
6,50	28	155 E4	192 R2	19	148 E4	231 R3	52	173 E4	156 R1	36	160 E4	155 R2		
14,20	20	165 E5	121 R2	13	161 E5	144 R3	36	111 E5	133 R2	25	168 E5	152 R3	422	400
16,95	20	164 E5	120 R2	13	159 E5	144 R3	36	110 E4	132 R2	24	167 E5	151 R3	509	401
21,75	19	93 E4	114 R2	13	152 E5	137 R3	34	105 E4	95 R1	23	96 E4	93 R2		
25,81	18	88 E4	79 R1	12	84 E4	82 R2	33	100 E4	91 R1	22	92 E4	89 R2		
33,65	17	52 E3	74 R1	12	48 E3	55 R1	31	51 E2	85 R1	21	43 E3	62 R1		
40,50	15	35 E2	67 R1	11	31 E2	50 R1	28	38 E1	77 R1	19	29 E1	57 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3503L **RT3503L**	**44,8**	50,0	50,0	50,0	**51,13**	**9,3**	**51**	0,86	82,7	138	7,4
	47,3	50,0	50,0	50,0	**72,03**	**6,6**	**38**	0,86	97,0	153	7,4
	49,1	50,0	50,0	50,0	**90,39**	**5,3**	**31**	0,86	104	164	7,4
	50,0	50,0	50,0	50,0	**105,08**	**4,5**	**28**	0,85	109	171	7,4
	50,0	50,0	50,0	50,0	**127,11**	**3,7**	**23**	0,85	111	181	7,4
	50,0	50,0	50,0	50,0	**163,13**	**2,9**	**18**	0,85	112	195	7,4
	43,7	45,8	50,0	50,0	**193,60**	**2,5**	**13**	0,85	103	206	7,4
	38,6	42,3	46,9	50,0	**252,35**	**1,9**	**9,0**	0,85	80,3	223	7,4
	26,4	29,4	33,9	38,0	**303,75**	**1,6**	**5,1**	0,85	55,0	236	7,4
PT3504L **RT3504L**	**50,0**	50,0	50,0	50,0	**193,18**	**2,5**	**16**	0,79	115	206	3,1
	50,0	50,0	50,0	50,0	**230,49**	**2,1**	**14**	0,79	119	217	3,1
	50,0	50,0	50,0	50,0	**272,11**	**1,7**	**12**	0,79	122	228	3,1
	50,0	50,0	50,0	50,0	**297,12**	**1,6**	**11**	0,79	124	234	3,1
	50,0	50,0	50,0	50,0	**372,15**	**1,3**	**8,5**	0,78	128	250	3,1
	50,0	50,0	50,0	50,0	**432,18**	**1,1**	**7,4**	0,78	129	256	3,1
	50,0	50,0	50,0	50,0	**522,21**	**0,91**	**6,2**	0,77	129	256	3,1
	50,0	50,0	50,0	50,0	**655,32**	**0,72**	**5,0**	0,76	130	256	3,1
	50,0	50,0	50,0	50,0	**761,81**	**0,62**	**4,3**	0,76	130	256	3,1
	50,0	50,0	50,0	50,0	**921,55**	**0,52**	**3,6**	0,75	132	256	3,1
	50,0	50,0	50,0	50,0	**1182,66**	**0,40**	**2,8**	0,75	132	256	3,1
	50,0	50,0	50,0	50,0	**1403,59**	**0,34**	**2,4**	0,75	117	256	3,1
	48,9	50,0	50,0	50,0	**1829,51**	**0,26**	**1,8**	0,74	107	257	3,1
	36,1	40,4	47,0	50,0	**2202,19**	**0,22**	**1,1**	0,74	75,0	270	3,1



Motorsuz Planet Redüktörler
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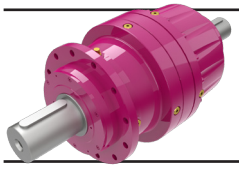
n_1=475

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
51,13	**12**	56 E4	50 R1	**8,1**	53 E4	51 R2	**21**	64 E4	58 R1	**15**	58 E4	56 R2	427	400
72,03	**12**	54 E4	48 R1	**7,9**	51 E4	36 R1	**21**	42 E3	56 R1	**14**	37 E3	41 R1	513	401
90,39	**11**	32 E3	46 R1	**7,5**	30 E3	34 R1	**20**	32 E2	53 R1	**14**	35 E3	39 R1		
105,08	**10**	31 E3	44 R1	**7,2**	28 E3	32 R1	**19**	31 E2	50 R1	**13**	26 E2	37 R1		
127,11	**9,8**	22 E2	41 R1	**6,8**	27 E3	31 R1	**18**	23 E1	48 R1	**12**	24 E2	35 R1		
163,13	**9,4**	21 E2	39 R1	**6,5**	19 E2	29 R1	**17**	23 E1	46 R1	**12**	18 E1	34 R1		
193,60	**9,1**	15 E1	38 R1	**6,2**	18 E2	28 R1	**16**	22 E1	44 R1	**11**	17 E1	32 R1		
252,35	**8,6**	14 E1	36 R1	**5,9**	12 E1	27 R1	**15**	20 E1	41 R1	**11**	16 E1	30 R1		
303,75	**7,9**	13 E1	33 R1	**5,4**	11 E1	24 R1	**14**	19 E1	38 R1	**10**	15 E1	28 R1		
193,18	**7,3**	16 E2	30 R1	**5,0**	14 E2	22 R1	**13**	17 E1	34 R1	**9,0**	17 E2	25 R1	423	400
230,49	**7,2**	16 E2	29 R1	**5,0**	14 E2	22 R1	**13**	17 E1	34 R1	**9,0**	13 E1	25 R1	509	401
272,11	**7,1**	11 E1	29 R1	**4,9**	14 E2	21 R1	**13**	17 E1	33 R1	**8,8**	13 E1	25 R1		
297,12	**6,9**	11 E1	28 R1	**4,8**	13 E2	21 R1	**12**	17 E1	33 R1	**8,6**	13 E1	24 R1		
372,15	**6,5**	11 E1	27 R1	**4,5**	8,7 E1	20 R1	**12**	15 E1	31 R1	**8,1**	12 E1	23 R1		
432,18	**6,3**	10 E1	25 R1	**4,3**	8,4 E1	19 R1	**11**	15 E1	29 R1	**7,8**	11 E1	22 R1		
522,21	**5,9**	10 E1	24 R1	**4,1**	7,8 E1	18 R1	**11**	14 E1	28 R1	**7,3**	11 E1	20 R1		
655,32	**5,6**	9,0 E1	23 R1	**3,9**	7,5 E1	17 R1	**10**	13 E1	26 R1	**6,9**	10 E1	19 R1		
761,81	**5,4**	8,7 E1	22 R1	**3,7**	7,2 E1	16 R1	**9,6**	13 E1	25 R1	**6,7**	10 E1	19 R1		
921,55	**5,1**	8,1 E1	21 R1	**3,5**	6,9 E1	15 R1	**9,1**	12 E1	24 R1	**6,3**	9,3 E1	18 R1		
1182,66	**4,9**	7,8 E1	20 R1	**3,4**	6,6 E1	15 R1	**8,7**	11 E1	23 R1	**6,1**	9,0 E1	17 R1		
1403,59	**4,7**	7,5 E1	19 R1	**3,3**	6,3 E1	14 R1	**8,4**	11 E1	22 R1	**5,8**	8,7 E1	16 R1		
1829,51	**4,5**	7,2 E1	18 R1	**3,1**	6,0 E1	14 R1	**8,0**	11 E1	21 R1	**5,5**	8,1 E1	16 R1		
2202,19	**4,1**	6,6 E1	17 R1	**2,9**	5,4 E1	13 R1	**7,3**	9,6 E1	19 R1	**5,1**	7,5 E1	14 R1		



Motorsuz Planet Redüktörler
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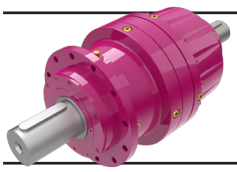
n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1101L	**0,96**	1,00	1,00	1,00	**3,78**	**95**	**10**	0,95	1,20	15	3,5
RT1101L	**0,98**	1,00	1,00	1,00	**4,13**	**87**	**9,5**	0,95	1,20	16	3,5
	0,99	1,00	1,00	1,00	**5,17**	**70**	**7,7**	0,94	1,20	17	3,5
	0,84	0,88	0,94	0,99	**6,00**	**60**	**5,6**	0,94	1,20	18	3,5
	0,63	0,67	0,71	0,76	**7,25**	**50**	**3,6**	0,93	1,20	19	3,5
PT1102L	**1,00**	1,00	1,00	1,00	**14,27**	**25**	**2,9**	0,90	1,20	23	3,5
RT1102L	**1,00**	1,00	1,00	1,00	**15,58**	**23**	**2,7**	0,90	1,20	23	3,5
	1,00	1,00	1,00	1,00	**17,02**	**21**	**2,5**	0,90	1,20	24	3,5
	1,00	1,00	1,00	1,00	**21,31**	**17**	**2,0**	0,90	1,20	26	3,5
	1,00	1,00	1,00	1,00	**24,75**	**15**	**1,7**	0,90	1,20	27	3,5
	1,00	1,00	1,00	1,00	**29,91**	**12**	**1,4**	0,89	1,20	28	3,5
	1,00	1,00	1,00	1,00	**37,46**	**10**	**1,1**	0,89	1,20	30	3,5
	0,95	1,00	1,00	1,00	**43,50**	**8,3**	**0,94**	0,88	1,20	32	3,5
	0,72	0,81	1,00	1,00	**52,56**	**6,8**	**0,60**	0,87	1,20	34	3,5
PT1103L	**1,00**	1,00	1,00	1,00	**58,87**	**6,1**	**0,76**	0,85	1,20	35	3,5
RT1103L	**1,00**	1,00	1,00	1,00	**64,28**	**5,6**	**0,69**	0,85	1,20	36	3,5
	1,00	1,00	1,00	1,00	**70,19**	**5,1**	**0,63**	0,85	1,20	37	3,5
	1,00	1,00	1,00	1,00	**87,91**	**4,1**	**0,51**	0,84	1,20	39	3,5
	1,00	1,00	1,00	1,00	**102,09**	**3,5**	**0,44**	0,84	1,20	41	3,5
	1,00	1,00	1,00	1,00	**123,36**	**2,9**	**0,37**	0,83	1,20	41	3,5
	1,00	1,00	1,00	1,00	**154,52**	**2,3**	**0,30**	0,82	1,20	41	3,5
	1,00	1,00	1,00	1,00	**179,44**	**2,0**	**0,26**	0,82	1,20	41	3,5
	1,00	1,00	1,00	1,00	**216,82**	**1,7**	**0,22**	0,81	1,20	41	3,5
	1,00	1,00	1,00	1,00	**271,57**	**1,3**	**0,17**	0,79	1,20	41	3,5
	1,00	1,00	1,00	1,00	**315,38**	**1,1**	**0,15**	0,78	1,20	41	3,5
	1,00	1,00	1,00	1,00	**381,08**	**0,94**	**0,13**	0,75	1,20	41	3,5
PT1104L	**1,00**	1,00	1,00	1,00	**289,53**	**1,2**	**0,17**	0,76	1,20	41	3,5
RT1104L	**1,00**	1,00	1,00	1,00	**362,65**	**1,0**	**0,14**	0,75	1,20	41	3,5
	1,00	1,00	1,00	1,00	**421,14**	**0,85**	**0,12**	0,74	1,20	41	3,5
	1,00	1,00	1,00	1,00	**508,87**	**0,71**	**0,10**	0,72	1,20	41	3,5
	1,00	1,00	1,00	1,00	**637,38**	**0,56**	**0,08**	0,70	1,20	41	3,5
	1,00	1,00	1,00	1,00	**740,18**	**0,49**	**0,07**	0,69	1,20	41	3,5
	1,00	1,00	1,00	1,00	**894,38**	**0,40**	**0,06**	0,67	1,20	41	3,5
	1,00	1,00	1,00	1,00	**1120,24**	**0,32**	**0,05**	0,65	1,20	41	3,5
	1,00	1,00	1,00	1,00	**1300,92**	**0,28**	**0,05**	0,63	1,20	41	3,5
	1,00	1,00	1,00	1,00	**1571,95**	**0,23**	**0,04**	0,60	1,20	41	3,5
	1,00	1,00	1,00	1,00	**1968,90**	**0,18**	**0,03**	0,57	1,20	41	3,5
	1,00	1,00	1,00	1,00	**2286,47**	**0,16**	**0,03**	0,53	1,20	41	3,5
	1,00	1,00	1,00	1,00	**2762,82**	**0,13**	**0,03**	0,47	1,20	41	3,5
PT1201L	**1,35**	1,66	2,00	2,00	**3,78**	**95**	**14**	0,95	2,25	15	3,5
RT1201L	**1,38**	1,70	2,00	2,00	**4,13**	**87**	**13**	0,95	2,30	16	3,5
	1,44	1,77	1,97	2,00	**5,17**	**70**	**11**	0,94	2,39	17	3,5
	1,48	1,67	1,74	1,76	**6,00**	**60**	**10**	0,94	2,45	18	3,5
	1,14	1,18	1,24	1,30	**7,25**	**50**	**6,4**	0,93	2,56	19	3,5
PT1202L	**2,00**	2,00	2,00	2,00	**14,27**	**25**	**5,9**	0,90	3,00	22	3,5
RT1202L	**2,00**	2,00	2,00	2,00	**15,58**	**23**	**5,4**	0,90	3,00	23	3,5
	2,00	2,00	2,00	2,00	**17,02**	**21**	**4,9**	0,90	3,00	24	3,5
	2,00	2,00	2,00	2,00	**21,31**	**17**	**3,9**	0,90	3,00	26	3,5
	2,00	2,00	2,00	2,00	**24,75**	**15**	**3,4**	0,90	3,00	28	3,5
	2,00	2,00	2,00	2,00	**29,91**	**12**	**2,8**	0,89	3,00	29	3,5
	2,00	2,00	2,00	2,00	**37,46**	**10**	**2,3**	0,89	3,00	31	3,5
	1,77	1,79	1,87	2,00	**43,50**	**8,3**	**1,7**	0,88	3,00	32	3,5
	1,25	1,37	1,62	1,80	**52,56**	**6,8**	**1,0**	0,87	2,91	34	3,5
PT1203L	**2,00**	2,00	2,00	2,00	**58,87**	**6,1**	**1,5**	0,84	3,00	35	3,5
RT1203L	**2,00**	2,00	2,00	2,00	**64,28**	**5,6**	**1,4**	0,84	3,00	36	3,5
	2,00	2,00	2,00	2,00	**70,19**	**5,1**	**1,3**	0,84	3,00	37	3,5
	2,00	2,00	2,00	2,00	**87,91**	**4,1**	**1,0**	0,84	3,00	39	3,5
	2,00	2,00	2,00	2,00	**102,09**	**3,5**	**0,89**	0,83	3,00	39	3,5
	2,00	2,00	2,00	2,00	**123,36**	**2,9**	**0,74**	0,83	3,00	39	3,5



Motorsuz Planet Redüktörler
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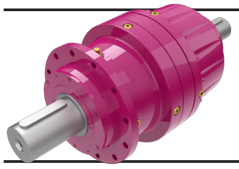
Planetengetriebe

n_1=360

Çevrim Oranı *Ratio* Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
3,78	**4,9**	20 E1	73 R1	**3,4**	19 E1	55 R1	**8,9**	23 E1	75 R1	**6,1**	21 E1	57 R1	23	382
4,13	**4,9**	20 E1	72 R1	**3,3**	18 E1	54 R1	**8,8**	23 E1	74 R1	**6,1**	20 E1	56 R1	25	383
5,17	**4,4**	18 E1	65 R1	**3,0**	17 E1	49 R1	**7,9**	20 E1	67 R1	**5,5**	19 E1	50 R1		
6,00	**4,0**	16 E1	59 R1	**2,8**	15 E1	44 R1	**7,2**	19 E1	61 R1	**5,0**	17 E1	46 R1		
7,25	**3,4**	14 E1	49 R1	**2,3**	13 E1	37 R1	**6,0**	16 E1	51 R1	**4,2**	14 E1	38 R1		
14,27	**2,9**	10 E1	37 R1	**2,0**	10 E1	28 R1	**5,1**	12 E1	38 R1	**3,5**	11 E1	29 R1	28	382
15,58	**2,8**	10 E1	36 R1	**2,0**	10 E1	28 R1	**5,1**	12 E1	38 R1	**3,5**	11 E1	29 R1	30	383
17,02	**2,8**	10 E1	36 R1	**1,9**	9,3 E1	27 R1	**5,0**	12 E1	38 R1	**3,5**	11 E1	28 R1		
21,31	**2,7**	10 E1	34 R1	**1,9**	9,0 E1	26 R1	**4,8**	11 E1	36 R1	**3,3**	10 E1	27 R1		
24,75	**2,6**	9,3 E1	33 R1	**1,8**	8,7 E1	25 R1	**4,6**	11 E1	34 R1	**3,2**	10 E1	26 R1		
29,91	**2,4**	8,7 E1	31 R1	**1,7**	8,1 E1	23 R1	**4,3**	10 E1	32 R1	**3,0**	9,0 E1	24 R1		
37,46	**2,2**	8,1 E1	29 R1	**1,6**	7,5 E1	22 R1	**4,0**	9,3 E1	30 R1	**2,8**	8,4 E1	22 R1		
43,50	**2,1**	7,5 E1	26 R1	**1,4**	6,9 E1	20 R1	**3,7**	8,7 E1	27 R1	**2,6**	7,8 E1	21 R1		
52,56	**1,8**	6,3 E1	23 R1	**1,2**	6,0 E1	17 R1	**3,2**	7,5 E1	24 R1	**2,2**	6,6 E1	18 R1		
58,87	**1,9**	6,0 E1	21 R1	**1,3**	5,7 E1	16 R1	**3,4**	7,2 E1	22 R1	**2,3**	8,1 E1	17 R1	34	382
64,28	**1,9**	6,0 E1	21 R1	**1,3**	5,7 E1	16 R1	**3,3**	7,2 E1	22 R1	**2,3**	6,3 E1	17 R1	36	383
70,19	**1,8**	6,0 E1	21 R1	**1,3**	5,4 E1	16 R1	**3,3**	7,2 E1	22 R1	**2,3**	6,3 E1	16 R1		
87,91	**1,7**	5,7 E1	19 R1	**1,2**	5,1 E1	15 R1	**3,1**	6,6 E1	20 R1	**2,1**	6,0 E1	15 R1		
102,09	**1,7**	5,4 E1	19 R1	**1,2**	4,8 E1	14 R1	**2,9**	6,3 E1	19 R1	**2,1**	5,7 E1	15 R1		
123,36	**1,6**	5,1 E1	17 R1	**1,1**	4,8 E1	13 R1	**2,8**	6,0 E1	18 R1	**1,9**	5,4 E1	14 R1		
154,52	**1,5**	4,8 E1	17 R1	**1,0**	4,5 E1	13 R1	**2,6**	5,7 E1	17 R1	**1,8**	5,1 E1	13 R1		
179,44	**1,4**	4,5 E1	16 R1	**1,0**	4,2 E1	12 R1	**2,5**	5,4 E1	17 R1	**1,8**	4,8 E1	13 R1		
216,82	**1,4**	4,5 E1	15 R1	**1,0**	4,2 E1	12 R1	**2,4**	5,1 E1	16 R1	**1,7**	4,5 E1	12 R1		
271,57	**1,3**	4,2 E1	14 R1	**0,9**	3,9 E1	11 R1	**2,2**	4,8 E1	15 R1	**1,6**	4,2 E1	11 R1		
315,38	**1,2**	3,9 E1	13 R1	**0,8**	3,6 E1	10 R1	**2,1**	4,5 E1	14 R1	**1,5**	3,9 E1	10 R1		
381,08	**1,0**	3,3 E1	12 R1	**0,7**	3,0 E1	9,0 R1	**1,8**	3,9 E1	12 R1	**1,3**	3,6 E1	9,0 R1		
289,53	**1,2**	3,6 E1	12 R1	**0,9**	3,3 E1	10 R1	**2,1**	4,5 E1	13 R1	**1,5**	3,9 E1	10 R1	39	382
362,65	**1,1**	3,3 E1	12 R1	**0,8**	3,3 E1	9,0 R1	**2,0**	4,2 E1	12 R1	**1,4**	3,6 E1	9,0 R1	41	383
421,14	**1,1**	3,3 E1	11 R1	**0,8**	3,0 E1	9,0 R1	**1,9**	3,9 E1	12 R1	**1,3**	3,6 E1	9,0 R1		
508,87	**1,0**	3,0 E1	11 R1	**0,7**	2,7 E1	8,0 R1	**1,8**	3,6 E1	11 R1	**1,3**	3,3 E1	8,0 R1		
637,38	**1,0**	3,0 E1	10 R1	**0,7**	2,7 E1	8,0 R1	**1,7**	3,6 E1	10 R1	**1,2**	3,0 E1	8,0 R1		
740,18	**0,9**	2,7 E1	10 R1	**0,7**	2,7 E1	7,0 R1	**1,6**	3,3 E1	10 R1	**1,1**	3,0 E1	8,0 R1		
894,38	**0,9**	2,7 E1	9,0 R1	**0,6**	2,4 E1	7,0 R1	**1,5**	3,3 E1	9,0 R1	**1,1**	2,7 E1	7,0 R1		
1120,24	**0,8**	2,4 E1	9,0 R1	**0,6**	2,4 E1	7,0 R1	**1,5**	3,0 E1	9,0 R1	**1,0**	2,7 E1	7,0 R1		
1300,92	**0,8**	2,4 E1	8,0 R1	**0,6**	2,4 E1	6,0 R1	**1,4**	3,0 E1	9,0 R1	**1,0**	2,7 E1	7,0 R1		
1571,95	**0,8**	2,4 E1	8,0 R1	**0,6**	2,1 E1	6,0 R1	**1,3**	2,7 E1	8,0 R1	**1,0**	2,4 E1	6,0 R1		
1968,90	**0,7**	2,1 E1	7,0 R1	**0,5**	2,1 E1	6,0 R1	**1,3**	2,7 E1	8,0 R1	**0,9**	2,4 E1	6,0 R1		
2286,47	**0,7**	2,1 E1	7,0 R1	**0,5**	1,8 E1	5,0 R1	**1,2**	2,4 E1	7,0 R1	**0,8**	2,1 E1	6,0 R1		
2762,82	**0,6**	1,8 E1	6,0 R1	**0,4**	1,8 E1	5,0 R1	**1,0**	2,1 E1	6,0 R1	**0,7**	1,8 E1	5,0 R1		
3,78	**5,7**	22 E1	82 R1	**3,9**	21 E1	61 R1	**10**	26 E1	85 R1	**7,1**	23 E1	63 R1	27	384
4,13	**5,7**	22 E1	81 R1	**3,9**	21 E1	61 R1	**10**	26 E1	83 R1	**7,1**	23 E1	63 R1	29	385
5,17	**5,1**	20 E1	73 R1	**3,5**	19 E1	55 R1	**9,2**	23 E1	75 R1	**6,4**	21 E1	56 R1		
6,00	**4,7**	18 E1	66 R1	**3,2**	17 E1	50 R1	**8,4**	21 E1	68 R1	**5,8**	19 E1	51 R1		
7,25	**3,9**	15 E1	55 R1	**2,7**	14 E1	42 R1	**7,1**	18 E1	57 R1	**4,9**	16 E1	43 R1		
14,27	**3,4**	11 E1	40 R1	**2,4**	11 E1	30 R1	**6,1**	14 E1	42 R1	**4,3**	12 E1	31 R1	33	384
15,58	**3,4**	11 E1	40 R1	**2,4**	11 E1	30 R1	**6,1**	14 E1	41 R1	**4,2**	12 E1	31 R1	35	385
17,02	**3,4**	11 E1	39 R1	**2,3**	11 E1	30 R1	**6,0**	14 E1	41 R1	**4,2**	12 E1	31 R1		
21,31	**3,2**	11 E1	38 R1	**2,2**	10 E1	28 R1	**5,7**	13 E1	39 R1	**4,0**	11 E1	29 R1		
24,75	**3,1**	10 E1	36 R1	**2,1**	10 E1	27 R1	**5,5**	12 E1	38 R1	**3,8**	11 E1	28 R1		
29,91	**2,9**	10 E1	34 R1	**2,0**	9,0 E1	26 R1	**5,2**	11 E1	35 R1	**3,6**	10 E1	27 R1		
37,46	**2,7**	9,0 E1	31 R1	**1,9**	8,4 E1	24 R1	**4,8**	11 E1	33 R1	**3,3**	9,3 E1	25 R1		
43,50	**2,5**	8,1 E1	29 R1	**1,7**	7,8 E1	22 R1	**4,5**	9,9 E1	30 R1	**3,1**	8,7 E1	23 R1		
52,56	**2,2**	7,2 E1	25 R1	**1,5**	6,6 E1	19 R1	**3,9**	8,4 E1	26 R1	**2,7**	7,5 E1	20 R1		
58,87	**2,2**	6,6 E1	23 R1	**1,6**	6,0 E1	17 R1	**4,0**	8,1 E1	24 R1	**2,8**	7,2 E1	18 R1	38	384
64,28	**2,2**	6,6 E1	23 R1	**1,5**	6,0 E1	17 R1	**3,9**	8,1 E1	24 R1	**2,8**	7,2 E1	18 R1	40	385
70,19	**2,2**	6,6 E1	22 R1	**1,5**	6,0 E1	17 R1	**3,9**	7,8 E1	23 R1	**2,7**	6,9 E1	18 R1		
87,91	**2,1**	6,0 E1	21 R1	**1,4**	5,7 E1	16 R1	**3,7**	7,5 E1	22 R1	**2,5**	6,6 E1	17 R1		
102,09	**2,0**	6,0 E1	20 R1	**1,4**	5,4 E1	15 R1	**3,5**	7,2 E1	21 R1	**2,4**	6,3 E1	16 R1		
123,36	**1,9**	5,4 E1	19 R1	**1,3**	5,1 E1	14 R1	**3,3**	6,6 E1	20 R1	**2,3**	6,0 E1	15 R1		



Motorsuz Planet Redüktörler
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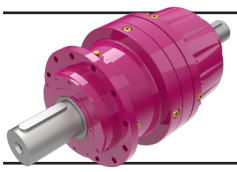
n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1203L	**2,00**	2,00	2,00	2,00	**154,52**	**2,3**	**0,59**	0,82	3,00	39	3,5
RT1203L	**2,00**	2,00	2,00	2,00	**179,44**	**2,0**	**0,51**	0,82	3,00	39	3,5
	2,00	2,00	2,00	2,00	**216,82**	**1,7**	**0,43**	0,81	3,00	39	3,5
	2,00	2,00	2,00	2,00	**271,57**	**1,3**	**0,35**	0,80	3,00	39	3,5
	1,96	2,00	2,00	2,00	**315,38**	**1,1**	**0,30**	0,79	3,00	39	3,5
	1,72	1,87	2,00	2,00	**381,08**	**0,94**	**0,22**	0,76	3,00	40	3,5
PT1204L	**2,00**	2,00	2,00	2,00	**289,53**	**1,2**	**0,34**	0,76	3,00	39	3,5
RT1204L	**2,00**	2,00	2,00	2,00	**362,65**	**1,0**	**0,28**	0,75	3,00	39	3,5
	2,00	2,00	2,00	2,00	**421,14**	**0,85**	**0,24**	0,74	3,00	39	3,5
	2,00	2,00	2,00	2,00	**508,87**	**0,71**	**0,20**	0,73	3,00	39	3,5
	2,00	2,00	2,00	2,00	**637,38**	**0,56**	**0,16**	0,72	3,00	39	3,5
	2,00	2,00	2,00	2,00	**740,18**	**0,49**	**0,14**	0,71	3,00	39	3,5
	2,00	2,00	2,00	2,00	**894,38**	**0,40**	**0,12**	0,69	3,00	39	3,5
	2,00	2,00	2,00	2,00	**1120,24**	**0,32**	**0,10**	0,68	3,00	39	3,5
	2,00	2,00	2,00	2,00	**1300,92**	**0,28**	**0,09**	0,67	3,00	39	3,5
	2,00	2,00	2,00	2,00	**1571,95**	**0,23**	**0,07**	0,65	3,00	39	3,5
	2,00	2,00	2,00	2,00	**1968,90**	**0,18**	**0,06**	0,62	3,00	39	3,5
	2,00	2,00	2,00	2,00	**2286,47**	**0,16**	**0,06**	0,60	3,00	39	3,5
	2,00	2,00	2,00	2,00	**2762,82**	**0,13**	**0,05**	0,54	3,00	39	3,5
PT1501L	**2,55**	2,63	2,72	2,77	**3,60**	**100**	**28**	0,95	3,72	22	8,5
RT1501L	**2,72**	3,06	3,10	3,10	**4,25**	**85**	**25**	0,95	3,72	23	8,5
	2,61	2,65	2,71	2,75	**5,33**	**68**	**19**	0,95	3,72	25	8,5
	2,27	2,40	2,46	2,50	**6,20**	**58**	**15**	0,94	3,72	26	8,5
	1,58	1,67	1,80	1,91	**7,50**	**48**	**8,5**	0,94	3,50	28	8,5
PT1502L	**2,61**	2,70	2,82	2,88	**13,60**	**26**	**8,0**	0,90	3,72	33	3,5
RT1502L	**3,10**	3,10	3,10	3,10	**17,53**	**21**	**7,4**	0,90	3,72	36	3,5
	3,10	3,10	3,10	3,10	**21,96**	**16**	**5,9**	0,90	3,72	38	3,5
	3,10	3,10	3,10	3,10	**25,50**	**14**	**5,1**	0,90	3,72	40	3,5
	2,74	2,79	2,85	3,10	**32,00**	**11**	**3,6**	0,90	3,72	43	3,5
	2,76	2,80	2,93	3,10	**38,67**	**9,3**	**3,0**	0,89	3,72	45	3,5
	2,50	2,54	2,73	3,02	**44,95**	**8,0**	**2,4**	0,89	3,72	48	3,5
	1,82	2,04	2,47	2,78	**54,38**	**6,6**	**1,4**	0,88	3,72	50	3,5
PT1503L	**2,72**	2,81	2,93	3,10	**51,38**	**7,0**	**2,3**	0,85	3,72	50	3,5
RT1503L	**3,10**	3,10	3,10	3,10	**66,23**	**5,4**	**2,1**	0,85	3,72	54	3,5
	3,10	3,10	3,10	3,10	**72,32**	**5,0**	**1,9**	0,85	3,72	55	3,5
	3,10	3,10	3,10	3,10	**90,58**	**4,0**	**1,5**	0,84	3,72	59	3,5
	3,10	3,10	3,10	3,10	**105,19**	**3,4**	**1,3**	0,84	3,72	60	3,5
	3,10	3,10	3,10	3,10	**127,10**	**2,8**	**1,1**	0,83	3,72	60	3,5
	3,10	3,10	3,10	3,10	**159,20**	**2,3**	**0,88**	0,83	3,72	60	3,5
	3,10	3,10	3,10	3,10	**184,88**	**1,9**	**0,76**	0,83	3,72	60	3,5
	3,01	3,10	3,10	3,10	**232,00**	**1,6**	**0,60**	0,82	3,72	60	3,5
	3,09	3,10	3,10	3,10	**280,33**	**1,3**	**0,51**	0,81	3,72	60	3,5
	2,88	3,10	3,10	3,10	**325,89**	**1,1**	**0,42**	0,80	3,72	61	3,5
	2,65	2,94	3,10	3,10	**394,22**	**0,91**	**0,32**	0,78	3,72	62	3,5
PT1504L	**2,86**	3,10	3,10	3,10	**194,09**	**1,9**	**0,72**	0,78	3,72	61	3,5
RT1504L	**3,10**	3,10	3,10	3,10	**250,20**	**1,4**	**0,60**	0,78	3,72	60	3,5
	3,10	3,10	3,10	3,10	**273,20**	**1,3**	**0,55**	0,78	3,72	60	3,5
	3,10	3,10	3,10	3,10	**298,31**	**1,2**	**0,51**	0,77	3,72	60	3,5
	3,10	3,10	3,10	3,10	**373,63**	**1,0**	**0,41**	0,76	3,72	60	3,5
	3,10	3,10	3,10	3,10	**433,90**	**0,83**	**0,36**	0,75	3,72	60	3,5
	3,10	3,10	3,10	3,10	**524,29**	**0,69**	**0,30**	0,74	3,72	60	3,5
	3,10	3,10	3,10	3,10	**656,69**	**0,55**	**0,24**	0,73	3,72	60	3,5
	3,10	3,10	3,10	3,10	**762,61**	**0,47**	**0,21**	0,72	3,72	60	3,5
	3,10	3,10	3,10	3,10	**921,49**	**0,39**	**0,18**	0,71	3,72	60	3,5
	3,10	3,10	3,10	3,10	**1154,18**	**0,31**	**0,14**	0,70	3,72	60	3,5
	3,10	3,10	3,10	3,10	**1340,34**	**0,27**	**0,13**	0,70	3,72	60	3,5
	3,10	3,10	3,10	3,10	**1619,58**	**0,22**	**0,11**	0,68	3,72	60	3,5
	3,10	3,10	3,10	3,10	**2032,42**	**0,18**	**0,09**	0,66	3,72	60	3,5
	3,10	3,10	3,10	3,10	**2362,68**	**0,15**	**0,08**	0,63	3,72	60	3,5
	3,10	3,10	3,10	3,10	**2858,09**	**0,13**	**0,07**	0,59	3,72	60	3,5



Motorsuz Planet Redüktörler
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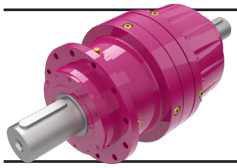
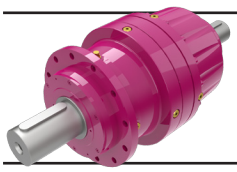
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
154,52	1,8	5,4 E1	18 R1	1,2	4,8 E1	14 R1	3,2	6,6 E1	19 R1	2,2	5,7 E1	14 R1	38	384
179,44	1,7	5,1 E1	17 R1	1,2	4,8 E1	13 R1	3,0	6,3 E1	18 R1	2,1	5,4 E1	14 R1	40	385
216,82	1,6	4,8 E1	17 R1	1,1	4,5 E1	13 R1	2,9	6,0 E1	17 R1	2,0	5,1 E1	13 R1		
271,57	1,5	4,5 E1	15 R1	1,1	4,2 E1	12 R1	2,7	5,4 E1	16 R1	1,9	4,8 E1	12 R1		
315,38	1,4	4,2 E1	14 R1	1,0	3,9 E1	11 R1	2,5	5,1 E1	15 R1	1,7	4,5 E1	11 R1		
381,08	1,2	3,6 E1	13 R1	0,9	3,3 E1	10 R1	2,2	4,5 E1	13 R1	1,5	3,9 E1	10 R1		
289,53	1,5	3,9 E1	13 R1	1,0	3,6 E1	10 R1	2,6	5,1 E1	14 R1	1,8	4,2 E1	11 R1	44	384
362,65	1,4	3,9 E1	13 R1	1,0	3,6 E1	10 R1	2,4	4,8 E1	13 R1	1,7	4,2 E1	10 R1	46	385
421,14	1,3	3,6 E1	12 R1	0,9	3,3 E1	9,0 R1	2,3	4,5 E1	13 R1	1,6	3,9 E1	10 R1		
508,87	1,2	3,3 E1	11 R1	0,9	3,0 E1	9,0 R1	2,2	4,2 E1	12 R1	1,5	3,6 E1	9,0 R1		
637,38	1,2	3,3 E1	11 R1	0,8	3,0 E1	8,0 R1	2,1	3,9 E1	11 R1	1,4	3,3 E1	9,0 R1		
740,18	1,1	3,0 E1	10 R1	0,8	2,7 E1	8,0 R1	2,0	3,9 E1	11 R1	1,4	3,3 E1	8,0 R1		
894,38	1,1	3,0 E1	10 R1	0,8	2,7 E1	7,0 R1	1,9	3,6 E1	10 R1	1,3	3,0 E1	8,0 R1		
1120,24	1,0	2,7 E1	9,0 R1	0,7	2,7 E1	7,0 R1	1,8	3,6 E1	10 R1	1,3	3,0 E1	8,0 R1		
1300,92	1,0	2,7 E1	9,0 R1	0,7	2,4 E1	7,0 R1	1,7	3,3 E1	10 R1	1,2	3,0 E1	7,0 R1		
1571,95	0,9	2,7 E1	9,0 R1	0,7	2,4 E1	7,0 R1	1,6	3,3 E1	9,0 R1	1,2	2,7 E1	7,0 R1		
1968,90	0,9	2,4 E1	8,0 R1	0,6	2,1 E1	6,0 R1	1,5	3,0 E1	8,0 R1	1,1	2,7 E1	6,0 R1		
2286,47	0,8	2,4 E1	8,0 R1	0,6	2,1 E1	6,0 R1	1,4	2,7 E1	8,0 R1	1,0	2,4 E1	6,0 R1		
2762,82	0,7	2,1 E1	7,0 R1	0,5	1,8 E1	5,0 R1	1,3	2,4 E1	7,0 R1	0,9	2,1 E1	5,0 R1		
3,60	9,8	28 E1	97 R1	6,7	26 E1	72 R1	18	35 E1	102 R1	12	30 E1	76 R1	54	386
4,25	9,7	28 E1	95 R1	6,6	26 E1	71 R1	18	35 E1	100 R1	12	30 E1	75 R1	64	387
5,33	8,6	25 E1	84 R1	5,9	23 E1	63 R1	16	31 E1	89 R1	11	26 E1	66 R1		
6,20	7,9	23 E1	76 R1	5,4	20 E1	57 R1	14	28 E1	81 R1	10	24 E1	60 R1		
7,50	6,7	19 E1	65 R1	4,6	17 E1	49 R1	12	24 E1	69 R1	8,4	20 E1	51 R1		
13,60	4,5	13 E1	45 R1	3,1	12 E1	34 R1	8,0	16 E1	47 R1	5,6	14 E1	35 R1	46	386
17,53	4,4	13 E1	44 R1	3,0	12 E1	33 R1	7,9	16 E1	46 R1	5,5	14 E1	35 R1	56	387
21,96	4,2	12 E1	42 R1	2,9	11 E1	32 R1	7,5	15 E1	44 R1	5,2	13 E1	33 R1		
25,50	4,0	12 E1	40 R1	2,8	11 E1	30 R1	7,2	15 E1	43 R1	5,0	13 E1	32 R1		
32,00	3,7	11 E1	37 R1	2,6	10 E1	28 R1	6,6	14 E1	39 R1	4,6	12 E1	29 R1		
38,67	3,5	10 E1	35 R1	2,4	9,3 E1	26 R1	6,2	13 E1	37 R1	4,3	11 E1	28 R1		
44,95	3,2	10 E1	32 R1	2,3	8,7 E1	24 R1	5,8	12 E1	34 R1	4,0	10 E1	26 R1		
54,38	2,9	8,4 E1	29 R1	2,0	7,8 E1	22 R1	5,1	10 E1	30 R1	3,6	9,0 E1	23 R1		
51,38	2,7	7,5 E1	25 R1	1,9	6,9 E1	19 R1	4,8	9,3 E1	27 R1	3,3	8,1 E1	20 R1	52	386
66,23	2,6	7,5 E1	25 R1	1,8	6,9 E1	19 R1	4,7	9,3 E1	26 R1	3,3	7,8 E1	20 R1	62	387
72,32	2,6	7,2 E1	24 R1	1,8	6,6 E1	18 R1	4,6	9,0 E1	26 R1	3,2	7,8 E1	19 R1		
90,58	2,5	6,9 E1	23 R1	1,7	6,3 E1	17 R1	4,4	8,4 E1	24 R1	3,0	7,5 E1	18 R1		
105,19	2,4	6,6 E1	22 R1	1,6	6,0 E1	17 R1	4,2	8,1 E1	23 R1	2,9	6,9 E1	18 R1		
127,10	2,2	6,3 E1	21 R1	1,5	5,7 E1	16 R1	3,9	7,8 E1	22 R1	2,7	6,6 E1	17 R1		
159,20	2,1	6,0 E1	20 R1	1,5	5,4 E1	15 R1	3,8	7,5 E1	21 R1	2,6	6,3 E1	16 R1		
184,88	2,1	5,7 E1	19 R1	1,4	5,4 E1	15 R1	3,7	7,2 E1	20 R1	2,6	6,3 E1	15 R1		
232,00	1,9	5,4 E1	18 R1	1,3	4,8 E1	14 R1	3,4	6,6 E1	19 R1	2,4	5,7 E1	14 R1		
280,33	1,8	5,1 E1	17 R1	1,3	4,5 E1	13 R1	3,2	6,3 E1	18 R1	2,2	5,4 E1	13 R1		
325,89	1,7	4,8 E1	16 R1	1,2	4,2 E1	12 R1	3,0	5,7 E1	17 R1	2,1	5,1 E1	13 R1		
394,22	1,5	4,2 E1	14 R1	1,1	3,9 E1	11 R1	2,7	5,1 E1	15 R1	1,9	4,5 E1	11 R1		
194,09	1,8	4,8 E1	15 R1	1,2	4,2 E1	12 R1	3,1	6,0 E1	16 R1	2,2	5,1 E1	12 R1	57	386
250,20	1,7	4,5 E1	15 R1	1,2	4,2 E1	11 R1	3,1	5,7 E1	16 R1	2,2	5,1 E1	12 R1	67	387
273,20	1,7	4,5 E1	15 R1	1,2	4,2 E1	11 R1	3,0	5,7 E1	16 R1	2,1	4,8 E1	12 R1		
298,31	1,7	4,5 E1	15 R1	1,2	3,9 E1	11 R1	3,0	5,7 E1	15 R1	2,1	4,8 E1	12 R1		
373,63	1,6	4,2 E1	14 R1	1,1	3,9 E1	10 R1	2,8	5,1 E1	15 R1	1,9	4,5 E1	11 R1		
433,90	1,5	3,9 E1	13 R1	1,1	3,6 E1	10 R1	2,7	5,1 E1	14 R1	1,9	4,2 E1	10 R1		
524,29	1,4	3,6 E1	12 R1	1,0	3,3 E1	9,0 R1	2,5	4,8 E1	13 R1	1,8	3,9 E1	10 R1		
656,69	1,3	3,6 E1	12 R1	0,9	3,3 E1	9,0 R1	2,4	4,5 E1	12 R1	1,7	3,9 E1	9,0 R1		
762,61	1,3	3,3 E1	11 R1	0,9	3,0 E1	9,0 R1	2,3	4,2 E1	12 R1	1,6	3,6 E1	9,0 R1		
921,49	1,2	3,3 E1	11 R1	0,9	3,0 E1	8,0 R1	2,1	3,9 E1	11 R1	1,5	3,6 E1	9,0 R1		
1154,18	1,2	3,0 E1	10 R1	0,8	2,7 E1	8,0 R1	2,1	3,9 E1	11 R1	1,4	3,3 E1	8,0 R1		
1340,34	1,1	3,0 E1	10 R1	0,8	2,7 E1	8,0 R1	2,0	3,9 E1	10 R1	1,4	3,3 E1	8,0 R1		
1619,58	1,1	3,0 E1	9,0 R1	0,8	2,7 E1	7,0 R1	1,9	3,6 E1	10 R1	1,3	3,0 E1	8,0 R1		
2032,42	1,0	2,7 E1	9,0 R1	0,7	2,4 E1	7,0 R1	1,8	3,3 E1	9,0 R1	1,2	3,0 E1	7,0 R1		
2362,68	0,9	2,4 E1	8,0 R1	0,7	2,4 E1	6,0 R1	1,7	3,0 E1	9,0 R1	1,2	2,7 E1	7,0 R1		
2858,09	0,8	2,1 E1	7,0 R1	0,6	2,1 E1	6,0 R1	1,5	2,7 E1	8,0 R1	1,0	2,4 E1	6,0 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=360

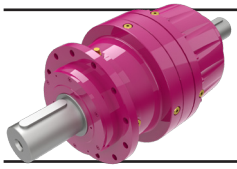
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1601L	**3,50**	4,31	4,95	5,00	**3,60**	**100**	**38**	0,95	5,83	22	8,5
RT1601L	**3,66**	4,51	5,00	5,00	**4,25**	**85**	**34**	0,95	6,10	23	8,5
	3,82	4,57	4,65	4,70	**5,33**	**68**	**28**	0,95	6,35	25	8,5
	3,71	3,78	3,85	3,90	**6,20**	**58**	**24**	0,95	6,53	26	8,5
	2,37	2,46	2,58	2,70	**7,50**	**48**	**13**	0,94	5,33	28	8,5
PT1602L	**4,86**	5,00	5,00	5,00	**13,60**	**26**	**15**	0,91	7,50	33	3,5
RT1602L	**5,00**	5,00	5,00	5,00	**17,53**	**21**	**12**	0,91	7,50	36	3,5
	5,00	5,00	5,00	5,00	**21,96**	**16**	**9,5**	0,91	7,50	38	3,5
	5,00	5,00	5,00	5,00	**25,50**	**14**	**8,2**	0,91	7,50	40	3,5
	4,71	4,76	4,85	5,00	**32,00**	**11**	**6,2**	0,90	7,50	43	3,5
	4,72	4,78	4,96	5,00	**38,67**	**9,3**	**5,1**	0,90	7,50	45	3,5
	3,91	3,96	4,18	4,53	**44,95**	**8,0**	**3,7**	0,89	7,50	48	3,5
	2,62	2,84	3,27	3,57	**54,38**	**6,6**	**2,0**	0,89	6,07	50	3,5
PT1603L	**5,00**	5,00	5,00	5,00	**51,38**	**7,0**	**4,3**	0,85	7,50	50	3,5
RT1603L	**5,00**	5,00	5,00	5,00	**66,23**	**5,4**	**3,3**	0,85	7,50	53	3,5
	5,00	5,00	5,00	5,00	**72,32**	**5,0**	**3,1**	0,85	7,50	53	3,5
	5,00	5,00	5,00	5,00	**90,58**	**4,0**	**2,5**	0,85	7,50	53	3,5
	5,00	5,00	5,00	5,00	**105,19**	**3,4**	**2,1**	0,84	7,50	53	3,5
	5,00	5,00	5,00	5,00	**127,10**	**2,8**	**1,8**	0,84	7,50	53	3,5
	5,00	5,00	5,00	5,00	**159,20**	**2,3**	**1,4**	0,84	7,50	53	3,5
	5,00	5,00	5,00	5,00	**184,88**	**1,9**	**1,2**	0,83	7,50	53	3,5
	5,00	5,00	5,00	5,00	**232,00**	**1,6**	**1,0**	0,82	7,50	53	3,5
	5,00	5,00	5,00	5,00	**280,33**	**1,3**	**0,82**	0,82	7,50	53	3,5
	4,37	4,74	5,00	5,00	**325,89**	**1,1**	**0,62**	0,81	7,50	56	3,5
	3,44	3,75	4,21	4,60	**394,22**	**0,91**	**0,41**	0,80	6,82	59	3,5
PT1604L	**5,00**	5,00	5,00	5,00	**194,09**	**1,9**	**1,2**	0,78	7,50	55	3,5
RT1604L	**5,00**	5,00	5,00	5,00	**250,20**	**1,4**	**1,0**	0,78	7,50	53	3,5
	5,00	5,00	5,00	5,00	**273,20**	**1,3**	**0,88**	0,78	7,50	53	3,5
	5,00	5,00	5,00	5,00	**298,31**	**1,2**	**0,81**	0,78	7,50	53	3,5
	5,00	5,00	5,00	5,00	**373,63**	**1,0**	**0,66**	0,77	7,50	53	3,5
	5,00	5,00	5,00	5,00	**433,90**	**0,83**	**0,57**	0,76	7,50	53	3,5
	5,00	5,00	5,00	5,00	**524,29**	**0,69**	**0,48**	0,75	7,50	53	3,5
	5,00	5,00	5,00	5,00	**656,69**	**0,55**	**0,39**	0,74	7,50	53	3,5
	5,00	5,00	5,00	5,00	**762,61**	**0,47**	**0,34**	0,74	7,50	53	3,5
	5,00	5,00	5,00	5,00	**921,49**	**0,39**	**0,28**	0,73	7,50	53	3,5
	5,00	5,00	5,00	5,00	**1154,18**	**0,31**	**0,23**	0,72	7,50	53	3,5
	5,00	5,00	5,00	5,00	**1340,34**	**0,27**	**0,20**	0,71	7,50	53	3,5
	5,00	5,00	5,00	5,00	**1619,58**	**0,22**	**0,17**	0,70	7,50	53	3,5
	5,00	5,00	5,00	5,00	**2032,42**	**0,18**	**0,14**	0,68	7,50	53	3,5
	5,00	5,00	5,00	5,00	**2362,68**	**0,15**	**0,12**	0,66	7,50	53	3,5
	4,44	4,85	5,00	5,00	**2858,09**	**0,13**	**0,09**	0,63	7,50	56	3,5
PT1901L	**4,75**	5,85	6,55	6,77	**3,60**	**100**	**52**	0,96	7,90	38	15
RT1901L	**4,97**	6,12	7,82	7,93	**4,25**	**85**	**46**	0,96	8,27	40	15
	5,18	6,38	6,71	6,82	**5,33**	**68**	**38**	0,95	8,62	43	15
	5,23	5,50	5,89	6,18	**6,20**	**58**	**34**	0,95	8,85	45	15
	3,89	4,04	4,24	4,76	**7,50**	**48**	**21**	0,94	8,76	47	15
PT1902L	**6,19**	6,40	6,68	6,90	**12,96**	**28**	**20**	0,91	11,6	56	8,5
RT1902L	**7,67**	7,98	8,14	8,29	**18,06**	**20**	**18**	0,91	12,8	62	8,5
	7,90	8,02	8,18	8,50	**22,67**	**16**	**14**	0,91	13,7	66	8,5
	7,93	8,05	8,21	8,50	**26,35**	**14**	**12**	0,91	14,3	69	8,5
	6,73	7,11	7,63	8,13	**31,88**	**11**	**8,8**	0,91	14,9	73	8,5
	6,84	6,95	7,30	8,02	**40,00**	**9,0**	**7,1**	0,90	15,8	78	8,5
	5,94	6,33	6,73	7,30	**46,50**	**7,7**	**5,4**	0,90	13,5	82	8,5
	4,30	4,68	5,40	6,03	**56,25**	**6,4**	**3,2**	0,89	9,95	87	8,5
PT1903L	**8,07**	8,19	8,50	8,50	**57,80**	**6,2**	**6,2**	0,85	18,1	87	3,5
RT1903L	**8,10**	8,22	8,50	8,50	**68,24**	**5,3**	**5,2**	0,86	19,0	92	3,5
	8,12	8,24	8,50	8,50	**74,51**	**4,8**	**4,8**	0,86	19,5	94	3,5
	8,16	8,35	8,50	8,50	**93,32**	**3,9**	**3,9**	0,85	19,7	95	3,5
	8,19	8,50	8,50	8,50	**108,38**	**3,3**	**3,4**	0,85	19,8	95	3,5



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=360

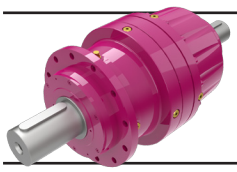
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
3,60	12	50 E2	108 R1	8,0	47 E2	81 R1	21	41 E1	115 R1	15	35 E1	86 R1	66	388
4,25	12	32 E1	106 R1	7,9	46 E2	80 R1	21	40 E1	113 R1	14	34 E1	84 R1	76	389
5,33	10	28 E1	94 R1	7,1	26 E1	71 R1	19	35 E1	100 R1	13	30 E1	75 R1		
6,20	9,4	26 E1	86 R1	6,5	23 E1	64 R1	17	32 E1	91 R1	12	28 E1	68 R1		
7,50	8,0	22 E1	73 R1	5,5	20 E1	55 R1	14	27 E1	77 R1	10	23 E1	58 R1		
13,60	5,3	15 E1	50 R1	3,6	14 E1	38 R1	9,5	18 E1	53 R1	6,5	16 E1	40 R1	62	388
17,53	5,2	15 E1	49 R1	3,6	13 E1	37 R1	9,3	18 E1	52 R1	6,4	16 E1	39 R1	72	389
21,96	5,0	14 E1	47 R1	3,4	13 E1	35 R1	8,9	17 E1	50 R1	6,2	15 E1	37 R1		
25,50	4,8	14 E1	45 R1	3,3	12 E1	34 R1	8,5	17 E1	48 R1	5,9	14 E1	36 R1		
32,00	4,4	12 E1	41 R1	3,0	11 E1	31 R1	7,8	15 E1	44 R1	5,4	13 E1	33 R1		
38,67	4,1	12 E1	39 R1	2,9	11 E1	29 R1	7,4	14 E1	41 R1	5,1	12 E1	31 R1		
44,95	3,8	11 E1	36 R1	2,7	10 E1	27 R1	6,8	13 E1	38 R1	4,8	11 E1	29 R1		
54,38	3,4	10 E1	32 R1	2,4	8,7 E1	24 R1	6,0	12 E1	34 R1	4,2	10 E1	25 R1		
51,38	3,1	8,4 E1	28 R1	2,1	7,5 E1	21 R1	5,5	11 E1	29 R1	3,8	9,0 E1	22 R1	68	388
66,23	3,0	8,1 E1	27 R1	2,1	7,5 E1	21 R1	5,4	10 E1	29 R1	3,7	8,7 E1	22 R1	78	389
72,32	3,0	8,1 E1	27 R1	2,1	7,2 E1	20 R1	5,3	10 E1	28 R1	3,7	8,7 E1	21 R1		
90,58	2,8	7,5 E1	25 R1	2,0	6,9 E1	19 R1	5,0	9,6 E1	27 R1	3,5	8,1 E1	20 R1		
105,19	2,7	7,2 E1	24 R1	1,9	6,6 E1	18 R1	4,8	9,0 E1	26 R1	3,3	7,8 E1	19 R1		
127,10	2,5	6,9 E1	23 R1	1,8	6,3 E1	17 R1	4,5	8,7 E1	24 R1	3,1	7,5 E1	18 R1		
159,20	2,4	6,6 E1	22 R1	1,7	6,0 E1	17 R1	4,3	8,4 E1	23 R1	3,0	7,2 E1	18 R1		
184,88	2,4	6,3 E1	21 R1	1,6	5,7 E1	16 R1	4,2	8,1 E1	23 R1	2,9	6,9 E1	17 R1		
232,00	2,2	6,0 E1	20 R1	1,5	5,4 E1	15 R1	3,9	7,5 E1	21 R1	2,7	6,3 E1	16 R1		
280,33	2,1	5,7 E1	19 R1	1,5	5,1 E1	14 R1	3,7	6,9 E1	20 R1	2,6	6,0 E1	15 R1		
325,89	1,9	5,4 E1	18 R1	1,4	4,8 E1	13 R1	3,4	6,6 E1	19 R1	2,4	5,7 E1	14 R1		
394,22	1,7	4,8 E1	16 R1	1,2	4,2 E1	12 R1	3,1	6,0 E1	17 R1	2,1	5,1 E1	12 R1		
194,09	1,9	5,1 E1	17 R1	1,4	4,5 E1	13 R1	3,4	6,3 E1	18 R1	2,4	5,4 E1	13 R1	73	388
250,20	1,9	5,1 E1	16 R1	1,3	4,5 E1	12 R1	3,4	6,3 E1	18 R1	2,4	5,4 E1	13 R1	83	389
273,20	1,9	4,8 E1	16 R1	1,3	4,5 E1	12 R1	3,3	6,3 E1	17 R1	2,3	5,4 E1	13 R1		
298,31	1,8	4,8 E1	16 R1	1,3	4,5 E1	12 R1	3,3	6,0 E1	17 R1	2,3	5,1 E1	13 R1		
373,63	1,7	4,5 E1	15 R1	1,2	4,2 E1	11 R1	3,1	5,7 E1	16 R1	2,1	4,8 E1	12 R1		
433,90	1,7	4,2 E1	14 R1	1,2	3,9 E1	11 R1	2,9	5,4 E1	15 R1	2,0	4,8 E1	11 R1		
524,29	1,6	4,2 E1	13 R1	1,1	3,6 E1	10 R1	2,7	5,1 E1	14 R1	1,9	4,5 E1	11 R1		
656,69	1,5	3,9 E1	13 R1	1,0	3,6 E1	10 R1	2,6	4,8 E1	14 R1	1,8	4,2 E1	10 R1		
762,61	1,4	3,6 E1	12 R1	1,0	3,3 E1	9,0 R1	2,5	4,8 E1	13 R1	1,7	3,9 E1	10 R1		
921,49	1,3	3,6 E1	12 R1	0,9	3,3 E1	9,0 R1	2,4	4,5 E1	12 R1	1,7	3,9 E1	9,0 R1		
1154,18	1,3	3,3 E1	11 R1	0,9	3,0 E1	9,0 R1	2,3	4,2 E1	12 R1	1,6	3,6 E1	9,0 R1		
1340,34	1,3	3,3 E1	11 R1	0,9	3,0 E1	8,0 R1	2,2	4,2 E1	11 R1	1,5	3,6 E1	9,0 R1		
1619,58	1,2	3,0 E1	10 R1	0,8	3,0 E1	8,0 R1	2,1	3,9 E1	11 R1	1,5	3,3 E1	8,0 R1		
2032,42	1,1	3,0 E1	10 R1	0,8	2,7 E1	7,0 R1	2,0	3,6 E1	10 R1	1,4	3,0 E1	8,0 R1		
2362,68	1,0	2,7 E1	9,0 R1	0,7	2,4 E1	7,0 R1	1,8	3,3 E1	10 R1	1,3	3,0 E1	7,0 R1		
2858,09	0,9	2,4 E1	8,0 R1	0,7	2,4 E1	6,0 R1	1,6	3,0 E1	9,0 R1	1,2	2,7 E1	7,0 R1		
3,60	17	58 E2	121 R1	12	54 E2	91 R1	31	51 E1	131 R1	21	62 E2	98 R1	112	390
4,25	17	57 E2	119 R1	12	53 E2	89 R1	30	50 E1	129 R1	21	42 E1	96 R1	126	391
5,33	15	34 E1	106 R1	10	47 E2	79 R1	27	45 E1	115 R1	19	37 E1	85 R1		
6,20	14	31 E1	96 R1	9,4	43 E2	72 R1	25	41 E1	104 R1	17	34 E1	77 R1		
7,50	12	26 E1	82 R1	8,0	23 E1	61 R1	21	35 E1	89 R1	15	29 E1	66 R1		
12,96	8,4	19 E1	58 R1	5,8	17 E1	43 R1	15	25 E1	63 R1	11	20 E1	47 R1	114	390
18,06	8,3	18 E1	56 R1	5,7	16 E1	42 R1	15	24 E1	61 R1	10	20 E1	46 R1	128	391
22,67	7,9	17 E1	54 R1	5,4	15 E1	40 R1	14	23 E1	58 R1	10	19 E1	43 R1		
26,35	7,6	17 E1	52 R1	5,2	15 E1	39 R1	14	22 E1	56 R1	9,4	18 E1	42 R1		
31,88	7,1	16 E1	49 R1	4,9	14 E1	36 R1	13	21 E1	53 R1	8,8	17 E1	39 R1		
40,00	6,5	14 E1	44 R1	4,5	13 E1	33 R1	12	19 E1	48 R1	8,1	16 E1	36 R1		
46,50	6,0	14 E1	41 R1	4,2	12 E1	31 R1	11	18 E1	45 R1	7,5	15 E1	33 R1		
56,25	5,3	12 E1	36 R1	3,7	11 E1	27 R1	9,5	16 E1	39 R1	6,6	13 E1	29 R1		
57,80	5,4	11 E1	31 R1	3,7	9,3 E1	24 R1	9,6	15 E1	35 R1	6,7	12 E1	26 R1	106	390
68,24	5,3	11 E1	31 R1	3,7	9,3 E1	23 R1	9,5	14 E1	34 R1	6,6	12 E1	26 R1	120	391
74,51	5,3	11 E1	31 R1	3,7	9,0 E1	23 R1	9,4	14 E1	34 R1	6,5	12 E1	25 R1		
93,32	5,0	10 E1	29 R1	3,5	8,7 E1	22 R1	8,9	14 E1	32 R1	6,2	11 E1	24 R1		
108,38	4,8	10 E1	28 R1	3,3	8,4 E1	21 R1	8,5	13 E1	31 R1	5,9	11 E1	23 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=360

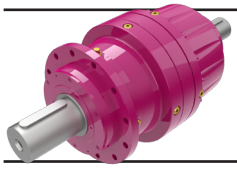
Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1903L	**8,22**	8,50	8,50	8,50	**130,95**	**2,7**	**2,8**	0,84	19,9	95	3,5
RT1903L	**8,26**	8,50	8,50	8,50	**164,33**	**2,2**	**2,3**	0,84	20,0	95	3,5
	8,38	8,50	8,50	8,50	**191,04**	**1,9**	**2,0**	0,84	20,0	95	3,5
	7,72	8,50	8,50	8,50	**231,09**	**1,6**	**1,5**	0,83	17,3	95	3,5
	7,69	8,45	8,50	8,50	**290,00**	**1,2**	**1,2**	0,83	17,3	95	3,5
	7,04	7,64	8,50	8,50	**337,13**	**1,1**	**1,0**	0,82	15,6	96	3,5
	5,70	6,37	7,33	8,01	**407,81**	**0,88**	**0,65**	0,81	11,2	98	3,5
PT1904L	**8,50**	8,50	8,50	8,50	**281,47**	**1,3**	**1,5**	0,78	20,2	95	3,5
RT1904L	**8,50**	8,50	8,50	8,50	**307,34**	**1,2**	**1,3**	0,78	20,2	95	3,5
	8,50	8,50	8,50	8,50	**384,96**	**0,94**	**1,1**	0,77	20,3	95	3,5
	8,50	8,50	8,50	8,50	**447,05**	**0,81**	**0,94**	0,77	20,4	95	3,5
	8,50	8,50	8,50	8,50	**540,18**	**0,67**	**0,78**	0,76	20,5	95	3,5
	8,50	8,50	8,50	8,50	**676,59**	**0,53**	**0,63**	0,75	23,1	95	3,5
	8,50	8,50	8,50	8,50	**785,72**	**0,46**	**0,55**	0,74	20,7	95	3,5
	8,50	8,50	8,50	8,50	**949,41**	**0,38**	**0,46**	0,73	21,1	95	3,5
	8,50	8,50	8,50	8,50	**1191,42**	**0,30**	**0,37**	0,73	21,3	95	3,5
	8,50	8,50	8,50	8,50	**1385,02**	**0,26**	**0,32**	0,72	21,3	95	3,5
	8,50	8,50	8,50	8,50	**1675,43**	**0,21**	**0,27**	0,72	20,7	95	3,5
	8,50	8,50	8,50	8,50	**2102,50**	**0,17**	**0,22**	0,70	20,4	95	3,5
	8,50	8,50	8,50	8,50	**2444,16**	**0,15**	**0,19**	0,68	18,5	95	3,5
	7,71	8,42	8,50	8,50	**2956,64**	**0,12**	**0,15**	0,65	15,3	95	3,5
PT2301L	**5,81**	7,16	9,42	11,6	**3,43**	**105**	**67**	0,95	9,7	48	14
RT2301L	**6,02**	7,41	9,76	12,0	**4,09**	**88**	**58**	0,95	10,0	50	14
	6,31	7,77	10,2	11,1	**5,25**	**69**	**48**	0,95	10,5	54	14
	6,50	7,49	7,99	8,50	**6,23**	**58**	**42**	0,94	10,8	57	14
PT2302L	**8,54**	9,03	9,33	9,48	**12,34**	**29**	**29**	0,91	14,2	70	8,5
RT2302L	**8,84**	10,8	11,1	11,3	**14,73**	**24**	**25**	0,91	14,7	74	8,5
	9,29	11,4	12,5	12,5	**17,39**	**21**	**22**	0,91	15,5	78	8,5
	9,95	10,8	11,1	11,3	**21,82**	**17**	**19**	0,91	16,6	83	8,5
	9,30	9,80	10,1	10,2	**25,36**	**14**	**15**	0,91	17,3	87	8,5
	10,5	11,3	11,5	12,4	**32,55**	**11**	**14**	0,90	18,2	94	8,5
	8,31	8,78	9,43	10,0	**39,38**	**9,1**	**8,8**	0,90	18,4	99	8,5
	8,05	9,00	10,4	11,5	**46,73**	**7,7**	**7,3**	0,89	18,3	105	8,5
PT2303L	**10,7**	11,0	11,5	11,8	**55,64**	**6,5**	**8,6**	0,84	21,9	103	3,5
RT2303L	**10,7**	11,0	11,5	11,8	**65,68**	**5,5**	**7,2**	0,85	23,0	103	3,5
	12,5	12,5	12,5	12,5	**71,72**	**5,0**	**7,8**	0,84	23,7	101	3,5
	12,5	12,5	12,5	12,5	**89,83**	**4,0**	**6,3**	0,84	25,3	101	3,5
	12,5	12,5	12,5	12,5	**104,32**	**3,5**	**5,4**	0,83	25,6	101	3,5
	12,5	12,5	12,5	12,5	**126,05**	**2,9**	**4,5**	0,83	25,6	101	3,5
	11,3	11,5	12,0	12,5	**158,18**	**2,3**	**3,2**	0,83	25,6	102	3,5
	11,8	12,5	12,5	12,5	**203,00**	**1,8**	**2,7**	0,82	26,7	102	3,5
	12,0	12,5	12,5	12,5	**235,99**	**1,5**	**2,3**	0,82	27,1	102	3,5
	9,54	10,7	12,5	12,5	**285,47**	**1,3**	**1,5**	0,82	21,4	104	3,5
	11,0	12,0	12,5	12,5	**338,80**	**1,1**	**1,5**	0,80	21,4	102	3,5
PT2304L	**10,2**	10,4	11,2	12,3	**210,18**	**1,7**	**2,4**	0,77	23,9	103	3,5
RT2304L	**11,1**	11,5	12,0	12,5	**248,13**	**1,5**	**2,2**	0,77	25,6	102	3,5
	12,5	12,5	12,5	12,5	**270,94**	**1,3**	**2,3**	0,77	25,6	101	3,5
	12,5	12,5	12,5	12,5	**295,84**	**1,2**	**2,1**	0,76	25,6	101	3,5
	12,5	12,5	12,5	12,5	**370,55**	**1,0**	**1,7**	0,76	25,6	101	3,5
	12,5	12,5	12,5	12,5	**430,31**	**0,84**	**1,5**	0,75	25,6	101	3,5
	12,5	12,5	12,5	12,5	**519,96**	**0,69**	**1,2**	0,74	25,6	101	3,5
	12,5	12,5	12,5	12,5	**651,26**	**0,55**	**1,0**	0,73	25,6	101	3,5
	12,5	12,5	12,5	12,5	**756,31**	**0,48**	**0,86**	0,73	25,6	101	3,5
	12,5	12,5	12,5	12,5	**913,87**	**0,39**	**0,72**	0,72	25,6	101	3,5
	12,5	12,5	12,5	12,5	**1172,80**	**0,31**	**0,57**	0,70	25,6	101	3,5
	12,5	12,5	12,5	12,5	**1471,75**	**0,24**	**0,46**	0,70	30,9	101	3,5
	12,5	12,5	12,5	12,5	**1710,91**	**0,21**	**0,40**	0,69	31,3	101	3,5
	12,5	12,5	12,5	12,5	**2069,65**	**0,17**	**0,33**	0,68	25,6	101	3,5
	12,5	12,5	12,5	12,5	**2456,29**	**0,15**	**0,29**	0,66	29,2	101	3,5



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=360

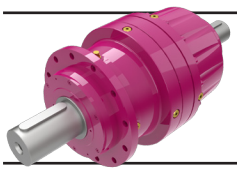
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
130,95	**4,5**	9,0 E1	26 R1	**3,1**	7,8 E1	20 R1	**8,0**	12 E1	29 R1	**5,6**	10 E1	21 R1	106	390
164,33	**4,3**	8,7 E1	25 R1	**3,0**	7,5 E1	19 R1	**7,7**	12 E1	28 R1	**5,3**	10 E1	21 R1	120	391
191,04	**4,2**	8,4 E1	24 R1	**2,9**	7,2 E1	18 R1	**7,4**	11 E1	27 R1	**5,1**	9,3 E1	20 R1		
231,09	**3,9**	7,8 E1	23 R1	**2,7**	6,9 E1	17 R1	**7,0**	11 E1	25 R1	**4,9**	8,7 E1	19 R1		
290,00	**3,7**	7,2 E1	21 R1	**2,5**	6,3 E1	16 R1	**6,5**	9,9 E1	23 R1	**4,5**	8,1 E1	18 R1		
337,13	**3,4**	6,9 E1	20 R1	**2,4**	6,0 E1	15 R1	**6,1**	9,3 E1	22 R1	**4,2**	7,5 E1	16 R1		
407,81	**3,1**	6,0 E1	18 R1	**2,1**	5,4 E1	13 R1	**5,4**	8,4 E1	20 R1	**3,8**	6,9 E1	15 R1		
281,47	**3,2**	6,3 E1	18 R1	**2,2**	5,4 E1	14 R1	**5,6**	8,4 E1	20 R1	**3,9**	6,9 E1	15 R1	111	390
307,34	**3,1**	6,3 E1	18 R1	**2,2**	5,4 E1	14 R1	**5,5**	8,4 E1	20 R1	**3,8**	6,9 E1	15 R1	126	391
384,96	**2,9**	5,7 E1	17 R1	**2,0**	5,1 E1	13 R1	**5,2**	7,8 E1	19 R1	**3,6**	6,3 E1	14 R1		
447,05	**2,8**	5,4 E1	16 R1	**1,9**	4,8 E1	12 R1	**4,9**	7,5 E1	18 R1	**3,4**	6,0 E1	13 R1		
540,18	**2,6**	5,1 E1	15 R1	**1,8**	4,5 E1	11 R1	**4,7**	7,2 E1	17 R1	**3,2**	5,7 E1	13 R1		
676,59	**2,5**	5,1 E1	14 R1	**1,7**	4,2 E1	11 R1	**4,4**	6,6 E1	16 R1	**3,1**	5,4 E1	12 R1		
785,72	**2,4**	4,8 E1	14 R1	**1,7**	4,2 E1	10 R1	**4,2**	6,3 E1	15 R1	**3,0**	5,4 E1	11 R1		
949,41	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1	**4,0**	6,0 E1	14 R1	**2,8**	5,1 E1	11 R1		
1191,42	**2,2**	4,2 E1	13 R1	**1,5**	3,9 E1	10 R1	**3,9**	6,0 E1	14 R1	**2,7**	4,8 E1	10 R1		
1385,02	**2,1**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1	**3,7**	5,7 E1	13 R1	**2,6**	4,5 E1	10 R1		
1675,43	**2,0**	3,9 E1	12 R1	**1,4**	3,6 E1	9,0 R1	**3,6**	5,4 E1	13 R1	**2,5**	4,5 E1	10 R1		
2102,50	**1,9**	3,6 E1	11 R1	**1,3**	3,3 E1	8,0 R1	**3,3**	5,1 E1	12 R1	**2,3**	4,2 E1	9,0 R1		
2444,16	**1,8**	3,6 E1	10 R1	**1,2**	3,0 E1	8,0 R1	**3,1**	4,8 E1	11 R1	**2,2**	3,9 E1	8,0 R1		
2956,64	**1,6**	3,3 E1	9,0 R1	**1,1**	2,7 E1	7,0 R1	**2,8**	4,2 E1	10 R1	**1,9**	3,6 E1	8,0 R1		
3,43	**20**	60 E2	121 R1	**14**	79 E3	90 R1	**37**	74 E2	134 R1	**25**	64 E2	99 R1	166	392
4,09	**20**	60 E2	122 R1	**14**	55 E2	91 R1	**37**	56 E1	135 R1	**25**	64 E2	100 R1	181	393
5,25	**18**	54 E2	109 R1	**12**	49 E2	81 R1	**33**	50 E1	120 R1	**23**	58 E2	89 R1		
6,23	**16**	48 E2	98 R1	**11**	44 E2	73 R1	**30**	45 E1	108 R1	**20**	37 E1	80 R1		
12,34	**9,8**	29 E2	58 R1	**6,8**	26 E2	43 R1	**18**	27 E1	64 R1	**12**	31 E2	48 R1	158	392
14,73	**9,9**	29 E2	58 R1	**6,9**	26 E2	44 R1	**18**	27 E1	64 R1	**12**	22 E1	48 R1	173	393
17,39	**9,8**	20 E1	58 R1	**6,8**	26 E2	43 R1	**18**	27 E1	64 R1	**12**	22 E1	47 R1		
21,82	**9,3**	19 E1	55 R1	**6,5**	25 E2	41 R1	**17**	26 E1	61 R1	**12**	21 E1	45 R1		
25,36	**9,0**	18 E1	53 R1	**6,2**	16 E1	40 R1	**16**	25 E1	58 R1	**11**	20 E1	43 R1		
32,55	**8,3**	17 E1	48 R1	**5,7**	14 E1	36 R1	**15**	23 E1	53 R1	**10**	18 E1	40 R1		
39,38	**7,8**	16 E1	46 R1	**5,4**	14 E1	34 R1	**14**	21 E1	50 R1	**10**	17 E1	37 R1		
46,73	**7,1**	14 E1	42 R1	**4,9**	12 E1	31 R1	**13**	20 E1	46 R1	**8,9**	16 E1	34 R1		
55,64	**5,2**	11 E1	31 R1	**3,6**	9,3 E1	24 R1	**9,3**	14 E1	34 R1	**6,5**	12 E1	41 R1	150	392
65,68	**5,2**	11 E1	31 R1	**3,6**	9,3 E1	23 R1	**9,2**	14 E1	34 R1	**6,4**	12 E1	25 R1	165	393
71,72	**5,1**	11 E1	31 R1	**3,5**	9,0 E1	23 R1	**9,1**	14 E1	34 R1	**6,3**	11 E1	25 R1		
89,83	**4,8**	10 E1	29 R1	**3,4**	8,7 E1	22 R1	**8,6**	13 E1	32 R1	**6,0**	11 E1	24 R1		
104,32	**4,6**	9,3 E1	28 R1	**3,2**	8,1 E1	21 R1	**8,2**	13 E1	31 R1	**5,7**	11 E1	23 R1		
126,05	**4,4**	9,0 E1	26 R1	**3,0**	7,8 E1	20 R1	**7,8**	12 E1	29 R1	**5,4**	10 E1	21 R1		
158,18	**4,2**	8,4 E1	25 R1	**2,9**	7,5 E1	19 R1	**7,4**	11 E1	28 R1	**5,2**	9,3 E1	21 R1		
203,00	**3,9**	7,8 E1	23 R1	**2,7**	6,9 E1	18 R1	**6,9**	11 E1	26 R1	**4,8**	8,7 E1	19 R1		
235,99	**3,7**	7,8 E1	23 R1	**2,6**	6,6 E1	17 R1	**6,7**	10 E1	25 R1	**4,6**	8,4 E1	18 R1		
285,47	**3,6**	7,2 E1	21 R1	**2,5**	6,3 E1	16 R1	**6,3**	9,9 E1	23 R1	**4,4**	8,1 E1	18 R1		
338,80	**3,3**	6,6 E1	20 R1	**2,3**	6,0 E1	15 R1	**5,9**	9,0 E1	22 R1	**4,1**	7,5 E1	16 R1		
210,18	**3,2**	6,6 E1	19 R1	**2,2**	5,7 E1	14 R1	**5,7**	8,7 E1	21 R1	**4,0**	7,2 E1	15 R1	156	392
248,13	**3,2**	6,3 E1	19 R1	**2,2**	5,7 E1	14 R1	**5,7**	8,7 E1	20 R1	**4,0**	7,2 E1	15 R1	171	393
270,94	**3,2**	6,3 E1	18 R1	**2,2**	5,4 E1	14 R1	**5,6**	8,4 E1	20 R1	**3,9**	6,9 E1	15 R1		
295,84	**3,1**	6,3 E1	18 R1	**2,2**	5,4 E1	14 R1	**5,5**	8,4 E1	20 R1	**3,8**	6,9 E1	15 R1		
370,55	**2,9**	5,7 E1	17 R1	**2,0**	5,1 E1	13 R1	**5,2**	7,8 E1	19 R1	**3,6**	6,3 E1	14 R1		
430,31	**2,8**	5,7 E1	16 R1	**1,9**	4,8 E1	12 R1	**4,9**	7,5 E1	18 R1	**3,4**	6,0 E1	13 R1		
519,96	**2,6**	5,1 E1	15 R1	**1,8**	4,5 E1	11 R1	**4,6**	7,2 E1	17 R1	**3,2**	5,7 E1	13 R1		
651,26	**2,5**	5,1 E1	14 R1	**1,7**	4,2 E1	11 R1	**4,4**	6,6 E1	16 R1	**3,1**	5,4 E1	12 R1		
756,31	**2,4**	4,8 E1	14 R1	**1,7**	4,2 E1	11 R1	**4,2**	6,3 E1	15 R1	**2,9**	5,4 E1	11 R1		
913,87	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1	**4,0**	6,0 E1	14 R1	**2,8**	5,1 E1	11 R1		
1172,80	**2,1**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1	**3,7**	5,7 E1	14 R1	**2,6**	4,8 E1	10 R1		
1471,75	**2,0**	4,2 E1	12 R1	**1,4**	3,6 E1	9,0 R1	**3,6**	5,4 E1	13 R1	**2,5**	4,5 E1	10 R1		
1710,91	**2,0**	3,9 E1	11 R1	**1,4**	3,3 E1	9,0 R1	**3,5**	5,4 E1	13 R1	**2,4**	4,2 E1	9,0 R1		
2069,65	**1,9**	3,6 E1	11 R1	**1,3**	3,3 E1	8,0 R1	**3,3**	5,1 E1	12 R1	**2,3**	4,2 E1	9,0 R1		
2456,29	**1,7**	3,6 E1	10 R1	**1,2**	3,0 E1	8,0 R1	**3,1**	4,8 E1	11 R1	**2,1**	3,9 E1	8,0 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2401L	**9,77**	12,0	15,8	19,5	**3,43**	**105**	**112**	0,96	16,3	48	14
RT2401L	**10,1**	12,5	16,4	19,7	**4,09**	**88**	**97**	0,96	16,8	50	14
	10,6	13,1	15,1	15,8	**5,25**	**69**	**80**	0,95	17,6	54	14
	9,74	10,1	10,6	11,2	**6,23**	**58**	**62**	0,95	18,2	57	14
PT2402L	**12,0**	14,8	17,0	17,1	**12,34**	**29**	**40**	0,91	20,0	70	8,5
RT2402L	**14,3**	17,6	20,0	20,0	**14,73**	**24**	**40**	0,91	23,8	74	8,5
	15,0	18,5	20,0	20,0	**17,39**	**21**	**36**	0,91	24,9	78	8,5
	15,6	18,7	19,0	19,2	**21,82**	**17**	**30**	0,91	26,0	83	8,5
	15,2	15,5	15,7	15,9	**25,36**	**14**	**25**	0,91	26,7	87	8,5
	15,1	16,0	16,3	17,6	**32,55**	**11**	**19**	0,91	30,0	94	8,5
	12,5	12,9	13,6	14,2	**39,38**	**9,1**	**13**	0,90	28,0	99	8,5
	10,8	11,8	13,5	14,8	**46,73**	**7,7**	**10**	0,90	24,9	103	8,5
PT2403L	**19,9**	20,0	20,0	20,0	**55,64**	**6,5**	**16**	0,85	30,0	85	3,5
RT2403L	**19,9**	20,0	20,0	20,0	**65,68**	**5,5**	**13**	0,85	30,0	85	3,5
	20,0	20,0	20,0	20,0	**71,72**	**5,0**	**12**	0,85	30,0	85	3,5
	20,0	20,0	20,0	20,0	**89,83**	**4,0**	**10**	0,85	30,0	85	3,5
	20,0	20,0	20,0	20,0	**104,32**	**3,5**	**8,6**	0,84	30,0	85	3,5
	20,0	20,0	20,0	20,0	**126,05**	**2,9**	**7,2**	0,84	30,0	85	3,5
	19,3	19,6	20,0	20,0	**158,18**	**2,3**	**5,5**	0,84	30,0	87	3,5
	16,7	18,0	19,9	20,0	**203,00**	**1,8**	**3,7**	0,83	30,0	95	3,5
	17,0	18,3	20,0	20,0	**235,99**	**1,5**	**3,3**	0,83	30,0	95	3,5
	13,7	14,9	17,2	18,8	**285,47**	**1,3**	**2,2**	0,83	30,0	99	3,5
	14,2	15,4	17,0	18,4	**338,80**	**1,1**	**1,9**	0,82	28,2	99	3,5
PT2404L	**16,0**	16,2	17,1	18,5	**210,18**	**1,7**	**3,7**	0,78	30,0	97	3,5
RT2404L	**20,0**	20,0	20,0	20,0	**248,13**	**1,5**	**3,9**	0,77	30,0	85	3,5
	20,0	20,0	20,0	20,0	**270,94**	**1,3**	**3,6**	0,77	30,0	85	3,5
	20,0	20,0	20,0	20,0	**295,84**	**1,2**	**3,3**	0,77	30,0	85	3,5
	20,0	20,0	20,0	20,0	**370,55**	**1,0**	**2,7**	0,76	30,0	85	3,5
	20,0	20,0	20,0	20,0	**430,31**	**0,84**	**2,3**	0,76	30,0	85	3,5
	20,0	20,0	20,0	20,0	**519,96**	**0,69**	**1,9**	0,75	30,0	85	3,5
	20,0	20,0	20,0	20,0	**651,26**	**0,55**	**1,6**	0,74	30,0	85	3,5
	20,0	20,0	20,0	20,0	**756,31**	**0,48**	**1,4**	0,74	30,0	85	3,5
	20,0	20,0	20,0	20,0	**913,87**	**0,39**	**1,1**	0,73	30,0	85	3,5
	20,0	20,0	20,0	20,0	**1172,80**	**0,31**	**0,90**	0,72	30,0	85	3,5
	20,0	20,0	20,0	20,0	**1471,75**	**0,24**	**0,72**	0,71	30,0	85	3,5
	20,0	20,0	20,0	20,0	**1710,91**	**0,21**	**0,62**	0,71	30,0	85	3,5
	18,1	19,7	20,0	20,0	**2069,65**	**0,17**	**0,47**	0,71	30,0	91	3,5
	17,8	19,2	20,0	20,0	**2456,29**	**0,15**	**0,40**	0,69	30,0	93	3,5
PT2701L	**15,5**	19,0	22,8	23,1	**4,09**	**88**	**150**	0,95	25,7	50	28
RT2701L	**16,3**	18,5	19,0	19,3	**5,25**	**69**	**123**	0,95	27,0	54	28
	12,6	13,1	13,8	14,5	**6,23**	**58**	**81**	0,94	27,8	57	28
PT2702L	**19,4**	23,2	23,6	23,9	**14,73**	**24**	**55**	0,91	32,3	74	15
RT2702L	**20,3**	23,2	23,7	24,0	**17,39**	**21**	**49**	0,91	33,8	77	15
	21,2	23,4	23,8	24,6	**21,82**	**17**	**40**	0,91	35,3	83	15
	21,4	22,5	23,8	25,0	**25,36**	**14**	**35**	0,90	36,2	87	15
	15,9	16,5	17,4	19,5	**30,68**	**12**	**22**	0,91	35,8	92	15
	19,4	19,6	20,3	21,9	**39,38**	**9,1**	**21**	0,90	45,4	99	15
	13,9	15,2	17,6	19,7	**46,73**	**7,7**	**13**	0,90	32,2	104	15
PT2703L	**24,0**	24,3	25,0	25,0	**53,02**	**6,8**	**20**	0,85	47,5	108	8,5
RT2703L	**24,1**	24,4	25,0	25,0	**62,59**	**5,8**	**17**	0,85	47,5	114	8,5
	24,2	24,5	25,0	25,0	**73,89**	**4,9**	**14**	0,85	52,2	119	8,5
	24,3	24,7	25,0	25,0	**92,73**	**3,9**	**12**	0,85	55,9	128	8,5
	24,4	25,0	25,0	25,0	**107,80**	**3,3**	**10**	0,84	58,5	128	8,5
	24,4	25,0	25,0	25,0	**130,40**	**2,8**	**8,4**	0,84	57,9	139	8,5
	24,6	25,0	25,0	25,0	**163,64**	**2,2**	**6,8**	0,84	58,2	130	8,5
	24,3	25,0	25,0	25,0	**190,23**	**1,9**	**5,8**	0,83	55,1	128	8,5
	17,6	19,1	22,1	24,7	**230,11**	**1,6**	**3,4**	0,84	40,7	140	8,5
	21,3	22,9	25,0	25,0	**295,31**	**1,2**	**3,3**	0,83	48,9	134	8,5
	19,0	21,0	23,5	25,0	**350,48**	**1,0**	**2,5**	0,82	36,6	138	8,5



Motorsuz Planet Redüktörler
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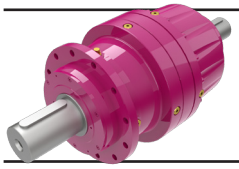
n_1=360

Çevrim Oranı *Ratio* Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim.Page* Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
3,43	**23**	154 E4	136 R1	**15,8**	149 E4	101 R1	**42**	109 E3	150 R1	**29**	158 E4	111 R1	195	394
4,09	**23**	94 E3	137 R1	**15,9**	89 E3	102 R1	**43**	110 E3	152 R1	**29**	99 E3	112 R1	210	395
5,25	**21**	85 E3	122 R1	**14,4**	79 E3	91 R1	**38**	76 E2	136 R1	**26**	88 E3	100 R1		
6,23	**19**	54 E2	109 R1	**12,9**	71 E3	82 R1	**34**	52 E1	121 R1	**24**	58 E2	90 R1		
12,34	**11**	45 E3	65 R1	**7,9**	42 E3	49 R1	**21**	40 E2	72 R1	**14**	47 E3	53 R1	199	394
14,73	**12**	45 E3	66 R1	**8,0**	43 E3	49 R1	**21**	41 E2	72 R1	**14**	35 E2	54 R1	215	395
17,39	**11**	32 E2	65 R1	**7,9**	42 E3	48 R1	**21**	31 E1	72 R1	**14**	35 E2	53 R1		
21,82	**11**	31 E2	62 R1	**7,5**	28 E2	46 R1	**20**	29 E1	68 R1	**14**	33 E2	51 R1		
25,36	**10**	30 E2	59 R1	**7,2**	27 E2	44 R1	**19**	28 E1	66 R1	**13**	23 E1	49 R1		
32,55	**9,6**	19 E1	54 R1	**6,6**	16 E1	41 R1	**17**	26 E1	60 R1	**12**	21 E1	45 R1		
39,38	**9,0**	18 E1	51 R1	**6,3**	15 E1	38 R1	**16**	24 E1	57 R1	**11**	20 E1	42 R1		
46,73	**8,3**	16 E1	47 R1	**5,7**	14 E1	35 R1	**15**	22 E1	52 R1	**10**	18 E1	39 R1		
55,64	**6,1**	17 E2	35 R1	**4,2**	16 E2	26 R1	**11**	17 E1	39 R1	**7,5**	14 E1	29 R1	195	394
65,68	**6,0**	12 E1	35 R1	**4,2**	11 E1	26 R1	**11**	16 E1	39 R1	**7,5**	13 E1	29 R1	210	395
71,72	**5,9**	12 E1	34 R1	**4,1**	10 E1	26 R1	**11**	16 E1	38 R1	**7,4**	13 E1	28 R1		
89,83	**5,6**	11 E1	33 R1	**3,9**	10 E1	24 R1	**10**	15 E1	36 R1	**7,0**	12 E1	27 R1		
104,32	**5,4**	11 E1	31 R1	**3,7**	9,3 E1	23 R1	**9,6**	14 E1	34 R1	**6,7**	12 E1	26 R1		
126,05	**5,1**	10 E1	29 R1	**3,5**	8,7 E1	22 R1	**9,0**	14 E1	32 R1	**6,3**	11 E1	24 R1		
158,18	**4,9**	10 E1	28 R1	**3,4**	8,4 E1	21 R1	**8,7**	13 E1	31 R1	**6,0**	11 E1	23 R1		
203,00	**4,5**	9,0 E1	26 R1	**3,1**	7,8 E1	20 R1	**8,1**	12 E1	29 R1	**5,6**	10 E1	22 R1		
235,99	**4,4**	8,7 E1	25 R1	**3,0**	7,5 E1	19 R1	**7,8**	12 E1	28 R1	**5,4**	10 E1	21 R1		
285,47	**4,1**	8,4 E1	24 R1	**2,9**	7,2 E1	18 R1	**7,4**	11 E1	26 R1	**5,1**	9,0 E1	20 R1		
338,80	**3,8**	7,8 E1	22 R1	**2,7**	6,6 E1	17 R1	**6,8**	11 E1	24 R1	**4,8**	8,4 E1	18 R1		
210,18	**3,7**	7,2 E1	21 R1	**2,6**	6,3 E1	16 R1	**6,6**	9,9 E1	23 R1	**4,6**	8,1 E1	17 R1	201	394
248,13	**3,7**	7,2 E1	21 R1	**2,6**	6,3 E1	16 R1	**6,5**	9,9 E1	23 R1	**4,6**	8,1 E1	17 R1	216	395
270,94	**3,6**	7,2 E1	20 R1	**2,5**	6,0 E1	15 R1	**6,5**	9,6 E1	23 R1	**4,5**	7,8 E1	17 R1		
295,84	**3,6**	6,9 E1	20 R1	**2,5**	6,0 E1	15 R1	**6,3**	9,6 E1	22 R1	**4,4**	7,8 E1	16 R1		
370,55	**3,3**	6,6 E1	19 R1	**2,3**	5,7 E1	14 R1	**5,9**	9,0 E1	21 R1	**4,1**	7,2 E1	15 R1		
430,31	**3,2**	6,3 E1	18 R1	**2,2**	5,4 E1	14 R1	**5,7**	8,4 E1	20 R1	**4,0**	6,9 E1	15 R1		
519,96	**3,0**	6,0 E1	17 R1	**2,1**	5,1 E1	13 R1	**5,3**	8,1 E1	19 R1	**3,7**	6,6 E1	14 R1		
651,26	**2,9**	5,7 E1	16 R1	**2,0**	4,8 E1	12 R1	**5,1**	7,5 E1	18 R1	**3,5**	6,3 E1	13 R1		
756,31	**2,7**	5,4 E1	15 R1	**1,9**	4,8 E1	12 R1	**4,9**	7,2 E1	17 R1	**3,4**	6,0 E1	13 R1		
913,87	**2,6**	5,1 E1	15 R1	**1,8**	4,5 E1	11 R1	**4,6**	6,9 E1	16 R1	**3,2**	5,7 E1	12 R1		
1172,80	**2,4**	4,8 E1	14 R1	**1,7**	4,2 E1	10 R1	**4,3**	6,6 E1	15 R1	**3,0**	5,4 E1	11 R1		
1471,75	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1	**4,1**	6,3 E1	15 R1	**2,9**	5,1 E1	11 R1		
1710,91	**2,3**	4,5 E1	13 R1	**1,6**	3,9 E1	10 R1	**4,0**	6,0 E1	14 R1	**2,8**	4,8 E1	11 R1		
2069,65	**2,2**	4,2 E1	12 R1	**1,5**	3,6 E1	9,0 R1	**3,8**	5,7 E1	13 R1	**2,7**	4,8 E1	10 R1		
2456,29	**2,0**	3,9 E1	11 R1	**1,4**	3,3 E1	9,0 R1	**3,5**	5,4 E1	12 R1	**2,5**	4,5 E1	9,0 R1		
4,09	**23**	147 E4	184 R2	**15**	142 E4	137 R2	**42**	162 E4	145 R1	**29**	152 E4	147 R2	243	396
5,25	**21**	134 E4	118 R1	**14**	130 E4	125 R2	**39**	148 E4	132 R1	**26**	138 E4	134 R2	308	397
6,23	**19**	120 E4	106 R1	**13**	116 E4	79 R1	**35**	67 E2	118 R1	**24**	77 E3	87 R1		
14,73	**12**	75 E4	67 R1	**8,5**	73 E4	50 R1	**23**	55 E3	75 R1	**16**	49 E3	55 R1	243	396
17,39	**12**	46 E3	66 R1	**8,4**	43 E3	49 R1	**22**	54 E3	74 R1	**15**	48 E3	54 R1	308	397
21,82	**12**	43 E3	63 R1	**8,0**	41 E3	47 R1	**21**	40 E2	70 R1	**15**	46 E3	52 R1		
25,36	**11**	30 E2	60 R1	**7,7**	39 E3	45 R1	**20**	30 E1	67 R1	**14**	33 E2	50 R1		
30,68	**11**	20 E1	57 R1	**7,3**	26 E2	43 R1	**19**	28 E1	64 R1	**13**	23 E1	47 R1		
39,38	**9,9**	19 E1	53 R1	**6,8**	24 E2	39 R1	**18**	26 E1	59 R1	**12**	21 E1	44 R1		
46,73	**9,1**	17 E1	48 R1	**6,2**	15 E1	36 R1	**16**	24 E1	54 R1	**11**	19 E1	40 R1		
53,02	**7,4**	20 E2	38 R1	**5,1**	17 E2	29 R1	**13**	19 E1	43 R1	**9,2**	21 E2	32 R1	245	396
62,59	**7,3**	14 E1	38 R1	**5,1**	17 E2	28 R1	**13**	19 E1	42 R1	**9,1**	15 E1	31 R1	310	397
73,89	**7,1**	13 E1	37 R1	**4,9**	17 E2	28 R1	**13**	18 E1	41 R1	**8,9**	15 E1	31 R1		
92,73	**6,7**	12 E1	35 R1	**4,7**	11 E1	26 R1	**12**	17 E1	39 R1	**8,4**	14 E1	29 R1		
107,80	**6,4**	12 E1	33 R1	**4,5**	10 E1	25 R1	**12**	17 E1	37 R1	**8,0**	13 E1	28 R1		
130,40	**6,1**	11 E1	31 R1	**4,2**	10 E1	24 R1	**11**	16 E1	35 R1	**7,6**	13 E1	26 R1		
163,64	**5,8**	11 E1	30 R1	**4,0**	9,3 E1	23 R1	**10**	15 E1	34 R1	**7,2**	12 E1	25 R1		
190,23	**5,6**	11 E1	29 R1	**3,9**	9,0 E1	22 R1	**10**	14 E1	32 R1	**7,0**	12 E1	24 R1		
230,11	**5,4**	10 E1	28 R1	**3,7**	8,4 E1	21 R1	**9,6**	14 E1	31 R1	**6,7**	11 E1	23 R1		
295,31	**5,0**	9,3 E1	26 R1	**3,5**	7,8 E1	19 R1	**8,9**	13 E1	29 R1	**6,2**	10 E1	21 R1		
350,48	**4,6**	8,4 E1	24 R1	**3,2**	7,2 E1	18 R1	**8,2**	12 E1	26 R1	**5,7**	10 E1	20 R1		



Motorsuz Planet Redüktörler
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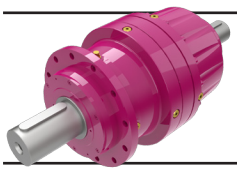
n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2704L	**24,3**	25,0	25,0	25,0	**200,29**	**1,8**	**5,9**	0,77	55,1	128	3,5
RT2704L	**25,0**	25,0	25,0	25,0	**236,45**	**1,5**	**5,1**	0,78	58,6	127	3,5
	25,0	25,0	25,0	25,0	**279,15**	**1,3**	**4,3**	0,78	58,8	127	3,5
	25,0	25,0	25,0	25,0	**304,80**	**1,2**	**4,0**	0,77	58,9	127	3,5
	25,0	25,0	25,0	25,0	**381,78**	**0,94**	**3,2**	0,77	59,2	127	3,5
	25,0	25,0	25,0	25,0	**443,35**	**0,81**	**2,8**	0,76	59,4	127	3,5
	25,0	25,0	25,0	25,0	**535,72**	**0,67**	**2,3**	0,75	59,6	127	3,5
	25,0	25,0	25,0	25,0	**672,27**	**0,54**	**1,9**	0,75	59,9	127	3,5
	25,0	25,0	25,0	25,0	**781,52**	**0,46**	**1,6**	0,74	60,0	127	3,5
	25,0	25,0	25,0	25,0	**945,38**	**0,38**	**1,4**	0,73	61,0	127	3,5
	25,0	25,0	25,0	25,0	**1186,36**	**0,30**	**1,1**	0,73	62,5	127	3,5
	25,0	25,0	25,0	25,0	**1379,15**	**0,26**	**0,94**	0,73	62,5	127	3,5
	23,3	25,0	25,0	25,0	**1668,32**	**0,22**	**0,73**	0,72	45,9	128	3,5
	25,0	25,0	25,0	25,0	**2141,02**	**0,17**	**0,62**	0,71	55,7	127	3,5
	24,6	25,0	25,0	25,0	**2540,99**	**0,14**	**0,53**	0,69	50,1	127	3,5
PT2901L	**16,9**	20,9	27,5	33,8	**4,09**	**88**	**164**	0,95	44,7	61	20
RT2901L	**17,8**	21,9	26,1	27,5	**5,25**	**69**	**135**	0,95	47,0	65	20
	18,4	20,2	21,3	22,4	**6,23**	**58**	**118**	0,95	48,5	69	20
PT2902L	**23,8**	29,3	34,9	35,0	**14,03**	**26**	**70**	0,91	39,6	88	14
RT2902L	**24,6**	30,3	35,0	35,0	**16,74**	**22**	**61**	0,91	41,0	92	14
	25,8	31,8	35,0	35,0	**21,48**	**17**	**50**	0,91	43,0	99	14
	26,6	30,6	32,7	34,8	**25,49**	**14**	**43**	0,91	44,3	104	14
	25,9	28,0	30,8	33,1	**32,71**	**11**	**33**	0,90	51,2	113	14
	26,2	28,7	31,4	33,7	**38,82**	**9,3**	**28**	0,90	49,2	119	14
PT2903L	**34,8**	35,0	35,0	35,0	**50,49**	**7,1**	**31**	0,85	58,1	129	8,5
RT2903L	**35,0**	35,0	35,0	35,0	**71,13**	**5,1**	**22**	0,85	63,2	142	8,5
	35,0	35,0	35,0	35,0	**89,26**	**4,0**	**17**	0,85	67,7	152	8,5
	35,0	35,0	35,0	35,0	**103,76**	**3,5**	**15**	0,84	70,8	159	8,5
	28,3	28,3	28,3	28,3	**125,52**	**2,9**	**10**	0,84	70,8	168	8,5
	34,0	35,0	35,0	35,0	**161,08**	**2,2**	**9,5**	0,84	75,1	168	8,5
	32,9	35,0	35,0	35,0	**191,17**	**1,9**	**7,8**	0,83	74,9	168	8,5
	32,2	34,7	35,0	35,0	**245,34**	**1,5**	**6,0**	0,83	67,4	168	8,5
	32,9	35,0	35,0	35,0	**291,17**	**1,2**	**5,2**	0,82	54,9	168	8,5
PT2904L	**35,0**	35,0	35,0	35,0	**190,75**	**1,9**	**9,0**	0,77	86,7	168	3,5
RT2904L	**35,0**	35,0	35,0	35,0	**227,60**	**1,6**	**7,5**	0,77	87,0	168	3,5
	35,0	35,0	35,0	35,0	**268,70**	**1,3**	**6,3**	0,77	87,3	168	3,5
	35,0	35,0	35,0	35,0	**293,39**	**1,2**	**5,8**	0,77	87,4	168	3,5
	35,0	35,0	35,0	35,0	**367,48**	**0,98**	**4,7**	0,77	87,5	168	3,5
	35,0	35,0	35,0	35,0	**426,76**	**0,84**	**4,1**	0,76	87,5	168	3,5
	35,0	35,0	35,0	35,0	**515,66**	**0,70**	**3,4**	0,75	87,5	168	3,5
	35,0	35,0	35,0	35,0	**647,11**	**0,56**	**2,7**	0,74	87,5	168	3,5
	35,0	35,0	35,0	35,0	**752,26**	**0,48**	**2,4**	0,74	87,5	168	3,5
	35,0	35,0	35,0	35,0	**909,99**	**0,40**	**2,0**	0,73	87,5	168	3,5
	35,0	35,0	35,0	35,0	**1167,83**	**0,31**	**1,6**	0,73	87,5	168	3,5
	35,0	35,0	35,0	35,0	**1385,99**	**0,26**	**1,3**	0,72	87,4	168	3,5
	35,0	35,0	35,0	35,0	**1778,69**	**0,20**	**1,0**	0,71	84,3	168	3,5
	33,3	35,0	35,0	35,0	**2110,97**	**0,17**	**0,85**	0,70	71,1	168	3,5
PT3501L	**24,8**	30,5	40,1	47,4	**4,14**	**87**	**237**	0,95	65,4	74	20
RT3501L	**25,8**	29,5	31,1	32,8	**5,40**	**67**	**190**	0,95	68,2	80	20
	19,4	20,2	21,3	22,3	**6,50**	**55**	**119**	0,95	48,6	84	20
PT3502L	**35,8**	44,1	50,0	50,0	**14,20**	**25**	**105**	0,91	59,6	106	14
RT3502L	**37,8**	45,1	50,0	50,0	**16,95**	**21**	**92**	0,91	62,8	112	14
	40,7	46,8	50,0	50,0	**21,75**	**17**	**78**	0,91	67,7	121	14
	40,3	41,9	44,1	46,3	**25,81**	**14**	**65**	0,91	71,3	127	14
	30,9	33,4	38,8	42,2	**33,65**	**11**	**38**	0,91	71,9	138	14
	21,3	22,9	26,5	29,5	**40,50**	**8,9**	**22**	0,91	49,3	145	14



Motorsuz Planet Redüktörler
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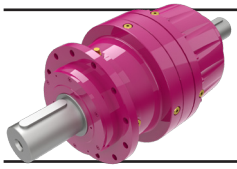
n_1=360

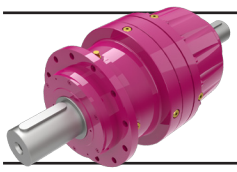
Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
200,29	**4,5**	8,1 E1	22 R1	**3,1**	6,9 E1	17 R1	**8,0**	11 E1	25 R1	**5,5**	9,0 E1	19 R1	237	396
236,45	**4,4**	8,1 E1	22 R1	**3,1**	6,9 E1	17 R1	**7,9**	11 E1	25 R1	**5,5**	9,0 E1	19 R1	302	397
279,15	**4,3**	7,8 E1	22 R1	**3,0**	6,6 E1	16 R1	**7,7**	11 E1	24 R1	**5,3**	8,7 E1	18 R1		
304,80	**4,2**	7,8 E1	21 R1	**2,9**	6,6 E1	16 R1	**7,6**	11 E1	24 R1	**5,2**	8,7 E1	18 R1		
381,78	**4,0**	7,2 E1	20 R1	**2,8**	6,3 E1	15 R1	**7,1**	10 E1	22 R1	**4,9**	8,1 E1	17 R1		
443,35	**3,8**	6,9 E1	19 R1	**2,7**	6,0 E1	14 R1	**6,8**	9,6 E1	21 R1	**4,7**	7,8 E1	16 R1		
535,72	**3,6**	6,6 E1	18 R1	**2,5**	5,7 E1	14 R1	**6,4**	9,0 E1	20 R1	**4,5**	7,2 E1	15 R1		
672,27	**3,4**	6,3 E1	17 R1	**2,4**	5,4 E1	13 R1	**6,1**	8,7 E1	19 R1	**4,2**	6,9 E1	14 R1		
781,52	**3,3**	6,0 E1	16 R1	**2,3**	5,1 E1	12 R1	**5,8**	8,4 E1	18 R1	**4,1**	6,6 E1	14 R1		
945,38	**3,1**	5,7 E1	16 R1	**2,2**	4,8 E1	12 R1	**5,5**	7,8 E1	17 R1	**3,8**	6,3 E1	13 R1		
1186,36	**3,0**	5,4 E1	15 R1	**2,1**	4,8 E1	11 R1	**5,3**	7,5 E1	17 R1	**3,7**	6,0 E1	13 R1		
1379,15	**2,9**	5,4 E1	15 R1	**2,0**	4,5 E1	11 R1	**5,1**	7,2 E1	16 R1	**3,6**	6,0 E1	12 R1		
1668,32	**2,8**	5,1 E1	14 R1	**1,9**	4,2 E1	10 R1	**4,9**	6,9 E1	15 R1	**3,4**	5,7 E1	12 R1		
2141,02	**2,6**	4,8 E1	13 R1	**1,8**	3,9 E1	10 R1	**4,6**	6,6 E1	14 R1	**3,2**	5,4 E1	11 R1		
2540,99	**2,4**	4,5 E1	12 R1	**1,7**	3,6 E1	9,0 R1	**4,2**	6,0 E1	13 R1	**2,9**	4,8 E1	10 R1		
4,09	**27**	277 E5	326 R3	**19**	379 E6	326 R4	**51**	294 E5	342 R3	**34**	282 E5	336 R4	287	398
5,25	**25**	252 E5	183 R2	**17**	247 E5	221 R3	**46**	267 E5	199 R2	**32**	257 E5	231 R3	359	399
6,23	**23**	135 E4	119 R1	**16**	130 E4	124 R2	**43**	150 E4	134 R1	**29**	139 E4	134 R2		
14,03	**15**	137 E5	100 R2	**10**	134 E5	121 R3	**27**	91 E4	110 R2	**19**	140 E5	127 R3	325	398
16,74	**15**	81 E4	72 R1	**10**	78 E4	75 R2	**27**	91 E4	81 R1	**19**	84 E4	81 R2	397	399
21,48	**14**	77 E4	68 R1	**10**	74 E4	71 R2	**26**	58 E3	77 R1	**18**	80 E4	77 R2		
25,49	**14**	74 E4	65 R1	**9,3**	71 E4	49 R1	**25**	55 E3	74 R1	**17**	49 E3	55 R1		
32,71	**13**	43 E3	61 R1	**8,7**	40 E3	45 R1	**23**	41 E2	69 R1	**16**	45 E3	51 R1		
38,82	**12**	40 E3	56 R1	**8,1**	37 E3	42 R1	**21**	30 E1	64 R1	**15**	32 E2	47 R1		
50,49	**8,8**	29 E3	40 R1	**6,0**	27 E3	30 R1	**16**	28 E2	46 R1	**11**	30 E3	46 R2	317	398
71,13	**8,5**	21 E2	39 R1	**5,9**	19 E2	29 R1	**15**	21 E1	45 R1	**11**	23 E2	33 R1	390	399
89,26	**8,0**	20 E2	37 R1	**5,5**	18 E2	28 R1	**15**	20 E1	42 R1	**10**	16 E1	31 R1		
103,76	**7,7**	14 E1	36 R1	**5,3**	17 E2	27 R1	**14**	19 E1	40 R1	**10**	15 E1	30 R1		
125,52	**7,3**	13 E1	34 R1	**5,0**	11 E1	25 R1	**13**	18 E1	38 R1	**9,1**	15 E1	28 R1		
161,08	**7,0**	12 E1	32 R1	**4,8**	11 E1	24 R1	**13**	18 E1	37 R1	**8,7**	14 E1	27 R1		
191,17	**6,7**	12 E1	31 R1	**4,6**	10 E1	23 R1	**12**	17 E1	35 R1	**8,4**	13 E1	26 R1		
245,34	**6,3**	11 E1	29 R1	**4,3**	10 E1	22 R1	**11**	16 E1	33 R1	**7,8**	13 E1	24 R1		
291,17	**5,9**	11 E1	27 R1	**4,1**	9,0 E1	20 R1	**11**	15 E1	31 R1	**7,3**	12 E1	23 R1		
190,75	**5,3**	9,0 E1	24 R1	**3,7**	8,0 E1	18 R1	**9,5**	13 E1	27 R1	**6,6**	11 E1	20 R1	309	398
227,60	**5,3**	9,0 E1	24 R1	**3,7**	8,0 E1	18 R1	**9,5**	13 E1	27 R1	**6,6**	11 E1	20 R1	382	399
268,70	**5,2**	9,0 E1	23 R1	**3,6**	8,0 E1	17 R1	**9,3**	13 E1	26 R1	**6,4**	10 E1	20 R1		
293,39	**5,1**	9,0 E1	23 R1	**3,5**	8,0 E1	17 R1	**9,1**	13 E1	26 R1	**6,3**	10 E1	19 R1		
367,48	**4,8**	8,0 E1	21 R1	**3,3**	7,0 E1	16 R1	**8,5**	12 E1	24 R1	**5,9**	10 E1	18 R1		
426,76	**4,6**	8,0 E1	20 R1	**3,2**	7,0 E1	15 R1	**8,2**	11 E1	23 R1	**5,7**	9,0 E1	17 R1		
515,66	**4,3**	8,0 E1	19 R1	**3,0**	7,0 E1	14 R1	**7,7**	11 E1	22 R1	**5,3**	9,0 E1	16 R1		
647,11	**4,1**	7,0 E1	18 R1	**2,8**	6,0 E1	14 R1	**7,3**	10 E1	21 R1	**5,1**	8,0 E1	15 R1		
752,26	**3,9**	7,0 E1	18 R1	**2,7**	6,0 E1	13 R1	**7,0**	10 E1	20 R1	**4,9**	8,0 E1	15 R1		
909,99	**3,7**	7,0 E1	17 R1	**2,6**	6,0 E1	13 R1	**6,6**	9,0 E1	19 R1	**4,6**	8,0 E1	14 R1		
1167,83	**3,6**	6,0 E1	16 R1	**2,5**	6,0 E1	12 R1	**6,4**	9,0 E1	18 R1	**4,4**	7,0 E1	14 R1		
1385,99	**3,5**	6,0 E1	15 R1	**2,4**	5,0 E1	12 R1	**6,2**	9,0 E1	18 R1	**4,3**	7,0 E1	13 R1		
1778,69	**3,2**	6,0 E1	15 R1	**2,3**	5,0 E1	11 R1	**5,8**	8,0 E1	17 R1	**4,0**	7,0 E1	12 R1		
2110,97	**3,1**	6,0 E1	14 R1	**2,1**	5,0 E1	10 R1	**5,4**	8,0 E1	16 R1	**3,8**	6,0 E1	12 R1		
4,14	**31**	284 E5	335 R3	**21**	278 E5	249 R3	**56**	303 E5	227 R2	**38**	290 E5	262 R3	357	400
5,40	**29**	263 E5	192 R2	**19**	257 E5	231 R3	**53**	174 E4	210 R2	**36**	268 E5	242 R3	444	401
6,50	**26**	138 E4	122 R1	**17**	132 E4	127 R2	**47**	103 E3	139 R1	**32**	143 E4	102 R1		
14,20	**18**	146 E5	107 R2	**12**	142 E5	128 R3	**32**	98 E4	118 R2	**22**	149 E5	135 R3	422	400
16,95	**18**	86 E4	106 R2	**12**	82 E4	127 R3	**32**	97 E4	88 R1	**22**	89 E4	87 R2	509	401
21,75	**17**	82 E4	73 R1	**11**	78 E4	76 R2	**30**	93 E4	84 R1	**21**	85 E4	83 R2		
25,81	**16**	79 E4	70 R1	**11**	75 E4	72 R2	**29**	60 E3	80 R1	**20**	82 E4	59 R1		
33,65	**15**	35 E2	65 R1	**10**	43 E3	49 R1	**27**	45 E2	75 R1	**19**	38 E2	55 R1		
40,50	**14**	23 E1	59 R1	**9,4**	19 E1	44 R1	**25**	33 E1	68 R1	**17**	26 E1	50 R1		



Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3503L **RT3503L**	**47,8**	50,0	50,0	50,0	**51,13**	**7,0**	**42**	0,85	82,7	156	8,5
	50,0	50,0	50,0	50,0	**72,03**	**5,0**	**31**	0,85	97,0	173	8,5
	50,0	50,0	50,0	50,0	**90,39**	**4,0**	**25**	0,85	104	185	8,5
	50,0	50,0	50,0	50,0	**105,08**	**3,4**	**21**	0,84	109	193	8,5
	50,0	50,0	50,0	50,0	**127,11**	**2,8**	**18**	0,84	111	205	8,5
	50,0	50,0	50,0	50,0	**163,13**	**2,2**	**14**	0,84	112	221	8,5
	44,6	48,7	50,0	50,0	**193,60**	**1,9**	**10**	0,84	103	232	8,5
	40,9	44,3	49,2	50,0	**252,35**	**1,4**	**7,3**	0,83	80,3	251	8,5
	28,0	31,3	36,2	40,5	**303,75**	**1,2**	**4,2**	0,83	55,0	266	8,5
PT3504L **RT3504L**	**50,0**	50,0	50,0	50,0	**193,18**	**1,9**	**13**	0,77	115	232	3,5
	50,0	50,0	50,0	50,0	**230,49**	**1,6**	**11**	0,78	119	245	3,5
	50,0	50,0	50,0	50,0	**272,11**	**1,3**	**8,9**	0,78	122	256	3,5
	50,0	50,0	50,0	50,0	**297,12**	**1,2**	**8,2**	0,77	124	256	3,5
	50,0	50,0	50,0	50,0	**372,15**	**1,0**	**6,6**	0,77	128	256	3,5
	50,0	50,0	50,0	50,0	**432,18**	**0,83**	**5,7**	0,76	129	256	3,5
	50,0	50,0	50,0	50,0	**522,21**	**0,69**	**4,8**	0,75	129	256	3,5
	50,0	50,0	50,0	50,0	**655,32**	**0,55**	**3,9**	0,75	130	256	3,5
	50,0	50,0	50,0	50,0	**761,81**	**0,47**	**3,3**	0,74	130	256	3,5
	50,0	50,0	50,0	50,0	**921,55**	**0,39**	**2,8**	0,73	132	256	3,5
	50,0	50,0	50,0	50,0	**1182,66**	**0,30**	**2,2**	0,73	132	256	3,5
	50,0	50,0	50,0	50,0	**1403,59**	**0,26**	**1,9**	0,73	117	256	3,5
	50,0	50,0	50,0	50,0	**1829,51**	**0,20**	**1,4**	0,72	107	256	3,5
	38,2	42,8	49,8	50,0	**2202,19**	**0,16**	**0,92**	0,71	75,0	268	3,5



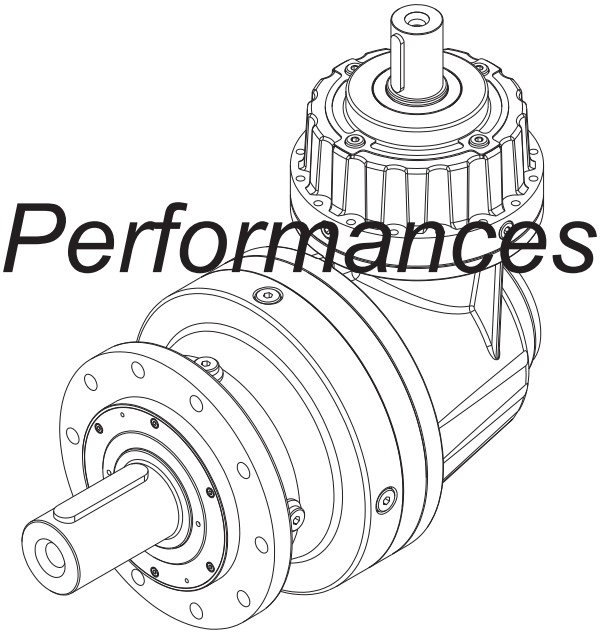
Motorsuz Planet Redüktörler
Planetary Gear Units
Planetengetriebe

n_1=360

Çevrim Oranı / *Ratio* / Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
51,13	**11**	49 E4	44 R1	**7,3**	47 E4	46 R2	**19**	38 E3	51 R1	**13**	51 E4	37 R1	427	400
72,03	**10**	30 E3	43 R1	**7,0**	28 E3	32 R1	**18**	30 E2	49 R1	**13**	32 E3	36 R1	513	401
90,39	**9,6**	21 E2	40 R1	**6,6**	26 E3	30 R1	**17**	23 E1	46 R1	**12**	23 E2	34 R1		
105,08	**9,2**	20 E2	39 R1	**6,4**	18 E2	29 R1	**17**	22 E1	44 R1	**12**	23 E2	33 R1		
127,11	**8,7**	19 E2	36 R1	**6,0**	17 E2	27 R1	**16**	21 E1	42 R1	**11**	16 E1	31 R1		
163,13	**8,4**	14 E1	35 R1	**5,8**	11 E1	26 R1	**15**	20 E1	40 R1	**10**	16 E1	30 R1		
193,60	**8,0**	13 E1	33 R1	**5,5**	11 E1	25 R1	**14**	19 E1	39 R1	**10**	15 E1	28 R1		
252,35	**7,6**	12 E1	32 R1	**5,2**	10 E1	24 R1	**14**	18 E1	36 R1	**9,4**	14 E1	27 R1		
303,75	**7,0**	11 E1	29 R1	**4,8**	10 E1	22 R1	**13**	17 E1	33 R1	**8,7**	13 E1	25 R1		
193,18	**6,4**	11 E1	26 R1	**4,5**	12 E2	19 R1	**12**	15 E1	30 R1	**8,0**	12 E1	22 R1	423	400
230,49	**6,4**	10 E1	26 R1	**4,4**	8,7 E1	19 R1	**12**	15 E1	30 R1	**7,9**	12 E1	22 R1	509	401
272,11	**6,2**	10 E1	25 R1	**4,3**	8,4 E1	19 R1	**11**	15 E1	29 R1	**7,8**	11 E1	22 R1		
297,12	**6,1**	10 E1	25 R1	**4,2**	8,1 E1	19 R1	**11**	14 E1	29 R1	**7,6**	11 E1	21 R1		
372,15	**5,8**	9,3 E1	23 R1	**4,0**	7,8 E1	17 R1	**10**	14 E1	27 R1	**7,2**	11 E1	20 R1		
432,18	**5,5**	9,0 E1	22 R1	**3,8**	7,5 E1	17 R1	**9,9**	13 E1	26 R1	**6,8**	10 E1	19 R1		
522,21	**5,2**	8,4 E1	21 R1	**3,6**	6,9 E1	16 R1	**9,3**	12 E1	24 R1	**6,5**	10 E1	18 R1		
655,32	**4,9**	8,1 E1	20 R1	**3,4**	6,6 E1	15 R1	**8,8**	12 E1	23 R1	**6,1**	9,0 E1	17 R1		
761,81	**4,7**	7,8 E1	19 R1	**3,3**	6,3 E1	14 R1	**8,5**	11 E1	22 R1	**5,9**	8,7 E1	16 R1		
921,55	**4,5**	7,2 E1	18 R1	**3,1**	6,0 E1	14 R1	**8,0**	11 E1	21 R1	**5,6**	8,1 E1	16 R1		
1182,66	**4,3**	6,9 E1	17 R1	**3,0**	5,7 E1	13 R1	**7,7**	10 E1	20 R1	**5,3**	7,8 E1	15 R1		
1403,59	**4,2**	6,6 E1	17 R1	**2,9**	5,7 E1	13 R1	**7,4**	9,9 E1	19 R1	**5,1**	7,5 E1	14 R1		
1829,51	**3,9**	6,3 E1	16 R1	**2,7**	5,4 E1	12 R1	**7,0**	9,3 E1	18 R1	**4,9**	7,2 E1	14 R1		
2202,19	**3,6**	6,0 E1	15 R1	**2,5**	4,8 E1	11 R1	**6,5**	8,4 E1	17 R1	**4,5**	6,6 E1	13 R1		

Notlar / *Notes* / Notizen

Güç ve Devir Tabloları



Performances

Leistung und Drehzahlübersicht

Motorsuz Konik Girişli Planet Redüktörler

Planetary Gear Units with Bevel Stage Input

Planetengetriebe mit Kegelradvorstufe

n_1=1450

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1102K	**0,75**	0,93	1,00	1,00	**6,85**	**212**	**18**	0,94	1,20	12	2,1
RT1102K	**0,77**	0,95	1,00	1,00	**7,48**	**194**	**17**	0,94	1,20	12	2,1
	0,80	0,98	1,00	1,00	**9,36**	**155**	**14**	0,94	1,20	13	2,1
	0,79	0,83	0,88	0,93	**10,88**	**133**	**12**	0,93	1,20	13	2,1
	0,60	0,63	0,67	0,70	**13,14**	**110**	**7,4**	0,93	1,20	14	2,1
PT1103K	**1,00**	1,00	1,00	1,00	**25,87**	**56**	**6,6**	0,90	1,20	17	2,1
RT1103K	**1,00**	1,00	1,00	1,00	**28,24**	**51**	**6,0**	0,89	1,20	18	2,1
	1,00	1,00	1,00	1,00	**30,84**	**47**	**5,5**	0,90	1,20	18	2,1
	1,00	1,00	1,00	1,00	**38,63**	**38**	**4,4**	0,90	1,20	19	2,1
	1,00	1,00	1,00	1,00	**44,86**	**32**	**3,8**	0,90	1,20	20	2,1
	1,00	1,00	1,00	1,00	**54,21**	**27**	**3,1**	0,90	1,20	21	2,1
	1,00	1,00	1,00	1,00	**67,89**	**21**	**2,5**	0,89	1,20	23	2,1
	0,89	0,93	1,00	1,00	**78,84**	**18**	**1,9**	0,88	1,20	24	2,1
	0,68	0,71	0,81	0,94	**95,27**	**15**	**1,2**	0,87	1,20	25	2,1
PT1104K	**1,00**	1,00	1,00	1,00	**106,70**	**14**	**1,7**	0,82	1,20	26	2,1
RT1104K	**1,00**	1,00	1,00	1,00	**116,51**	**12**	**1,6**	0,82	1,20	27	2,1
	1,00	1,00	1,00	1,00	**127,22**	**11**	**1,5**	0,82	1,20	28	2,1
	1,00	1,00	1,00	1,00	**159,34**	**9,1**	**1,1**	0,83	1,20	30	2,1
	1,00	1,00	1,00	1,00	**185,04**	**7,8**	**0,99**	0,83	1,20	31	2,1
	1,00	1,00	1,00	1,00	**223,60**	**6,5**	**0,81**	0,83	1,20	34	2,1
	1,00	1,00	1,00	1,00	**280,06**	**5,2**	**0,66**	0,83	1,20	35	2,1
	1,00	1,00	1,00	1,00	**325,23**	**4,5**	**0,57**	0,82	1,20	37	2,1
	1,00	1,00	1,00	1,00	**392,99**	**3,7**	**0,48**	0,81	1,20	40	2,1
	1,00	1,00	1,00	1,00	**492,23**	**2,9**	**0,39**	0,79	1,20	41	2,1
	1,00	1,00	1,00	1,00	**571,62**	**2,5**	**0,34**	0,77	1,20	41	2,1
	0,88	1,00	1,00	1,00	**690,70**	**2,1**	**0,27**	0,73	1,20	41	2,1
PT1202K	**0,78**	0,96	1,07	1,08	**6,85**	**212**	**18**	0,94	2,25	12	2,1
RT1202K	**0,85**	1,05	1,17	1,18	**7,48**	**194**	**18**	0,94	2,30	12	2,1
	1,07	1,31	1,46	1,48	**9,36**	**155**	**18**	0,94	2,39	13	2,1
	1,16	1,43	1,67	1,71	**10,88**	**133**	**17**	0,94	2,45	13	2,1
	1,08	1,12	1,18	1,22	**13,14**	**110**	**13**	0,93	2,56	14	2,1
PT1203K	**1,68**	2,00	2,00	2,00	**25,87**	**56**	**11**	0,90	3,00	17	2,1
RT1203K	**1,72**	2,00	2,00	2,00	**28,24**	**51**	**10**	0,90	3,00	18	2,1
	1,77	2,00	2,00	2,00	**30,84**	**47**	**9,6**	0,90	3,00	18	2,1
	1,89	2,00	2,00	2,00	**38,63**	**38**	**8,2**	0,90	3,00	19	2,1
	1,98	2,00	2,00	2,00	**44,86**	**32**	**7,4**	0,90	3,00	20	2,1
	2,00	2,00	2,00	2,00	**54,21**	**27**	**6,2**	0,90	3,00	21	2,1
	1,96	1,99	2,00	2,00	**67,89**	**21**	**4,9**	0,89	3,00	23	2,1
	1,69	1,75	1,78	1,82	**78,84**	**18**	**3,7**	0,89	3,00	24	2,1
	1,20	1,24	1,37	1,54	**95,27**	**15**	**2,2**	0,88	2,91	25	2,1
PT1204K	**2,00**	2,00	2,00	2,00	**106,70**	**14**	**3,4**	0,84	3,00	26	2,1
RT1204K	**2,00**	2,00	2,00	2,00	**116,51**	**12**	**3,1**	0,84	3,00	27	2,1
	2,00	2,00	2,00	2,00	**127,22**	**11**	**2,8**	0,84	3,00	28	2,1
	2,00	2,00	2,00	2,00	**159,34**	**9,1**	**2,3**	0,84	3,00	30	2,1
	2,00	2,00	2,00	2,00	**185,04**	**7,8**	**1,9**	0,84	3,00	31	2,1
	2,00	2,00	2,00	2,00	**223,60**	**6,5**	**1,6**	0,84	3,00	34	2,1
	2,00	2,00	2,00	2,00	**280,06**	**5,2**	**1,3**	0,84	3,00	35	2,1
	2,00	2,00	2,00	2,00	**325,23**	**4,5**	**1,1**	0,83	3,00	37	2,1
	2,00	2,00	2,00	2,00	**392,99**	**3,7**	**0,94**	0,83	3,00	40	2,1
	2,00	2,00	2,00	2,00	**492,23**	**2,9**	**0,76**	0,81	3,00	41	2,1
	1,80	1,90	2,00	2,00	**571,62**	**2,5**	**0,60**	0,80	3,00	41	2,1
	1,46	1,65	1,87	2,00	**690,70**	**2,1**	**0,42**	0,77	3,00	41	2,1
PT1502K	**1,62**	1,91	1,95	1,98	**6,20**	**234**	**42**	0,94	3,72	17	2,1
RT1502K	**1,91**	2,25	2,30	2,34	**7,32**	**198**	**42**	0,94	3,72	18	2,1
	2,20	2,49	2,55	2,59	**9,19**	**158**	**39**	0,94	3,72	19	2,1
	2,06	2,18	2,31	2,35	**10,68**	**136**	**31**	0,94	3,72	20	2,1
	1,42	1,51	1,62	1,71	**12,92**	**112**	**18**	0,93	3,50	22	2,1

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=1450

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
6,85	**7,1**	26 E1	102 R1	**3,0**	23 E1	72 R1	**17**	35 E1	109 R1	**10**	29 E1	78 R1	37	382
7,48	**7,3**	26 E1	99 R1	**3,8**	23 E1	74 R1	**17**	35 E1	106 R1	**10**	29 E1	77 R1	39	383
9,36	**7,6**	24 E1	89 R1	**4,2**	22 E1	65 R1	**16**	32 E1	95 R1	**10**	26 E1	69 R1		
10,88	**7,6**	24 E1	81 R1	**4,6**	21 E1	60 R1	**15**	30 E1	87 R1	**10**	25 E1	64 R1		
13,14	**6,9**	20 E1	70 R1	**4,2**	18 E1	52 R1	**14**	26 E1	75 R1	**9,0**	22 E1	55 R1		
25,87	**5,4**	18 E1	64 R1	**2,6**	16 E1	47 R1	**12**	24 E1	68 R1	**7,5**	20 E1	50 R1	42	382
28,24	**5,3**	18 E1	63 R1	**2,6**	15 E1	46 R1	**12**	23 E1	68 R1	**7,5**	19 E1	50 R1	44	383
30,84	**5,7**	18 E1	62 R1	**3,1**	15 E1	45 R1	**12**	23 E1	66 R1	**7,4**	19 E1	49 R1		
38,63	**6,0**	17 E1	59 R1	**3,6**	15 E1	43 R1	**12**	22 E1	63 R1	**7,9**	19 E1	46 R1		
44,86	**5,8**	17 E1	57 R1	**3,8**	15 E1	42 R1	**12**	22 E1	61 R1	**7,7**	18 E1	45 R1		
54,21	**6,1**	16 E1	54 R1	**3,8**	14 E1	40 R1	**11**	21 E1	58 R1	**7,8**	17 E1	43 R1		
67,89	**5,6**	15 E1	50 R1	**3,6**	13 E1	37 R1	**10**	19 E1	53 R1	**7,2**	16 E1	39 R1		
78,84	**5,2**	13 E1	47 R1	**3,3**	12 E1	35 R1	**9,7**	18 E1	50 R1	**6,7**	15 E1	37 R1		
95,27	**4,5**	12 E1	39 R1	**2,9**	11 E1	29 R1	**8,3**	15 E1	42 R1	**5,7**	13 E1	31 R1		
106,70	**4,4**	13 E1	44 R1	**2,4**	11 E1	33 R1	**9,5**	17 E1	48 R1	**5,9**	14 E1	35 R1	48	382
116,51	**4,3**	13 E1	43 R1	**2,3**	11 E1	32 R1	**9,3**	17 E1	46 R1	**5,7**	14 E1	34 R1	50	383
127,22	**4,4**	12 E1	42 R1	**2,4**	11 E1	31 R1	**9,3**	17 E1	45 R1	**5,9**	14 E1	33 R1		
159,34	**4,4**	12 E1	40 R1	**2,9**	11 E1	30 R1	**9,0**	16 E1	43 R1	**5,9**	13 E1	32 R1		
185,04	**4,6**	12 E1	38 R1	**2,9**	10 E1	29 R1	**8,8**	15 E1	42 R1	**6,0**	13 E1	31 R1		
223,60	**4,6**	11 E1	37 R1	**3,0**	10 E1	27 R1	**8,5**	15 E1	40 R1	**5,9**	13 E1	29 R1		
280,06	**4,3**	11 E1	34 R1	**2,8**	10 E1	25 R1	**8,2**	14 E1	37 R1	**5,5**	12 E1	27 R1		
325,23	**4,1**	10 E1	33 R1	**2,7**	9,1 E1	25 R1	**7,8**	13 E1	35 R1	**5,3**	11 E1	27 R1		
392,99	**3,9**	10 E1	31 R1	**2,6**	8,6 E1	23 R1	**7,4**	13 E1	33 R1	**5,0**	11 E1	25 R1		
492,23	**3,6**	9,0 E1	28 R1	**2,3**	7,8 E1	21 R1	**6,7**	11 E1	30 R1	**4,5**	10 E1	22 R1		
571,62	**3,3**	7,9 E1	26 R1	**2,2**	7,1 E1	19 R1	**6,1**	11 E1	28 R1	**4,1**	8,5 E1	20 R1		
690,70	**2,8**	6,9 E1	22 R1	**1,8**	6,0 E1	16 R1	**5,0**	9,0 E1	23 R1	**3,5**	7,3 E1	17 R1		
6,85	**7,8**	28 E1	112 R1	**3,4**	24 E1	80 R1	**18**	38 E1	118 R1	**11**	31 E1	86 R1	41	384
7,48	**8,0**	28 E1	107 R1	**4,2**	25 E1	79 R1	**19**	38 E1	114 R1	**11**	31 E1	85 R1	43	385
9,36	**8,3**	27 E1	96 R1	**5,1**	24 E1	70 R1	**18**	35 E1	103 R1	**11**	28 E1	75 R1		
10,88	**8,4**	25 E1	88 R1	**5,1**	22 E1	65 R1	**16**	32 E1	95 R1	**11**	27 E1	69 R1		
13,14	**7,6**	22 E1	77 R1	**4,6**	20 E1	56 R1	**15**	28 E1	82 R1	**10**	24 E1	60 R1		
25,87	**6,4**	20 E1	70 R1	**3,4**	17 E1	52 R1	**14**	27 E1	76 R1	**8,8**	22 E1	55 R1	47	384
28,24	**6,3**	20 E1	69 R1	**3,1**	17 E1	51 R1	**14**	26 E1	75 R1	**8,8**	22 E1	55 R1	49	385
30,84	**6,7**	20 E1	68 R1	**3,7**	17 E1	50 R1	**14**	26 E1	73 R1	**8,7**	22 E1	54 R1		
38,63	**7,0**	20 E1	64 R1	**4,2**	17 E1	48 R1	**14**	25 E1	70 R1	**9,2**	21 E1	51 R1		
44,86	**6,8**	18 E1	62 R1	**4,5**	16 E1	46 R1	**14**	24 E1	67 R1	**9,0**	20 E1	49 R1		
54,21	**7,1**	18 E1	60 R1	**4,5**	16 E1	44 R1	**13**	23 E1	64 R1	**9,1**	19 E1	47 R1		
67,89	**6,5**	16 E1	55 R1	**4,2**	14 E1	40 R1	**12**	22 E1	59 R1	**8,4**	18 E1	43 R1		
78,84	**6,1**	15 E1	50 R1	**3,9**	13 E1	37 R1	**11**	20 E1	54 R1	**7,8**	17 E1	40 R1		
95,27	**5,3**	13 E1	44 R1	**3,4**	12 E1	33 R1	**9,7**	17 E1	47 R1	**6,8**	14 E1	35 R1		
106,70	**5,3**	15 E1	49 R1	**2,9**	13 E1	36 R1	**11**	20 E1	53 R1	**6,9**	16 E1	39 R1	52	384
116,51	**5,2**	14 E1	48 R1	**2,8**	12 E1	35 R1	**11**	19 E1	52 R1	**6,8**	16 E1	38 R1	54	385
127,22	**5,2**	14 E1	47 R1	**2,9**	12 E1	34 R1	**11**	19 E1	51 R1	**7,0**	16 E1	37 R1		
159,34	**5,5**	14 E1	44 R1	**3,4**	12 E1	33 R1	**11**	18 E1	48 R1	**6,9**	15 E1	35 R1		
185,04	**5,4**	13 E1	43 R1	**3,4**	12 E1	32 R1	**10**	18 E1	46 R1	**7,1**	14 E1	34 R1		
223,60	**5,4**	13 E1	41 R1	**3,5**	11 E1	31 R1	**10**	17 E1	45 R1	**6,9**	14 E1	33 R1		
280,06	**5,1**	12 E1	38 R1	**3,3**	11 E1	29 R1	**9,3**	16 E1	41 R1	**6,5**	13 E1	31 R1		
325,23	**4,9**	12 E1	37 R1	**3,2**	10 E1	27 R1	**9,0**	15 E1	40 R1	**6,2**	13 E1	29 R1		
392,99	**4,6**	11 E1	34 R1	**3,0**	10 E1	25 R1	**8,5**	15 E1	37 R1	**5,9**	12 E1	28 R1		
492,23	**4,2**	10 E1	31 R1	**2,8**	8,8 E1	23 R1	**7,9**	13 E1	34 R1	**5,4**	11 E1	25 R1		
571,62	**3,9**	9,0 E1	28 R1	**2,6**	8,0 E1	21 R1	**7,2**	12 E1	31 R1	**4,9**	10 E1	23 R1		
690,70	**3,3**	7,6 E1	24 R1	**2,2**	6,6 E1	18 R1	**6,0**	10 E1	26 R1	**4,1**	8,4 E1	19 R1		
6,20	**12**	55 E2	125 R1	**5,4**	49 E2	89 R1	**28**	49 E1	138 R1	**17**	58 E2	99 R1	61	386
7,32	**13**	54 E2	118 R1	**6,8**	49 E2	86 R1	**28**	48 E1	133 R1	**17**	58 E2	95 R1	71	387
9,19	**13**	50 E2	107 R1	**7,8**	45 E2	78 R1	**27**	45 E1	118 R1	**17**	53 E2	86 R1		
10,68	**13**	30 E1	99 R1	**7,7**	26 E1	72 R1	**26**	42 E1	109 R1	**17**	34 E1	79 R1		
12,92	**12**	27 E1	87 R1	**7,6**	23 E1	64 R1	**23**	37 E1	96 R1	**15**	30 E1	70 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=1450

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1503K	**2,58**	2,64	2,70	2,74	**24,65**	**59**	**18**	0,90	3,72	24	2,1
RT1503K	**2,97**	3,04	3,10	3,10	**31,78**	**46**	**16**	0,90	3,72	26	2,1
	3,00	3,06	3,10	3,10	**39,80**	**36**	**13**	0,90	3,72	28	2,1
	3,01	3,07	3,10	3,10	**46,22**	**31**	**11**	0,90	3,72	29	2,1
	2,62	2,66	2,72	2,76	**58,00**	**25**	**7,6**	0,90	3,72	31	2,1
	2,63	2,68	2,73	2,78	**70,08**	**21**	**6,4**	0,90	3,72	33	2,1
	2,36	2,43	2,48	2,57	**81,47**	**18**	**4,9**	0,89	3,72	34	2,1
	1,65	1,74	1,98	2,30	**98,55**	**15**	**2,9**	0,89	3,72	36	2,1
PT1504K	**2,66**	2,75	2,81	2,85	**93,12**	**16**	**5,1**	0,85	3,72	38	2,1
RT1504K	**3,10**	3,10	3,10	3,10	**120,04**	**12**	**4,6**	0,85	3,72	40	2,1
	3,10	3,10	3,10	3,10	**131,07**	**11**	**4,2**	0,85	3,72	42	2,1
	3,10	3,10	3,10	3,10	**164,17**	**8,8**	**3,4**	0,85	3,72	44	2,1
	3,10	3,10	3,10	3,10	**190,65**	**7,6**	**2,9**	0,85	3,72	47	2,1
	3,10	3,10	3,10	3,10	**230,37**	**6,3**	**2,4**	0,85	3,72	50	2,1
	3,10	3,10	3,10	3,10	**288,55**	**5,0**	**1,9**	0,85	3,72	52	2,1
	3,10	3,10	3,10	3,10	**335,09**	**4,3**	**1,7**	0,84	3,72	56	2,1
	2,75	2,85	3,10	3,10	**420,50**	**3,4**	**1,2**	0,83	3,72	59	2,1
	2,76	2,91	3,10	3,10	**508,10**	**2,9**	**1,00**	0,82	3,72	62	2,1
	2,51	2,71	3,10	3,10	**590,67**	**2,5**	**0,79**	0,81	3,72	63	2,1
	2,11	2,44	2,87	3,10	**714,52**	**2,0**	**0,57**	0,79	3,72	63	2,1
PT1602K	**1,62**	1,91	1,95	1,98	**6,20**	**234**	**42**	0,95	5,83	17	2,1
RT1602K	**1,91**	2,25	2,30	2,34	**7,32**	**198**	**42**	0,95	6,10	18	2,1
	2,39	2,83	2,89	2,94	**9,19**	**158**	**42**	0,94	6,35	19	2,1
	2,78	3,29	3,36	3,42	**10,68**	**136**	**42**	0,94	6,53	20	2,1
	2,23	2,31	2,43	2,52	**12,92**	**112**	**28**	0,94	5,33	22	2,1
PT1603K	**2,82**	3,45	3,85	3,89	**24,65**	**59**	**19**	0,91	7,50	24	2,1
RT1603K	**3,63**	4,45	4,96	5,00	**31,78**	**46**	**19**	0,91	7,50	26	2,1
	4,55	5,00	5,00	5,00	**39,80**	**36**	**19**	0,91	7,50	28	2,1
	4,93	5,00	5,00	5,00	**46,22**	**31**	**18**	0,91	7,50	29	2,1
	4,54	4,60	4,68	4,74	**58,00**	**25**	**13**	0,91	7,50	31	2,1
	4,56	4,62	4,70	4,75	**70,08**	**21**	**11**	0,90	7,50	33	2,1
	3,80	3,85	3,92	4,02	**81,47**	**18**	**7,9**	0,90	7,50	34	2,1
	2,50	2,59	2,84	3,15	**98,55**	**15**	**4,3**	0,89	6,07	36	2,1
PT1604K	**4,83**	4,91	5,00	5,00	**93,12**	**16**	**9,2**	0,86	7,50	38	2,1
RT1604K	**5,00**	5,00	5,00	5,00	**120,04**	**12**	**7,4**	0,86	7,50	40	2,1
	5,00	5,00	5,00	5,00	**131,07**	**11**	**6,7**	0,86	7,50	42	2,1
	5,00	5,00	5,00	5,00	**164,17**	**8,8**	**5,4**	0,86	7,50	44	2,1
	5,00	5,00	5,00	5,00	**190,65**	**7,6**	**4,6**	0,86	7,50	47	2,1
	5,00	5,00	5,00	5,00	**230,37**	**6,3**	**3,8**	0,86	7,50	50	2,1
	5,00	5,00	5,00	5,00	**288,55**	**5,0**	**3,1**	0,85	7,50	52	2,1
	5,00	5,00	5,00	5,00	**335,09**	**4,3**	**2,7**	0,85	7,50	56	2,1
	4,73	4,85	5,00	5,00	**420,50**	**3,4**	**2,0**	0,84	7,50	59	2,1
	4,74	4,94	5,00	5,00	**508,10**	**2,9**	**1,7**	0,84	7,50	62	2,1
	3,95	4,20	4,67	5,00	**590,67**	**2,5**	**1,2**	0,83	7,50	63	2,1
	2,97	3,31	3,73	4,07	**714,52**	**2,0**	**0,78**	0,81	6,82	63	2,1
PT1902K	**2,31**	2,84	3,49	3,55	**7,39**	**196**	**50**	0,95	7,90	29	5,1
RT1902K	**2,73**	3,36	4,12	4,19	**8,72**	**166**	**50**	0,95	8,27	31	5,1
	3,42	4,21	5,17	5,26	**10,95**	**132**	**50**	0,95	8,62	32	5,1
	3,98	4,90	5,59	5,87	**12,73**	**114**	**50**	0,94	8,85	34	5,1
	3,71	3,85	4,06	4,21	**15,39**	**94**	**39**	0,94	8,76	39	5,1
PT1903K	**5,40**	6,29	6,57	6,79	**22,32**	**65**	**40**	0,92	11,6	40	2,1
RT1903K	**5,95**	7,32	7,93	8,05	**31,11**	**47**	**32**	0,92	12,8	44	2,1
	6,36	7,82	7,98	8,10	**39,04**	**37**	**27**	0,92	13,7	47	2,1
	6,66	7,85	8,01	8,13	**45,38**	**32**	**24**	0,92	14,3	50	2,1
	6,05	6,40	6,89	7,28	**54,90**	**26**	**18**	0,91	14,9	53	2,1
	6,67	6,78	6,93	7,04	**68,89**	**21**	**16**	0,91	15,8	56	2,1
	5,58	5,87	6,31	6,49	**80,08**	**18**	**12**	0,90	13,5	59	2,1
	4,10	4,25	4,66	5,19	**96,88**	**15**	**7,1**	0,90	9,95	62	2,1

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=1450

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
24,65	7,1	22 E1	81 R1	3,4	19 E1	57 R1	16	30 E1	85 R1	10	24 E1	62 R1	60	386
31,78	7,5	21 E1	76 R1	3,9	18 E1	57 R1	16	30 E1	83 R1	10	24 E1	63 R1	70	387
39,80	7,9	21 E1	73 R1	4,9	19 E1	53 R1	17	30 E1	79 R1	11	23 E1	58 R1		
46,22	8,3	22 E1	70 R1	5,1	19 E1	51 R1	16	28 E1	76 R1	11	23 E1	56 R1		
58,00	7,6	20 E1	64 R1	4,7	17 E1	46 R1	15	26 E1	69 R1	10	21 E1	51 R1		
70,08	7,6	18 E1	61 R1	4,7	17 E1	44 R1	14	25 E1	66 R1	10	20 E1	48 R1		
81,47	7,1	17 E1	56 R1	4,4	16 E1	41 R1	13	23 E1	61 R1	9,2	19 E1	44 R1		
98,55	6,3	15 E1	49 R1	4,0	14 E1	38 R1	12	20 E1	53 R1	8,1	16 E1	39 R1		
93,12	5,7	16 E1	56 R1	3,0	14 E1	41 R1	13	23 E1	61 R1	8,0	18 E1	45 R1	65	386
120,04	5,5	16 E1	54 R1	2,9	13 E1	40 R1	12	22 E1	59 R1	7,7	18 E1	43 R1	75	387
131,07	5,9	16 E1	53 R1	3,2	14 E1	39 R1	13	22 E1	58 R1	7,7	18 E1	42 R1		
164,17	6,2	16 E1	50 R1	3,7	14 E1	37 R1	12	21 E1	55 R1	8,1	17 E1	40 R1		
190,65	6,1	15 E1	48 R1	4,0	13 E1	36 R1	12	20 E1	53 R1	8,1	17 E1	39 R1		
230,37	6,3	14 E1	46 R1	4,0	13 E1	34 R1	12	19 E1	50 R1	8,2	16 E1	37 R1		
288,55	6,0	14 E1	43 R1	3,8	12 E1	32 R1	11	18 E1	47 R1	7,7	15 E1	35 R1		
335,09	5,7	13 E1	42 R1	3,7	11 E1	31 R1	11	17 E1	45 R1	7,4	14 E1	33 R1		
420,50	5,2	12 E1	38 R1	3,4	10 E1	28 R1	9,5	16 E1	41 R1	6,6	13 E1	31 R1		
508,10	4,9	11 E1	36 R1	3,2	10 E1	27 R1	9,0	15 E1	39 R1	6,3	12 E1	29 R1		
590,67	4,5	10 E1	32 R1	2,9	9,2 E1	24 R1	8,3	14 E1	35 R1	5,7	11 E1	26 R1		
714,52	3,9	9,0 E1	28 R1	2,5	7,9 E1	21 R1	7,3	12 E1	30 R1	4,9	10 E1	23 R1		
6,20	13	59 E2	133 R1	6,3	53 E2	95 R1	31	53 E1	148 R1	19	62 E2	106 R1	73	388
7,32	14	58 E2	128 R1	7,7	52 E2	93 R1	32	53 E1	142 R1	19	41 E1	102 R1	83	389
9,19	15	54 E2	116 R1	8,7	49 E2	84 R1	30	49 E1	128 R1	19	58 E2	93 R1		
10,68	14	50 E2	107 R1	8,6	46 E2	78 R1	29	46 E1	118 R1	19	54 E2	86 R1		
12,92	13	30 E1	95 R1	8,6	26 E1	69 R1	26	41 E1	105 R1	17	33 E1	76 R1		
24,65	8,3	24 E1	86 R1	4,2	21 E1	63 R1	19	34 E1	94 R1	11	27 E1	69 R1	76	388
31,78	8,5	24 E1	83 R1	4,7	20 E1	62 R1	19	33 E1	91 R1	12	27 E1	66 R1	86	389
39,80	9,2	24 E1	79 R1	5,7	21 E1	58 R1	19	32 E1	87 R1	12	26 E1	63 R1		
46,22	9,5	23 E1	77 R1	5,9	21 E1	57 R1	19	32 E1	84 R1	12	26 E1	61 R1		
58,00	8,8	21 E1	70 R1	5,5	19 E1	52 R1	17	29 E1	76 R1	11	24 E1	56 R1		
70,08	8,7	21 E1	67 R1	5,4	18 E1	50 R1	17	28 E1	73 R1	11	23 E1	54 R1		
81,47	8,2	19 E1	62 R1	5,1	17 E1	46 R1	15	26 E1	68 R1	11	21 E1	50 R1		
98,55	7,3	17 E1	54 R1	4,6	15 E1	40 R1	14	23 E1	59 R1	9,4	19 E1	43 R1		
93,12	6,4	18 E1	62 R1	3,4	15 E1	47 R1	14	25 E1	68 R1	9,0	20 E1	50 R1	82	388
120,04	6,2	17 E1	59 R1	3,3	15 E1	44 R1	14	24 E1	65 R1	8,7	20 E1	48 R1	92	389
131,07	6,6	18 E1	58 R1	3,6	15 E1	43 R1	14	24 E1	64 R1	9,0	20 E1	47 R1		
164,17	7,0	17 E1	55 R1	4,2	15 E1	41 R1	14	23 E1	60 R1	9,2	19 E1	44 R1		
190,65	6,8	17 E1	53 R1	4,5	14 E1	39 R1	14	22 E1	58 R1	9,1	18 E1	43 R1		
230,37	7,1	16 E1	51 R1	4,5	14 E1	38 R1	13	22 E1	56 R1	9,2	18 E1	41 R1		
288,55	6,7	15 E1	48 R1	4,3	13 E1	36 R1	12	20 E1	52 R1	8,7	17 E1	39 R1		
335,09	6,5	14 E1	46 R1	4,2	13 E1	34 R1	12	20 E1	50 R1	8,3	16 E1	37 R1		
420,50	5,9	13 E1	41 R1	3,8	11 E1	31 R1	11	18 E1	45 R1	7,5	14 E1	33 R1		
508,10	5,6	12 E1	40 R1	3,6	11 E1	30 R1	10	17 E1	44 R1	7,1	14 E1	32 R1		
590,67	5,1	11 E1	36 R1	3,3	10 E1	27 R1	9,4	15 E1	40 R1	6,5	13 E1	29 R1		
714,52	4,4	10 E1	31 R1	2,9	8,8 E1	23 R1	8,1	13 E1	34 R1	5,6	11 E1	24 R1		
7,39	22	69 E2	150 R1	11	60 E2	104 R1	49	73 E1	174 R1	30	54 E1	122 R1	140	390
8,72	23	68 E2	145 R1	13	60 E2	103 R1	50	71 E1	167 R1	31	54 E1	119 R1	154	391
10,95	23	64 E2	131 R1	14	56 E2	95 R1	47	67 E1	151 R1	30	51 E1	107 R1		
12,73	22	60 E2	121 R1	14	53 E2	88 R1	45	63 E1	139 R1	29	66 E2	100 R1		
15,39	21	38 E1	107 R1	13	31 E1	78 R1	40	56 E1	123 R1	27	43 E1	89 R1		
22,32	13	45 E2	97 R1	6,5	40 E2	70 R1	29	44 E1	110 R1	18	34 E1	79 R1	121	390
31,11	14	45 E2	92 R1	7,9	40 E2	68 R1	29	44 E1	104 R1	18	34 E1	75 R1	135	391
39,04	14	29 E1	88 R1	8,9	24 E1	64 R1	29	43 E1	99 R1	19	33 E1	72 R1		
45,38	14	29 E1	85 R1	9,1	24 E1	62 R1	28	41 E1	96 R1	19	32 E1	70 R1		
54,90	14	28 E1	82 R1	9,3	23 E1	60 R1	27	40 E1	92 R1	18	31 E1	67 R1		
68,89	13	25 E1	74 R1	8,6	21 E1	55 R1	25	36 E1	84 R1	17	29 E1	61 R1		
80,08	12	23 E1	69 R1	7,7	20 E1	50 R1	23	33 E1	77 R1	15	26 E1	56 R1		
96,88	11	21 E1	60 R1	7,0	18 E1	44 R1	20	29 E1	68 R1	14	23 E1	50 R1		

Motorsuz Konik Girişli Planet Redüktörler

Planetary Gear Units with Bevel Stage Input

Planetengetriebe mit Kegelradvorstufe

n_1=1450

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1904K	**7,91**	8,02	8,18	8,50	**104,76**	**14**	**13**	0,86	18,1	66	2,1
RT1904K	**7,94**	8,06	8,22	8,50	**123,68**	**12**	**11**	0,86	19,0	68	2,1
	7,96	8,07	8,23	8,50	**135,05**	**11**	**10**	0,87	19,5	73	2,1
	7,99	8,11	8,31	8,50	**169,15**	**8,6**	**8,3**	0,87	19,7	76	2,1
	8,02	8,14	8,48	8,50	**196,43**	**7,4**	**7,2**	0,86	19,8	80	2,1
	8,05	8,17	8,50	8,50	**237,35**	**6,1**	**6,0**	0,86	19,9	86	2,1
	8,09	8,21	8,50	8,50	**297,85**	**4,9**	**4,8**	0,86	20,0	90	2,1
	8,12	8,24	8,50	8,50	**346,26**	**4,2**	**4,2**	0,86	20,0	95	2,1
	7,02	7,40	8,42	8,50	**418,86**	**3,5**	**3,0**	0,85	17,3	97	2,1
	7,01	7,42	8,39	8,50	**525,63**	**2,8**	**2,4**	0,85	17,3	98	2,1
	6,38	6,82	7,61	8,27	**611,04**	**2,4**	**1,9**	0,84	15,6	99	2,1
	4,92	5,48	6,35	7,10	**739,16**	**2,0**	**1,2**	0,82	11,2	100	2,1
PT2302K	**3,95**	4,87	6,41	7,88	**10,57**	**137**	**60**	0,95	9,67	41	5,1
RT2302K	**4,71**	5,81	7,65	9,40	**12,61**	**115**	**60**	0,95	10,0	45	5,1
	5,83	7,18	9,45	10,5	**16,19**	**90**	**58**	0,94	10,5	47	5,1
	6,00	7,30	7,80	8,20	**19,21**	**75**	**50**	0,94	10,8	49	5,1
PT2303K	**5,54**	6,54	6,69	6,80	**21,26**	**68**	**43**	0,91	14,2	49	2,1
RT2303K	**6,61**	7,81	7,98	8,11	**25,36**	**57**	**43**	0,91	14,7	53	2,1
	7,20	8,87	9,42	9,58	**29,94**	**48**	**40**	0,92	15,5	56	2,1
	7,71	9,49	10,4	10,6	**37,58**	**39**	**34**	0,91	16,6	60	2,1
	8,07	8,90	9,46	9,62	**43,68**	**33**	**31**	0,91	17,3	63	2,1
	8,46	10,4	11,2	11,4	**56,06**	**26**	**25**	0,91	18,2	68	2,1
	7,48	7,91	8,52	8,99	**67,81**	**21**	**18**	0,91	18,4	72	2,1
	7,58	7,96	8,97	10,0	**80,48**	**18**	**16**	0,90	18,3	75	2,1
PT2304K	**10,4**	10,8	11,0	11,2	**100,84**	**14**	**18**	0,86	21,9	83	2,1
RT2304K	**10,6**	10,8	11,0	11,2	**119,05**	**12**	**16**	0,86	23,0	85	2,1
	11,2	12,4	12,5	12,5	**129,99**	**11**	**15**	0,86	23,7	92	2,1
	12,0	12,5	12,5	12,5	**162,82**	**8,9**	**13**	0,86	25,3	96	2,1
	12,3	12,5	12,5	12,5	**189,08**	**7,7**	**12**	0,86	25,6	101	2,1
	12,3	12,5	12,5	12,5	**228,47**	**6,3**	**9,6**	0,86	25,6	103	2,1
	10,8	10,9	11,2	11,4	**286,70**	**5,1**	**6,7**	0,85	25,6	103	2,1
	11,3	11,5	12,5	12,5	**367,94**	**3,9**	**5,5**	0,85	26,7	103	2,1
	11,3	11,6	12,5	12,5	**427,73**	**3,4**	**4,8**	0,84	27,1	105	2,1
	8,67	9,15	10,4	12,1	**517,41**	**2,8**	**3,0**	0,84	21,4	104	2,1
	9,46	10,6	12,0	12,5	**614,07**	**2,4**	**2,8**	0,83	21,4	106	2,1
PT2402K	**3,95**	4,87	6,41	7,88	**10,57**	**137**	**60**	0,95	16,3	41	5,1
RT2402K	**4,71**	5,81	7,65	9,40	**12,61**	**115**	**60**	0,95	16,8	45	5,1
	6,05	7,46	9,82	12,1	**16,19**	**90**	**60**	0,95	17,6	47	5,1
	7,18	8,85	10,4	10,8	**19,21**	**75**	**60**	0,94	18,2	49	5,1
PT2403K	**5,54**	6,54	6,69	6,80	**21,26**	**68**	**43**	0,92	20,0	49	2,1
RT2403K	**6,61**	7,81	7,98	8,11	**25,36**	**57**	**43**	0,92	23,8	53	2,1
	7,81	9,21	9,42	9,58	**29,94**	**48**	**43**	0,92	24,9	56	2,1
	9,80	11,6	11,8	12,0	**37,58**	**39**	**43**	0,92	26,0	60	2,1
	11,4	13,4	13,7	14,0	**43,68**	**33**	**43**	0,92	26,7	63	2,1
	14,2	14,9	15,9	16,1	**56,06**	**26**	**42**	0,91	30,0	68	2,1
	11,7	12,1	12,8	13,2	**67,81**	**21**	**29**	0,91	28,0	72	2,1
	10,3	10,7	11,7	13,0	**80,48**	**18**	**21**	0,91	24,9	75	2,1
PT2404K	**11,5**	14,1	15,7	15,9	**100,84**	**14**	**20**	0,87	30,0	83	2,1
RT2404K	**13,6**	16,7	18,6	18,8	**119,05**	**12**	**20**	0,87	30,0	85	2,1
	14,8	18,2	20,0	20,0	**129,99**	**11**	**20**	0,87	30,0	92	2,1
	18,6	20,0	20,0	20,0	**162,82**	**8,9**	**20**	0,87	30,0	96	2,1
	19,9	20,0	20,0	20,0	**189,08**	**7,7**	**18**	0,87	30,0	101	2,1
	20,0	20,0	20,0	20,0	**228,47**	**6,3**	**15**	0,86	30,0	103	2,1
	18,7	18,9	19,2	19,4	**286,70**	**5,1**	**12**	0,86	30,0	103	2,1
	16,1	16,3	18,0	19,4	**367,94**	**3,9**	**7,7**	0,86	30,0	103	2,1
	16,1	16,5	18,3	19,7	**427,73**	**3,4**	**6,7**	0,86	30,0	105	2,1
	13,1	13,6	14,9	16,6	**517,41**	**2,8**	**4,5**	0,85	30,0	104	2,1
	12,3	13,7	15,3	16,5	**614,07**	**2,4**	**3,6**	0,85	28,2	106	2,1

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=1450

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
104,76	11	23 E1	70 R1	6,2	18 E1	51 R1	23	34 E1	79 R1	15	26 E1	57 R1	120	390
123,68	10	22 E1	67 R1	6,0	18 E1	48 R1	22	33 E1	76 R1	14	25 E1	55 R1	134	391
135,05	11	22 E1	65 R1	6,3	18 E1	48 R1	22	32 E1	74 R1	14	25 E1	54 R1		
169,15	11	22 E1	62 R1	6,9	18 E1	45 R1	22	31 E1	70 R1	14	24 E1	51 R1		
196,43	11	21 E1	60 R1	7,2	17 E1	44 R1	21	30 E1	68 R1	14	24 E1	49 R1		
237,35	11	20 E1	57 R1	7,2	17 E1	42 R1	20	29 E1	65 R1	14	23 E1	47 R1		
297,85	10	19 E1	54 R1	6,9	16 E1	40 R1	19	27 E1	61 R1	13	21 E1	44 R1		
346,26	9,8	18 E1	52 R1	6,6	15 E1	38 R1	18	26 E1	58 R1	12	21 E1	43 R1		
418,86	9,4	17 E1	49 R1	6,3	15 E1	36 R1	17	25 E1	55 R1	12	20 E1	40 R1		
525,63	8,5	16 E1	44 R1	5,7	13 E1	33 R1	16	22 E1	50 R1	11	18 E1	36 R1		
611,04	7,8	14 E1	40 R1	5,3	12 E1	30 R1	14	20 E1	46 R1	10	16 E1	33 R1		
739,16	6,8	12 E1	35 R1	4,6	10 E1	26 R1	13	18 E1	40 R1	8,5	14 E1	29 R1		
10,57	26	75 E2	154 R1	13	63 E2	109 R1	61	84 E1	188 R1	36	61 E1	130 R1	198	392
12,61	28	74 E2	154 R1	15	63 E2	106 R1	61	84 E1	184 R1	38	61 E1	127 R1	213	393
16,19	27	70 E2	140 R1	16	59 E2	100 R1	58	78 E1	165 R1	37	57 E1	117 R1		
19,21	27	65 E2	127 R1	16	56 E2	92 R1	54	73 E1	150 R1	35	54 E1	107 R1		
21,26	14	46 E2	98 R1	7,4	60 E3	70 R1	32	47 E1	112 R1	20	50 E2	80 R1	165	392
25,36	14	46 E2	98 R1	7,5	60 E3	70 R1	32	47 E1	113 R1	20	50 E2	81 R1	180	393
29,94	15	46 E2	94 R1	8,8	41 E2	69 R1	32	47 E1	108 R1	21	51 E2	78 R1		
37,58	16	44 E2	90 R1	10	40 E2	66 R1	32	46 E1	103 R1	21	36 E1	74 R1		
43,68	16	31 E1	87 R1	10	25 E1	64 R1	32	45 E1	99 R1	21	35 E1	72 R1		
56,06	15	29 E1	80 R1	10	23 E1	58 R1	29	41 E1	91 R1	19	32 E1	66 R1		
67,81	15	27 E1	76 R1	10	23 E1	56 R1	28	39 E1	87 R1	19	31 E1	63 R1		
80,48	14	25 E1	70 R1	8,7	21 E1	51 R1	26	36 E1	79 R1	17	28 E1	58 R1		
100,84	10	22 E1	69 R1	5,4	18 E1	51 R1	22	33 E1	79 R1	13	25 E1	57 R1	164	392
119,05	9,7	21 E1	67 R1	5,2	17 E1	49 R1	21	32 E1	75 R1	13	24 E1	55 R1	179	393
129,99	9,9	21 E1	65 R1	5,7	17 E1	47 R1	21	32 E1	74 R1	13	24 E1	55 R1		
162,82	11	21 E1	62 R1	6,6	18 E1	45 R1	21	30 E1	70 R1	14	24 E1	51 R1		
189,08	11	21 E1	60 R1	6,8	18 E1	44 R1	20	29 E1	67 R1	13	23 E1	49 R1		
228,47	11	20 E1	57 R1	6,8	17 E1	42 R1	20	28 E1	64 R1	13	22 E1	47 R1		
286,70	10	19 E1	54 R1	6,5	16 E1	40 R1	19	27 E1	61 R1	13	21 E1	44 R1		
367,94	9,0	17 E1	49 R1	6,0	14 E1	36 R1	17	24 E1	55 R1	11	19 E1	40 R1		
427,73	8,6	16 E1	47 R1	5,7	14 E1	34 R1	16	23 E1	53 R1	11	18 E1	38 R1		
517,41	8,2	15 E1	44 R1	5,5	13 E1	33 R1	15	22 E1	50 R1	10	17 E1	36 R1		
614,07	7,4	14 E1	40 R1	5,0	12 E1	29 R1	14	20 E1	45 R1	9,4	16 E1	33 R1		
10,57	28	80 E2	166 R1	14	67 E2	116 R1	66	90 E1	199 R1	40	65 E1	138 R1	227	394
12,61	30	79 E2	163 R1	17	67 E2	112 R1	66	90 E1	196 R1	41	65 E1	135 R1	242	395
16,19	30	74 E2	150 R1	18	63 E2	107 R1	63	85 E1	178 R1	40	61 E1	126 R1		
19,21	29	70 E2	134 R1	18	60 E2	99 R1	59	79 E1	163 R1	38	59 E1	116 R1		
21,26	16	50 E2	106 R1	8,4	44 E2	76 R1	35	52 E1	122 R1	22	55 E2	87 R1	206	394
25,36	16	50 E2	107 R1	8,5	44 E2	76 R1	36	52 E1	123 R1	22	55 E2	88 R1	221	395
29,94	17	50 E2	103 R1	10	44 E2	75 R1	36	52 E1	120 R1	23	56 E2	85 R1		
37,58	18	49 E2	98 R1	11	43 E2	72 R1	36	51 E1	112 R1	23	53 E2	81 R1		
43,68	18	48 E2	95 R1	11	42 E2	69 R1	35	49 E1	109 R1	23	52 E2	79 R1		
56,06	17	44 E2	87 R1	11	56 E3	64 R1	33	46 E1	100 R1	22	48 E2	72 R1		
67,81	17	30 E1	84 R1	11	37 E2	61 R1	31	44 E1	96 R1	21	34 E1	70 R1		
80,48	16	27 E1	77 R1	10	23 E1	56 R1	29	40 E1	88 R1	19	31 E1	64 R1		
100,84	11	25 E1	77 R1	6,2	20 E1	56 R1	25	37 E1	88 R1	15	28 E1	63 R1	209	394
119,05	11	24 E1	72 R1	6,0	19 E1	54 R1	24	36 E1	83 R1	15	27 E1	60 R1	225	395
129,99	11	24 E1	72 R1	6,5	19 E1	51 R1	24	35 E1	81 R1	15	27 E1	59 R1		
162,82	12	23 E1	68 R1	7,5	19 E1	50 R1	24	34 E1	77 R1	16	26 E1	56 R1		
189,08	12	23 E1	66 R1	7,7	19 E1	48 R1	23	33 E1	74 R1	15	26 E1	54 R1		
228,47	12	22 E1	63 R1	7,7	19 E1	46 R1	22	32 E1	71 R1	15	25 E1	52 R1		
286,70	12	21 E1	59 R1	7,3	17 E1	44 R1	21	30 E1	67 R1	14	24 E1	49 R1		
367,94	10	19 E1	54 R1	6,7	16 E1	40 R1	19	27 E1	61 R1	13	21 E1	44 R1		
427,73	9,8	18 E1	52 R1	6,5	15 E1	38 R1	18	26 E1	58 R1	12	21 E1	43 R1		
517,41	9,3	17 E1	49 R1	6,2	15 E1	36 R1	17	25 E1	55 R1	12	20 E1	40 R1		
614,07	8,5	16 E1	44 R1	5,7	13 E1	33 R1	16	22 E1	50 R1	11	18 E1	37 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=1450

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2702K	**9,90**	12,2	16,0	19,7	**7,84**	**185**	**203**	0,94	25,7	39	8,9
RT2702K	**12,7**	15,6	18,4	18,7	**10,06**	**144**	**204**	0,94	27,0	41	8,9
	12,0	12,5	13,2	13,7	**11,94**	**121**	**163**	0,94	27,8	43	8,9
	12,0	14,8	18,7	19,0	**15,31**	**95**	**126**	0,94	25,7	46	8,9
	12,3	12,8	13,5	14,0	**18,17**	**80**	**110**	0,94	27,0	52	8,9
PT2703K	**9,45**	11,6	14,3	14,5	**30,23**	**48**	**52**	0,91	32,3	56	5,1
RT2703K	**11,2**	13,7	16,9	17,1	**35,69**	**41**	**52**	0,91	33,8	60	5,1
	14,0	17,2	21,2	21,5	**44,78**	**32**	**52**	0,91	35,3	62	5,1
	16,3	20,0	22,9	23,7	**52,06**	**28**	**52**	0,91	36,2	66	5,1
	15,2	15,8	16,6	17,2	**62,98**	**23**	**40**	0,91	35,8	71	5,1
	18,8	19,3	19,6	20,1	**80,82**	**18**	**39**	0,90	45,4	75	5,1
	18,9	19,3	19,7	20,4	**95,92**	**15**	**33**	0,90	32,2	78	5,1
PT2704K	**22,1**	23,3	23,7	24,3	**91,31**	**16**	**42**	0,87	47,5	82	2,1
RT2704K	**22,1**	23,4	23,8	24,7	**107,80**	**13**	**36**	0,87	47,5	86	2,1
	23,2	23,5	23,9	25,0	**127,26**	**11**	**32**	0,87	52,2	92	2,1
	23,3	23,6	24,0	25,0	**159,70**	**9,1**	**26**	0,87	55,9	96	2,1
	23,3	23,7	24,3	25,0	**185,65**	**7,8**	**22**	0,86	58,5	102	2,1
	23,4	23,7	24,9	25,0	**224,57**	**6,5**	**18**	0,86	57,9	109	2,1
	23,5	23,8	25,0	25,0	**281,82**	**5,1**	**15**	0,86	58,2	114	2,1
	22,8	23,9	25,0	25,0	**327,61**	**4,4**	**12**	0,86	55,1	121	2,1
	16,8	17,4	19,1	21,2	**396,31**	**3,7**	**7,5**	0,86	40,7	130	2,1
	19,7	20,5	22,6	24,3	**508,59**	**2,9**	**6,9**	0,85	48,9	137	2,1
	16,0	17,8	20,6	22,3	**603,61**	**2,4**	**4,8**	0,85	36,6	139	2,1
PT2902K	**9,90**	12,2	16,0	19,7	**7,84**	**185**	**203**	0,95	28,2	47	8,5
RT2902K	**12,7**	15,6	20,6	25,3	**10,06**	**144**	**203**	0,94	29,6	49	8,5
	14,8	18,2	20,3	21,2	**11,94**	**121**	**199**	0,94	30,7	53	8,5
	12,0	14,8	18,9	19,2	**15,31**	**95**	**126**	0,94	29,6	58	8,5
	14,2	17,5	20,8	21,6	**18,17**	**80**	**126**	0,94	30,7	64	8,5
PT2903K	**16,2**	19,9	26,2	32,2	**43,25**	**34**	**62**	0,91	40,4	75	5,1
RT2903K	**19,3**	23,8	31,3	35,0	**51,60**	**28**	**62**	0,92	48,2	81	5,1
	23,8	29,4	34,9	35,0	**66,22**	**22**	**60**	0,92	60,2	85	5,1
	24,6	29,9	31,9	33,5	**78,59**	**18**	**52**	0,91	62,1	86	5,1
	25,4	26,4	30,3	31,6	**100,86**	**14**	**42**	0,91	63,6	89	5,1
	20,8	21,6	24,6	26,6	**119,70**	**12**	**29**	0,91	51,9	90	5,1
PT2904K	**22,7**	26,8	27,4	27,8	**86,96**	**17**	**46**	0,87	56,7	92	2,1
RT2904K	**29,5**	34,8	35,0	35,0	**122,49**	**12**	**42**	0,87	74,4	102	2,1
	31,5	35,0	35,0	35,0	**153,72**	**9,4**	**36**	0,87	79,7	110	2,1
	33,0	35,0	35,0	35,0	**178,70**	**8,1**	**32**	0,87	83,4	114	2,1
	33,0	35,0	35,0	35,0	**216,17**	**6,7**	**27**	0,86	83,4	121	2,1
	34,9	35,0	35,0	35,0	**277,41**	**5,2**	**22**	0,86	87,3	131	2,1
	31,0	32,6	35,0	35,0	**329,24**	**4,4**	**17**	0,86	77,5	138	2,1
	29,3	31,2	34,3	35,0	**422,52**	**3,4**	**12**	0,85	73,2	148	2,1
	23,8	26,2	28,9	31,0	**501,46**	**2,9**	**8,5**	0,85	59,6	156	2,1
PT3502K	**10,0**	12,3	16,2	20,0	**7,94**	**183**	**203**	0,94	41,2	57	8,5
RT3502K	**13,1**	16,1	21,2	26,0	**10,35**	**140**	**203**	0,94	43,0	61	8,5
	15,7	19,2	20,2	21,0	**12,46**	**116**	**199**	0,96	41,2	75	8,5
	12,3	15,2	19,5	19,8	**15,75**	**92**	**124**	0,96	43,0	83	8,5
	14,9	18,3	20,7	21,6	**18,96**	**76**	**124**	0,96	43,5	88	8,5
PT3503K	**16,4**	20,2	26,6	32,6	**43,80**	**33**	**62**	0,91	59,6	91	5,1
RT3503K	**19,5**	24,1	31,7	38,9	**52,26**	**28**	**62**	0,92	62,8	99	5,1
	25,1	30,9	40,7	50,0	**67,06**	**22**	**62**	0,91	67,7	105	5,1
	29,7	36,7	43,1	44,8	**79,59**	**18**	**62**	0,91	71,3	112	5,1
	30,4	31,6	36,6	40,3	**103,74**	**14**	**49**	0,91	71,9	124	5,1
	20,9	21,7	24,9	27,8	**124,88**	**12**	**28**	0,91	49,3	125	5,1

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=1450

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
7,84	**40**	291 E5	209 R2	**26**	280 E5	251 R3	**77**	204 E4	244 R2	**51**	300 E5	271 R3	301	396
10,06	**40**	297 E5	213 R2	**26**	286 E5	256 R3	**78**	208 E4	248 R2	**52**	306 E5	277 R3	366	397
11,94	**37**	160 E4	195 R2	**24**	262 E5	234 R3	**72**	191 E4	170 R1	**48**	169 E4	162 R2		
15,31	**33**	161 E4	143 R1	**20**	150 E4	145 R2	**69**	133 E3	175 R1	**44**	171 E4	123 R1		
18,17	**32**	150 E4	132 R1	**20**	140 E4	134 R2	**66**	124 E3	161 R1	**42**	159 E4	114 R1		
30,23	**19**	51 E2	104 R1	**10**	63 E3	73 R1	**41**	57 E1	124 R1	**26**	57 E2	87 R1	271	396
35,69	**20**	50 E2	102 R1	**11**	63 E3	73 R1	**42**	57 E1	120 R1	**26**	57 E2	86 R1	336	397
44,78	**21**	50 E2	97 R1	**13**	61 E3	69 R1	**42**	56 E1	115 R1	**27**	56 E2	84 R1		
52,06	**21**	49 E2	94 R1	**13**	60 E3	68 R1	**41**	54 E1	111 R1	**27**	54 E2	80 R1		
62,98	**21**	47 E2	91 R1	**13**	41 E2	66 R1	**40**	52 E1	107 R1	**26**	40 E1	77 R1		
80,82	**19**	44 E2	84 R1	**13**	38 E2	61 R1	**37**	49 E1	99 R1	**25**	49 E2	71 R1		
95,92	**18**	41 E2	77 R1	**12**	35 E2	56 R1	**34**	45 E1	91 R1	**23**	34 E1	65 R1		
91,31	**13**	53 E3	77 R1	**6,8**	48 E3	55 R1	**28**	52 E2	90 R1	**18**	41 E2	64 R1	252	396
107,80	**12**	36 E2	74 R1	**6,4**	46 E3	53 R1	**27**	38 E1	87 R1	**17**	40 E2	62 R1	317	397
127,26	**13**	36 E2	73 R1	**7,8**	31 E2	52 R1	**28**	39 E1	83 R1	**18**	40 E2	60 R1		
159,70	**14**	25 E1	68 R1	**8,7**	30 E2	50 R1	**27**	37 E1	79 R1	**18**	29 E1	57 R1		
185,65	**14**	24 E1	66 R1	**8,9**	30 E2	48 R1	**27**	36 E1	76 R1	**18**	28 E1	55 R1		
224,57	**14**	23 E1	63 R1	**8,8**	19 E1	46 R1	**26**	35 E1	73 R1	**17**	27 E1	53 R1		
281,82	**13**	22 E1	60 R1	**8,4**	18 E1	44 R1	**24**	33 E1	69 R1	**16**	25 E1	50 R1		
327,61	**12**	21 E1	57 R1	**8,1**	18 E1	42 R1	**23**	32 E1	66 R1	**16**	24 E1	48 R1		
396,31	**12**	20 E1	55 R1	**7,8**	17 E1	40 R1	**22**	30 E1	63 R1	**15**	23 E1	46 R1		
508,59	**11**	19 E1	50 R1	**7,2**	15 E1	37 R1	**20**	28 E1	58 R1	**14**	21 E1	42 R1		
603,61	**9,9**	17 E1	45 R1	**6,6**	14 E1	33 R1	**19**	25 E1	52 R1	**13**	19 E1	38 R1		
7,84	**45**	306 E5	221 R2	**29**	292 E5	260 R3	**88**	219 E4	198 R1	**58**	317 E5	284 R3	403	398
10,06	**42**	282 E5	204 R2	**27**	269 E5	239 R3	**82**	202 E4	238 R2	**54**	292 E5	261 R3	475	399
11,94	**39**	259 E5	305 R3	**26**	248 E5	220 R3	**76**	291 E5	219 R2	**50**	269 E5	243 R3		
15,31	**40**	174 E4	155 R1	**25**	161 E4	156 R2	**84**	124 E2	195 R1	**53**	122 E3	136 R1		
18,17	**40**	165 E4	146 R1	**24**	152 E4	146 R2	**80**	142 E3	182 R1	**52**	175 E4	128 R1		
43,25	**22**	78 E3	112 R1	**12**	68 E3	79 R1	**51**	67 E1	139 R1	**31**	64 E2	94 R1	357	398
51,60	**24**	77 E3	112 R1	**14**	68 E3	78 R1	**52**	67 E1	136 R1	**33**	64 E2	95 R1	429	399
66,22	**25**	76 E3	107 R1	**15**	67 E3	77 R1	**52**	67 E1	129 R1	**33**	64 E2	92 R1		
78,59	**25**	74 E3	103 R1	**16**	66 E3	75 R1	**51**	65 E1	125 R1	**33**	62 E2	89 R1		
100,86	**24**	52 E2	96 R1	**15**	44 E2	69 R1	**48**	61 E1	116 R1	**31**	45 E1	83 R1		
119,70	**22**	36 E1	90 R1	**14**	28 E1	65 R1	**45**	57 E1	108 R1	**29**	42 E1	77 R1		
86,96	**15**	57 E3	85 R1	**7,8**	52 E3	59 R1	**34**	46 E1	101 R1	**21**	46 E2	71 R1	224	398
122,49	**16**	55 E3	79 R1	**8,8**	49 E3	57 R1	**33**	45 E1	93 R1	**21**	45 E2	67 R1	396	399
153,72	**16**	39 E2	75 R1	**10**	48 E3	55 R1	**33**	43 E1	88 R1	**21**	43 E2	63 R1		
178,70	**16**	38 E2	72 R1	**10**	33 E2	53 R1	**32**	42 E1	85 R1	**21**	32 E1	61 R1		
216,17	**16**	27 E1	69 R1	**10**	21 E1	51 R1	**31**	40 E1	81 R1	**21**	31 E1	59 R1		
277,41	**15**	25 E1	65 R1	**10**	20 E1	47 R1	**29**	38 E1	76 R1	**19**	29 E1	55 R1		
329,24	**15**	24 E1	62 R1	**9,4**	20 E1	45 R1	**28**	36 E1	73 R1	**19**	28 E1	53 R1		
422,52	**13**	22 E1	57 R1	**8,7**	18 E1	42 R1	**25**	33 E1	67 R1	**17**	25 E1	48 R1		
501,46	**12**	20 E1	52 R1	**8,1**	17 E1	38 R1	**23**	31 E1	61 R1	**16**	23 E1	44 R1		
7,94	**50**	324 E5	235 R2	**32**	309 E5	275 R3	**98**	236 E4	213 R1	**64**	337 E5	197 R2	470	400
10,35	**47**	300 E5	217 R2	**30**	286 E5	254 R3	**91**	218 E4	197 R1	**60**	311 E5	279 R3	557	401
12,08	**44**	167 E4	147 R1	**29**	153 E4	146 R2	**86**	122 E2	184 R1	**57**	178 E4	130 R1		
12,46	**43**	326 E5	166 R1	**25**	310 E5	165 R2	**92**	235 E4	214 R1	**58**	203 E4	196 R2		
15,75	**44**	179 E4	159 R1	**27**	164 E4	159 R2	**90**	131 E2	202 R1	**58**	127 E3	140 R1		
18,96	**42**	167 E4	148 R1	**26**	153 E4	147 R2	**85**	122 E2	184 R1	**55**	178 E4	131 R1		
43,80	**25**	81 E3	115 R1	**13**	70 E3	81 R1	**57**	73 E1	145 R1	**35**	68 E2	100 R1	454	400
52,26	**27**	60 E2	115 R1	**15**	70 E3	80 R1	**57**	73 E1	142 R1	**36**	68 E2	99 R1	540	401
67,06	**28**	79 E3	111 R1	**17**	69 E3	79 R1	**57**	72 E1	134 R1	**37**	67 E2	96 R1		
79,59	**28**	77 E3	107 R1	**18**	68 E3	77 R1	**56**	70 E1	131 R1	**36**	66 E2	93 R1		
103,74	**26**	55 E2	101 R1	**17**	64 E3	71 R1	**53**	66 E1	123 R1	**35**	49 E1	89 R1		
124,88	**24**	38 E1	92 R1	**16**	29 E1	66 R1	**49**	61 E1	112 R1	**32**	45 E1	80 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=1450

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3504K **RT3504K**	**23,0**	27,1	27,7	28,2	**88,07**	**16**	**45**	0,87	82,7	114	2,1
	32,3	38,2	39,0	39,7	**124,05**	**12**	**45**	0,87	97,0	125	2,1
	40,6	47,9	49,0	49,8	**155,67**	**9,3**	**46**	0,87	104	133	2,1
	45,8	50,0	50,0	50,0	**180,97**	**8,0**	**44**	0,87	109	139	2,1
	47,1	50,0	50,0	50,0	**218,91**	**6,6**	**38**	0,86	111	147	2,1
	49,0	50,0	50,0	50,0	**280,94**	**5,2**	**31**	0,86	112	159	2,1
	42,5	44,1	48,5	50,0	**333,42**	**4,3**	**23**	0,86	103	167	2,1
	35,1	39,3	43,9	47,5	**434,60**	**3,3**	**14**	0,86	80,3	181	2,1
	23,9	26,8	30,9	34,5	**523,13**	**2,8**	**8,1**	0,86	55,0	191	2,1

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=1450

Çevrim Oranı / *Ratio* / Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												**Ağırlık** / *Weight* / Gewicht ~ [kg]	**Ölçü Sayfası** / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
88,07	**18**	44 E2	88 R1	**9,3**	54 E3	61 R1	**38**	51 E1	106 R1	**24**	50 E2	74 R1	433	400
124,05	**18**	57 E3	82 R1	**10**	51 E3	59 R1	**37**	49 E1	98 R1	**24**	48 E2	70 R1	520	401
155,67	**18**	55 E3	78 R1	**11**	50 E3	56 R1	**37**	48 E1	93 R1	**24**	46 E2	67 R1		
180,97	**18**	54 E3	75 R1	**12**	48 E3	55 R1	**36**	46 E1	90 R1	**24**	45 E2	65 R1		
218,91	**18**	39 E2	72 R1	**12**	46 E3	53 R1	**35**	44 E1	86 R1	**23**	43 E2	62 R1		
280,94	**17**	37 E2	68 R1	**11**	31 E2	49 R1	**33**	42 E1	81 R1	**22**	32 E1	58 R1		
333,42	**17**	26 E1	65 R1	**11**	21 E1	47 R1	**31**	40 E1	77 R1	**21**	30 E1	56 R1		
434,60	**15**	24 E1	60 R1	**10**	20 E1	44 R1	**29**	37 E1	72 R1	**20**	28 E1	52 R1		
523,13	**14**	22 E1	54 R1	**9,2**	18 E1	40 R1	**26**	34 E1	65 R1	**18**	25 E1	47 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1102K	**0,85**	1,00	1,00	1,00	**6,85**	**139**	**13**	0,94	1,20	13	2,4
RT1102K	**0,87**	1,00	1,00	1,00	**7,48**	**127**	**12**	0,94	1,20	14	2,4
	0,91	1,00	1,00	1,00	**9,36**	**101**	**10**	0,93	1,20	14	2,4
	0,81	0,85	0,91	0,95	**10,88**	**87**	**8,0**	0,93	1,20	15	2,4
	0,62	0,65	0,69	0,73	**13,14**	**72**	**5,0**	0,92	1,20	16	2,4
PT1103K	**1,00**	1,00	1,00	1,00	**25,87**	**37**	**4,3**	0,90	1,20	20	2,4
RT1103K	**1,00**	1,00	1,00	1,00	**28,24**	**34**	**3,9**	0,90	1,20	21	2,4
	1,00	1,00	1,00	1,00	**30,84**	**31**	**3,6**	0,90	1,20	21	2,4
	1,00	1,00	1,00	1,00	**38,63**	**25**	**2,9**	0,90	1,20	23	2,4
	1,00	1,00	1,00	1,00	**44,86**	**21**	**2,5**	0,90	1,20	24	2,4
	1,00	1,00	1,00	1,00	**54,21**	**18**	**2,1**	0,89	1,20	25	2,4
	1,00	1,00	1,00	1,00	**67,89**	**14**	**1,6**	0,89	1,20	27	2,4
	0,92	0,96	1,00	1,00	**78,84**	**12**	**1,3**	0,88	1,20	28	2,4
	0,70	0,73	0,90	1,00	**95,27**	**10**	**0,83**	0,87	1,20	30	2,4
PT1104K	**1,00**	1,00	1,00	1,00	**106,70**	**8,9**	**1,1**	0,83	1,20	31	2,4
RT1104K	**1,00**	1,00	1,00	1,00	**116,51**	**8,2**	**1,0**	0,83	1,20	32	2,4
	1,00	1,00	1,00	1,00	**127,22**	**7,5**	**0,94**	0,84	1,20	33	2,4
	1,00	1,00	1,00	1,00	**159,34**	**6,0**	**0,74**	0,84	1,20	35	2,4
	1,00	1,00	1,00	1,00	**185,04**	**5,1**	**0,64**	0,84	1,20	36	2,4
	1,00	1,00	1,00	1,00	**223,60**	**4,2**	**0,53**	0,84	1,20	39	2,4
	1,00	1,00	1,00	1,00	**280,06**	**3,4**	**0,42**	0,84	1,20	41	2,4
	1,00	1,00	1,00	1,00	**325,23**	**2,9**	**0,37**	0,83	1,20	41	2,4
	1,00	1,00	1,00	1,00	**392,99**	**2,4**	**0,31**	0,82	1,20	41	2,4
	1,00	1,00	1,00	1,00	**492,23**	**1,9**	**0,25**	0,81	1,20	41	2,4
	1,00	1,00	1,00	1,00	**571,62**	**1,7**	**0,22**	0,80	1,20	41	2,4
	0,97	1,00	1,00	1,00	**690,70**	**1,4**	**0,18**	0,77	1,20	41	2,4
PT1202K	**0,89**	1,07	1,09	1,11	**6,85**	**139**	**14**	0,94	2,25	13	2,4
RT1202K	**0,97**	1,16	1,19	1,21	**7,48**	**127**	**14**	0,94	2,30	14	2,4
	1,21	1,46	1,49	1,51	**9,36**	**101**	**14**	0,94	2,39	14	2,4
	1,32	1,62	1,71	1,74	**10,88**	**87**	**13**	0,93	2,45	15	2,4
	1,11	1,15	1,21	1,26	**13,14**	**72**	**9,1**	0,93	2,56	16	2,4
PT1203K	**1,91**	2,00	2,00	2,00	**25,87**	**37**	**8,2**	0,90	3,00	20	2,4
RT1203K	**1,95**	2,00	2,00	2,00	**28,24**	**34**	**7,7**	0,90	3,00	21	2,4
	2,00	2,00	2,00	2,00	**30,84**	**31**	**7,2**	0,90	3,00	21	2,4
	2,00	2,00	2,00	2,00	**38,63**	**25**	**5,7**	0,90	3,00	23	2,4
	2,00	2,00	2,00	2,00	**44,86**	**21**	**4,9**	0,90	3,00	24	2,4
	2,00	2,00	2,00	2,00	**54,21**	**18**	**4,1**	0,89	3,00	25	2,4
	1,98	2,00	2,00	2,00	**67,89**	**14**	**3,3**	0,89	3,00	27	2,4
	1,73	1,77	1,80	1,92	**78,84**	**12**	**2,5**	0,89	3,00	28	2,4
	1,22	1,27	1,48	1,68	**95,27**	**10**	**1,5**	0,88	2,91	30	2,4
PT1204K	**2,00**	2,00	2,00	2,00	**106,70**	**8,9**	**2,2**	0,84	3,00	31	2,4
RT1204K	**2,00**	2,00	2,00	2,00	**116,51**	**8,2**	**2,0**	0,84	3,00	32	2,4
	2,00	2,00	2,00	2,00	**127,22**	**7,5**	**1,9**	0,84	3,00	33	2,4
	2,00	2,00	2,00	2,00	**159,34**	**6,0**	**1,5**	0,84	3,00	35	2,4
	2,00	2,00	2,00	2,00	**185,04**	**5,1**	**1,3**	0,84	3,00	36	2,4
	2,00	2,00	2,00	2,00	**223,60**	**4,2**	**1,1**	0,84	3,00	39	2,4
	2,00	2,00	2,00	2,00	**280,06**	**3,4**	**0,85**	0,84	3,00	41	2,4
	2,00	2,00	2,00	2,00	**325,23**	**2,9**	**0,73**	0,84	3,00	41	2,4
	2,00	2,00	2,00	2,00	**392,99**	**2,4**	**0,61**	0,83	3,00	41	2,4
	2,00	2,00	2,00	2,00	**492,23**	**1,9**	**0,49**	0,82	3,00	41	2,4
	1,85	1,99	2,00	2,00	**571,62**	**1,7**	**0,40**	0,81	3,00	41	2,4
	1,57	1,78	1,95	2,00	**690,70**	**1,4**	**0,29**	0,79	3,00	41	2,4
PT1502K	**1,85**	1,95	1,99	2,03	**6,20**	**153**	**32**	0,94	3,72	19	2,4
RT1502K	**2,18**	2,30	2,35	2,39	**7,32**	**130**	**32**	0,94	3,72	20	2,4
	2,50	2,54	2,60	2,64	**9,19**	**103**	**29**	0,94	3,72	21	2,4
	2,13	2,24	2,36	2,40	**10,68**	**89**	**21**	0,93	3,72	22	2,4
	1,47	1,56	1,68	1,77	**12,92**	**74**	**12**	0,93	3,50	23	2,4

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=950

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
6,85	**8,6**	27 E1	93 R1	**5,2**	23 E1	68 R1	**17**	34 E1	100 R1	**11**	28 E1	73 R1	37	382
7,48	**8,6**	25 E1	90 R1	**5,4**	23 E1	66 R1	**17**	33 E1	97 R1	**11**	28 E1	71 R1	39	383
9,36	**8,2**	23 E1	81 R1	**5,2**	21 E1	60 R1	**16**	30 E1	87 R1	**11**	25 E1	64 R1		
10,88	**7,8**	22 E1	75 R1	**5,1**	20 E1	56 R1	**14**	27 E1	81 R1	**10**	23 E1	59 R1		
13,14	**6,8**	18 E1	64 R1	**4,6**	16 E1	46 R1	**13**	24 E1	68 R1	**8,6**	20 E1	49 R1		
25,87	**6,0**	17 E1	58 R1	**3,6**	15 E1	43 R1	**12**	22 E1	62 R1	**8,0**	18 E1	46 R1	42	382
28,24	**6,0**	17 E1	57 R1	**3,6**	15 E1	42 R1	**12**	22 E1	61 R1	**7,9**	18 E1	45 R1	44	383
30,84	**6,1**	16 E1	56 R1	**3,8**	15 E1	41 R1	**12**	21 E1	60 R1	**8,0**	18 E1	44 R1		
38,63	**6,1**	16 E1	53 R1	**4,0**	14 E1	40 R1	**12**	21 E1	57 R1	**7,8**	18 E1	42 R1		
44,86	**6,0**	15 E1	51 R1	**4,0**	13 E1	37 R1	**11**	20 E1	55 R1	**7,5**	17 E1	40 R1		
54,21	**5,8**	14 E1	49 R1	**3,8**	13 E1	36 R1	**10**	19 E1	52 R1	**7,1**	15 E1	39 R1		
67,89	**5,2**	13 E1	45 R1	**3,6**	12 E1	33 R1	**9,4**	17 E1	48 R1	**6,5**	15 E1	35 R1		
78,84	**4,8**	12 E1	41 R1	**3,4**	11 E1	30 R1	**8,6**	16 E1	44 R1	**5,9**	13 E1	32 R1		
95,27	**4,1**	10 E1	35 R1	**3,0**	9,4 E1	26 R1	**7,6**	14 E1	37 R1	**5,1**	11 E1	28 R1		
106,70	**4,8**	12 E1	40 R1	**3,0**	11 E1	29 R1	**9,1**	16 E1	43 R1	**6,2**	13 E1	32 R1	48	382
116,51	**4,7**	12 E1	39 R1	**3,0**	10 E1	29 R1	**8,9**	15 E1	42 R1	**6,1**	13 E1	31 R1	50	383
127,22	**4,7**	12 E1	38 R1	**3,0**	11 E1	29 R1	**8,7**	15 E1	41 R1	**6,0**	13 E1	31 R1		
159,34	**4,6**	11 E1	36 R1	**3,1**	10 E1	26 R1	**8,4**	14 E1	39 R1	**5,7**	12 E1	28 R1		
185,04	**4,5**	10 E1	35 R1	**2,9**	9,2 E1	26 R1	**7,9**	14 E1	37 R1	**5,5**	12 E1	28 R1		
223,60	**4,1**	10 E1	33 R1	**2,8**	9,0 E1	24 R1	**7,7**	13 E1	35 R1	**5,1**	11 E1	26 R1		
280,06	**3,9**	9,5 E1	31 R1	**2,7**	8,4 E1	23 R1	**7,2**	12 E1	33 R1	**4,8**	10 E1	24 R1		
325,23	**3,7**	9,1 E1	29 R1	**2,5**	8,0 E1	22 R1	**6,9**	12 E1	32 R1	**4,6**	10 E1	23 R1		
392,99	**3,5**	8,6 E1	28 R1	**2,4**	7,6 E1	21 R1	**6,5**	11 E1	30 R1	**4,3**	9,4 E1	22 R1		
492,23	**3,2**	7,8 E1	25 R1	**2,2**	6,9 E1	19 R1	**5,9**	10 E1	27 R1	**3,9**	8,5 E1	20 R1		
571,62	**2,9**	7,1 E1	23 R1	**2,0**	6,3 E1	17 R1	**5,4**	9,3 E1	25 R1	**3,6**	7,8 E1	18 R1		
690,70	**2,4**	6,0 E1	19 R1	**1,7**	5,3 E1	14 R1	**4,6**	7,8 E1	21 R1	**3,0**	6,5 E1	15 R1		
6,85	**9,4**	29 E1	101 R1	**5,7**	25 E1	74 R1	**19**	37 E1	108 R1	**12**	31 E1	79 R1	41	384
7,48	**9,5**	27 E1	98 R1	**5,9**	25 E1	72 R1	**19**	36 E1	105 R1	**12**	30 E1	77 R1	43	385
9,36	**9,0**	25 E1	88 R1	**5,7**	22 E1	65 R1	**17**	32 E1	94 R1	**12**	27 E1	69 R1		
10,88	**8,6**	23 E1	83 R1	**5,6**	21 E1	61 R1	**16**	30 E1	89 R1	**11**	25 E1	65 R1		
13,14	**7,6**	20 E1	68 R1	**5,1**	18 E1	51 R1	**14**	26 E1	73 R1	**10**	22 E1	54 R1		
25,87	**7,0**	19 E1	63 R1	**4,6**	17 E1	47 R1	**14**	25 E1	68 R1	**9,2**	21 E1	50 R1	47	384
28,24	**6,9**	19 E1	63 R1	**4,6**	16 E1	46 R1	**14**	25 E1	68 R1	**9,2**	20 E1	50 R1	49	385
30,84	**7,1**	18 E1	62 R1	**4,4**	16 E1	45 R1	**14**	24 E1	66 R1	**9,3**	20 E1	49 R1		
38,63	**7,1**	18 E1	59 R1	**4,7**	16 E1	44 R1	**13**	23 E1	64 R1	**9,1**	19 E1	47 R1		
44,86	**6,9**	17 E1	55 R1	**4,6**	15 E1	41 R1	**13**	22 E1	61 R1	**8,7**	19 E1	44 R1		
54,21	**6,7**	16 E1	54 R1	**4,3**	14 E1	40 R1	**12**	21 E1	58 R1	**8,3**	17 E1	43 R1		
67,89	**6,3**	15 E1	49 R1	**4,1**	13 E1	37 R1	**11**	20 E1	53 R1	**7,6**	16 E1	39 R1		
78,84	**5,6**	14 E1	45 R1	**3,9**	12 E1	34 R1	**10**	18 E1	49 R1	**7,0**	15 E1	36 R1		
95,27	**4,8**	12 E1	39 R1	**3,5**	11 E1	29 R1	**8,9**	15 E1	42 R1	**5,9**	13 E1	31 R1		
106,70	**5,7**	14 E1	44 R1	**3,6**	12 E1	33 R1	**11**	18 E1	48 R1	**7,4**	15 E1	35 R1	52	384
116,51	**5,5**	13 E1	43 R1	**3,5**	12 E1	32 R1	**10**	18 E1	47 R1	**7,2**	15 E1	34 R1	54	385
127,22	**5,6**	13 E1	43 R1	**3,6**	11 E1	32 R1	**10**	17 E1	47 R1	**7,1**	14 E1	35 R1		
159,34	**5,4**	12 E1	40 R1	**3,6**	11 E1	29 R1	**9,9**	17 E1	43 R1	**6,8**	13 E1	31 R1		
185,04	**5,2**	12 E1	38 R1	**3,3**	10 E1	28 R1	**9,3**	16 E1	42 R1	**6,4**	13 E1	31 R1		
223,60	**4,8**	11 E1	37 R1	**3,3**	10 E1	27 R1	**9,1**	15 E1	40 R1	**6,0**	13 E1	29 R1		
280,06	**4,5**	11 E1	34 R1	**3,1**	9,5 E1	25 R1	**8,5**	14 E1	37 R1	**5,6**	12 E1	27 R1		
325,23	**4,3**	10 E1	33 R1	**3,0**	9,1 E1	24 R1	**8,1**	14 E1	35 R1	**5,4**	11 E1	26 R1		
392,99	**4,1**	10 E1	31 R1	**2,8**	8,6 E1	23 R1	**7,7**	13 E1	34 R1	**5,1**	11 E1	25 R1		
492,23	**3,7**	8,8 E1	28 R1	**2,6**	7,8 E1	21 R1	**7,0**	12 E1	30 R1	**4,6**	10 E1	22 R1		
571,62	**3,4**	8,1 E1	26 R1	**2,4**	7,1 E1	19 R1	**6,4**	11 E1	28 R1	**4,4**	8,8 E1	21 R1		
690,70	**2,9**	6,8 E1	22 R1	**2,0**	6,0 E1	16 R1	**5,4**	9,0 E1	23 R1	**3,7**	7,5 E1	17 R1		
6,20	**14**	35 E1	115 R1	**8,8**	30 E1	84 R1	**29**	48 E1	127 R1	**19**	39 E1	92 R1	61	386
7,32	**14**	34 E1	110 R1	**9,0**	47 E2	80 R1	**28**	46 E1	121 R1	**19**	37 E1	88 R1	71	387
9,19	**14**	30 E1	98 R1	**8,4**	42 E2	72 R1	**26**	42 E1	108 R1	**18**	34 E1	79 R1		
10,68	**13**	28 E1	90 R1	**8,4**	24 E1	66 R1	**24**	39 E1	100 R1	**16**	31 E1	73 R1		
12,92	**12**	25 E1	81 R1	**7,8**	22 E1	60 R1	**21**	34 E1	89 R1	**14**	28 E1	65 R1		

Motorsuz Konik Girişli Planet Redüktörler

Planetary Gear Units with Bevel Stage Input

Planetengetriebe mit Kegelradvorstufe

n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment Ma [kNm]	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) Ma [kNm]			Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung [kW]	Verim *Efficiency* Wirkungsgrad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]
	10000 [h]	5000 [h]	2000 [h]	1000 [h]			10000 [h]			10000 [h]	
PT1503K	**2,60**	2,68	2,74	2,78	**24,65**	**39**	**12**	0,90	3,72	29	2,4
RT1503K	**3,02**	3,08	3,10	3,10	**31,78**	**30**	**11**	0,90	3,72	32	2,4
	3,04	3,09	3,10	3,10	**39,80**	**24**	**8,4**	0,90	3,72	34	2,4
	3,06	3,10	3,10	3,10	**46,22**	**21**	**7,3**	0,90	3,72	35	2,4
	2,67	2,69	2,75	2,85	**58,00**	**16**	**5,1**	0,90	3,72	38	2,4
	2,66	2,71	2,77	2,94	**70,08**	**14**	**4,2**	0,89	3,72	40	2,4
	2,42	2,46	2,51	2,75	**81,47**	**12**	**3,3**	0,89	3,72	42	2,4
	1,70	1,80	2,17	2,50	**98,55**	**9,6**	**1,9**	0,88	3,72	45	2,4
PT1504K	**2,69**	2,78	2,84	3,09	**93,12**	**10**	**3,4**	0,85	3,72	44	2,4
RT1504K	**3,10**	3,10	3,10	3,10	**120,04**	**7,9**	**3,0**	0,85	3,72	47	2,4
	3,10	3,10	3,10	3,10	**131,07**	**7,2**	**2,8**	0,85	3,72	49	2,4
	3,10	3,10	3,10	3,10	**164,17**	**5,8**	**2,2**	0,85	3,72	52	2,4
	3,10	3,10	3,10	3,10	**190,65**	**5,0**	**1,9**	0,85	3,72	54	2,4
	3,10	3,10	3,10	3,10	**230,37**	**4,1**	**1,6**	0,85	3,72	58	2,4
	3,10	3,10	3,10	3,10	**288,55**	**3,3**	**1,3**	0,85	3,72	60	2,4
	3,10	3,10	3,10	3,10	**335,09**	**2,8**	**1,1**	0,84	3,72	60	2,4
	2,78	3,03	3,10	3,10	**420,50**	**2,3**	**0,79**	0,84	3,72	61	2,4
	2,82	3,10	3,10	3,10	**508,10**	**1,9**	**0,66**	0,83	3,72	61	2,4
	2,63	2,91	3,10	3,10	**590,67**	**1,6**	**0,54**	0,82	3,72	62	2,4
	2,31	2,66	3,06	3,10	**714,52**	**1,3**	**0,40**	0,81	3,72	62	2,4
PT1602K	**1,85**	1,95	1,99	2,03	**6,20**	**153**	**31**	0,94	5,83	19	2,4
RT1602K	**2,18**	2,30	2,35	2,39	**7,32**	**130**	**31**	0,94	6,10	20	2,4
	2,74	2,89	2,95	3,00	**9,19**	**103**	**32**	0,94	6,35	21	2,4
	3,18	3,36	3,43	3,49	**10,68**	**89**	**32**	0,94	6,53	22	2,4
	2,30	2,38	2,50	2,60	**12,92**	**74**	**19**	0,93	5,33	23	2,4
PT1603K	**3,20**	3,84	3,92	3,98	**24,65**	**39**	**14**	0,91	7,50	29	2,4
RT1603K	**4,12**	4,94	5,00	5,00	**31,78**	**30**	**14**	0,91	7,50	32	2,4
	5,00	5,00	5,00	5,00	**39,80**	**24**	**14**	0,91	7,50	34	2,4
	5,00	5,00	5,00	5,00	**46,22**	**21**	**12**	0,91	7,50	35	2,4
	4,59	4,64	4,72	4,86	**58,00**	**16**	**8,7**	0,90	7,50	38	2,4
	4,60	4,66	4,74	4,97	**70,08**	**14**	**7,3**	0,90	7,50	40	2,4
	3,84	3,89	3,95	4,24	**81,47**	**12**	**5,2**	0,90	7,50	42	2,4
	2,55	2,65	3,02	3,36	**98,55**	**9,6**	**2,9**	0,89	6,07	45	2,4
PT1604K	**4,88**	4,97	5,00	5,00	**93,12**	**10**	**6,1**	0,85	7,50	44	2,4
RT1604K	**5,00**	5,00	5,00	5,00	**120,04**	**7,9**	**4,8**	0,86	7,50	47	2,4
	5,00	5,00	5,00	5,00	**131,07**	**7,2**	**4,4**	0,86	7,50	49	2,4
	5,00	5,00	5,00	5,00	**164,17**	**5,8**	**3,5**	0,86	7,50	52	2,4
	5,00	5,00	5,00	5,00	**190,65**	**5,0**	**3,1**	0,85	7,50	54	2,4
	5,00	5,00	5,00	5,00	**230,37**	**4,1**	**2,5**	0,85	7,50	58	2,4
	5,00	5,00	5,00	5,00	**288,55**	**3,3**	**2,0**	0,85	7,50	60	2,4
	5,00	5,00	5,00	5,00	**335,09**	**2,8**	**1,7**	0,85	7,50	60	2,4
	4,77	5,00	5,00	5,00	**420,50**	**2,3**	**1,3**	0,84	7,50	61	2,4
	4,81	5,00	5,00	5,00	**508,10**	**1,9**	**1,1**	0,84	7,50	61	2,4
	4,10	4,44	4,93	5,00	**590,67**	**1,6**	**0,83**	0,83	7,50	62	2,4
	3,17	3,51	3,94	4,30	**714,52**	**1,3**	**0,54**	0,82	6,82	62	2,4
PT1902K	**2,64**	3,25	3,58	3,64	**7,39**	**129**	**37**	0,95	7,90	34	5,9
RT1902K	**3,11**	3,83	4,22	4,30	**8,72**	**109**	**37**	0,95	8,27	35	5,9
	3,90	4,81	5,30	5,39	**10,95**	**87**	**38**	0,94	8,62	38	5,9
	4,54	5,37	5,75	6,00	**12,73**	**75**	**38**	0,94	8,85	40	5,9
	3,81	3,96	4,16	4,32	**15,39**	**62**	**26**	0,93	8,76	42	5,9
PT1903K	**6,13**	6,33	6,61	6,83	**22,32**	**43**	**30**	0,91	11,6	49	2,4
RT1903K	**6,75**	7,87	8,02	8,14	**31,11**	**31**	**24**	0,91	12,8	55	2,4
	7,23	7,91	8,07	8,19	**39,04**	**24**	**20**	0,91	13,7	58	2,4
	7,56	7,94	8,10	8,22	**45,38**	**21**	**18**	0,91	14,3	61	2,4
	6,26	6,62	7,12	7,51	**54,90**	**17**	**13**	0,91	14,9	65	2,4
	6,75	6,86	7,00	7,44	**68,89**	**14**	**11**	0,90	15,8	69	2,4
	5,74	6,01	6,37	6,85	**80,08**	**12**	**7,9**	0,90	13,5	72	2,4
	4,18	4,34	4,96	5,53	**96,88**	**9,8**	**4,8**	0,89	9,95	77	2,4

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=950

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
24,65	**8,4**	22 E1	72 R1	**5,2**	19 E1	52 R1	**17**	29 E1	78 R1	**11**	23 E1	57 R1	60	386
31,78	**8,4**	21 E1	69 R1	**5,4**	19 E1	50 R1	**17**	28 E1	75 R1	**11**	23 E1	55 R1	70	387
39,80	**8,5**	21 E1	68 R1	**5,5**	18 E1	50 R1	**16**	27 E1	73 R1	**11**	22 E1	54 R1		
46,22	**8,3**	20 E1	63 R1	**5,5**	17 E1	47 R1	**16**	26 E1	69 R1	**11**	22 E1	51 R1		
58,00	**7,6**	18 E1	57 R1	**5,1**	16 E1	43 R1	**14**	24 E1	62 R1	**10**	20 E1	47 R1		
70,08	**7,2**	17 E1	55 R1	**4,7**	15 E1	40 R1	**13**	22 E1	59 R1	**9,4**	19 E1	44 R1		
81,47	**6,9**	16 E1	50 R1	**4,5**	14 E1	37 R1	**12**	21 E1	55 R1	**8,3**	17 E1	40 R1		
98,55	**5,8**	14 E1	44 R1	**4,1**	12 E1	32 R1	**11**	18 E1	47 R1	**7,2**	15 E1	35 R1		
93,12	**6,4**	16 E1	51 R1	**4,2**	14 E1	38 R1	**13**	21 E1	55 R1	**8,5**	17 E1	41 R1	65	386
120,04	**6,2**	15 E1	49 R1	**4,1**	13 E1	36 R1	**12**	20 E1	53 R1	**8,2**	17 E1	39 R1	75	387
131,07	**6,4**	15 E1	48 R1	**4,0**	13 E1	35 R1	**12**	20 E1	52 R1	**8,3**	16 E1	38 R1		
164,17	**6,3**	15 E1	46 R1	**4,2**	13 E1	33 R1	**12**	19 E1	49 R1	**8,0**	16 E1	36 R1		
190,65	**6,1**	14 E1	44 R1	**4,1**	12 E1	31 R1	**11**	18 E1	48 R1	**7,7**	15 E1	35 R1		
230,37	**5,7**	13 E1	42 R1	**4,2**	12 E1	31 R1	**11**	18 E1	45 R1	**7,2**	15 E1	33 R1		
288,55	**5,4**	12 E1	39 R1	**3,7**	11 E1	29 R1	**10**	17 E1	43 R1	**6,7**	14 E1	31 R1		
335,09	**5,2**	12 E1	37 R1	**3,5**	10 E1	28 R1	**9,7**	16 E1	41 R1	**6,4**	13 E1	30 R1		
420,50	**4,6**	11 E1	34 R1	**3,2**	9,4 E1	25 R1	**8,7**	14 E1	37 R1	**5,8**	12 E1	27 R1		
508,10	**4,4**	10 E1	32 R1	**3,0**	8,9 E1	24 R1	**8,2**	13 E1	35 R1	**5,5**	11 E1	25 R1		
590,67	**4,0**	9,2 E1	29 R1	**2,8**	8,1 E1	21 R1	**7,5**	12 E1	31 R1	**5,2**	10 E1	23 R1		
714,52	**3,4**	7,9 E1	25 R1	**2,4**	7,0 E1	18 R1	**6,5**	11 E1	27 R1	**4,5**	8,7 E1	20 R1		
6,20	**16**	37 E1	124 R1	**10**	32 E1	90 R1	**32**	53 E1	137 R1	**21**	42 E1	99 R1	73	388
7,32	**16**	36 E1	118 R1	**10**	30 E1	86 R1	**31**	51 E1	131 R1	**21**	41 E1	95 R1	83	389
9,19	**15**	33 E1	106 R1	**9,3**	46 E2	78 R1	**29**	46 E1	118 R1	**20**	37 E1	86 R1		
10,68	**15**	31 E1	98 R1	**9,4**	42 E2	72 R1	**27**	43 E1	109 R1	**18**	35 E1	79 R1		
12,92	**13**	28 E1	87 R1	**8,7**	24 E1	66 R1	**24**	38 E1	96 R1	**16**	31 E1	70 R1		
24,65	**9,7**	24 E1	78 R1	**6,0**	21 E1	58 R1	**19**	32 E1	86 R1	**13**	26 E1	63 R1	76	388
31,78	**9,2**	23 E1	76 R1	**6,2**	20 E1	56 R1	**19**	31 E1	83 R1	**12**	26 E1	61 R1	86	389
39,80	**9,7**	22 E1	72 R1	**6,3**	19 E1	53 R1	**18**	30 E1	79 R1	**12**	25 E1	58 R1		
46,22	**9,6**	22 E1	71 R1	**6,3**	19 E1	52 R1	**17**	29 E1	77 R1	**12**	24 E1	57 R1		
58,00	**8,8**	20 E1	65 R1	**5,8**	18 E1	46 R1	**16**	27 E1	69 R1	**11**	22 E1	50 R1		
70,08	**8,2**	19 E1	61 R1	**5,3**	16 E1	45 R1	**15**	25 E1	67 R1	**11**	21 E1	49 R1		
81,47	**7,8**	17 E1	56 R1	**5,0**	15 E1	42 R1	**14**	23 E1	61 R1	**10**	19 E1	45 R1		
98,55	**6,7**	15 E1	49 R1	**4,6**	13 E1	36 R1	**12**	21 E1	53 R1	**8,4**	17 E1	39 R1		
93,12	**7,2**	17 E1	56 R1	**4,8**	15 E1	41 R1	**14**	24 E1	61 R1	**10**	19 E1	45 R1	82	388
120,04	**7,0**	17 E1	54 R1	**4,6**	15 E1	40 R1	**14**	23 E1	59 R1	**9,2**	19 E1	43 R1	92	389
131,07	**7,2**	16 E1	53 R1	**4,5**	14 E1	39 R1	**14**	22 E1	58 R1	**9,3**	18 E1	42 R1		
164,17	**7,2**	16 E1	50 R1	**4,7**	14 E1	38 R1	**13**	21 E1	55 R1	**9,1**	17 E1	41 R1		
190,65	**6,9**	15 E1	48 R1	**4,7**	13 E1	35 R1	**13**	20 E1	53 R1	**8,7**	17 E1	38 R1		
230,37	**6,5**	15 E1	46 R1	**4,7**	12 E1	34 R1	**12**	20 E1	50 R1	**8,1**	16 E1	37 R1		
288,55	**6,1**	14 E1	43 R1	**4,5**	12 E1	32 R1	**11**	18 E1	47 R1	**7,6**	15 E1	35 R1		
335,09	**5,9**	13 E1	41 R1	**4,0**	12 E1	31 R1	**11**	18 E1	45 R1	**7,3**	15 E1	33 R1		
420,50	**5,3**	12 E1	37 R1	**3,6**	10 E1	28 R1	**9,9**	16 E1	41 R1	**6,6**	13 E1	30 R1		
508,10	**5,0**	11 E1	35 R1	**3,4**	10 E1	26 R1	**9,4**	15 E1	38 R1	**6,2**	12 E1	28 R1		
590,67	**4,6**	10 E1	32 R1	**3,1**	9 E1	24 R1	**8,6**	14 E1	35 R1	**5,7**	11 E1	26 R1		
714,52	**3,9**	8,9 E1	28 R1	**2,7**	7,8 E1	21 R1	**7,4**	12 E1	30 R1	**5,1**	10 E1	22 R1		
7,39	**25**	48 E1	141 R1	**16**	39 E1	101 R1	**51**	72 E1	162 R1	**33**	55 E1	119 R1	140	390
8,72	**25**	46 E1	134 R1	**15**	38 E1	97 R1	**49**	69 E1	154 R1	**32**	53 E1	111 R1	154	391
10,95	**23**	42 E1	120 R1	**15**	36 E1	88 R1	**45**	63 E1	139 R1	**30**	48 E1	100 R1		
12,73	**22**	39 E1	111 R1	**14**	49 E2	81 R1	**42**	58 E1	128 R1	**28**	45 E1	92 R1		
15,39	**20**	35 E1	98 R1	**13**	29 E1	72 R1	**37**	52 E1	113 R1	**25**	40 E1	82 R1		
22,32	**15**	29 E1	88 R1	**9,0**	39 E2	65 R1	**29**	43 E1	100 R1	**19**	34 E1	72 R1	121	390
31,11	**15**	28 E1	84 R1	**9,4**	24 E1	62 R1	**28**	41 E1	95 R1	**19**	32 E1	69 R1	135	391
39,04	**14**	27 E1	80 R1	**9,5**	23 E1	59 R1	**27**	39 E1	90 R1	**18**	31 E1	66 R1		
45,38	**14**	27 E1	78 R1	**10**	22 E1	57 R1	**26**	38 E1	87 R1	**18**	30 E1	64 R1		
54,90	**14**	26 E1	76 R1	**9,2**	22 E1	53 R1	**25**	37 E1	83 R1	**17**	29 E1	60 R1		
68,89	**13**	24 E1	67 R1	**8,5**	20 E1	50 R1	**23**	33 E1	75 R1	**16**	26 E1	55 R1		
80,08	**12**	22 E1	61 R1	**7,8**	18 E1	45 R1	**21**	30 E1	70 R1	**14**	24 E1	50 R1		
96,88	**10**	19 E1	55 R1	**6,9**	16 E1	39 R1	**18**	26 E1	61 R1	**12**	21 E1	45 R1		

Motorsuz Konik Girişli Planet Redüktörler

Planetary Gear Units with Bevel Stage Input

Planetengetriebe mit Kegelradvorstufe

n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment Ma [kNm]	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) Ma [kNm]			Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung [kW]	Verim *Efficiency* Wirkungsgrad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]
	10000 [h]	5000 [h]	2000 [h]	1000 [h]			10000 [h]			10000 [h]	
PT1904K	**7,98**	8,10	8,27	8,50	**104,76**	**9,1**	**8,8**	0,86	18,1	77	2,4
RT1904K	**8,01**	8,13	8,45	8,50	**123,68**	**7,7**	**7,5**	0,86	19,0	81	2,4
	8,03	8,15	8,50	8,50	**135,05**	**7,0**	**6,9**	0,86	19,5	84	2,4
	8,07	8,19	8,50	8,50	**169,15**	**5,6**	**5,5**	0,86	19,7	89	2,4
	8,10	8,22	8,50	8,50	**196,43**	**4,8**	**4,8**	0,86	19,8	93	2,4
	8,13	8,25	8,50	8,50	**237,35**	**4,0**	**4,0**	0,86	19,9	95	2,4
	8,17	8,42	8,50	8,50	**297,85**	**3,2**	**3,2**	0,85	20,0	95	2,4
	8,20	8,50	8,50	8,50	**346,26**	**2,7**	**2,8**	0,85	20,0	95	2,4
	7,23	7,63	8,50	8,50	**418,86**	**2,3**	**2,0**	0,85	17,3	96	2,4
	7,19	7,90	8,50	8,50	**525,63**	**1,8**	**1,6**	0,84	17,3	97	2,4
	6,61	7,18	8,01	8,50	**611,04**	**1,6**	**1,3**	0,84	15,6	97	2,4
	5,28	5,90	6,84	7,53	**739,16**	**1,3**	**0,86**	0,83	11,2	99	2,4
PT2302K	**4,52**	5,56	7,32	8,27	**10,57**	**90**	**45**	0,94	9,67	48	5,9
RT2302K	**5,39**	6,64	8,73	9,87	**12,61**	**75**	**45**	0,95	10,0	51	5,9
	6,62	8,15	10,6	11,1	**16,19**	**59**	**43**	0,94	10,5	54	5,9
	6,82	7,50	8,00	8,53	**19,21**	**49**	**38**	0,94	10,8	59	5,9
PT2303K	**6,33**	6,69	6,84	6,95	**21,26**	**45**	**33**	0,91	14,2	62	2,4
RT2303K	**7,56**	7,98	8,16	8,29	**25,36**	**37**	**33**	0,91	14,7	66	2,4
	8,18	9,42	9,63	9,79	**29,94**	**32**	**30**	0,91	15,5	69	2,4
	8,75	10,4	10,6	10,8	**37,58**	**25**	**25**	0,91	16,6	74	2,4
	8,71	9,17	9,65	9,81	**43,68**	**22**	**22**	0,91	17,3	77	2,4
	9,60	10,6	11,3	11,7	**56,06**	**17**	**19**	0,90	18,2	83	2,4
	7,74	8,18	8,80	9,28	**67,81**	**14**	**13**	0,90	18,4	88	2,4
	7,78	8,17	9,59	10,7	**80,48**	**12**	**11**	0,90	18,3	93	2,4
PT2304K	**10,6**	11,0	11,2	11,4	**100,84**	**9,4**	**12**	0,85	21,9	98	2,4
RT2304K	**10,6**	11,0	11,2	11,4	**119,05**	**8,0**	**10**	0,86	23,0	102	2,4
	12,4	12,5	12,5	12,5	**129,99**	**7,3**	**11**	0,86	23,7	101	2,4
	12,4	12,5	12,5	12,5	**162,82**	**5,8**	**8,9**	0,85	25,3	101	2,4
	12,5	12,5	12,5	12,5	**189,08**	**5,0**	**7,7**	0,85	25,6	101	2,4
	12,5	12,5	12,5	12,5	**228,47**	**4,2**	**6,4**	0,84	25,6	101	2,4
	10,9	11,1	11,3	12,0	**286,70**	**3,3**	**4,5**	0,85	25,6	102	2,4
	11,4	12,1	12,5	12,5	**367,94**	**2,6**	**3,7**	0,84	26,7	102	2,4
	11,4	12,2	12,5	12,5	**427,73**	**2,2**	**3,2**	0,84	27,1	102	2,4
	8,94	9,42	11,4	12,5	**517,41**	**1,8**	**2,0**	0,84	21,4	104	2,4
	10,1	11,2	12,5	12,5	**614,07**	**1,5**	**2,0**	0,83	21,4	104	2,4
PT2402K	**4,52**	5,56	7,32	8,27	**10,57**	**90**	**45**	0,95	16,3	48	5,9
RT2402K	**5,39**	6,64	8,73	9,87	**12,61**	**75**	**45**	0,95	16,8	51	5,9
	6,92	8,52	11,2	12,7	**16,19**	**59**	**45**	0,94	17,6	54	5,9
	8,21	10,1	10,7	11,2	**19,21**	**49**	**45**	0,94	18,2	59	5,9
PT2403K	**6,33**	6,69	6,84	6,95	**21,26**	**45**	**33**	0,91	20,0	62	2,4
RT2403K	**7,56**	7,98	8,16	8,29	**25,36**	**37**	**32**	0,91	23,8	66	2,4
	8,92	9,42	9,63	9,79	**29,94**	**32**	**32**	0,91	24,9	69	2,4
	11,2	11,8	12,1	12,3	**37,58**	**25**	**32**	0,91	26,0	74	2,4
	13,0	13,7	14,1	14,3	**43,68**	**22**	**33**	0,91	26,7	77	2,4
	14,7	15,3	16,1	16,6	**56,06**	**17**	**29**	0,91	30,0	83	2,4
	12,0	12,5	13,1	13,6	**67,81**	**14**	**20**	0,91	28,0	88	2,4
	10,5	10,9	12,5	13,9	**80,48**	**12**	**14**	0,90	24,9	93	2,4
PT2404K	**13,1**	15,7	16,0	16,3	**100,84**	**9,4**	**15**	0,86	30,0	98	2,4
RT2404K	**15,4**	18,5	18,9	19,2	**119,05**	**8,0**	**15**	0,86	30,0	102	2,4
	16,9	20,0	20,0	20,0	**129,99**	**7,3**	**15**	0,86	30,0	101	2,4
	20,0	20,0	20,0	20,0	**162,82**	**5,8**	**14**	0,86	30,0	101	2,4
	20,0	20,0	20,0	20,0	**189,08**	**5,0**	**12**	0,86	30,0	101	2,4
	20,0	20,0	20,0	20,0	**228,47**	**4,2**	**10**	0,85	30,0	101	2,4
	18,8	19,1	19,4	20,0	**286,70**	**3,3**	**7,7**	0,85	30,0	102	2,4
	16,2	17,1	18,9	20,0	**367,94**	**2,6**	**5,2**	0,85	30,0	102	2,4
	16,3	17,4	19,2	20,0	**427,73**	**2,2**	**4,5**	0,85	30,0	102	2,4
	13,4	13,9	15,9	17,6	**517,41**	**1,8**	**3,0**	0,85	30,0	104	2,4
	13,2	14,5	16,0	17,3	**614,07**	**1,5**	**2,5**	0,84	28,2	104	2,4

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=950

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
104,76	11	22 E1	63 R1	7,6	18 E1	46 R1	22	32 E1	71 R1	15	25 E1	52 R1	120	390
123,68	11	21 E1	60 R1	7,3	18 E1	44 R1	21	30 E1	68 R1	15	24 E1	50 R1	134	391
135,05	11	21 E1	59 R1	7,1	17 E1	43 R1	21	30 E1	67 R1	14	23 E1	49 R1		
169,15	11	20 E1	56 R1	7,4	17 E1	43 R1	20	28 E1	63 R1	14	22 E1	46 R1		
196,43	11	19 E1	53 R1	7,2	16 E1	39 R1	19	28 E1	61 R1	13	22 E1	44 R1		
237,35	9,9	18 E1	52 R1	6,8	15 E1	38 R1	19	26 E1	59 R1	13	21 E1	43 R1		
297,85	9,3	17 E1	49 R1	6,4	15 E1	36 R1	17	25 E1	55 R1	12	20 E1	40 R1		
346,26	8,9	17 E1	47 R1	6,1	14 E1	34 R1	17	24 E1	53 R1	11	19 E1	39 R1		
418,86	8,4	16 E1	44 R1	5,8	13 E1	33 R1	16	22 E1	50 R1	11	18 E1	37 R1		
525,63	7,8	14 E1	40 R1	5,2	12 E1	29 R1	14	20 E1	45 R1	10	16 E1	33 R1		
611,04	7,2	13 E1	36 R1	4,8	11 E1	27 R1	13	19 E1	41 R1	9,0	15 E1	30 R1		
739,16	6,2	11 E1	31 R1	4,1	10 E1	23 R1	11	16 E1	35 R1	7,8	13 E1	26 R1		
10,57	31	53 E1	151 R1	19	65 E2	108 R1	63	85 E1	179 R1	40	63 E1	127 R1	198	392
12,61	31	53 E1	144 R1	19	63 E2	104 R1	62	82 E1	170 R1	40	62 E1	121 R1	213	393
16,19	29	48 E1	128 R1	18	57 E2	93 R1	56	74 E1	151 R1	37	55 E1	108 R1		
19,21	27	44 E1	116 R1	17	53 E2	84 R1	51	67 E1	137 R1	34	51 E1	98 R1		
21,26	16	31 E1	88 R1	10	40 E2	65 R1	32	45 E1	101 R1	21	35 E1	73 R1	165	392
25,36	16	31 E1	89 R1	10	40 E2	65 R1	32	46 E1	102 R1	21	35 E1	74 R1	180	393
29,94	16	30 E1	86 R1	11	38 E2	63 R1	31	44 E1	98 R1	21	34 E1	71 R1		
37,58	16	29 E1	82 R1	11	37 E2	60 R1	30	42 E1	94 R1	20	33 E1	68 R1		
43,68	16	28 E1	79 R1	11	24 E1	58 R1	29	41 E1	91 R1	20	32 E1	66 R1		
56,06	14	26 E1	73 R1	10	22 E1	53 R1	27	38 E1	83 R1	18	29 E1	60 R1		
67,81	14	25 E1	69 R1	10	21 E1	52 R1	26	36 E1	78 R1	18	29 E1	57 R1		
80,48	13	23 E1	62 R1	8,8	19 E1	46 R1	24	33 E1	72 R1	16	26 E1	52 R1		
100,84	11	22 E1	63 R1	7,1	19 E1	46 R1	21	31 E1	71 R1	14	24 E1	52 R1	164	392
119,05	11	21 E1	60 R1	6,9	18 E1	44 R1	20	30 E1	68 R1	14	23 E1	49 R1	179	393
129,99	11	20 E1	59 R1	7,0	17 E1	43 R1	20	29 E1	66 R1	14	23 E1	48 R1		
162,82	10	20 E1	56 R1	7,1	16 E1	41 R1	19	28 E1	63 R1	13	22 E1	46 R1		
189,08	10	19 E1	54 R1	7,0	16 E1	41 R1	19	27 E1	60 R1	13	22 E1	44 R1		
228,47	9,7	18 E1	52 R1	6,6	15 E1	38 R1	18	26 E1	59 R1	12	21 E1	43 R1		
286,70	9,1	17 E1	49 R1	6,2	15 E1	36 R1	17	24 E1	55 R1	12	19 E1	40 R1		
367,94	8,2	16 E1	44 R1	5,6	13 E1	33 R1	15	22 E1	50 R1	11	18 E1	36 R1		
427,73	7,9	15 E1	42 R1	5,4	13 E1	31 R1	15	21 E1	47 R1	10	17 E1	35 R1		
517,41	7,4	14 E1	40 R1	5,1	12 E1	30 R1	14	20 E1	45 R1	10	16 E1	33 R1		
614,07	6,9	13 E1	36 R1	4,6	11 E1	27 R1	13	18 E1	40 R1	8,7	14 E1	30 R1		
10,57	33	57 E1	161 R1	20	45 E1	115 R1	68	92 E1	192 R1	44	67 E1	136 R1	227	394
12,61	33	57 E1	157 R1	21	44 E1	111 R1	67	89 E1	183 R1	43	66 E1	128 R1	242	395
16,19	31	52 E1	138 R1	20	62 E2	100 R1	61	80 E1	164 R1	40	61 E1	117 R1		
19,21	29	49 E1	126 R1	19	57 E2	91 R1	56	74 E1	149 R1	37	56 E1	107 R1		
21,26	18	34 E1	96 R1	11	43 E2	70 R1	36	50 E1	111 R1	24	39 E1	80 R1	206	394
25,36	18	34 E1	97 R1	11	43 E2	71 R1	36	50 E1	111 R1	24	39 E1	81 R1	221	395
29,94	18	33 E1	94 R1	12	42 E2	69 R1	35	49 E1	108 R1	23	38 E1	78 R1		
37,58	18	32 E1	90 R1	12	40 E2	66 R1	34	47 E1	103 R1	23	36 E1	74 R1		
43,68	18	31 E1	87 R1	12	39 E2	64 R1	33	46 E1	100 R1	22	35 E1	72 R1		
56,06	16	29 E1	80 R1	11	36 E2	58 R1	30	42 E1	91 R1	20	33 E1	66 R1		
67,81	16	28 E1	78 R1	11	23 E1	55 R1	29	41 E1	87 R1	20	32 E1	63 R1		
80,48	15	26 E1	69 R1	10	21 E1	51 R1	27	37 E1	78 R1	18	29 E1	58 R1		
100,84	13	24 E1	69 R1	8,1	20 E1	51 R1	24	35 E1	78 R1	16	27 E1	57 R1	209	394
119,05	12	23 E1	66 R1	7,8	20 E1	49 R1	23	33 E1	75 R1	15	26 E1	55 R1	225	395
129,99	12	23 E1	65 R1	7,9	19 E1	48 R1	23	33 E1	73 R1	15	26 E1	54 R1		
162,82	12	22 E1	62 R1	8,1	18 E1	45 R1	22	31 E1	70 R1	15	25 E1	51 R1		
189,08	12	22 E1	61 R1	8,0	18 E1	43 R1	21	31 E1	67 R1	14	24 E1	49 R1		
228,47	11	20 E1	57 R1	7,8	17 E1	42 R1	20	29 E1	65 R1	14	23 E1	47 R1		
286,70	10	19 E1	54 R1	7,1	16 E1	40 R1	19	27 E1	61 R1	13	22 E1	45 R1		
367,94	9,3	17 E1	49 R1	6,4	15 E1	36 R1	18	25 E1	55 R1	12	20 E1	40 R1		
427,73	9,0	17 E1	47 R1	6,2	14 E1	35 R1	17	24 E1	53 R1	12	19 E1	39 R1		
517,41	8,5	16 E1	44 R1	5,8	13 E1	33 R1	16	23 E1	50 R1	11	18 E1	37 R1		
614,07	7,9	14 E1	40 R1	5,3	12 E1	30 R1	14	20 E1	45 R1	10	16 E1	33 R1		

Motorsuz Konik Girişli Planet Redüktörler

Planetary Gear Units with Bevel Stage Input

Planetengetriebe mit Kegelradvorstufe

n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2702K	**11,3**	13,9	18,3	22,5	**7,84**	**121**	**153**	0,94	25,7	44	10,4
RT2702K	**14,5**	17,9	18,8	19,0	**10,06**	**94**	**153**	0,94	27,0	48	10,4
	12,3	12,8	13,5	14,0	**11,94**	**80**	**110**	0,93	27,8	50	10,4
	13,7	16,9	18,1	18,3	**15,31**	**62**	**95**	0,94	25,7	55	10,4
	12,6	13,1	13,8	14,4	**18,17**	**52**	**74**	0,93	27,0	60	10,4
PT2703K	**10,8**	13,3	14,6	14,9	**30,23**	**31**	**39**	0,91	32,3	65	5,9
RT2703K	**12,7**	15,7	17,3	17,6	**35,69**	**27**	**39**	0,91	33,8	69	5,9
	16,0	19,7	21,7	22,1	**44,78**	**21**	**39**	0,91	35,3	73	5,9
	18,6	22,0	23,5	24,0	**52,06**	**18**	**39**	0,91	36,2	77	5,9
	15,6	16,2	17,0	17,7	**62,98**	**15**	**27**	0,90	35,8	81	5,9
	19,2	19,5	19,8	21,0	**80,82**	**12**	**26**	0,90	45,4	88	5,9
	13,6	14,4	16,6	18,5	**95,92**	**9,9**	**16**	0,90	32,2	96	5,9
PT2704K	**23,2**	23,5	23,9	25,0	**91,31**	**10**	**29**	0,86	47,5	96	2,4
RT2704K	**23,3**	23,6	24,1	25,0	**107,80**	**8,8**	**25**	0,86	47,5	101	2,4
	23,4	23,7	24,5	25,0	**127,26**	**7,5**	**21**	0,86	52,2	106	2,4
	23,5	23,8	25,0	25,0	**159,70**	**5,9**	**17**	0,86	55,9	113	2,4
	23,6	23,9	25,0	25,0	**185,65**	**5,1**	**15**	0,86	58,5	118	2,4
	23,6	24,0	25,0	25,0	**224,57**	**4,2**	**12**	0,85	57,9	125	2,4
	23,7	24,2	25,0	25,0	**281,82**	**3,4**	**9,9**	0,85	58,2	131	2,4
	23,5	24,6	25,0	25,0	**327,61**	**2,9**	**8,4**	0,85	55,1	129	2,4
	17,1	17,8	20,3	22,6	**396,31**	**2,4**	**5,0**	0,85	40,7	128	2,4
	20,0	21,5	23,7	25,0	**508,59**	**1,9**	**4,6**	0,84	48,9	136	2,4
	17,1	19,1	21,6	23,5	**603,61**	**1,6**	**3,4**	0,84	36,6	140	2,4
PT2902K	**11,3**	13,9	18,3	22,5	**7,84**	**121**	**152**	0,94	28,2	54	9,8
RT2902K	**14,5**	17,9	23,5	26,6	**10,06**	**94**	**152**	0,94	29,6	58	9,8
	16,7	19,7	20,8	21,7	**11,94**	**80**	**149**	0,94	30,7	61	9,8
	13,7	16,9	18,1	18,3	**15,31**	**62**	**95**	0,94	29,6	65	9,8
	16,3	20,0	21,2	21,8	**18,17**	**52**	**95**	0,94	30,7	75	9,8
PT2903K	**18,5**	22,8	29,9	33,8	**43,25**	**22**	**47**	0,91	40,4	88	5,9
RT2903K	**22,1**	27,2	35,0	35,0	**51,60**	**18**	**47**	0,91	48,2	92	5,9
	27,1	33,9	35,0	35,0	**66,22**	**14**	**45**	0,91	60,2	99	5,9
	27,9	30,7	32,7	34,9	**78,59**	**12**	**39**	0,91	62,1	104	5,9
	26,0	28,1	30,9	33,2	**100,86**	**9,4**	**28**	0,90	63,6	116	5,9
	21,2	22,9	26,0	28,0	**119,70**	**7,9**	**20**	0,90	51,9	122	5,9
PT2904K	**25,9**	27,4	28,0	28,4	**86,96**	**11**	**34**	0,87	56,7	114	2,4
RT2904K	**33,4**	35,0	35,0	35,0	**122,49**	**7,8**	**31**	0,87	74,4	126	2,4
	34,8	35,0	35,0	35,0	**153,72**	**6,2**	**26**	0,87	79,7	135	2,4
	34,9	35,0	35,0	35,0	**178,70**	**5,3**	**22**	0,87	83,4	141	2,4
	35,0	35,0	35,0	35,0	**216,17**	**4,4**	**19**	0,86	83,4	149	2,4
	35,0	35,0	35,0	35,0	**277,41**	**3,4**	**15**	0,86	87,3	160	2,4
	31,8	33,4	35,0	35,0	**329,24**	**2,9**	**11**	0,86	77,5	168	2,4
	35,0	35,0	35,0	35,0	**422,52**	**2,2**	**9,6**	0,86	73,2	168	2,4
	25,5	27,5	30,2	32,4	**501,46**	**1,9**	**5,9**	0,86	59,6	168	2,4
PT3502K	**11,4**	14,1	18,5	22,8	**7,94**	**120**	**152**	0,94	41,2	65	9,8
RT3502K	**14,9**	18,4	24,2	29,8	**10,35**	**92**	**153**	0,94	43,0	71	9,8
	18,0	19,7	20,8	21,6	**12,46**	**76**	**152**	0,94	41,2	81	9,8
	14,1	17,3	18,6	18,9	**15,75**	**60**	**95**	0,94	43,0	87	9,8
	17,0	20,2	21,3	22,3	**18,96**	**50**	**95**	0,94	43,5	94	9,8
PT3503K	**18,7**	23,1	30,3	34,3	**43,80**	**22**	**47**	0,91	59,6	107	5,9
RT3503K	**22,3**	27,5	36,2	40,9	**52,26**	**18**	**47**	0,91	62,8	113	5,9
	28,7	35,3	46,4	50,0	**67,06**	**14**	**47**	0,91	67,7	122	5,9
	34,0	41,9	44,2	46,4	**79,59**	**12**	**47**	0,91	71,3	129	5,9
	31,0	33,5	39,0	42,3	**103,74**	**9,2**	**33**	0,91	71,9	140	5,9
	21,3	23,0	26,6	29,6	**124,88**	**7,6**	**19**	0,90	49,3	154	5,9

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=950

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
7,84	**38**	158 E4	192 R2	**25**	147 E4	230 R3	**71**	187 E4	168 R1	**48**	167 E4	159 R2	301	396
10,06	**39**	161 E4	196 R2	**25**	150 E4	235 R3	**72**	191 E4	171 R1	**48**	170 E4	162 R2	366	397
11,94	**35**	147 E4	129 R1	**23**	137 E4	130 R2	**66**	122 E3	156 R1	**45**	155 E4	112 R1		
15,31	**35**	96 E3	135 R1	**22**	142 E4	97 R1	**68**	104 E2	164 R1	**45**	105 E3	116 R1		
18,17	**33**	88 E3	124 R1	**21**	78 E3	89 R1	**63**	79 E1	150 R1	**42**	75 E2	107 R1		
30,23	**21**	50 E2	97 R1	**13**	43 E2	70 R1	**42**	55 E1	114 R1	**27**	42 E1	82 R1	271	396
35,69	**21**	49 E2	94 R1	**14**	42 E2	68 R1	**41**	54 E1	110 R1	**27**	41 E1	79 R1	336	397
44,78	**21**	47 E2	90 R1	**13**	41 E2	65 R1	**39**	52 E1	105 R1	**26**	39 E1	76 R1		
52,06	**20**	46 E2	87 R1	**14**	40 E2	63 R1	**38**	50 E1	102 R1	**26**	38 E1	74 R1		
62,98	**20**	32 E1	84 R1	**14**	26 E1	61 R1	**37**	49 E1	98 R1	**25**	37 E1	71 R1		
80,82	**18**	30 E1	77 R1	**13**	24 E1	56 R1	**34**	45 E1	91 R1	**23**	34 E1	66 R1		
95,92	**17**	27 E1	71 R1	**12**	22 E1	52 R1	**32**	41 E1	83 R1	**21**	32 E1	60 R1		
91,31	**15**	25 E1	70 R1	**9,1**	21 E1	51 R1	**28**	39 E1	82 R1	**19**	30 E1	59 R1	252	396
107,80	**14**	25 E1	68 R1	**8,8**	20 E1	49 R1	**27**	37 E1	78 R1	**18**	29 E1	57 R1	317	397
127,26	**14**	24 E1	65 R1	**9,1**	20 E1	48 R1	**26**	36 E1	76 R1	**18**	28 E1	55 R1		
159,70	**14**	23 E1	62 R1	**9,3**	19 E1	46 R1	**25**	34 E1	72 R1	**17**	27 E1	52 R1		
185,65	**13**	23 E1	61 R1	**9,2**	19 E1	45 R1	**25**	33 E1	70 R1	**17**	26 E1	52 R1		
224,57	**13**	22 E1	58 R1	**8,8**	18 E1	42 R1	**24**	32 E1	67 R1	**16**	25 E1	47 R1		
281,82	**12**	20 E1	55 R1	**8,3**	17 E1	39 R1	**22**	30 E1	63 R1	**15**	23 E1	46 R1		
327,61	**12**	19 E1	52 R1	**8,0**	16 E1	37 R1	**22**	29 E1	61 R1	**15**	22 E1	44 R1		
396,31	**11**	18 E1	50 R1	**7,4**	15 E1	37 R1	**21**	28 E1	58 R1	**14**	21 E1	42 R1		
508,59	**10**	17 E1	45 R1	**7,0**	14 E1	33 R1	**19**	25 E1	52 R1	**13**	20 E1	38 R1		
603,61	**9,1**	16 E1	41 R1	**6,2**	13 E1	30 R1	**17**	23 E1	47 R1	**12**	18 E1	34 R1		
7,84	**43**	170 E4	150 R1	**28**	156 E4	150 R2	**84**	146 E3	186 R1	**55**	181 E4	174 R2	403	398
10,06	**40**	156 E4	190 R2	**27**	144 E4	223 R3	**77**	189 E4	170 R1	**51**	166 E4	159 R2	475	399
11,94	**37**	143 E4	174 R2	**24**	230 E5	204 R3	**71**	173 E4	156 R1	**48**	152 E4	146 R2		
15,31	**42**	106 E3	147 R1	**27**	92 E3	107 R1	**82**	100 E1	182 R1	**54**	92 E2	129 R1		
18,17	**40**	99 E3	136 R1	**26**	143 E4	98 R1	**77**	94 E1	169 R1	**51**	109 E3	120 R1		
43,25	**26**	57 E2	108 R1	**16**	48 E2	77 R1	**52**	67 E1	130 R1	**34**	49 E1	92 R1	357	398
51,60	**26**	56 E2	103 R1	**17**	47 E2	75 R1	**51**	65 E1	125 R1	**34**	48 E1	89 R1	429	399
66,22	**26**	53 E2	98 R1	**17**	45 E2	71 R1	**49**	62 E1	119 R1	**32**	47 E1	85 R1		
78,59	**25**	39 E1	95 R1	**17**	31 E1	69 R1	**48**	60 E1	114 R1	**32**	45 E1	82 R1		
100,86	**23**	36 E1	88 R1	**16**	29 E1	64 R1	**44**	56 E1	106 R1	**30**	42 E1	76 R1		
119,70	**22**	34 E1	82 R1	**15**	27 E1	59 R1	**41**	52 E1	98 R1	**28**	39 E1	71 R1		
86,96	**17**	40 E2	78 R1	**11**	35 E2	56 R1	**34**	45 E1	91 R1	**22**	34 E1	66 R1	224	398
122,49	**17**	38 E2	72 R1	**11**	33 E2	52 R1	**32**	42 E1	84 R1	**21**	32 E1	61 R1	396	399
153,72	**16**	26 E1	68 R1	**10**	31 E2	50 R1	**30**	40 E1	80 R1	**20**	30 E1	58 R1		
178,70	**16**	26 E1	66 R1	**11**	30 E2	48 R1	**29**	39 E1	77 R1	**20**	29 E1	56 R1		
216,17	**15**	25 E1	63 R1	**11**	20 E1	46 R1	**28**	37 E1	74 R1	**19**	28 E1	54 R1		
277,41	**14**	23 E1	59 R1	**10**	19 E1	43 R1	**27**	35 E1	69 R1	**18**	27 E1	50 R1		
329,24	**14**	22 E1	57 R1	**10**	18 E1	41 R1	**25**	33 E1	66 R1	**17**	25 E1	48 R1		
422,52	**13**	20 E1	52 R1	**8,7**	16 E1	38 R1	**23**	30 E1	61 R1	**16**	23 E1	44 R1		
501,46	**12**	19 E1	48 R1	**8,1**	15 E1	36 R1	**21**	28 E1	56 R1	**15**	21 E1	41 R1		
7,94	**48**	181 E4	160 R1	**32**	166 E4	159 R2	**93**	158 E3	201 R1	**62**	193 E4	186 R2	470	400
10,35	**45**	167 E4	147 R1	**30**	153 E4	147 R2	**86**	147 E3	185 R1	**57**	178 E4	171 R2	557	401
12,08	**42**	100 E3	137 R1	**27**	143 E4	98 R1	**80**	97 E1	171 R1	**54**	110 E3	121 R1		
12,46	**46**	183 E4	162 R1	**29**	168 E4	161 R2	**93**	160 E3	205 R1	**60**	195 E4	187 R2		
15,75	**45**	109 E3	150 R1	**29**	94 E3	109 R1	**87**	106 E1	189 R1	**58**	96 E2	133 R1		
18,96	**42**	100 E3	138 R1	**27**	144 E4	99 R1	**81**	98 E1	173 R1	**53**	111 E3	122 R1		
43,80	**29**	44 E1	110 R1	**18**	50 E2	79 R1	**57**	72 E1	135 R1	**37**	53 E1	96 R1	454	400
52,26	**29**	58 E2	107 R1	**18**	49 E2	79 R1	**56**	70 E1	130 R1	**37**	52 E1	93 R1	540	401
67,06	**28**	56 E2	101 R1	**18**	47 E2	73 R1	**54**	67 E1	124 R1	**36**	50 E1	88 R1		
79,59	**28**	54 E2	98 R1	**18**	46 E2	71 R1	**52**	65 E1	120 R1	**35**	48 E1	85 R1		
103,74	**26**	39 E1	92 R1	**17**	43 E2	67 R1	**49**	61 E1	112 R1	**33**	45 E1	80 R1		
124,88	**24**	35 E1	84 R1	**16**	28 E1	61 R1	**45**	56 E1	102 R1	**30**	42 E1	73 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3504K **RT3504K**	**26,2**	27,7	28,3	28,8	**88,07**	**11**	**34**	0,86	82,7	138	2,4
	37,0	39,0	39,9	40,6	**124,05**	**7,7**	**34**	0,86	97,0	153	2,4
	46,4	49,0	50,0	50,0	**155,67**	**6,1**	**34**	0,86	104	164	2,4
	49,0	50,0	50,0	50,0	**180,97**	**5,2**	**31**	0,86	109	171	2,4
	50,0	50,0	50,0	50,0	**218,91**	**4,3**	**27**	0,85	111	181	2,4
	50,0	50,0	50,0	50,0	**280,94**	**3,4**	**21**	0,85	112	195	2,4
	43,4	45,1	50,0	50,0	**333,42**	**2,8**	**15**	0,85	103	206	2,4
	37,5	50,0	46,0	49,9	**434,60**	**2,2**	**10**	0,85	80,3	223	2,4
	25,8	28,7	33,2	37,1	**523,13**	**1,8**	**5,8**	0,85	55,0	236	2,4

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=950

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
88,07	**19**	43 E2	80 R1	**12**	37 E2	58 R1	**38**	49 E1	96 R1	**25**	37 E1	69 R1	433	400
124,05	**19**	40 E2	74 R1	**12**	34 E2	54 R1	**36**	46 E1	89 R1	**24**	35 E1	64 R1	520	401
155,67	**18**	38 E2	71 R1	**12**	33 E2	52 R1	**34**	44 E1	84 R1	**23**	33 E1	61 R1		
180,97	**18**	37 E2	69 R1	**12**	32 E2	50 R1	**33**	42 E1	82 R1	**22**	32 E1	59 R1		
218,91	**17**	27 E1	66 R1	**11**	21 E1	48 R1	**32**	41 E1	78 R1	**22**	31 E1	56 R1		
280,94	**16**	25 E1	62 R1	**11**	20 E1	45 R1	**30**	38 E1	73 R1	**20**	29 E1	53 R1		
333,42	**15**	24 E1	59 R1	**10**	19 E1	43 R1	**29**	36 E1	70 R1	**19**	28 E1	51 R1		
434,60	**14**	22 E1	55 R1	**10**	18 E1	40 R1	**27**	34 E1	65 R1	**18**	26 E1	47 R1		
523,13	**13**	20 E1	49 R1	**8,8**	16 E1	37 R1	**24**	30 E1	58 R1	**16**	23 E1	42 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1102K	**0,93**	1,00	1,00	1,00	**6,85**	**106**	**11**	0,94	1,20	14	2,6
RT1102K	**0,95**	1,00	1,00	1,00	**7,48**	**97**	**10**	0,94	1,20	15	2,6
	0,97	1,00	1,00	1,00	**9,36**	**77**	**8,4**	0,93	1,20	16	2,6
	0,82	0,86	0,92	0,96	**10,88**	**67**	**6,2**	0,93	1,20	16	2,6
	0,62	0,65	0,70	0,73	**13,14**	**55**	**3,9**	0,92	1,20	19	2,6
PT1103K	**1,00**	1,00	1,00	1,00	**25,87**	**28**	**3,3**	0,89	1,20	21	2,6
RT1103K	**1,00**	1,00	1,00	1,00	**28,24**	**26**	**3,0**	0,89	1,20	21	2,6
	1,00	1,00	1,00	1,00	**30,84**	**24**	**2,7**	0,90	1,20	23	2,6
	1,00	1,00	1,00	1,00	**38,63**	**19**	**2,2**	0,90	1,20	24	2,6
	1,00	1,00	1,00	1,00	**44,86**	**16**	**1,9**	0,90	1,20	25	2,6
	1,00	1,00	1,00	1,00	**54,21**	**13**	**1,6**	0,89	1,20	27	2,6
	1,00	1,00	1,00	1,00	**67,89**	**11**	**1,3**	0,89	1,20	28	2,6
	0,92	0,98	1,00	1,00	**78,84**	**9,2**	**1,0**	0,88	1,20	30	2,6
	0,71	0,75	0,93	1,00	**95,27**	**7,6**	**0,65**	0,87	1,20	30	2,6
PT1104K	**1,00**	1,00	1,00	1,00	**106,70**	**6,8**	**0,85**	0,84	1,20	32	2,6
RT1104K	**1,00**	1,00	1,00	1,00	**116,51**	**6,2**	**0,78**	0,84	1,20	33	2,6
	1,00	1,00	1,00	1,00	**127,22**	**5,7**	**0,71**	0,84	1,20	35	2,6
	1,00	1,00	1,00	1,00	**159,34**	**4,5**	**0,57**	0,84	1,20	36	2,6
	1,00	1,00	1,00	1,00	**185,04**	**3,9**	**0,49**	0,84	1,20	39	2,6
	1,00	1,00	1,00	1,00	**223,60**	**3,2**	**0,41**	0,84	1,20	41	2,6
	1,00	1,00	1,00	1,00	**280,06**	**2,6**	**0,33**	0,83	1,20	41	2,6
	1,00	1,00	1,00	1,00	**325,23**	**2,2**	**0,28**	0,83	1,20	41	2,6
	1,00	1,00	1,00	1,00	**392,99**	**1,8**	**0,24**	0,82	1,20	41	2,6
	1,00	1,00	1,00	1,00	**492,23**	**1,5**	**0,19**	0,81	1,20	41	2,6
	1,00	1,00	1,00	1,00	**571,62**	**1,3**	**0,17**	0,79	1,20	41	2,6
	1,00	1,00	1,00	1,00	**690,70**	**1,0**	**0,14**	0,77	1,20	41	2,6
PT1202K	**0,94**	1,07	1,10	1,11	**6,85**	**106**	**11**	0,94	2,25	14	2,6
RT1202K	**1,02**	1,17	1,20	1,22	**7,48**	**97**	**11**	0,94	2,30	15	2,6
	1,28	1,47	1,50	1,52	**9,36**	**77**	**11**	0,94	2,39	16	2,6
	1,43	1,64	1,72	1,75	**10,88**	**67**	**11**	0,93	2,45	16	2,6
	1,12	1,16	1,22	1,27	**13,14**	**55**	**7,0**	0,92	2,56	19	2,6
PT1203K	**2,00**	2,00	2,00	2,00	**25,87**	**28**	**6,5**	0,90	3,00	21	2,6
RT1203K	**2,00**	2,00	2,00	2,00	**28,24**	**26**	**6,0**	0,90	3,00	21	2,6
	2,00	2,00	2,00	2,00	**30,84**	**24**	**5,5**	0,90	3,00	23	2,6
	2,00	2,00	2,00	2,00	**38,63**	**19**	**4,4**	0,90	3,00	24	2,6
	2,00	2,00	2,00	2,00	**44,86**	**16**	**3,8**	0,89	3,00	25	2,6
	2,00	2,00	2,00	2,00	**54,21**	**13**	**3,1**	0,89	3,00	27	2,6
	1,99	2,00	2,00	2,00	**67,89**	**11**	**2,5**	0,89	3,00	28	2,6
	1,74	1,78	1,81	1,94	**78,84**	**9,2**	**1,9**	0,88	3,00	30	2,6
	1,23	1,30	1,53	1,73	**95,27**	**7,6**	**1,1**	0,87	2,91	30	2,6
PT1204K	**2,00**	2,00	2,00	2,00	**106,70**	**6,8**	**1,7**	0,84	3,00	32	2,6
RT1204K	**2,00**	2,00	2,00	2,00	**116,51**	**6,2**	**1,5**	0,84	3,00	33	2,6
	2,00	2,00	2,00	2,00	**127,22**	**5,7**	**1,4**	0,84	3,00	35	2,6
	2,00	2,00	2,00	2,00	**159,34**	**4,5**	**1,1**	0,84	3,00	36	2,6
	2,00	2,00	2,00	2,00	**185,04**	**3,9**	**1,0**	0,84	3,00	39	2,6
	2,00	2,00	2,00	2,00	**223,60**	**3,2**	**0,81**	0,84	3,00	41	2,6
	2,00	2,00	2,00	2,00	**280,06**	**2,6**	**0,65**	0,83	3,00	41	2,6
	2,00	2,00	2,00	2,00	**325,23**	**2,2**	**0,56**	0,83	3,00	41	2,6
	2,00	2,00	2,00	2,00	**392,99**	**1,8**	**0,47**	0,82	3,00	41	2,6
	2,00	2,00	2,00	2,00	**492,23**	**1,5**	**0,38**	0,81	3,00	41	2,6
	1,89	2,00	2,00	2,00	**571,62**	**1,3**	**0,31**	0,81	3,00	41	2,6
	1,62	1,81	1,99	2,00	**690,70**	**1,0**	**0,23**	0,78	3,00	41	2,6
PT1502K	**1,93**	1,97	2,01	2,04	**6,20**	**117**	**25**	0,94	3,72	20	2,6
RT1502K	**2,28**	2,32	2,38	2,41	**7,32**	**99**	**25**	0,94	3,72	21	2,6
	2,52	2,56	2,62	2,66	**9,19**	**79**	**22**	0,94	3,72	22	2,6
	2,15	2,27	2,38	2,42	**10,68**	**68**	**16**	0,93	3,72	23	2,6
	1,50	1,58	1,70	1,79	**12,92**	**56**	**9,5**	0,93	3,50	25	2,6

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
6,85	8,5	25 E1	90 R1	5,2	23 E1	66 R1	17	33 E1	96 R1	11	27 E1	70 R1	37	382
7,48	8,7	25 E1	87 R1	5,4	22 E1	64 R1	17	32 E1	93 R1	11	27 E1	68 R1	39	383
9,36	8,2	23 E1	79 R1	5,4	20 E1	58 R1	16	29 E1	84 R1	10	25 E1	62 R1		
10,88	7,6	20 E1	71 R1	5,1	18 E1	52 R1	14	26 E1	76 R1	10	22 E1	55 R1		
13,14	6,2	17 E1	61 R1	4,0	16 E1	45 R1	12	22 E1	65 R1	8,0	19 E1	48 R1		
25,87	6,3	16 E1	55 R1	4,0	15 E1	41 R1	12	21 E1	59 R1	8,1	18 E1	44 R1	42	382
28,24	6,2	16 E1	55 R1	4,0	14 E1	42 R1	12	21 E1	59 R1	8,0	18 E1	43 R1	44	383
30,84	6,2	16 E1	54 R1	4,1	15 E1	40 R1	11	21 E1	58 R1	7,9	18 E1	43 R1		
38,63	5,9	15 E1	51 R1	4,0	13 E1	38 R1	11	19 E1	55 R1	7,2	16 E1	40 R1		
44,86	5,6	15 E1	49 R1	4,0	13 E1	36 R1	10	19 E1	53 R1	7,1	16 E1	39 R1		
54,21	5,4	14 E1	46 R1	3,8	12 E1	34 R1	9,8	18 E1	50 R1	6,7	15 E1	37 R1		
67,89	4,9	13 E1	42 R1	3,6	11 E1	31 R1	9,2	16 E1	46 R1	6,1	14 E1	34 R1		
78,84	4,5	12 E1	39 R1	3,1	10 E1	29 R1	8,5	15 E1	42 R1	5,6	13 E1	31 R1		
95,27	3,8	10 E1	33 R1	2,6	8,9 E1	25 R1	7,2	13 E1	35 R1	4,8	11 E1	26 R1		
106,70	4,8	12 E1	38 R1	3,2	10 E1	29 R1	9,0	15 E1	41 R1	6,1	13 E1	31 R1	48	382
116,51	4,7	12 E1	37 R1	3,1	10 E1	28 R1	8,8	15 E1	39 R1	5,9	13 E1	29 R1	50	383
127,22	4,6	11 E1	36 R1	3,1	10 E1	26 R1	8,5	14 E1	39 R1	5,8	12 E1	28 R1		
159,34	4,3	11 E1	34 R1	3,0	9,0 E1	25 R1	8,0	14 E1	37 R1	5,4	12 E1	27 R1		
185,04	4,1	10 E1	33 R1	2,8	9,0 E1	24 R1	7,7	13 E1	36 R1	5,1	11 E1	26 R1		
223,60	3,9	10 E1	31 R1	2,7	8,5 E1	23 R1	7,3	13 E1	34 R1	4,8	11 E1	25 R1		
280,06	3,6	9,0 E1	29 R1	2,5	8,0 E1	22 R1	6,9	12 E1	31 R1	4,5	10 E1	23 R1		
325,23	3,5	8,6 E1	28 R1	2,4	7,6 E1	21 R1	6,6	11 E1	30 R1	4,3	9,4 E1	22 R1		
392,99	3,3	8,1 E1	26 R1	2,3	7,2 E1	20 R1	6,2	11 E1	28 R1	4,1	8,9 E1	21 R1		
492,23	3,0	7,4 E1	24 R1	2,1	6,6 E1	18 R1	5,6	10 E1	26 R1	3,9	8,1 E1	19 R1		
571,62	2,7	6,7 E1	22 R1	1,9	6,0 E1	16 R1	5,2	8,8 E1	23 R1	3,5	7,4 E1	17 R1		
690,70	2,3	5,7 E1	18 R1	1,6	5,0 E1	14 R1	4,3	7,4 E1	19 R1	3,0	6,2 E1	15 R1		
6,85	9,3	27 E1	97 R1	5,6	24 E1	72 R1	19	36 E1	104 R1	12	30 E1	76 R1	41	384
7,48	9,5	27 E1	95 R1	5,9	24 E1	70 R1	18	35 E1	101 R1	12	29 E1	74 R1	43	385
9,36	9,1	25 E1	86 R1	5,9	22 E1	64 R1	17	31 E1	92 R1	12	27 E1	68 R1		
10,88	8,4	23 E1	76 R1	5,6	20 E1	57 R1	16	29 E1	82 R1	11	24 E1	60 R1		
13,14	7,3	19 E1	67 R1	4,9	18 E1	48 R1	13	25 E1	71 R1	9,2	21 E1	51 R1		
25,87	7,3	18 E1	61 R1	4,7	16 E1	45 R1	14	24 E1	66 R1	9,4	20 E1	48 R1	47	384
28,24	7,2	18 E1	60 R1	4,6	16 E1	45 R1	13	24 E1	65 R1	9,3	20 E1	48 R1	49	385
30,84	7,2	18 E1	60 R1	4,7	16 E1	45 R1	13	23 E1	65 R1	9,2	19 E1	48 R1		
38,63	6,9	17 E1	56 R1	4,6	15 E1	40 R1	13	22 E1	61 R1	8,6	18 E1	43 R1		
44,86	6,6	16 E1	54 R1	4,5	14 E1	40 R1	12	21 E1	58 R1	8,2	18 E1	43 R1		
54,21	6,3	16 E1	51 R1	4,4	13 E1	38 R1	11	20 E1	55 R1	7,8	17 E1	41 R1		
67,89	5,7	14 E1	47 R1	4,1	12 E1	35 R1	11	19 E1	51 R1	7,2	16 E1	37 R1		
78,84	5,3	13 E1	43 R1	3,9	12 E1	32 R1	9,9	17 E1	47 R1	6,6	14 E1	34 R1		
95,27	4,5	11 E1	37 R1	3,1	10 E1	27 R1	8,5	15 E1	40 R1	5,6	12 E1	29 R1		
106,70	5,7	13 E1	43 R1	3,7	12 E1	32 R1	10	18 E1	46 R1	7,2	15 E1	33 R1	52	384
116,51	5,5	13 E1	41 R1	3,6	12 E1	30 R1	10	17 E1	44 R1	7,0	14 E1	33 R1	54	385
127,22	5,4	13 E1	40 R1	3,6	11 E1	29 R1	10	17 E1	44 R1	6,8	14 E1	32 R1		
159,34	5,1	12 E1	38 R1	3,5	10 E1	28 R1	9,4	16 E1	41 R1	6,3	13 E1	31 R1		
185,04	4,8	11 E1	37 R1	3,3	10 E1	27 R1	9,1	15 E1	40 R1	6,0	13 E1	29 R1		
223,60	4,6	11 E1	35 R1	3,2	10 E1	26 R1	8,6	14 E1	38 R1	5,7	12 E1	28 R1		
280,06	4,3	10 E1	32 R1	3,0	9,0 E1	24 R1	8,1	13 E1	35 R1	5,3	11 E1	26 R1		
325,23	4,1	10 E1	31 R1	2,8	8,6 E1	23 R1	7,7	13 E1	34 R1	5,3	11 E1	25 R1		
392,99	3,9	9,2 E1	29 R1	2,7	8,1 E1	22 R1	7,3	12 E1	32 R1	5,0	10 E1	23 R1		
492,23	3,5	8,4 E1	27 R1	2,4	7,4 E1	20 R1	6,7	11 E1	29 R1	4,6	9,2 E1	21 R1		
571,62	3,2	7,7 E1	24 R1	2,2	6,8 E1	18 R1	6,1	10 E1	26 R1	4,2	8,4 E1	19 R1		
690,70	2,7	6,5 E1	20 R1	1,9	5,7 E1	15 R1	5,1	8,5 E1	22 R1	3,5	7,1 E1	16 R1		
6,20	15	35 E1	111 R1	9,2	29 E1	81 R1	29	47 E1	123 R1	19	38 E1	89 R1	61	386
7,32	14	33 E1	106 R1	9,4	28 E1	77 R1	28	45 E1	117 R1	19	36 E1	85 R1	71	387
9,19	14	30 E1	95 R1	8,9	26 E1	70 R1	25	41 E1	104 R1	17	33 E1	76 R1		
10,68	13	27 E1	89 R1	8,5	24 E1	66 R1	23	37 E1	98 R1	16	30 E1	72 R1		
12,92	11	25 E1	75 R1	7,5	21 E1	56 R1	21	33 E1	84 R1	14	27 E1	62 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1503K	**2,61**	2,69	2,75	2,80	**24,65**	**29**	**9,0**	0,90	3,72	29	2,6
RT1503K	**3,04**	3,09	3,10	3,10	**31,78**	**23**	**8,1**	0,90	3,72	32	2,6
	3,06	3,10	3,10	3,10	**39,80**	**18**	**6,5**	0,90	3,72	34	2,6
	3,07	3,10	3,10	3,10	**46,22**	**16**	**5,6**	0,90	3,72	35	2,6
	2,66	2,71	2,76	2,94	**58,00**	**13**	**3,9**	0,89	3,72	38	2,6
	2,68	2,72	2,78	3,01	**70,08**	**10**	**3,3**	0,89	3,72	40	2,6
	2,43	2,47	2,55	2,82	**81,47**	**8,9**	**2,6**	0,89	3,72	42	2,6
	1,72	1,85	2,25	2,59	**98,55**	**7,4**	**1,5**	0,88	3,72	45	2,6
PT1504K	**2,71**	2,79	2,85	3,10	**93,12**	**7,8**	**2,6**	0,85	3,72	44	2,6
RT1504K	**3,10**	3,10	3,10	3,10	**120,04**	**6,0**	**2,3**	0,85	3,72	47	2,6
	3,10	3,10	3,10	3,10	**131,07**	**5,5**	**2,1**	0,85	3,72	49	2,6
	3,10	3,10	3,10	3,10	**164,17**	**4,4**	**1,7**	0,85	3,72	52	2,6
	3,10	3,10	3,10	3,10	**190,65**	**3,8**	**1,5**	0,85	3,72	54	2,6
	3,10	3,10	3,10	3,10	**230,37**	**3,1**	**1,2**	0,84	3,72	58	2,6
	3,10	3,10	3,10	3,10	**288,55**	**2,5**	**1,0**	0,84	3,72	60	2,6
	3,10	3,10	3,10	3,10	**335,09**	**2,2**	**0,84**	0,84	3,72	60	2,6
	2,81	3,09	3,10	3,10	**420,50**	**1,7**	**0,61**	0,83	3,72	61	2,6
	2,89	3,10	3,10	3,10	**508,10**	**1,4**	**0,52**	0,83	3,72	61	2,6
	2,68	2,97	3,10	3,10	**590,67**	**1,2**	**0,42**	0,82	3,72	62	2,6
	2,44	2,77	3,10	3,10	**714,52**	**1,0**	**0,32**	0,80	3,72	62	2,6
PT1602K	**1,93**	1,97	2,01	2,04	**6,20**	**117**	**25**	0,94	5,83	20	2,6
RT1602K	**2,28**	2,32	2,38	2,41	**7,32**	**99**	**25**	0,94	6,10	21	2,6
	2,86	2,92	2,98	3,03	**9,19**	**79**	**25**	0,94	6,35	22	2,6
	3,33	3,39	3,47	3,52	**10,68**	**68**	**25**	0,94	6,53	23	2,6
	2,32	2,41	2,53	2,62	**12,92**	**56**	**15**	0,93	5,33	25	2,6
PT1603K	**3,37**	3,86	3,94	4,01	**24,65**	**29**	**11**	0,91	7,50	29	2,6
RT1603K	**4,35**	4,98	5,00	5,00	**31,78**	**23**	**11**	0,90	7,50	32	2,6
	5,00	5,00	5,00	5,00	**39,80**	**18**	**11**	0,90	7,50	34	2,6
	5,00	5,00	5,00	5,00	**46,22**	**16**	**9,1**	0,90	7,50	35	2,6
	4,60	4,66	4,74	4,97	**58,00**	**13**	**6,7**	0,90	7,50	38	2,6
	4,62	4,68	4,76	5,00	**70,08**	**10**	**5,6**	0,90	7,50	40	2,6
	3,85	3,90	4,00	4,33	**81,47**	**8,9**	**4,0**	0,89	7,50	42	2,6
	2,57	2,70	3,11	3,43	**98,55**	**7,4**	**2,2**	0,89	6,07	45	2,6
PT1604K	**4,91**	4,99	5,00	5,00	**93,12**	**7,8**	**4,7**	0,85	7,50	44	2,6
RT1604K	**5,00**	5,00	5,00	5,00	**120,04**	**6,0**	**3,7**	0,86	7,50	47	2,6
	5,00	5,00	5,00	5,00	**131,07**	**5,5**	**3,4**	0,86	7,50	49	2,6
	5,00	5,00	5,00	5,00	**164,17**	**4,4**	**2,7**	0,85	7,50	52	2,6
	5,00	5,00	5,00	5,00	**190,65**	**3,8**	**2,3**	0,85	7,50	54	2,6
	5,00	5,00	5,00	5,00	**230,37**	**3,1**	**1,9**	0,85	7,50	58	2,6
	5,00	5,00	5,00	5,00	**288,55**	**2,5**	**1,6**	0,85	7,50	60	2,6
	5,00	5,00	5,00	5,00	**335,09**	**2,2**	**1,3**	0,84	7,50	60	2,6
	4,81	5,00	5,00	5,00	**420,50**	**1,7**	**1,0**	0,84	7,50	61	2,6
	4,90	5,00	5,00	5,00	**508,10**	**1,4**	**0,88**	0,83	7,50	61	2,6
	4,17	4,51	5,00	5,00	**590,67**	**1,2**	**0,65**	0,83	7,50	62	2,6
	3,30	3,62	4,07	4,44	**714,52**	**1,0**	**0,43**	0,82	6,82	62	2,6
PT1902K	**2,78**	3,43	3,61	3,67	**7,39**	**98**	**30**	0,95	7,90	35	6,3
RT1902K	**3,29**	4,05	4,26	4,33	**8,72**	**83**	**30**	0,95	8,27	38	6,3
	4,12	5,08	5,35	5,43	**10,95**	**66**	**30**	0,94	8,62	40	6,3
	4,79	5,44	5,82	6,06	**12,73**	**57**	**30**	0,94	8,85	42	6,3
	3,85	3,99	4,20	4,36	**15,39**	**47**	**20**	0,93	8,76	45	6,3
PT1903K	**6,14**	6,35	6,63	6,85	**22,32**	**32**	**23**	0,91	11,6	49	2,6
RT1903K	**7,32**	7,91	8,06	8,18	**31,11**	**23**	**20**	0,91	12,8	55	2,6
	7,83	7,95	8,11	8,23	**39,04**	**19**	**17**	0,91	13,7	58	2,6
	7,86	7,97	8,13	8,27	**45,38**	**16**	**14**	0,91	14,3	61	2,6
	6,35	6,71	7,22	7,62	**54,90**	**13**	**10**	0,91	14,9	65	2,6
	6,78	6,89	7,03	7,61	**68,89**	**11**	**8,3**	0,90	15,8	69	2,6
	5,80	6,14	6,43	6,98	**80,08**	**9,1**	**6,1**	0,90	13,5	72	2,6
	4,22	4,43	5,10	5,69	**96,88**	**7,5**	**3,7**	0,89	9,95	77	2,6

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
24,65	8,5	21 E1	69 R1	5,3	19 E1	50 R1	16	28 E1	75 R1	11	23 E1	54 R1	60	386
31,78	8,5	21 E1	66 R1	5,5	18 E1	51 R1	16	27 E1	72 R1	11	22 E1	55 R1	70	387
39,80	8,3	19 E1	63 R1	5,5	17 E1	48 R1	15	26 E1	68 R1	10	21 E1	49 R1		
46,22	8,0	19 E1	61 R1	5,2	16 E1	45 R1	15	25 E1	66 R1	10	20 E1	48 R1		
58,00	7,6	17 E1	55 R1	4,9	15 E1	41 R1	13	23 E1	60 R1	9,0	19 E1	44 R1		
70,08	6,8	16 E1	52 R1	4,8	14 E1	39 R1	13	21 E1	57 R1	8,6	18 E1	42 R1		
81,47	6,3	15 E1	48 R1	4,5	13 E1	35 R1	12	20 E1	52 R1	8,0	16 E1	38 R1		
98,55	5,5	13 E1	42 R1	4,1	11 E1	31 R1	10	17 E1	45 R1	7,0	14 E1	33 R1		
93,12	6,7	15 E1	49 R1	4,3	13 E1	36 R1	12	20 E1	53 R1	8,6	17 E1	39 R1	65	386
120,04	6,5	15 E1	47 R1	4,2	13 E1	35 R1	12	20 E1	51 R1	8,3	16 E1	37 R1	75	387
131,07	6,4	15 E1	45 R1	4,2	13 E1	34 R1	12	19 E1	50 R1	8,1	16 E1	37 R1		
164,17	6,0	13 E1	43 R1	3,9	12 E1	32 R1	11	18 E1	47 R1	7,8	15 E1	35 R1		
190,65	5,7	13 E1	42 R1	3,9	12 E1	31 R1	11	18 E1	46 R1	7,2	15 E1	34 R1		
230,37	5,4	13 E1	40 R1	3,7	11 E1	29 R1	10	17 E1	43 R1	6,8	14 E1	32 R1		
288,55	5,1	12 E1	37 R1	3,5	10 E1	28 R1	9,6	16 E1	40 R1	6,4	13 E1	30 R1		
335,09	4,9	11 E1	36 R1	3,4	10 E1	26 R1	9,2	15 E1	39 R1	6,3	12 E1	29 R1		
420,50	4,4	10 E1	32 R1	3,0	8,9 E1	24 R1	8,3	14 E1	35 R1	5,7	11 E1	26 R1		
508,10	4,1	10 E1	30 R1	2,9	8,4 E1	22 R1	7,8	13 E1	33 R1	5,4	11 E1	24 R1		
590,67	3,8	8,8 E1	27 R1	2,6	7,7 E1	20 R1	7,2	12 E1	30 R1	4,9	10 E1	22 R1		
714,52	3,3	7,5 E1	23 R1	2,3	6,6 E1	17 R1	6,2	10 E1	25 R1	4,2	8,3 E1	19 R1		
6,20	16	37 E1	120 R1	10	31 E1	87 R1	32	51 E1	133 R1	21	41 E1	96 R1	73	388
7,32	16	35 E1	114 R1	10	30 E1	84 R1	31	49 E1	127 R1	21	40 E1	92 R1	83	389
9,19	15	32 E1	103 R1	10	28 E1	75 R1	28	45 E1	114 R1	19	36 E1	83 R1		
10,68	14	30 E1	95 R1	9,5	26 E1	72 R1	26	41 E1	105 R1	18	33 E1	79 R1		
12,92	13	27 E1	84 R1	8,5	24 E1	62 R1	23	37 E1	93 R1	16	30 E1	68 R1		
24,65	9,8	23 E1	76 R1	6,1	20 E1	56 R1	19	31 E1	82 R1	13	25 E1	60 R1	76	388
31,78	9,8	22 E1	73 R1	6,3	20 E1	54 R1	18	30 E1	80 R1	12	25 E1	58 R1	86	389
39,80	9,5	22 E1	69 R1	6,4	19 E1	52 R1	18	29 E1	75 R1	12	24 E1	56 R1		
46,22	9,0	21 E1	67 R1	5,8	18 E1	50 R1	17	27 E1	74 R1	12	23 E1	54 R1		
58,00	8,6	19 E1	61 R1	5,6	16 E1	45 R1	15	26 E1	67 R1	10	21 E1	49 R1		
70,08	7,9	18 E1	58 R1	5,4	16 E1	43 R1	14	24 E1	63 R1	10	20 E1	47 R1		
81,47	7,3	17 E1	54 R1	5,1	14 E1	40 R1	14	22 E1	58 R1	9,1	18 E1	43 R1		
98,55	6,4	15 E1	47 R1	4,4	13 E1	35 R1	12	20 E1	51 R1	7,9	16 E1	37 R1		
93,12	7,6	17 E1	54 R1	4,9	15 E1	40 R1	14	23 E1	59 R1	9,4	19 E1	43 R1	82	388
120,04	7,3	16 E1	52 R1	4,7	14 E1	38 R1	13	22 E1	56 R1	9,0	18 E1	41 R1	92	389
131,07	7,2	16 E1	51 R1	4,8	14 E1	38 R1	13	21 E1	56 R1	9,2	18 E1	41 R1		
164,17	6,6	15 E1	48 R1	4,6	13 E1	36 R1	12	20 E1	52 R1	8,6	17 E1	39 R1		
190,65	6,5	15 E1	46 R1	4,5	13 E1	34 R1	12	20 E1	51 R1	8,1	16 E1	37 R1		
230,37	6,2	14 E1	44 R1	4,2	12 E1	33 R1	12	19 E1	48 R1	7,7	15 E1	35 R1		
288,55	5,8	13 E1	41 R1	4,0	11 E1	31 R1	11	18 E1	45 R1	7,2	14 E1	33 R1		
335,09	5,5	13 E1	39 R1	3,8	11 E1	29 R1	10	17 E1	43 R1	6,9	14 E1	32 R1		
420,50	5,0	11 E1	35 R1	3,4	10 E1	26 R1	9,4	15 E1	39 R1	6,4	12 E1	28 R1		
508,10	4,7	11 E1	33 R1	3,3	9,4 E1	25 R1	8,9	14 E1	37 R1	6,1	12 E1	27 R1		
590,67	4,3	10 E1	31 R1	3,0	8,6 E1	23 R1	8,1	13 E1	33 R1	5,6	11 E1	25 R1		
714,52	3,7	8,4 E1	26 R1	2,6	7,4 E1	19 R1	7,0	11 E1	29 R1	4,8	9,3 E1	21 R1		
7,39	25	47 E1	136 R1	16	39 E1	99 R1	50	70 E1	157 R1	33	53 E1	113 R1	140	390
8,72	25	45 E1	130 R1	16	38 E1	94 R1	48	67 E1	149 R1	32	52 E1	107 R1	154	391
10,95	23	41 E1	116 R1	15	34 E1	85 R1	44	61 E1	134 R1	29	47 E1	97 R1		
12,73	21	38 E1	107 R1	15	32 E1	78 R1	40	56 E1	123 R1	27	44 E1	89 R1		
15,39	19	34 E1	94 R1	13	28 E1	69 R1	36	50 E1	108 R1	24	39 E1	78 R1		
22,32	14	29 E1	85 R1	10	24 E1	62 R1	28	41 E1	96 R1	19	32 E1	70 R1	121	390
31,11	14	28 E1	81 R1	9,5	23 E1	59 R1	27	39 E1	91 R1	18	31 E1	66 R1	135	391
39,04	14	26 E1	78 R1	10	22 E1	58 R1	26	38 E1	88 R1	17	30 E1	65 R1		
45,38	14	26 E1	74 R1	9,3	22 E1	55 R1	25	37 E1	83 R1	17	29 E1	61 R1		
54,90	13	25 E1	70 R1	8,8	21 E1	52 R1	24	35 E1	80 R1	16	27 E1	58 R1		
68,89	12	22 E1	65 R1	8,1	19 E1	47 R1	22	31 E1	73 R1	15	25 E1	52 R1		
80,08	11	20 E1	59 R1	7,5	17 E1	43 R1	20	29 E1	67 R1	14	23 E1	49 R1		
96,88	9,6	18 E1	52 R1	6,4	15 E1	38 R1	18	26 E1	58 R1	12	20 E1	43 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment Ma [kNm]	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) Ma [kNm]			Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung [kW]	Verim *Efficiency* Wirkungsgrad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]
	10000 [h]	5000 [h]	2000 [h]	1000 [h]			10000 [h]			10000 [h]	
PT1904K	**8,02**	8,14	8,46	8,50	**104,76**	**6,9**	**6,8**	0,86	18,1	81	2,6
RT1904K	**8,05**	8,17	8,50	8,50	**123,68**	**5,9**	**5,7**	0,86	19,0	84	2,6
	8,06	8,18	8,50	8,50	**135,05**	**5,4**	**5,3**	0,86	19,5	89	2,6
	8,10	8,23	8,50	8,50	**169,15**	**4,3**	**4,2**	0,86	19,7	93	2,6
	8,13	8,25	8,50	8,50	**196,43**	**3,7**	**3,7**	0,86	19,8	95	2,6
	8,16	8,35	8,50	8,50	**237,35**	**3,1**	**3,1**	0,85	19,9	95	2,6
	8,20	8,50	8,50	8,50	**297,85**	**2,4**	**2,5**	0,85	20,0	95	2,6
	8,23	8,50	8,50	8,50	**346,26**	**2,1**	**2,1**	0,85	20,0	96	2,6
	7,32	7,85	8,50	8,50	**418,86**	**1,7**	**1,6**	0,85	17,3	97	2,6
	7,38	8,10	8,50	8,50	**525,63**	**1,4**	**1,3**	0,84	17,3	97	2,6
	6,79	7,37	8,23	8,50	**611,04**	**1,2**	**1,0**	0,83	15,6	99	2,6
	5,43	6,07	7,04	7,71	**739,16**	**1,0**	**0,68**	0,82	11,2	100	2,6
PT2302K	**4,77**	5,87	7,73	8,32	**10,57**	**69**	**36**	0,94	9,67	51	6,3
RT2302K	**5,69**	7,01	9,23	9,93	**12,61**	**57**	**36**	0,94	10,0	54	6,3
	7,18	8,83	10,7	11,5	**16,19**	**45**	**36**	0,94	10,5	59	6,3
	7,21	7,58	8,09	8,82	**19,21**	**38**	**30**	0,94	10,8	62	6,3
PT2303K	**6,63**	6,75	6,90	7,01	**21,26**	**34**	**26**	0,90	14,2	63	2,6
RT2303K	**7,91**	8,06	8,23	8,37	**25,36**	**29**	**26**	0,91	14,7	66	2,6
	8,87	9,51	9,72	9,88	**29,94**	**24**	**25**	0,91	15,5	69	2,6
	9,49	10,5	10,7	10,9	**37,58**	**19**	**21**	0,91	16,6	74	2,6
	8,81	9,28	9,72	9,88	**43,68**	**17**	**17**	0,90	17,3	77	2,6
	10,3	10,8	11,8	12,3	**56,06**	**13**	**16**	0,90	18,2	83	2,6
	7,85	8,29	8,91	9,41	**67,81**	**11**	**10**	0,90	18,4	88	2,6
	7,86	8,40	9,84	11,0	**80,48**	**9,0**	**8,3**	0,89	18,3	93	2,6
PT2304K	**10,7**	11,0	11,3	11,5	**100,84**	**7,2**	**9,5**	0,85	21,9	98	2,6
RT2304K	**10,7**	11,0	11,3	11,5	**119,05**	**6,1**	**8,0**	0,85	23,0	102	2,6
	12,4	12,5	12,5	12,5	**129,99**	**5,6**	**8,5**	0,85	23,7	101	2,6
	12,5	12,5	12,5	12,5	**162,82**	**4,5**	**6,9**	0,85	25,3	101	2,6
	12,5	12,5	12,5	12,5	**189,08**	**3,8**	**5,9**	0,84	25,6	101	2,6
	12,5	12,5	12,5	12,5	**228,47**	**3,2**	**4,9**	0,84	25,6	101	2,6
	10,9	11,1	11,4	12,3	**286,70**	**2,5**	**3,4**	0,84	25,6	102	2,6
	11,8	12,5	12,5	12,5	**367,94**	**2,0**	**2,9**	0,84	26,7	102	2,6
	11,9	12,5	12,5	12,5	**427,73**	**1,7**	**2,5**	0,83	27,1	102	2,6
	9,05	9,70	11,8	12,5	**517,41**	**1,4**	**1,6**	0,83	21,4	104	2,6
	10,5	11,5	12,5	12,5	**614,07**	**1,2**	**1,6**	0,82	21,4	104	2,6
PT2402K	**4,77**	5,87	7,73	8,32	**10,57**	**69**	**36**	0,94	16,3	51	6,3
RT2402K	**5,69**	7,01	9,23	9,93	**12,61**	**57**	**36**	0,95	16,8	54	6,3
	7,31	8,99	11,8	12,7	**16,19**	**45**	**36**	0,94	17,6	59	6,3
	8,67	10,2	10,8	11,5	**19,21**	**38**	**37**	0,94	18,2	62	6,3
PT2403K	**6,63**	6,75	6,90	7,01	**21,26**	**34**	**26**	0,91	20,0	63	2,6
RT2403K	**7,91**	8,06	8,23	8,37	**25,36**	**29**	**26**	0,91	23,8	66	2,6
	9,34	9,51	9,72	9,88	**29,94**	**24**	**26**	0,91	24,9	69	2,6
	11,7	11,9	12,2	12,4	**37,58**	**19**	**26**	0,91	26,0	74	2,6
	13,6	13,9	14,2	14,4	**43,68**	**17**	**26**	0,91	26,7	77	2,6
	14,8	15,4	16,2	16,9	**56,06**	**13**	**22**	0,90	30,0	83	2,6
	12,2	12,6	13,3	13,8	**67,81**	**11**	**15**	0,90	28,0	88	2,6
	10,6	11,1	12,8	14,2	**80,48**	**9,0**	**11**	0,90	24,9	93	2,6
PT2404K	**13,8**	15,8	16,1	16,4	**100,84**	**7,2**	**12**	0,86	30,0	98	2,6
RT2404K	**16,3**	18,7	19,0	19,4	**119,05**	**6,1**	**12**	0,86	30,0	102	2,6
	17,8	20,0	20,0	20,0	**129,99**	**5,6**	**12**	0,86	30,0	101	2,6
	20,0	20,0	20,0	20,0	**162,82**	**4,5**	**11**	0,85	30,0	101	2,6
	20,0	20,0	20,0	20,0	**189,08**	**3,8**	**9,4**	0,85	30,0	101	2,6
	20,0	20,0	20,0	20,0	**228,47**	**3,2**	**7,9**	0,85	30,0	101	2,6
	18,9	19,1	19,5	20,0	**286,70**	**2,5**	**5,9**	0,85	30,0	102	2,6
	16,3	17,5	19,3	20,0	**367,94**	**2,0**	**4,0**	0,84	30,0	102	2,6
	16,4	17,7	19,5	20,0	**427,73**	**1,7**	**3,5**	0,84	30,0	102	2,6
	13,5	14,2	16,3	18,0	**517,41**	**1,4**	**2,3**	0,84	30,0	104	2,6
	13,6	14,9	16,4	17,8	**614,07**	**1,2**	**2,0**	0,84	28,2	104	2,6

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
104,76	**11**	21 E1	60 R1	**7,7**	18 E1	44 R1	**21**	30 E1	68 R1	**14**	24 E1	50 R1	120	390
123,68	**11**	20 E1	58 R1	**7,4**	17 E1	42 R1	**20**	29 E1	65 R1	**14**	23 E1	48 R1	134	391
135,05	**11**	20 E1	57 R1	**7,5**	17 E1	42 R1	**20**	29 E1	64 R1	**14**	23 E1	47 R1		
169,15	**10**	19 E1	54 R1	**7,2**	16 E1	39 R1	**19**	27 E1	61 R1	**13**	21 E1	45 R1		
196,43	**9,9**	19 E1	52 R1	**6,8**	16 E1	38 R1	**19**	26 E1	59 R1	**13**	21 E1	43 R1		
237,35	**9,4**	18 E1	49 R1	**6,5**	15 E1	36 R1	**18**	25 E1	56 R1	**12**	20 E1	41 R1		
297,85	**9,1**	17 E1	46 R1	**6,1**	14 E1	34 R1	**17**	24 E1	52 R1	**11**	19 E1	38 R1		
346,26	**8,7**	16 E1	44 R1	**5,8**	13 E1	33 R1	**16**	23 E1	50 R1	**11**	18 E1	37 R1		
418,86	**8,3**	15 E1	42 R1	**5,5**	13 E1	31 R1	**15**	21 E1	47 R1	**10**	17 E1	35 R1		
525,63	**7,5**	14 E1	38 R1	**5,0**	11 E1	28 R1	**14**	19 E1	43 R1	**9,3**	15 E1	31 R1		
611,04	**6,8**	12 E1	34 R1	**4,5**	10 E1	25 R1	**12**	18 E1	39 R1	**8,5**	14 E1	28 R1		
739,16	**5,9**	11 E1	30 R1	**3,9**	9,0 E1	22 R1	**11**	15 E1	33 R1	**7,4**	12 E1	25 R1		
10,57	**31**	54 E1	146 R1	**20**	42 E1	104 R1	**63**	84 E1	173 R1	**41**	63 E1	125 R1	198	392
12,61	**31**	52 E1	139 R1	**19**	42 E1	101 R1	**60**	80 E1	165 R1	**40**	60 E1	118 R1	213	393
16,19	**28**	47 E1	124 R1	**19**	38 E1	90 R1	**54**	72 E1	146 R1	**36**	54 E1	105 R1		
19,21	**26**	43 E1	112 R1	**17**	35 E1	81 R1	**49**	65 E1	132 R1	**33**	49 E1	95 R1		
21,26	**16**	30 E1	85 R1	**11**	38 E2	62 R1	**31**	44 E1	97 R1	**21**	34 E1	70 R1	165	392
25,36	**16**	30 E1	86 R1	**11**	38 E2	63 R1	**31**	44 E1	98 R1	**21**	34 E1	71 R1	180	393
29,94	**16**	29 E1	83 R1	**11**	37 E2	61 R1	**30**	43 E1	94 R1	**20**	33 E1	69 R1		
37,58	**16**	28 E1	81 R1	**11**	24 E1	60 R1	**29**	41 E1	90 R1	**20**	32 E1	67 R1		
43,68	**16**	28 E1	76 R1	**11**	23 E1	57 R1	**29**	40 E1	86 R1	**20**	31 E1	63 R1		
56,06	**14**	25 E1	70 R1	**10**	21 E1	51 R1	**26**	36 E1	80 R1	**18**	29 E1	57 R1		
67,81	**13**	24 E1	66 R1	**9,2**	20 E1	48 R1	**25**	34 E1	76 R1	**17**	27 E1	54 R1		
80,48	**12**	22 E1	60 R1	**8,4**	18 E1	43 R1	**22**	31 E1	69 R1	**15**	24 E1	50 R1		
100,84	**11**	21 E1	60 R1	**7,2**	18 E1	44 R1	**21**	30 E1	68 R1	**14**	24 E1	50 R1	164	392
119,05	**11**	20 E1	58 R1	**7,0**	17 E1	42 R1	**20**	29 E1	65 R1	**13**	23 E1	47 R1	179	393
129,99	**10**	20 E1	57 R1	**7,1**	17 E1	42 R1	**20**	28 E1	64 R1	**13**	22 E1	47 R1		
162,82	**10**	19 E1	54 R1	**7,0**	16 E1	39 R1	**19**	27 E1	61 R1	**13**	21 E1	43 R1		
189,08	**9,7**	18 E1	52 R1	**6,6**	16 E1	38 R1	**18**	26 E1	59 R1	**12**	21 E1	43 R1		
228,47	**9,2**	17 E1	49 R1	**6,3**	15 E1	36 R1	**17**	25 E1	56 R1	**12**	20 E1	41 R1		
286,70	**8,6**	16 E1	46 R1	**5,9**	14 E1	34 R1	**16**	23 E1	52 R1	**11**	18 E1	38 R1		
367,94	**8,0**	15 E1	42 R1	**5,3**	13 E1	31 R1	**15**	21 E1	47 R1	**10**	17 E1	35 R1		
427,73	**7,7**	14 E1	40 R1	**5,1**	12 E1	30 R1	**14**	20 E1	45 R1	**10**	16 E1	33 R1		
517,41	**7,3**	13 E1	38 R1	**4,9**	11 E1	28 R1	**13**	19 E1	43 R1	**9,1**	15 E1	31 R1		
614,07	**6,6**	12 E1	34 R1	**4,4**	10 E1	25 R1	**12**	17 E1	38 R1	**8,3**	14 E1	28 R1		
10,57	**33**	58 E1	157 R1	**21**	45 E1	113 R1	**68**	90 E1	186 R1	**44**	67 E1	132 R1	227	394
12,61	**33**	56 E1	150 R1	**21**	45 E1	108 R1	**66**	87 E1	178 R1	**43**	65 E1	127 R1	242	395
16,19	**31**	51 E1	133 R1	**20**	41 E1	97 R1	**59**	78 E1	158 R1	**39**	59 E1	113 R1		
19,21	**29**	47 E1	121 R1	**19**	38 E1	88 R1	**54**	71 E1	144 R1	**36**	54 E1	103 R1		
21,26	**18**	33 E1	93 R1	**12**	28 E1	68 R1	**35**	48 E1	107 R1	**23**	38 E1	77 R1	206	394
25,36	**18**	33 E1	94 R1	**12**	28 E1	68 R1	**35**	49 E1	107 R1	**24**	38 E1	78 R1	221	395
29,94	**18**	32 E1	90 R1	**12**	27 E1	66 R1	**34**	47 E1	104 R1	**23**	37 E1	75 R1		
37,58	**17**	31 E1	86 R1	**12**	39 E2	63 R1	**33**	45 E1	99 R1	**22**	35 E1	72 R1		
43,68	**17**	31 E1	85 R1	**12**	38 E2	60 R1	**32**	44 E1	95 R1	**22**	35 E1	69 R1		
56,06	**16**	28 E1	76 R1	**11**	23 E1	56 R1	**29**	40 E1	86 R1	**20**	32 E1	63 R1		
67,81	**15**	26 E1	72 R1	**10**	22 E1	53 R1	**28**	38 E1	84 R1	**19**	30 E1	60 R1		
80,48	**14**	24 E1	67 R1	**9,4**	20 E1	48 R1	**25**	35 E1	76 R1	**17**	27 E1	54 R1		
100,84	**13**	23 E1	66 R1	**8,1**	20 E1	49 R1	**23**	33 E1	75 R1	**16**	26 E1	55 R1	209	394
119,05	**12**	22 E1	64 R1	**7,9**	19 E1	47 R1	**22**	32 E1	72 R1	**15**	25 E1	52 R1	225	395
129,99	**12**	22 E1	62 R1	**8,1**	18 E1	46 R1	**22**	31 E1	71 R1	**15**	25 E1	52 R1		
162,82	**12**	21 E1	58 R1	**7,9**	18 E1	43 R1	**21**	30 E1	67 R1	**15**	23 E1	48 R1		
189,08	**11**	20 E1	58 R1	**7,5**	17 E1	42 R1	**21**	29 E1	65 R1	**14**	23 E1	48 R1		
228,47	**10**	19 E1	55 R1	**7,2**	16 E1	40 R1	**20**	28 E1	62 R1	**13**	22 E1	45 R1		
286,70	**9,8**	18 E1	51 R1	**6,7**	15 E1	38 R1	**18**	26 E1	58 R1	**13**	21 E1	42 R1		
367,94	**9,1**	17 E1	46 R1	**6,1**	14 E1	34 R1	**17**	24 E1	52 R1	**11**	19 E1	38 R1		
427,73	**8,8**	16 E1	44 R1	**5,8**	13 E1	33 R1	**16**	23 E1	50 R1	**11**	18 E1	37 R1		
517,41	**8,3**	15 E1	42 R1	**5,5**	13 E1	31 R1	**15**	21 E1	48 R1	**10**	17 E1	35 R1		
614,07	**7,5**	14 E1	38 R1	**5,0**	12 E1	28 R1	**14**	19 E1	43 R1	**9,4**	15 E1	31 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2702K	**11,9**	14,7	19,3	22,9	**7,84**	**92**	**123**	0,94	25,7	48	11
RT2702K	**15,3**	18,3	18,9	19,1	**10,06**	**72**	**123**	0,94	27,0	50	11
	12,4	12,9	13,6	14,2	**11,94**	**61**	**85**	0,93	27,8	54	11
	14,5	17,8	18,2	18,5	**15,31**	**47**	**77**	0,94	25,7	57	11
	12,7	13,2	13,9	14,8	**18,17**	**40**	**57**	0,93	27,0	62	11
PT2703K	**11,4**	14,0	14,8	15,0	**30,23**	**24**	**32**	0,91	32,3	69	6,3
RT2703K	**13,4**	16,6	17,4	17,7	**35,69**	**20**	**32**	0,91	33,8	73	6,3
	16,9	20,8	21,9	22,2	**44,78**	**16**	**32**	0,90	35,3	77	6,3
	19,6	22,2	23,8	24,5	**52,06**	**14**	**32**	0,90	36,2	81	6,3
	15,7	16,3	17,2	17,8	**62,98**	**12**	**21**	0,90	35,8	88	6,3
	19,3	19,5	19,9	21,4	**80,82**	**9,0**	**20**	0,90	45,4	92	6,3
	13,8	14,8	17,1	19,1	**95,92**	**7,6**	**12**	0,89	32,2	96	6,3
PT2704K	**23,3**	23,6	24,1	25,0	**91,31**	**7,9**	**23**	0,86	47,5	94	2,6
RT2704K	**23,4**	23,7	24,5	25,0	**107,80**	**6,7**	**19**	0,86	47,5	101	2,6
	23,5	23,8	25,0	25,0	**127,26**	**5,7**	**16**	0,86	52,2	106	2,6
	23,6	23,9	25,0	25,0	**159,70**	**4,5**	**13**	0,85	55,9	113	2,6
	23,6	24,0	25,0	25,0	**185,65**	**3,9**	**11**	0,85	58,5	118	2,6
	23,7	24,1	25,0	25,0	**224,57**	**3,2**	**9,5**	0,85	57,9	125	2,6
	23,8	24,7	25,0	25,0	**281,82**	**2,6**	**7,6**	0,85	58,2	131	2,6
	23,7	25,0	25,0	25,0	**327,61**	**2,2**	**6,5**	0,84	55,1	129	2,6
	17,3	18,1	20,9	23,3	**396,31**	**1,8**	**3,9**	0,85	40,7	128	2,6
	20,4	21,9	24,2	25,0	**508,59**	**1,4**	**3,6**	0,84	48,9	136	2,6
	17,7	19,8	22,2	24,1	**603,61**	**1,2**	**2,7**	0,83	36,6	140	2,6
PT2902K	**11,9**	14,7	19,3	23,8	**7,84**	**92**	**123**	0,94	28,2	58	10
RT2902K	**15,3**	18,8	24,8	26,8	**10,06**	**72**	**123**	0,94	29,6	61	10
	18,2	19,9	21,0	21,8	**11,94**	**61**	**123**	0,94	30,7	64	10
	14,5	17,8	18,2	18,5	**15,31**	**47**	**76**	0,94	29,6	69	10
	17,2	20,3	21,4	21,9	**18,17**	**40**	**77**	0,94	30,7	73	10
PT2903K	**19,5**	24,0	31,6	34,0	**43,25**	**17**	**38**	0,91	40,4	92	6,3
RT2903K	**23,3**	28,7	35,0	35,0	**51,60**	**14**	**38**	0,91	48,2	99	6,3
	29,4	34,8	35,0	35,0	**66,22**	**11**	**37**	0,91	60,2	104	6,3
	29,5	31,0	33,1	35,0	**78,59**	**9,2**	**31**	0,91	62,1	114	6,3
	26,3	28,9	31,5	33,9	**100,86**	**7,2**	**22**	0,90	63,6	126	6,3
	21,4	23,5	26,5	28,5	**119,70**	**6,1**	**15**	0,90	51,9	124	6,3
PT2904K	**27,1**	27,6	28,2	28,7	**86,96**	**8,3**	**28**	0,86	56,7	114	2,6
RT2904K	**34,8**	35,0	35,0	35,0	**122,49**	**5,9**	**25**	0,86	74,4	125	2,6
	34,9	35,0	35,0	35,0	**153,72**	**4,7**	**20**	0,85	79,7	135	2,6
	35,0	35,0	35,0	35,0	**178,70**	**4,1**	**18**	0,85	83,4	141	2,6
	35,0	35,0	35,0	35,0	**216,17**	**3,4**	**14**	0,85	83,4	149	2,6
	35,0	35,0	35,0	35,0	**277,41**	**2,6**	**11**	0,85	87,3	160	2,6
	32,2	34,4	35,0	35,0	**329,24**	**2,2**	**8,8**	0,84	77,5	168	2,6
	30,9	33,2	35,0	35,0	**422,52**	**1,7**	**6,6**	0,84	73,2	168	2,6
	26,1	28,1	30,8	33,1	**501,46**	**1,4**	**4,7**	0,84	59,6	168	2,6
PT3502K	**12,1**	14,9	19,6	24,1	**7,94**	**91**	**123**	0,94	41,2	65	10
RT3502K	**15,8**	19,4	25,5	31,4	**10,35**	**70**	**123**	0,94	43,0	71	10
	19,0	19,9	21,0	21,8	**12,46**	**58**	**123**	0,94	41,2	78	10
	14,9	18,3	18,7	19,0	**15,75**	**46**	**76**	0,94	43,0	84	10
	17,9	20,4	21,4	22,8	**18,96**	**38**	**77**	0,94	43,5	92	10
PT3503K	**19,8**	24,3	32,0	34,5	**43,80**	**17**	**38**	0,91	59,6	113	6,3
RT3503K	**23,6**	29,0	38,2	41,1	**52,26**	**14**	**38**	0,91	62,8	122	6,3
	30,3	37,3	49,0	50,0	**67,06**	**11**	**38**	0,91	67,7	129	6,3
	35,9	42,4	44,6	47,7	**79,59**	**9,1**	**38**	0,90	71,3	138	6,3
	31,3	34,5	39,9	43,2	**103,74**	**7,0**	**25**	0,90	71,9	150	6,3
	21,5	23,6	27,4	30,5	**124,88**	**5,8**	**14**	0,90	49,3	153	6,3

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
7,84	**36**	152 E4	133 R1	**24**	142 E4	135 R2	**69**	181 E4	162 R1	**46**	161 E4	153 R2	301	396
10,06	**37**	155 E4	136 R1	**24**	145 E4	138 R2	**70**	129 E3	165 R1	**47**	164 E4	157 R2	366	397
11,94	**34**	90 E3	124 R1	**23**	132 E4	90 R1	**64**	97 E2	150 R1	**43**	98 E3	108 R1		
15,31	**34**	93 E3	130 R1	**22**	82 E3	93 R1	**66**	83 E1	159 R1	**44**	79 E2	113 R1		
18,17	**32**	65 E2	119 R1	**21**	76 E3	86 R1	**61**	77 E1	145 R1	**41**	73 E2	103 R1		
30,23	**21**	35 E1	93 R1	**14**	42 E2	67 R1	**41**	54 E1	110 R1	**27**	41 E1	79 R1	271	396
35,69	**21**	34 E1	90 R1	**13**	41 E2	65 R1	**40**	52 E1	106 R1	**27**	40 E1	76 R1	336	397
44,78	**20**	33 E1	86 R1	**14**	39 E2	63 R1	**38**	50 E1	102 R1	**26**	38 E1	73 R1		
52,06	**20**	44 E2	84 R1	**14**	38 E2	61 R1	**37**	49 E1	98 R1	**25**	37 E1	71 R1		
62,98	**19**	31 E1	80 R1	**13**	25 E1	60 R1	**36**	47 E1	94 R1	**24**	36 E1	68 R1		
80,82	**18**	29 E1	75 R1	**12**	23 E1	55 R1	**33**	43 E1	88 R1	**22**	33 E1	64 R1		
95,92	**16**	26 E1	68 R1	**11**	21 E1	50 R1	**30**	39 E1	80 R1	**20**	30 E1	58 R1		
91,31	**14**	25 E1	68 R1	**9,5**	31 E2	49 R1	**27**	37 E1	78 R1	**18**	29 E1	57 R1	252	396
107,80	**14**	24 E1	65 R1	**9,2**	20 E1	47 R1	**26**	36 E1	75 R1	**18**	27 E1	54 R1	317	397
127,26	**14**	23 E1	63 R1	**9,3**	19 E1	46 R1	**26**	35 E1	73 R1	**17**	27 E1	53 R1		
159,70	**13**	23 E1	60 R1	**9,1**	19 E1	43 R1	**25**	33 E1	69 R1	**17**	26 E1	51 R1		
185,65	**13**	21 E1	58 R1	**8,5**	18 E1	41 R1	**24**	32 E1	67 R1	**16**	24 E1	49 R1		
224,57	**12**	20 E1	55 R1	**8,3**	17 E1	40 R1	**23**	31 E1	64 R1	**15**	24 E1	46 R1		
281,82	**11**	19 E1	52 R1	**8,0**	16 E1	38 R1	**21**	29 E1	60 R1	**14**	22 E1	44 R1		
327,61	**11**	19 E1	50 R1	**7,8**	15 E1	37 R1	**21**	28 E1	58 R1	**14**	21 E1	42 R1		
396,31	**10**	18 E1	47 R1	**7,2**	14 E1	35 R1	**20**	26 E1	55 R1	**13**	20 E1	40 R1		
508,59	**9,5**	16 E1	43 R1	**6,6**	14 E1	32 R1	**18**	24 E1	50 R1	**12**	19 E1	36 R1		
603,61	**8,8**	15 E1	39 R1	**5,9**	12 E1	29 R1	**16**	22 E1	45 R1	**11**	17 E1	33 R1		
7,84	**42**	164 E4	145 R1	**27**	151 E4	145 R2	**81**	141 E3	180 R1	**54**	175 E4	127 R1	403	398
10,06	**39**	150 E4	132 R1	**26**	139 E4	133 R2	**74**	130 E3	164 R1	**50**	160 E4	153 R2	475	399
11,94	**36**	138 E4	167 R2	**24**	127 E4	196 R3	**69**	167 E4	150 R1	**46**	146 E4	140 R2		
15,31	**41**	79 E2	142 R1	**27**	90 E3	102 R1	**79**	97 E1	176 R1	**53**	89 E2	125 R1		
18,17	**39**	95 E3	132 R1	**26**	84 E3	94 R1	**74**	91 E1	163 R1	**49**	83 E2	116 R1		
43,25	**26**	41 E1	103 R1	**16**	47 E2	74 R1	**51**	65 E1	124 R1	**34**	48 E1	89 R1	357	398
51,60	**26**	41 E1	99 R1	**17**	46 E2	72 R1	**50**	63 E1	120 R1	**33**	47 E1	86 R1	429	399
66,22	**25**	38 E1	95 R1	**16**	44 E2	69 R1	**47**	60 E1	114 R1	**32**	45 E1	82 R1		
78,59	**24**	37 E1	91 R1	**16**	42 E2	66 R1	**46**	58 E1	110 R1	**31**	43 E1	79 R1		
100,86	**23**	35 E1	85 R1	**15**	28 E1	61 R1	**43**	54 E1	102 R1	**29**	40 E1	73 R1		
119,70	**21**	32 E1	78 R1	**15**	26 E1	57 R1	**40**	50 E1	94 R1	**27**	38 E1	68 R1		
86,96	**17**	39 E2	74 R1	**11**	34 E2	54 R1	**33**	43 E1	87 R1	**22**	33 E1	63 R1	224	398
122,49	**16**	27 E1	69 R1	**10**	31 E2	50 R1	**31**	40 E1	81 R1	**21**	31 E1	58 R1	396	399
153,72	**16**	25 E1	65 R1	**11**	21 E1	48 R1	**29**	38 E1	77 R1	**20**	29 E1	56 R1		
178,70	**15**	25 E1	63 R1	**10**	20 E1	46 R1	**28**	37 E1	74 R1	**19**	28 E1	54 R1		
216,17	**15**	23 E1	60 R1	**10**	19 E1	44 R1	**27**	35 E1	71 R1	**18**	27 E1	51 R1		
277,41	**14**	22 E1	56 R1	**10**	18 E1	43 R1	**25**	33 E1	66 R1	**17**	25 E1	49 R1		
329,24	**13**	21 E1	55 R1	**9,1**	17 E1	40 R1	**24**	32 E1	64 R1	**17**	24 E1	47 R1		
422,52	**12**	19 E1	50 R1	**8,4**	16 E1	37 R1	**22**	29 E1	58 R1	**15**	22 E1	42 R1		
501,46	**11**	18 E1	45 R1	**7,7**	15 E1	33 R1	**20**	27 E1	53 R1	**14**	20 E1	38 R1		
7,94	**47**	175 E4	155 R1	**31**	160 E4	154 R2	**90**	128 E2	194 R1	**60**	125 E3	137 R1	470	400
10,35	**44**	161 E4	142 R1	**29**	148 E4	142 R2	**83**	142 E3	178 R1	**56**	172 E4	165 R2	557	401
12,08	**42**	100 E3	137 R1	**28**	87 E3	98 R1	**81**	98 E1	172 R1	**54**	89 E2	122 R1		
12,46	**47**	178 E4	158 R1	**30**	164 E4	158 R2	**92**	131 E2	199 R1	**60**	127 E3	140 R1		
15,75	**44**	82 E2	146 R1	**29**	92 E3	104 R1	**85**	103 E1	183 R1	**57**	94 E2	129 R1		
18,96	**42**	97 E3	134 R1	**27**	85 E3	96 R1	**78**	95 E1	167 R1	**52**	86 E2	118 R1		
43,80	**29**	44 E1	107 R1	**18**	49 E2	77 R1	**56**	70 E1	130 R1	**37**	52 E1	93 R1	454	400
52,26	**29**	44 E1	103 R1	**19**	48 E2	74 R1	**54**	68 E1	126 R1	**36**	50 E1	90 R1	540	401
67,06	**28**	41 E1	98 R1	**18**	46 E2	71 R1	**52**	65 E1	119 R1	**35**	48 E1	85 R1		
79,59	**27**	40 E1	95 R1	**18**	44 E2	69 R1	**50**	62 E1	115 R1	**34**	47 E1	82 R1		
103,74	**25**	38 E1	89 R1	**17**	30 E1	64 R1	**48**	59 E1	108 R1	**32**	44 E1	78 R1		
124,88	**23**	34 E1	81 R1	**16**	27 E1	59 R1	**44**	54 E1	98 R1	**29**	40 E1	71 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3504K **RT3504K**	**27,5**	28,0	28,6	29,0	**88,07**	**8,2**	**28**	0,86	82,7	138	2,6
	38,7	39,4	40,3	40,9	**124,05**	**5,8**	**28**	0,86	97,0	153	2,6
	48,5	49,4	50,0	50,0	**155,67**	**4,7**	**28**	0,86	104	164	2,6
	50,0	50,0	50,0	50,0	**180,97**	**4,0**	**25**	0,85	109	171	2,6
	50,0	50,0	50,0	50,0	**218,91**	**3,3**	**20**	0,85	111	181	2,6
	50,0	50,0	50,0	50,0	**280,94**	**2,6**	**16**	0,85	112	195	2,6
	43,8	46,1	50,0	50,0	**333,42**	**2,2**	**12**	0,85	103	206	2,6
	38,8	42,5	47,2	50,0	**434,60**	**1,7**	**8,0**	0,85	80,3	223	2,6
	26,6	29,6	34,2	38,3	**523,13**	**1,4**	**4,6**	0,84	55,0	236	2,6

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=725

Çevrim Oranı / *Ratio* / Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
88,07	**20**	31 E1	77 R1	**13**	36 E2	56 R1	**37**	48 E1	92 R1	**25**	36 E1	66 R1	433	400
124,05	**18**	29 E1	72 R1	**12**	33 E2	52 R1	**35**	44 E1	85 R1	**23**	33 E1	62 R1	520	401
155,67	**18**	37 E2	68 R1	**12**	32 E2	50 R1	**33**	42 E1	81 R1	**22**	32 E1	59 R1		
180,97	**17**	27 E1	66 R1	**12**	31 E2	48 R1	**32**	41 E1	79 R1	**22**	31 E1	57 R1		
218,91	**16**	25 E1	63 R1	**11**	29 E2	46 R1	**30**	39 E1	75 R1	**21**	30 E1	54 R1		
280,94	**15**	24 E1	59 R1	**10**	19 E1	43 R1	**29**	36 E1	70 R1	**19**	28 E1	51 R1		
333,42	**15**	23 E1	57 R1	**10**	18 E1	42 R1	**27**	35 E1	68 R1	**19**	27 E1	50 R1		
434,60	**14**	21 E1	53 R1	**9,3**	17 E1	39 R1	**26**	32 E1	63 R1	**17**	25 E1	46 R1		
523,13	**12**	19 E1	47 R1	**8,7**	15 E1	35 R1	**23**	29 E1	55 R1	**16**	22 E1	40 R1		

Motorsuz Konik Girişli Planet Redüktörler

Planetary Gear Units with Bevel Stage Input

Planetengetriebe mit Kegelradvorstufe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1102K **RT1102K**	**1,00** **1,00** **1,00** **0,85** **0,64**	1,00 1,00 1,00 0,89 0,68	1,00 1,00 1,00 0,95 0,72	1,00 1,00 1,00 1,00 0,79	**6,85** **7,48** **9,36** **10,88** **13,14**	**69** **64** **51** **44** **36**	**7,8** **7,1** **5,7** **4,2** **2,7**	0,93 0,93 0,93 0,92 0,92	1,20 1,20 1,20 1,20 1,20	16 17 18 19 22	3,1 3,1 3,1 3,1 3,1
PT1103K **RT1103K**	**1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **0,96** **0,73**	1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 0,85	1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	**25,87** **28,24** **30,84** **38,63** **44,86** **54,21** **67,89** **78,84** **95,27**	**18** **17** **15** **12** **11** **8,8** **7,0** **6,0** **5,0**	**2,2** **2,0** **1,8** **1,4** **1,2** **1,0** **0,84** **0,69** **0,44**	0,89 0,89 0,89 0,89 0,89 0,88 0,88 0,87 0,86	1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20	23 24 26 27 28 30 32 34 35	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1104K **RT1104K**	**1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00**	1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	**106,70** **116,51** **127,22** **159,34** **185,04** **223,60** **280,06** **325,23** **392,99** **492,23** **571,62** **690,70**	**4,5** **4,1** **3,7** **3,0** **2,6** **2,1** **1,7** **1,5** **1,2** **0,97** **0,83** **0,69**	**0,55** **0,51** **0,47** **0,37** **0,32** **0,27** **0,22** **0,19** **0,16** **0,13** **0,11** **0,10**	0,84 0,84 0,84 0,83 0,83 0,82 0,82 0,81 0,80 0,79 0,78 0,75	1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20	37 39 41 41 41 41 41 41 41 41 41 41	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1202K **RT1202K**	**1,08** **1,18** **1,48** **1,62** **1,15**	1,10 1,20 1,50 1,68 1,19	1,11 1,22 1,52 1,75 1,25	1,13 1,24 1,55 1,77 1,34	**6,85** **7,48** **9,36** **10,88** **13,14**	**69** **64** **51** **44** **36**	**8,4** **8,4** **8,4** **8,0** **4,7**	0,93 0,93 0,93 0,93 0,92	2,25 2,30 2,39 2,45 2,56	16 17 18 19 22	3,1 3,1 3,1 3,1 3,1
PT1203K **RT1203K**	**2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **1,77** **1,27**	2,00 2,00 2,00 2,00 2,00 2,00 2,00 1,80 1,42	2,00 2,00 2,00 2,00 2,00 2,00 2,00 1,92 1,67	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 1,84	**25,87** **28,24** **30,84** **38,63** **44,86** **54,21** **67,89** **78,84** **95,27**	**18** **17** **15** **12** **11** **8,8** **7,0** **6,0** **5,0**	**4,3** **4,0** **3,6** **2,9** **2,5** **2,1** **1,7** **1,3** **0,77**	0,89 0,89 0,89 0,89 0,89 0,88 0,88 0,87 0,86	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 2,91	23 24 26 27 28 30 32 34 35	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1204K **RT1204K**	**2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **1,78**	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 1,91	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00	2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00 2,00	**106,70** **116,51** **127,22** **159,34** **185,04** **223,60** **280,06** **325,23** **392,99** **492,23** **571,62** **690,70**	**4,5** **4,1** **3,7** **3,0** **2,6** **2,1** **1,7** **1,5** **1,2** **0,97** **0,83** **0,69**	**1,1** **1,0** **0,93** **0,75** **0,65** **0,54** **0,43** **0,38** **0,31** **0,25** **0,22** **0,17**	0,84 0,84 0,84 0,83 0,83 0,82 0,82 0,82 0,81 0,80 0,79 0,76	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00	37 39 41 41 41 41 39 39 39 39 39 39	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1
PT1502K **RT1502K**	**1,98** **2,33** **2,57** **2,22** **1,55**	2,01 2,37 2,61 2,34 1,64	2,05 2,42 2,66 2,42 1,76	2,09 2,47 2,71 2,46 1,91	**6,20** **7,32** **9,19** **10,68** **12,92**	**77** **65** **52** **44** **37**	**17** **17** **15** **11** **6,5**	0,94 0,94 0,93 0,93 0,92	3,72 3,72 3,72 3,72 3,50	22 23 25 26 28	3,1 3,1 3,1 3,1 3,1

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=475

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
6,85	**8,0**	23 E1	81 R1	**5,2**	21 E1	58 R1	**16**	29 E1	87 R1	**10**	25 E1	62 R1	37	382
7,48	**8,0**	22 E1	78 R1	**5,2**	20 E1	56 R1	**15**	28 E1	84 R1	**10**	24 E1	60 R1	39	383
9,36	**7,6**	20 E1	69 R1	**4,9**	18 E1	51 R1	**14**	26 E1	74 R1	**9,2**	21 E1	54 R1		
10,88	**6,7**	18 E1	63 R1	**4,7**	16 E1	47 R1	**12**	23 E1	67 R1	**8,4**	20 E1	49 R1		
13,14	**5,7**	16 E1	53 R1	**4,2**	13 E1	39 R1	**11**	20 E1	57 R1	**7,1**	17 E1	42 R1		
25,87	**5,6**	15 E1	49 R1	**3,8**	13 E1	36 R1	**11**	19 E1	53 R1	**7,0**	16 E1	39 R1	42	382
28,24	**5,5**	14 E1	48 R1	**3,8**	13 E1	36 R1	**10**	19 E1	52 R1	**6,9**	16 E1	38 R1	44	383
30,84	**5,4**	14 E1	47 R1	**3,7**	13 E1	35 R1	**10**	18 E1	51 R1	**6,8**	15 E1	37 R1		
38,63	**5,1**	13 E1	44 R1	**3,5**	12 E1	33 R1	**9,6**	17 E1	48 R1	**6,3**	14 E1	35 R1		
44,86	**4,9**	13 E1	43 R1	**3,4**	11 E1	32 R1	**9,3**	17 E1	46 R1	**6,1**	14 E1	34 R1		
54,21	**4,6**	12 E1	40 R1	**3,2**	11 E1	30 R1	**8,8**	16 E1	43 R1	**5,8**	13 E1	32 R1		
67,89	**4,2**	11 E1	37 R1	**2,9**	10 E1	27 R1	**8,0**	14 E1	39 R1	**5,3**	12 E1	29 R1		
78,84	**3,9**	10 E1	34 R1	**2,7**	9,1 E1	25 R1	**7,4**	13 E1	36 R1	**4,8**	11 E1	27 R1		
95,27	**3,3**	8,6 E1	28 R1	**2,3**	7,7 E1	21 R1	**6,3**	11 E1	31 R1	**4,3**	9,0 E1	23 R1		
106,70	**4,1**	10 E1	33 R1	**2,9**	9,2 E1	25 R1	**7,9**	13 E1	36 R1	**5,4**	11 E1	27 R1	48	382
116,51	**4,0**	10 E1	33 R1	**2,8**	8,9 E1	24 R1	**7,7**	13 E1	35 R1	**5,3**	11 E1	26 R1	50	383
127,22	**3,9**	10 E1	32 R1	**2,7**	8,7 E1	24 R1	**7,5**	13 E1	34 R1	**5,1**	11 E1	25 R1		
159,34	**3,7**	9,2 E1	30 R1	**2,6**	8,2 E1	22 R1	**7,0**	12 E1	32 R1	**4,8**	10 E1	24 R1		
185,04	**3,5**	8,8 E1	28 R1	**2,4**	7,8 E1	21 R1	**6,7**	11 E1	30 R1	**4,6**	10 E1	23 R1		
223,60	**3,3**	8,3 E1	27 R1	**2,3**	7,4 E1	20 R1	**6,4**	11 E1	28 R1	**4,4**	9,1 E1	21 R1		
280,06	**3,1**	7,8 E1	25 R1	**2,2**	6,9 E1	19 R1	**5,9**	10 E1	26 R1	**4,1**	8,5 E1	20 R1		
325,23	**3,0**	7,4 E1	24 R1	**2,1**	6,6 E1	18 R1	**5,7**	9,7 E1	25 R1	**3,9**	8,1 E1	19 R1		
392,99	**2,8**	7,0 E1	23 R1	**2,0**	6,2 E1	17 R1	**5,4**	9,2 E1	24 R1	**3,7**	7,7 E1	18 R1		
492,23	**2,6**	6,3 E1	20 R1	**1,8**	5,6 E1	15 R1	**4,9**	8,3 E1	21 R1	**3,3**	6,9 E1	16 R1		
571,62	**2,3**	5,8 E1	19 R1	**1,6**	5,1 E1	14 R1	**4,4**	7,5 E1	19 R1	**3,0**	6,3 E1	15 R1		
690,70	**2,0**	4,9 E1	15 R1	**1,4**	4,3 E1	12 R1	**3,7**	6,3 E1	16 R1	**2,6**	5,3 E1	12 R1		
6,85	**9,3**	26 E1	88 R1	**6,3**	23 E1	64 R1	**17**	32 E1	94 R1	**12**	27 E1	68 R1	41	384
7,48	**8,5**	24 E1	85 R1	**6,1**	22 E1	61 R1	**17**	31 E1	91 R1	**11**	26 E1	65 R1	43	385
9,36	**8,2**	21 E1	76 R1	**5,3**	19 E1	56 R1	**15**	28 E1	81 R1	**11**	23 E1	60 R1		
10,88	**7,8**	20 E1	69 R1	**5,1**	18 E1	51 R1	**14**	26 E1	74 R1	**9,4**	21 E1	54 R1		
13,14	**6,4**	17 E1	59 R1	**4,6**	15 E1	43 R1	**12**	22 E1	63 R1	**8,0**	19 E1	46 R1		
25,87	**6,5**	16 E1	54 R1	**4,5**	15 E1	40 R1	**12**	21 E1	59 R1	**8,2**	18 E1	43 R1	47	384
28,24	**6,4**	16 E1	54 R1	**4,4**	14 E1	40 R1	**12**	21 E1	58 R1	**8,1**	18 E1	43 R1	49	385
30,84	**6,3**	16 E1	52 R1	**4,3**	14 E1	39 R1	**12**	21 E1	56 R1	**7,9**	17 E1	42 R1		
38,63	**5,9**	15 E1	49 R1	**4,1**	13 E1	36 R1	**11**	20 E1	53 R1	**7,4**	16 E1	39 R1		
44,86	**5,7**	14 E1	47 R1	**3,9**	13 E1	35 R1	**11**	19 E1	51 R1	**7,1**	16 E1	38 R1		
54,21	**5,4**	14 E1	45 R1	**3,7**	12 E1	33 R1	**10**	18 E1	48 R1	**6,7**	15 E1	36 R1		
67,89	**4,9**	12 E1	41 R1	**3,4**	11 E1	30 R1	**9,4**	16 E1	44 R1	**6,2**	14 E1	32 R1		
78,84	**4,5**	11 E1	37 R1	**3,1**	10 E1	28 R1	**8,6**	15 E1	40 R1	**5,9**	13 E1	30 R1		
95,27	**3,9**	10 E1	32 R1	**2,7**	8,7 E1	24 R1	**7,4**	13 E1	34 R1	**5,1**	11 E1	25 R1		
106,70	**4,9**	12 E1	37 R1	**3,4**	10 E1	28 R1	**9,2**	15 E1	40 R1	**6,3**	13 E1	30 R1	52	384
116,51	**4,7**	11 E1	36 R1	**3,3**	10 E1	27 R1	**9,0**	15 E1	39 R1	**6,2**	12 E1	29 R1	54	385
127,22	**4,6**	11 E1	35 R1	**3,2**	10 E1	26 R1	**8,8**	15 E1	38 R1	**6,0**	12 E1	28 R1		
159,34	**4,3**	10 E1	33 R1	**3,0**	9,2 E1	25 R1	**8,3**	14 E1	36 R1	**5,7**	11 E1	26 R1		
185,04	**4,1**	10 E1	32 R1	**2,9**	8,8 E1	24 R1	**7,9**	13 E1	34 R1	**5,4**	11 E1	25 R1		
223,60	**3,9**	9,4 E1	30 R1	**2,7**	8,3 E1	22 R1	**7,5**	12 E1	32 R1	**5,1**	10 E1	24 R1		
280,06	**3,7**	8,8 E1	28 R1	**2,5**	7,8 E1	21 R1	**7,0**	12 E1	30 R1	**4,8**	10 E1	22 R1		
325,23	**3,5**	8,4 E1	27 R1	**2,4**	7,4 E1	20 R1	**6,7**	11 E1	28 R1	**4,6**	9,2 E1	21 R1		
392,99	**3,3**	8,0 E1	25 R1	**2,3**	7,0 E1	19 R1	**6,3**	11 E1	27 R1	**4,4**	8,7 E1	20 R1		
492,23	**3,0**	7,2 E1	23 R1	**2,1**	6,4 E1	17 R1	**5,7**	9,5 E1	24 R1	**3,9**	7,9 E1	18 R1		
571,62	**2,8**	6,6 E1	21 R1	**1,9**	5,8 E1	15 R1	**5,2**	8,7 E1	22 R1	**3,6**	7,2 E1	17 R1		
690,70	**2,3**	5,5 E1	17 R1	**1,6**	4,9 E1	13 R1	**4,4**	7,3 E1	18 R1	**3,0**	6,1 E1	14 R1		
6,20	**15**	32 E1	102 R1	**10**	28 E1	75 R1	**27**	44 E1	113 R1	**19**	36 E1	82 R1	61	384
7,32	**14**	30 E1	95 R1	**9,3**	26 E1	71 R1	**26**	42 E1	106 R1	**18**	34 E1	77 R1	71	385
9,19	**12**	27 E1	84 R1	**8,3**	23 E1	62 R1	**23**	36 E1	92 R1	**16**	30 E1	67 R1		
10,68	**11**	25 E1	77 R1	**7,7**	21 E1	56 R1	**21**	33 E1	85 R1	**14**	27 E1	61 R1		
12,92	**9,8**	21 E1	67 R1	**6,4**	18 E1	50 R1	**18**	29 E1	74 R1	**13**	23 E1	54 R1		

Motorsuz Konik Girişli Planet Redüktörler

Planetary Gear Units with Bevel Stage Input

Planetengetriebe mit Kegelradvorstufe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment Ma [kNm]	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) Ma [kNm]			Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung [kW]	Verim *Efficiency* Wirkungsgrad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]
	10000 [h]	5000 [h]	2000 [h]	1000 [h]			10000 [h]			10000 [h]	
PT1503K	**2,65**	2,73	2,79	2,84	**24,65**	**19**	**6,0**	0,89	3,72	33	3,1
RT1503K	**3,08**	3,10	3,10	3,10	**31,78**	**15**	**5,4**	0,89	3,72	36	3,1
	3,10	3,10	3,10	3,10	**39,80**	**12**	**4,3**	0,89	3,72	38	3,1
	3,10	3,10	3,10	3,10	**46,22**	**10**	**3,8**	0,89	3,72	40	3,1
	2,70	2,74	2,87	3,10	**58,00**	**8,2**	**2,6**	0,89	3,72	43	3,1
	2,71	2,75	2,95	3,10	**70,08**	**6,8**	**2,2**	0,88	3,72	45	3,1
	2,46	2,50	2,75	3,04	**81,47**	**5,8**	**1,7**	0,88	3,72	48	3,1
	1,79	2,05	2,49	2,80	**98,55**	**4,8**	**1,0**	0,87	3,72	50	3,1
PT1504K	**2,76**	2,83	3,09	3,10	**93,12**	**5,1**	**1,7**	0,84	3,72	50	3,1
RT1504K	**3,10**	3,10	3,10	3,10	**120,04**	**4,0**	**1,5**	0,84	3,72	54	3,1
	3,10	3,10	3,10	3,10	**131,07**	**3,6**	**1,4**	0,84	3,72	55	3,1
	3,10	3,10	3,10	3,10	**164,17**	**2,9**	**1,1**	0,84	3,72	59	3,1
	3,10	3,10	3,10	3,10	**190,65**	**2,5**	**0,97**	0,83	3,72	60	3,1
	3,10	3,10	3,10	3,10	**230,37**	**2,1**	**0,81**	0,83	3,72	60	3,1
	3,10	3,10	3,10	3,10	**288,55**	**1,6**	**0,65**	0,83	3,72	60	3,1
	3,10	3,10	3,10	3,10	**335,09**	**1,4**	**0,56**	0,82	3,72	60	3,1
	3,01	3,10	3,10	3,10	**420,50**	**1,1**	**0,44**	0,82	3,72	60	3,1
	3,10	3,10	3,10	3,10	**508,10**	**0,93**	**0,38**	0,81	3,72	60	3,1
	2,90	3,10	3,10	3,10	**590,67**	**0,80**	**0,31**	0,80	3,72	61	3,1
	2,67	2,98	3,10	3,10	**714,52**	**0,66**	**0,24**	0,78	3,72	62	3,1
PT1602K	**1,98**	2,01	2,05	2,09	**6,20**	**77**	**17**	0,94	5,83	22	3,1
RT1602K	**2,33**	2,37	2,42	2,47	**7,32**	**65**	**17**	0,94	6,10	23	3,1
	2,93	2,97	3,03	3,09	**9,19**	**52**	**17**	0,94	6,35	25	3,1
	3,40	3,45	3,53	3,60	**10,68**	**44**	**17**	0,93	6,53	26	3,1
	2,39	2,48	2,60	2,75	**12,92**	**37**	**9,9**	0,93	5,33	28	3,1
PT1603K	**3,89**	3,94	4,01	4,08	**24,65**	**19**	**8,8**	0,90	7,50	33	3,1
RT1603K	**5,00**	5,00	5,00	5,00	**31,78**	**15**	**8,7**	0,90	7,50	36	3,1
	5,00	5,00	5,00	5,00	**39,80**	**12**	**7,0**	0,90	7,50	38	3,1
	5,00	5,00	5,00	5,00	**46,22**	**10**	**6,0**	0,89	7,50	40	3,1
	4,65	4,71	4,88	5,00	**58,00**	**8,2**	**4,5**	0,89	7,50	43	3,1
	4,67	4,73	4,99	5,00	**70,08**	**6,8**	**3,7**	0,89	7,50	45	3,1
	3,89	3,94	4,24	4,59	**81,47**	**5,8**	**2,7**	0,88	7,50	48	3,1
	2,64	2,91	3,36	3,66	**98,55**	**4,8**	**1,5**	0,88	6,07	50	3,1
PT1604K	**4,98**	5,00	5,00	5,00	**93,12**	**5,1**	**3,2**	0,84	7,50	50	3,1
RT1604K	**5,00**	5,00	5,00	5,00	**120,04**	**4,0**	**2,4**	0,85	7,50	54	3,1
	5,00	5,00	5,00	5,00	**131,07**	**3,6**	**2,2**	0,85	7,50	55	3,1
	5,00	5,00	5,00	5,00	**164,17**	**2,9**	**1,8**	0,84	7,50	59	3,1
	5,00	5,00	5,00	5,00	**190,65**	**2,5**	**1,6**	0,84	7,50	60	3,1
	5,00	5,00	5,00	5,00	**230,37**	**2,1**	**1,3**	0,83	7,50	60	3,1
	5,00	5,00	5,00	5,00	**288,55**	**1,6**	**1,0**	0,83	7,50	60	3,1
	5,00	5,00	5,00	5,00	**335,09**	**1,4**	**0,89**	0,83	7,50	60	3,1
	5,00	5,00	5,00	5,00	**420,50**	**1,1**	**0,72**	0,82	7,50	60	3,1
	5,00	5,00	5,00	5,00	**508,10**	**0,93**	**0,60**	0,82	7,50	60	3,1
	4,43	4,80	5,00	5,00	**590,67**	**0,80**	**0,46**	0,81	7,50	61	3,1
	3,52	3,84	4,31	4,71	**714,52**	**0,66**	**0,31**	0,80	6,82	62	3,1
PT1902K	**3,25**	3,60	3,68	3,74	**7,39**	**64**	**23**	0,94	7,90	40	7,4
RT1902K	**3,83**	4,25	4,35	4,42	**8,72**	**54**	**23**	0,94	8,27	43	7,4
	4,81	5,33	5,46	5,54	**10,95**	**43**	**23**	0,94	8,62	45	7,4
	5,34	5,61	5,98	6,29	**12,73**	**37**	**22**	0,93	8,85	47	7,4
	3,95	4,10	4,31	4,65	**15,39**	**31**	**14**	0,93	8,76	53	7,4
PT1903K	**6,21**	6,42	6,71	6,93	**22,32**	**15**	**15**	0,90	11,6	56	3,1
RT1903K	**7,89**	8,01	8,17	8,48	**31,11**	**12**	**14**	0,90	12,8	62	3,1
	7,92	8,04	8,20	8,50	**39,04**	**10**	**11**	0,90	13,7	66	3,1
	7,96	8,07	8,23	8,50	**45,38**	**8,7**	**9,7**	0,90	14,3	69	3,1
	6,58	6,95	7,47	8,10	**54,90**	**6,9**	**6,6**	0,90	14,9	73	3,1
	6,87	6,98	7,45	8,18	**68,89**	**5,9**	**5,6**	0,89	15,8	78	3,1
	5,99	6,35	6,84	7,43	**80,08**	**4,9**	**4,2**	0,89	13,5	82	3,1
	4,33	4,78	5,53	6,17	**96,88**	**4,6**	**2,5**	0,88	9,95	87	3,1

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=475

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
24,65	7,9	19 E1	61 R1	5,8	17 E1	45 R1	15	25 E1	66 R1	10	21 E1	49 R1	60	384
31,78	7,6	18 E1	59 R1	5,7	16 E1	43 R1	14	24 E1	64 R1	10	20 E1	47 R1	70	385
39,80	7,2	17 E1	55 R1	4,9	15 E1	41 R1	14	23 E1	60 R1	9,2	19 E1	44 R1		
46,22	6,9	16 E1	53 R1	4,7	14 E1	39 R1	13	22 E1	58 R1	8,9	18 E1	42 R1		
58,00	6,4	15 E1	48 R1	4,3	13 E1	35 R1	12	20 E1	52 R1	8,1	16 E1	38 R1		
70,08	6,1	14 E1	45 R1	4,1	12 E1	34 R1	11	19 E1	49 R1	7,7	16 E1	36 R1		
81,47	5,6	13 E1	42 R1	3,7	11 E1	31 R1	10	17 E1	45 R1	7,1	14 E1	33 R1		
98,55	4,9	11 E1	36 R1	3,3	10 E1	27 R1	9,0	15 E1	39 R1	6,1	12 E1	29 R1		
93,12	5,9	14 E1	43 R1	4,0	12 E1	32 R1	11	18 E1	47 R1	7,6	15 E1	35 R1	65	384
120,04	5,6	13 E1	41 R1	3,9	12 E1	31 R1	11	18 E1	45 R1	7,3	14 E1	33 R1	75	385
131,07	5,5	13 E1	40 R1	3,8	11 E1	30 R1	10	17 E1	44 R1	7,1	14 E1	32 R1		
164,17	5,1	12 E1	38 R1	3,6	11 E1	28 R1	9,8	16 E1	41 R1	6,7	13 E1	30 R1		
190,65	4,9	12 E1	36 R1	3,4	10 E1	27 R1	9,4	15 E1	39 R1	6,4	13 E1	29 R1		
230,37	4,7	11 E1	34 R1	3,2	10 E1	25 R1	8,9	15 E1	37 R1	6,1	12 E1	28 R1		
288,55	4,4	10 E1	32 R1	3,0	9,0 E1	24 R1	8,3	14 E1	35 R1	5,7	11 E1	26 R1		
335,09	4,2	10 E1	31 R1	2,9	8,6 E1	23 R1	8,0	13 E1	33 R1	5,5	11 E1	25 R1		
420,50	3,9	8,8 E1	27 R1	2,6	7,7 E1	20 R1	7,2	12 E1	29 R1	4,9	10 E1	22 R1		
508,10	3,7	8,3 E1	26 R1	2,5	7,3 E1	19 R1	6,8	11 E1	27 R1	4,7	9,1 E1	21 R1		
590,67	3,4	7,5 E1	24 R1	2,3	6,6 E1	17 R1	6,2	10 E1	25 R1	4,2	8,3 E1	19 R1		
714,52	2,9	6,5 E1	20 R1	1,9	5,7 E1	15 R1	5,3	8,6 E1	21 R1	3,6	7,1 E1	16 R1		
6,20	16	35 E1	111 R1	11	30 E1	82 R1	30	48 E1	123 R1	21	39 E1	90 R1	73	386
7,32	16	33 E1	105 R1	10	29 E1	77 R1	29	46 E1	116 R1	20	37 E1	84 R1	83	387
9,19	14	30 E1	92 R1	9,4	26 E1	69 R1	26	41 E1	101 R1	18	33 E1	76 R1		
10,68	13	26 E1	83 R1	8,6	23 E1	62 R1	24	38 E1	92 R1	16	30 E1	67 R1		
12,92	11	24 E1	74 R1	7,6	20 E1	53 R1	21	32 E1	81 R1	14	26 E1	58 R1		
24,65	9,1	20 E1	68 R1	6,5	18 E1	50 R1	17	28 E1	74 R1	11	23 E1	54 R1	76	386
31,78	8,7	20 E1	65 R1	6,0	17 E1	48 R1	16	27 E1	71 R1	11	22 E1	52 R1	86	387
39,80	8,3	19 E1	62 R1	5,6	17 E1	46 R1	16	26 E1	67 R1	10	21 E1	49 R1		
46,22	7,9	18 E1	59 R1	5,4	16 E1	44 R1	15	25 E1	65 R1	10	20 E1	47 R1		
58,00	7,2	17 E1	54 R1	4,9	15 E1	40 R1	14	22 E1	58 R1	9,0	18 E1	43 R1		
70,08	6,9	16 E1	51 R1	4,7	14 E1	38 R1	13	21 E1	55 R1	8,5	18 E1	41 R1		
81,47	6,3	15 E1	47 R1	4,3	13 E1	35 R1	12	20 E1	51 R1	8,2	16 E1	37 R1		
98,55	5,5	13 E1	40 R1	3,8	11 E1	30 R1	10	17 E1	44 R1	7,1	14 E1	32 R1		
93,12	6,6	15 E1	48 R1	4,6	13 E1	35 R1	13	20 E1	52 R1	8,6	17 E1	38 R1	82	386
120,04	6,4	15 E1	46 R1	4,4	13 E1	34 R1	12	20 E1	50 R1	8,3	16 E1	37 R1	92	387
131,07	6,2	14 E1	45 R1	4,3	12 E1	33 R1	12	19 E1	49 R1	8,1	16 E1	36 R1		
164,17	5,8	13 E1	42 R1	4,0	12 E1	31 R1	11	18 E1	46 R1	7,6	15 E1	34 R1		
190,65	5,6	13 E1	40 R1	3,9	11 E1	30 R1	11	17 E1	44 R1	7,3	14 E1	32 R1		
230,37	5,3	12 E1	38 R1	3,7	11 E1	28 R1	10	16 E1	41 R1	6,9	13 E1	31 R1		
288,55	5,0	11 E1	36 R1	3,4	10 E1	26 R1	9,5	15 E1	39 R1	6,5	13 E1	29 R1		
335,09	4,8	11 E1	34 R1	3,3	10 E1	25 R1	9,1	15 E1	37 R1	6,2	12 E1	27 R1		
420,50	4,5	10 E1	30 R1	3,0	8,6 E1	23 R1	8,1	13 E1	33 R1	5,6	11 E1	25 R1		
508,10	4,2	9,3 E1	29 R1	2,8	8,1 E1	21 R1	7,7	12 E1	31 R1	5,3	10 E1	23 R1		
590,67	3,9	8,5 E1	26 R1	2,6	7,4 E1	19 R1	7,0	11 E1	28 R1	4,8	9,3 E1	21 R1		
714,52	3,3	7,3 E1	22 R1	2,2	6,4 E1	17 R1	6,0	9,7 E1	24 R1	4,2	8,0 E1	18 R1		
7,39	25	44 E1	125 R1	17	36 E1	91 R1	47	65 E1	144 R1	31	50 E1	103 R1	140	388
8,72	23	42 E1	118 R1	16	35 E1	86 R1	44	62 E1	136 R1	30	48 E1	98 R1	154	389
10,95	21	38 E1	105 R1	15	31 E1	77 R1	40	55 E1	121 R1	27	43 E1	87 R1		
12,73	20	35 E1	98 R1	14	29 E1	72 R1	37	51 E1	112 R1	25	39 E1	82 R1		
15,39	18	31 E1	84 R1	12	26 E1	62 R1	32	44 E1	96 R1	22	35 E1	70 R1		
22,32	14	26 E1	77 R1	9,4	22 E1	55 R1	26	37 E1	86 R1	18	29 E1	63 R1	121	388
31,11	13	25 E1	72 R1	8,8	21 E1	53 R1	24	35 E1	82 R1	16	28 E1	59 R1	135	389
39,04	12	23 E1	68 R1	8,6	20 E1	50 R1	23	33 E1	77 R1	15	27 E1	56 R1		
45,38	12	23 E1	66 R1	8,5	19 E1	48 R1	22	32 E1	74 R1	15	26 E1	54 R1		
54,90	11	22 E1	63 R1	7,7	18 E1	46 R1	21	31 E1	70 R1	14	24 E1	51 R1		
68,89	10	20 E1	57 R1	7,0	17 E1	42 R1	19	28 E1	64 R1	13	22 E1	47 R1		
80,08	9,4	18 E1	52 R1	6,5	15 E1	38 R1	18	26 E1	58 R1	12	20 E1	43 R1		
96,88	8,5	16 E1	45 R1	5,6	13 E1	33 R1	16	22 E1	51 R1	11	18 E1	37 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment Ma [kNm]	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) Ma [kNm]			Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung [kW]	Verim *Efficiency* Wirkungsgrad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]
	10000 [h]	5000 [h]	2000 [h]	1000 [h]			10000 [h]			10000 [h]	
PT1904K	**8,11**	8,23	8,50	8,50	**104,76**	**4,5**	**4,5**	0,85	18,1	87	3,1
RT1904K	**8,14**	8,26	8,50	8,50	**123,68**	**3,8**	**3,9**	0,85	19,0	92	3,1
	8,16	8,32	8,50	8,50	**135,05**	**3,5**	**3,5**	0,85	19,5	94	3,1
	8,19	8,50	8,50	8,50	**169,15**	**2,8**	**2,8**	0,85	19,7	95	3,1
	8,22	8,50	8,50	8,50	**196,43**	**2,4**	**2,5**	0,84	19,8	95	3,1
	8,25	8,50	8,50	8,50	**237,35**	**2,0**	**2,1**	0,84	19,9	95	3,1
	8,43	8,50	8,50	8,50	**297,85**	**1,6**	**1,7**	0,84	20,0	95	3,1
	8,50	8,50	8,50	8,50	**346,26**	**1,4**	**1,5**	0,83	20,0	95	3,1
	7,59	8,50	8,50	8,50	**418,86**	**1,1**	**1,1**	0,83	17,3	95	3,1
	7,88	8,50	8,50	8,50	**525,63**	**0,90**	**0,91**	0,82	17,3	95	3,1
	7,19	7,81	8,50	8,50	**611,04**	**0,78**	**0,72**	0,82	15,6	96	3,1
	5,88	6,57	7,52	8,21	**739,16**	**0,64**	**0,49**	0,80	11,2	98	3,1
PT2302K	**5,56**	6,85	8,23	8,36	**10,57**	**45**	**28**	0,94	9,67	57	7,4
RT2302K	**6,64**	8,18	9,82	9,97	**12,61**	**38**	**28**	0,94	10,0	70	7,4
	8,15	10,0	11,1	11,3	**16,19**	**29**	**27**	0,94	10,5	72	7,4
	7,44	7,82	8,49	9,57	**19,21**	**25**	**21**	0,93	10,8	73	7,4
PT2303K	**6,78**	6,87	7,02	7,16	**21,26**	**22**	**18**	0,90	14,2	74	3,1
RT2303K	**8,09**	8,20	8,38	8,54	**25,36**	**19**	**18**	0,90	14,7	78	3,1
	9,55	9,68	9,89	10,1	**29,94**	**16**	**18**	0,90	15,5	83	3,1
	10,5	10,7	10,9	11,1	**37,58**	**13**	**15**	0,90	16,6	87	3,1
	9,10	9,59	9,90	10,1	**43,68**	**11**	**12**	0,90	17,3	94	3,1
	10,6	11,3	11,7	12,5	**56,06**	**8,5**	**11**	0,89	18,2	99	3,1
	8,13	8,59	9,23	10,0	**67,81**	**7,0**	**6,7**	0,89	18,4	105	3,1
	8,12	9,20	10,6	11,7	**80,48**	**5,9**	**5,7**	0,88	18,3	104	3,1
PT2304K	**10,8**	11,2	11,4	11,6	**100,84**	**4,7**	**6,4**	0,84	21,9	103	3,1
RT2304K	**10,8**	11,2	11,4	11,6	**119,05**	**4,0**	**5,4**	0,84	23,0	103	3,1
	12,5	12,5	12,5	12,5	**129,99**	**3,7**	**5,7**	0,84	23,7	101	3,1
	12,5	12,5	12,5	12,5	**162,82**	**2,9**	**4,6**	0,83	25,3	101	3,1
	12,5	12,5	12,5	12,5	**189,08**	**2,5**	**4,0**	0,83	25,6	101	3,1
	12,5	12,5	12,5	12,5	**228,47**	**2,1**	**3,3**	0,82	25,6	101	3,1
	11,1	11,3	12,1	12,5	**286,70**	**1,7**	**2,3**	0,83	25,6	102	3,1
	12,1	12,5	12,5	12,5	**367,94**	**1,3**	**2,0**	0,82	26,7	102	3,1
	12,2	12,5	12,5	12,5	**427,73**	**1,1**	**1,7**	0,82	27,1	102	3,1
	9,37	10,8	12,5	12,5	**517,41**	**0,92**	**1,1**	0,82	21,4	104	3,1
	11,1	12,3	12,5	12,5	**614,07**	**0,77**	**1,1**	0,80	21,4	102	3,1
PT2402K	**5,56**	6,85	8,23	8,36	**10,57**	**45**	**28**	0,94	16,3	57	7,4
RT2402K	**6,64**	8,18	9,82	9,97	**12,61**	**38**	**28**	0,94	16,8	70	7,4
	8,52	10,5	12,6	12,8	**16,19**	**29**	**28**	0,94	17,6	72	7,4
	10,1	10,5	11,2	12,5	**19,21**	**25**	**28**	0,93	18,2	73	7,4
PT2403K	**6,78**	6,87	7,02	7,16	**21,26**	**22**	**18**	0,90	20,0	74	3,1
RT2403K	**8,09**	8,20	8,38	8,54	**25,36**	**19**	**18**	0,90	23,8	78	3,1
	9,55	9,68	9,89	10,1	**29,94**	**16**	**18**	0,90	24,9	83	3,1
	12,0	12,2	12,4	12,7	**37,58**	**13**	**18**	0,90	26,0	87	3,1
	13,9	14,1	14,4	14,7	**43,68**	**11**	**18**	0,90	26,7	94	3,1
	15,2	16,6	17,7	18,9	**56,06**	**8,5**	**15**	0,89	30,0	99	3,1
	12,5	13,0	13,6	14,4	**67,81**	**7,0**	**10**	0,89	28,0	105	3,1
	10,8	12,0	13,8	15,0	**80,48**	**5,9**	**7,5**	0,89	24,9	104	3,1
PT2404K	**15,9**	16,1	16,4	16,7	**100,84**	**4,7**	**9,3**	0,84	30,0	103	3,1
RT2404K	**18,8**	19,0	19,4	19,7	**119,05**	**4,0**	**9,3**	0,85	30,0	103	3,1
	20,0	20,0	20,0	20,0	**129,99**	**3,7**	**9,1**	0,84	30,0	101	3,1
	20,0	20,0	20,0	20,0	**162,82**	**2,9**	**7,3**	0,84	30,0	101	3,1
	20,0	20,0	20,0	20,0	**189,08**	**2,5**	**6,3**	0,84	30,0	101	3,1
	20,0	20,0	20,0	20,0	**228,47**	**2,1**	**5,2**	0,83	30,0	101	3,1
	19,1	19,3	20,0	20,0	**286,70**	**1,7**	**4,0**	0,83	30,0	102	3,1
	18,2	19,7	20,0	20,0	**367,94**	**1,3**	**3,0**	0,83	30,0	102	3,1
	18,4	19,8	20,0	20,0	**427,73**	**1,1**	**2,6**	0,83	30,0	102	3,1
	13,9	15,3	17,6	19,2	**517,41**	**0,92**	**1,6**	0,83	30,0	104	3,1
	14,6	15,7	17,4	18,8	**614,07**	**0,77**	**1,4**	0,82	28,2	102	3,1

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=475

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
104,76	**11**	19 E1	54 R1	**7,0**	16 E1	40 R1	**19**	27 E1	61 R1	**13**	22 E1	45 R1	120	388
123,68	**10**	18 E1	51 R1	**6,7**	15 E1	38 R1	**18**	26 E1	58 R1	**13**	21 E1	43 R1	134	389
135,05	**9,8**	18 E1	50 R1	**6,5**	15 E1	37 R1	**18**	26 E1	57 R1	**12**	20 E1	42 R1		
169,15	**9,3**	17 E1	47 R1	**6,1**	14 E1	35 R1	**17**	24 E1	53 R1	**12**	19 E1	39 R1		
196,43	**8,9**	16 E1	45 R1	**5,9**	14 E1	33 R1	**16**	23 E1	51 R1	**11**	18 E1	37 R1		
237,35	**8,5**	15 E1	43 R1	**5,6**	13 E1	32 R1	**15**	22 E1	48 R1	**11**	17 E1	35 R1		
297,85	**7,9**	14 E1	40 R1	**5,2**	12 E1	30 R1	**14**	20 E1	44 R1	**10**	16 E1	33 R1		
346,26	**7,6**	14 E1	38 R1	**5,0**	12 E1	28 R1	**14**	20 E1	42 R1	**10**	16 E1	32 R1		
418,86	**7,2**	13 E1	36 R1	**4,7**	11 E1	27 R1	**13**	19 E1	40 R1	**9,0**	15 E1	30 R1		
525,63	**6,5**	12 E1	32 R1	**4,2**	10 E1	24 R1	**12**	16 E1	36 R1	**8,1**	13 E1	27 R1		
611,04	**5,9**	11 E1	30 R1	**4,1**	9,0 E1	22 R1	**11**	15 E1	33 R1	**7,4**	12 E1	25 R1		
739,16	**5,1**	9,2 E1	25 R1	**3,5**	7,8 E1	19 R1	**9,1**	13 E1	28 R1	**6,4**	10 E1	21 R1		
10,57	**31**	51 E1	134 R1	**20**	41 E1	97 R1	**59**	77 E1	158 R1	**39**	59 E1	113 R1	198	390
12,61	**29**	48 E1	127 R1	**20**	39 E1	92 R1	**56**	73 E1	150 R1	**37**	56 E1	108 R1	213	391
16,19	**26**	43 E1	112 R1	**18**	35 E1	81 R1	**49**	65 E1	131 R1	**33**	49 E1	95 R1		
19,21	**24**	39 E1	100 R1	**16**	31 E1	73 R1	**45**	59 E1	118 R1	**30**	45 E1	85 R1		
21,26	**15**	27 E1	77 R1	**10**	23 E1	55 R1	**28**	40 E1	88 R1	**20**	31 E1	64 R1	165	392
25,36	**15**	27 E1	77 R1	**11**	23 E1	55 R1	**28**	40 E1	88 R1	**19**	31 E1	64 R1	180	393
29,94	**15**	26 E1	74 R1	**10**	22 E1	55 R1	**28**	39 E1	85 R1	**19**	30 E1	62 R1		
37,58	**14**	25 E1	70 R1	**10**	21 E1	51 R1	**26**	36 E1	80 R1	**17**	29 E1	58 R1		
43,68	**13**	24 E1	67 R1	**9,2**	20 E1	50 R1	**25**	35 E1	77 R1	**17**	27 E1	56 R1		
56,06	**12**	22 E1	61 R1	**8,4**	19 E1	45 R1	**23**	32 E1	70 R1	**16**	25 E1	51 R1		
67,81	**12**	21 E1	58 R1	**8,0**	18 E1	43 R1	**22**	30 E1	66 R1	**15**	24 E1	48 R1		
80,48	**11**	19 E1	53 R1	**7,2**	16 E1	39 R1	**20**	28 E1	60 R1	**14**	22 E1	44 R1		
100,84	**10**	19 E1	54 R1	**6,8**	16 E1	40 R1	**19**	27 E1	61 R1	**13**	21 E1	45 R1	164	392
119,05	**9,8**	18 E1	52 R1	**6,5**	15 E1	38 R1	**18**	26 E1	58 R1	**12**	20 E1	43 R1	179	393
129,99	**9,6**	18 E1	50 R1	**6,3**	15 E1	37 R1	**18**	25 E1	57 R1	**12**	20 E1	42 R1		
162,82	**9,0**	17 E1	47 R1	**6,0**	14 E1	35 R1	**17**	24 E1	53 R1	**11**	19 E1	39 R1		
189,08	**8,7**	16 E1	45 R1	**5,7**	14 E1	33 R1	**16**	23 E1	51 R1	**11**	18 E1	37 R1		
228,47	**8,2**	15 E1	43 R1	**5,4**	13 E1	32 R1	**15**	22 E1	48 R1	**10**	17 E1	35 R1		
286,70	**7,7**	14 E1	40 R1	**5,1**	12 E1	30 R1	**14**	20 E1	44 R1	**10**	16 E1	33 R1		
367,94	**7,0**	13 E1	36 R1	**4,6**	11 E1	27 R1	**13**	18 E1	40 R1	**8,7**	14 E1	30 R1		
427,73	**6,7**	12 E1	35 R1	**4,4**	10 E1	26 R1	**12**	17 E1	38 R1	**8,4**	14 E1	29 R1		
517,41	**6,3**	12 E1	33 R1	**4,2**	10 E1	24 R1	**12**	16 E1	36 R1	**7,9**	13 E1	27 R1		
614,07	**5,7**	10 E1	29 R1	**3,7**	8,9 E1	22 R1	**10**	15 E1	32 R1	**7,1**	12 E1	24 R1		
10,57	**33**	55 E1	144 R1	**22**	44 E1	104 R1	**64**	84 E1	171 R1	**43**	63 E1	122 R1	227	394
12,61	**32**	52 E1	137 R1	**21**	42 E1	99 R1	**61**	80 E1	162 R1	**41**	61 E1	116 R1	242	395
16,19	**29**	47 E1	121 R1	**20**	38 E1	88 R1	**54**	71 E1	143 R1	**37**	54 E1	103 R1		
19,21	**26**	42 E1	109 R1	**18**	34 E1	79 R1	**49**	64 E1	129 R1	**33**	49 E1	93 R1		
21,26	**17**	30 E1	84 R1	**12**	25 E1	61 R1	**32**	44 E1	96 R1	**22**	34 E1	69 R1	206	394
25,36	**17**	30 E1	85 R1	**12**	26 E1	61 R1	**32**	44 E1	97 R1	**22**	34 E1	69 R1	221	395
29,94	**17**	29 E1	81 R1	**11**	24 E1	58 R1	**31**	43 E1	93 R1	**21**	33 E1	68 R1		
37,58	**16**	27 E1	77 R1	**11**	23 E1	56 R1	**29**	41 E1	88 R1	**20**	31 E1	64 R1		
43,68	**15**	26 E1	74 R1	**10**	22 E1	54 R1	**28**	39 E1	85 R1	**19**	31 E1	62 R1		
56,06	**14**	25 E1	68 R1	**9,4**	20 E1	50 R1	**26**	36 E1	77 R1	**17**	28 E1	56 R1		
67,81	**13**	23 E1	64 R1	**9,0**	19 E1	47 R1	**25**	34 E1	73 R1	**17**	27 E1	54 R1		
80,48	**12**	21 E1	58 R1	**8,2**	18 E1	43 R1	**22**	31 E1	67 R1	**15**	24 E1	49 R1		
100,84	**12**	21 E1	60 R1	**7,7**	18 E1	44 R1	**21**	30 E1	67 R1	**15**	24 E1	49 R1	209	394
119,05	**11**	20 E1	57 R1	**7,4**	17 E1	42 R1	**20**	29 E1	65 R1	**14**	23 E1	47 R1	225	395
129,99	**11**	20 E1	56 R1	**7,2**	17 E1	41 R1	**20**	28 E1	63 R1	**14**	22 E1	46 R1		
162,82	**10**	19 E1	52 R1	**6,8**	16 E1	39 R1	**19**	27 E1	59 R1	**13**	21 E1	43 R1		
189,08	**9,8**	18 E1	50 R1	**6,5**	15 E1	37 R1	**18**	26 E1	57 R1	**12**	20 E1	42 R1		
228,47	**9,4**	17 E1	48 R1	**6,2**	14 E1	35 R1	**17**	24 E1	54 R1	**12**	19 E1	39 R1		
286,70	**8,8**	16 E1	45 R1	**5,8**	13 E1	33 R1	**16**	23 E1	50 R1	**11**	18 E1	37 R1		
367,94	**8,0**	14 E1	40 R1	**5,2**	12 E1	30 R1	**15**	21 E1	45 R1	**10**	16 E1	33 R1		
427,73	**7,6**	14 E1	38 R1	**5,0**	12 E1	28 R1	**14**	20 E1	43 R1	**10**	16 E1	32 R1		
517,41	**7,2**	13 E1	36 R1	**4,7**	11 E1	27 R1	**13**	19 E1	40 R1	**9,1**	15 E1	30 R1		
614,07	**6,5**	12 E1	33 R1	**4,3**	10 E1	24 R1	**12**	16 E1	36 R1	**8,2**	13 E1	27 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT2702K	**13,9**	17,1	22,5	23,3	**7,84**	**61**	**94**	0,93	25,7	54	13
RT2702K	**17,9**	18,7	19,2	19,4	**10,06**	**47**	**95**	0,93	27,0	57	13
	12,7	13,2	14,0	15,0	**11,94**	**40**	**57**	0,93	27,8	74	13
	16,9	18,1	18,5	18,8	**15,31**	**31**	**59**	0,93	25,7	75	13
	13,0	13,5	14,3	16,0	**18,17**	**26**	**38**	0,93	27,0	77	13
PT2703K	**13,3**	14,7	15,1	15,3	**30,23**	**16**	**24**	0,90	32,3	77	7,4
RT2703K	**15,7**	17,4	17,8	18,1	**35,69**	**13**	**24**	0,90	33,8	83	7,4
	19,7	21,8	22,3	22,7	**44,78**	**11**	**24**	0,90	35,3	87	7,4
	21,8	23,0	24,0	25,0	**52,06**	**9,1**	**23**	0,89	36,2	92	7,4
	16,2	16,8	17,6	19,0	**62,98**	**7,5**	**14**	0,89	35,8	99	7,4
	19,5	19,7	21,0	22,6	**80,82**	**5,9**	**14**	0,89	45,4	104	7,4
	14,3	16,0	18,5	20,5	**95,92**	**5,0**	**8,4**	0,89	32,2	120	7,4
PT2704K	**23,5**	23,9	25,0	25,0	**91,31**	**5,2**	**15**	0,84	47,5	119	3,1
RT2704K	**23,6**	23,9	25,0	25,0	**107,80**	**4,4**	**13**	0,85	47,5	128	3,1
	23,7	24,0	25,0	25,0	**127,26**	**3,7**	**11**	0,85	52,2	128	3,1
	23,8	24,6	25,0	25,0	**159,70**	**3,0**	**8,8**	0,84	55,9	139	3,1
	23,9	25,0	25,0	25,0	**185,65**	**2,6**	**7,6**	0,84	58,5	130	3,1
	24,0	25,0	25,0	25,0	**224,57**	**2,1**	**6,4**	0,83	57,9	128	3,1
	24,2	25,0	25,0	25,0	**281,82**	**1,7**	**5,1**	0,83	58,2	140	3,1
	24,5	25,0	25,0	25,0	**327,61**	**1,4**	**4,5**	0,83	55,1	134	3,1
	17,7	19,6	22,6	25,0	**396,31**	**1,2**	**2,7**	0,83	40,7	138	3,1
	21,6	23,2	25,0	25,0	**508,59**	**0,93**	**2,6**	0,82	48,9	135	3,1
	19,1	21,1	23,5	25,0	**603,61**	**0,79**	**1,9**	0,82	36,6	136	3,1
PT2902K	**13,9**	17,1	22,5	25,1	**7,84**	**61**	**94**	0,94	28,2	65	12
RT2902K	**17,9**	22,0	26,4	28,5	**10,06**	**47**	**94**	0,93	29,6	69	12
	19,6	20,4	21,5	23,1	**11,94**	**40**	**88**	0,93	30,7	88	12
	16,9	18,1	18,5	18,8	**15,31**	**31**	**59**	0,93	29,6	93	12
	20,0	20,8	21,9	22,3	**18,17**	**26**	**59**	0,93	30,7	98	12
PT2903K	**22,8**	28,0	33,7	34,2	**43,25**	**11**	**29**	0,90	40,4	113	7,4
RT2903K	**27,2**	33,5	35,0	35,0	**51,60**	**9,2**	**29**	0,90	48,2	119	7,4
	33,3	35,0	35,0	35,0	**66,22**	**7,2**	**28**	0,90	60,2	129	7,4
	30,4	32,0	34,7	35,0	**78,59**	**6,0**	**21**	0,90	62,1	142	7,4
	27,9	30,6	33,2	35,0	**100,86**	**4,7**	**15**	0,89	63,6	152	7,4
	22,7	25,4	28,0	30,0	**119,70**	**4,0**	**11**	0,89	51,9	159	7,4
PT2904K	**27,7**	28,1	28,7	29,3	**86,96**	**5,5**	**19**	0,84	56,7	129	3,1
RT2904K	**35,0**	35,0	35,0	35,0	**122,49**	**3,9**	**17**	0,84	74,4	142	3,1
	35,0	35,0	35,0	35,0	**153,72**	**3,1**	**13**	0,84	79,7	152	3,1
	35,0	35,0	35,0	35,0	**178,70**	**2,7**	**12**	0,84	83,4	159	3,1
	35,0	35,0	35,0	35,0	**216,17**	**2,2**	**9,6**	0,84	83,4	168	3,1
	35,0	35,0	35,0	35,0	**277,41**	**1,7**	**7,5**	0,83	87,3	168	3,1
	33,2	35,0	35,0	35,0	**329,24**	**1,4**	**6,0**	0,83	77,5	168	3,1
	32,5	35,0	35,0	35,0	**422,52**	**1,1**	**4,6**	0,83	73,2	168	3,1
	27,5	29,5	32,4	34,9	**501,46**	**0,95**	**3,3**	0,82	59,6	168	3,1
PT3502K	**14,1**	17,3	22,8	25,4	**7,94**	**60**	**94**	0,94	41,2	80	12
RT3502K	**18,4**	22,6	29,7	33,1	**10,35**	**46**	**94**	0,93	43,0	84	12
	19,7	20,5	21,5	23,2	**12,46**	**38**	**84**	0,94	41,2	113	12
	17,3	18,6	19,0	19,3	**15,75**	**30**	**59**	0,93	43,0	118	12
	20,1	20,9	22,1	23,2	**18,96**	**25**	**57**	0,93	43,5	122	12
PT3503K	**23,1**	28,4	34,1	34,6	**43,80**	**11**	**29**	0,90	59,6	127	7,4
RT3503K	**27,5**	33,9	40,7	41,3	**52,26**	**9,1**	**29**	0,90	62,8	138	7,4
	35,3	43,5	50,0	50,0	**67,06**	**7,1**	**29**	0,90	67,7	145	7,4
	41,9	43,5	46,4	50,0	**79,59**	**6,0**	**29**	0,89	71,3	156	7,4
	33,4	37,5	42,4	45,9	**103,74**	**4,6**	**18**	0,90	71,9	173	7,4
	22,9	25,6	29,6	33,0	**124,88**	**3,8**	**10**	0,89	49,3	185	7,4

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=475

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
7,84	**33**	137 E4	120 R1	**22**	128 E4	122 R2	**62**	114 E3	146 R1	**42**	94 E3	104 R1	301	396
10,06	**34**	140 E4	123 R1	**23**	130 E4	124 R2	**64**	116 E3	149 R1	**43**	96 E3	107 R1	366	397
11,94	**31**	61 E2	111 R1	**21**	71 E3	81 R1	**58**	72 E1	135 R1	**39**	54 E1	97 R1		
15,31	**32**	65 E2	119 R1	**22**	76 E3	86 R1	**61**	77 E1	145 R1	**41**	57 E1	103 R1		
18,17	**30**	45 E1	108 R1	**20**	50 E2	78 R1	**56**	70 E1	131 R1	**37**	52 E1	94 R1		
30,23	**20**	33 E1	85 R1	**14**	27 E1	62 R1	**37**	50 E1	99 R1	**25**	38 E1	72 R1	271	396
35,69	**20**	32 E1	82 R1	**13**	26 E1	60 R1	**36**	48 E1	95 R1	**25**	37 E1	68 R1	336	397
44,78	**19**	30 E1	77 R1	**13**	25 E1	57 R1	**35**	45 E1	90 R1	**24**	35 E1	65 R1		
52,06	**18**	29 E1	74 R1	**12**	24 E1	54 R1	**33**	43 E1	86 R1	**23**	33 E1	63 R1		
62,98	**17**	28 E1	70 R1	**12**	23 E1	51 R1	**32**	41 E1	84 R1	**22**	32 E1	60 R1		
80,82	**16**	25 E1	66 R1	**11**	21 E1	47 R1	**29**	38 E1	77 R1	**20**	29 E1	54 R1		
95,92	**14**	23 E1	60 R1	**10**	19 E1	42 R1	**27**	35 E1	70 R1	**18**	26 E1	51 R1		
91,31	**13**	23 E1	61 R1	**9,1**	18 E1	45 R1	**25**	34 E1	71 R1	**17**	26 E1	51 R1	252	396
107,80	**13**	22 E1	59 R1	**8,7**	18 E1	43 R1	**24**	32 E1	68 R1	**16**	25 E1	49 R1	317	397
127,26	**12**	21 E1	56 R1	**8,4**	17 E1	41 R1	**23**	31 E1	65 R1	**16**	24 E1	47 R1		
159,70	**12**	20 E1	53 R1	**7,9**	16 E1	39 R1	**22**	29 E1	61 R1	**15**	23 E1	44 R1		
185,65	**11**	19 E1	51 R1	**7,6**	16 E1	37 R1	**21**	28 E1	59 R1	**14**	22 E1	43 R1		
224,57	**11**	18 E1	48 R1	**7,2**	15 E1	36 R1	**20**	27 E1	56 R1	**14**	21 E1	41 R1		
281,82	**10**	17 E1	45 R1	**6,8**	14 E1	33 R1	**19**	25 E1	52 R1	**13**	20 E1	38 R1		
327,61	**9,8**	17 E1	44 R1	**6,5**	14 E1	32 R1	**18**	24 E1	50 R1	**12**	19 E1	37 R1		
396,31	**9,4**	16 E1	41 R1	**6,2**	13 E1	30 R1	**17**	23 E1	48 R1	**12**	18 E1	35 R1		
508,59	**8,5**	14 E1	37 R1	**5,6**	12 E1	28 R1	**16**	21 E1	43 R1	**11**	16 E1	32 R1		
603,61	**7,7**	13 E1	34 R1	**5,1**	11 E1	25 R1	**14**	19 E1	38 R1	**10**	15 E1	28 R1		
7,84	**39**	96 E3	133 R1	**26**	139 E4	96 R1	**75**	92 E1	165 R1	**50**	106 E3	117 R1	403	398
10,06	**36**	137 E4	121 R1	**24**	126 E4	121 R2	**68**	118 E3	150 R1	**46**	97 E3	106 R1	475	399
11,94	**33**	124 E4	110 R1	**22**	114 E4	110 R2	**62**	107 E3	136 R1	**42**	88 E3	97 R1		
15,31	**39**	56 E1	130 R1	**26**	61 E2	93 R1	**73**	90 E1	161 R1	**49**	66 E1	114 R1		
18,17	**36**	67 E2	120 R1	**24**	56 E2	86 R1	**68**	83 E1	148 R1	**46**	61 E1	106 R1		
43,25	**25**	38 E1	94 R1	**17**	30 E1	68 R1	**47**	59 E1	113 R1	**32**	45 E1	81 R1	357	398
51,60	**24**	37 E1	90 R1	**16**	29 E1	65 R1	**45**	57 E1	108 R1	**31**	43 E1	78 R1	429	399
66,22	**23**	35 E1	85 R1	**15**	28 E1	62 R1	**43**	54 E1	102 R1	**29**	41 E1	73 R1		
78,59	**22**	34 E1	82 R1	**15**	27 E1	59 R1	**41**	52 E1	98 R1	**28**	39 E1	71 R1		
100,86	**21**	31 E1	75 R1	**14**	25 E1	55 R1	**38**	48 E1	91 R1	**26**	36 E1	65 R1		
119,70	**19**	29 E1	70 R1	**13**	23 E1	51 R1	**35**	45 E1	84 R1	**24**	34 E1	60 R1		
86,96	**16**	27 E1	67 R1	**11**	22 E1	49 R1	**30**	40 E1	79 R1	**20**	31 E1	56 R1	224	398
122,49	**15**	24 E1	61 R1	**10**	20 E1	46 R1	**28**	36 E1	71 R1	**19**	28 E1	52 R1	396	399
153,72	**14**	23 E1	57 R1	**10**	19 E1	42 R1	**26**	34 E1	68 R1	**18**	26 E1	49 R1		
178,70	**14**	22 E1	55 R1	**9,4**	18 E1	40 R1	**25**	33 E1	65 R1	**17**	25 E1	47 R1		
216,17	**13**	21 E1	53 R1	**8,9**	17 E1	38 R1	**24**	31 E1	62 R1	**16**	24 E1	44 R1		
277,41	**12**	19 E1	50 R1	**8,3**	16 E1	36 R1	**22**	29 E1	58 R1	**15**	22 E1	42 R1		
329,24	**12**	18 E1	47 R1	**8,0**	15 E1	34 R1	**21**	28 E1	55 R1	**15**	21 E1	40 R1		
422,52	**11**	17 E1	43 R1	**7,1**	14 E1	32 R1	**20**	25 E1	50 R1	**13**	20 E1	37 R1		
501,46	**9,7**	16 E1	39 R1	**6,7**	13 E1	29 R1	**18**	23 E1	46 R1	**12**	18 E1	34 R1		
7,94	**44**	104 E3	143 R1	**29**	91 E3	102 R1	**84**	101 E1	179 R1	**56**	92 E2	127 R1	470	400
10,35	**41**	95 E3	130 R1	**27**	135 E4	93 R1	**77**	93 E1	163 R1	**51**	105 E3	115 R1	557	401
12,08	**38**	68 E2	120 R1	**25**	57 E2	86 R1	**71**	86 E1	150 R1	**48**	63 E1	107 R1		
12,46	**45**	83 E2	147 R1	**30**	93 E3	105 R1	**86**	104 E1	185 R1	**57**	94 E2	130 R1		
15,75	**42**	59 E1	134 R1	**28**	63 E2	96 R1	**79**	95 E1	168 R1	**53**	70 E1	119 R1		
18,96	**38**	54 E1	122 R1	**25**	57 E2	88 R1	**72**	87 E1	152 R1	**48**	64 E1	108 R1		
43,80	**27**	41 E1	97 R1	**18**	32 E1	70 R1	**52**	64 E1	118 R1	**35**	48 E1	84 R1	454	400
52,26	**27**	39 E1	93 R1	**18**	31 E1	68 R1	**50**	62 E1	114 R1	**34**	46 E1	81 R1	540	401
67,06	**25**	37 E1	88 R1	**17**	29 E1	64 R1	**47**	58 E1	107 R1	**32**	44 E1	77 R1		
79,59	**24**	36 E1	85 R1	**16**	28 E1	62 R1	**45**	56 E1	103 R1	**31**	42 E1	74 R1		
103,74	**23**	34 E1	79 R1	**15**	27 E1	58 R1	**43**	53 E1	97 R1	**29**	39 E1	69 R1		
124,88	**21**	31 E1	72 R1	**14**	24 E1	52 R1	**39**	48 E1	87 R1	**26**	36 E1	63 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç *P_N=Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3504K **RT3504K**	**28,1**	28,5	29,1	29,7	**88,07**	**5,4**	**19**	0,84	82,7	156	3,1
	39,5	40,1	41,0	41,8	**124,05**	**3,8**	**19**	0,85	97,0	173	3,1
	49,6	50,0	50,0	50,0	**155,67**	**3,1**	**19**	0,84	104	185	3,1
	50,0	50,0	50,0	50,0	**180,97**	**2,6**	**16**	0,84	109	193	3,1
	50,0	50,0	50,0	50,0	**218,91**	**2,2**	**14**	0,83	111	205	3,1
	50,0	50,0	50,0	50,0	**280,94**	**1,7**	**11**	0,83	112	221	3,1
	44,9	49,7	50,0	50,0	**333,42**	**1,4**	**8,1**	0,83	103	232	3,1
	41,7	45,1	50,0	50,0	**434,60**	**1,1**	**5,7**	0,83	80,3	251	3,1
	28,6	32,0	37,0	41,4	**523,13**	**0,91**	**3,3**	0,83	55,0	266	3,1

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=475

Çevrim Oranı / *Ratio* / Übersetzung **i**	**Termik Güç Pt [kW]** / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						**Açık Alan [Hava Hızı = 4 m/sn]** *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			**Çevre Sıcaklığı 20°C için;** *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			**Çevre Sıcaklığı 40°C için;** *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**	**Pt_1**	**Pt_2**	**Pt_3**		
88,07	**18**	29 E1	69 R1	**13**	23 E1	51 R1	**34**	44 E1	84 R1	**23**	33 E1	60 R1	433	400
124,05	**17**	26 E1	64 R1	**12**	21 E1	47 R1	**31**	40 E1	75 R1	**21**	30 E1	55 R1	520	401
155,67	**16**	25 E1	60 R1	**11**	20 E1	44 R1	**30**	37 E1	72 R1	**20**	29 E1	52 R1		
180,97	**16**	24 E1	57 R1	**11**	19 E1	42 R1	**28**	36 E1	69 R1	**19**	27 E1	49 R1		
218,91	**15**	23 E1	55 R1	**10**	18 E1	40 R1	**27**	34 E1	66 R1	**18**	26 E1	47 R1		
280,94	**14**	21 E1	52 R1	**9,4**	17 E1	37 R1	**25**	32 E1	62 R1	**17**	24 E1	45 R1		
333,42	**13**	20 E1	49 R1	**9,0**	16 E1	35 R1	**24**	31 E1	59 R1	**16**	23 E1	43 R1		
434,60	**12**	19 E1	46 R1	**8,1**	15 E1	34 R1	**22**	29 E1	54 R1	**15**	22 E1	39 R1		
523,13	**11**	17 E1	41 R1	**7,6**	13 E1	30 R1	**20**	25 E1	49 R1	**14**	19 E1	35 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT1102K	**1,00**	1,00	1,00	1,00	**6,85**	**53**	**5,9**	0,93	1,20	18	3,5
RT1102K	**1,00**	1,00	1,00	1,00	**7,48**	**48**	**5,4**	0,93	1,20	19	3,5
	1,00	1,00	1,00	1,00	**9,36**	**38**	**4,4**	0,92	1,20	20	3,5
	0,87	0,91	0,97	1,00	**10,88**	**33**	**3,3**	0,92	1,20	21	3,5
	0,66	0,69	0,74	0,86	**13,14**	**27**	**2,1**	0,91	1,20	22	3,5
PT1103K	**1,00**	1,00	1,00	1,00	**25,87**	**14**	**1,6**	0,88	1,20	27	3,5
RT1103K	**1,00**	1,00	1,00	1,00	**28,24**	**13**	**1,5**	0,88	1,20	28	3,5
	1,00	1,00	1,00	1,00	**30,84**	**12**	**1,4**	0,88	1,20	30	3,5
	1,00	1,00	1,00	1,00	**38,63**	**9,3**	**1,1**	0,88	1,20	32	3,5
	1,00	1,00	1,00	1,00	**44,86**	**8,0**	**0,96**	0,88	1,20	34	3,5
	1,00	1,00	1,00	1,00	**54,21**	**6,6**	**0,79**	0,88	1,20	35	3,5
	1,00	1,00	1,00	1,00	**67,89**	**5,3**	**0,64**	0,87	1,20	36	3,5
	1,00	1,00	1,00	1,00	**78,84**	**4,6**	**0,55**	0,86	1,20	37	3,5
	0,79	0,93	1,00	1,00	**95,27**	**3,8**	**0,37**	0,85	1,20	39	3,5
PT1104K	**1,00**	1,00	1,00	1,00	**106,70**	**3,4**	**0,43**	0,83	1,20	41	3,5
RT1104K	**1,00**	1,00	1,00	1,00	**116,51**	**3,1**	**0,39**	0,83	1,20	41	3,5
	1,00	1,00	1,00	1,00	**127,22**	**2,8**	**0,36**	0,83	1,20	41	3,5
	1,00	1,00	1,00	1,00	**159,34**	**2,3**	**0,29**	0,82	1,20	41	3,5
	1,00	1,00	1,00	1,00	**185,04**	**1,9**	**0,25**	0,82	1,20	41	3,5
	1,00	1,00	1,00	1,00	**223,60**	**1,6**	**0,21**	0,81	1,20	41	3,5
	1,00	1,00	1,00	1,00	**280,06**	**1,3**	**0,17**	0,81	1,20	41	3,5
	1,00	1,00	1,00	1,00	**325,23**	**1,11**	**0,14**	0,80	1,20	41	3,5
	1,00	1,00	1,00	1,00	**392,99**	**0,92**	**0,12**	0,79	1,20	41	3,5
	1,00	1,00	1,00	1,00	**492,23**	**0,73**	**0,10**	0,78	1,20	41	3,5
	1,00	1,00	1,00	1,00	**571,62**	**0,63**	**0,09**	0,76	1,20	41	3,5
	1,00	1,00	1,00	1,00	**690,70**	**0,52**	**0,07**	0,73	1,20	41	3,5
PT1202K	**1,09**	1,10	1,13	1,15	**6,85**	**53**	**6,4**	0,93	2,25	18	3,5
RT1202K	**1,19**	1,20	1,23	1,25	**7,48**	**48**	**6,4**	0,93	2,30	19	3,5
	1,49	1,50	1,54	1,57	**9,36**	**38**	**6,5**	0,92	2,39	20	3,5
	1,65	1,71	1,77	1,79	**10,88**	**33**	**6,2**	0,92	2,45	21	3,5
	1,17	1,22	1,28	1,43	**13,14**	**27**	**3,7**	0,91	2,56	22	3,5
PT1203K	**2,00**	2,00	2,00	2,00	**25,87**	**14**	**3,3**	0,88	3,00	27	3,5
RT1203K	**2,00**	2,00	2,00	2,00	**28,24**	**13**	**3,0**	0,88	3,00	28	3,5
	2,00	2,00	2,00	2,00	**30,84**	**12**	**2,8**	0,88	3,00	30	3,5
	2,00	2,00	2,00	2,00	**38,63**	**9,3**	**2,2**	0,88	3,00	32	3,5
	2,00	2,00	2,00	2,00	**44,86**	**8,0**	**1,9**	0,88	3,00	34	3,5
	2,00	2,00	2,00	2,00	**54,21**	**6,6**	**1,6**	0,87	3,00	35	3,5
	2,00	2,00	2,00	2,00	**67,89**	**5,3**	**1,3**	0,87	3,00	36	3,5
	1,79	1,81	2,00	2,00	**78,84**	**4,6**	**0,99**	0,86	3,00	37	3,5
	1,35	1,53	1,79	1,92	**95,27**	**3,8**	**0,63**	0,85	2,91	39	3,5
PT1204K	**2,00**	2,00	2,00	2,00	**106,70**	**3,4**	**0,85**	0,83	3,00	39	3,5
RT1204K	**2,00**	2,00	2,00	2,00	**116,51**	**3,1**	**0,78**	0,83	3,00	39	3,5
	2,00	2,00	2,00	2,00	**127,22**	**2,8**	**0,72**	0,83	3,00	39	3,5
	2,00	2,00	2,00	2,00	**159,34**	**2,3**	**0,58**	0,82	3,00	39	3,5
	2,00	2,00	2,00	2,00	**185,04**	**1,9**	**0,50**	0,82	3,00	39	3,5
	2,00	2,00	2,00	2,00	**223,60**	**1,6**	**0,42**	0,81	3,00	39	3,5
	2,00	2,00	2,00	2,00	**280,06**	**1,3**	**0,33**	0,81	3,00	39	3,5
	2,00	2,00	2,00	2,00	**325,23**	**1,11**	**0,29**	0,80	3,00	39	3,5
	2,00	2,00	2,00	2,00	**392,99**	**0,92**	**0,24**	0,80	3,00	39	3,5
	2,00	2,00	2,00	2,00	**492,23**	**0,73**	**0,20**	0,78	3,00	39	3,5
	2,00	2,00	2,00	2,00	**571,62**	**0,63**	**0,17**	0,77	3,00	39	3,5
	1,86	1,99	2,00	2,00	**690,70**	**0,52**	**0,14**	0,75	3,00	39	3,5
PT1502K	**2,00**	2,03	2,08	2,11	**6,20**	**58**	**13**	0,93	3,72	26	3,5
RT1502K	**2,36**	2,40	2,46	2,49	**7,32**	**49**	**13**	0,93	3,72	28	3,5
	2,60	2,64	2,70	2,74	**9,19**	**39**	**11**	0,93	3,72	29	3,5
	2,28	2,40	2,45	2,49	**10,68**	**34**	**8,7**	0,92	3,72	30	3,5
	1,60	1,68	1,81	2,08	**12,92**	**28**	**5,1**	0,92	3,50	33	3,5

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
6,85	**7,7**	21 E1	79 R1	**5,4**	19 E1	54 R1	**14**	27 E1	79 R1	**10**	22 E1	58 R1	37	382
7,48	**7,5**	20 E1	76 R1	**5,4**	18 E1	53 R1	**14**	26 E1	76 R1	**9,4**	22 E1	56 R1	39	383
9,36	**6,6**	18 E1	67 R1	**4,5**	16 E1	46 R1	**12**	23 E1	67 R1	**8,3**	20 E1	49 R1		
10,88	**6,0**	17 E1	61 R1	**4,1**	15 E1	42 R1	**11**	21 E1	61 R1	**7,5**	18 E1	45 R1		
13,14	**5,1**	14 E1	51 R1	**3,5**	13 E1	35 R1	**9,7**	18 E1	51 R1	**6,4**	15 E1	38 R1		
25,87	**5,0**	13 E1	47 R1	**3,4**	12 E1	33 R1	**9,5**	17 E1	47 R1	**6,2**	14 E1	35 R1	42	382
28,24	**4,9**	13 E1	47 R1	**3,4**	12 E1	32 R1	**9,4**	17 E1	47 R1	**6,4**	14 E1	34 R1	44	383
30,84	**4,8**	13 E1	45 R1	**3,3**	11 E1	31 R1	**9,2**	16 E1	45 R1	**6,3**	14 E1	34 R1		
38,63	**4,5**	12 E1	43 R1	**3,1**	11 E1	29 R1	**8,6**	15 E1	43 R1	**5,9**	13 E1	31 R1		
44,86	**4,3**	11 E1	41 R1	**3,0**	10 E1	28 R1	**8,3**	15 E1	41 R1	**5,7**	12 E1	30 R1		
54,21	**4,1**	11 E1	39 R1	**2,9**	10 E1	27 R1	**7,9**	14 E1	39 R1	**5,4**	12 E1	29 R1		
67,89	**3,8**	10 E1	35 R1	**2,6**	8,8 E1	24 R1	**7,2**	13 E1	35 R1	**4,9**	11 E1	26 R1		
78,84	**3,4**	9,1 E1	31 R1	**2,4**	8,1 E1	22 R1	**6,6**	12 E1	31 R1	**4,5**	10 E1	24 R1		
95,27	**2,9**	7,7 E1	26 R1	**2,0**	6,9 E1	19 R1	**5,6**	10 E1	26 R1	**3,8**	8,3 E1	20 R1		
106,70	**3,7**	9,2 E1	31 R1	**2,5**	8,2 E1	22 R1	**7,0**	12 E1	31 R1	**4,8**	10 E1	24 R1	48	382
116,51	**3,6**	9,0 E1	30 R1	**2,5**	8,0 E1	21 R1	**6,8**	12 E1	30 R1	**4,7**	10 E1	23 R1	50	383
127,22	**3,5**	8,7 E1	30 R1	**2,4**	7,7 E1	21 R1	**6,7**	11 E1	30 R1	**4,6**	10 E1	22 R1		
159,34	**3,3**	8,2 E1	28 R1	**2,3**	7,2 E1	20 R1	**6,2**	11 E1	28 R1	**4,3**	8,9 E1	21 R1		
185,04	**3,1**	7,8 E1	26 R1	**2,2**	6,9 E1	19 R1	**6,0**	10 E1	26 R1	**4,1**	8,5 E1	20 R1		
223,60	**3,0**	7,4 E1	25 R1	**2,1**	6,5 E1	18 R1	**5,6**	10 E1	25 R1	**3,9**	8,0 E1	19 R1		
280,06	**2,8**	6,9 E1	23 R1	**1,9**	6,1 E1	16 R1	**5,3**	9,0 E1	23 R1	**3,6**	7,5 E1	18 R1		
325,23	**2,6**	6,6 E1	22 R1	**1,8**	5,8 E1	16 R1	**5,0**	8,6 E1	22 R1	**3,5**	7,2 E1	17 R1		
392,99	**2,5**	6,2 E1	21 R1	**1,7**	5,5 E1	15 R1	**4,8**	8,1 E1	21 R1	**3,3**	6,8 E1	16 R1		
492,23	**2,3**	5,6 E1	19 R1	**1,6**	5,0 E1	13 R1	**4,3**	7,3 E1	19 R1	**3,0**	6,1 E1	14 R1		
571,62	**2,1**	5,1 E1	17 R1	**1,4**	4,5 E1	12 R1	**3,9**	6,7 E1	17 R1	**2,7**	5,6 E1	13 R1		
690,70	**1,7**	4,3 E1	14 R1	**1,2**	3,8 E1	10 R1	**3,3**	5,6 E1	14 R1	**2,3**	4,7 E1	11 R1		
6,85	**8,5**	23 E1	86 R1	**5,9**	20 E1	59 R1	**16**	30 E1	86 R1	**11**	25 E1	63 R1	41	384
7,48	**8,3**	22 E1	83 R1	**5,8**	20 E1	57 R1	**15**	29 E1	83 R1	**10**	24 E1	61 R1	43	385
9,36	**7,4**	20 E1	73 R1	**5,4**	17 E1	51 R1	**13**	26 E1	73 R1	**9,2**	22 E1	54 R1		
10,88	**6,7**	18 E1	67 R1	**4,6**	16 E1	46 R1	**13**	23 E1	67 R1	**8,4**	20 E1	49 R1		
13,14	**5,7**	16 E1	56 R1	**3,9**	14 E1	39 R1	**11**	20 E1	56 R1	**7,2**	17 E1	42 R1		
25,87	**5,8**	15 E1	52 R1	**4,0**	13 E1	36 R1	**11**	19 E1	52 R1	**7,6**	16 E1	39 R1	47	384
28,24	**5,8**	15 E1	52 R1	**4,0**	13 E1	36 R1	**11**	19 E1	52 R1	**7,5**	16 E1	38 R1	49	385
30,84	**5,6**	14 E1	51 R1	**3,9**	13 E1	35 R1	**11**	19 E1	51 R1	**7,3**	16 E1	37 R1		
38,63	**5,3**	13 E1	47 R1	**3,6**	12 E1	33 R1	**10**	18 E1	47 R1	**6,9**	15 E1	35 R1		
44,86	**5,1**	13 E1	45 R1	**3,5**	11 E1	31 R1	**9,7**	17 E1	45 R1	**6,6**	14 E1	34 R1		
54,21	**4,8**	12 E1	43 R1	**3,3**	11 E1	30 R1	**9,2**	16 E1	43 R1	**6,3**	13 E1	32 R1		
67,89	**4,4**	11 E1	39 R1	**3,0**	10 E1	27 R1	**8,4**	15 E1	39 R1	**5,8**	12 E1	29 R1		
78,84	**4,0**	10 E1	35 R1	**2,8**	9,1 E1	25 R1	**7,7**	13 E1	35 R1	**5,3**	11 E1	26 R1		
95,27	**3,4**	8,7 E1	30 R1	**2,4**	7,7 E1	21 R1	**6,6**	11 E1	30 R1	**4,5**	9,0 E1	22 R1		
106,70	**4,5**	10 E1	35 R1	**3,0**	9,2 E1	25 R1	**8,3**	14 E1	35 R1	**5,7**	11 E1	26 R1	52	384
116,51	**4,4**	10 E1	34 R1	**2,9**	9,0 E1	24 R1	**8,1**	13 E1	34 R1	**5,5**	11 E1	26 R1	54	385
127,22	**4,3**	10 E1	33 R1	**2,8**	8,7 E1	23 R1	**7,9**	13 E1	33 R1	**5,4**	11 E1	25 R1		
159,34	**4,0**	9,3 E1	31 R1	**2,7**	8,2 E1	22 R1	**7,4**	12 E1	31 R1	**5,1**	10 E1	24 R1		
185,04	**3,9**	8,9 E1	30 R1	**2,6**	7,8 E1	21 R1	**7,0**	12 E1	30 R1	**4,8**	10 E1	22 R1		
223,60	**3,7**	8,4 E1	28 R1	**2,4**	7,4 E1	20 R1	**6,7**	11 E1	28 R1	**4,6**	9,2 E1	21 R1		
280,06	**3,4**	7,8 E1	26 R1	**2,3**	6,9 E1	18 R1	**6,2**	10 E1	26 R1	**4,3**	8,6 E1	20 R1		
325,23	**3,3**	7,5 E1	25 R1	**2,2**	6,6 E1	18 R1	**5,9**	10 E1	25 R1	**4,1**	8,2 E1	19 R1		
392,99	**3,1**	7,1 E1	24 R1	**2,0**	6,2 E1	17 R1	**5,6**	9,3 E1	24 R1	**3,9**	7,7 E1	18 R1		
492,23	**2,8**	6,4 E1	21 R1	**1,9**	5,6 E1	15 R1	**5,1**	8,4 E1	21 R1	**3,5**	7,0 E1	16 R1		
571,62	**2,6**	5,8 E1	19 R1	**1,7**	5,1 E1	14 R1	**4,6**	7,7 E1	19 R1	**3,2**	6,4 E1	15 R1		
690,70	**2,1**	4,9 E1	16 R1	**1,4**	4,3 E1	11 R1	**3,9**	6,4 E1	16 R1	**2,7**	5,4 E1	12 R1		
6,20	**13**	29 E1	102 R1	**9,0**	25 E1	67 R1	**24**	40 E1	102 R1	**17**	33 E1	73 R1	61	386
7,32	**12**	27 E1	96 R1	**8,5**	24 E1	63 R1	**24**	37 E1	96 R1	**16**	30 E1	69 R1	71	387
9,19	**12**	24 E1	85 R1	**7,5**	21 E1	57 R1	**21**	33 E1	85 R1	**14**	27 E1	62 R1		
10,68	**10**	22 E1	77 R1	**7,2**	19 E1	52 R1	**19**	31 E1	77 R1	**13**	25 E1	57 R1		
12,92	**8,9**	19 E1	67 R1	**6,1**	16 E1	45 R1	**17**	26 E1	67 R1	**11**	22 E1	49 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment Ma [kNm]	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) Ma [kNm]			Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung [kW]	Verim *Efficiency* Wirkungsgrad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]
	10000 [h]	5000 [h]	2000 [h]	1000 [h]			10000 [h]			10000 [h]	
PT1503K	**2,68**	2,76	2,82	2,97	**24,65**	**15**	**4,6**	0,89	3,72	40	3,5
RT1503K	**3,10**	3,10	3,10	3,10	**31,78**	**11**	**4,2**	0,88	3,72	43	3,5
	3,10	3,10	3,10	3,10	**39,80**	**9,0**	**3,3**	0,88	3,72	45	3,5
	3,10	3,10	3,10	3,10	**46,22**	**7,8**	**2,9**	0,88	3,72	48	3,5
	2,72	2,77	3,03	3,10	**58,00**	**6,2**	**2,0**	0,88	3,72	50	3,5
	2,74	2,78	3,10	3,10	**70,08**	**5,1**	**1,7**	0,87	3,72	50	3,5
	2,49	2,55	2,91	3,10	**81,47**	**4,4**	**1,3**	0,87	3,72	54	3,5
	1,94	2,24	2,69	3,00	**98,55**	**3,7**	**0,86**	0,86	3,72	55	3,5
PT1504K	**2,80**	2,85	3,10	3,10	**93,12**	**3,9**	**1,4**	0,83	3,72	55	3,5
RT1504K	**3,10**	3,10	3,10	3,10	**120,04**	**3,0**	**1,2**	0,83	3,72	60	3,5
	3,10	3,10	3,10	3,10	**131,07**	**2,7**	**1,1**	0,83	3,72	60	3,5
	3,10	3,10	3,10	3,10	**164,17**	**2,2**	**0,86**	0,83	3,72	60	3,5
	3,10	3,10	3,10	3,10	**190,65**	**1,9**	**0,75**	0,82	3,72	60	3,5
	3,10	3,10	3,10	3,10	**230,37**	**1,6**	**0,62**	0,82	3,72	60	3,5
	3,10	3,10	3,10	3,10	**288,55**	**1,2**	**0,50**	0,81	3,72	61	3,5
	3,10	3,10	3,10	3,10	**335,09**	**1,1**	**0,43**	0,81	3,72	62	3,5
	3,10	3,10	3,10	3,10	**420,50**	**0,86**	**0,35**	0,80	3,72	61	3,5
	3,10	3,10	3,10	3,10	**508,10**	**0,71**	**0,29**	0,79	3,72	60	3,5
	3,07	3,10	3,10	3,10	**590,67**	**0,61**	**0,25**	0,78	3,72	60	3,5
	2,85	3,10	3,10	3,10	**714,52**	**0,50**	**0,20**	0,76	3,72	60	3,5
PT1602K	**2,00**	2,03	2,08	2,11	**6,20**	**58**	**13**	0,93	5,83	26	3,5
RT1602K	**2,36**	2,40	2,46	2,49	**7,32**	**49**	**13**	0,93	6,10	28	3,5
	2,97	3,01	3,08	3,13	**9,19**	**39**	**13**	0,93	6,35	29	3,5
	3,45	3,50	3,58	3,64	**10,68**	**34**	**13**	0,93	6,53	30	3,5
	2,44	2,53	2,65	2,93	**12,92**	**28**	**7,7**	0,92	5,33	33	3,5
PT1603K	**3,92**	3,96	4,07	4,13	**24,65**	**15**	**6,7**	0,89	7,50	40	3,5
RT1603K	**5,00**	5,00	5,00	5,00	**31,78**	**11**	**6,7**	0,89	7,50	43	3,5
	5,00	5,00	5,00	5,00	**39,80**	**9,0**	**5,3**	0,89	7,50	45	3,5
	5,00	5,00	5,00	5,00	**46,22**	**7,8**	**4,6**	0,89	7,50	48	3,5
	4,69	4,75	5,00	5,00	**58,00**	**6,2**	**3,5**	0,88	7,50	50	3,5
	4,70	4,76	5,00	5,00	**70,08**	**5,1**	**2,9**	0,88	7,50	50	3,5
	3,92	4,00	4,44	4,81	**81,47**	**4,4**	**2,1**	0,88	7,50	54	3,5
	2,79	3,11	3,54	3,86	**98,55**	**3,7**	**1,2**	0,87	6,07	55	3,5
PT1604K	**5,00**	5,00	5,00	5,00	**93,12**	**3,9**	**2,4**	0,83	7,50	53	3,5
RT1604K	**5,00**	5,00	5,00	5,00	**120,04**	**3,0**	**1,9**	0,84	7,50	53	3,5
	5,00	5,00	5,00	5,00	**131,07**	**2,7**	**1,7**	0,84	7,50	53	3,5
	5,00	5,00	5,00	5,00	**164,17**	**2,2**	**1,4**	0,83	7,50	53	3,5
	5,00	5,00	5,00	5,00	**190,65**	**1,9**	**1,2**	0,83	7,50	53	3,5
	5,00	5,00	5,00	5,00	**230,37**	**1,6**	**1,0**	0,82	7,50	53	3,5
	5,00	5,00	5,00	5,00	**288,55**	**1,2**	**0,80**	0,82	7,50	53	3,5
	5,00	5,00	5,00	5,00	**335,09**	**1,07**	**0,69**	0,82	7,50	53	3,5
	5,00	5,00	5,00	5,00	**420,50**	**0,86**	**0,55**	0,81	7,50	53	3,5
	5,00	5,00	5,00	5,00	**508,10**	**0,71**	**0,46**	0,80	7,50	53	3,5
	4,64	5,00	5,00	5,00	**590,67**	**0,61**	**0,37**	0,80	7,50	53	3,5
	3,71	4,04	4,54	4,96	**714,52**	**0,50**	**0,25**	0,78	6,82	53	3,5
PT1902K	**3,59**	3,65	3,73	3,79	**7,39**	**49**	**20**	0,94	7,90	45	8,5
RT1902K	**4,24**	4,31	4,41	4,48	**8,72**	**41**	**20**	0,94	8,27	47	8,5
	5,32	5,41	5,53	5,62	**10,95**	**33**	**20**	0,93	8,62	56	8,5
	5,46	5,75	6,16	6,34	**12,73**	**28**	**17**	0,93	8,85	62	8,5
	4,03	4,19	4,46	4,96	**15,39**	**23**	**11**	0,92	8,76	64	8,5
PT1903K	**6,28**	6,49	6,78	7,00	**22,32**	**16**	**12**	0,90	11,6	66	3,5
RT1903K	**7,96**	8,07	8,23	8,50	**31,11**	**12**	**11**	0,89	12,8	69	3,5
	8,00	8,12	8,39	8,50	**39,04**	**9,2**	**8,7**	0,89	13,7	73	3,5
	8,03	8,15	8,50	8,50	**45,38**	**7,9**	**7,5**	0,89	14,3	78	3,5
	6,78	7,16	7,68	8,50	**54,90**	**6,6**	**5,2**	0,89	14,9	82	3,5
	6,93	7,04	7,85	8,50	**68,89**	**5,2**	**4,3**	0,88	15,8	87	3,5
	6,32	6,45	7,19	7,81	**80,08**	**4,5**	**3,4**	0,88	13,5	87	3,5
	4,56	5,08	5,88	6,57	**96,88**	**3,7**	**2,0**	0,87	9,95	92	3,5

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Çevrim Oranı / *Ratio* / Übersetzung **i**	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
24,65	**7,3**	17 E1	60 R1	**4,9**	15 E1	41 R1	**13**	23 E1	60 R1	**9,2**	19 E1	44 R1	60	386
31,78	**7,0**	16 E1	57 R1	**4,7**	14 E1	39 R1	**13**	22 E1	57 R1	**8,8**	18 E1	42 R1	70	387
39,80	**6,6**	15 E1	54 R1	**4,4**	14 E1	37 R1	**12**	20 E1	54 R1	**8,3**	17 E1	40 R1		
46,22	**6,4**	15 E1	52 R1	**4,2**	13 E1	35 R1	**12**	20 E1	52 R1	**8,0**	16 E1	38 R1		
58,00	**5,8**	13 E1	46 R1	**3,8**	12 E1	32 R1	**11**	18 E1	46 R1	**7,3**	15 E1	34 R1		
70,08	**5,5**	13 E1	44 R1	**3,6**	11 E1	30 R1	**10**	17 E1	44 R1	**6,9**	14 E1	32 R1		
81,47	**5,1**	12 E1	40 R1	**3,3**	10 E1	28 R1	**9,2**	15 E1	40 R1	**6,3**	13 E1	30 R1		
98,55	**4,4**	10 E1	35 R1	**2,9**	8,9 E1	24 R1	**8,0**	13 E1	35 R1	**5,5**	11 E1	26 R1		
93,12	**5,5**	12 E1	42 R1	**3,6**	11 E1	29 R1	**10**	16 E1	42 R1	**6,9**	13 E1	31 R1	65	386
120,04	**5,2**	12 E1	40 R1	**3,5**	10 E1	27 R1	**9,6**	16 E1	40 R1	**6,6**	13 E1	30 R1	75	387
131,07	**5,1**	11 E1	38 R1	**3,4**	10 E1	27 R1	**9,3**	15 E1	38 R1	**6,4**	13 E1	29 R1		
164,17	**4,8**	11 E1	36 R1	**3,2**	9,4 E1	25 R1	**8,8**	14 E1	36 R1	**6,0**	12 E1	27 R1		
190,65	**4,6**	10 E1	34 R1	**3,0**	9,0 E1	24 R1	**8,4**	14 E1	34 R1	**5,8**	11 E1	26 R1		
230,37	**4,4**	10 E1	32 R1	**2,9**	8,5 E1	23 R1	**7,9**	13 E1	32 R1	**5,5**	11 E1	24 R1		
288,55	**4,1**	9,1 E1	30 R1	**2,7**	8,0 E1	21 R1	**7,4**	12 E1	30 R1	**5,1**	10 E1	23 R1		
335,09	**3,9**	8,7 E1	29 R1	**2,6**	7,6 E1	20 R1	**7,1**	12 E1	29 R1	**4,9**	10 E1	22 R1		
420,50	**3,5**	7,8 E1	26 R1	**2,3**	6,8 E1	18 R1	**6,4**	10 E1	26 R1	**4,4**	8,5 E1	19 R1		
508,10	**3,3**	7,3 E1	24 R1	**2,2**	6,5 E1	17 R1	**6,0**	10 E1	24 R1	**4,1**	8,1 E1	18 R1		
590,67	**3,0**	6,7 E1	22 R1	**2,0**	5,9 E1	15 R1	**5,5**	8,9 E1	22 R1	**3,8**	7,3 E1	17 R1		
714,52	**2,6**	5,7 E1	19 R1	**1,7**	5,0 E1	13 R1	**4,7**	7,6 E1	19 R1	**3,2**	6,3 E1	14 R1		
6,20	**15**	32 E1	110 R1	**10**	28 E1	73 R1	**28**	44 E1	110 R1	**19**	36 E1	80 R1	73	388
7,32	**14**	31 E1	105 R1	**10**	26 E1	69 R1	**26**	41 E1	105 R1	**18**	34 E1	75 R1	83	389
9,19	**13**	27 E1	93 R1	**8,3**	23 E1	60 R1	**23**	36 E1	93 R1	**16**	30 E1	68 R1		
10,68	**12**	24 E1	85 R1	**8,0**	21 E1	57 R1	**21**	34 E1	85 R1	**15**	27 E1	62 R1		
12,92	**10**	22 E1	74 R1	**6,9**	18 E1	49 R1	**19**	30 E1	74 R1	**13**	24 E1	54 R1		
24,65	**8,2**	19 E1	67 R1	**5,6**	17 E1	45 R1	**15**	26 E1	67 R1	**10**	21 E1	49 R1	76	388
31,78	**7,8**	18 E1	64 R1	**5,4**	16 E1	44 R1	**15**	25 E1	64 R1	**10**	20 E1	47 R1	86	389
39,80	**7,4**	17 E1	60 R1	**5,1**	15 E1	41 R1	**14**	23 E1	60 R1	**10**	19 E1	44 R1		
46,22	**7,1**	17 E1	58 R1	**4,9**	15 E1	39 R1	**14**	22 E1	58 R1	**9,3**	18 E1	43 R1		
58,00	**6,4**	15 E1	52 R1	**4,4**	13 E1	36 R1	**12**	20 E1	52 R1	**8,4**	17 E1	38 R1		
70,08	**6,1**	14 E1	50 R1	**4,2**	13 E1	34 R1	**12**	19 E1	50 R1	**8,0**	16 E1	37 R1		
81,47	**5,6**	13 E1	45 R1	**3,9**	12 E1	31 R1	**11**	18 E1	45 R1	**7,4**	15 E1	33 R1		
98,55	**5,1**	11 E1	38 R1	**3,4**	10 E1	27 R1	**9,3**	15 E1	38 R1	**6,4**	13 E1	29 R1		
93,12	**6,2**	14 E1	47 R1	**4,1**	12 E1	32 R1	**11**	18 E1	47 R1	**7,7**	15 E1	34 R1	82	388
120,04	**5,9**	13 E1	45 R1	**3,9**	11 E1	30 R1	**11**	18 E1	45 R1	**7,4**	14 E1	33 R1	92	389
131,07	**5,8**	13 E1	44 R1	**3,8**	11 E1	30 R1	**11**	17 E1	44 R1	**7,2**	14 E1	32 R1		
164,17	**5,4**	12 E1	40 R1	**3,6**	10 E1	28 R1	**9,9**	16 E1	40 R1	**6,8**	13 E1	30 R1		
190,65	**5,2**	11 E1	38 R1	**3,4**	10 E1	27 R1	**9,5**	15 E1	38 R1	**6,5**	13 E1	29 R1		
230,37	**5,0**	11 E1	36 R1	**3,3**	10 E1	25 R1	**9,0**	15 E1	36 R1	**6,2**	12 E1	27 R1		
288,55	**4,6**	10 E1	34 R1	**3,1**	8,9 E1	23 R1	**8,5**	14 E1	34 R1	**5,8**	11 E1	25 R1		
335,09	**4,4**	10 E1	32 R1	**2,9**	8,5 E1	22 R1	**8,1**	13 E1	32 R1	**5,6**	11 E1	24 R1		
420,50	**4,0**	8,7 E1	29 R1	**2,6**	7,6 E1	20 R1	**7,2**	12 E1	29 R1	**5,0**	10 E1	22 R1		
508,10	**3,8**	8,2 E1	27 R1	**2,5**	7,2 E1	19 R1	**6,9**	11 E1	27 R1	**4,7**	9,1 E1	21 R1		
590,67	**3,4**	7,5 E1	25 R1	**2,3**	6,6 E1	17 R1	**6,2**	10 E1	25 R1	**4,3**	8,3 E1	19 R1		
714,52	**3,0**	6,4 E1	21 R1	**2,0**	5,6 E1	15 R1	**5,4**	8,6 E1	21 R1	**3,7**	7,1 E1	16 R1		
7,39	**23**	41 E1	135 R1	**16**	34 E1	86 R1	**43**	60 E1	135 R1	**29**	47 E1	98 R1	140	390
8,72	**22**	40 E1	126 R1	**15**	33 E1	81 R1	**41**	57 E1	126 R1	**28**	44 E1	92 R1	154	391
10,95	**20**	35 E1	110 R1	**13**	29 E1	70 R1	**37**	51 E1	110 R1	**25**	40 E1	81 R1		
12,73	**18**	32 E1	101 R1	**12**	26 E1	64 R1	**34**	46 E1	101 R1	**23**	36 E1	72 R1		
15,39	**16**	28 E1	87 R1	**11**	23 E1	55 R1	**29**	40 E1	87 R1	**20**	31 E1	63 R1		
22,32	**12**	24 E1	78 R1	**8,5**	20 E1	51 R1	**23**	34 E1	78 R1	**16**	27 E1	57 R1	121	390
31,11	**12**	23 E1	74 R1	**8,0**	19 E1	48 R1	**22**	32 E1	74 R1	**15**	25 E1	54 R1	135	391
39,04	**11**	21 E1	69 R1	**7,6**	18 E1	45 R1	**21**	30 E1	69 R1	**14**	24 E1	51 R1		
45,38	**11**	21 E1	67 R1	**7,3**	17 E1	44 R1	**20**	29 E1	67 R1	**14**	23 E1	49 R1		
54,90	**10**	20 E1	63 R1	**6,9**	17 E1	42 R1	**19**	28 E1	63 R1	**13**	22 E1	46 R1		
68,89	**9,5**	18 E1	57 R1	**6,3**	15 E1	38 R1	**17**	25 E1	57 R1	**12**	20 E1	42 R1		
80,08	**8,7**	16 E1	52 R1	**5,8**	14 E1	34 R1	**16**	23 E1	52 R1	**11**	18 E1	38 R1		
96,88	**7,6**	14 E1	45 R1	**5,0**	12 E1	30 R1	**14**	20 E1	45 R1	**10**	16 E1	33 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment Ma [kNm]	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) Ma [kNm]			Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung [kW]	Verim *Efficiency* Wirkungsgrad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]
	10000 [h]	5000 [h]	2000 [h]	1000 [h]			10000 [h]			10000 [h]	
PT1904K	**8,18**	8,46	8,50	8,50	**104,76**	**3,4**	**3,5**	0,84	18,1	95	3,5
RT1904K	**8,21**	8,50	8,50	8,50	**123,68**	**2,9**	**3,0**	0,84	19,0	95	3,5
	8,23	8,50	8,50	8,50	**135,05**	**2,7**	**2,7**	0,84	19,5	95	3,5
	8,26	8,50	8,50	8,50	**169,15**	**2,1**	**2,2**	0,83	19,7	95	3,5
	8,43	8,50	8,50	8,50	**196,43**	**1,8**	**1,9**	0,83	19,8	95	3,5
	8,50	8,50	8,50	8,50	**237,35**	**1,5**	**1,6**	0,82	19,9	96	3,5
	8,50	8,50	8,50	8,50	**297,85**	**1,2**	**1,3**	0,82	20,0	98	3,5
	8,50	8,50	8,50	8,50	**346,26**	**1,0**	**1,1**	0,82	20,0	95	3,5
	8,22	8,50	8,50	8,50	**418,86**	**0,86**	**0,90**	0,82	17,3	95	3,5
	8,33	8,50	8,50	8,50	**525,63**	**0,68**	**0,74**	0,81	17,3	95	3,5
	7,55	8,21	8,50	8,50	**611,04**	**0,59**	**0,58**	0,80	15,6	95	3,5
	6,26	7,01	7,90	8,50	**739,16**	**0,49**	**0,40**	0,79	11,2	95	3,5
PT2302K	**6,28**	7,73	8,41	8,53	**10,57**	**34**	**24**	0,93	9,67	70	8,5
RT2302K	**7,50**	9,23	10,0	10,2	**12,61**	**29**	**24**	0,94	10,0	74	8,5
	8,85	10,6	11,7	12,2	**16,19**	**22**	**22**	0,93	10,5	78	8,5
	7,61	7,99	9,07	10,1	**19,21**	**19**	**16**	0,93	10,8	83	8,5
PT2303K	**6,86**	6,96	7,13	7,25	**21,26**	**17**	**14**	0,89	14,2	83	3,5
RT2303K	**8,19**	8,31	8,51	8,64	**25,36**	**14**	**14**	0,89	14,7	87	3,5
	9,67	9,81	10,0	10,2	**29,94**	**12**	**14**	0,89	15,5	94	3,5
	10,6	10,8	11,0	11,2	**37,58**	**9,6**	**12**	0,89	16,6	99	3,5
	9,34	9,81	10,0	10,2	**43,68**	**8,2**	**9,1**	0,89	17,3	105	3,5
	11,0	12,1	12,5	12,5	**56,06**	**6,4**	**8,4**	0,88	18,2	103	3,5
	8,38	8,84	9,49	10,9	**67,81**	**5,3**	**5,3**	0,88	18,4	103	3,5
	8,72	9,81	11,3	12,3	**80,48**	**4,5**	**4,7**	0,87	18,3	101	3,5
PT2304K	**10,9**	11,3	11,5	12,1	**100,84**	**3,6**	**4,9**	0,83	21,9	101	3,5
RT2304K	**10,9**	11,3	11,5	12,1	**119,05**	**3,0**	**4,2**	0,83	23,0	101	3,5
	12,5	12,5	12,5	12,5	**129,99**	**2,8**	**4,4**	0,83	23,7	101	3,5
	12,5	12,5	12,5	12,5	**162,82**	**2,2**	**3,5**	0,82	25,3	102	3,5
	12,5	12,5	12,5	12,5	**189,08**	**1,9**	**3,0**	0,82	25,6	102	3,5
	12,5	12,5	12,5	12,5	**228,47**	**1,6**	**2,5**	0,81	25,6	102	3,5
	11,2	11,4	12,5	12,5	**286,70**	**1,3**	**1,8**	0,81	25,6	104	3,5
	12,5	12,5	12,5	12,5	**367,94**	**0,98**	**1,6**	0,81	26,7	102	3,5
	12,5	12,5	12,5	12,5	**427,73**	**0,84**	**1,4**	0,80	27,1	103	3,5
	10,2	11,8	12,5	12,5	**517,41**	**0,70**	**0,92**	0,80	21,4	102	3,5
	11,9	12,5	12,5	12,5	**614,07**	**0,59**	**0,93**	0,79	21,4	101	3,5
PT2402K	**6,28**	7,73	8,41	8,53	**10,57**	**34**	**24**	0,94	16,3	70	8,5
RT2402K	**7,50**	9,23	10,0	10,2	**12,61**	**29**	**24**	0,94	16,8	74	8,5
	9,62	11,8	12,9	13,1	**16,19**	**22**	**24**	0,93	17,6	78	8,5
	10,3	10,7	11,8	13,2	**19,21**	**19**	**22**	0,93	18,2	83	8,5
PT2403K	**6,86**	6,96	7,13	7,25	**21,26**	**17**	**14**	0,89	20,0	83	3,5
RT2403K	**8,19**	8,31	8,51	8,64	**25,36**	**14**	**14**	0,89	23,8	87	3,5
	9,67	9,81	10,0	10,2	**29,94**	**12**	**14**	0,89	24,9	94	3,5
	12,1	12,3	12,6	12,8	**37,58**	**9,6**	**14**	0,89	26,0	99	3,5
	14,1	14,3	14,7	14,9	**43,68**	**8,2**	**14**	0,89	26,7	105	3,5
	15,8	17,2	18,4	19,1	**56,06**	**6,4**	**12**	0,89	30,0	103	3,5
	12,8	13,3	13,9	15,4	**67,81**	**5,3**	**8,0**	0,89	28,0	103	3,5
	11,5	12,8	14,5	15,7	**80,48**	**4,5**	**6,1**	0,88	24,9	101	3,5
PT2404K	**16,0**	16,2	16,6	16,9	**100,84**	**3,6**	**7,2**	0,83	30,0	85	3,5
RT2404K	**18,9**	19,1	19,6	20,0	**119,05**	**3,0**	**7,2**	0,83	30,0	85	3,5
	20,0	20,0	20,0	20,0	**129,99**	**2,8**	**7,0**	0,83	30,0	85	3,5
	20,0	20,0	20,0	20,0	**162,82**	**2,2**	**5,6**	0,83	30,0	85	3,5
	20,0	20,0	20,0	20,0	**189,08**	**1,9**	**4,8**	0,83	30,0	85	3,5
	20,0	20,0	20,0	20,0	**228,47**	**1,6**	**4,0**	0,82	30,0	85	3,5
	19,2	19,5	20,0	20,0	**286,70**	**1,3**	**3,1**	0,82	30,0	85	3,5
	19,0	20,0	20,0	20,0	**367,94**	**0,98**	**2,4**	0,82	30,0	85	3,5
	19,3	20,0	20,0	20,0	**427,73**	**0,84**	**2,1**	0,81	30,0	85	3,5
	14,7	16,3	18,6	20,0	**517,41**	**0,70**	**1,3**	0,82	30,0	85	3,5
	15,2	16,4	18,2	19,6	**614,07**	**0,59**	**1,2**	0,80	28,2	85	3,5

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
104,76	9,5	17 E1	55 R1	6,2	15 E1	36 R1	17	25 E1	55 R1	12	19 E1	40 R1	120	390
123,68	9,1	16 E1	51 R1	5,9	14 E1	34 R1	17	23 E1	51 R1	11	19 E1	38 R1	134	391
135,05	8,9	16 E1	50 R1	5,8	14 E1	33 R1	16	23 E1	50 R1	11	18 E1	37 R1		
169,15	8,3	15 E1	47 R1	5,7	13 E1	31 R1	15	21 E1	47 R1	10	17 E1	35 R1		
196,43	8,0	14 E1	45 R1	5,5	12 E1	30 R1	15	21 E1	45 R1	10	16 E1	33 R1		
237,35	7,6	14 E1	42 R1	5,2	12 E1	28 R1	14	19 E1	42 R1	9,5	15 E1	32 R1		
297,85	7,1	13 E1	39 R1	4,9	11 E1	26 R1	13	18 E1	39 R1	8,9	14 E1	30 R1		
346,26	6,8	12 E1	38 R1	4,7	10 E1	25 R1	12	17 E1	38 R1	8,5	14 E1	28 R1		
418,86	6,4	12 E1	36 R1	4,4	10 E1	24 R1	12	16 E1	36 R1	8,0	13 E1	27 R1		
525,63	5,8	10 E1	32 R1	4,0	8,8 E1	21 R1	10	15 E1	32 R1	7,2	12 E1	24 R1		
611,04	5,3	9,5 E1	29 R1	3,6	8,0 E1	19 R1	9,4	13 E1	29 R1	6,6	11 E1	22 R1		
739,16	4,5	8,2 E1	25 R1	3,1	6,9 E1	17 R1	8,1	11 E1	25 R1	5,7	9,0 E1	19 R1		
10,57	29	47 E1	146 R1	20	38 E1	90 R1	55	72 E1	146 R1	37	55 E1	105 R1	198	392
12,61	28	45 E1	138 R1	18	36 E1	85 R1	52	68 E1	138 R1	35	52 E1	99 R1	213	393
16,19	24	39 E1	120 R1	16	32 E1	75 R1	46	60 E1	120 R1	31	46 E1	87 R1		
19,21	22	36 E1	108 R1	15	29 E1	67 R1	41	54 E1	108 R1	28	41 E1	78 R1		
21,26	14	25 E1	79 R1	9,4	21 E1	51 R1	26	36 E1	79 R1	18	28 E1	58 R1	165	392
25,36	14	25 E1	80 R1	9,5	21 E1	51 R1	26	36 E1	80 R1	18	29 E1	58 R1	180	393
29,94	13	24 E1	76 R1	9,1	20 E1	49 R1	25	35 E1	76 R1	17	27 E1	56 R1		
37,58	13	23 E1	72 R1	8,5	19 E1	46 R1	24	33 E1	72 R1	16	26 E1	52 R1		
43,68	12	22 E1	69 R1	8,2	18 E1	45 R1	23	32 E1	69 R1	16	25 E1	50 R1		
56,06	11	20 E1	63 R1	7,5	17 E1	41 R1	21	29 E1	63 R1	14	23 E1	46 R1		
67,81	11	19 E1	59 R1	7,1	16 E1	39 R1	20	27 E1	59 R1	13	21 E1	43 R1		
80,48	9,8	17 E1	54 R1	6,4	14 E1	35 R1	18	25 E1	54 R1	12	19 E1	39 R1		
100,84	9,2	17 E1	54 R1	6,1	14 E1	36 R1	17	24 E1	54 R1	12	19 E1	40 R1	164	392
119,05	8,8	16 E1	51 R1	5,8	14 E1	34 R1	16	23 E1	51 R1	11	18 E1	38 R1	179	393
129,99	8,6	16 E1	50 R1	5,6	13 E1	33 R1	16	23 E1	50 R1	11	18 E1	37 R1		
162,82	8,1	15 E1	46 R1	5,3	13 E1	31 R1	15	21 E1	46 R1	10	17 E1	35 R1		
189,08	7,8	14 E1	44 R1	5,1	12 E1	30 R1	14	20 E1	44 R1	10	16 E1	33 R1		
228,47	7,4	14 E1	42 R1	5,1	12 E1	28 R1	13	19 E1	42 R1	9,2	15 E1	32 R1		
286,70	6,9	13 E1	39 R1	4,7	11 E1	26 R1	13	18 E1	39 R1	8,7	14 E1	30 R1		
367,94	6,2	11 E1	35 R1	4,3	10 E1	24 R1	11	16 E1	35 R1	7,8	13 E1	27 R1		
427,73	6,0	11 E1	34 R1	4,1	9,3 E1	23 R1	11	15 E1	34 R1	7,5	12 E1	25 R1		
517,41	5,7	10 E1	32 R1	3,9	8,8 E1	21 R1	10	14 E1	32 R1	7,1	12 E1	24 R1		
614,07	5,1	9,3 E1	28 R1	3,5	7,9 E1	19 R1	9,1	13 E1	28 R1	6,3	10 E1	21 R1		
10,57	32	51 E1	158 R1	22	41 E1	97 R1	60	78 E1	158 R1	40	59 E1	113 R1	227	394
12,61	30	49 E1	150 R1	20	39 E1	92 R1	57	74 E1	150 R1	38	56 E1	108 R1	242	395
16,19	27	43 E1	131 R1	18	35 E1	81 R1	50	66 E1	131 R1	34	50 E1	95 R1		
19,21	24	39 E1	118 R1	16	32 E1	73 R1	45	59 E1	118 R1	31	45 E1	85 R1		
21,26	15	28 E1	87 R1	11	22 E1	56 R1	29	40 E1	87 R1	20	31 E1	64 R1	206	394
25,36	16	28 E1	88 R1	11	23 E1	56 R1	29	41 E1	88 R1	20	32 E1	64 R1	221	395
29,94	15	27 E1	84 R1	10	22 E1	54 R1	28	39 E1	84 R1	19	30 E1	61 R1		
37,58	14	25 E1	80 R1	10	21 E1	51 R1	27	37 E1	80 R1	18	29 E1	58 R1		
43,68	14	24 E1	76 R1	9,3	20 E1	49 R1	26	35 E1	76 R1	17	28 E1	56 R1		
56,06	13	22 E1	69 R1	8,4	19 E1	45 R1	23	32 E1	69 R1	16	25 E1	51 R1		
67,81	12	21 E1	66 R1	8,0	18 E1	43 R1	22	31 E1	66 R1	15	24 E1	48 R1		
80,48	11	19 E1	60 R1	7,3	16 E1	39 R1	20	28 E1	60 R1	14	22 E1	44 R1		
100,84	10	19 E1	60 R1	6,9	16 E1	39 R1	19	27 E1	60 R1	13	21 E1	44 R1	209	394
119,05	10	18 E1	58 R1	6,6	15 E1	38 R1	18	26 E1	58 R1	13	21 E1	42 R1	225	395
129,99	9,8	18 E1	56 R1	6,4	15 E1	37 R1	18	25 E1	56 R1	12	20 E1	41 R1		
162,82	9,2	17 E1	52 R1	6,0	14 E1	35 R1	17	24 E1	52 R1	12	19 E1	39 R1		
189,08	8,9	16 E1	50 R1	5,8	14 E1	33 R1	16	23 E1	50 R1	11	18 E1	37 R1		
228,47	8,4	15 E1	47 R1	5,8	13 E1	31 R1	15	22 E1	47 R1	11	17 E1	35 R1		
286,70	7,9	14 E1	44 R1	5,4	12 E1	29 R1	14	20 E1	44 R1	10	16 E1	33 R1		
367,94	7,1	13 E1	39 R1	4,9	11 E1	26 R1	13	18 E1	39 R1	8,9	15 E1	30 R1		
427,73	6,8	12 E1	38 R1	4,7	10 E1	25 R1	12	17 E1	38 R1	8,5	14 E1	28 R1		
517,41	6,5	12 E1	36 R1	4,4	10 E1	24 R1	12	16 E1	36 R1	8,1	13 E1	27 R1		
614,07	5,8	10 E1	32 R1	4,0	8,9 E1	21 R1	10	15 E1	32 R1	7,3	12 E1	24 R1		

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Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment Ma [kNm]	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) Ma [kNm]			Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung [kW]	Verim *Efficiency* Wirkungsgrad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]
	10000 [h]	5000 [h]	2000 [h]	1000 [h]			10000 [h]			10000 [h]	
PT2702K	**15,7**	19,3	23,2	23,5	**7,84**	**46**	**81**	0,93	25,7	62	15
RT2702K	**18,3**	19,0	19,4	19,6	**10,06**	**36**	**74**	0,93	27,0	66	15
	13,0	13,5	14,3	16,0	**11,94**	**30**	**44**	0,92	27,8	71	15
	18,0	18,3	18,7	19,0	**15,31**	**24**	**48**	0,93	25,7	74	15
	13,2	13,8	15,2	16,9	**18,17**	**20**	**30**	0,92	27,0	77	15
PT2703K	**14,7**	14,9	15,3	15,5	**30,23**	**12**	**21**	0,89	32,3	92	8,5
RT2703K	**17,4**	17,6	18,0	18,3	**35,69**	**10**	**21**	0,89	33,8	99	8,5
	21,8	22,1	22,6	23,0	**44,78**	**8,0**	**21**	0,89	35,3	104	8,5
	22,3	23,5	25,0	25,0	**52,06**	**6,9**	**18**	0,89	36,2	108	8,5
	16,5	17,1	18,2	20,3	**62,98**	**5,7**	**11**	0,89	35,8	114	8,5
	19,6	20,0	22,0	23,6	**80,82**	**4,5**	**10**	0,88	45,4	119	8,5
	15,2	17,0	19,7	21,5	**95,92**	**3,8**	**6,8**	0,88	32,2	128	8,5
PT2704K	**23,7**	24,1	25,0	25,0	**91,31**	**3,9**	**12**	0,83	47,5	126	3,5
RT2704K	**23,8**	24,6	25,0	25,0	**107,80**	**3,3**	**10**	0,84	47,5	128	3,5
	23,9	25,0	25,0	25,0	**127,26**	**2,8**	**8,5**	0,84	52,2	139	3,5
	24,0	25,0	25,0	25,0	**159,70**	**2,3**	**6,8**	0,83	55,9	130	3,5
	24,2	25,0	25,0	25,0	**185,65**	**1,9**	**5,9**	0,83	58,5	128	3,5
	24,8	25,0	25,0	25,0	**224,57**	**1,6**	**5,1**	0,82	57,9	140	3,5
	25,0	25,0	25,0	25,0	**281,82**	**1,3**	**4,1**	0,82	58,2	134	3,5
	25,0	25,0	25,0	25,0	**327,61**	**1,1**	**3,5**	0,82	55,1	138	3,5
	18,7	20,8	24,0	25,0	**396,31**	**0,91**	**2,2**	0,82	40,7	128	3,5
	22,5	24,2	25,0	25,0	**508,59**	**0,71**	**2,1**	0,81	48,9	127	3,5
	20,4	22,1	24,7	25,0	**603,61**	**0,60**	**1,6**	0,80	36,6	127	3,5
PT2902K	**15,7**	19,3	25,0	25,4	**7,84**	**46**	**81**	0,93	28,2	71	14
RT2902K	**20,2**	24,8	27,1	30,2	**10,06**	**36**	**81**	0,93	29,6	75	14
	20,0	20,8	22,1	24,6	**11,94**	**30**	**68**	0,93	30,7	82	14
	18,0	18,3	18,7	19,0	**15,31**	**24**	**48**	0,93	29,6	88	14
	20,4	21,2	22,2	22,5	**18,17**	**20**	**46**	0,93	30,7	92	14
PT2903K	**25,7**	31,6	34,4	34,9	**43,25**	**8,3**	**25**	0,89	40,4	129	8,5
RT2903K	**30,7**	35,0	35,0	35,0	**51,60**	**7,0**	**25**	0,89	48,2	142	8,5
	35,0	35,0	35,0	35,0	**66,22**	**5,4**	**22**	0,89	60,2	152	8,5
	31,1	32,7	35,0	35,0	**78,59**	**4,6**	**17**	0,89	62,1	152	8,5
	29,7	31,5	34,7	35,0	**100,86**	**3,6**	**13**	0,89	63,6	159	8,5
	24,3	26,6	29,2	31,4	**119,70**	**3,0**	**8,7**	0,88	51,9	168	8,5
PT2904K	**28,1**	28,5	29,2	29,6	**86,96**	**4,1**	**15**	0,83	56,7	168	3,5
RT2904K	**35,0**	35,0	35,0	35,0	**122,49**	**2,9**	**13**	0,83	74,4	168	3,5
	35,0	35,0	35,0	35,0	**153,72**	**2,3**	**10**	0,83	79,7	168	3,5
	35,0	35,0	35,0	35,0	**178,70**	**2,0**	**8,9**	0,83	83,4	168	3,5
	35,0	35,0	35,0	35,0	**216,17**	**1,7**	**7,4**	0,83	83,4	168	3,5
	35,0	35,0	35,0	35,0	**277,41**	**1,3**	**5,8**	0,82	87,3	168	3,5
	35,0	35,0	35,0	35,0	**329,24**	**1,1**	**4,9**	0,82	77,5	168	3,5
	34,1	35,0	35,0	35,0	**422,52**	**0,85**	**3,7**	0,81	73,2	168	3,5
	28,7	30,8	33,8	35,0	**501,46**	**0,72**	**2,7**	0,80	59,6	168	3,5
PT3502K	**15,9**	19,6	25,4	25,7	**7,94**	**45**	**81**	0,93	41,2	85	14
RT3502K	**20,7**	25,5	32,3	33,5	**10,35**	**35**	**81**	0,93	43,0	90	14
	20,1	20,9	22,1	24,7	**12,46**	**29**	**65**	0,93	41,2	106	14
	18,6	18,8	19,2	19,5	**15,75**	**23**	**48**	0,93	43,0	112	14
	20,5	21,3	23,2	23,5	**18,96**	**19**	**44**	0,93	43,5	121	14
PT3503K	**26,0**	32,0	34,8	35,4	**43,80**	**8,2**	**25**	0,89	59,6	156	8,5
RT3503K	**31,1**	38,2	41,6	42,2	**52,26**	**6,9**	**25**	0,89	62,8	173	8,5
	39,9	49,0	50,0	50,0	**67,06**	**5,4**	**25**	0,89	67,7	185	8,5
	42,6	44,3	48,9	50,0	**79,59**	**4,5**	**23**	0,89	71,3	193	8,5
	35,6	39,9	44,4	48,1	**103,74**	**3,5**	**15**	0,89	71,9	203	8,5
	24,4	27,3	31,5	35,1	**124,88**	**2,9**	**8,3**	0,89	49,3	205	8,5

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Çevrim Oranı / *Ratio* / Übersetzung i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlossenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
7,84	**31**	80 E3	134 R1	**21**	71 E3	80 R1	**57**	72 E1	134 R1	**39**	68 E2	96 R1	301	396
10,06	**31**	62 E2	137 R1	**21**	72 E3	82 R1	**59**	73 E1	137 R1	**40**	70 E2	98 R1	366	397
11,94	**29**	43 E1	123 R1	**19**	48 E2	76 R1	**53**	66 E1	123 R1	**36**	50 E1	91 R1		
15,31	**30**	45 E1	134 R1	**20**	51 E2	80 R1	**57**	71 E1	134 R1	**38**	53 E1	96 R1		
18,17	**28**	41 E1	121 R1	**18**	33 E1	72 R1	**52**	65 E1	121 R1	**35**	48 E1	87 R1		
30,23	**18**	30 E1	91 R1	**13**	24 E1	55 R1	**34**	45 E1	91 R1	**23**	34 E1	64 R1	271	396
35,69	**18**	28 E1	87 R1	**12**	23 E1	53 R1	**33**	43 E1	87 R1	**22**	33 E1	63 R1	336	397
44,78	**17**	27 E1	83 R1	**12**	22 E1	51 R1	**31**	41 E1	83 R1	**21**	32 E1	60 R1		
52,06	**16**	26 E1	80 R1	**11**	21 E1	50 R1	**30**	40 E1	80 R1	**20**	30 E1	58 R1		
62,98	**15**	25 E1	76 R1	**11**	20 E1	47 R1	**29**	38 E1	76 R1	**20**	29 E1	55 R1		
80,82	**14**	23 E1	70 R1	**10**	19 E1	44 R1	**27**	35 E1	70 R1	**18**	27 E1	50 R1		
95,92	**13**	21 E1	63 R1	**8,8**	17 E1	39 R1	**24**	32 E1	63 R1	**17**	24 E1	46 R1		
91,31	**12**	21 E1	64 R1	**8,2**	17 E1	41 R1	**23**	31 E1	64 R1	**16**	24 E1	46 R1	252	396
107,80	**12**	20 E1	61 R1	**7,8**	16 E1	39 R1	**22**	29 E1	61 R1	**15**	23 E1	44 R1	317	397
127,26	**11**	19 E1	58 R1	**7,5**	16 E1	37 R1	**21**	28 E1	58 R1	**14**	22 E1	43 R1		
159,70	**11**	18 E1	55 R1	**7,1**	15 E1	35 R1	**20**	26 E1	55 R1	**13**	21 E1	40 R1		
185,65	**10**	17 E1	53 R1	**6,8**	14 E1	34 R1	**19**	25 E1	53 R1	**13**	20 E1	38 R1		
224,57	**9,8**	16 E1	50 R1	**6,7**	14 E1	32 R1	**18**	24 E1	50 R1	**12**	19 E1	36 R1		
281,82	**9,2**	15 E1	47 R1	**6,3**	13 E1	30 R1	**17**	23 E1	47 R1	**12**	18 E1	34 R1		
327,61	**8,9**	15 E1	44 R1	**6,1**	12 E1	29 R1	**16**	22 E1	44 R1	**11**	17 E1	33 R1		
396,31	**8,4**	14 E1	42 R1	**5,8**	12 E1	27 R1	**15**	20 E1	42 R1	**11**	16 E1	31 R1		
508,59	**7,7**	13 E1	38 R1	**5,2**	11 E1	25 R1	**14**	18 E1	38 R1	**10**	15 E1	28 R1		
603,61	**6,9**	11 E1	34 R1	**4,7**	10 E1	22 R1	**12**	16 E1	34 R1	**8,6**	13 E1	25 R1		
7,84	**37**	69 E2	154 R1	**25**	79 E3	89 R1	**70**	86 E1	154 R1	**47**	79 E2	109 R1	403	398
10,06	**34**	81 E3	138 R1	**23**	71 E3	81 R1	**63**	77 E1	138 R1	**43**	71 E2	98 R1	475	399
11,94	**31**	57 E2	125 R1	**21**	65 E3	75 R1	**58**	70 E1	125 R1	**39**	65 E2	91 R1		
15,31	**36**	52 E1	149 R1	**24**	41 E1	87 R1	**68**	83 E1	149 R1	**46**	62 E1	106 R1		
18,17	**34**	48 E1	137 R1	**22**	52 E2	80 R1	**63**	77 E1	137 R1	**42**	57 E1	98 R1		
43,25	**23**	35 E1	103 R1	**16**	28 E1	64 R1	**43**	55 E1	103 R1	**29**	41 E1	76 R1	357	398
51,60	**22**	34 E1	100 R1	**15**	27 E1	61 R1	**42**	52 E1	100 R1	**28**	39 E1	73 R1	429	399
66,22	**21**	32 E1	94 R1	**14**	26 E1	57 R1	**39**	49 E1	94 R1	**27**	37 E1	68 R1		
78,59	**20**	31 E1	89 R1	**14**	25 E1	55 R1	**38**	47 E1	89 R1	**26**	36 E1	65 R1		
100,86	**19**	29 E1	81 R1	**13**	23 E1	49 R1	**35**	44 E1	81 R1	**24**	33 E1	60 R1		
119,70	**18**	26 E1	76 R1	**12**	21 E1	46 R1	**32**	40 E1	76 R1	**22**	31 E1	54 R1		
86,96	**15**	24 E1	71 R1	**10**	19 E1	43 R1	**27**	36 E1	71 R1	**18**	27 E1	52 R1	224	398
122,49	**13**	21 E1	65 R1	**9,3**	18 E1	41 R1	**25**	33 E1	65 R1	**17**	25 E1	47 R1	396	399
153,72	**13**	21 E1	61 R1	**8,7**	16 E1	38 R1	**24**	31 E1	61 R1	**16**	24 E1	45 R1		
178,70	**12**	20 E1	59 R1	**8,4**	16 E1	37 R1	**23**	30 E1	59 R1	**16**	23 E1	43 R1		
216,17	**12**	19 E1	56 R1	**7,9**	15 E1	35 R1	**22**	28 E1	56 R1	**15**	22 E1	41 R1		
277,41	**11**	18 E1	52 R1	**7,4**	14 E1	33 R1	**20**	26 E1	52 R1	**14**	20 E1	38 R1		
329,24	**11**	17 E1	50 R1	**7,1**	14 E1	31 R1	**19**	25 E1	50 R1	**13**	19 E1	36 R1		
422,52	**9,6**	15 E1	45 R1	**6,4**	13 E1	28 R1	**18**	23 E1	45 R1	**12**	18 E1	33 R1		
501,46	**8,8**	14 E1	41 R1	**5,9**	11 E1	26 R1	**16**	21 E1	41 R1	**11**	16 E1	30 R1		
7,94	**41**	76 E2	167 R1	**28**	85 E3	96 R1	**78**	95 E1	167 R1	**53**	70 E1	118 R1	470	400
10,35	**38**	69 E2	151 R1	**25**	77 E3	87 R1	**71**	86 E1	151 R1	**48**	78 E2	107 R1	557	401
12,08	**35**	49 E1	138 R1	**24**	53 E2	80 R1	**66**	79 E1	138 R1	**44**	58 E1	98 R1		
12,46	**43**	60 E1	173 R1	**28**	64 E2	99 R1	**81**	98 E1	173 R1	**54**	72 E1	122 R1		
15,75	**39**	55 E1	156 R1	**26**	43 E1	90 R1	**74**	89 E1	156 R1	**50**	65 E1	111 R1		
18,96	**36**	50 E1	141 R1	**24**	39 E1	81 R1	**67**	81 E1	141 R1	**45**	59 E1	100 R1		
43,80	**25**	38 E1	108 R1	**17**	30 E1	66 R1	**48**	59 E1	108 R1	**32**	44 E1	78 R1	454	400
52,26	**25**	36 E1	105 R1	**17**	29 E1	63 R1	**46**	57 E1	105 R1	**31**	42 E1	76 R1	540	401
67,06	**23**	34 E1	99 R1	**16**	27 E1	60 R1	**43**	53 E1	99 R1	**29**	40 E1	71 R1		
79,59	**22**	33 E1	93 R1	**15**	26 E1	57 R1	**42**	51 E1	93 R1	**28**	38 E1	68 R1		
103,74	**21**	31 E1	87 R1	**15**	25 E1	53 R1	**39**	48 E1	87 R1	**26**	36 E1	63 R1		
124,88	**19**	28 E1	79 R1	**13**	22 E1	47 R1	**35**	43 E1	79 R1	**24**	33 E1	57 R1		

Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmo-ment **Ma [kNm]**	Anma Momenti (Ömüre Bağlı) *Nominal Torques* (According to Lifetime) Nenndrehmoment (nach Lebensdauer) **Ma [kNm]**			Çevrim Oranı *Ratio* Übersetzung **i**	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen **n_2 [r.p.m]**	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung **[kW]**	Verim *Efficiency* Wirkungsgrad **η**	Maksimum Moment *Maximum Torque* Maximum Drehmoment **$Ma_{mak.}$ [kNm]**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **Fqam [kN]**	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) **Fqem [kN]**
	10000 [h]	**5000 [h]**	**2000 [h]**	**1000 [h]**			**10000 [h]**			**10000 [h]**	
PT3504K **RT3504K**	**28,4**	28,8	29,6	30,0	**88,07**	**4,1**	**15**	0,83	82,7	193	3,5
	40,0	40,6	41,6	42,3	**124,05**	**2,9**	**15**	0,83	97,0	205	3,5
	50,0	50,0	50,0	50,0	**155,67**	**2,3**	**15**	0,83	104	221	3,5
	50,0	50,0	50,0	50,0	**180,97**	**2,0**	**13**	0,83	109	232	3,5
	50,0	50,0	50,0	50,0	**218,91**	**1,6**	**11**	0,82	111	251	3,5
	50,0	50,0	50,0	50,0	**280,94**	**1,3**	**8,2**	0,82	112	266	3,5
	47,5	50,0	50,0	50,0	**333,42**	**1,1**	**6,6**	0,82	103	232	3,5
	43,5	47,1	50,0	50,0	**434,60**	**0,83**	**4,6**	0,82	80,3	245	3,5
	30,5	34,1	39,6	44,3	**523,13**	**0,69**	**2,7**	0,82	55,0	256	3,5

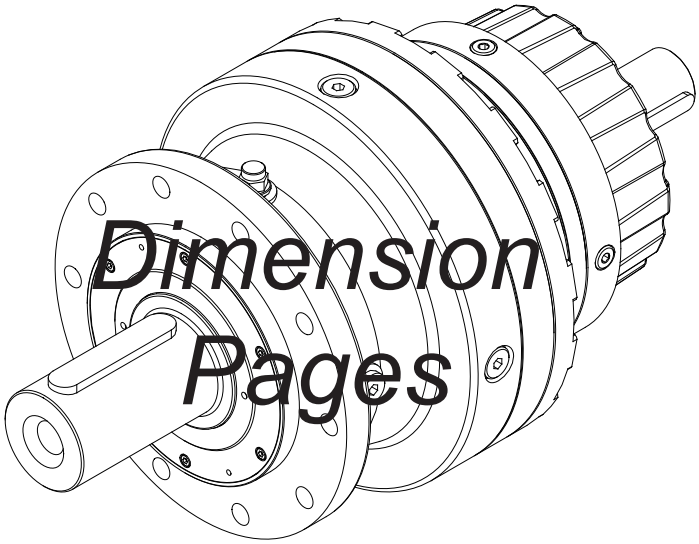
Motorsuz Konik Girişli Planet Redüktörler
Planetary Gear Units with Bevel Stage Input
Planetengetriebe mit Kegelradvorstufe

n_1=360

Çevrim Oranı / *Ratio* / Übersetzung / i	Termik Güç Pt [kW] / *Thermal Power Pt [kW]* / Wärme-Grenzleitungen Pt [kW]												Ağırlık / *Weight* / Gewicht ~ [kg]	Ölçü Sayfası / *Dim.Page* / Maß Seite
	Kapalı Alan [Hava Hızı = 1,25 m/sn] *Indoor [Wind Speed = 1,25 m/sn]* Geschlessenen Bereich [Fluggeschwindigkeit = 1,25 m/sn]						Açık Alan [Hava Hızı = 4 m/sn] *Outdoor [Wind Speed = 4 m/sn]* Freifläche [Fluggeschwindigkeit = 4 m/sn]							
	Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C			Çevre Sıcaklığı 20°C için; *For Ambient Temperature 20°C* Für Umgebungstemperatur 20°C			Çevre Sıcaklığı 40°C için; *For Ambient Temperature 40°C* Für Umgebungstemperatur 40°C				
	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3	Pt_1	Pt_2	Pt_3		
88,07	**17**	25 E1	75 R1	**11**	21 E1	45 R1	**31**	39 E1	75 R1	**21**	29 E1	55 R1	433	400
124,05	**15**	23 E1	69 R1	**11**	19 E1	42 R1	**28**	36 E1	69 R1	**19**	27 E1	50 R1	520	401
155,67	**14**	22 E1	65 R1	**10**	18 E1	40 R1	**27**	34 E1	65 R1	**18**	26 E1	47 R1		
180,97	**14**	21 E1	62 R1	**9,4**	17 E1	38 R1	**26**	33 E1	62 R1	**18**	25 E1	45 R1		
218,91	**13**	20 E1	59 R1	**9,0**	16 E1	37 R1	**24**	31 E1	59 R1	**17**	24 E1	43 R1		
280,94	**12**	19 E1	55 R1	**8,4**	15 E1	34 R1	**23**	29 E1	55 R1	**16**	22 E1	40 R1		
333,42	**12**	18 E1	53 R1	**8,0**	15 E1	33 R1	**22**	28 E1	53 R1	**15**	21 E1	38 R1		
434,60	**11**	17 E1	49 R1	**7,4**	14 E1	30 R1	**20**	26 E1	49 R1	**14**	20 E1	35 R1		
523,13	**9,9**	15 E1	43 R1	**6,6**	12 E1	27 R1	**18**	23 E1	43 R1	**12**	17 E1	32 R1		

Notlar / *Notes* / Notizen

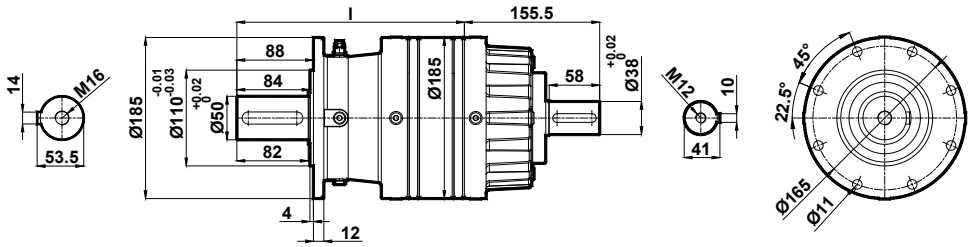
Ölçü Sayfaları



Abmessungs-seiten

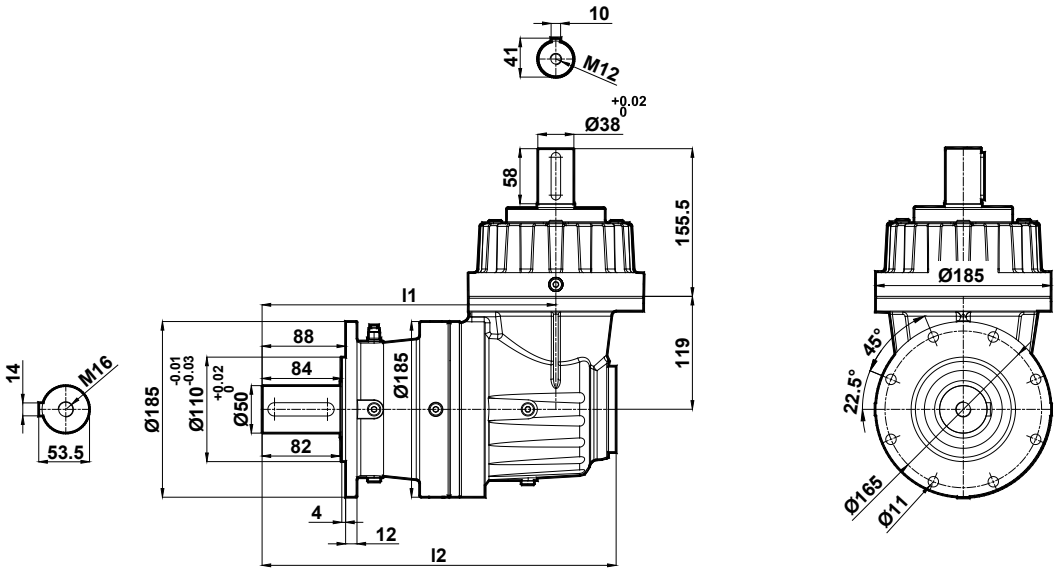
PT110 ... L . 01

Kademe *Stage* Stufe	l1
1	210
2	262
3	313
4	365

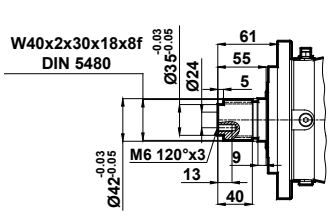


PT110 ... K. 01

Kademe *Stage* Stufe	l1	l2
2	310	373
3	361	425
4	413	476



Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



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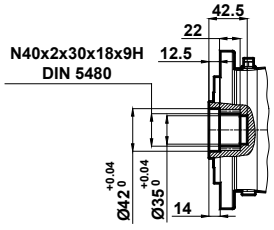

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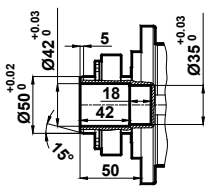

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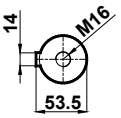
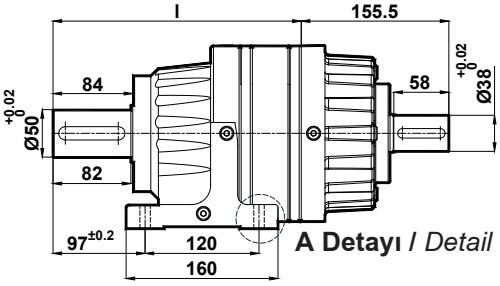
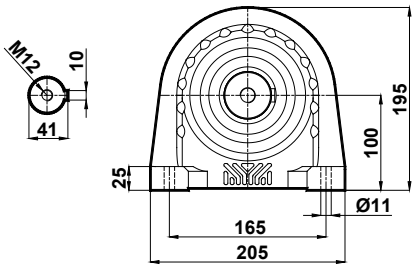
Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shafts see page number 456* / Für optionelle Abtriebswellen siehe Seite 456

RT110 ... L . 01

Kademe *Stage* Stufe	l
1	210
2	262
3	313
4	365

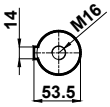


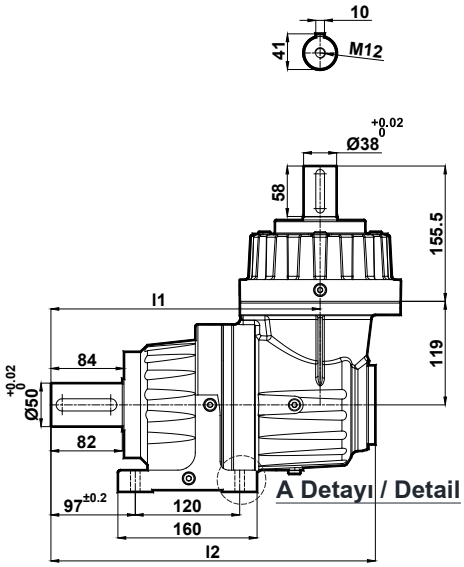


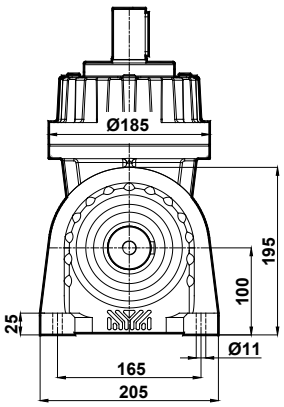


RT110 ... K. 01

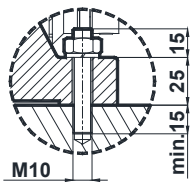
Kademe *Stage* Stufe	l1	l2
2	310	373
3	361	425
4	413	476



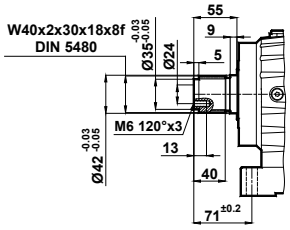




A Detayı / Detail



Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle

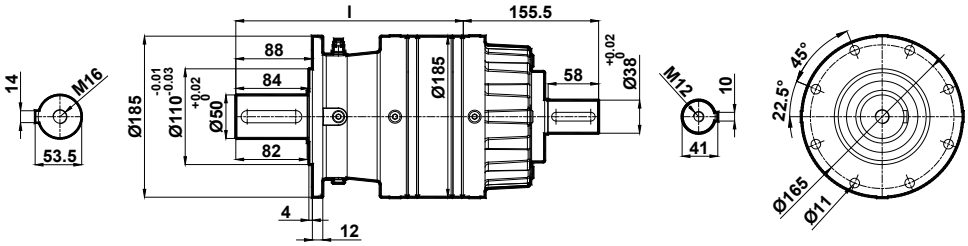


1K

Çıkış mili opsiyonları için sayfa 456'ya bakınız / *For optional output shaft see page number 456* / Für optionelle Abtriebswellen siehe Seite 456

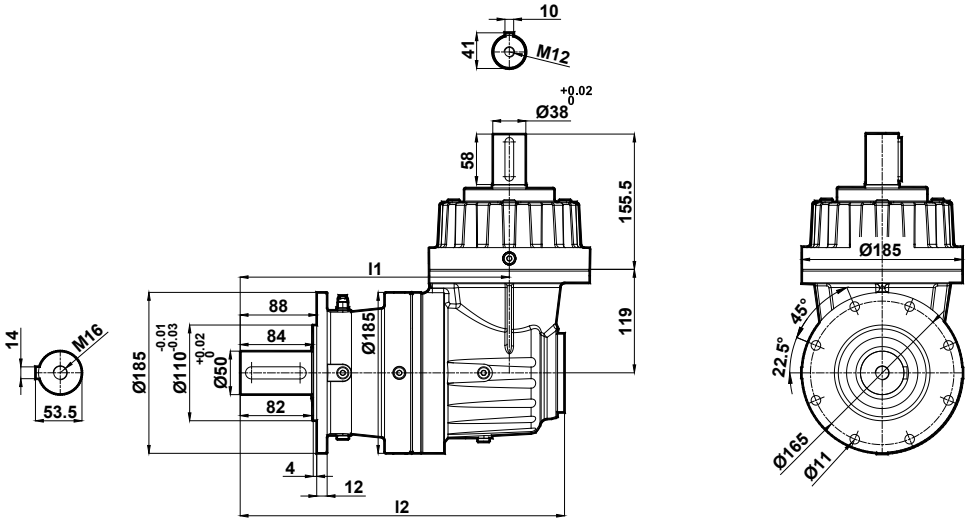
PT120 ... L . 01

Kademe *Stage* Stufe	I
1	230
2	282
3	333
4	385

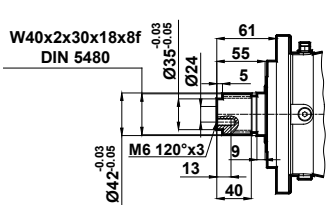


PT120 ... K. 01

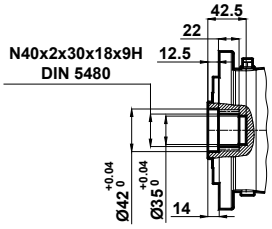
Kademe *Stage* Stufe	I1	I2
2	330	393
3	381	445
4	433	496



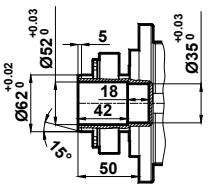
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K

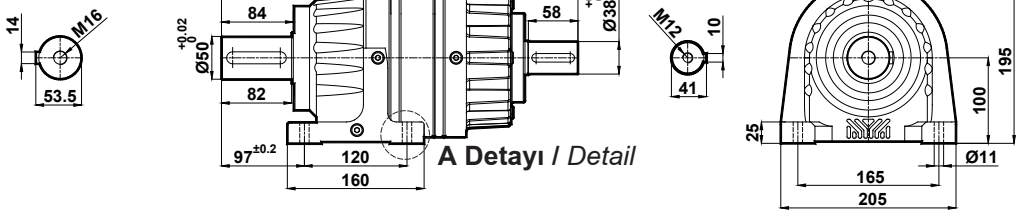


0S

Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shafts see page number 457* / Für optionelle Abtriebswellen siehe Seite 457

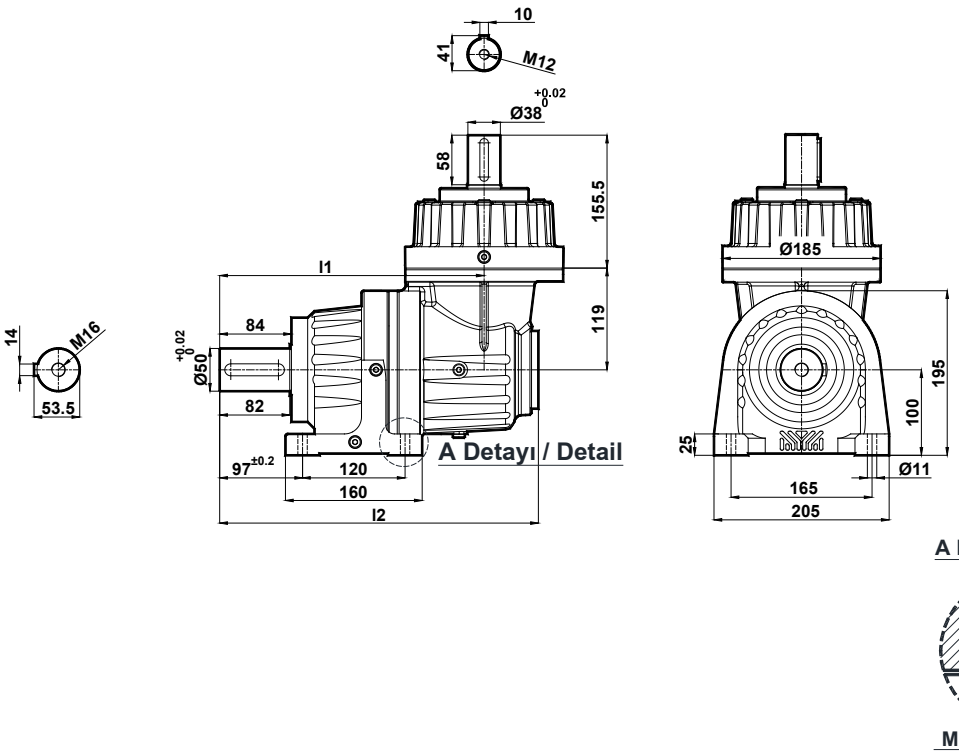
RT120 ... L . 01

Kademe *Stage* Stufe	I
1	230
2	282
3	333
4	385

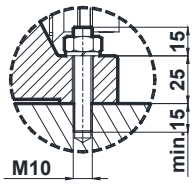


RT120 ... K. 01

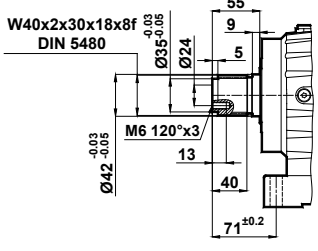
Kademe *Stage* Stufe	I1	I2
2	330	393
3	381	445
4	433	496



A Detayı / Detail



Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle

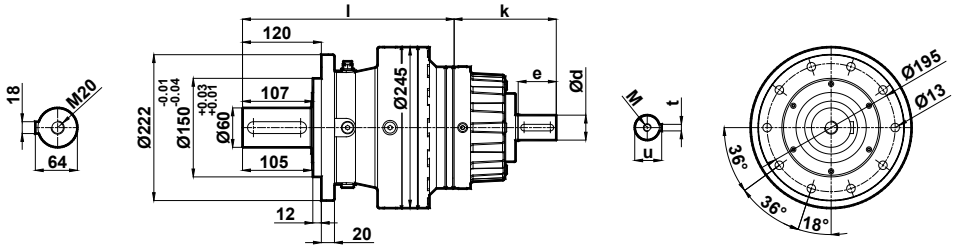


1K

Çıkış mili opsiyonları için sayfa 457'ye bakınız / *For optional output shaft see page number 457* / Für optionelle Abtriebswellen siehe Seite 457

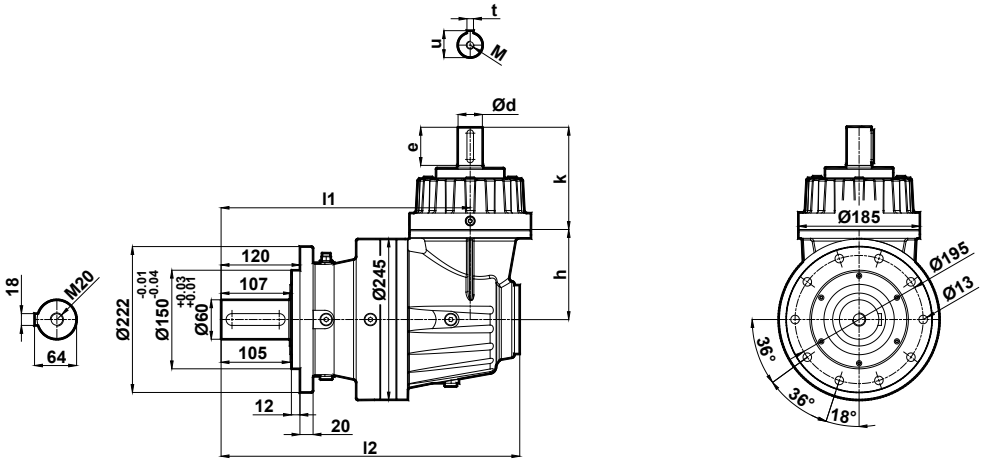
PT150 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	268	242	48	82	52	14	M16
2	322	156	38	58	41	10	M12
3	374						
4	425						

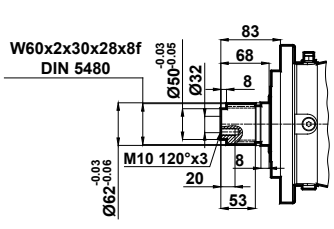


PT150 ... K. 01

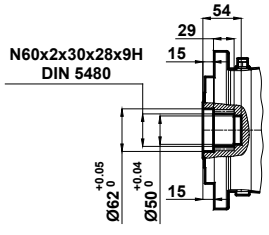
Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	379	455	155	156	38	58	41	10	M12
3	422	485	119						
4	473	537							



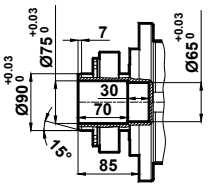
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K

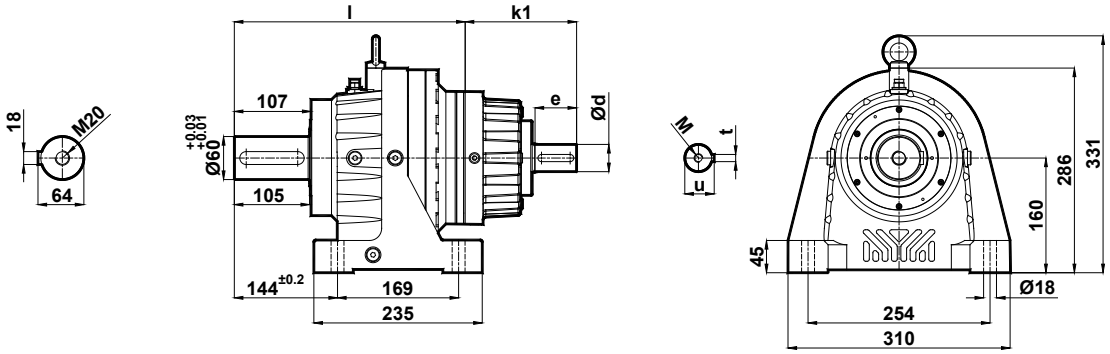


0S

Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shafts see page number 458* / Für optionelle Abtriebswellen siehe Seite 458

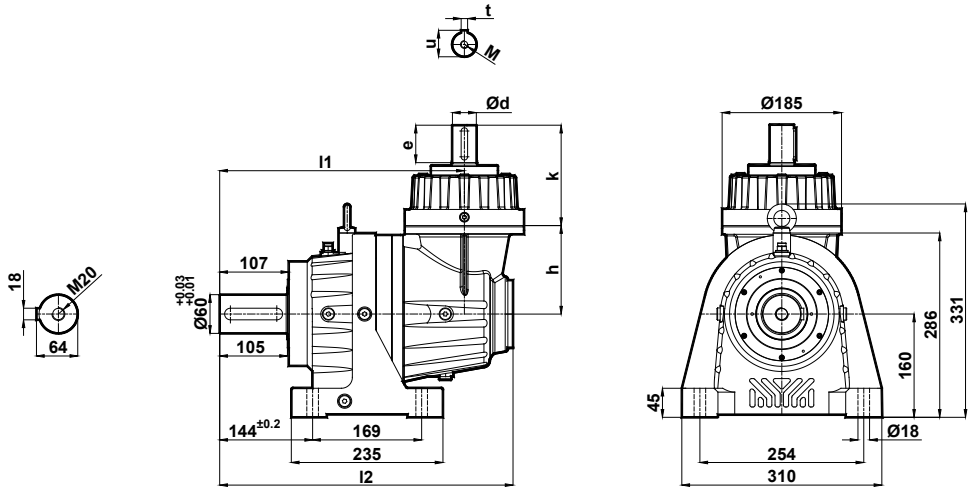
RT150 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	268	242	48	82	52	14	M16
2	322	156	38	58	41	10	M12
3	374						
4	425						

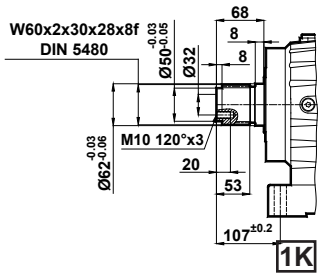


RT150 ... K. 01

Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	379	455	155	156	38	58	41	10	M12
3	422	485	119						
4	473	537							



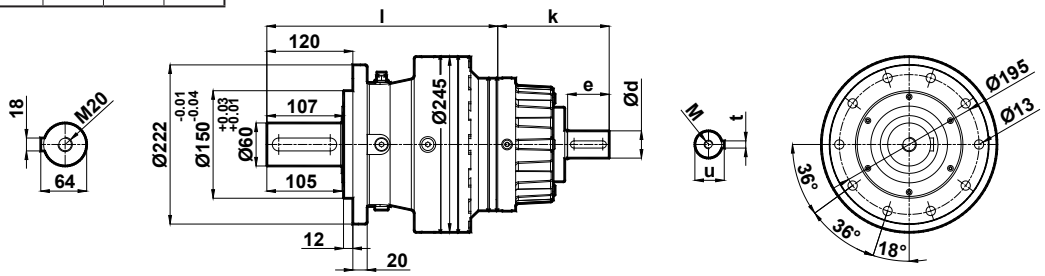
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



Çıkış mili opsiyonları için sayfa 458'e bakınız / *For optional output shaft see page number 458* / Für optionelle Abtriebswellen siehe Seite 458

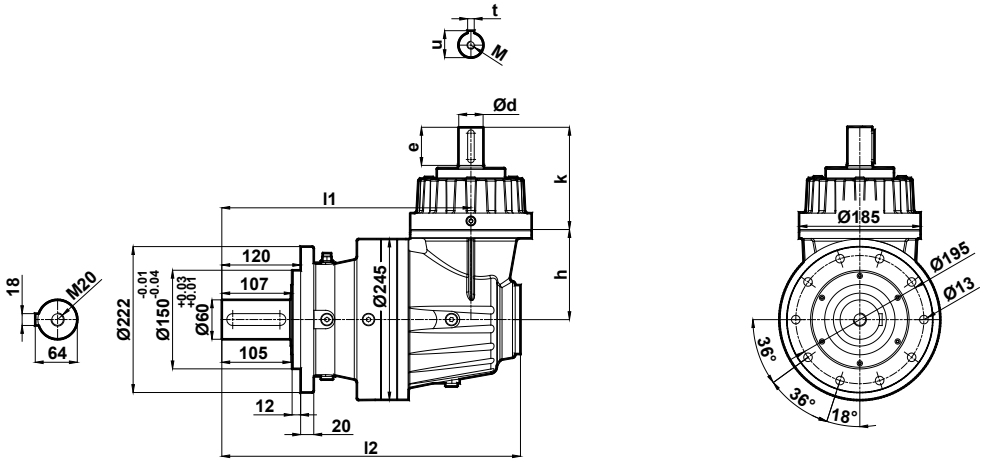
PT160 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	300	242	48	82	52	14	M16
2	374	156	38	58	41	10	M12
3	426						
4	477						

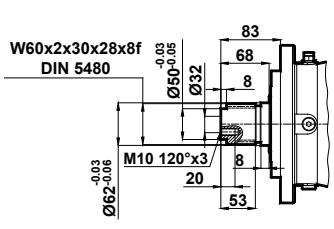


PT160 ... K. 01

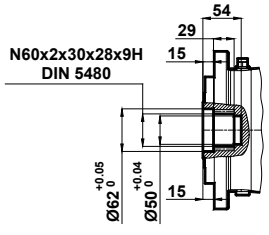
Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	411	487	155	156	38	58	41	10	M12
3	474	537	119						
4	525	589							



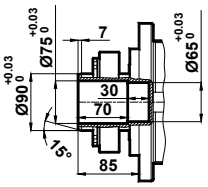
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K

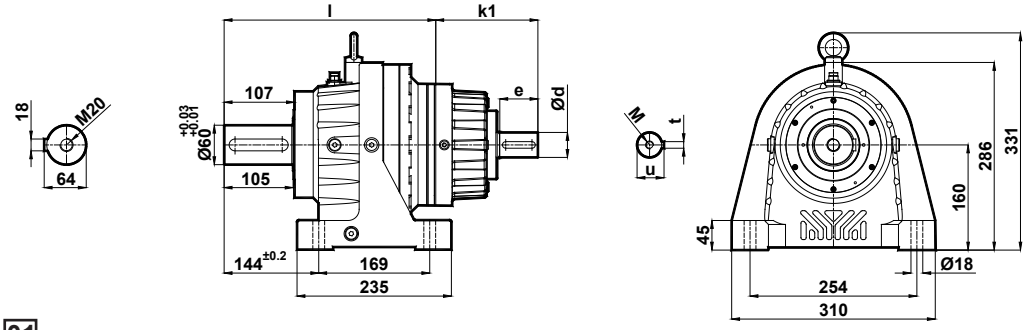


0S

Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shafts see page number 459* / Für optionelle Abtriebswellen siehe Seite 459

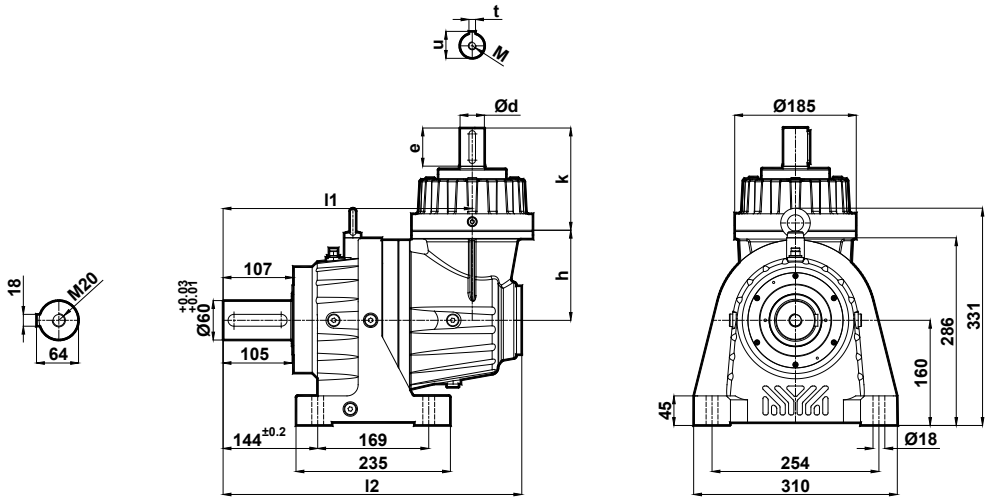
RT160 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	300	242	48	82	52	82	M16
2	374	156	38	58	41	58	M12
3	426						
4	477						

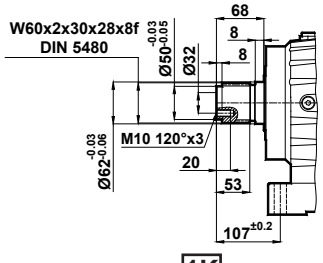


RT160 ... K. 01

Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	411	487	155	156	38	58	41	10	M12
3	474	537	119						
4	525	589							

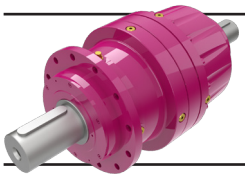


Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

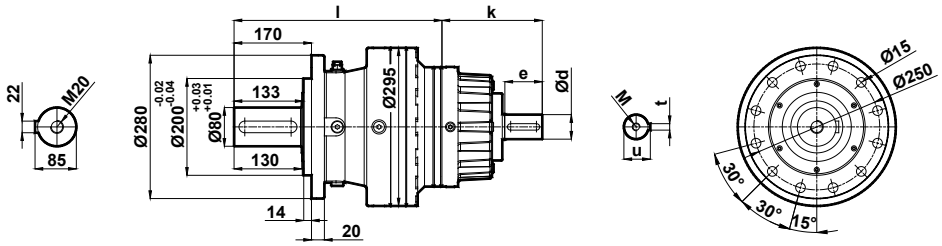
Çıkış mili opsiyonları için sayfa 459'a bakınız / *For optional output shaft see page number 459* / Für optionelle Abtriebswellen siehe Seite 459



Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

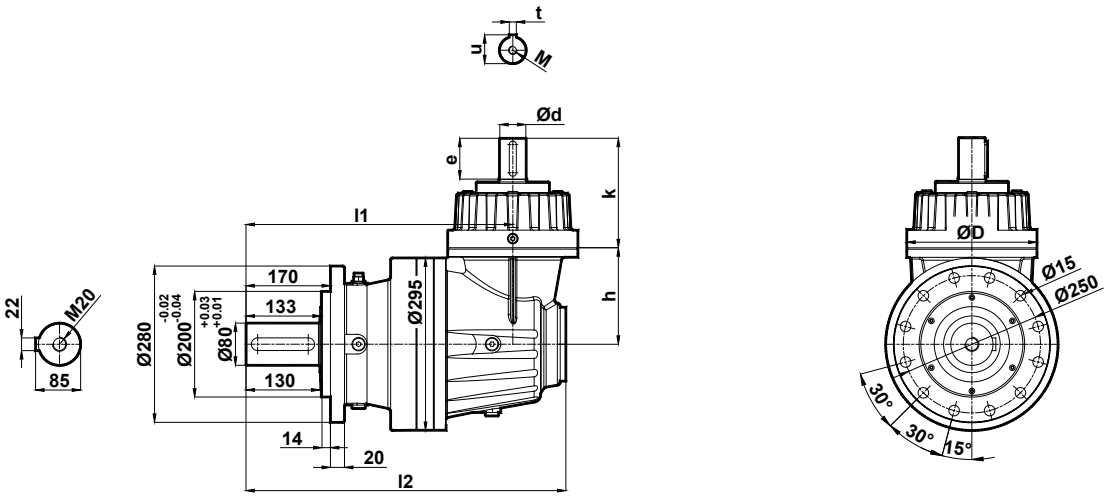
PT190 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	361	311	60	105	64	18	M20
2	448	242	48	82	52	14	M16
3	503	156	38	58			
4	554						

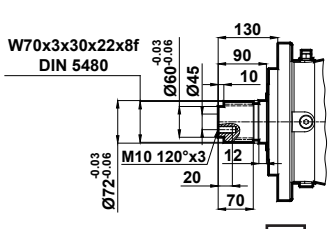


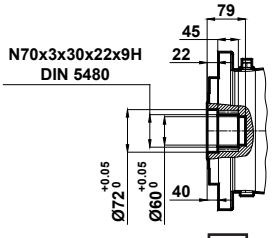
PT190 ... K. 01

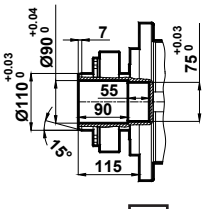
Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	518	606	198	242	48	82	52	14	M16
3	560	635	155	156	38	58	41	10	M12
4	602	665	119						



Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



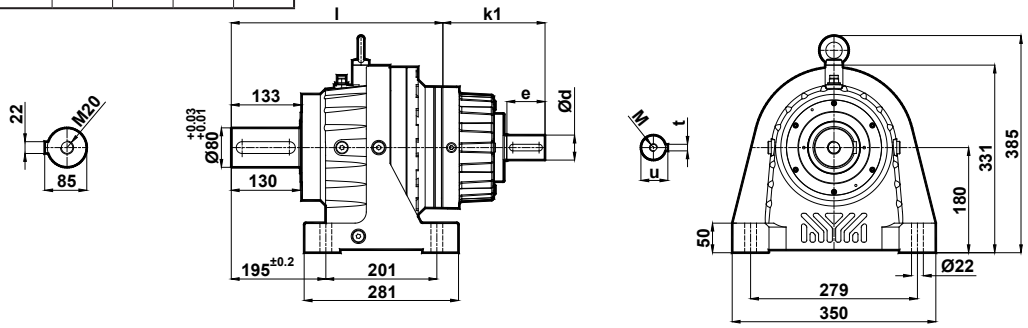




Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shafts see page number 460* / Für optionelle Abtriebswellen siehe Seite 460

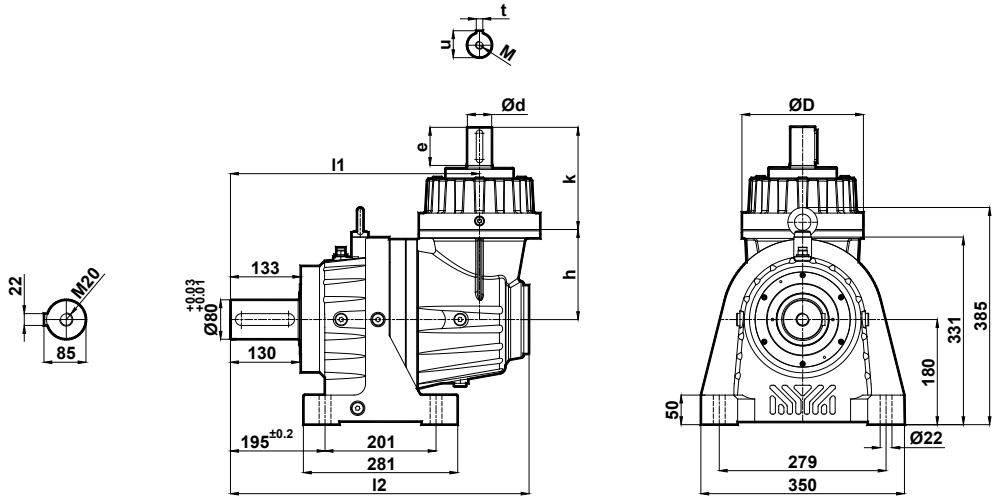
RT190 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	361	311	60	105	64	18	M20
2	448	242	48	82	52	14	M16
3	503	156	38	58			M16
4	554						M16

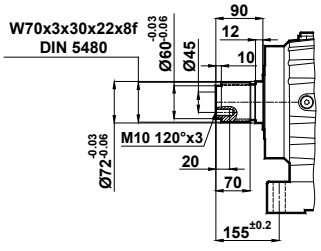


RT190 ... K. 01

Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	518	606	198	242	48	82	52	14	M16
3	560	635	155	156	38	58	41	10	M12
4	602	665	119						



Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle

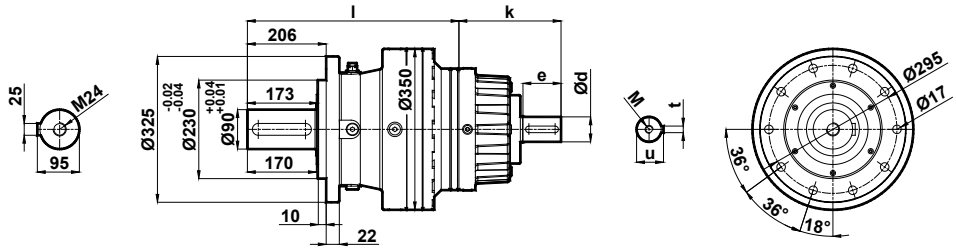


1K

Çıkış mili opsiyonları için sayfa 460'a bakınız / *For optional output shaft see page number 460* / Für optionelle Abtriebswellen siehe Seite 460

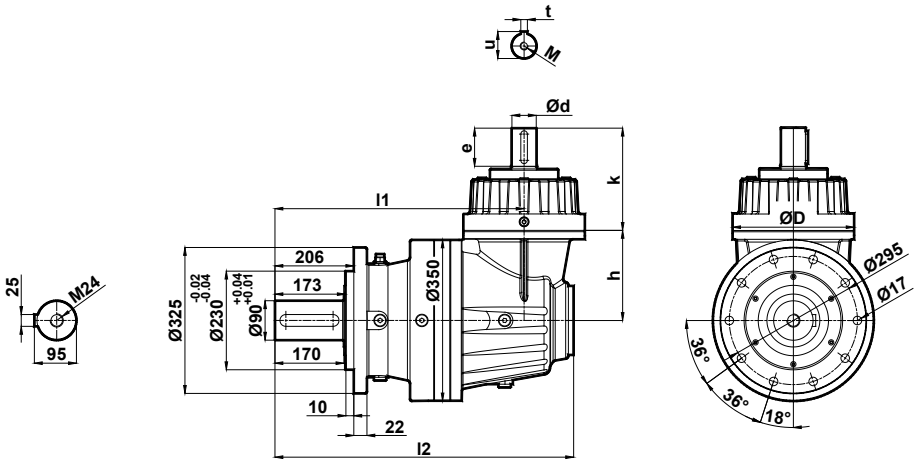
PT230 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	438	320	80	130	85	22	M20
2	529	242	48	82	52	14	M16
3	584	156	38	58	41	10	M12
4	635						

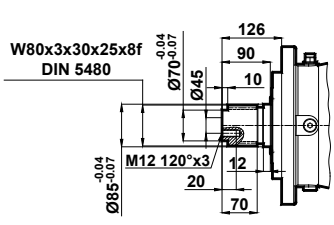


PT230 ... K. 01

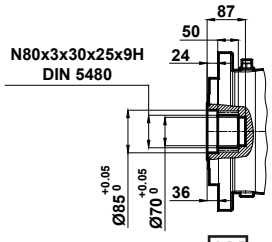
Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	615	713	223	242	48	82	52	14	M16
3	641	716	155	156	38	58	41	10	M12
4	683	747	119						



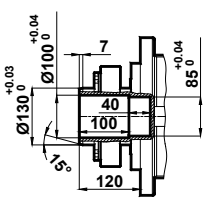
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K

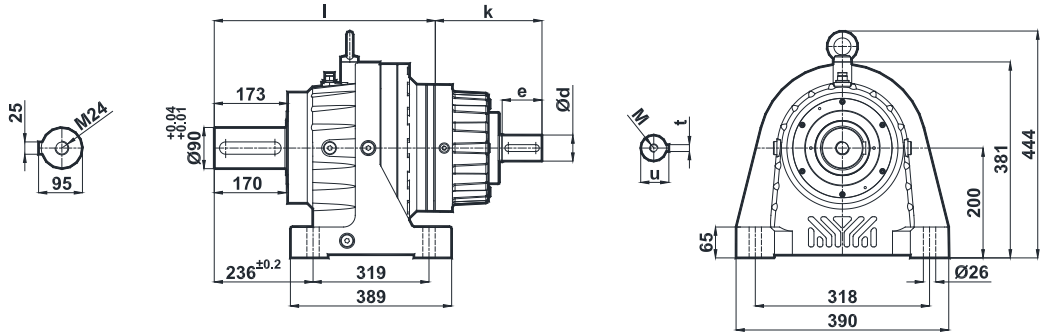


0S

Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shafts see page number 461* / Für optionelle Abtriebswellen siehe Seite 461

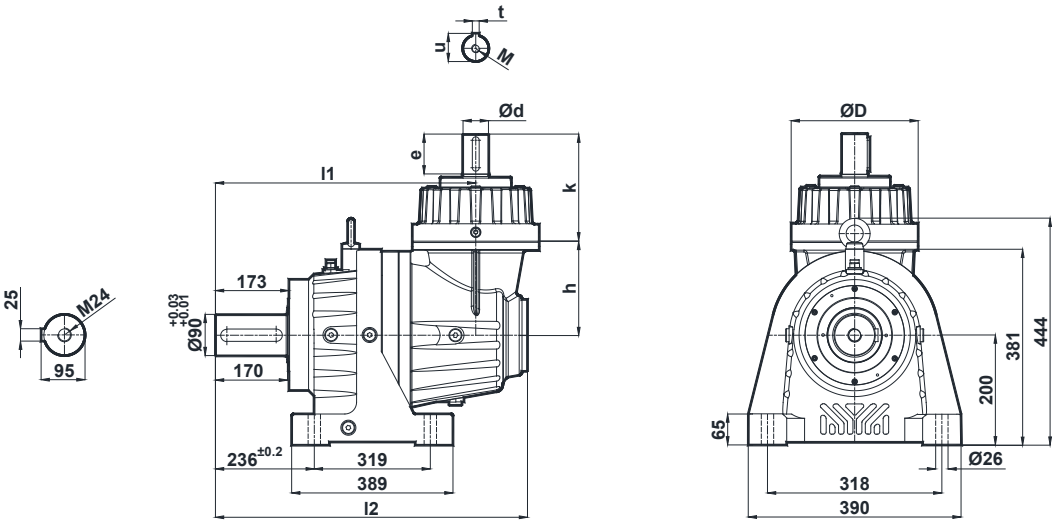
RT230 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	438	320	80	130	85	130	M20
2	529	242	48	82	52	82	M16
3	584	156	38	58	41	58	M12
4	635						

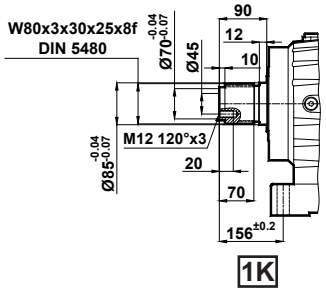


RT230 ... K. 01

Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	615	713	223	242	48	82	52	14	M16
3	641	716	155	156	38	58	41	10	M12
4	683	747	119						



Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle

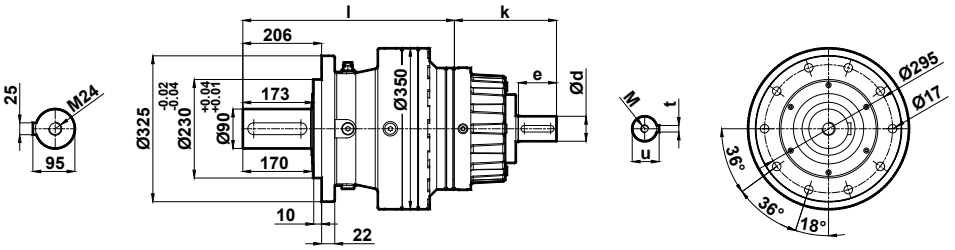


1K

Çıkış mili opsiyonları için sayfa 461'e bakınız / *For optional output shaft see page number 461* / Für optionelle Abtriebswellen siehe Seite 461

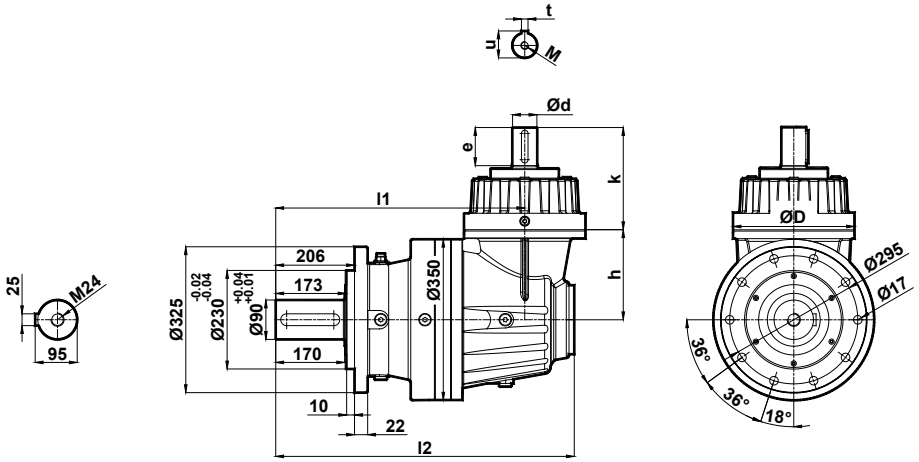
PT240 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	490	320	80	130	85	22	M20
2	613	242	48	82	52	14	M16
3	688	156	38	58	41	10	M12
4	739						

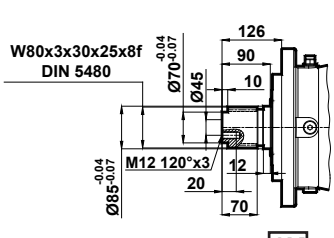


PT240 ... K. 01

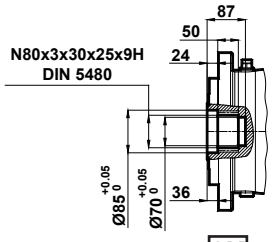
Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	667	765	223	242	48	82	52	14	M16
3	725	800	155	156	38	58	41	10	M12
4	787	851	119						



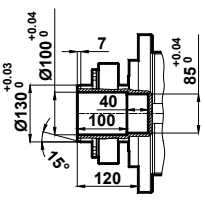
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K

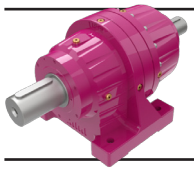


0K



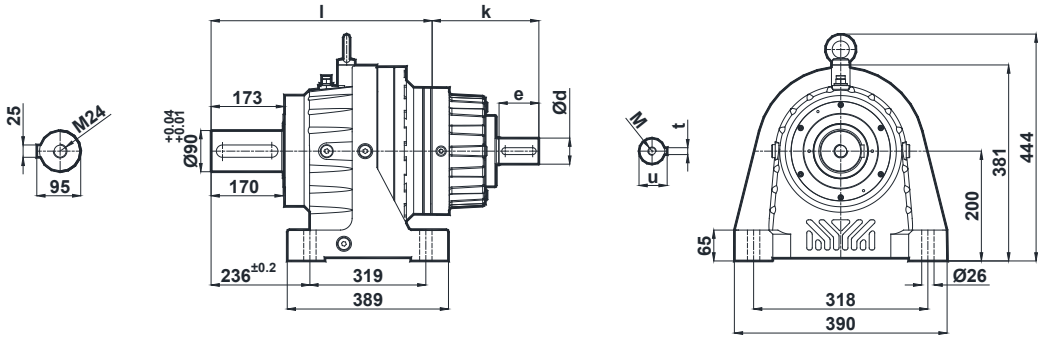
0S

Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shafts see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463



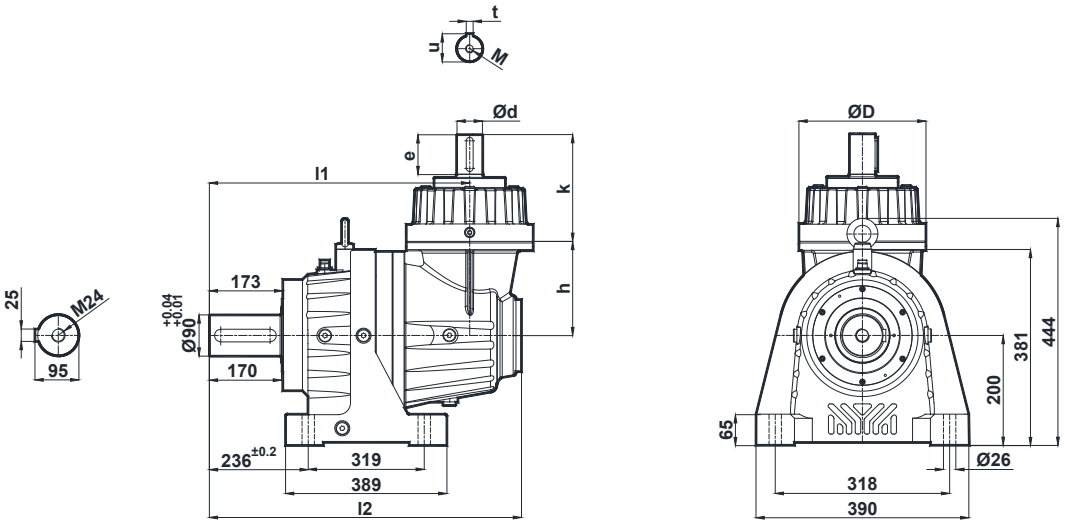
RT240 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	490	320	80	130	85	22	M20
2	613	242	48	82	52	14	M16
3	688	156	38	58	41	10	M12
4	739						

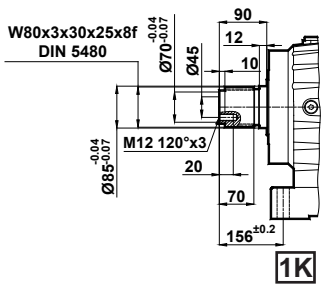


RT240 ... K. 01

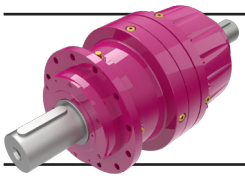
Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	667	765	223	242	48	82	52	14	M16
3	725	800	155	156	38	58	41	10	M12
4	787	851	119						



Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle

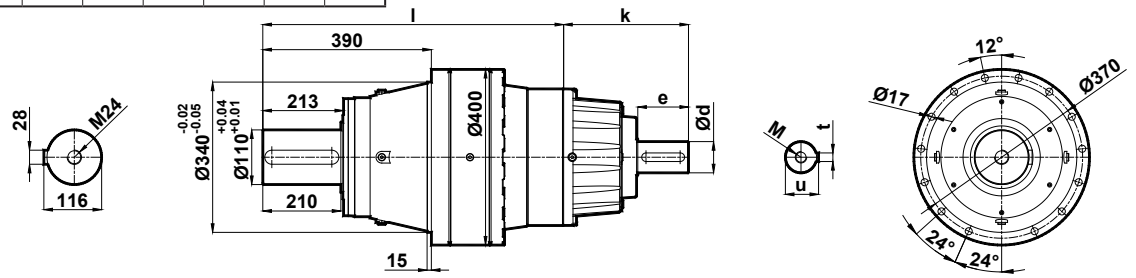


Çıkış mili opsiyonları için sayfa 462,463'e bakınız / *For optional output shaft see page number 462,463* / Für optionelle Abtriebswellen siehe Seite 462,463



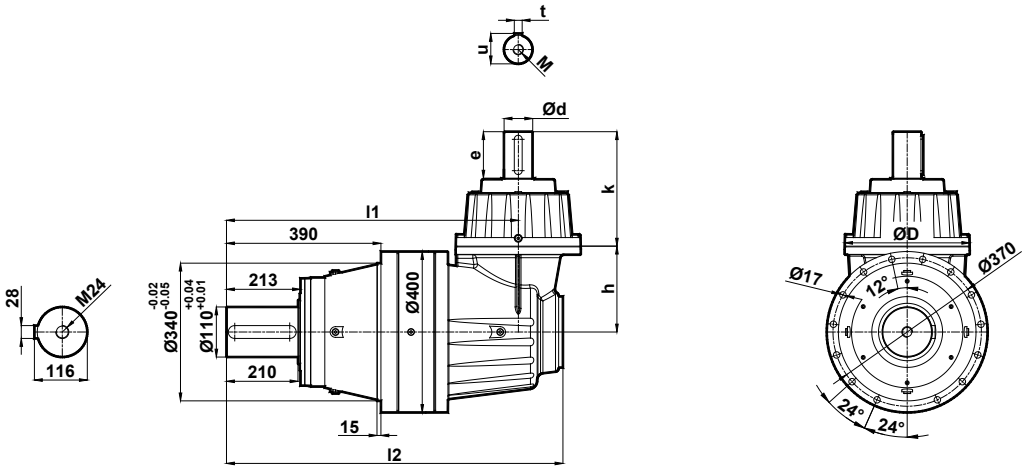
PT270 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	492	383	80	130	85	22	M20
2	646	311	60	105	64	18	
3	733	242	48	82	52	14	M16
4	788	156	38	58	41	10	M12

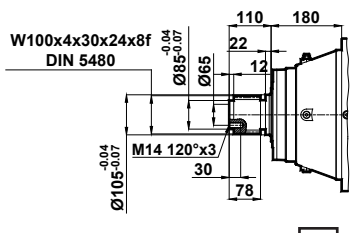


PT270 ... K. 01

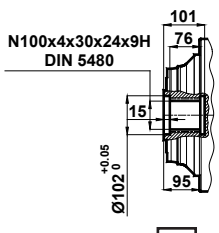
Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	739	858	291	311	60	105	64	18	M20
3	803	891	198	242	48	82	52	14	M16
4	845	920	155	156	38	58	41	10	M12



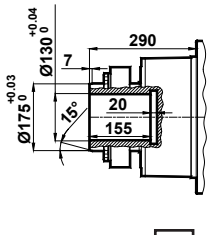
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K

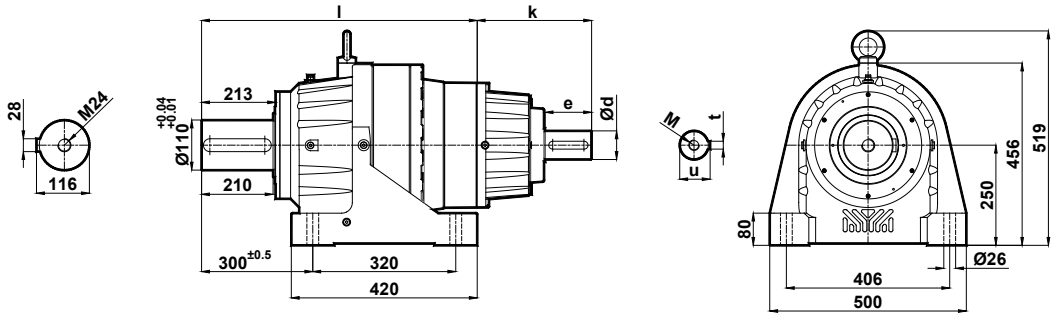


0S

Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shafts see page number 464* / Für optionelle Abtriebswellen siehe Seite 464

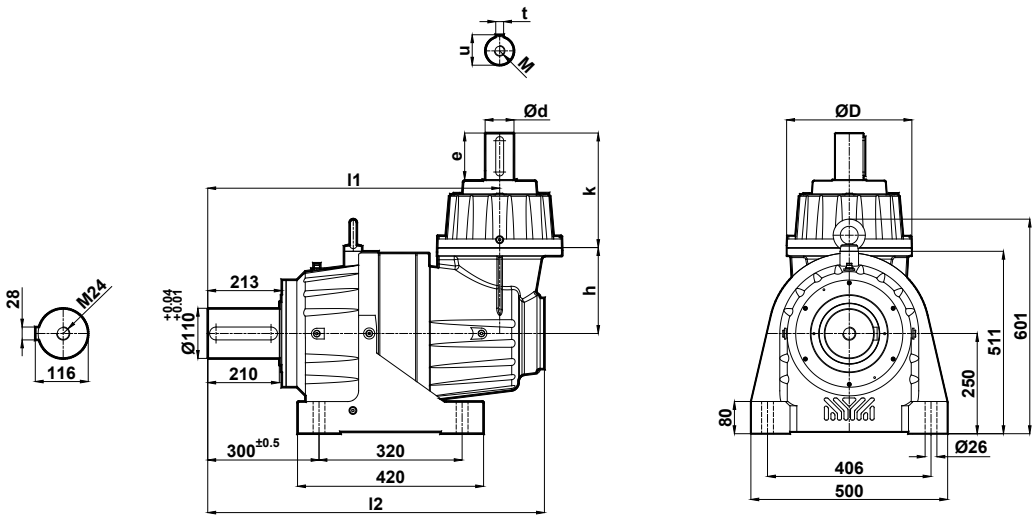
RT270 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	492	383	80	130	85	130	M20
2	646	311	60	105	64	105	
3	733	242	48	82	52	82	M16
4	788	156	38	58	41	58	M12

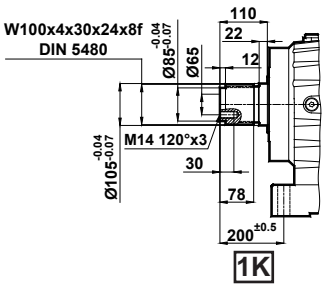


RT270 ... K. 01

Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	739	858	291	311	60	105	64	18	M20
3	803	891	198	242	48	82	52	14	M16
4	845	920	155	156	38	58	41	10	M12



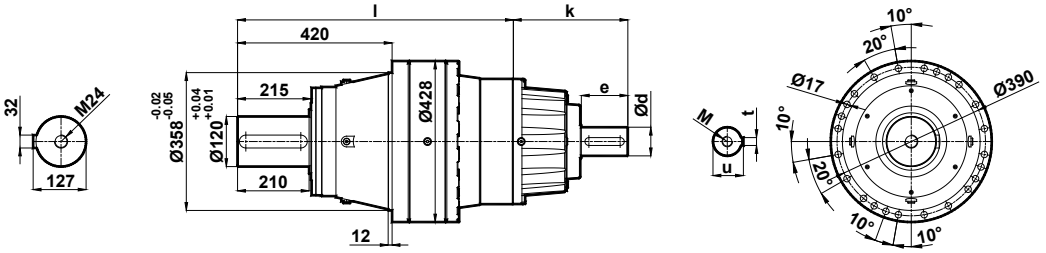
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



Çıkış mili opsiyonları için sayfa 464'e bakınız / *For optional output shaft see page number 464* / Für optionelle Abtriebswellen siehe Seite 464

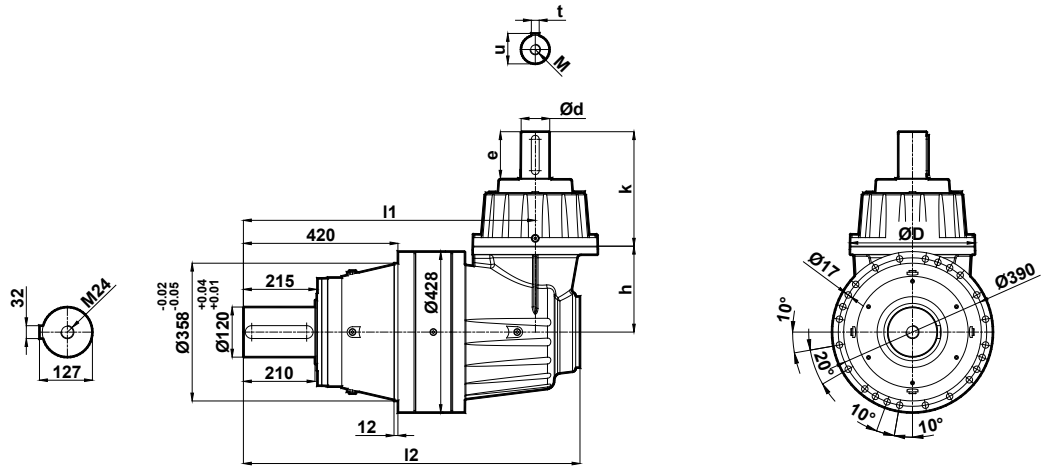
PT290 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	558	470	80	130	85	22	M20
2	717	320					
3	808	242	48	82	52	14	M16
4	863	156	38	58	41	10	M12

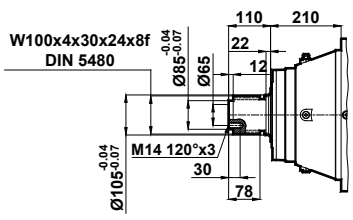


PT290 ... K. 01

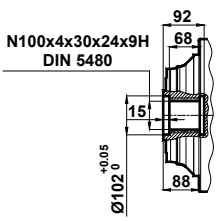
Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	815	934	287	320	80	130	85	22	M20
3	894	992	223	242	48	82	52	14	M16
4	920	995	119	156	38	58	41	10	M12



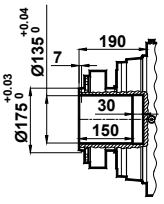
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K

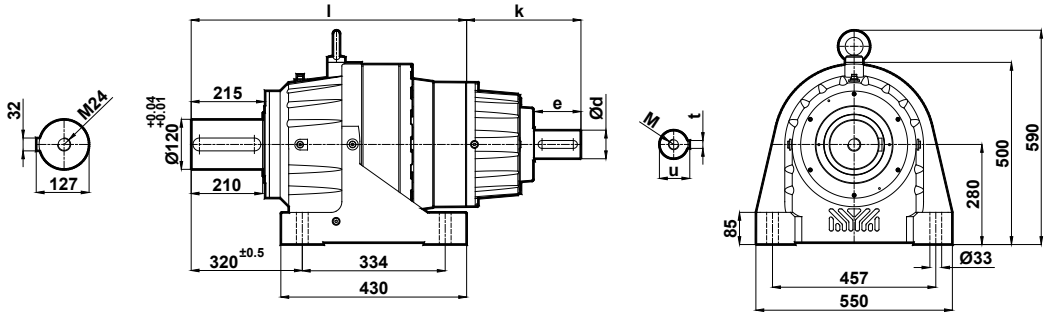


0S

Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shafts see page number 465* / Für optionelle Abtriebswellen siehe Seite 465

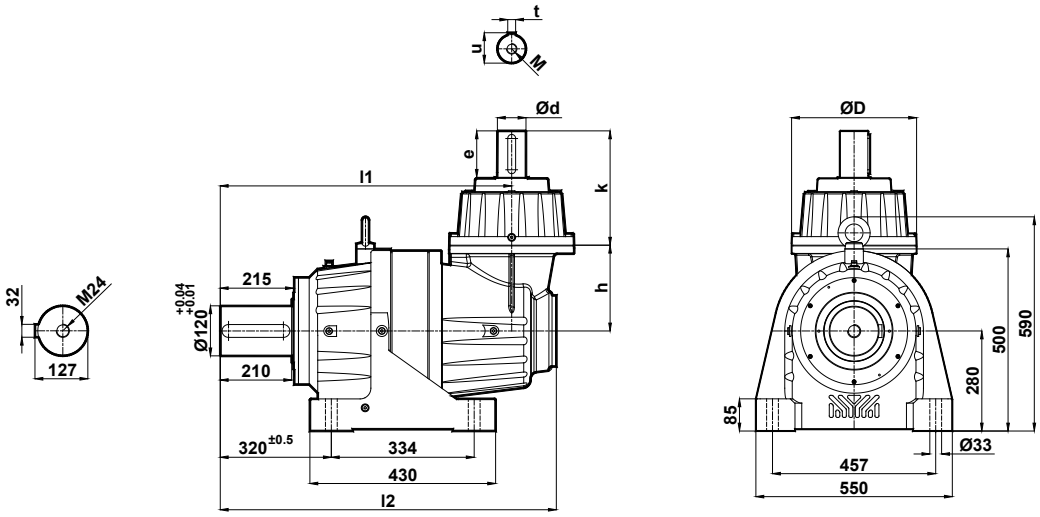
RT290 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	558	470	80	130	85	22	M20
2	692	320					
3	783	242	48	82	52	14	M16
4	838	156	38	58	41	10	M12

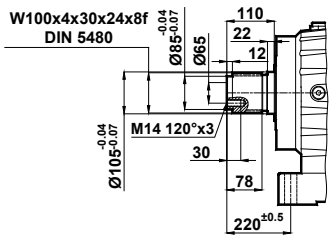


RT290 ... K. 01

Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	815	934	287	320	80	130	85	22	M20
3	894	992	223	242	48	82	52	14	M16
4	920	995	119	156	38	58	41	10	M12

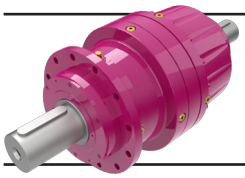


Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



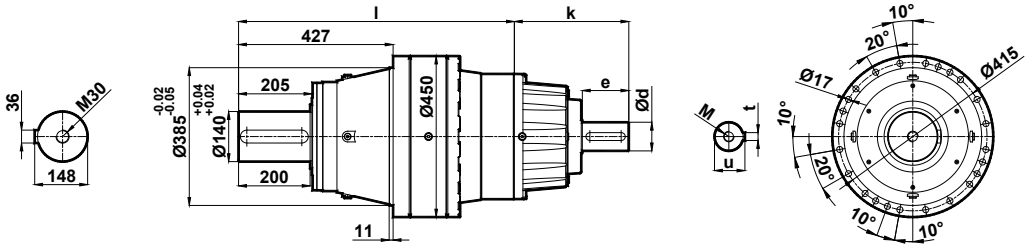
1K

Çıkış mili opsiyonları için sayfa 465'e bakınız / *For optional output shaft see page number 465* / Für optionelle Abtriebswellen siehe Seite 465



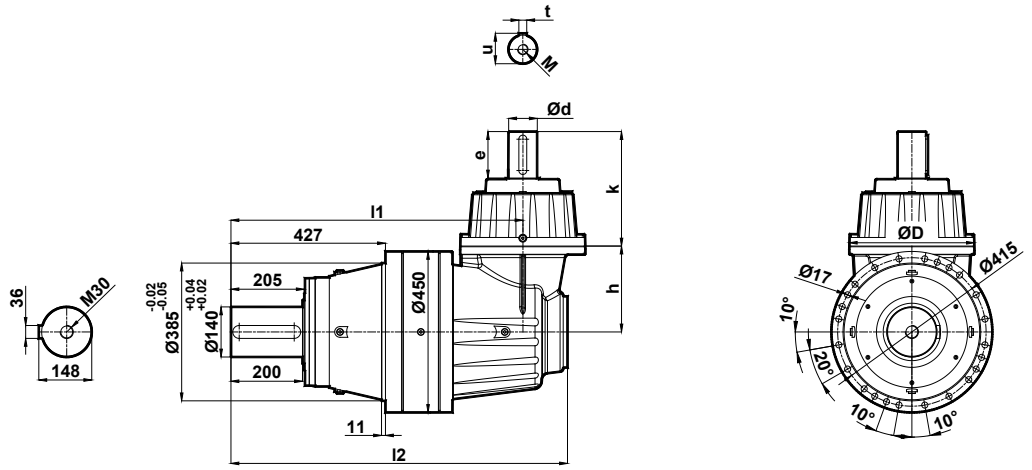
PT350 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	580	360	80	130	85	22	M20
2	580	320					
3	923	242	48	82	52	14	M16
4	997	156	38	58	41	10	M12

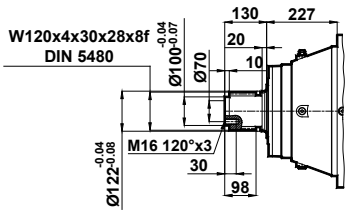


PT350 ... K. 01

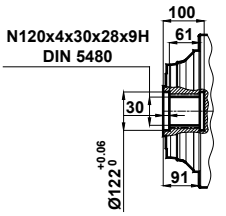
Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	846	965	287	320	80	130	85	22	M20
3	976	1074	223	242	48	82	52	14	M16
4	1034	1110	119	156	38	58	41	10	M12



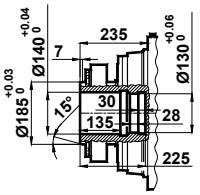
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



1K



0K

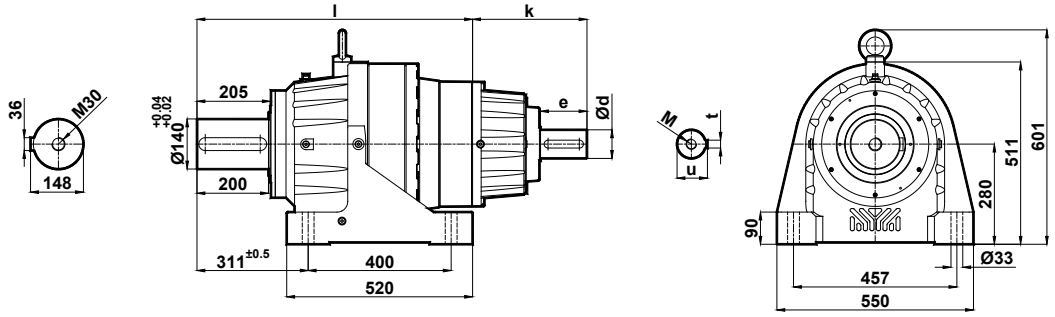


0S

Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shafts see page number 466* / Für optionelle Abtriebswellen siehe Seite 466

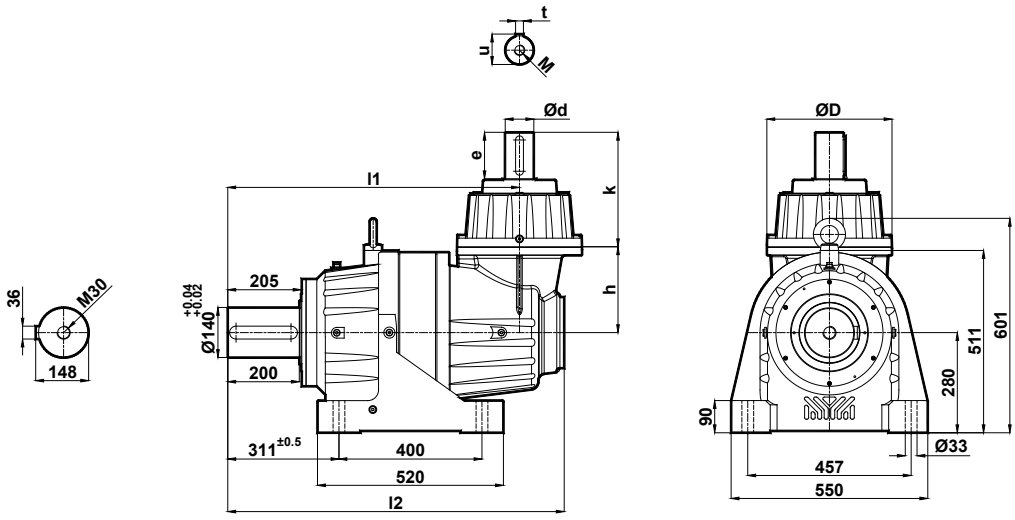
RT350 ... L . 01

Kademe *Stage* Stufe	l	k	d	e	u	t	M
1	585	346	80	130	85	22	M20
2	800						
3	894	242	48	82	52	14	M16
4	969	156	38	58	41	10	M12

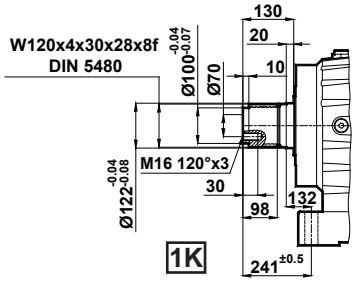


RT350 ... K. 01

Kademe *Stage* Stufe	l1	l2	h	k	d	e	u	t	M
2	816	941	240	320	80	130	85	22	M20
3	932	1030	187	242	48	82	52	14	M16
4	1006	1081	137	156	38	58	41	10	M12



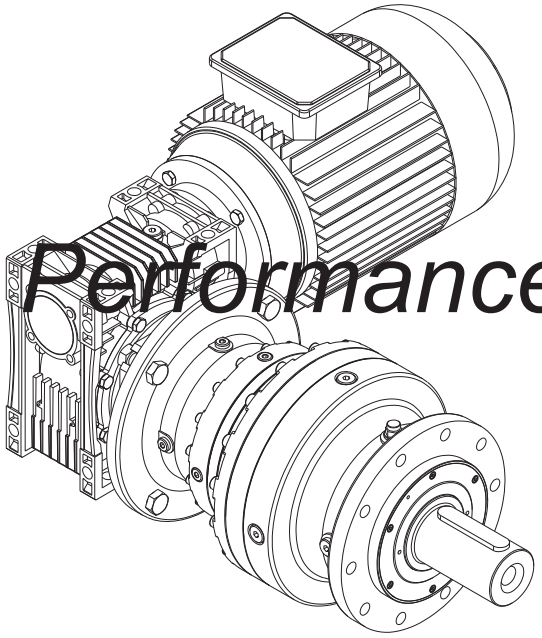
Standart Çıkış Mili Seçenekleri / *Standard Output Shaft Options* / Auswahlmöglichkeiten von Standarten Abtriebswelle



Çıkış mili opsiyonları için sayfa 466'ya bakınız / *For optional output shaft see page number 466* / Für optionelle Abtriebswellen siehe Seite 466

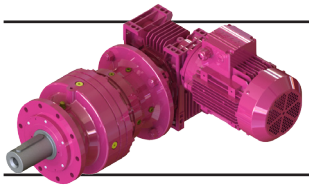
Notlar / *Notes* / Notizen

Güç ve Devir Tabloları



Performances

Leistung und Drehzahlübersicht



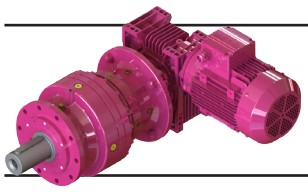
Motorlu Sonsuz Eklemeli Planet Redüktörler

Planetary Geared Motors with Worm Stage Input

Planetengetriebemotoren mit Schneckenradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
0,37	0,22	7757	0,18	**4280,00**	113	1,0	**PN1902-EV100-3E80M/6B**	1,03	94	418	IE3
0,50	0,28	6505	0,19	**3280,00**	113	1,3	**RN1902-EV100-3E80M/6B**		109	419	
	0,37	5355	0,21	**2520,00**	122	1,6	**PN1902-EV100-2E80M/6A**	1,08	93		IE2
	0,45	4694	0,22	**2080,00**	126	1,8	**RN1902-EV100-2E80M/6A**		108		
	0,46	4297	0,21	**2008,13**	129	2,0					
	0,56	3830	0,23	**1660,05**	130	2,2					
	0,58	3555	0,21	**1600,00**	127	2,4					
	0,65	3085	0,25	**1428,00**	129	2,7					
	0,78	3064	0,21	**1200,00**	117	2,8					
	0,97	2475	0,25	**956,25**	109	3,2					
	0,39	4673	0,19	**2397,33**	57	1,1	**PN1602-EV080-3E80M/6B**	1,03	81	416	IE3
	0,45	4485	0,21	**2049,33**	60	1,1	**RN1602-EV080-3E80M/6B**		91	417	
	0,47	3870	0,19	**1984,00**	69	1,3	**PN1602-EV080-2E80M/6A**	1,08	80		IE2
	0,59	3544	0,22	**1581,00**	70	1,4	**RN1602-EV080-2E80M/6A**		90		
	0,60	3101	0,19	**1546,67**	70	1,6					
	0,68	2816	0,24	**1361,42**	68	1,8					
	0,80	2675	0,19	**1160,00**	64	1,8					
	0,86	2139	0,19	**1086,94**	63	1,8					
	0,97	1655	0,19	**960,00**	61	1,8					
	1,1	2332	0,24	**843,20**	58	2,2					
	1,2	1869	0,24	**765,00**	57	2,7					
	1,4	1613	0,24	**658,75**	54	3,2					
	0,59	3080	0,19	**1581,00**	60	1,0	**PN1502-EV080-3E80M/6B**	1,03	65	416	IE3
	0,68	2816	0,24	**1361,42**	64	1,1	**RN1502-EV080-3E80M/6B**		75	417	
	0,80	2658	0,19	**1160,00**	62	1,2	**PN1502-EV080-2E80M/6A**	1,08	64		IE2
	0,86	2319	0,24	**1086,94**	63	1,4	**RN1502-EV080-2E80M/6A**		74		
	0,97	2125	0,19	**960,00**	61	1,5					
	1,1	1856	0,24	**843,20**	58	1,7					
	1,2	1650	0,19	**765,00**	57	1,8					
	1,4	1602	0,24	**658,75**	54	2,0					
	1,8	1281	0,24	**525,94**	51	2,5					
	2,3	994	0,24	**408,00**	47	2,9					
	0,90	1881	0,18	**1037,95**	41	1,1	**PN1202-EV063-3E80M/6B**	1,03	44	414	IE3
							RN1202-EV063-3E80M/6B		46	415	
							PN1202-EV063-2E80M/6A	1,08	43		IE2
							RN1202-EV063-2E80M/6A		45		
	0,95	1965	0,20	**1509,75**	43	1,1	**PN1202-EV063-3E71M/4D**	0,97	42	414	IE3
	0,98	2209	0,23	**1460,88**	43	0,9	**RN1202-EV063-3E71M/4D**		44	415	
	1,1	1697	0,20	**1300,06**	41	1,2	**PN1202-EV063-2E71M/4C**	1,0	41		IE2
	1,3	1706	0,24	**1086,29**	39	1,2	**RN1202-EV063-2E71M/4C**		43		
	1,4	1357	0,20	**1037,95**	38	1,5					
	1,5	1242	0,20	**950,58**	37	1,6					
	1,7	1137	0,24	**870,57**	36	1,6					
	1,7	1371	0,20	**867,28**	36	1,5					
	2,0	1140	0,24	**717,75**	34	1,8					
	2,3	984	0,24	**618,06**	33	2,1					
	2,9	787	0,24	**493,45**	31	2,7					
	3,2	721	0,24	**451,92**	30	2,9					
	3,5	660	0,24	**413,88**	29	3,1					
	1,7	1140	0,20	**870,57**	36	0,9	**PN1102-EV063-3E71M/4D**	0,97	39	414	IE3
	2,0	1142	0,24	**717,75**	34	0,9	**RN1102-EV063-3E71M/4D**		41	415	
	2,3	986	0,24	**618,06**	33	1,1	**PN1102-EV063-2E71M/4C**	1,0	38		IE2
	2,9	789	0,24	**493,45**	31	1,3	**RN1102-EV063-2E71M/4C**		40		
	3,2	723	0,24	**451,92**	30	1,4					
	3,5	662	0,24	**413,88**	29	1,6					
0,55	0,29	9618	0,29	**3280,00**	81	0,9	**PN1902-EV100-3E80M/6C**	1,47	150	418	IE3
0,75							**RN1902-EV100-3E80M/6C**		165	419	
							PN1902-EV100-2E80M/6B	1,50	150		IE2
							RN1902-EV100-2E80M/6B		165		

Otoblokajlı / *Irreversible* / Selbsthemmung



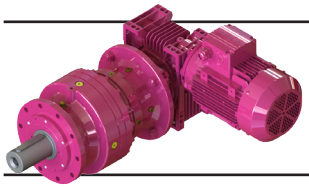
Motorlu Sonsuz Eklemeli Planet Redüktörler

Planetary Geared Motors with Worm Stage Input

Planetengetriebemotoren mit Schneckenradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
0,55 0,75	0,34 0,44 0,58 0,70	8233 6844 5352 4747	0,29 0,32 0,32 0,35	**4280,00** **3280,00** **2520,00** **2080,00**	99 110 123 122	1,0 1,3 1,6 1,8	**PN1902-EV100-3E80M/4C** **RN1902-EV100-3E80M/4C** **PN1902-EV100-2E80M/4B** **RN1902-EV100-2E80M/4B**	1,34 1,45 	148 158 147 157	418 419 	IE3 IE2
	0,72 0,87 0,91 1,0 1,2	4295 3553 3808 3063 2980	0,32 0,32 0,36 0,33 0,38	**2008,13** **1660,05** **1600,00** **1428,00** **1200,00**	120 114 112 109 103	2,0 2,5 2,1 2,9 2,6					
	0,59	4584	0,28	**1581,00**	59	1,1	**PN1602-EV080-3E80M/6C** **RN1602-EV080-3E80M/6C** **PN1602-EV080-2E80M/6B** **RN1602-EV080-2E80M/6B**	1,47 1,50 	81 91 81 91	416 417 	IE3 IE2
	0,60 0,71 0,73 0,92 0,94 1,1 1,3 1,3 1,5 1,7 1,9 2,2	4924 4610 4078 3267 3631 2819 2836 2253 2349 1744 1882 1624	0,31 0,34 0,31 0,31 0,36 0,31 0,37 0,31 0,37 0,31 0,37 0,37	**2397,33** **2049,33** **1984,00** **1581,00** **1546,67** **1361,42** **1160,00** **1086,94** **960,00** **843,20** **765,00** **658,75**	51 57 66 62 61 59 56 55 53 51 50 47	1,1 1,1 1,3 1,6 1,4 1,8 1,8 2,0 2,2 2,0 2,7 3,2	**PN1602-EV080-3E80M/4C** **RN1602-EV080-3E80M/4C** **PN1602-EV080-2E80M/4B** **RN1602-EV080-2E80M/4B**	1,34 1,45 	81 91 80 90	416 417 	IE3 IE2
	0,86	3142	0,28	**1086,94**	60	1,0	**PN1502-EV080-3E80M/6C** **RN1502-EV080-3E80M/6C** **PN1502-EV080-2E80M/6B** **RN1502-EV080-2E80M/6B**	1,47 1,50 	67 77 67 77	416 417 	IE3 IE2
	0,92 1,1 1,3 1,3 1,5 1,7 1,9 2,2 2,8 3,6	3245 2801 2836 2239 2335 1738 1869 1613 1290 1001	0,31 0,31 0,37 0,31 0,37 0,31 0,37 0,37 0,37 0,37	**1581,00** **1361,42** **1160,00** **1086,94** **960,00** **843,20** **765,00** **658,75** **525,94** **408,00**	58 59 56 55 53 51 50 47 44 41	1,0 1,1 1,1 1,4 1,3 1,7 1,7 2,0 2,5 2,9	**PN1502-EV080-3E80M/4C** **RN1502-EV080-3E80M/4C** **PN1502-EV080-2E80M/4B** **RN1502-EV080-2E80M/4B**	1,34 1,45 	65 75 64 74	416 417 	IE3 IE2
	1,40 1,53 1,67 1,67 2,02 2,35 2,94 3,21 3,50	1997 1827 1673 2018 1677 1448 1158 1060 970	0,29 0,29 0,35 0,29 0,35 0,36 0,36 0,36 0,36	**1037,95** **950,58** **870,57** **867,28** **717,75** **618,06** **493,45** **451,92** **413,88**	38 37 36 36 34 33 31 30 29	1,0 1,1 1,1 1,0 1,2 1,4 1,8 2,0 2,1	**PN1202-EV063-3E80M/4C** **RN1202-EV063-3E80M/4C** **PN1202-EV063-2E80M/4B** **RN1202-EV063-2E80M/4B**	1,34 1,45 	44 46 43 45	414 415 	IE3 IE2
	3,2 3,5	1063 973	0,36 0,36	**451,92** **413,88**	29 29	1,0 1,1	**PN1102-EV063-3E80M/4C** **RN1102-EV063-3E80M/4C** **PN1102-EV063-2E80M/4B** **RN1102-EV063-2E80M/4B**	1,34 1,45 	41 43 40 42	414 415 	IE3 IE2
0,75 1,0	0,29 0,39 0,46 0,47 0,60	13975 10945 10168 8999 8147	0,42 0,44 0,49 0,44 0,51	**3268,13** **2441,25** **2047,50** **2018,10** **1575,00**	191 196 186 188 174	1,2 1,4 1,5 2,1 1,8	**PN2402-EV125-3E90S/6B** **RN2402-EV125-3E90S/6B** **PN2402-EV125-2E90S/6A** **RN2402-EV125-2E90S/6A**	1,96 2,0 	266 282 264 280	420 421 	IE3 IE2

Otoblokajlı / *Irreversible* / Selbsthemmung



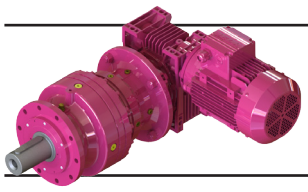
Motorlu Sonsuz Eklemeli Planet Redüktörler

Planetary Geared Motors with Worm Stage Input

Planetengetriebemotoren mit Schneckenradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,75 1,0	0,60	7051	0,44	**1572,55**	174	2,3	**PN2402-EV125-3E90S/6B**	1,96	266	420	IE3
	0,70	6060	0,44	**1352,73**	166	3,1	**RN2402-EV125-3E90S/6B**		282	421	
	0,83	5986	0,52	**1141,88**	158	2,3	**PN2402-EV125-2E90S/6A**	2,0	264		IE2
	0,88	4844	0,44	**1077,95**	155	3,1	**RN2402-EV125-2E90S/6A**		280		
	1,03	4099	0,44	**913,09**	148	3,1					
	1,23	3424	0,44	**765,26**	140	3,1					
	0,39	10824	0,44	**2441,25**	126	1,0	**PN2302-EV125-3E90S/6B**	1,96	225	420	IE3
	0,46	10056	0,49	**2047,50**	134	1,1	**RN2302-EV125-3E90S/6B**		241	421	
	0,47	8934	0,44	**2018,10**	130	1,4	**PN2302-EV125-2E90S/6A**	2,0	223		IE2
	0,60	8058	0,51	**1575,00**	146	1,3	**RN2302-EV125-2E90S/6A**		239		
	0,60	7021	0,44	**1572,55**	150	1,5					
	0,70	6039	0,44	**1352,73**	166	1,9					
	0,83	5920	0,51	**1141,88**	158	1,6					
	0,88	4827	0,44	**1077,95**	151	2,6					
	1,0	4886	0,51	**943,95**	149	2,5					
	1,0	4085	0,44	**913,09**	148	2,8					
	1,2	3414	0,44	**765,26**	140	2,8					
	1,3	3840	0,52	**735,55**	138	2,7					
	0,44	9332	0,43	**3280,00**	110	0,9	**PN1902-EV100-3E80M/4D**	1,77	149	418	IE3
	0,58	7298	0,44	**2520,00**	123	1,2	**RN1902-EV100-3E80M/4D**		164	419	
	0,70	6473	0,47	**2080,00**	122	1,3	**PN1902-EV100-2E80M/4C**	1,89	148		IE2
	0,72	5857	0,44	**2008,13**	120	1,5	**RN1902-EV100-2E80M/4C**		163		
	0,87	4845	0,44	**1660,05**	114	1,8					
	0,91	5193	0,49	**1600,00**	112	1,6					
	1,0	4177	0,44	**1428,00**	109	2,1					
	1,2	4064	0,51	**1200,00**	103	1,9					
	1,3	3334	0,44	**1137,94**	101	2,5					
	1,5	3261	0,52	**956,25**	96	2,7					
	1,8	2395	0,45	**816,48**	92	2,5					
	1,8	2698	0,52	**790,50**	91	3,2					
	0,69	5337	0,39	**1361,42**	49	0,9	**PN1602-EV080-3E90S/6B**	1,96	84	416	IE3
							RN1602-EV080-3E90S/6B		94	417	
							PN1602-EV080-2E90S/6A	2,0	82		IE2
							RN1602-EV080-2E90S/6A		92		
	0,73	5561	0,43	**1984,00**	36	0,9	**PN1602-EV080-3E80M/4D**	1,77	82	416	IE3
	0,92	4455	0,43	**1581,00**	62	1,2	**RN1602-EV080-3E80M/4D**		92	417	
	0,94	4951	0,49	**1546,67**	61	1,0	**PN1602-EV080-2E80M/4C**	1,89	81		IE2
	1,1	3845	0,43	**1361,42**	59	1,3	**RN1602-EV080-2E80M/4C**		91		
	1,3	3868	0,51	**1160,00**	56	1,3					
	1,3	3073	0,43	**1086,94**	55	1,4					
	1,5	3203	0,51	**960,00**	53	1,6					
	1,7	2378	0,43	**843,20**	51	1,4					
	1,9	2566	0,51	**765,00**	50	2,0					
	2,2	2215	0,51	**658,75**	47	2,3					
	2,8	1770	0,51	**525,94**	44	2,9					
	3,6	1370	0,51	**408,00**	41	2,9					
	1,1	3291	0,39	**843,20**	58	0,9	**PN1502-EV080-3E90S/6B**	1,96	68	416	IE3
							RN1502-EV080-3E90S/6B		78	417	
							PN1502-EV080-2E90S/6A	2,0	66		IE2
							RN1502-EV080-2E90S/6A		76		
	1,3	3053	0,43	**1086,94**	55	1,0	**PN1502-EV080-3E80M/4D**	1,77	66	416	IE3
	1,5	3184	0,50	**960,00**	53	0,9	**RN1502-EV080-3E80M/4D**		76	417	
	1,7	2371	0,43	**843,20**	51	1,2	**PN1502-EV080-2E80M/4C**	1,89	65		IE2
	1,9	2549	0,51	**765,00**	50	1,3	**RN1502-EV080-2E80M/4C**		75		
	2,2	2200	0,51	**658,75**	47	1,5					
	2,8	1759	0,51	**525,94**	44	1,8					
	3,6	1366	0,51	**408,00**	41	2,1					

Otoblokajlı / *Irreversible* / Selbsthemmung



Motorlu Sonsuz Eklemeli Planet Redüktörler

Planetary Geared Motors with Worm Stage Input

Planetengetriebemotoren mit Schneckenradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
0,75 1,0	2,1 2,3	2064 1889	0,45 0,45	**451,92** **413,88**	34 33	1,0 1,1	**PN1202-EV063-3E90S/6B** **RN1202-EV063-3E90S/6B** **PN1202-EV063-2E90S/6A** **RN1202-EV063-2E90S/6A**	1,96 2,0	47 49 45 47	414 415	IE3 IE2
	2,35 2,94 3,21 3,50	1975 1580 1446 1323	0,49 0,49 0,49 0,49	**618,06** **493,45** **451,92** **413,88**	32 30 29 29	1,0 1,3 1,4 1,6	**PN1202-EV063-3E80M/4D** **RN1202-EV063-3E80M/4D** **PN1202-EV063-2E80M/4C** **RN1202-EV063-2E80M/4C**	1,77 1,89	45 47 44 46	414 415	IE3 IE2
1,1 1,5	0,34 0,44 0,59 0,71 0,72 0,92 0,92 1,1 1,3 1,4 1,6 1,9	17777 14005 10462 10259 8601 7892 6740 5793 5721 4630 3918 3273	0,64 0,65 0,65 0,76 0,65 0,76 0,65 0,65 0,76 0,65 0,65 0,65	**4213,13** **3268,13** **2441,25** **2047,50** **2018,10** **1575,00** **1572,55** **1352,73** **1141,88** **1077,95** **913,09** **765,26**	161 190 174 165 164 152 152 145 138 136 129 122	0,9 1,1 1,5 1,4 2,2 1,8 2,5 3,1 2,5 3,1 3,1 3,1	**PN2402-EV125-3E90S/4C** **RN2402-EV125-3E90S/4C** **PN2402-EV125-2E90S/4B** **RN2402-EV125-2E90S/4B**	2,46 2,60	267 283 265 281	420 421	IE3 IE2
	0,47	13268	0,65	**2018,10**	176	1,5	**PN2302-EV125-3E90L/6C** **RN2302-EV125-3E90L/6C** **PN2302-EV125-2E90L/6B** **RN2302-EV125-2E90L/6B**	2,75 2,90	227 243 225 241	420 421	IE3 IE2
	0,59 0,71 0,72 0,92 0,92 1,1 1,3 1,4 1,5 1,6 1,9 2,0	10347 10146 8540 7805 6712 5772 5659 4614 4671 3905 3263 3671	0,64 0,75 0,64 0,75 0,65 0,65 0,75 0,65 0,75 0,65 0,65 0,76	**2441,25** **2047,50** **2018,10** **1575,00** **1572,55** **1352,73** **1141,88** **1077,95** **943,95** **913,09** **765,26** **735,55**	133 134 131 148 151 145 138 136 130 129 122 121	1,0 1,0 1,5 1,4 1,6 2,1 1,9 2,8 2,6 3,0 3,0 2,9	**PN2302-EV125-3E90S/4C** **RN2302-EV125-3E90S/4C** **PN2302-EV125-2E90S/4B** **RN2302-EV125-2E90S/4B**	2,46 2,60	225 241 223 239	420 421	IE3 IE2
	0,66	9014	0,62	**1428,00**	124	1,0	**PN1902-EV100-3E90L/6C** **RN1902-EV100-3E90L/6C** **PN1902-EV100-2E90L/6B** **RN1902-EV100-2E90L/6B**	2,75 2,90	153 168 151 166	418 419	IE3 IE2
	0,72 0,87 0,91 1,0 1,2 1,3 1,5 1,8 1,8 2,1 2,7	8590 7106 7616 6126 5960 4891 4783 3513 3957 3411 2723	0,65 0,65 0,72 0,65 0,75 0,65 0,76 0,65 0,76 0,76 0,76	**2008,13** **1660,05** **1600,00** **1428,00** **1200,00** **1137,94** **956,25** **816,48** **790,50** **680,00** **541,88**	92 107 108 107 102 101 96 92 90 86 80	1,0 1,2 1,1 1,4 1,3 1,7 1,8 1,7 2,2 2,5 3,1	**PN1902-EV100-3E90S/4C** **RN1902-EV100-3E90S/4C** **PN1902-EV100-2E90S/4B** **RN1902-EV100-2E90S/4B**	2,46 2,60	151 166 149 164	418 419	IE3 IE2
	1,1 1,3 1,3 1,5 1,7 1,9	5639 5673 4507 4698 3488 3764	0,63 0,74 0,63 0,74 0,63 0,75	**1361,42** **1160,00** **1086,94** **960,00** **843,20** **765,00**	59 56 55 53 51 50	0,9 0,9 1,0 1,1 1,0 1,4	**PN1602-EV080-3E90S/4C** **RN1602-EV080-3E90S/4C** **PN1602-EV080-2E90S/4B** **RN1602-EV080-2E90S/4B**	2,46 2,60	85 95 83 93	416 417	IE3 IE2

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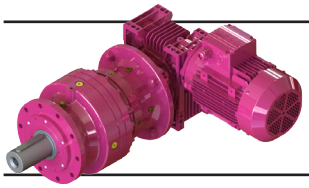

Motorlu Sonsuz Eklemeli Planet Redüktörler

Planetary Geared Motors with Worm Stage Input

Planetengetriebemotoren mit Schneckenradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor Verim Snf.* *Motor Eff. Class* Motor Effizienz-klasse
1,1	2,2	3248	0,75	**658,75**	47	1,6	**PN1602-EV080-3E90S/4C**	2,46	85	416	IE3
1,5	2,8	2596	0,75	**525,94**	44	2,0	**RN1602-EV080-3E90S/4C**		95	417	
	3,6	2009	0,75	**408,00**	41	2,0	**PN1602-EV080-2E90S/4B**	2,60	83		IE2
							RN1602-EV080-2E90S/4B		93		
	2,2	3227	0,74	**658,75**	47	1,0	**PN1502-EV080-3E90S/4C**	2,46	69	416	IE3
	2,8	2580	0,74	**525,94**	44	1,2	**RN1502-EV080-3E90S/4C**		79	417	
	3,6	2003	0,75	**408,00**	41	1,4	**PN1502-EV080-2E90S/4B**	2,60	67		IE2
							RN1502-EV080-2E90S/4B		77		
	3,21	2120	0,71	**451,92**	29	1,0	**PN1202-EV063-3E90S/4C**	2,46	48	414	IE3
	3,50	1941	0,71	**413,88**	29	1,1	**RN1202-EV063-3E90S/4C**		50	415	
							PN1202-EV063-2E90S/4B	2,60	46		IE2
							RN1202-EV063-2E90S/4B		48		
1,5	0,47	17809	0,88	**2018,10**	188	1,1	**PN2402-EV125-3E100L/6B**	3,50	274	420	IE3
2,0							**RN2402-EV125-3E100L/6B**		290	421	
							PN2402-EV125-2E100L/6A	3,72	272		IE2
							RN2402-EV125-2E100L/6A		288		
	0,59	14266	0,89	**2441,25**	174	1,1	**PN2402-EV125-3E90L/4D**	3,30	269	420	IE3
	0,71	13990	1,04	**2047,50**	165	1,1	**RN2402-EV125-3E90L/4D**		285	421	
	0,72	11729	0,88	**2018,10**	164	1,6	**PN2402-EV125-2E90L/4C**	3,40	268		IE2
	0,92	10761	1,04	**1575,00**	152	1,3	**RN2402-EV125-2E90L/4C**		284		
	0,92	9191	0,89	**1572,55**	152	1,8					
	1,1	7900	0,89	**1352,73**	145	2,3					
	1,3	7802	1,04	**1141,88**	138	1,8					
	1,4	6313	0,89	**1077,95**	136	2,1					
	1,5	6644	1,03	**943,95**	130	2,7					
	1,6	5343	0,89	**913,09**	129	2,3					
	1,9	4463	0,89	**765,26**	122	2,3					
	0,39	10824	0,88	**2441,25**	126	1,0	**PN2302-EV125-3E100L/6B**	3,50	233	420	IE3
							RN2302-EV125-3E100L/6B		249	421	
							PN2302-EV125-2E100L/6A	3,72	231		IE2
							RN2302-EV125-2E100L/6A		247		
	0,72	11646	0,88	**2018,10**	131	1,1	**PN2302-EV125-3E90L/4D**	3,30	228	420	IE3
	0,92	10643	1,03	**1575,00**	148	1,0	**RN2302-EV125-3E90L/4D**		244	421	
	0,92	9152	0,88	**1572,55**	151	1,2	**PN2302-EV125-2E90L/4C**	3,40	227		IE2
	1,1	7871	0,88	**1352,73**	145	1,5	**RN2302-EV125-2E90L/4C**		243		
	1,3	7716	1,03	**1141,88**	138	1,4					
	1,4	6292	0,89	**1077,95**	136	2,1					
	1,5	6369	1,02	**943,95**	130	1,9					
	1,6	5324	0,89	**913,09**	129	2,2					
	1,9	4450	0,88	**765,26**	122	2,2					
	2,0	5005	1,03	**735,55**	121	2,2					
	2,3	4305	1,03	**632,73**	116	2,8					
	1,0	8354	0,89	**1428,00**	109	1,1	**PN1902-EV100-3E90L/4D**	3,30	154	418	IE3
	1,2	8127	1,03	**1200,00**	103	1,0	**RN1902-EV100-3E90L/4D**		169	419	
	1,3	6669	0,89	**1137,94**	101	1,2	**PN1902-EV100-2E90L/4C**	3,40	153		IE2
	1,5	6522	1,04	**956,25**	96	1,3	**RN1902-EV100-2E90L/4C**		168		
	1,8	4790	0,89	**816,48**	92	1,2					
	1,8	5395	1,04	**790,50**	91	1,6					
	2,1	4651	1,04	**680,00**	87	1,8					
	2,7	3713	1,04	**541,88**	81	2,3					
	3,7	2667	1,04	**388,80**	73	2,5					
	1,8	5089	0,97	**525,94**	50	1,0	**PN1602-EV080-3E100L/6B**	3,50	92	416	IE3
							RN1602-EV080-3E100L/6B		97	417	
							PN1602-EV080-2E100L/6A	3,72	90		IE2
							RN1602-EV080-2E100L/6A		95		

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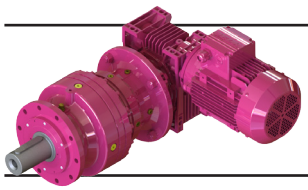

Motorlu Sonsuz Eklemeli Planet Redüktörler

Planetary Geared Motors with Worm Stage Input

Planetengetriebemotoren mit Schneckenradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
1,5 2,0	1,9 2,2 2,8 3,6	5133 4429 3540 2740	1,02 1,02 1,02 1,02	**765,00** **658,75** **525,94** **408,00**	47 47 44 41	1,0 1,2 1,5 1,5	**PN1602-EV080-3E90L/4D** **RN1602-EV080-3E90L/4D** **PN1602-EV080-2E90L/4C** **RN1602-EV080-2E90L/4C**	3,30 3,40 	87 92 86 91	416 417 	IE3 IE2
	2,8 3,6	3518 2731	1,02 1,02	**525,94** **408,00**	44 41	0,9 1,1	**PN1502-EV080-3E90L/4D** **RN1502-EV080-3E90L/4D** **PN1502-EV080-2E90L/4C** **RN1502-EV080-2E90L/4C**	3,30 3,40 	71 81 70 80	416 417 	IE3 IE2
2,2 3,0	0,71	17409	1,30	**1352,73**	146	1,1	**PN2402-EV125-3E112M/6B** **RN2402-EV125-3E112M/6B** **PN2402-EV125-2E112M/6A** **RN2402-EV125-2E112M/6A**	4,95 5,32 	282 298 279 295	420 421 	IE3 IE2
	0,72 0,92 0,92 1,1 1,3 1,4 1,5 1,6 1,9 2,0 2,3 2,9 3,4 4,1	17203 15783 13480 11586 11443 9260 9408 7836 6545 7372 6336 5064 4286 3580	1,29 1,52 1,30 1,30 1,52 1,30 1,51 1,30 1,30 1,52 1,52 1,52 1,52 1,52	**2018,10** **1575,00** **1572,55** **1352,73** **1141,88** **1077,95** **943,95** **913,09** **765,26** **735,55** **632,73** **504,20** **427,09** **357,94**	164 152 152 145 138 136 130 129 122 121 116 108 103 97	1,1 0,9 1,2 1,6 1,2 1,6 1,8 1,6 1,6 2,2 3,1 3,2 3,2 3,2	**PN2402-EV125-3E100L/4C** **RN2402-EV125-3E100L/4C** **PN2402-EV125-2E100L/4B** **RN2402-EV125-2E100L/4B**	4,65 4,85 	272 288 271 287	420 421 	IE3 IE2
	1,1	11734	1,30	**913,09**	119	1,0	**PN2302-EV125-3E112M/6B** **RN2302-EV125-3E112M/6B** **PN2302-EV125-2E112M/6A** **RN2302-EV125-2E112M/6A**	4,95 5,32 	241 257 238 254	420 421 	IE3 IE2
	1,1 1,3 1,4 1,5 1,6 1,9 2,0 2,3 2,9 3,3 3,9	11544 11317 9228 9341 7809 6526 7341 6314 5047 4423 3697	1,30 1,50 1,30 1,50 1,30 1,29 1,52 1,52 1,52 1,52 1,51	**1352,73** **1141,88** **1077,95** **943,95** **913,09** **765,26** **735,55** **632,73** **504,20** **427,09** **357,94**	145 138 136 130 129 122 121 116 108 103 97	1,0 0,9 1,4 1,3 1,5 1,5 1,5 1,9 2,6 2,5 2,5	**PN2302-EV125-3E100L/4C** **RN2302-EV125-3E100L/4C** **PN2302-EV125-2E100L/4B** **RN2302-EV125-2E100L/4B**	4,65 4,85 	231 247 230 246	420 421 	IE3 IE2
	1,5 1,8 2,1 2,7 3,7	9566 7913 6822 5446 3912	1,52 1,52 1,52 1,53 1,53	**956,25** **790,50** **680,00** **541,88** **388,80**	96 91 87 81 73	0,9 1,1 1,2 1,6 1,7	**PN1902-EV100-3E100L/4C** **RN1902-EV100-3E100L/4C** **PN1902-EV100-2E100L/4B** **RN1902-EV100-2E100L/4B**	4,65 4,85 	157 172 156 171	418 419 	IE3 IE2
	2,8 3,6	5192 4018	1,50 1,50	**525,94** **408,00**	44 41	1,0 1,0	**PN1602-EV080-3E100L/4C** **RN1602-EV080-3E100L/4C** **PN1602-EV080-2E100L/4B** **RN1602-EV080-2E100L/4B**	4,65 4,85 	90 100 89 99	416 417 	IE3 IE2
3,0 4,0	0,89 1,0 1,3 1,5 1,5	19038 16363 13078 13288 11067	1,77 1,77 1,78 2,06 1,78	**1572,55** **1352,73** **1077,95** **943,95** **913,09**	152 145 136 130 129	0,9 1,1 1,1 1,3 1,1	**PN2402-EV125-3E100L/4D** **RN2402-EV125-3E100L/4D** **PN2402-EV125-2E100L/4C** **RN2402-EV125-2E100L/4C**	6,26 6,42 	276 292 274 290	420 421 	IE3 IE2

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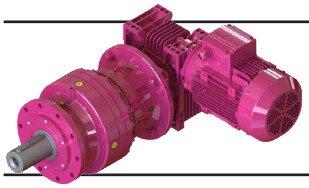


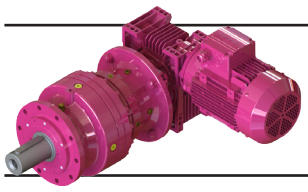
Motorlu Sonsuz Eklemeli Planet Redüktörler

Planetary Geared Motors with Worm Stage Input

Planetengetriebemotoren mit Schneckenradvorstufe

Güç *Power* Leistung P_g [kW] P_g [HP]	IE3 Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	IE3 Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çıkış Gücü *Output Power* Abtriebswelle Leistung P_2 [kW]	Çevrim Oranı *Ratio* Übersetzung i	IE3 Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [kN]	IE3 Servis Faktörü *Service Factors* Betriebs-faktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Motor* Verim Snf. *Motor Eff. Class* Motor Effizienz-klasse
3,0 4,0	1,9	8926	1,77	**765,26**	122	1,1	**PN2402-EV125-3E100L/4D**	6,26	276	420	IE3
	2,0	10053	2,08	**735,55**	121	1,6	**RN2402-EV125-3E100L/4D**		292	421	
	2,3	8640	2,07	**632,73**	116	2,3	**PN2402-EV125-2E100L/4C**	6,42	274		IE2
	2,9	6906	2,08	**504,20**	108	2,3	**RN2402-EV125-2E100L/4C**		290		
	3,4	5844	2,08	**427,09**	103	2,3					
	4,1	4881	2,07	**357,94**	97	2,4					
	1,4	12583	1,77	**1077,95**	136	1,0	**PN2302-EV125-3E100L/4D**	6,26	235	420	IE3
	1,5	12738	2,05	**943,95**	130	1,0	**RN2302-EV125-3E100L/4D**		251	421	
	1,6	10649	1,77	**913,09**	129	1,1	**PN2302-EV125-2E100L/4C**	6,42	233		IE2
	1,9	8899	1,77	**765,26**	122	1,1	**RN2302-EV125-2E100L/4C**		249		
	2,0	10011	2,07	**735,55**	121	1,1					
	2,3	8609	2,07	**632,73**	116	1,4					
	2,9	6882	2,07	**504,20**	108	1,9					
	3,4	5824	2,07	**427,09**	103	2,0					
	4,1	4867	2,06	**357,94**	97	2,0					
	2,1	9302	2,08	**680,00**	87	0,9	**PN1902-EV100-3E100L/4D**	6,26	161	418	IE3
	2,7	7426	2,08	**541,88**	81	1,1	**RN1902-EV100-3E100L/4D**		176	419	
	3,7	5334	2,08	**388,80**	73	1,3	**PN1902-EV100-2E100L/4C**	6,42	159		IE2
							RN1902-EV100-2E100L/4C		174		
4,0 5,5	1,5	17222	2,76	**632,73**	129	1,1	**PN2402-EV125-3E132M/6C**	8,52	299	420	IE3
							RN2402-EV125-3E132M/6C		315		
							PN2402-EV125-2E132M/6B	8,80	294	421	IE2
							RN2402-EV125-2E132M/6B		310		
	1,6	16989	2,75	**943,95**	130	1,0	**PN2402-EV125-3E112M/4D**	8,05	282	420	IE3
	2,0	13312	2,77	**735,55**	121	1,2	**RN2402-EV125-3E112M/4D**		298	421	
	2,3	11442	2,76	**632,73**	116	1,7	**PN2402-EV125-2E112M/4C**	8,20	280		IE2
	2,9	9144	2,77	**504,20**	108	1,8	**RN2402-EV125-2E112M/4C**		296		
	3,4	7739	2,77	**427,09**	103	1,8					
	4,1	6464	2,76	**357,94**	97	1,8					
	2,3	11608	2,76	**427,09**	117	0,9	**PN2302-EV125-3E132M/6C**	8,52	258	420	IE3
							RN2302-EV125-3E132M/6C		274	421	
							PN2302-EV125-2E132M/6B	8,80	253		IE2
							RN2302-EV125-2E132M/6B		269		
	2,3	11401	2,75	**632,73**	116	1,0	**PN2302-EV125-3E112M/4D**	8,05	241	420	IE3
	2,9	9113	2,76	**504,20**	108	1,4	**RN2302-EV125-3E112M/4D**		257	421	
	3,4	7712	2,76	**427,09**	103	1,5	**PN2302-EV125-2E112M/4C**	8,20	239		IE2
	4,1	6445	2,75	**357,94**	97	1,5	**RN2302-EV125-2E112M/4C**		255		
	3,8	7063	2,78	**388,80**	73	0,9	**PN1902-EV100-3E112M/4D**	8,05	167	418	IE3
							RN1902-EV100-3E112M/4D		182	419	
							PN1902-EV100-2E112M/4C	8,20	165		IE2
							RN1902-EV100-2E112M/4C		180		
5,5 7,5	2,3	15732	3,80	**632,73**	116	1,3	**PN2402-EV125-3E132S/4C**	10,65	292	420	IE3
	2,9	12574	3,81	**504,20**	108	1,3	**RN2402-EV125-3E132S/4C**		308	421	
	3,4	10641	3,81	**427,09**	103	1,3	**PN2402-EV125-2E132S/4B**	11,05	286		IE2
	4,1	8888	3,80	**357,94**	97	1,3	**RN2402-EV125-2E132S/4B**		302		
	2,9	12530	3,80	**504,20**	108	1,0	**PN2302-EV125-3E132S/4C**	10,65	251	420	IE3
	3,4	10604	3,80	**427,09**	103	1,1	**RN2302-EV125-3E132S/4C**		267	421	
	4,1	8862	3,78	**357,94**	97	1,1	**PN2302-EV125-2E132S/4B**	11,05	245		IE2
							RN2302-EV125-2E132S/4B		261		

Otoblokajlı / *Irreversible* / Selbsthemmung

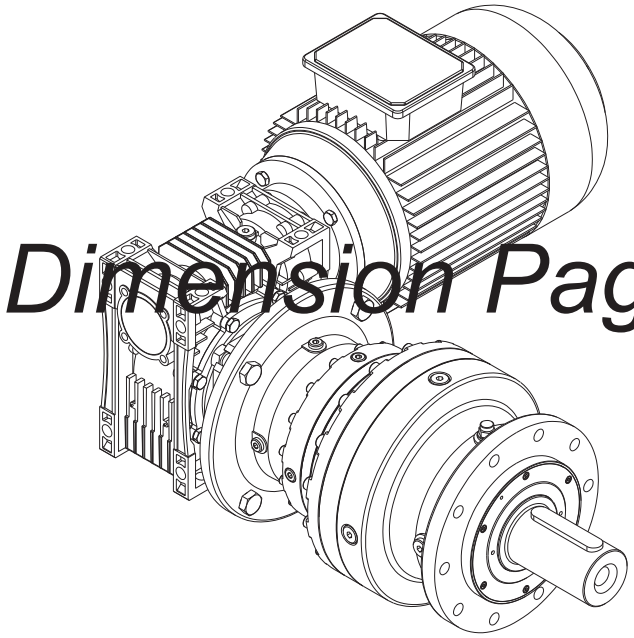


Motorlu Sonsuz Eklemeli Planet Redüktörler
Planetary Geared Motors with Worm Stage Input
Planetengetriebemotoren mit Schneckenradvorstufe

Güç *Power* Leistung **P_g [kW]** P_g [HP]	IE3 **Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	IE3 **Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çıkış Gücü** *Output Power* Abtriebswelle Leistung **P_2 [kW]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	IE3 **Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [kN]**	IE3 **Servis Faktörü** *Service Factors* Betriebs-faktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Motor Verim Snf.*** *Motor Eff. Class* Motor Effizienz-klasse
7,5	2,3	21380	5,18	**632,73**	76	0,9	**PN2402-EV125-3E132M/4D**	14,4	302	420	IE3
10	2,9	17087	5,20	**504,20**	106	0,9	**RN2402-EV125-3E132M/4D**		318	421	
	3,4	14460	5,19	**427,09**	101	0,9	**PN2402-EV125-2E132M/4C**	15,0	301		IE2
	4,1	12079	5,18	**357,94**	96	0,9	**RN2402-EV125-2E132M/4C**		317		

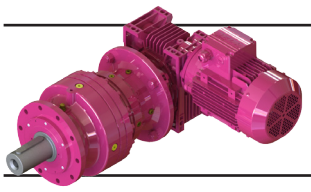
Notlar / *Notes* / Notizen

Ölçü Sayfaları

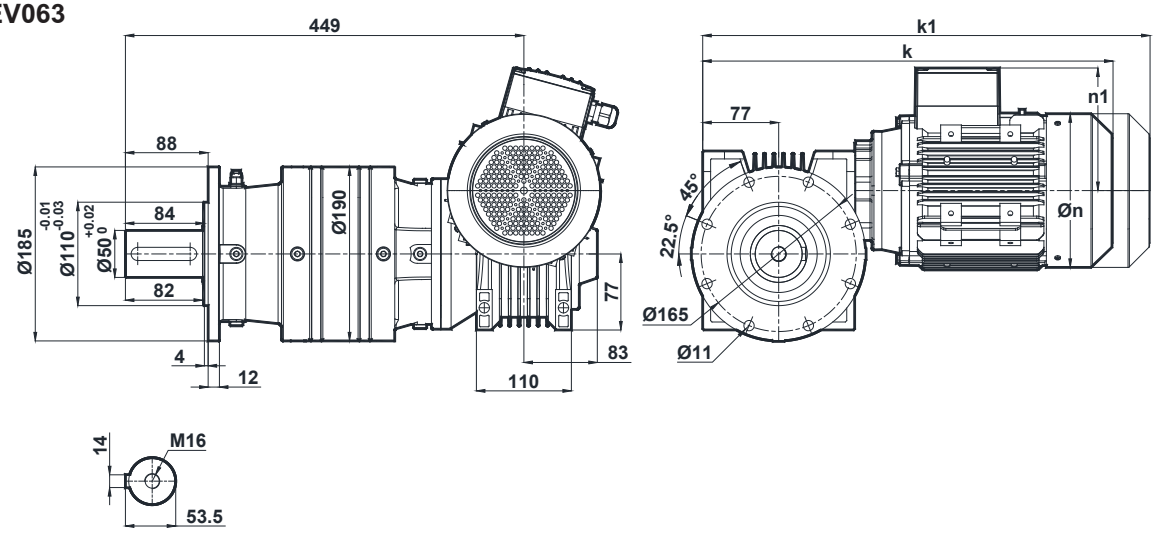


Dimension Pages

Abmessungsseiten



PN1102L . 01 - EV063



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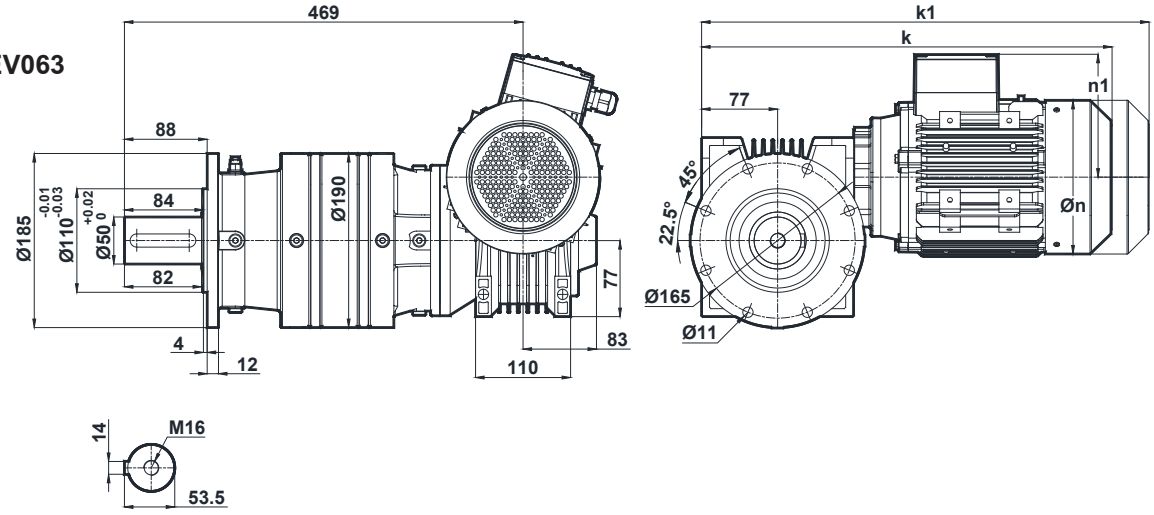
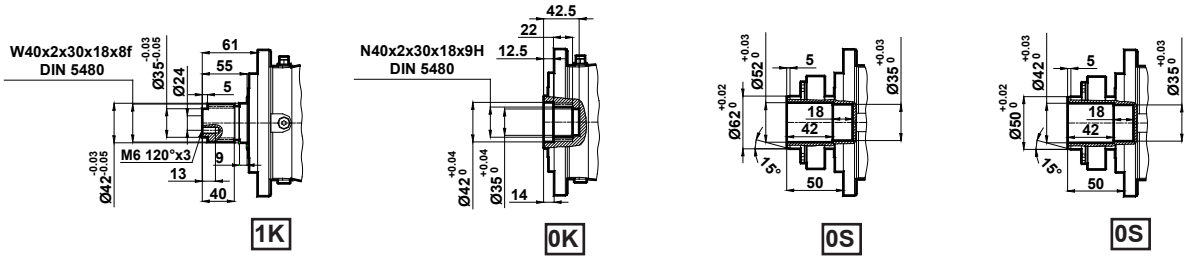
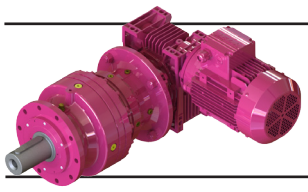


	Motor Büyüklüğü / *Motor Size* / Motorbaugröße			
	71	80	90S	90L
k/k1	389.7 / 480.7	412.7 / 505.7	453.7 / 558.2	453.7 / 558.2
n/n1	137 / 112	155 / 121	176 / 132	176 / 132

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:





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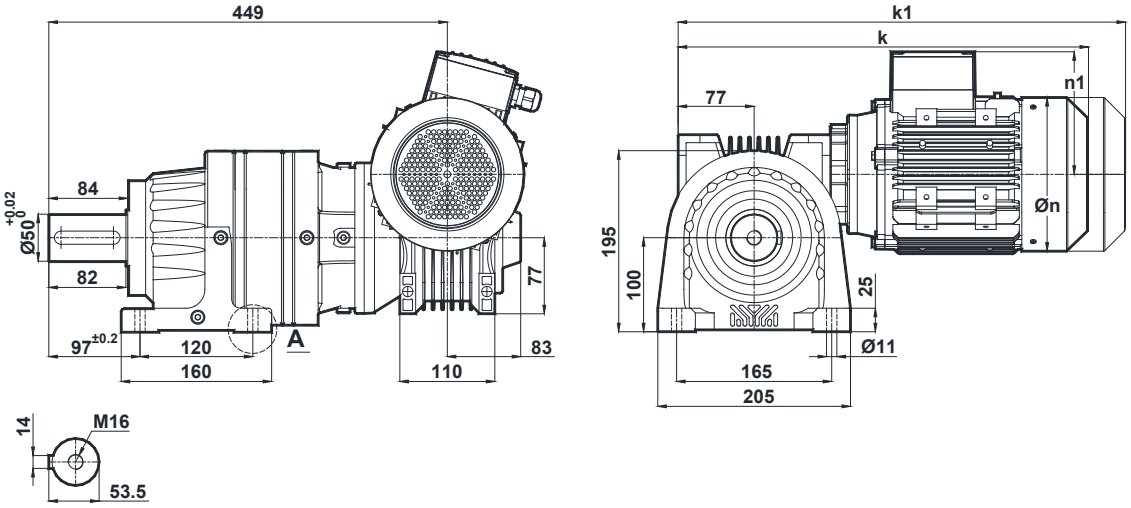

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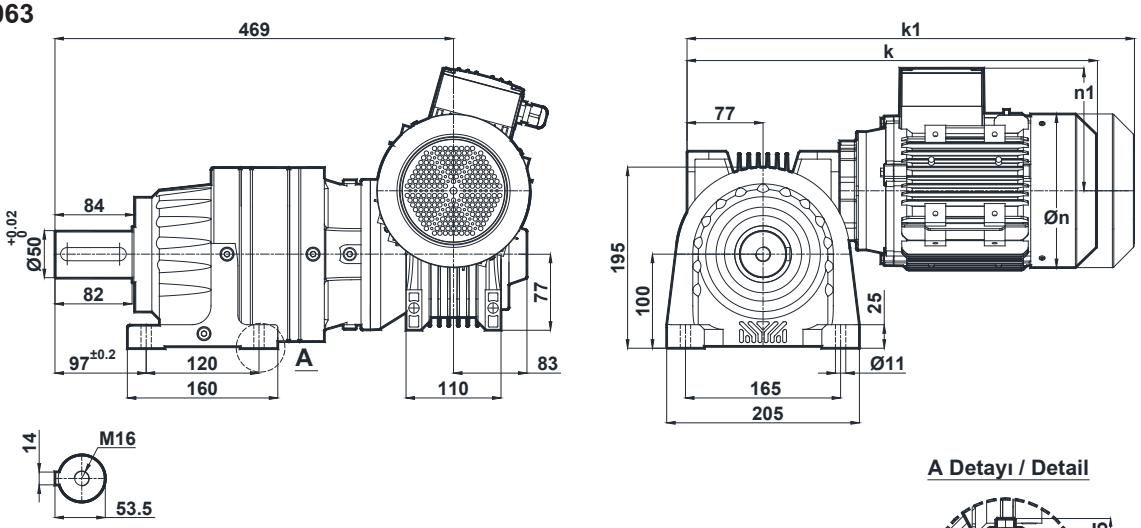
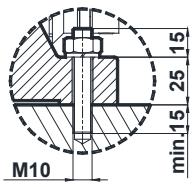
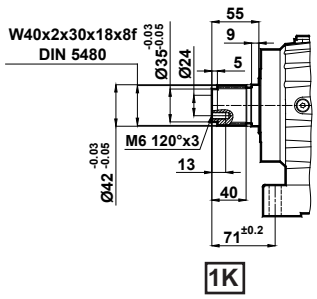




	Motor Büyüklüğü / *Motor Size* / Motorbaugröße			
	71	80	90S	90L
k/k1	389.7 / 480.7	412.7 / 505.7	453.7 / 558.2	453.7 / 558.2
n/n1	137 / 112	155 / 121	176 / 132	176 / 132

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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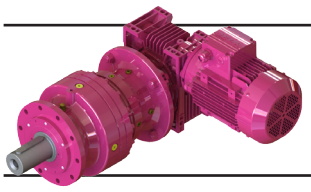
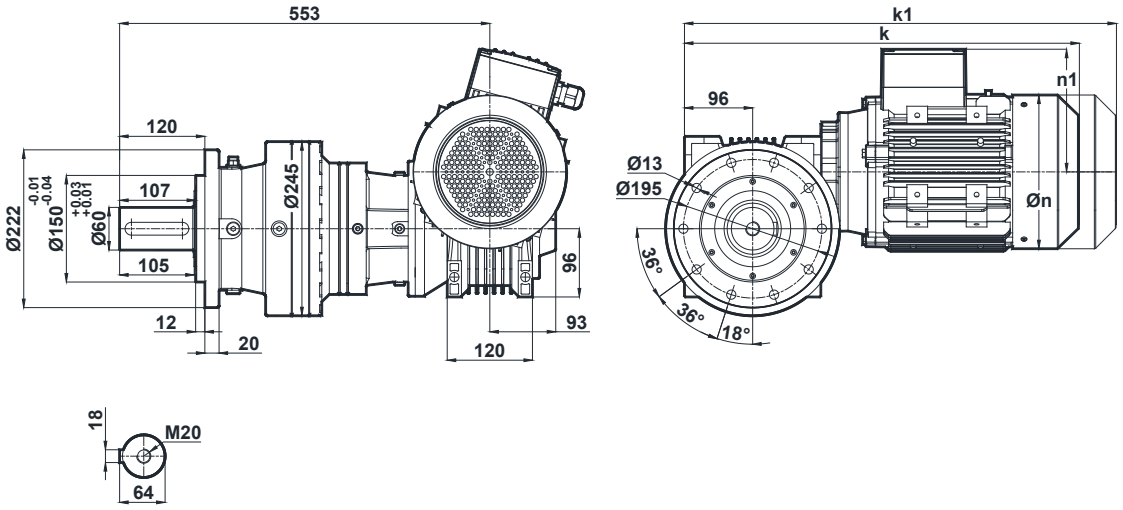


PN1502L . 01 - EV080



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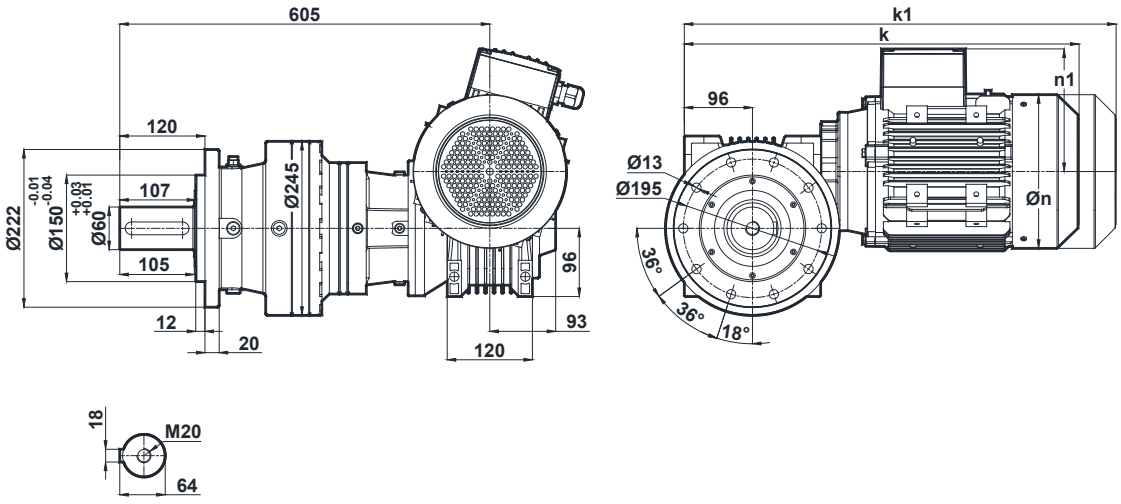
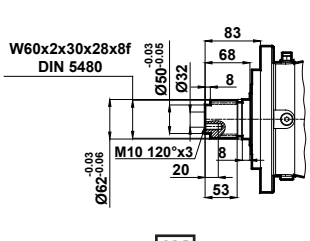


	Motor Büyüklüğü / *Motor Size* / Motorbaugröße			
	80	90S	90L	100L
k/k1	452.5 / 545.5	493.5 / 598	493.5 / 598	529.5 / 649
n/n1	155 / 121	176 / 132	176 / 132	193 / 147

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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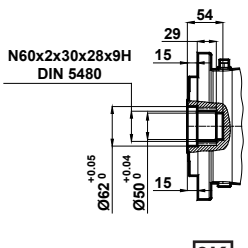

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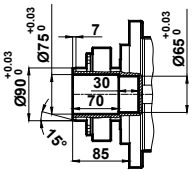

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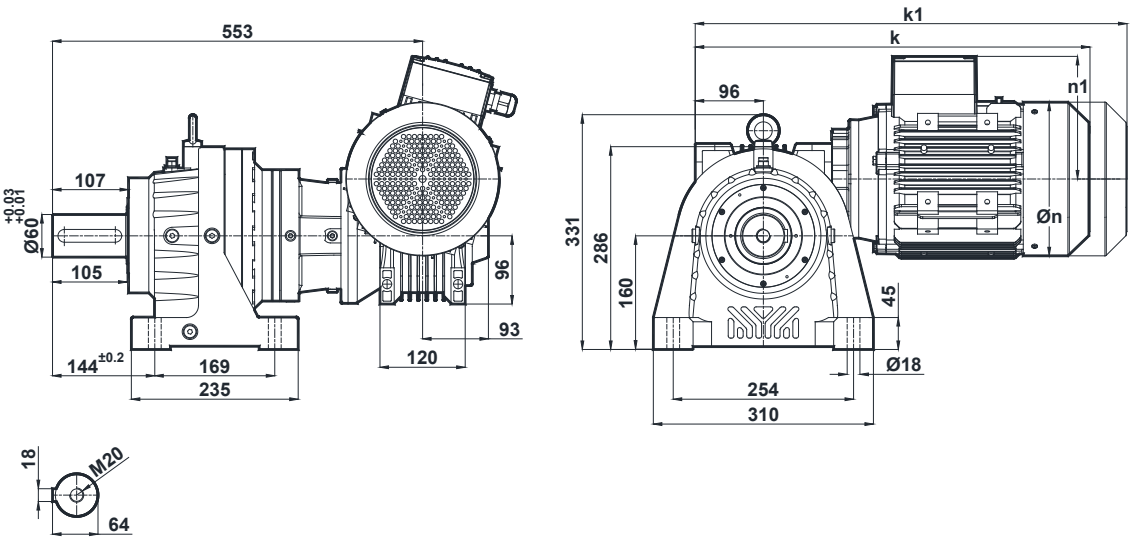

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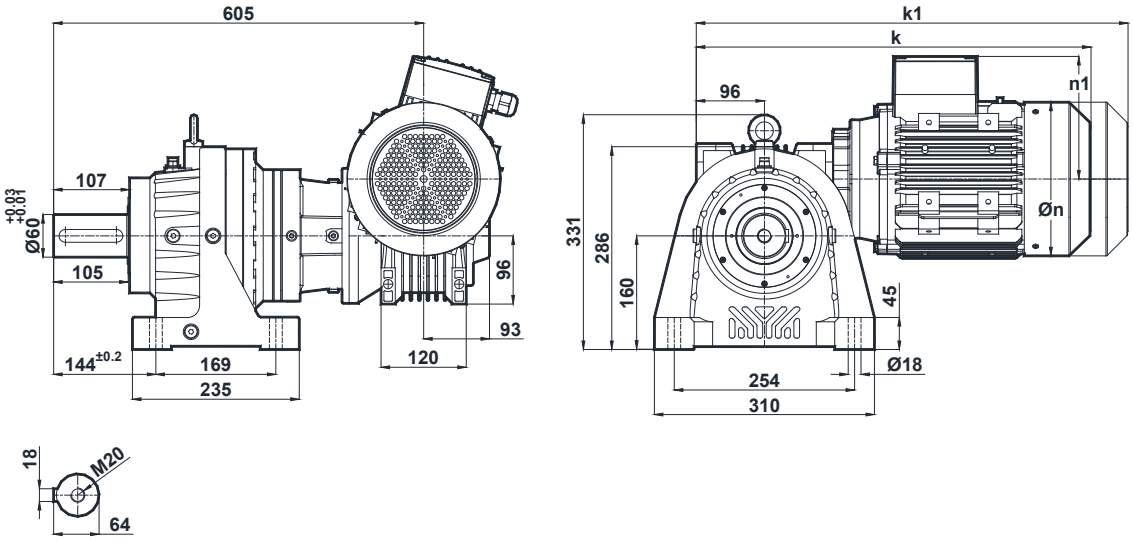
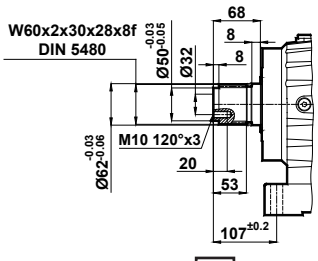


	Motor Büyüklüğü / *Motor Size* / Motorbaugröße			
	80	90S	90L	100L
k/k1	452.5 / 545.5	493.5 / 598	493.5 / 598	529.5 / 649
n/n1	155 / 121	176 / 132	176 / 132	193 / 147

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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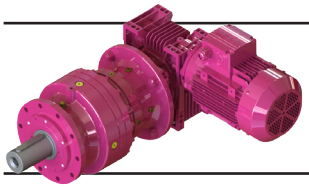

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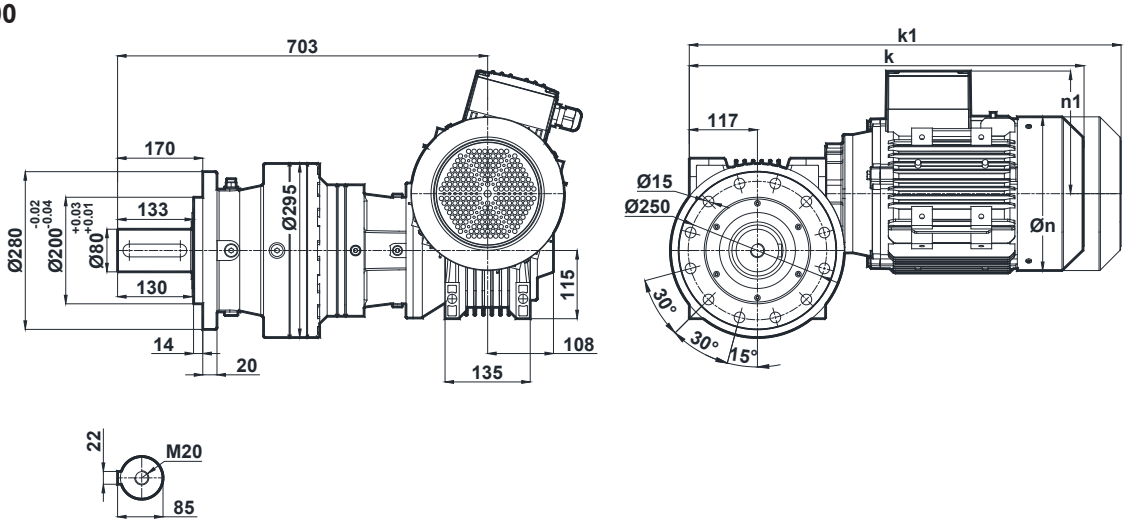
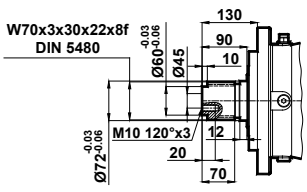


	Motor Büyüklüğü / *Motor Size* / Motorbaugröße				
	80	**90S**	**90L**	**100L**	**112M**
k/k1	494.5 / 587.5	535.5 / 640	535.5 / 640	571.5 / 691	591.5 / 696
n/n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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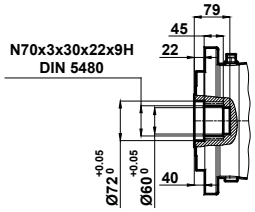

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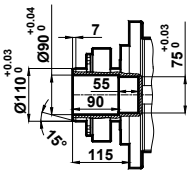

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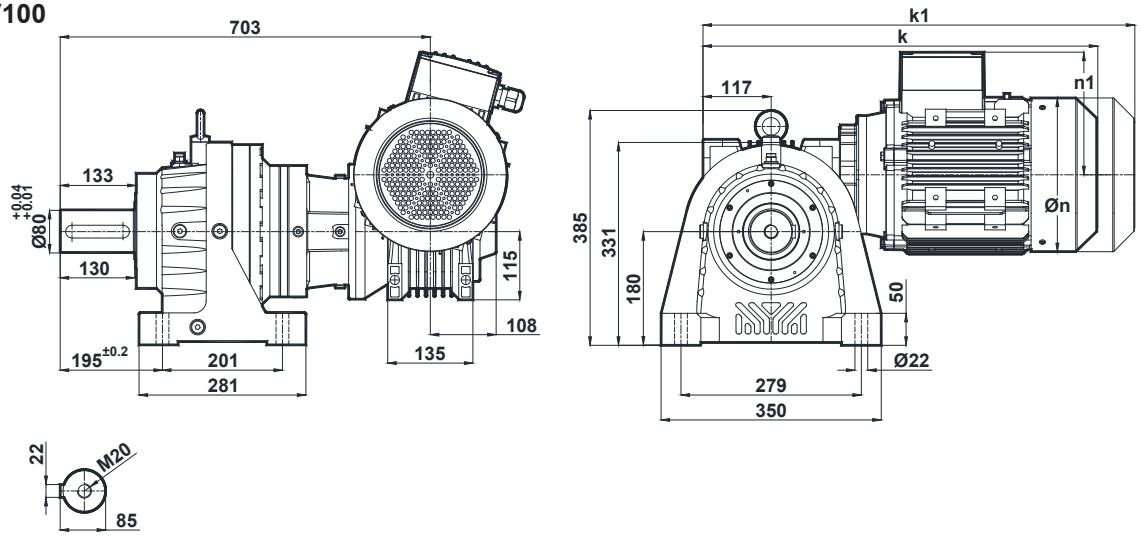
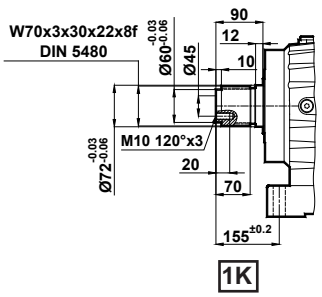


	Motor Büyüklüğü / *Motor Size* / Motorbaugröße				
	80	**90S**	**90L**	**100L**	**112M**
k/k1	494.5 / 587.5	535.5 / 640	535.5 / 640	571.5 / 691	591.5 / 696
n/n1	155 / 121	176 / 132	176 / 132	193 / 147	215 / 158

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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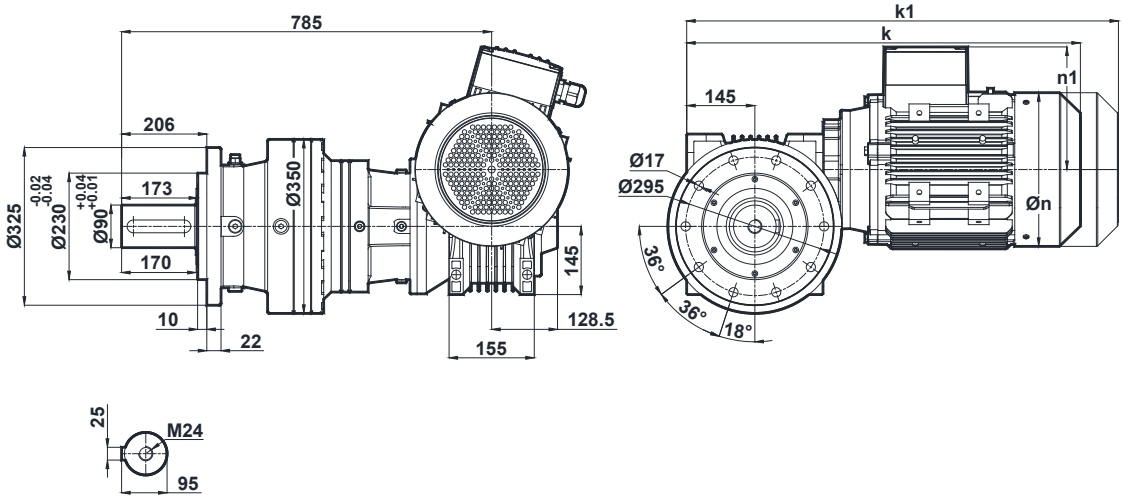

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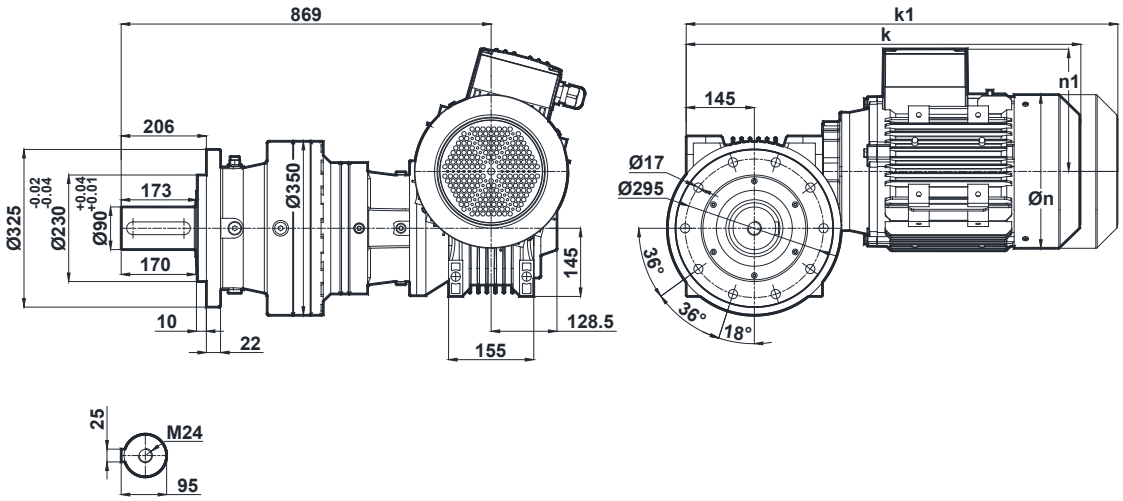

	Motor Büyüklüğü / *Motor Size* / Motorbaugröße					
	90S	90L	100L	112M	132S	132M
k/k1	598 / 702.5	598 / 702.5	634 / 753.5	654 / 758.5	738 / 868	738 / 868
n/n1	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179

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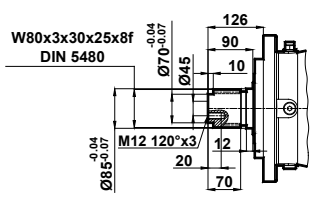

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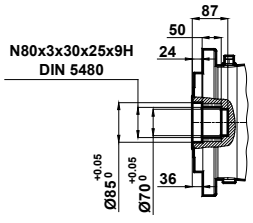

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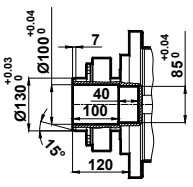

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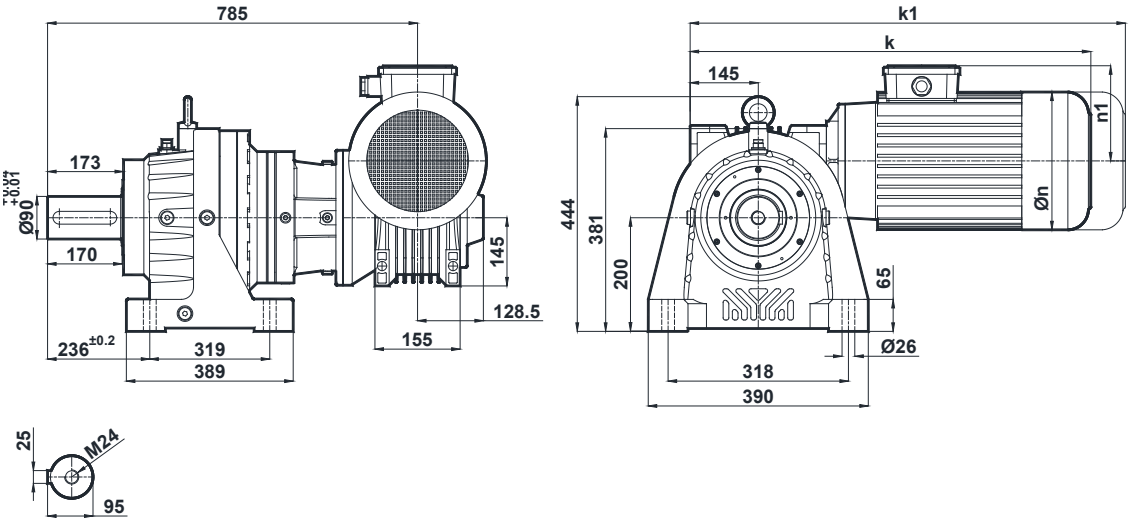

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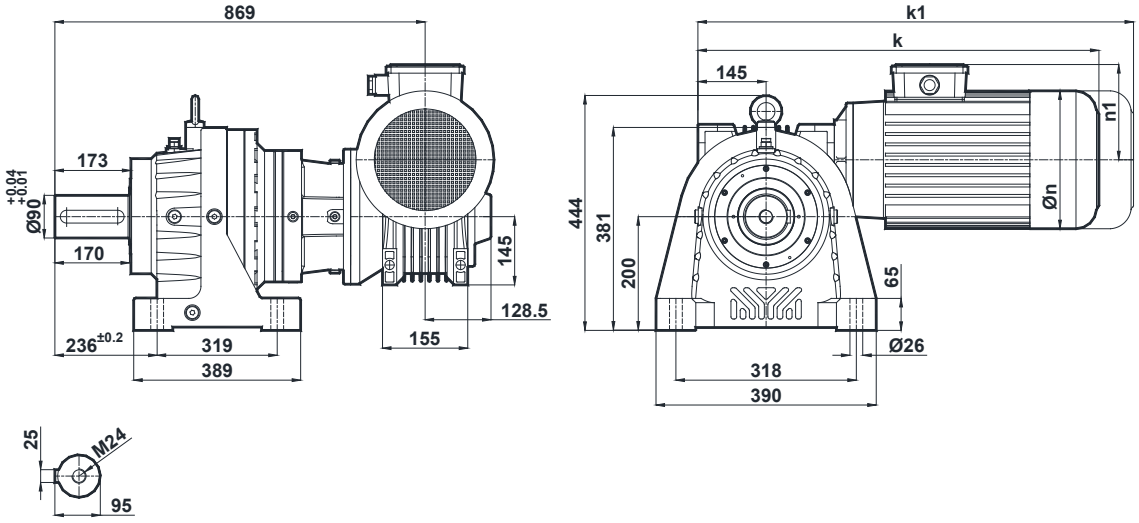
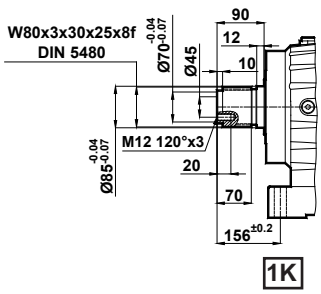


	Motor Büyüklüğü / *Motor Size* / Motorbaugröße					
	90S	90L	100L	112M	132S	132M
k/k1	598 / 702.5	598 / 702.5	634 / 753.5	654 / 758.5	738 / 868	738 / 868
n/n1	176 / 132	176 / 132	193 / 147	215 / 158	257 / 179	257 / 179

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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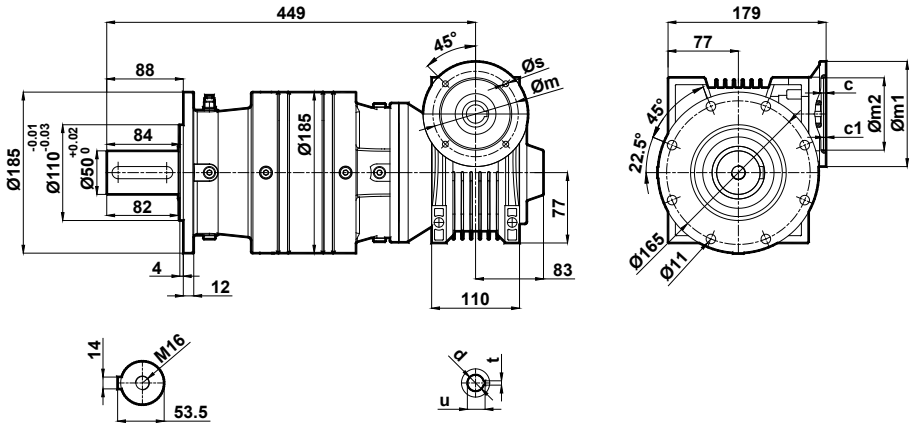
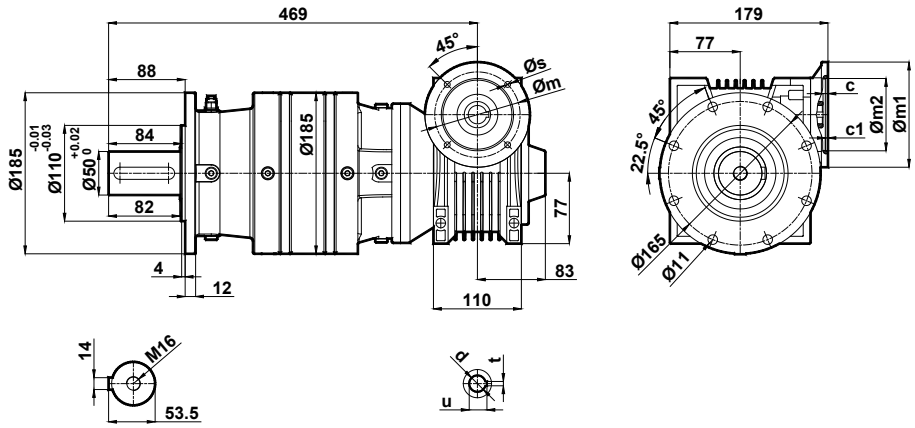
PN1102L . 01 - EN063

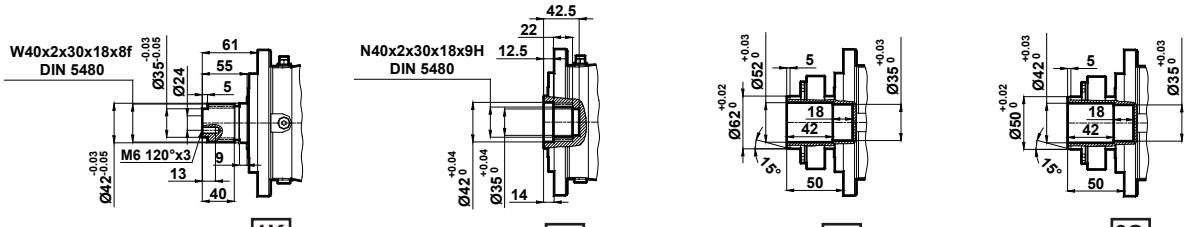


PN1202L . 01 - EN063

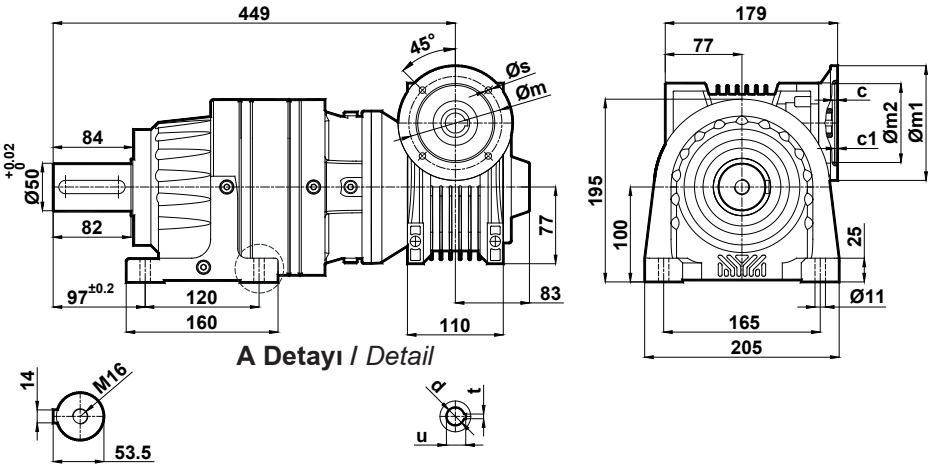


Motor	71/B14	71/B5	80/B14	80/B5	90/B14	90/B5
m / s	85/7	130/10	100/7	165/12	115/9	165/12
m1 / m2 (H7)	105/70	160/110	120/80	200/130	140/95	200/130
c	5/7					
c1 / g	3	4,5	4	4,5	4,5	4,5
d	14	14	19	19	24	24
u / t	16,3/5	16,3/5	21,8/5	21,8/6	21,8/6	27,3/8

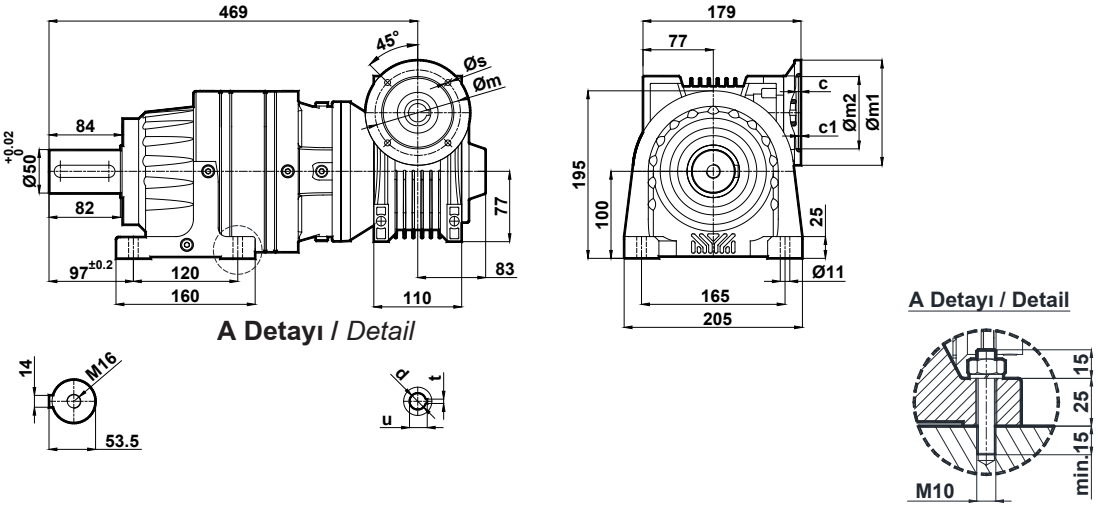
Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



RN1102L . 01 - EN063

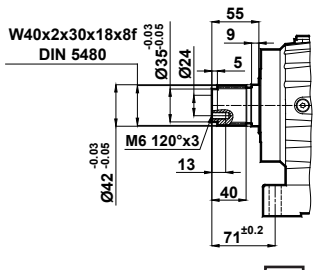


RN1202L . 01 - EN063



Motor	71/B14	71/B5	80/B14	80/B5	90/B14	90/B5
m / s	85/7	130/10	100/7	165/12	115/9	165/12
m1 / m2 (H7)	105/70	160/110	120/80	200/130	140/95	200/130
c	5/7					
c1 / g	3	4,5	4	4,5	4,5	4,5
d	14	14	19	19	24	24
u / t	16,3/5	16,3/5	21,8/5	21,8/6	21,8/6	27,3/8

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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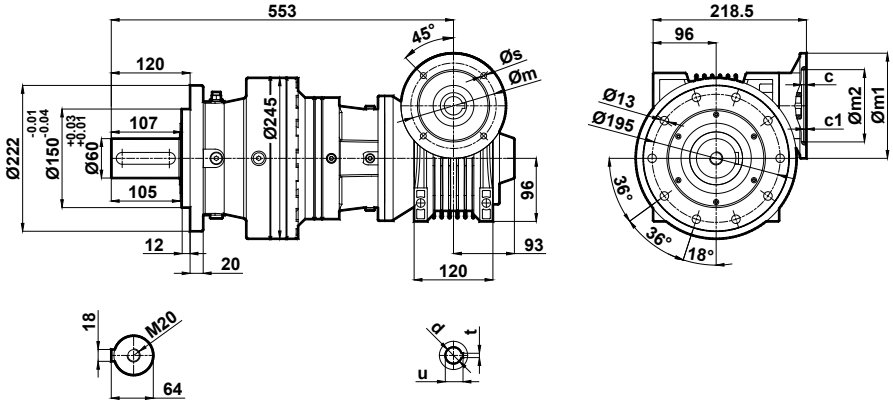
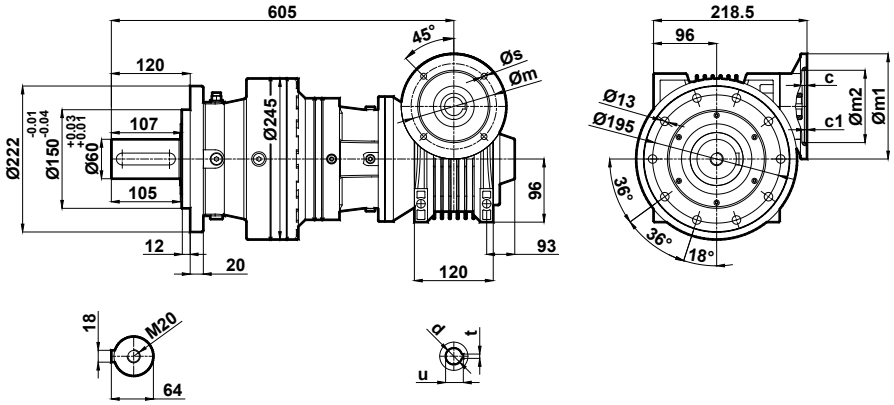
PN1502L . 01 - EN080

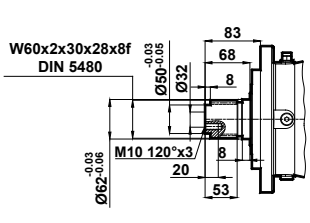


PN1602L . 01 - EN080



Motor	80/B14	80/B5	90/B14	90/B5	100/B14 112/B14	100/B5 112/B14
m / s	100/7	165/12	115/9	165/12	130/9	215/15
m1 / m2 (H7)	120/80	200/130	140/95	200/130	160/110	250/180
c	5,5					
c1	5	4,5	5	4,5	4	4,5
d	19	19	24	24	28	28
u / t	21,8/6	21,8/6	27,3-8	27,3-8	31,3/8	31,3/8

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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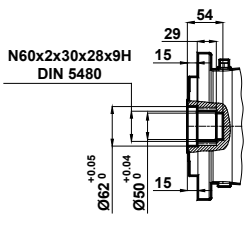

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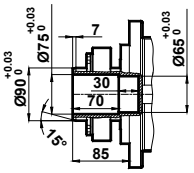

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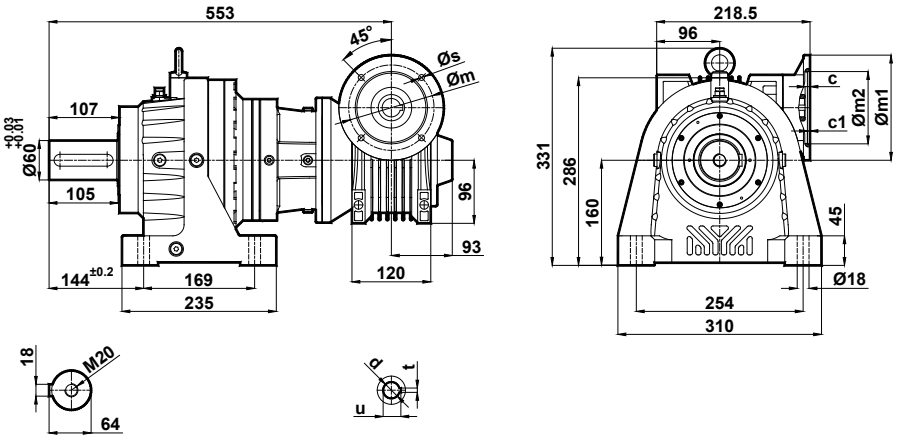
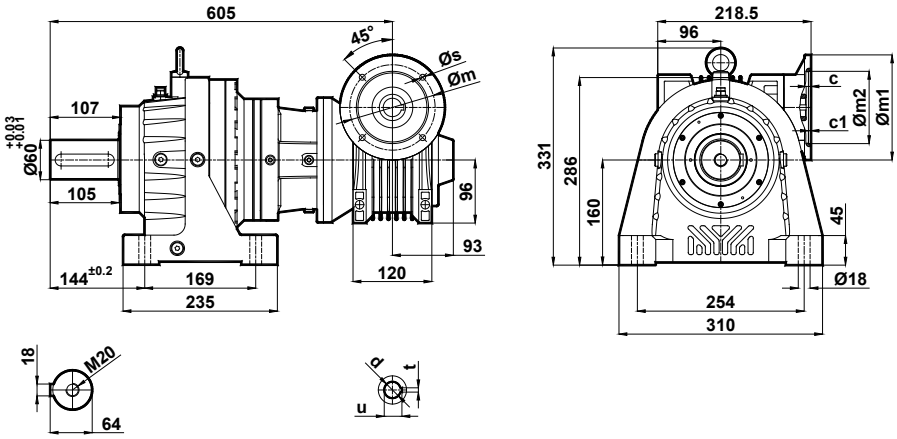
RN1502L . 01 - EN080

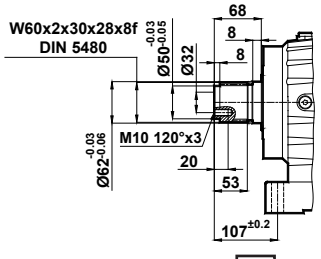


RN1602L . 01 - EN080



Motor	80/B14	80/B5	90/B14	90/B5	100/B14 112/B14	100/B5 112/B14
m / s	100/7	165/12	115/9	165/12	130/9	215/15
m1 / m2 (H7)	120/80	200/130	140/95	200/130	160/110	250/180
c	5,5					
c1	5	4,5	5	4,5	4	4,5
d	19	19	24	24	28	28
u / t	21,8/6	21,8/6	27,3-8	27,3-8	31,3/8	31,3/8

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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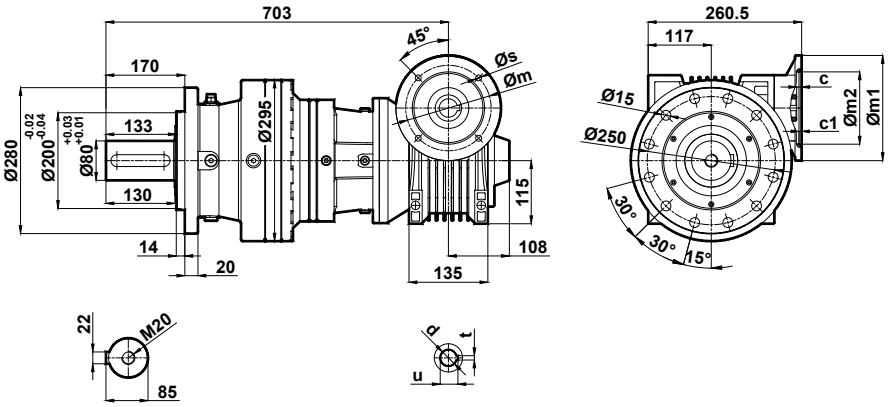
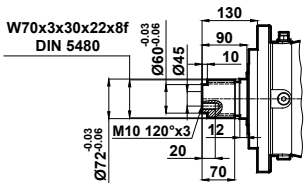
PN1902L . 01 - EN100



Motor	80/B14	80/B5	90/B14	90/B5	100/B14 112/B14	100/B5 112/B14
m / s	100/7	165/12	115/9	165/12	130/9	215/15
m1 / m2 (H7)	120/80	200/130	140/95	200/130	160/110	250/180
c	5,5					
c1 / g	5	4,5	5	4,5	4	4,5
d	19		24		28	
u / t	21,8/6		27,3/8		31,3/8	

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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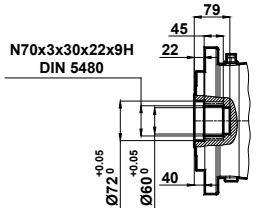

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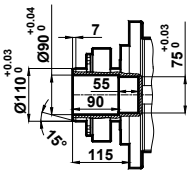

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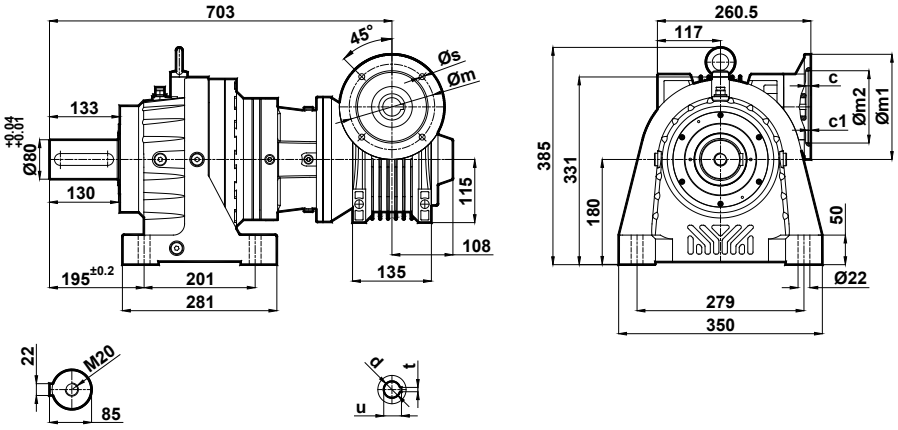
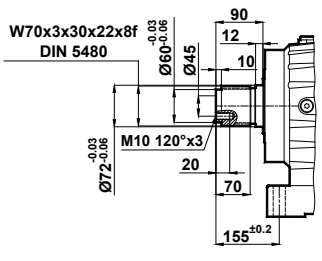
RN1902L . 01 - EN100



Motor	80/B14	80/B5	90/B14	90/B5	100/B14 112/B14	100/B5 112/B14
m / s	100/7	165/12	115/9	165/12	130/9	215/15
m1 / m2 (H7)	120/80	200/130	140/95	200/130	160/110	250/180
c	5,5					
c1 / g	5	4,5	5	4,5	4	4,5
d	19		24		28	
u / t	21,8/6		27,3/8		31,3/8	

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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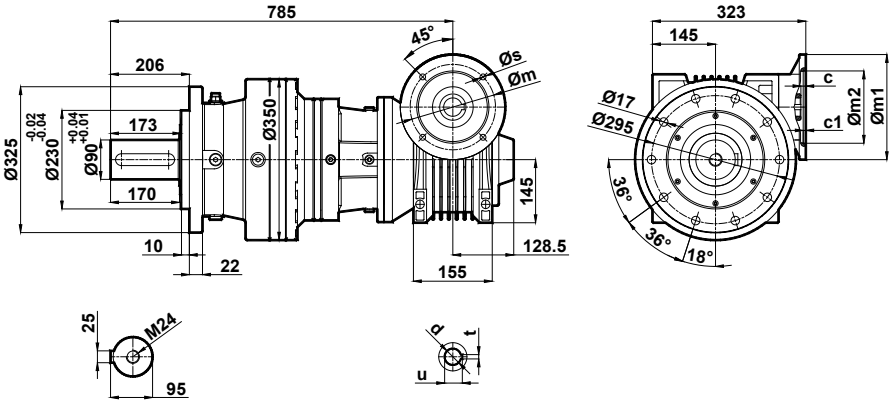
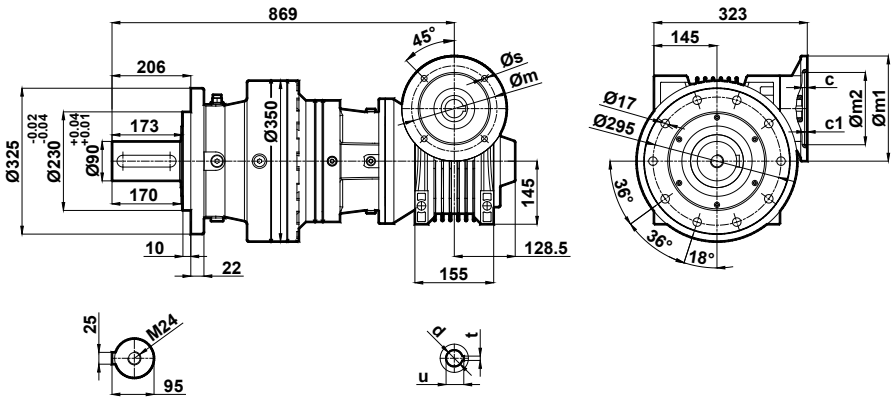
PN2302L . 01 - EN125

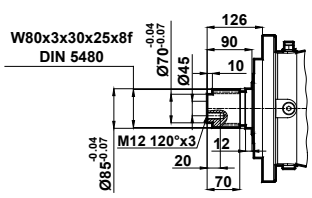


PN2402L . 01 - EN125



Motor	90/B5	100/B14 112/B14	132/B14	100/B5 112/B5	132/B5
m / s	165/12	130/9	165/15	215/12	265/15
m1 / m2 (H7)	200/130	160/110	200/1300	250/180	300/230
c	12,7				
c1	4				
d	24	28	38	28	38
u / t	27,3/8	31,3/8	41,3/10	31,3/8	41,3/10

Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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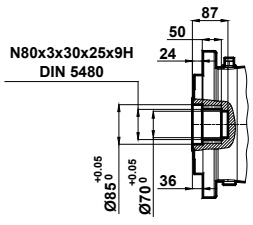

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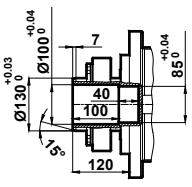

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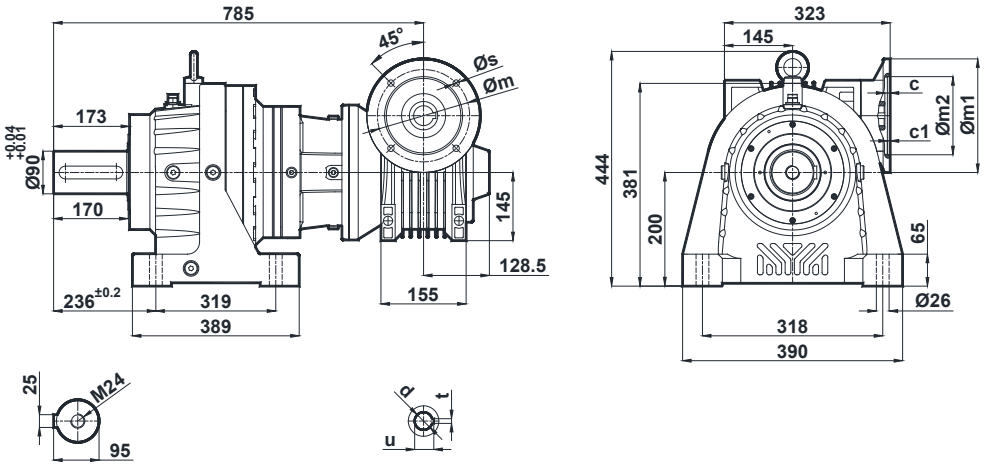
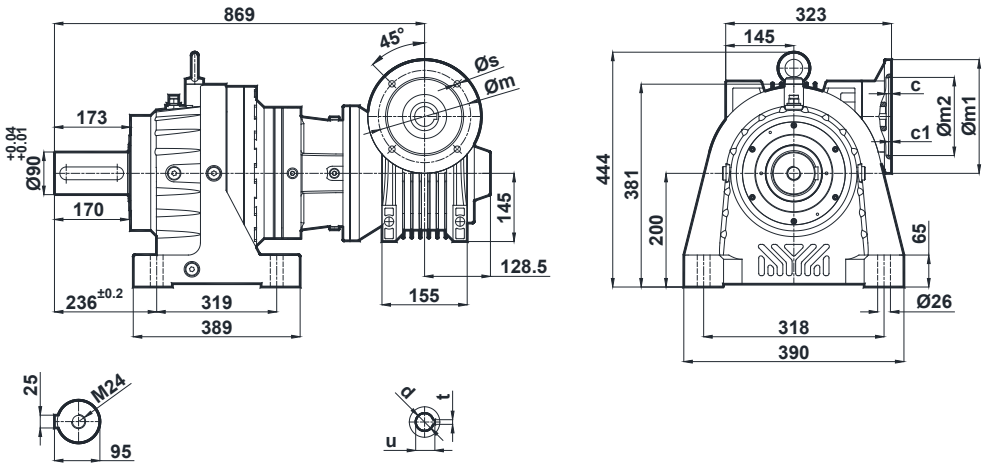
RN2302L . 01 - EN125

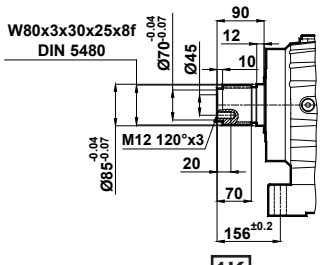


RN2402L . 01 - EN125



Motor	90/B5	100/B14 112/B14	132/B14	100/B5 112/B5	132/B5
m / s	165/12	130/9	165/15	215/12	265/15
m1 / m2 (H7)	200/130	160/110	200/1300	250/180	300/230
c	12,7				
c1	4				
d	24	28	38	28	38
u / t	27,3/8	31,3/8	41,3/10	31,3/8	41,3/10

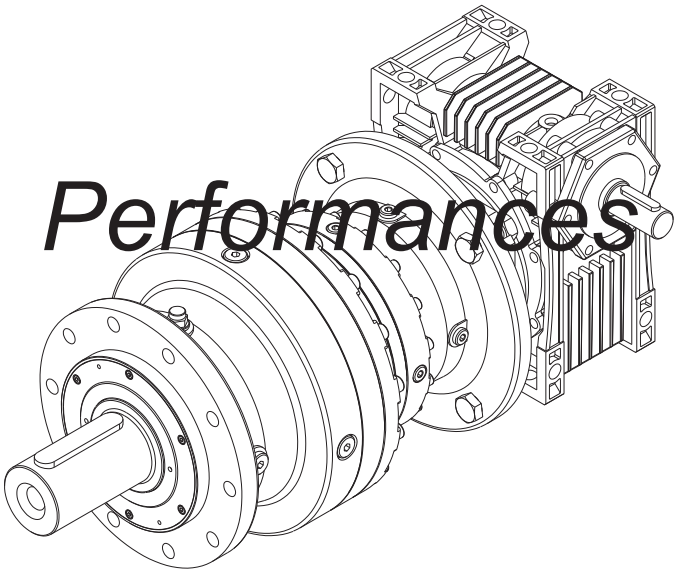
Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



1K

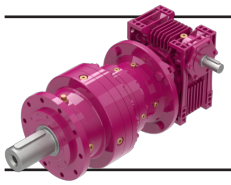
Notlar / *Notes* / Notizen

Güç ve Devir Tabloları



Performances

Leistung und+ Drehzahlübersicht



Motorsuz Sonsuz Eklemeli Planet Redüktörler

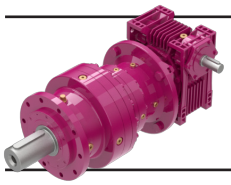
Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=1450

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment Ma [kNm] 10000 [h]	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung [kW] 10000 [h]	Vida Açısı *Lead Angle* Steigung-swinkel γ	Verim *Efficiency* Wirkungs-grad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN] 10000 [h]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
PN1102-ET063	**1,00**	**413,88**	**3,5**	**0,57**	5°22'	0,65	1,20	39	2,1	33	448
RN1102-ET063	**1,00**	**451,92**	**3,2**	**0,52**	5°22'	0,65	1,20	40	2,1	35	449
	1,00	**493,45**	**2,9**	**0,47**	5°22'	0,65	1,20	41	2,1		
	1,00	**618,06**	**2,3**	**0,38**	5°22'	0,65	1,20	41	2,1		
	1,00	**717,75**	**2,0**	**0,33**	5°22'	0,65	1,20	41	2,1		
	1,00	**867,28**	**1,7**	**0,27**	5°22'	0,64	1,20	41	2,1		
	1,00	**1086,29**	**1,3**	**0,22**	5°22'	0,64	1,20	41	2,1		
	1,00	**1460,88**	**0,99**	**0,17**	5°23'	0,61	1,20	41	2,1		
	1,00	**1910,38**	**0,76**	**0,14**	5°06'	0,59	1,20	41	2,1		
PN1102-ET063	**1,00**	**870,57**	**1,7**	**0,33**	3°16'	0,53	1,20	41	2,1	33	448
RN1102-ET063	**1,00**	**950,58**	**1,5**	**0,30**	3°16'	0,53	1,20	41	2,1	35	449
	1,00	**1037,95**	**1,4**	**0,27**	3°16'	0,53	1,20	41	2,1		
	1,00	**1300,06**	**1,1**	**0,22**	3°16'	0,53	1,20	41	2,1		
	1,00	**1509,75**	**0,96**	**0,19**	3°16'	0,53	1,20	41	2,1		
	1,00	**1824,28**	**0,79**	**0,16**	3°16'	0,53	1,20	41	2,1		
	1,00	**2284,96**	**0,63**	**0,13**	3°16'	0,52	1,20	41	2,1		
	1,00	**3071,58**	**0,47**	**0,10**	3°11'	0,49	1,20	41	2,1		
	1,00	**3745,83**	**0,39**	**0,09**	2°12'	0,43	1,20	41	2,1		
PN1202-ET063	**2,00**	**413,88**	**3,5**	**1,1**	5°22'	0,65	3,00	39	2,1	36	448
RN1202-ET063	**2,00**	**451,92**	**3,2**	**1,0**	5°22'	0,65	3,00	39	2,1	38	449
	2,00	**493,45**	**2,9**	**0,95**	5°22'	0,65	3,00	39	2,1		
	2,00	**618,06**	**2,3**	**0,76**	5°22'	0,65	3,00	39	2,1		
	2,00	**717,75**	**2,0**	**0,66**	5°22'	0,65	3,00	39	2,1		
	2,00	**867,28**	**1,7**	**0,55**	5°22'	0,64	3,00	39	2,1		
	2,00	**1086,29**	**1,3**	**0,44**	5°22'	0,64	3,00	39	2,1		
	2,00	**1460,88**	**0,99**	**0,34**	5°23'	0,61	3,00	39	2,1		
	2,00	**1910,38**	**0,76**	**0,27**	5°06'	0,59	3,00	39	2,1		
PN1202-ET063	**1,71**	**870,57**	**1,7**	**0,56**	3°16'	0,53	3,00	40	2,1	36	448
RN1202-ET063	**1,87**	**950,58**	**1,5**	**0,56**	3°16'	0,53	3,00	39	2,1	38	449
	2,00	**1037,95**	**1,4**	**0,55**	3°16'	0,53	3,00	39	2,1		
	2,00	**1300,06**	**1,1**	**0,44**	3°16'	0,53	3,00	39	2,1		
	2,00	**1509,75**	**0,96**	**0,38**	3°16'	0,53	3,00	39	2,1		
	2,00	**1824,28**	**0,79**	**0,32**	3°16'	0,53	3,00	39	2,1		
	2,00	**2284,96**	**0,63**	**0,25**	3°16'	0,52	3,00	39	2,1		
	2,00	**3071,58**	**0,47**	**0,20**	3°11'	0,49	3,00	39	2,1		
	2,00	**3745,83**	**0,39**	**0,19**	2°12'	0,43	3,00	39	2,1		
PN1502-ET080	**2,79**	**408,00**	**3,6**	**1,5**	5°42'	0,68	3,35	58	2,1	57	450
RN1502-ET080	**3,10**	**525,94**	**2,8**	**1,3**	5°42'	0,68	3,72	61	2,1	67	451
	3,10	**658,75**	**2,2**	**1,1**	5°42'	0,68	3,72	61	2,1		
	3,10	**765,00**	**1,9**	**0,91**	5°42'	0,67	3,72	61	2,1		
	2,96	**960,00**	**1,5**	**0,70**	5°42'	0,67	3,55	61	2,1		
	3,04	**1160,00**	**1,3**	**0,59**	5°42'	0,68	3,64	61	2,1		
	3,10	**1546,67**	**0,94**	**0,47**	5°22'	0,65	3,72	61	2,1		
	3,10	**2049,33**	**0,71**	**0,37**	5°23'	0,62	3,72	61	2,1		
PN1502-ET080	**2,85**	**843,20**	**1,7**	**0,90**	3°13'	0,57	3,42	61	2,1	57	450
RN1502-ET080	**3,10**	**1086,94**	**1,3**	**0,76**	3°13'	0,57	3,72	61	2,1	67	451
	3,10	**1361,42**	**1,1**	**0,61**	3°13'	0,57	3,72	61	2,1		
	3,10	**1581,00**	**0,92**	**0,53**	3°13'	0,57	3,72	61	2,1		
	3,10	**1984,00**	**0,73**	**0,42**	3°13'	0,56	3,72	61	2,1		
	3,10	**2397,33**	**0,60**	**0,35**	3°13'	0,57	3,72	61	2,1		
	3,10	**3170,67**	**0,46**	**0,28**	3°16'	0,53	3,72	61	2,1		
	3,10	**4253,33**	**0,34**	**0,22**	3°11'	0,50	3,72	61	2,1		
PN1602-ET080	**3,90**	**408,00**	**3,6**	**2,1**	5°42'	0,68	7,50	58	2,1	73	450
RN1602-ET080	**5,00**	**525,94**	**2,8**	**2,1**	5°42'	0,68	7,50	53	2,1	83	451
	5,00	**658,75**	**2,2**	**1,7**	5°42'	0,68	7,50	53	2,1		
	5,00	**765,00**	**1,9**	**1,5**	5°42'	0,68	7,50	53	2,1		
	4,99	**960,00**	**1,5**	**1,2**	5°42'	0,68	7,50	53	2,1		
	5,00	**1160,00**	**1,3**	**0,97**	5°42'	0,68	7,50	53	2,1		
	5,00	**1546,67**	**0,94**	**0,76**	5°22'	0,65	7,50	53	2,1		

Otoblokajlı / *Irreversible* / Selbsthemmung



Motorsuz Sonsuz Eklemeli Planet Redüktörler

Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=1450

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment Ma [kNm] 10000 [h]	Çevrim Oranı *Ratio* Übersetzung i	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen n_2 [r.p.m]	P_N=Nominal Güç P_N=Nominal Power P_N=NennLeistung [kW] 10000 [h]	Vida Açısı *Lead Angle* Steigung-swinkel γ	Verim *Efficiency* Wirkungs-grad η	Maksimum Moment *Maximum Torque* Maximum Drehmoment $Ma_{mak.}$ [kNm]	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [kN] 10000 [h]	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [kN]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite
PN1602-ET080 **RN1602-ET080**	**5,00**	**2049,33**	**0,71**	**0,60**	5°23'	0,62	7,50	53	2,1	73 83	450 451
PN1602-ET080 **RN1602-ET080**	**3,32** **4,28** **5,00** **5,00** **5,00** **5,00** **5,00** **4,18**	**843,20** **1086,94** **1361,42** **1581,00** **1984,00** **2397,33** **3170,67** **4253,33**	**1,7** **1,3** **1,1** **0,92** **0,73** **0,60** **0,46** **0,34**	**1,0** **1,0** **0,98** **0,84** **0,67** **0,56** **0,45** **0,30**	3°13' 3°13' 3°13' 3°13' 3°13' 3°13' 3°16' 3°11'	0,57 0,57 0,57 0,57 0,57 0,57 0,53 0,50	7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50	60 56 53 53 53 53 53 57	2,1 2,1 2,1 2,1 2,1 2,1 2,1 2,1	73 83	450 451
PN1902-ET100 **RN1902-ET100**	**6,48** **8,20** **8,24** **8,27** **8,46** **7,56** **7,86** **8,15**	**388,80** **541,88** **680,00** **790,50** **956,25** **1200,00** **1600,00** **2080,00**	**3,7** **2,7** **2,1** **1,8** **1,5** **1,2** **0,91** **0,70**	**3,6** **3,3** **2,7** **2,3** **1,9** **1,4** **1,1** **0,94**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°22'	0,69 0,69 0,69 0,69 0,69 0,69 0,66 0,63	16,4 20,5 20,6 20,7 21,1 18,9 19,7 20,4	97 95 95 95 95 96 95 95	5,1 5,1 5,1 5,1 5,1 5,1 5,1 5,1	140 155	452 453
PN1902-ET100 **RN1902-ET100**	**5,78** **8,06** **8,50** **8,50** **8,50** **8,35** **8,50** **8,16**	**816,48** **1137,94** **1428,00** **1660,05** **2008,13** **2520,00** **3280,00** **4280,00**	**1,8** **1,3** **1,0** **0,87** **0,72** **0,58** **0,44** **0,34**	**1,8** **1,8** **1,5** **1,3** **1,1** **0,86** **0,68** **0,55**	3°21' 3°21' 3°21' 3°21' 3°21' 3°21' 3°13' 3°16'	0,59 0,59 0,59 0,59 0,59 0,59 0,58 0,53	16,8 21,3 21,3 21,3 21,3 20,9 21,3 21,3	98 96 95 95 95 95 95 95	5,1 5,1 5,1 5,1 5,1 5,1 5,1 5,1	140 155	452 453
PN2302-ET125 **RN2302-ET125**	**9,26** **11,1** **12,5** **11,5** **10,4** **11,8** **10,2** **10,2** **10,2**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**4,1** **3,4** **2,9** **2,3** **2,0** **1,5** **1,3** **0,92** **0,71**	**5,7** **5,7** **5,4** **4,0** **3,1** **2,8** **2,0** **1,4** **1,1**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,69 0,69 0,69 0,69 0,69 0,68 0,68 0,68 0,68	31,1 31,3 31,3 31,3 31,3 29,5 30,0 31,3 31,3	105 103 101 102 104 101 104 104 104	5,1 5,1 5,1 5,1 5,1 5,1 5,1 5,1 5,1	214 230	454 455
PN2302-ET125 **RN2302-ET125**	**9,43** **11,3** **12,5** **11,7** **10,6** **12,5** **10,2** **10,8** **11,4**	**765,26** **913,09** **1077,95** **1352,73** **1572,55** **2018,10** **2441,25** **3268,13** **4213,13**	**1,9** **1,6** **1,3** **1,1** **0,92** **0,72** **0,59** **0,44** **0,34**	**3,2** **3,2** **3,0** **2,2** **1,7** **1,6** **1,1** **0,85** **0,71**	3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°22' 3°13'	0,59 0,59 0,59 0,59 0,59 0,58 0,59 0,59 0,58	31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3	104 102 101 101 103 101 104 104 101	5,1 5,1 5,1 5,1 5,1 5,1 5,1 5,1 5,1	214 230	454 455
PN2402-ET125 **RN2402-ET125**	**11,1** **13,3** **15,7** **19,3** **16,0** **16,8** **13,7** **13,9** **14,3**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**4,1** **3,4** **2,9** **2,3** **2,0** **1,5** **1,3** **0,92** **0,71**	**6,8** **6,8** **6,8** **6,7** **4,8** **3,9** **2,6** **1,9** **1,5**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,69 0,69 0,69 0,69 0,69 0,69 0,69 0,69 0,69	30,0 30,0 30,0 30,0 30,0 25,1 25,6 26,5 27,3	103 100 97 88 97 95 100 99 99	5,1 5,1 5,1 5,1 5,1 5,1 5,1 5,1 5,1	255 271	454 455
PN2402-ET125 **RN2402-ET125**	**9,91** **11,8** **14,0** **17,5**	**765,26** **913,09** **1077,95** **1352,73**	**1,9** **1,6** **1,3** **1,1**	**3,3** **3,3** **3,3** **3,3**	3°24' 3°24' 3°24' 3°24'	0,59 0,59 0,59 0,59	30,0 30,0 30,0 30,0	104 102 100 94	5,1 5,1 5,1 5,1	255 271	454 455

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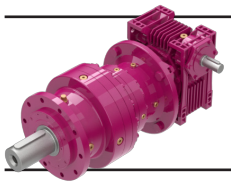

Motorsuz Sonsuz Eklemeli Planet Redüktörler
Planetary Gear Units with Worm Stage Input
Planetengetriebe mit Schneckenradvorstufe

n_1=1450

Tipi *Type* Typ	**Anma Momenti** *Nominal Torques* Nenndrehmoment	**Çevrim Oranı** *Ratio* Übersetzung	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen	**P_N=Nominal Güç** *P_N=Nominal Power* P_N=NennLeistung	**Vida Açısı** *Lead Angle* Steigung-swinkel	**Verim** *Efficiency* Wirkungs-grad	**Maksimum Moment** *Maximum Torque* Maximum Drehmoment	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	**Güv. Rad.Yük Giriş** *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	**Ağırlık** *Weight* Gewicht	**Ölçü Sayfası** *Dim. Page* Maße Seite
PN2402-ET125 **RN2402-ET125**	**16,2** **18,2** **14,7** **15,3** **15,9**	**1572,55** **2018,10** **2441,25** **3268,13** **4213,13**	**0,92** **0,72** **0,59** **0,44** **0,34**	**2,6** **2,3** **1,5** **1,2** **0,99**	3°24' 3°24' 3°24' 3°22' 3°13'	0,59 0,59 0,59 0,59 0,58	30,0 27,3 27,8 28,7 29,5	96 92 98 98 97	5,1 5,1 5,1 5,1 5,1	255 271	454 455

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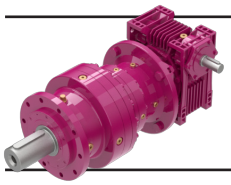


Motorsuz Sonsuz Eklemeli Planet Redüktörler

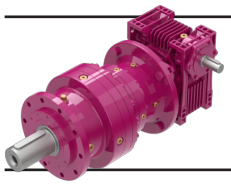
Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN1102-ET063	**1,00**	**413,88**	**2,3**	**0,40**	5°22'	0,60	1,20	41	2,4	33	448
RN1102-ET063	**1,00**	**451,92**	**2,1**	**0,36**	5°22'	0,60	1,20	41	2,4	35	449
	1,00	**493,45**	**1,9**	**0,33**	5°22'	0,60	1,20	41	2,4		
	1,00	**618,06**	**1,5**	**0,27**	5°22'	0,60	1,20	41	2,4		
	1,00	**717,75**	**1,3**	**0,23**	5°22'	0,60	1,20	41	2,4		
	1,00	**867,28**	**1,1**	**0,19**	5°22'	0,60	1,20	41	2,4		
	1,00	**1086,29**	**0,87**	**0,15**	5°22'	0,59	1,20	41	2,4		
	1,00	**1460,88**	**0,65**	**0,12**	5°23'	0,57	1,20	41	2,4		
	1,00	**1910,38**	**0,50**	**0,10**	5°06'	0,54	1,20	41	2,4		
PN1102-ET063	**1,00**	**870,57**	**1,1**	**0,24**	3°16'	0,48	1,20	41	2,4	33	448
RN1102-ET063	**1,00**	**950,58**	**1,0**	**0,22**	3°16'	0,48	1,20	41	2,4	35	449
	1,00	**1037,95**	**0,92**	**0,20**	3°16'	0,48	1,20	41	2,4		
	1,00	**1300,06**	**0,73**	**0,16**	3°16'	0,48	1,20	41	2,4		
	1,00	**1509,75**	**0,63**	**0,14**	3°16'	0,48	1,20	41	2,4		
	1,00	**1824,28**	**0,52**	**0,12**	3°16'	0,47	1,20	41	2,4		
	1,00	**2284,96**	**0,42**	**0,09**	3°16'	0,47	1,20	41	2,4		
	1,00	**3071,58**	**0,31**	**0,07**	3°11'	0,44	1,20	41	2,4		
	1,00	**3745,83**	**0,25**	**0,07**	2°12'	0,38	1,20	41	2,4		
PN1202-ET063	**2,00**	**413,88**	**2,3**	**0,80**	5°22'	0,60	3,00	39	2,4	36	448
RN1202-ET063	**2,00**	**451,92**	**2,1**	**0,73**	5°22'	0,60	3,00	39	2,4	38	449
	2,00	**493,45**	**1,9**	**0,67**	5°22'	0,60	3,00	39	2,4		
	2,00	**618,06**	**1,5**	**0,53**	5°22'	0,60	3,00	39	2,4		
	2,00	**717,75**	**1,3**	**0,46**	5°22'	0,60	3,00	39	2,4		
	2,00	**867,28**	**1,1**	**0,38**	5°22'	0,60	3,00	39	2,4		
	2,00	**1086,29**	**0,87**	**0,31**	5°22'	0,59	3,00	39	2,4		
	2,00	**1460,88**	**0,65**	**0,24**	5°23'	0,57	3,00	39	2,4		
	2,00	**1910,38**	**0,50**	**0,19**	5°06'	0,54	3,00	39	2,4		
PN1202-ET063	**1,67**	**870,57**	**1,1**	**0,40**	3°16'	0,48	3,00	40	2,4	36	448
RN1202-ET063	**1,82**	**950,58**	**1,0**	**0,40**	3°16'	0,48	3,00	39	2,4	38	449
	1,99	**1037,95**	**0,92**	**0,40**	3°16'	0,48	3,00	39	2,4		
	2,00	**1300,06**	**0,73**	**0,32**	3°16'	0,48	3,00	39	2,4		
	2,00	**1509,75**	**0,63**	**0,28**	3°16'	0,47	3,00	39	2,4		
	2,00	**1824,28**	**0,52**	**0,23**	3°16'	0,47	3,00	39	2,4		
	2,00	**2284,96**	**0,42**	**0,19**	3°16'	0,47	3,00	39	2,4		
	2,00	**3071,58**	**0,31**	**0,15**	3°11'	0,44	3,00	39	2,4		
	2,00	**3745,83**	**0,25**	**0,14**	2°12'	0,38	3,00	39	2,4		
PN1502-ET080	**2,83**	**408,00**	**2,3**	**1,1**	5°42'	0,64	3,40	61	2,4	57	450
RN1502-ET080	**3,10**	**525,94**	**1,8**	**0,91**	5°42'	0,64	3,72	60	2,4	67	451
	3,10	**658,75**	**1,4**	**0,73**	5°42'	0,64	3,72	60	2,4		
	3,10	**765,00**	**1,2**	**0,63**	5°42'	0,64	3,72	60	2,4		
	3,08	**960,00**	**0,99**	**0,50**	5°42'	0,64	3,69	60	2,4		
	3,10	**1160,00**	**0,82**	**0,42**	5°42'	0,64	3,72	60	2,4		
	3,10	**1546,67**	**0,61**	**0,33**	5°22'	0,60	3,72	60	2,4		
	3,10	**2049,33**	**0,46**	**0,26**	5°23'	0,58	3,72	60	2,4		
PN1502-ET080	**2,96**	**843,20**	**1,1**	**0,68**	3°13'	0,51	3,55	61	2,4	57	450
RN1502-ET080	**3,10**	**1086,94**	**0,87**	**0,55**	3°13'	0,51	3,72	60	2,4	67	451
	3,10	**1361,42**	**0,70**	**0,44**	3°13'	0,51	3,72	60	2,4		
	3,10	**1581,00**	**0,60**	**0,38**	3°13'	0,51	3,72	60	2,4		
	3,10	**1984,00**	**0,48**	**0,30**	3°13'	0,51	3,72	60	2,4		
	3,10	**2397,33**	**0,40**	**0,25**	3°13'	0,51	3,72	60	2,4		
	3,10	**3170,67**	**0,30**	**0,20**	3°16'	0,49	3,72	60	2,4		
	3,10	**4253,33**	**0,22**	**0,16**	3°11'	0,44	3,72	60	2,4		
PN1602-ET080	**4,08**	**408,00**	**2,3**	**1,5**	5°42'	0,64	7,50	57	2,4	73	450
RN1602-ET080	**5,00**	**525,94**	**1,8**	**1,5**	5°42'	0,65	7,50	53	2,4	83	451
	5,00	**658,75**	**1,4**	**1,2**	5°42'	0,64	7,50	53	2,4		
	5,00	**765,00**	**1,2**	**1,01**	5°42'	0,64	7,50	53	2,4		
	5,00	**960,00**	**0,99**	**0,81**	5°42'	0,64	7,50	53	2,4		
	5,00	**1160,00**	**0,82**	**0,67**	5°42'	0,64	7,50	53	2,4		
	5,00	**1546,67**	**0,61**	**0,53**	5°22'	0,60	7,50	53	2,4		

Otoblokajlı / *Irreversible* / Selbsthemmung



Motorsuz Sonsuz Eklemeli Planet Redüktörler

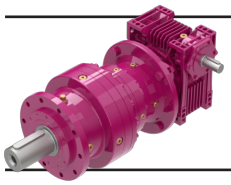
Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=Nominal Power P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN1602-ET080 **RN1602-ET080**	**5,00**	**2049,33**	**0,46**	**0,42**	5°23'	0,58	7,50	53	2,4	73 83	450 451
PN1602-ET080 **RN1602-ET080**	**2,99** **3,86** **4,83** **5,00** **5,00** **5,00** **5,00** **3,71**	**843,20** **1086,94** **1361,42** **1581,00** **1984,00** **2397,33** **3170,67** **4253,33**	**1,1** **0,87** **0,70** **0,60** **0,48** **0,40** **0,30** **0,22**	**0,68** **0,68** **0,68** **0,61** **0,49** **0,40** **0,32** **0,20**	3°13' 3°13' 3°13' 3°13' 3°13' 3°13' 3°16' 3°11'	0,52 0,52 0,52 0,52 0,51 0,51 0,49 0,44	7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50	61 58 54 53 53 53 53 58	2,4 2,4 2,4 2,4 2,4 2,4 2,4 2,4	73 83	450 451
PN1902-ET100 **RN1902-ET100**	**6,66** **8,32** **8,50** **8,50** **7,74** **8,03** **8,35** **8,50**	**388,80** **541,88** **680,00** **790,50** **956,25** **1200,00** **1600,00** **2080,00**	**2,4** **1,8** **1,4** **1,2** **0,99** **0,79** **0,59** **0,46**	**2,5** **2,2** **1,8** **1,6** **1,2** **0,98** **0,82** **0,68**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°22'	0,69 0,68 0,68 0,68 0,68 0,68 0,63 0,59	16,6 20,8 21,3 21,3 21,3 20,1 20,9 21,3	97 95 95 95 96 96 95 95	5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9	140 155	452 453
PN1902-ET100 **RN1902-ET100**	**5,91** **8,24** **8,50** **8,50** **8,50** **8,50** **8,50** **7,32**	**816,48** **1137,94** **1428,00** **1660,05** **2008,13** **2520,00** **3280,00** **4280,00**	**1,2** **0,83** **0,67** **0,57** **0,47** **0,38** **0,29** **0,22**	**1,3** **1,3** **1,0** **0,90** **0,75** **0,60** **0,49** **0,36**	3°21' 3°21' 3°21' 3°21' 3°21' 3°21' 3°13' 3°16'	0,57 0,57 0,56 0,56 0,56 0,56 0,52 0,48	17,2 21,3 21,3 21,3 21,3 21,3 21,3 21,3	98 95 95 95 95 95 95 97	5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9	140 155	452 453
PN2302-ET125 **RN2302-ET125**	**9,27** **11,1** **12,5** **11,1** **10,4** **12,4** **9,48** **10,2** **10,7**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**2,7** **2,2** **1,9** **1,5** **1,3** **1,0** **0,83** **0,60** **0,46**	**3,7** **3,7** **3,6** **2,5** **2,0** **1,9** **1,2** **0,95** **0,80**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,69 0,69 0,69 0,69 0,69 0,68 0,68 0,68 0,65	31,3 31,3 31,3 31,3 31,3 30,9 31,3 31,3 31,3	105 103 101 103 103 101 105 103 103	5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9	214 230	454 455
PN2302-ET125 **RN2302-ET125**	**9,51** **11,3** **12,5** **11,3** **10,6** **12,5** **11,1** **11,8** **12,5**	**765,26** **913,09** **1077,95** **1352,73** **1572,55** **2018,10** **2441,25** **3268,13** **4213,13**	**1,2** **1,0** **0,88** **0,70** **0,60** **0,47** **0,39** **0,29** **0,23**	**2,1** **2,1** **2,0** **1,4** **1,1** **1,1** **0,77** **0,64** **0,57**	3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°22' 3°13'	0,59 0,59 0,59 0,59 0,59 0,58 0,59 0,56 0,52	31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3	105 103 101 103 103 101 103 102 101	5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9	214 230	454 455
PN2402-ET125 **RN2402-ET125**	**12,2** **14,5** **17,2** **19,1** **16,0** **17,6** **14,0** **14,7** **15,2**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**2,7** **2,2** **1,9** **1,5** **1,3** **1,0** **0,83** **0,60** **0,46**	**4,9** **4,9** **4,9** **4,4** **3,1** **2,7** **1,8** **1,4** **1,1**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,69 0,69 0,69 0,69 0,69 0,69 0,69 0,68 0,66	30,0 30,0 30,0 30,0 30,0 26,4 26,9 27,8 28,6	101 98 95 88 96 95 98 98 96	5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9 5,9	255 271	454 455
PN2402-ET125 **RN2402-ET125**	**10,7** **12,8** **15,1** **18,9**	**765,26** **913,09** **1077,95** **1352,73**	**1,2** **1,0** **0,88** **0,70**	**2,4** **2,3** **2,3** **2,4**	3°24' 3°24' 3°24' 3°24'	0,59 0,59 0,59 0,59	30,0 30,0 30,0 30,0	103 101 97 88	5,9 5,9 5,9 5,9	255 271	454 455

Otoblokajlı / *Irreversible* / Selbsthemmung



Motorsuz Sonsuz Eklemeli Planet Redüktörler
Planetary Gear Units with Worm Stage Input
Planetengetriebe mit Schneckenradvorstufe

n_1=950

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN2402-ET125	**16,2**	**1572,55**	**0,60**	**1,7**	3°24'	0,59	30,0	96	5,9	255	454
RN2402-ET125	**19,0**	**2018,10**	**0,47**	**1,6**	3°24'	0,59	28,6	88	5,9	271	455
	15,7	**2441,25**	**0,39**	**1,1**	3°24'	0,59	29,2	96	5,9		
	16,3	**3268,13**	**0,29**	**0,88**	3°22'	0,56	30,0	96	5,9		
	14,9	**4213,13**	**0,23**	**0,67**	3°13'	0,53	30,0	98	5,9		

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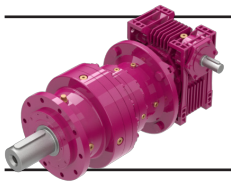

Motorsuz Sonsuz Eklemeli Planet Redüktörler

Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=Nominal Power P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN1102-ET063	**1,00**	**413,88**	**1,8**	**0,31**	5°22'	0,60	1,20	41	2,6	33	448
RN1102-ET063	**1,00**	**451,92**	**1,6**	**0,28**	5°22'	0,60	1,20	41	2,6	35	
	1,00	**493,45**	**1,5**	**0,26**	5°22'	0,60	1,20	41	2,6		
	1,00	**618,06**	**1,2**	**0,21**	5°22'	0,59	1,20	41	2,6		
	1,00	**717,75**	**1,0**	**0,18**	5°22'	0,59	1,20	41	2,6		
	1,00	**867,28**	**0,84**	**0,15**	5°22'	0,59	1,20	41	2,6		
	1,00	**1086,29**	**0,67**	**0,12**	5°22'	0,59	1,20	41	2,6		
	1,00	**1460,88**	**0,50**	**0,09**	5°23'	0,55	1,20	41	2,6		
	1,00	**1910,38**	**0,38**	**0,07**	5°06'	0,53	1,20	41	2,6		
PN1102-ET063	**1,00**	**870,57**	**0,83**	**0,19**	3°16'	0,47	1,20	41	2,6	33	448
RN1102-ET063	**1,00**	**950,58**	**0,76**	**0,17**	3°16'	0,47	1,20	41	2,6	35	
	1,00	**1037,95**	**0,70**	**0,16**	3°16'	0,47	1,20	41	2,6		
	1,00	**1300,06**	**0,56**	**0,12**	3°16'	0,47	1,20	41	2,6		
	1,00	**1509,75**	**0,48**	**0,11**	3°16'	0,47	1,20	41	2,6		
	1,00	**1824,28**	**0,40**	**0,09**	3°16'	0,46	1,20	41	2,6		
	1,00	**2284,96**	**0,32**	**0,07**	3°16'	0,46	1,20	41	2,6		
	1,00	**3071,58**	**0,24**	**0,06**	3°11'	0,43	1,20	41	2,6		
	1,00	**3745,83**	**0,19**	**0,06**	2°12'	0,36	1,20	41	2,6		
PN1202-ET063	**2,00**	**413,88**	**1,8**	**0,62**	5°22'	0,59	3,00	39	2,6	36	448
RN1202-ET063	**2,00**	**451,92**	**1,6**	**0,57**	5°22'	0,59	3,00	39	2,6	38	
	2,00	**493,45**	**1,5**	**0,52**	5°22'	0,59	3,00	39	2,6		
	2,00	**618,06**	**1,2**	**0,41**	5°22'	0,59	3,00	39	2,6		
	2,00	**717,75**	**1,0**	**0,36**	5°22'	0,59	3,00	39	2,6		
	2,00	**867,28**	**0,84**	**0,30**	5°22'	0,59	3,00	39	2,6		
	2,00	**1086,29**	**0,67**	**0,24**	5°22'	0,58	3,00	39	2,6		
	2,00	**1460,88**	**0,50**	**0,19**	5°23'	0,55	3,00	39	2,6		
	2,00	**1910,38**	**0,38**	**0,15**	5°06'	0,53	3,00	39	2,6		
PN1202-ET063	**1,66**	**870,57**	**0,83**	**0,31**	3°16'	0,47	3,00	40	2,6	36	448
RN1202-ET063	**1,81**	**950,58**	**0,76**	**0,31**	3°16'	0,47	3,00	39	2,6	38	
	1,97	**1037,95**	**0,70**	**0,31**	3°16'	0,47	3,00	39	2,6		
	2,00	**1300,06**	**0,56**	**0,25**	3°16'	0,47	3,00	39	2,6		
	2,00	**1509,75**	**0,48**	**0,22**	3°16'	0,47	3,00	39	2,6		
	2,00	**1824,28**	**0,40**	**0,18**	3°16'	0,46	3,00	39	2,6		
	2,00	**2284,96**	**0,32**	**0,14**	3°16'	0,46	3,00	39	2,6		
	2,00	**3071,58**	**0,24**	**0,12**	3°11'	0,43	3,00	39	2,6		
	2,00	**3745,83**	**0,19**	**0,11**	2°12'	0,36	3,00	39	2,6		
PN1502-ET080	**2,84**	**408,00**	**1,8**	**0,85**	5°42'	0,62	3,40	61	2,6	57	450
RN1502-ET080	**3,10**	**525,94**	**1,4**	**0,72**	5°42'	0,62	3,72	60	2,6	67	
	3,10	**658,75**	**1,1**	**0,57**	5°42'	0,62	3,72	60	2,6		
	3,10	**765,00**	**0,95**	**0,50**	5°42'	0,62	3,72	60	2,6		
	3,10	**960,00**	**0,76**	**0,40**	5°42'	0,62	3,72	60	2,6		
	3,10	**1160,00**	**0,63**	**0,33**	5°42'	0,62	3,72	60	2,6		
	3,10	**1546,67**	**0,47**	**0,26**	5°22'	0,59	3,72	60	2,6		
	3,10	**2049,33**	**0,35**	**0,20**	5°23'	0,57	3,72	60	2,6		
PN1502-ET080	**2,82**	**843,20**	**0,86**	**0,52**	3°13'	0,49	3,72	61	2,6	57	450
RN1502-ET080	**3,10**	**1086,94**	**0,67**	**0,44**	3°13'	0,49	3,72	60	2,6	67	
	3,10	**1361,42**	**0,53**	**0,36**	3°13'	0,49	3,72	60	2,6		
	3,10	**1581,00**	**0,46**	**0,31**	3°13'	0,49	3,72	60	2,6		
	3,10	**1984,00**	**0,37**	**0,25**	3°13'	0,48	3,72	60	2,6		
	3,10	**2397,33**	**0,30**	**0,20**	3°13'	0,49	3,72	60	2,6		
	3,10	**3170,67**	**0,23**	**0,16**	3°16'	0,47	3,72	60	2,6		
	3,10	**4253,33**	**0,17**	**0,13**	3°11'	0,42	3,72	60	2,6		
PN1602-ET080	**4,08**	**408,00**	**1,8**	**1,2**	5°42'	0,63	7,50	57	2,6	73	450
RN1602-ET080	**5,00**	**525,94**	**1,4**	**1,2**	5°42'	0,63	7,50	53	2,6	83	
	5,00	**658,75**	**1,1**	**0,92**	5°42'	0,63	7,50	53	2,6		
	5,00	**765,00**	**0,95**	**0,79**	5°42'	0,62	7,50	53	2,6		
	5,00	**960,00**	**0,76**	**0,64**	5°42'	0,62	7,50	53	2,6		
	5,00	**1160,00**	**0,63**	**0,53**	5°42'	0,62	7,50	53	2,6		
	5,00	**1546,67**	**0,47**	**0,41**	5°22'	0,59	7,50	53	2,6		

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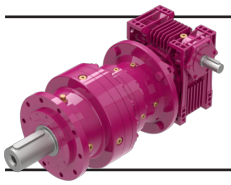


Motorsuz Sonsuz Eklemeli Planet Redüktörler

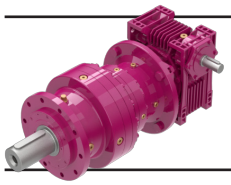
Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=Nominal Power P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN1602-ET080 **RN1602-ET080**	**5,00**	**2049,33**	**0,35**	**0,33**	5°23'	0,57	7,50	53	2,6	73 83	450
PN1602-ET080 **RN1602-ET080**	**2,82** **3,63** **4,55** **5,00** **5,00** **5,00** **5,00** **3,56**	**843,20** **1086,94** **1361,42** **1581,00** **1984,00** **2397,33** **3170,67** **4253,33**	**0,86** **0,67** **0,53** **0,46** **0,37** **0,30** **0,23** **0,17**	**0,52** **0,52** **0,52** **0,49** **0,39** **0,33** **0,26** **0,15**	3°13' 3°13' 3°13' 3°13' 3°13' 3°13' 3°16' 3°11'	0,49 0,49 0,49 0,49 0,49 0,49 0,47 0,42	7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50	61 59 55 53 53 53 53 59	2,6 2,6 2,6 2,6 2,6 2,6 2,6 2,6	73 83	450
PN1902-ET100 **RN1902-ET100**	**6,70** **8,50** **8,50** **8,50** **8,05** **8,22** **8,50** **8,50**	**388,80** **541,88** **680,00** **790,50** **956,25** **1200,00** **1600,00** **2080,00**	**1,9** **1,3** **1,1** **0,92** **0,76** **0,60** **0,45** **0,35**	**2,0** **1,8** **1,4** **1,2** **1,0** **0,79** **0,66** **0,54**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°22'	0,67 0,67 0,67 0,66 0,66 0,66 0,61 0,58	16,8 21,3 21,3 21,3 21,3 20,5 21,3 21,3	97 95 95 95 95 95 95 95	6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3	140 155	452
PN1902-ET100 **RN1902-ET100**	**5,62** **7,84** **8,50** **8,50** **8,50** **8,50** **8,50** **7,08**	**816,48** **1137,94** **1428,00** **1660,05** **2008,13** **2520,00** **3280,00** **4280,00**	**0,89** **0,64** **0,51** **0,44** **0,36** **0,29** **0,22** **0,17**	**1,0** **1,0** **0,84** **0,72** **0,60** **0,48** **0,40** **0,27**	3°21' 3°21' 3°21' 3°21' 3°21' 3°21' 3°13' 3°16'	0,54 0,54 0,54 0,54 0,54 0,53 0,50 0,46	18,4 21,3 21,3 21,3 21,3 21,3 21,3 21,3	98 96 95 95 95 95 95 97	6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3	140 155	452
PN2302-ET125 **RN2302-ET125**	**9,33** **11,1** **12,5** **11,2** **10,1** **12,5** **9,94** **10,5** **11,2**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**2,0** **1,7** **1,4** **1,1** **1,0** **0,77** **0,63** **0,46** **0,35**	**2,9** **2,9** **2,8** **2,0** **1,5** **1,5** **1,0** **0,77** **0,66**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,68 0,68 0,68 0,68 0,68 0,67 0,68 0,66 0,63	31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3	105 103 101 103 104 101 104 103 103	6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3	214 230	454
PN2302-ET125 **RN2302-ET125**	**9,57** **11,4** **12,5** **11,4** **10,4** **12,5** **11,6** **12,2** **12,5**	**765,26** **913,09** **1077,95** **1352,73** **1572,55** **2018,10** **2441,25** **3268,13** **4213,13**	**0,95** **0,79** **0,67** **0,54** **0,46** **0,36** **0,30** **0,22** **0,17**	**1,7** **1,7** **1,6** **1,1** **0,89** **0,84** **0,65** **0,54** **0,46**	3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°22' 3°13'	0,56 0,56 0,56 0,56 0,56 0,56 0,56 0,53 0,50	31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3	105 102 101 102 104 101 102 101 101	6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3	214 230	454
PN2402-ET125 **RN2402-ET125**	**12,5** **14,9** **17,6** **19,2** **16,0** **17,9** **14,3** **15,0** **15,6**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**2,0** **1,7** **1,4** **1,1** **1,0** **0,77** **0,63** **0,46** **0,35**	**3,9** **3,9** **3,9** **3,4** **2,4** **2,1** **1,4** **1,1** **0,91**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,68 0,68 0,68 0,68 0,68 0,68 0,68 0,66 0,64	30,0 30,0 30,0 30,0 30,0 26,9 27,4 28,4 29,3	101 98 94 88 97 93 98 98 97	6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3 6,3	255 271	454
PN2402-ET125 **RN2402-ET125**	**10,5** **12,5** **14,7** **18,5**	**765,26** **913,09** **1077,95** **1352,73**	**0,95** **0,79** **0,67** **0,54**	**1,8** **1,8** **1,8** **1,8**	3°24' 3°24' 3°24' 3°24'	0,56 0,56 0,57 0,56	30,0 30,0 30,0 30,0	104 101 98 92	6,3 6,3 6,3 6,3	255 271	

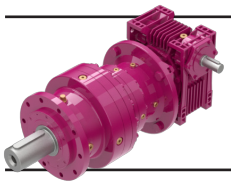
Otoblokajlı / *Irreversible* / Selbsthemmung



Motorsuz Sonsuz Eklemeli Planet Redüktörler
Planetary Gear Units with Worm Stage Input
Planetengetriebe mit Schneckenradvorstufe

n_1=725

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN2402-ET125	**16,2**	**1572,55**	**0,36**	**1,3**	3°24'	0,56	30,0	97	6,3	255	454
RN2402-ET125	**19,4**	**2018,10**	**0,30**	**0,89**	3°24'	0,56	29,3	87	6,3	271	
	16,1	**2441,25**	**0,22**	**0,73**	3°24'	0,56	29,7	97	6,3		
	16,8	**3268,13**	**0,17**	**0,51**	3°22'	0,54	30,0	96	6,3		
	14,1	**4213,13**	**0,18**	**0,52**	3°13'	0,50	30,0	98	6,3		



Motorsuz Sonsuz Eklemeli Planet Redüktörler

Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN1102-ET063 **RN1102-ET063**	**1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00**	**413,88** **451,92** **493,45** **618,06** **717,75** **867,28** **1086,29** **1460,88** **1910,38**	**1,1** **1,1** **0,96** **0,77** **0,66** **0,55** **0,44** **0,33** **0,25**	**0,22** **0,20** **0,18** **0,15** **0,13** **0,11** **0,08** **0,06** **0,05**	5°22' 5°22' 5°22' 5°22' 5°22' 5°22' 5°22' 5°23' 5°06'	0,55 0,55 0,55 0,55 0,55 0,55 0,54 0,53 0,50	1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20	41 41 41 41 41 41 41 41 41	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1	33 35	448
PN1102-ET063 **RN1102-ET063**	**1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00** **1,00**	**870,57** **950,58** **1037,95** **1300,06** **1509,75** **1824,28** **2284,96** **3071,58** **3745,83**	**0,55** **0,50** **0,46** **0,37** **0,31** **0,26** **0,21** **0,15** **0,13**	**0,13** **0,12** **0,11** **0,09** **0,08** **0,06** **0,05** **0,04** **0,04**	3°16' 3°16' 3°16' 3°16' 3°16' 3°16' 3°16' 3°11' 2°12'	0,42 0,42 0,42 0,42 0,42 0,42 0,42 0,39 0,33	1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20 1,20	41 41 41 41 41 41 41 41 41	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1	33 35	448
PN1202-ET063 **RN1202-ET063**	**2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00**	**413,88** **451,92** **493,45** **618,06** **717,75** **867,28** **1086,29** **1460,88** **1910,38**	**1,1** **1,1** **0,96** **0,77** **0,66** **0,55** **0,44** **0,33** **0,25**	**0,44** **0,40** **0,37** **0,29** **0,25** **0,21** **0,17** **0,13** **0,10**	5°22' 5°22' 5°22' 5°22' 5°22' 5°22' 5°22' 5°23' 5°06'	0,55 0,55 0,55 0,55 0,55 0,54 0,54 0,53 0,50	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00	39 39 39 39 39 39 39 39 39	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1	36 38	448
PN1202-ET063 **RN1202-ET063**	**1,58** **1,73** **1,89** **2,00** **2,00** **2,00** **2,00** **2,00** **2,00**	**870,57** **950,58** **1037,95** **1300,06** **1509,75** **1824,28** **2284,96** **3071,58** **3745,83**	**0,55** **0,50** **0,46** **0,37** **0,31** **0,26** **0,21** **0,15** **0,13**	**0,21** **0,21** **0,21** **0,18** **0,16** **0,13** **0,10** **0,08** **0,08**	3°16' 3°16' 3°16' 3°16' 3°16' 3°16' 3°16' 3°11' 2°12'	0,42 0,42 0,42 0,42 0,42 0,42 0,42 0,39 0,33	3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00 3,00	40 39 39 39 39 39 39 39 39	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1	36 38	448
PN1502-ET080 **RN1502-ET080**	**2,93** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10**	**408,00** **525,94** **658,75** **765,00** **960,00** **1160,00** **1546,67** **2049,33**	**1,2** **0,90** **0,72** **0,62** **0,49** **0,41** **0,31** **0,23**	**0,62** **0,51** **0,41** **0,35** **0,28** **0,23** **0,18** **0,14**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°22' 5°23'	0,58 0,58 0,58 0,58 0,57 0,58 0,55 0,53	3,51 3,72 3,72 3,72 3,72 3,72 3,72 3,72	61 61 61 61 61 61 61 61	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1	57 67	450
PN1502-ET080 **RN1502-ET080**	**2,57** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10** **3,10**	**843,20** **1086,94** **1361,42** **1581,00** **1984,00** **2397,33** **3170,67** **4253,33**	**0,56** **0,44** **0,35** **0,30** **0,24** **0,20** **0,15** **0,11**	**0,34** **0,32** **0,26** **0,22** **0,18** **0,15** **0,11** **0,09**	3°13' 3°13' 3°13' 3°13' 3°13' 3°13' 3°16' 3°11'	0,44 0,44 0,44 0,44 0,44 0,44 0,42 0,40	3,72 3,72 3,72 3,72 3,72 3,72 3,72 3,72	62 61 61 61 61 61 61 61	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1	57 67	450
PN1602-ET080 **RN1602-ET080**	**4,13** **5,00** **5,00** **5,00** **5,00** **5,00** **5,00**	**408,00** **525,94** **658,75** **765,00** **960,00** **1160,00** **1546,67**	**1,2** **0,90** **0,72** **0,62** **0,49** **0,41** **0,31**	**0,87** **0,81** **0,65** **0,56** **0,45** **0,37** **0,29**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°22'	0,58 0,58 0,58 0,58 0,58 0,58 0,55	7,50 7,50 7,50 7,50 7,50 7,50 7,50	57 53 53 53 53 53 53	3,1 3,1 3,1 3,1 3,1 3,1 3,1	73 83	450

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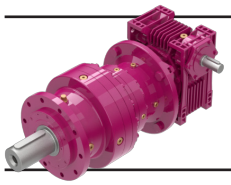


Motorsuz Sonsuz Eklemeli Planet Redüktörler

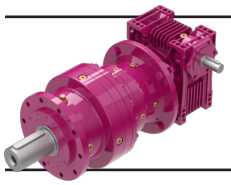
Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=475

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=Nominal Power P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN1602-ET080 **RN1602-ET080**	**5,00**	**2049,33**	**0,23**	**0,23**	5°23'	0,53	7,50	53	3,1	73 83	450
PN1602-ET080 **RN1602-ET080**	**2,57** **3,31** **4,15** **4,82** **5,00** **5,00** **4,72** **3,29**	**843,20** **1086,94** **1361,42** **1581,00** **1984,00** **2397,33** **3170,67** **4253,33**	**0,56** **0,44** **0,35** **0,30** **0,24** **0,20** **0,15** **0,11**	**0,34** **0,34** **0,34** **0,34** **0,28** **0,24** **0,17** **0,10**	3°13' 3°13' 3°13' 3°13' 3°13' 3°13' 3°16' 3°11'	0,44 0,45 0,44 0,44 0,44 0,44 0,42 0,40	7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50	62 60 57 54 53 53 54 60	3,1 3,1 3,1 3,1 3,1 3,1 3,1 3,1	73 83	450
PN1902-ET100 **RN1902-ET100**	**6,84** **8,50** **8,50** **8,50** **8,50** **8,50** **8,50** **8,50**	**388,80** **541,88** **680,00** **790,50** **956,25** **1200,00** **1600,00** **2080,00**	**1,2** **0,88** **0,70** **0,60** **0,50** **0,40** **0,30** **0,23**	**1,4** **1,3** **1,0** **0,88** **0,73** **0,58** **0,47** **0,38**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°22'	0,61 0,61 0,61 0,61 0,61 0,60 0,57 0,54	17,1 21,3 21,3 21,3 21,3 21,3 21,3 21,3	97 95 95 95 95 95 95 95	7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4	140 155	452
PN1902-ET100 **RN1902-ET100**	**5,04** **7,03** **8,50** **8,50** **8,50** **8,50** **8,50** **6,36**	**816,48** **1137,94** **1428,00** **1660,05** **2008,13** **2520,00** **3280,00** **4280,00**	**0,58** **0,42** **0,33** **0,29** **0,24** **0,19** **0,14** **0,11**	**0,63** **0,63** **0,61** **0,53** **0,44** **0,35** **0,29** **0,18**	3°21' 3°21' 3°21' 3°21' 3°21' 3°21' 3°13' 3°16'	0,48 0,48 0,48 0,48 0,48 0,48 0,45 0,41	21,3 21,3 21,3 21,3 21,3 21,3 21,3 21,3	98 97 95 95 95 95 95 97	7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4	140 155	452
PN2302-ET125 **RN2302-ET125**	**9,50** **11,3** **12,5** **11,3** **10,3** **12,5** **11,1** **11,7** **12,4**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**1,3** **1,1** **0,94** **0,75** **0,65** **0,50** **0,42** **0,30** **0,23**	**2,1** **2,1** **2,0** **1,4** **1,1** **1,1** **0,78** **0,62** **0,51**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,62 0,63 0,63 0,63 0,63 0,62 0,62 0,59 0,59	31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3	104 103 101 103 104 101 103 103 101	7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4	214 230	454
PN2302-ET125 **RN2302-ET125**	**9,73** **11,6** **12,5** **12,0** **11,2** **12,5** **12,5** **12,5** **12,5**	**765,26** **913,09** **1077,95** **1352,73** **1572,55** **2018,10** **2441,25** **3268,13** **4213,13**	**0,62** **0,52** **0,44** **0,35** **0,30** **0,24** **0,19** **0,15** **0,11**	**1,3** **1,3** **1,2** **0,88** **0,71** **0,62** **0,51** **0,40** **0,33**	3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°22' 3°13'	0,50 0,50 0,50 0,50 0,50 0,49 0,50 0,48 0,45	31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3	104 103 101 102 103 101 101 101 101	7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4	214 230	454
PN2402-ET125 **RN2402-ET125**	**12,6** **15,0** **17,7** **19,4** **16,2** **18,9** **15,5** **16,2** **16,9**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**1,3** **1,1** **0,94** **0,75** **0,65** **0,50** **0,42** **0,30** **0,23**	**2,8** **2,8** **2,8** **2,4** **1,7** **1,6** **1,1** **0,85** **0,70**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,63 0,63 0,63 0,63 0,63 0,62 0,63 0,60 0,59	30,0 30,0 30,0 30,0 30,0 28,4 29,0 29,9 30,0	101 98 93 87 97 89 97 96 96	7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4 7,4	255 271	454
PN2402-ET125 **RN2402-ET125**	**9,87** **11,8** **13,9** **17,5**	**765,26** **913,09** **1077,95** **1352,73**	**0,62** **0,52** **0,44** **0,35**	**1,3** **1,3** **1,3** **1,3**	3°24' 3°24' 3°24' 3°24'	0,50 0,50 0,50 0,50	30,0 30,0 30,0 30,0	104 102 99 93	7,4 7,4 7,4 7,4	255 271	454

Otoblokajlı / *Irreversible* / Selbsthemmung

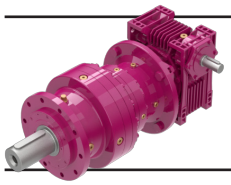


Motorsuz Sonsuz Eklemeli Planet Redüktörler
Planetary Gear Units with Worm Stage Input
Planetengetriebe mit Schneckenradvorstufe

n_1=475

Tipi *Type* Typ	**Anma Momenti** *Nominal Torques* Nenndrehmoment	**Çevrim Oranı** *Ratio* Übersetzung	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen	**P_N=Nominal Güç** *P_N=Nominal Power* P_N=NennLeistung	**Vida Açısı** *Lead Angle* Steigung-swinkel	**Verim** *Efficiency* Wirkungs-grad	**Maksimum Moment** *Maximum Torque* Maximum Drehmoment	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	**Güv. Rad.Yük Giriş** *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	**Ağırlık** *Weight* Gewicht	**Ölçü Sayfası** *Dim. Page* Maße Seite
PN2402-ET125 **RN2402-ET125**	**17,2** **20,0** **17,5** **18,1** **12,8**	**1572,55** **2018,10** **2441,25** **3268,13** **4213,13**	**0,30** **0,24** **0,19** **0,15** **0,11**	**1,1** **0,99** **0,71** **0,57** **0,33**	3°24' 3°24' 3°24' 3°22' 3°13'	0,50 0,50 0,50 0,48 0,46	17,2 20,0 17,5 18,1 12,8	93 85 93 90 101	7,4 7,4 7,4 7,4 7,4	255 271	454

Otoblokajlı / *Irreversible* / Selbsthemmung



Motorsuz Sonsuz Eklemeli Planet Redüktörler

Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=Nominal Power P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN1102-ET063	**1,00**	**413,88**	**0,87**	**0,17**	5°22'	0,52	1,20	41	3,5	33	
RN1102-ET063	**1,00**	**451,92**	**0,80**	**0,16**	5°22'	0,52	1,20	41	3,5	35	
	1,00	**493,45**	**0,73**	**0,15**	5°22'	0,52	1,20	41	3,5		
	1,00	**618,06**	**0,58**	**0,12**	5°22'	0,52	1,20	41	3,5		
	1,00	**717,75**	**0,50**	**0,10**	5°22'	0,52	1,20	41	3,5		
	1,00	**867,28**	**0,42**	**0,08**	5°22'	0,52	1,20	41	3,5		
	1,00	**1086,29**	**0,33**	**0,07**	5°22'	0,51	1,20	41	3,5		
	1,00	**1460,88**	**0,25**	**0,05**	5°23'	0,47	1,20	41	3,5		
	1,00	**1910,38**	**0,19**	**0,04**	5°06'	0,46	1,20	41	3,5		
PN1102-ET063	**1,00**	**870,57**	**0,41**	**0,12**	3°16'	0,37	1,20	41	3,5	33	
RN1102-ET063	**1,00**	**950,58**	**0,38**	**0,11**	3°16'	0,37	1,20	41	3,5	35	
	1,00	**1037,95**	**0,35**	**0,10**	3°16'	0,37	1,20	41	3,5		
	1,00	**1300,06**	**0,28**	**0,08**	3°16'	0,37	1,20	41	3,5		
	1,00	**1509,75**	**0,24**	**0,07**	3°16'	0,37	1,20	41	3,5		
	1,00	**1824,28**	**0,20**	**0,06**	3°16'	0,37	1,20	41	3,5		
	1,00	**2284,96**	**0,16**	**0,05**	3°16'	0,36	1,20	41	3,5		
	1,00	**3071,58**	**0,12**	**0,03**	3°11'	0,36	1,20	41	3,5		
	1,00	**3745,83**	**0,10**	**0,04**	2°12'	0,28	1,20	41	3,5		
PN1202-ET063	**2,00**	**413,88**	**0,87**	**0,35**	5°22'	0,52	3,00	39	3,5	36	
RN1202-ET063	**2,00**	**451,92**	**0,80**	**0,32**	5°22'	0,52	3,00	39	3,5	38	
	2,00	**493,45**	**0,73**	**0,29**	5°22'	0,52	3,00	39	3,5		
	2,00	**618,06**	**0,58**	**0,23**	5°22'	0,52	3,00	39	3,5		
	2,00	**717,75**	**0,50**	**0,20**	5°22'	0,52	3,00	39	3,5		
	2,00	**867,28**	**0,42**	**0,17**	5°22'	0,52	3,00	39	3,5		
	2,00	**1086,29**	**0,33**	**0,14**	5°22'	0,51	3,00	39	3,5		
	2,00	**1460,88**	**0,25**	**0,11**	5°23'	0,47	3,00	39	3,5		
	2,00	**1910,38**	**0,19**	**0,09**	5°06'	0,46	3,00	39	3,5		
PN1202-ET063	**1,44**	**870,57**	**0,41**	**0,17**	3°16'	0,37	3,00	41	3,5	36	
RN1202-ET063	**1,57**	**950,58**	**0,38**	**0,17**	3°16'	0,37	3,00	41	3,5	38	
	1,72	**1037,95**	**0,35**	**0,17**	3°16'	0,37	3,00	40	3,5		
	2,00	**1300,06**	**0,28**	**0,16**	3°16'	0,37	3,00	39	3,5		
	2,00	**1509,75**	**0,24**	**0,14**	3°16'	0,37	3,00	39	3,5		
	2,00	**1824,28**	**0,20**	**0,11**	3°16'	0,37	3,00	39	3,5		
	2,00	**2284,96**	**0,16**	**0,09**	3°16'	0,36	3,00	39	3,5		
	2,00	**3071,58**	**0,12**	**0,07**	3°11'	0,36	3,00	39	3,5		
	1,99	**3745,83**	**0,10**	**0,07**	2°12'	0,28	3,00	39	3,5		
PN1502-ET080	**3,10**	**408,00**	**0,88**	**0,52**	5°42'	0,55	3,72	61	3,5	57	
RN1502-ET080	**3,10**	**525,94**	**0,68**	**0,40**	5°42'	0,55	3,72	61	3,5	67	
	3,10	**658,75**	**0,55**	**0,32**	5°42'	0,55	3,72	61	3,5		
	3,10	**765,00**	**0,47**	**0,28**	5°42'	0,55	3,72	61	3,5		
	3,10	**960,00**	**0,38**	**0,22**	5°42'	0,55	3,72	61	3,5		
	3,10	**1160,00**	**0,31**	**0,18**	5°42'	0,55	3,72	61	3,5		
	3,10	**1546,67**	**0,23**	**0,14**	5°22'	0,52	3,72	61	3,5		
	3,10	**2049,33**	**0,18**	**0,12**	5°23'	0,48	3,72	61	3,5		
PN1502-ET080	**2,37**	**843,20**	**0,43**	**0,26**	3°13'	0,41	3,72	63	3,5	57	
RN1502-ET080	**3,05**	**1086,94**	**0,33**	**0,26**	3°13'	0,41	3,72	61	3,5	67	
	3,10	**1361,42**	**0,26**	**0,21**	3°13'	0,41	3,72	61	3,5		
	3,10	**1581,00**	**0,23**	**0,18**	3°13'	0,40	3,72	61	3,5		
	3,10	**1984,00**	**0,18**	**0,15**	3°13'	0,40	3,72	61	3,5		
	3,10	**2397,33**	**0,15**	**0,12**	3°13'	0,41	3,72	61	3,5		
	3,10	**3170,67**	**0,11**	**0,10**	3°16'	0,37	3,72	61	3,5		
	2,94	**4253,33**	**0,08**	**0,07**	3°11'	0,35	3,72	61	3,5		
PN1602-ET080	**4,20**	**408,00**	**0,88**	**0,70**	5°42'	0,55	7,50	57	3,5	73	
RN1602-ET080	**5,00**	**525,94**	**0,68**	**0,65**	5°42'	0,55	7,50	53	3,5	83	
	5,00	**658,75**	**0,55**	**0,52**	5°42'	0,55	7,50	53	3,5		
	5,00	**765,00**	**0,47**	**0,45**	5°42'	0,55	7,50	53	3,5		
	5,00	**960,00**	**0,38**	**0,36**	5°42'	0,55	7,50	53	3,5		
	5,00	**1160,00**	**0,31**	**0,30**	5°42'	0,55	7,50	53	3,5		
	5,00	**1546,67**	**0,23**	**0,23**	5°22'	0,52	7,50	53	3,5		

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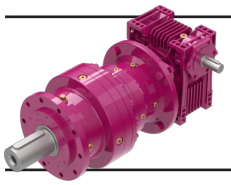


Motorsuz Sonsuz Eklemeli Planet Redüktörler

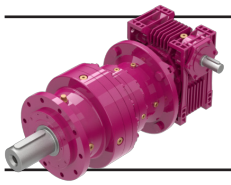
Planetary Gear Units with Worm Stage Input

Planetengetriebe mit Schneckenradvorstufe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN1602-ET080 **RN1602-ET080**	**5,00**	**2049,33**	**0,18**	**0,19**	5°23'	0,48	7,50	53	3,5	73 83	
PN1602-ET080 **RN1602-ET080**	**2,37** **3,05** **3,82** **4,44** **5,00** **5,00** **4,10** **2,94**	**843,20** **1086,94** **1361,42** **1581,00** **1984,00** **2397,33** **3170,67** **4253,33**	**0,43** **0,33** **0,26** **0,23** **0,18** **0,15** **0,11** **0,08**	**0,26** **0,26** **0,26** **0,26** **0,23** **0,19** **0,13** **0,07**	3°13' 3°13' 3°13' 3°13' 3°13' 3°13' 3°16' 3°11'	0,41 0,41 0,41 0,41 0,41 0,41 0,37 0,35	7,50 7,50 7,50 7,50 7,50 7,50 7,50 7,50	63 61 58 57 53 53 58 61	3,5 3,5 3,5 3,5 3,5 3,5 3,5 3,5	73 83	
PN1902-ET100 **RN1902-ET100**	**7,13** **8,50** **8,50** **8,50** **8,50** **8,50** **8,50** **8,50**	**388,80** **541,88** **680,00** **790,50** **956,25** **1200,00** **1600,00** **2080,00**	**0,93** **0,66** **0,53** **0,46** **0,38** **0,30** **0,23** **0,17**	**1,2** **1,0** **0,82** **0,71** **0,59** **0,47** **0,36** **0,30**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°22'	0,58 0,57 0,57 0,57 0,57 0,57 0,55 0,51	19,6 21,3 21,3 21,3 21,3 21,3 21,3 21,3	97 95 95 95 95 95 95 95	8,5 8,5 8,5 8,5 8,5 8,5 8,5 8,5	140 155	
PN1902-ET100 **RN1902-ET100**	**4,63** **6,45** **8,09** **8,50** **8,50** **8,50** **8,50** **5,52**	**816,48** **1137,94** **1428,00** **1660,05** **2008,13** **2520,00** **3280,00** **4280,00**	**0,44** **0,32** **0,25** **0,22** **0,18** **0,14** **0,11** **0,08**	**0,49** **0,49** **0,49** **0,44** **0,37** **0,29** **0,24** **0,14**	3°21' 3°21' 3°21' 3°21' 3°21' 3°21' 3°13' 3°16'	0,44 0,44 0,44 0,44 0,44 0,43 0,41 0,36	21,3 21,3 21,3 21,3 21,3 21,3 21,3 21,3	99 97 95 95 95 95 95 98	8,5 8,5 8,5 8,5 8,5 8,5 8,5 8,5	140 155	
PN2302-ET125 **RN2302-ET125**	**9,64** **11,5** **12,5** **11,5** **10,6** **12,5** **12,1** **12,5** **12,5**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**1,0** **0,84** **0,71** **0,57** **0,49** **0,38** **0,32** **0,23** **0,18**	**1,7** **1,7** **1,6** **1,2** **0,92** **0,85** **0,68** **0,53** **0,41**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,59 0,59 0,59 0,59 0,59 0,58 0,59 0,57 0,56	31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3	104 102 101 102 103 101 101 101 101	8,5 8,5 8,5 8,5 8,5 8,5 8,5 8,5 8,5	214 230	
PN2302-ET125 **RN2302-ET125**	**9,21** **11,0** **12,5** **12,5** **11,8** **12,5** **12,5** **12,5** **11,8**	**765,26** **913,09** **1077,95** **1352,73** **1572,55** **2018,10** **2441,25** **3268,13** **4213,13**	**0,47** **0,39** **0,33** **0,27** **0,23** **0,18** **0,15** **0,11** **0,09**	**0,98** **0,98** **0,94** **0,75** **0,61** **0,51** **0,42** **0,33** **0,25**	3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°24' 3°22' 3°13'	0,46 0,46 0,46 0,46 0,46 0,46 0,46 0,43 0,41	31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3 31,3	104 103 101 101 102 101 101 101 102	8,5 8,5 8,5 8,5 8,5 8,5 8,5 8,5 8,5	214 230	
PN2402-ET125 **RN2402-ET125**	**12,6** **15,0** **17,7** **19,5** **16,5** **19,8** **16,5** **17,3** **18,0**	**357,94** **427,09** **504,20** **632,73** **735,55** **943,95** **1141,88** **1575,00** **2047,50**	**1,0** **0,84** **0,71** **0,57** **0,49** **0,38** **0,32** **0,23** **0,18**	**2,2** **2,2** **2,2** **2,0** **1,4** **1,3** **0,92** **0,72** **0,59**	5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42' 5°42'	0,59 0,59 0,59 0,59 0,59 0,59 0,59 0,57 0,56	30,0 30,0 30,0 30,0 30,0 29,7 30,0 30,0 30,0	101 98 93 87 94 86 94 93 92	8,5 8,5 8,5 8,5 8,5 8,5 8,5 8,5 8,5	255 271	
PN2402-ET125 **RN2402-ET125**	**9,21** **11,0** **13,0** **16,3**	**765,26** **913,09** **1077,95** **1352,73**	**0,47** **0,39** **0,33** **0,27**	**0,98** **0,98** **0,98** **0,98**	3°24' 3°24' 3°24' 3°24'	0,46 0,46 0,47 0,46	30,0 30,0 30,0 30,0	104 103 100 94	8,5 8,5 8,5 8,5	255 271	

Otoblokajlı / *Irreversible* / Selbsthemmung



Motorsuz Sonsuz Eklemeli Planet Redüktörler

Planetary Gear Units with Worm Stage Input

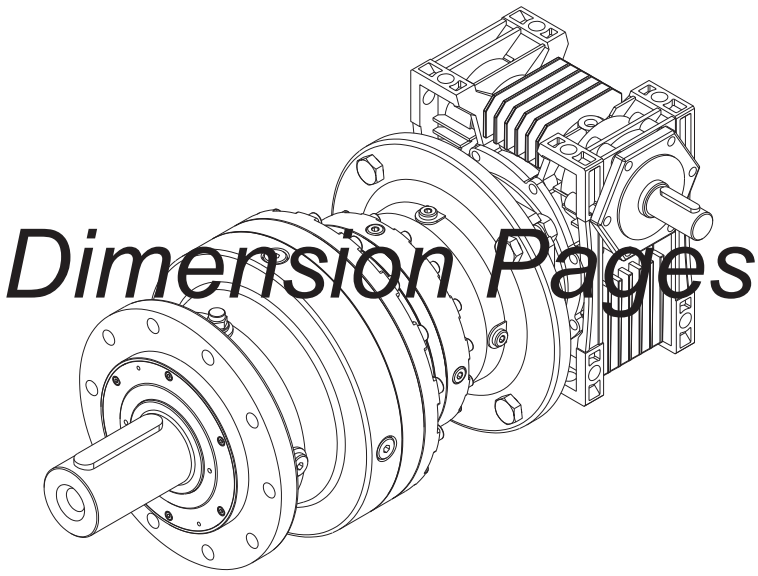
Planetengetriebe mit Schneckenradvorstufe

n_1=360

Tipi *Type* Typ	Anma Momenti *Nominal Torques* Nenndrehmoment	Çevrim Oranı *Ratio* Übersetzung	Çıkış Devri *Output Speeds* Abtriebs-drehzahlen	P_N=Nominal Güç P_N=*Nominal Power* P_N=NennLeistung	Vida Açısı *Lead Angle* Steigung-swinkel	Verim *Efficiency* Wirkungs-grad	Maksimum Moment *Maximum Torque* Maximum Drehmoment	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb)	Güv. Rad.Yük Giriş *Per.O. Loads (Input)* Zul.Querkräfte (Antrieb)	Ağırlık *Weight* Gewicht	Ölçü Sayfası *Dim. Page* Maße Seite
PN2402-ET125	**18,1**	**1572,55**	**0,23**	**0,93**	3°24'	0,46	30,0	92	8,5	255	
RN2402-ET125	**20,0**	**2018,10**	**0,18**	**0,81**	3°24'	0,46	30,0	86	8,5	271	
	18,5	**2441,25**	**0,15**	**0,62**	3°24'	0,46	30,0	93	8,5		
	18,5	**3268,13**	**0,11**	**0,49**	3°22'	0,44	30,0	93	8,5		
	11,8	**4213,13**	**0,09**	**0,25**	3°13'	0,42	30,0	102	8,5		

Otoblokajlı / *Irreversible* / Selbsthemmung

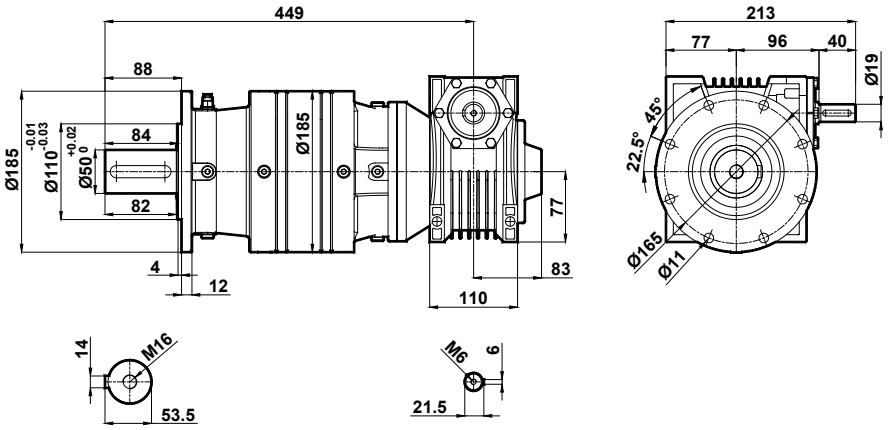
Ölçü Sayfaları



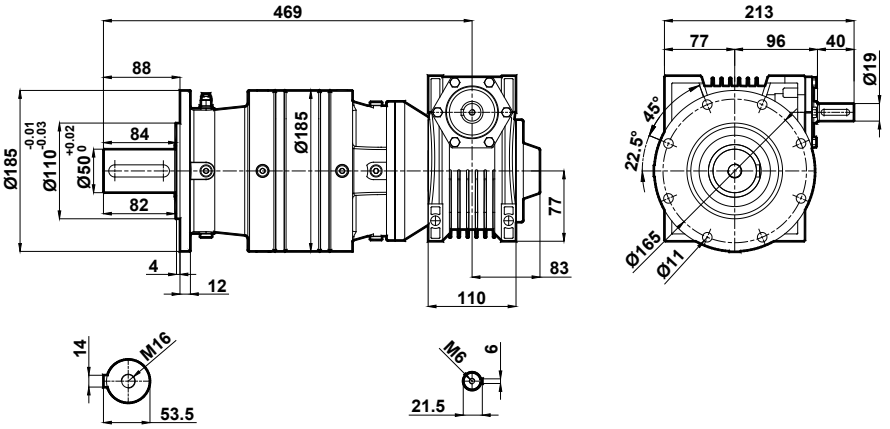
Dimension Pages

Abmessungsseiten

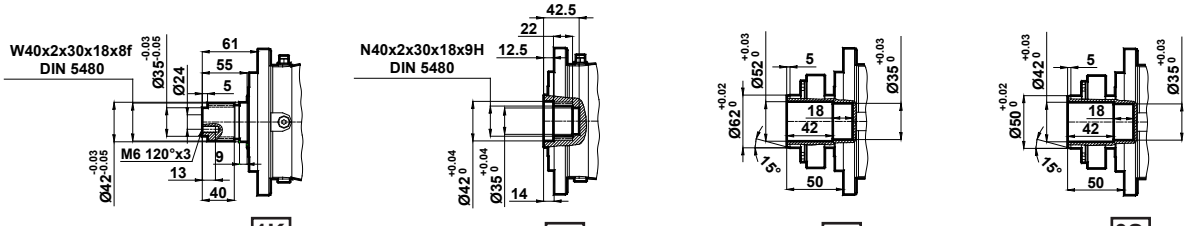
PN1102L . 01 - ET063



PN1202L . 01 - ET063



Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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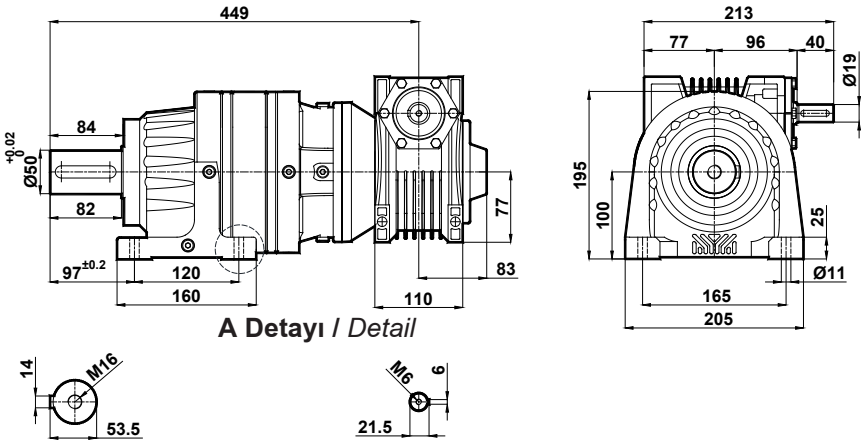
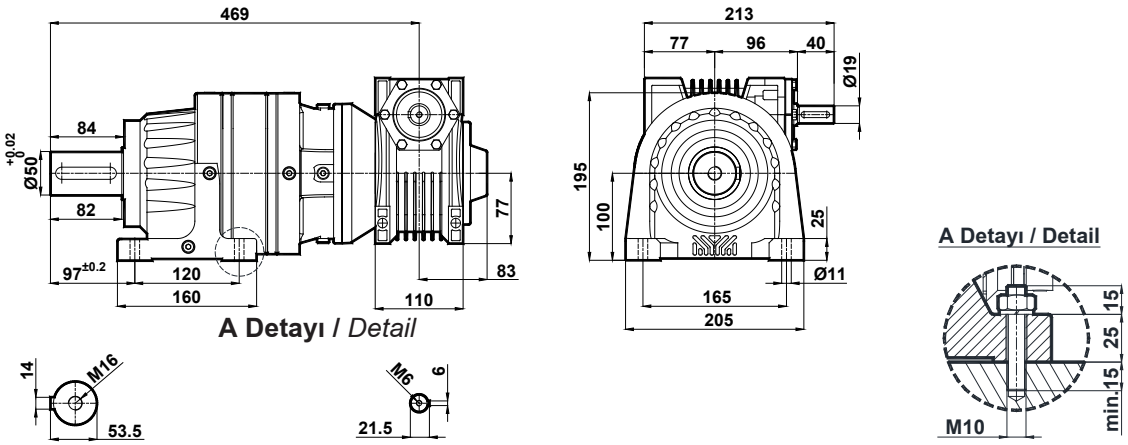
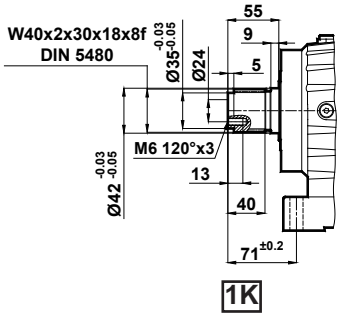


RN1202L . 01 - ET063

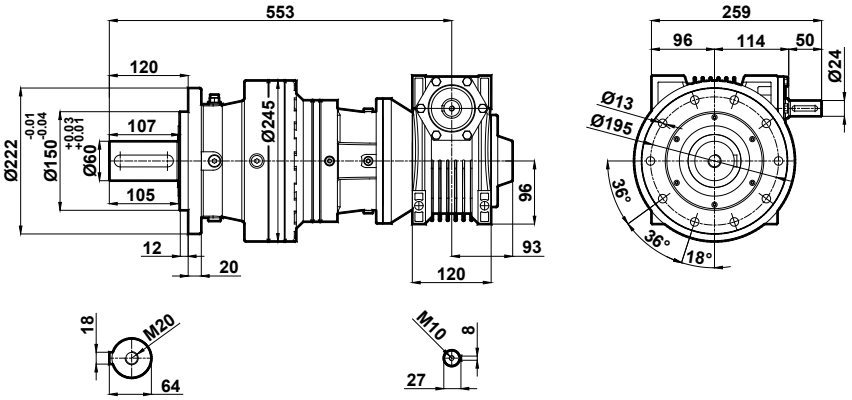


Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:

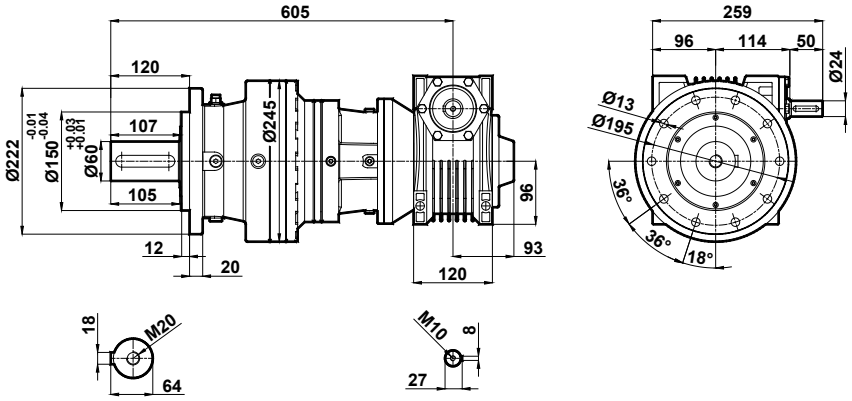


1K

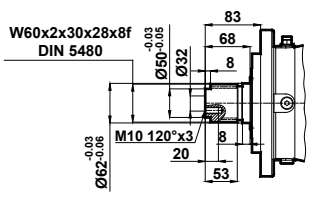
PN1502L . 01 - ET080



PN1602L . 01 - ET080



Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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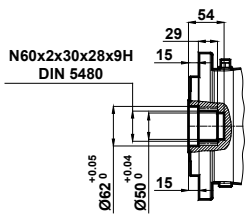

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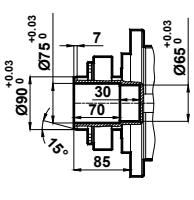

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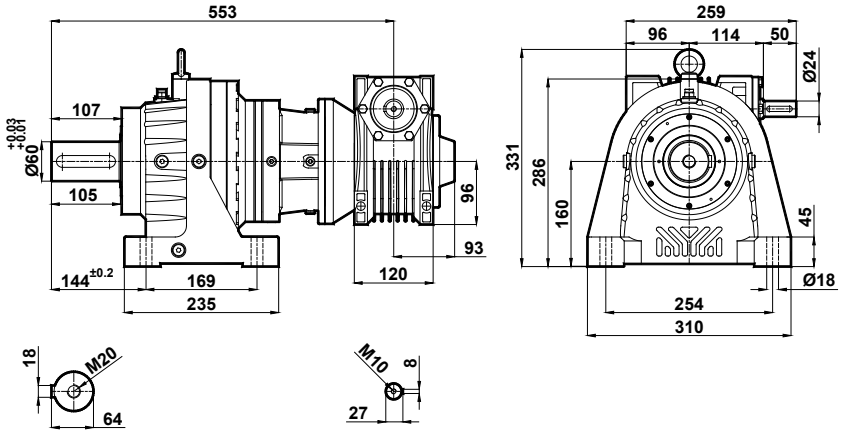
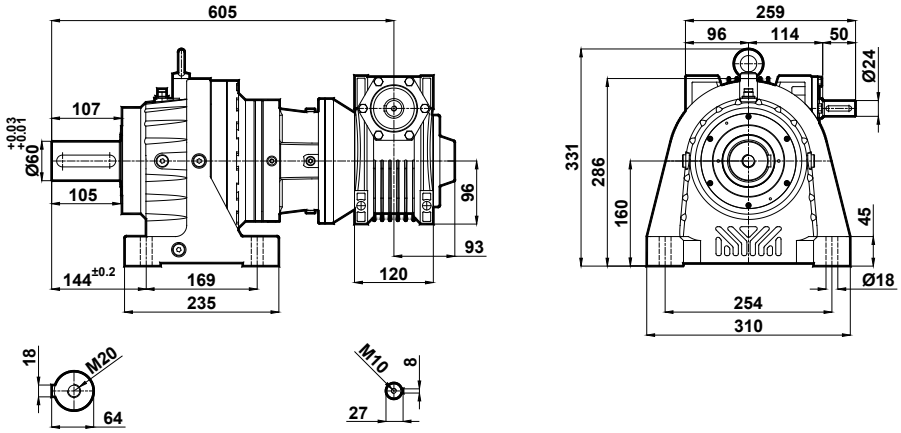
RN1502L . 01 - ET080



RN1602L . 01 - ET080



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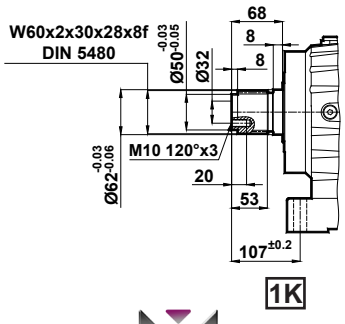
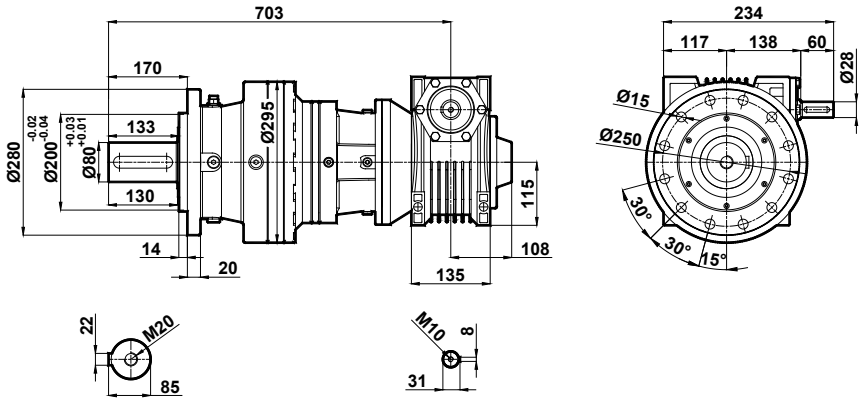


PN1902L . 01 - ET100



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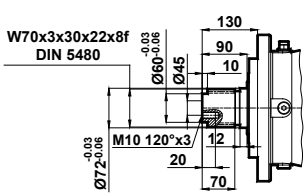

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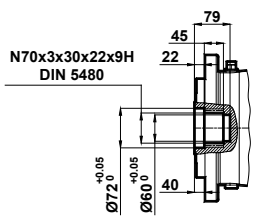

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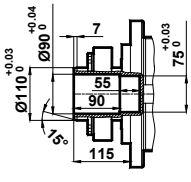

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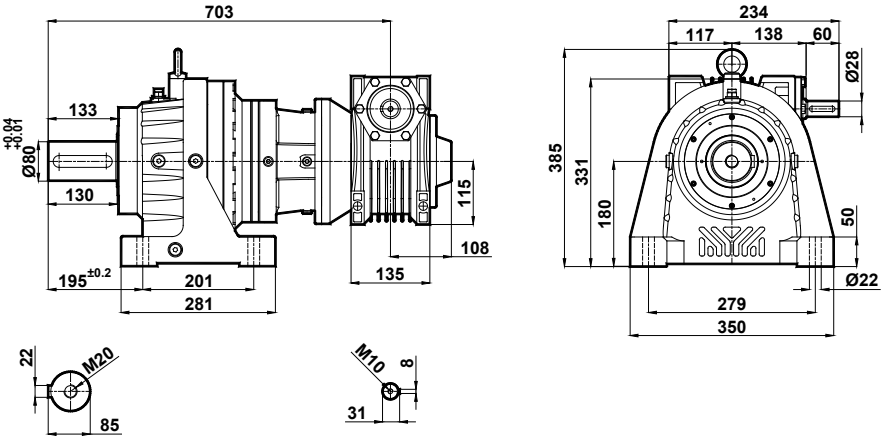
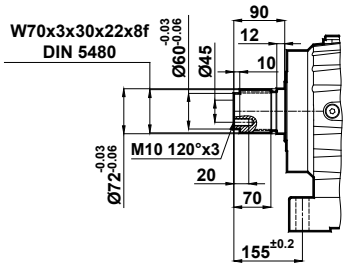
RN1902L . 01 - ET100



Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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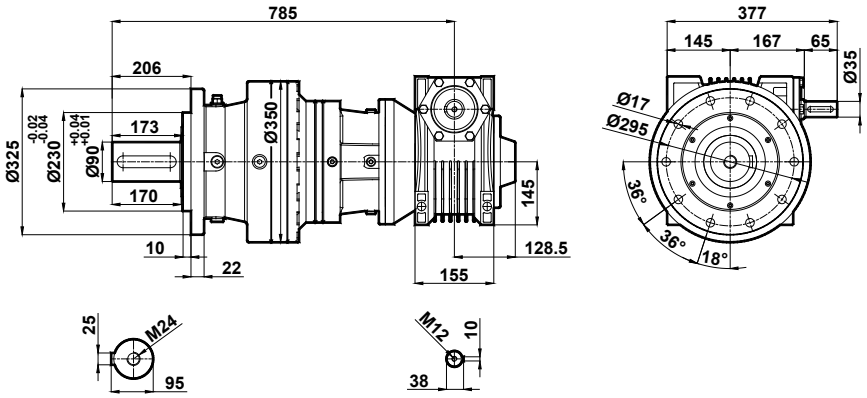
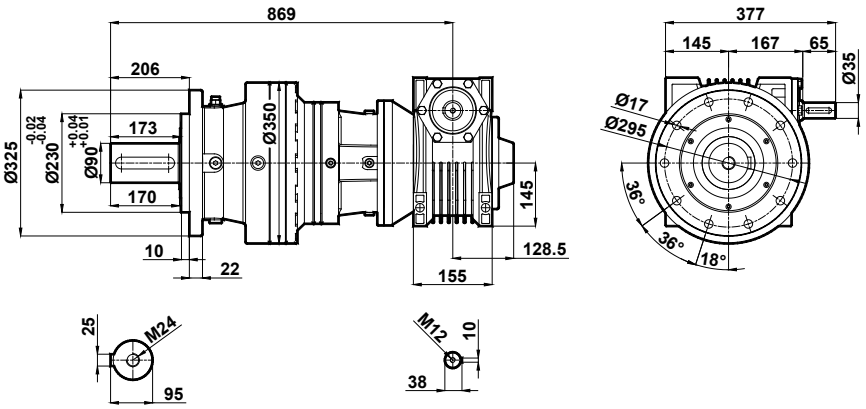
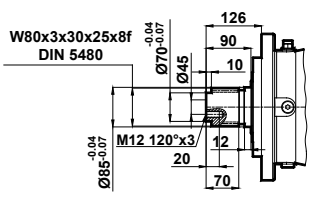
PN2302L . 01 - ET125



PN2402L . 01 - ET125



Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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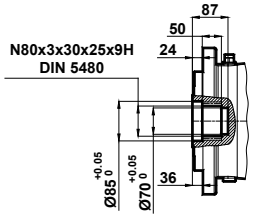

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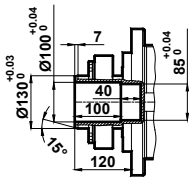

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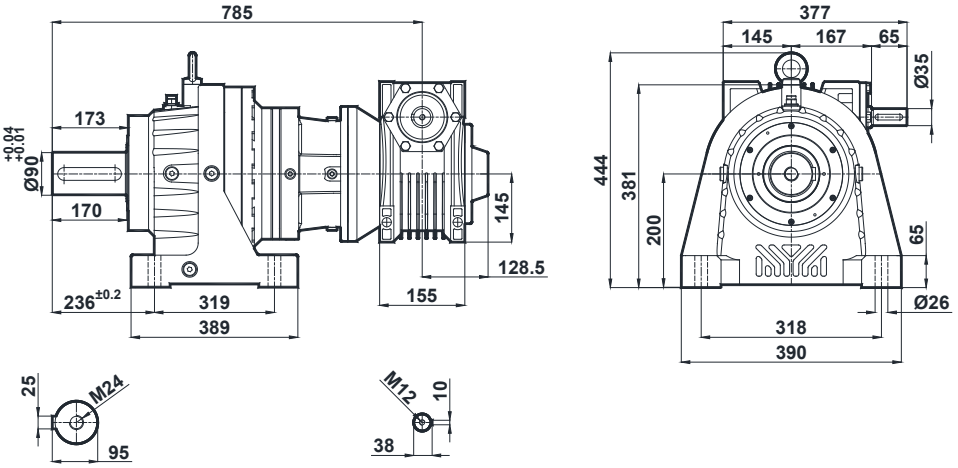
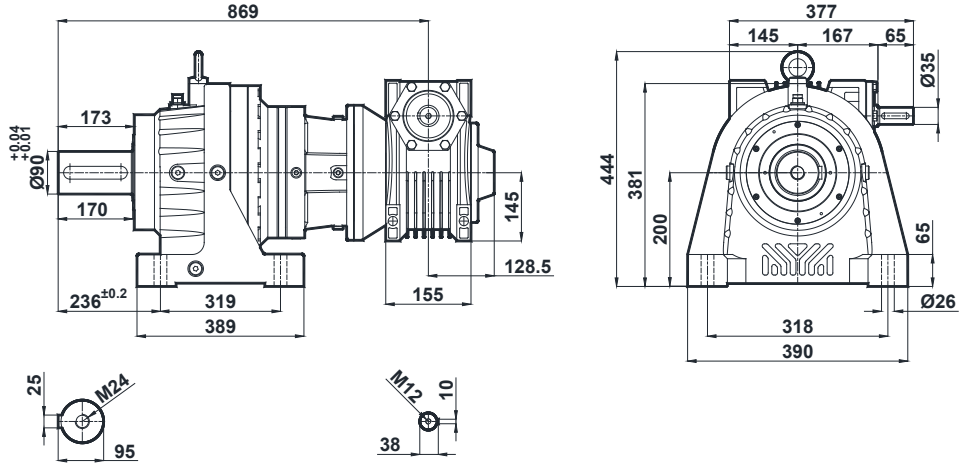
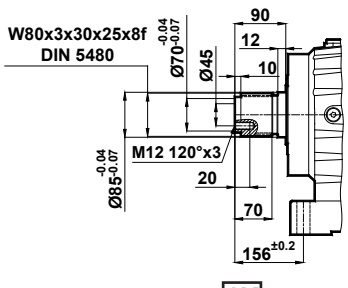
RN2302L . 01 - ET125



RN2402L . 01 - ET125



Çıkış Mili Opsiyonları / *Output Shaft Options* / Auswahlmöglichkeiten von Ausgangswelle:



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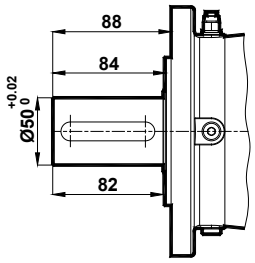
Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P11.....

01



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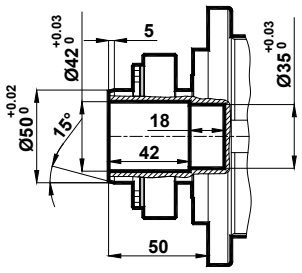

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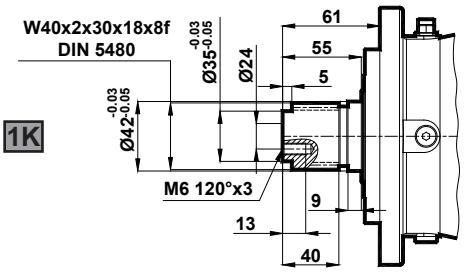

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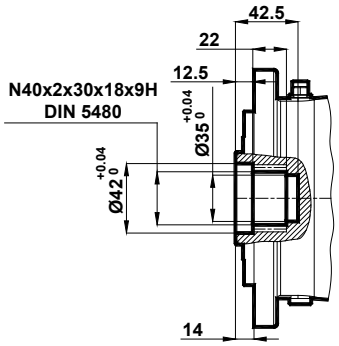

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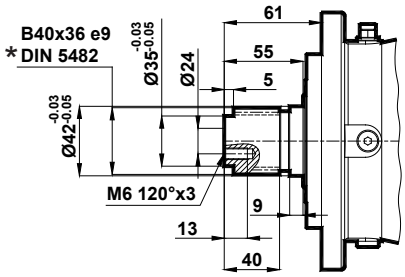

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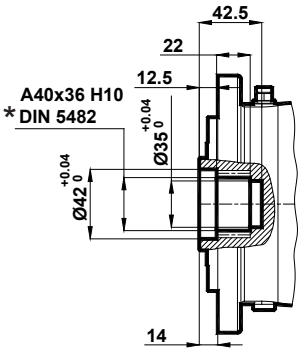

R11.....

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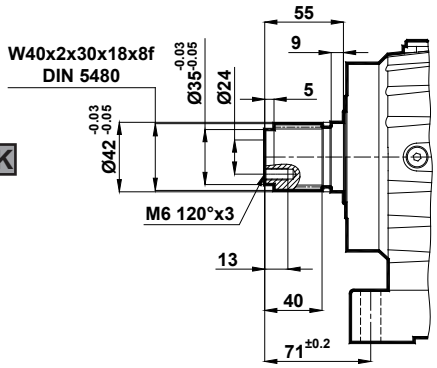

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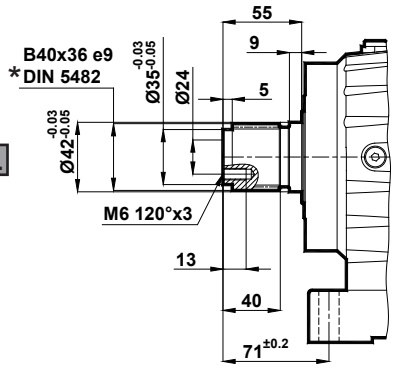
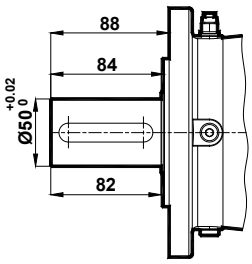


* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P12.....

01



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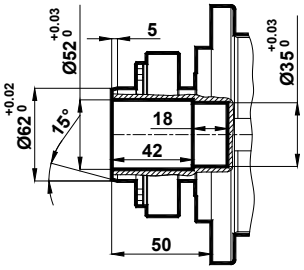

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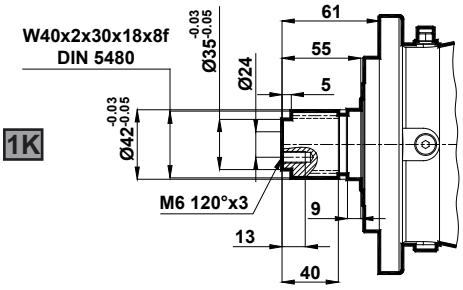

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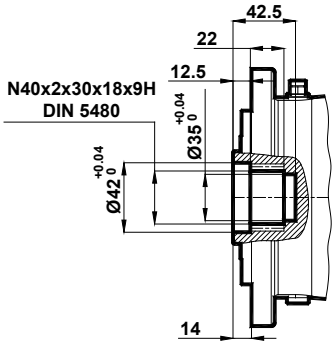

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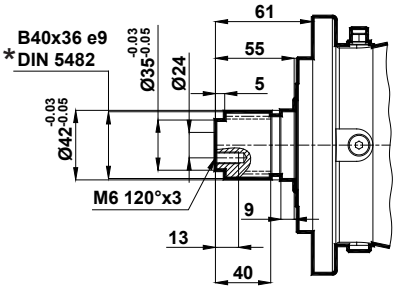

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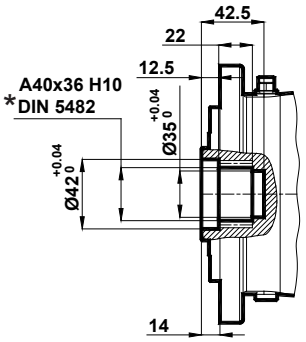

R12.....

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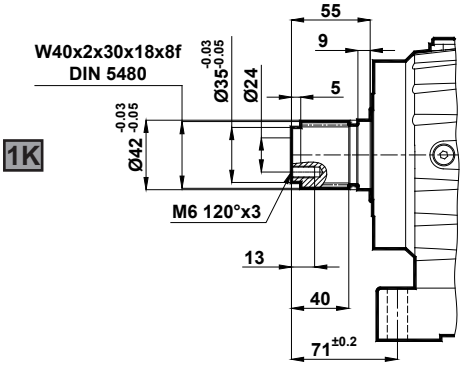

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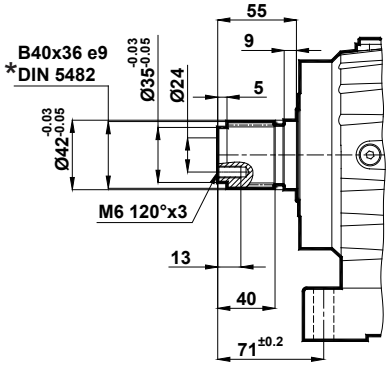
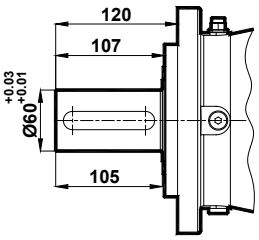


* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P15.....

01



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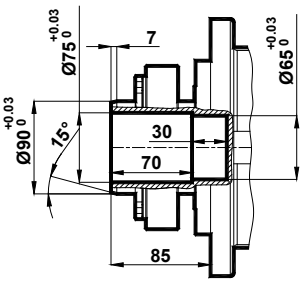

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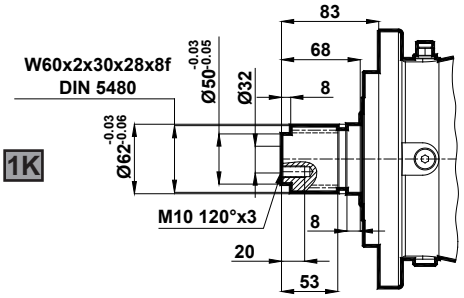

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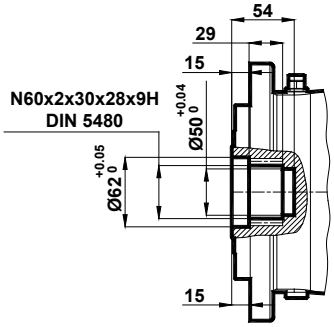

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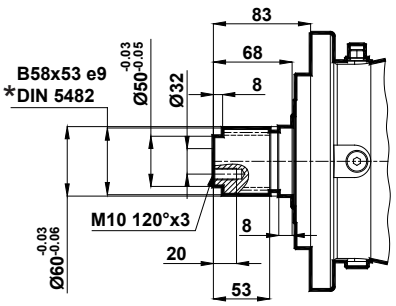

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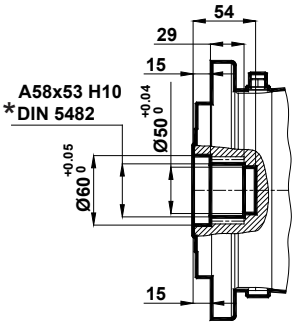
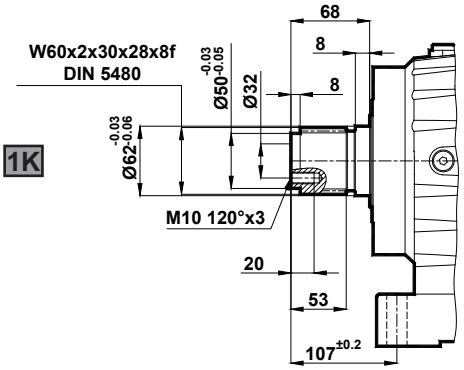


R15.....

1K



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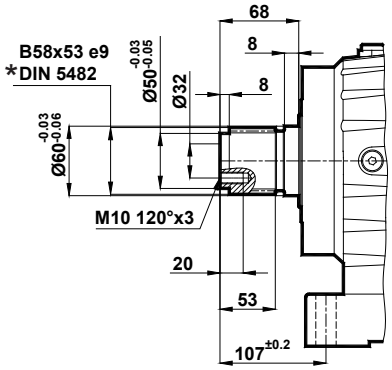
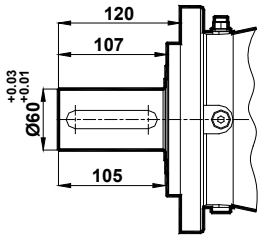


* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P16.....

01



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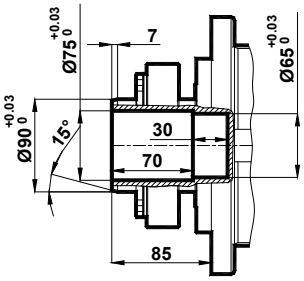

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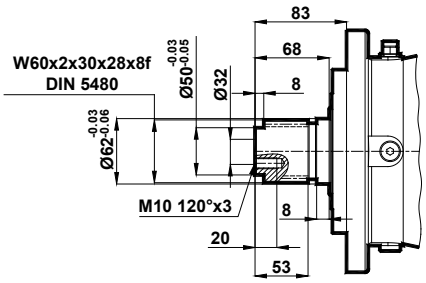

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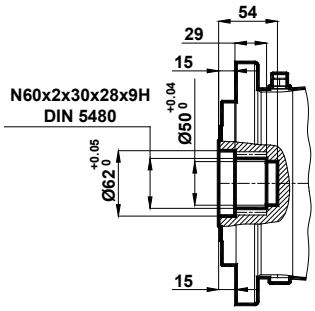

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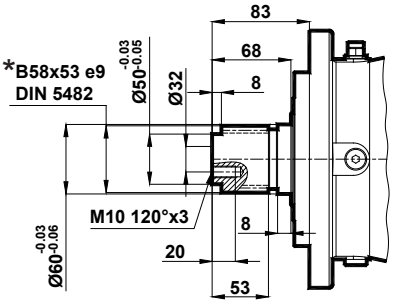

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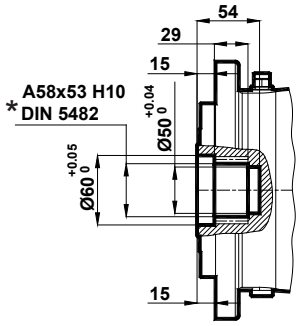
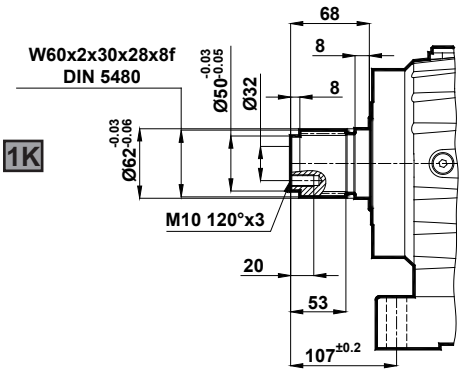


R16.....

1K



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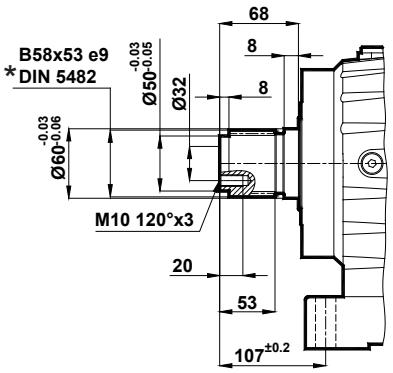
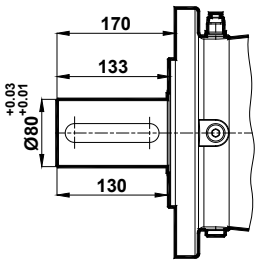


* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P19.....

01



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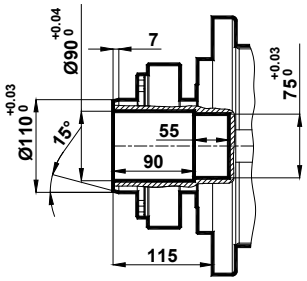

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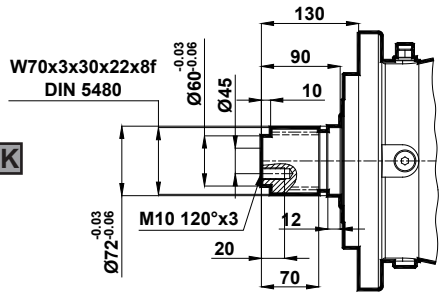

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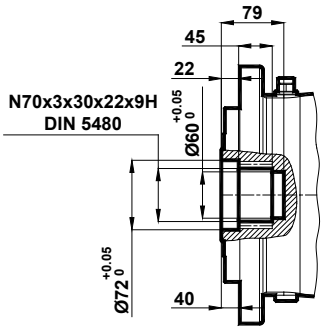

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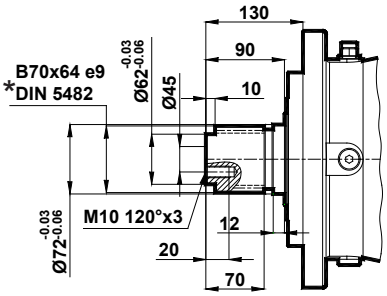

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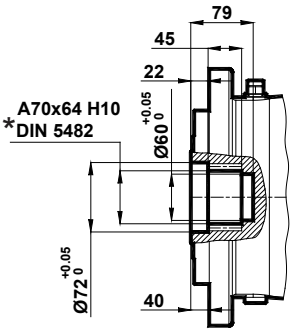
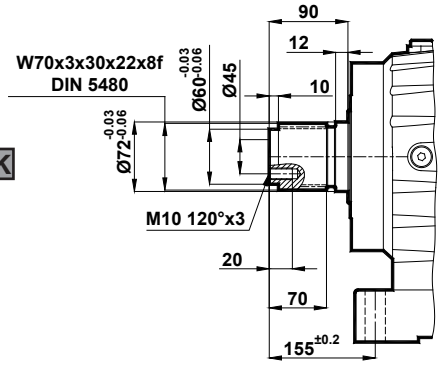


R19.....

1K



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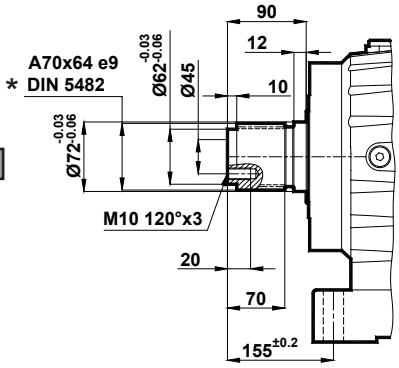
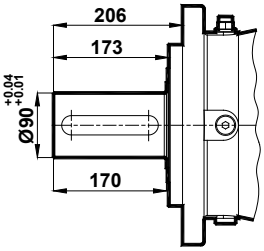


* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P23.....

01



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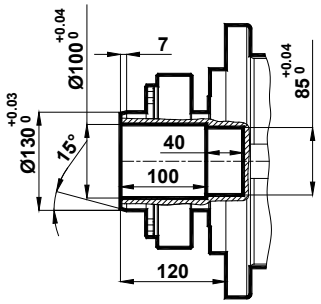

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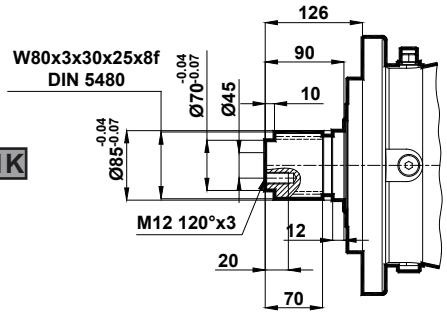

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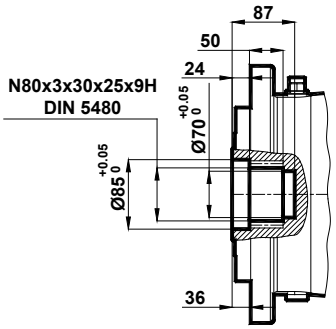

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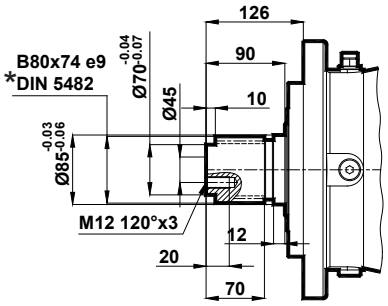

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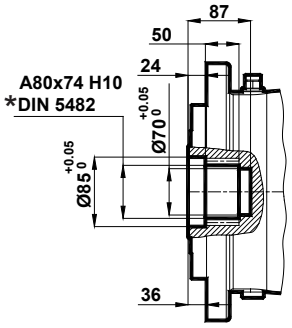

R23.....

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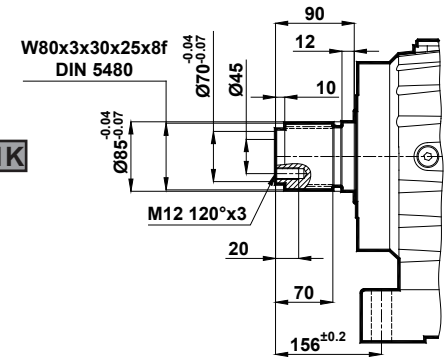

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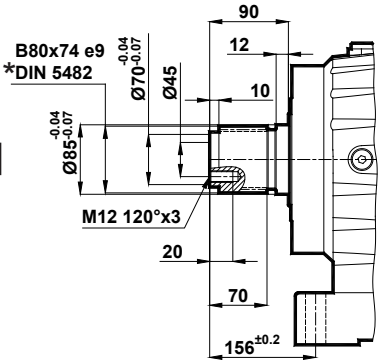
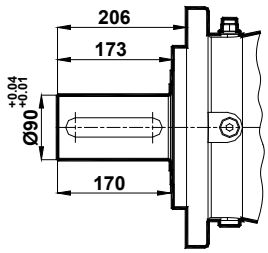


* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P24.....□

01



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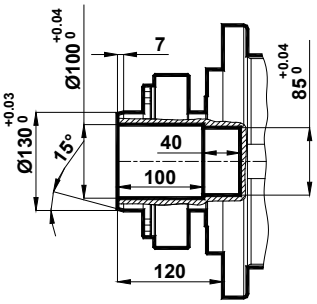

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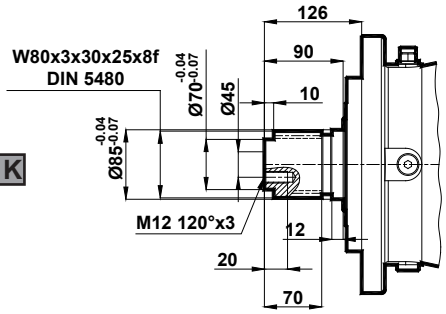

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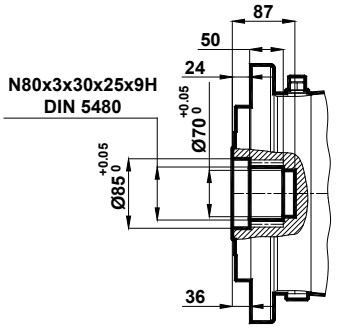

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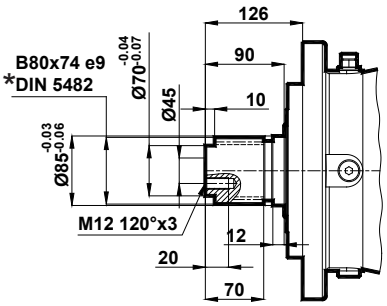

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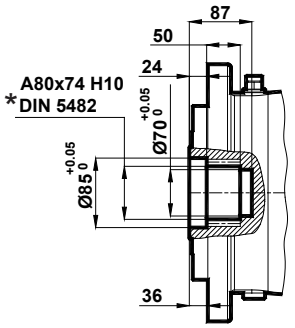
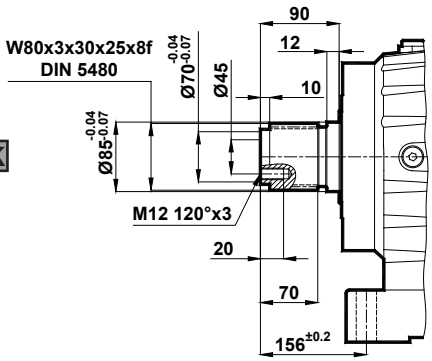


R24.....□

1K



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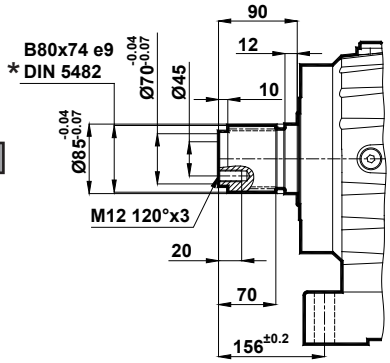
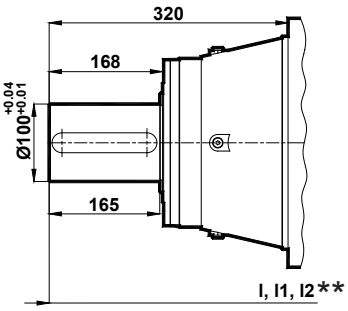


* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P24.....

10



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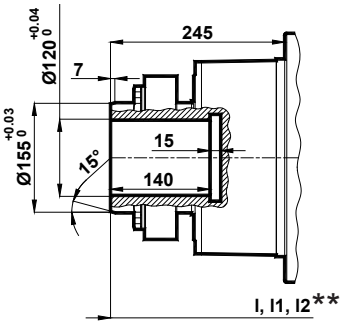
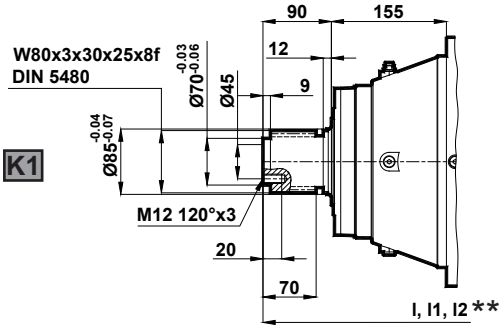


K1



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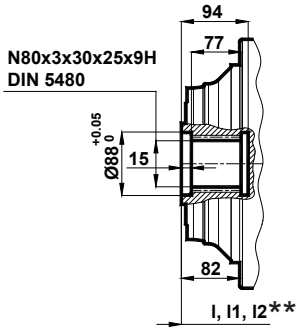
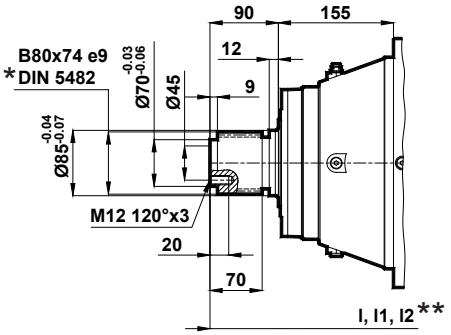


L1



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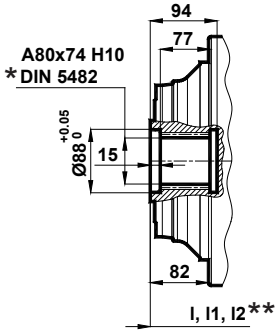


Kademe *Stage* Stufe	10			S0			K1			K0			L1			L0		
	I	I1	I2	I	I1	I2	I	I1	I2	I	I1	I2	I	I1	I2	I	I1	I2
1	459	-	-	384	-	-	384	-	-	229	-	-	384	-	-	229	-	-
2	582	636	734	507	561	659	507	561	659	352	406	504	507	561	659	352	406	504
3	657	694	769	582	619	694	582	619	694	427	464	539	582	619	694	427	464	539
4	708	756	820	633	681	745	633	681	745	478	526	590	633	681	745	478	526	590

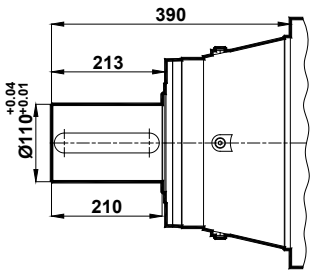
* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

** **I, I1, I2 için seçtiğiniz ürünün ölçü sayfasına bakınız.**
** *For I, I1, I2 see dimension pages of the product that you choose.*
** Für I, I1, I2 siehe Abmessungsseiten von dem gewählten Produkt.

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P27.....

01



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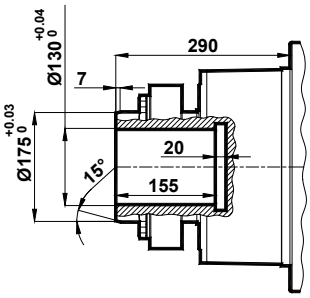

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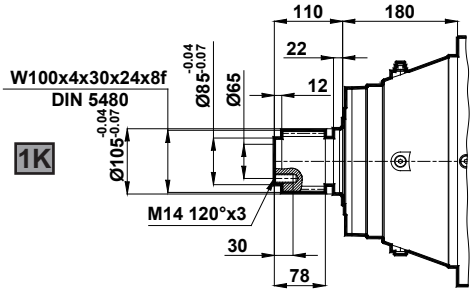

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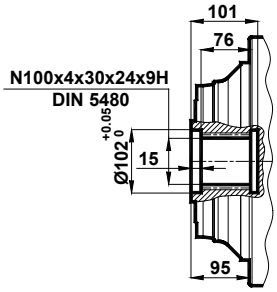

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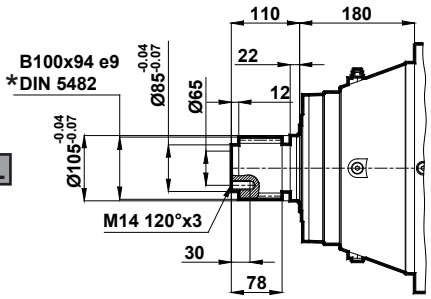

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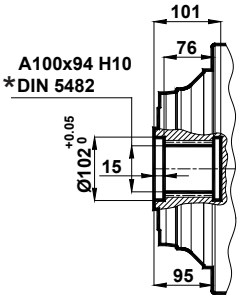
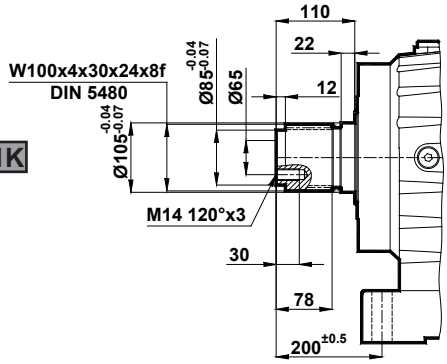


R27.....

1K



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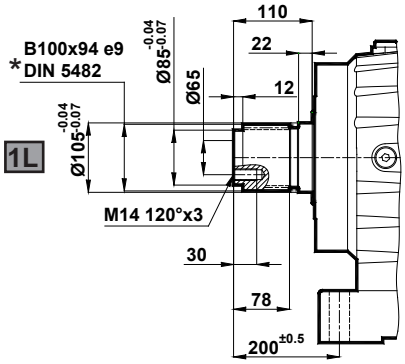
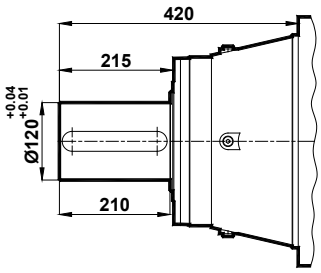


* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P29.....

01



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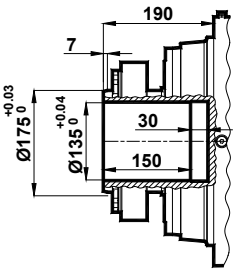

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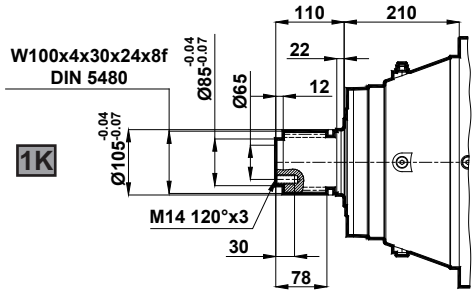

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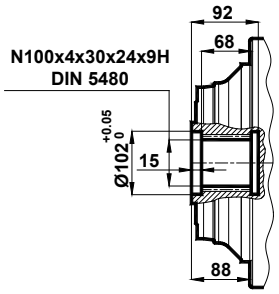

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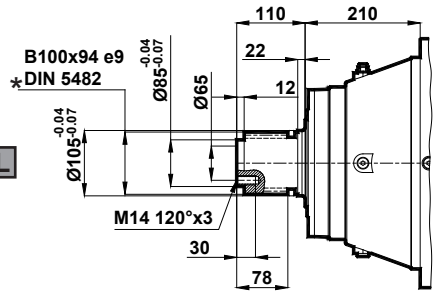

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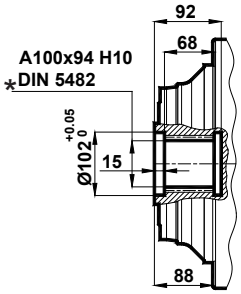

R29.....

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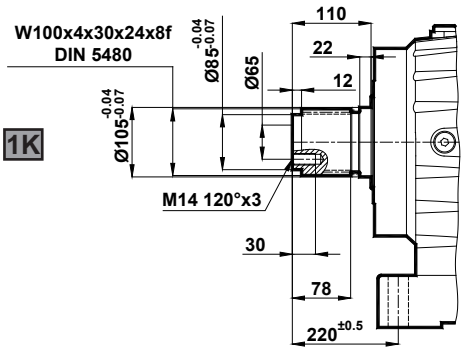

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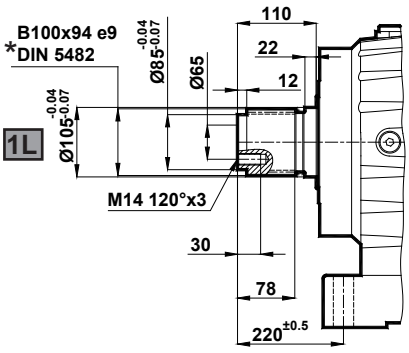
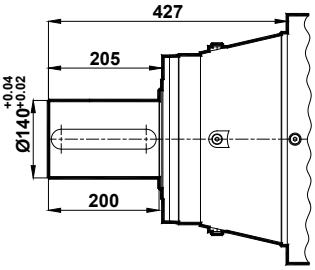


* **Eski norma göre** / *According to old standard* / Nach dem alten Norm

Mil Seçenekleri / *Output Shaft Options* / Auswahlmöglichkeiten für Abtriebswelle

P35.....

01



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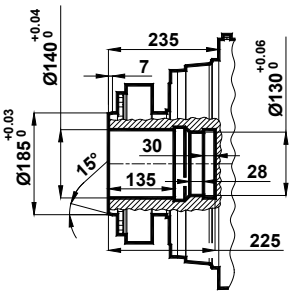
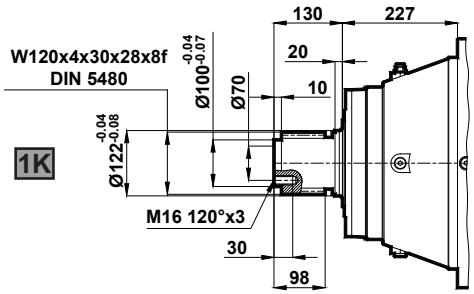


1K



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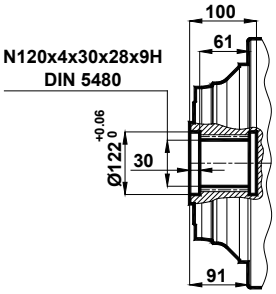

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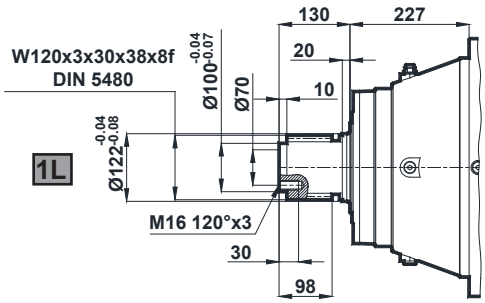

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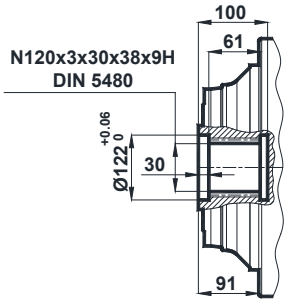

R35.....

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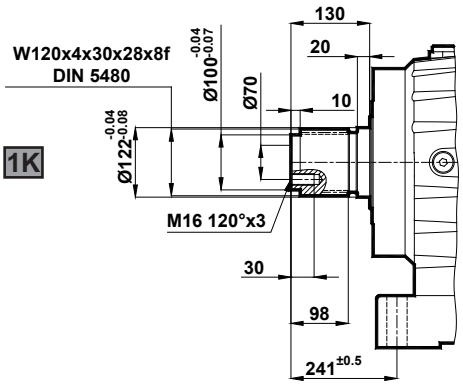

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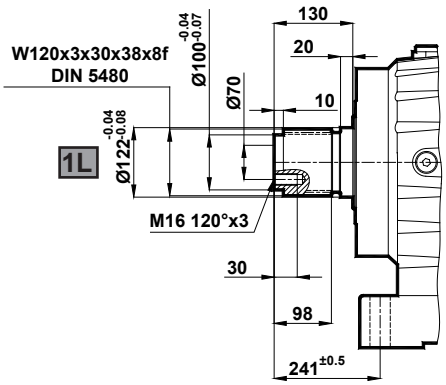
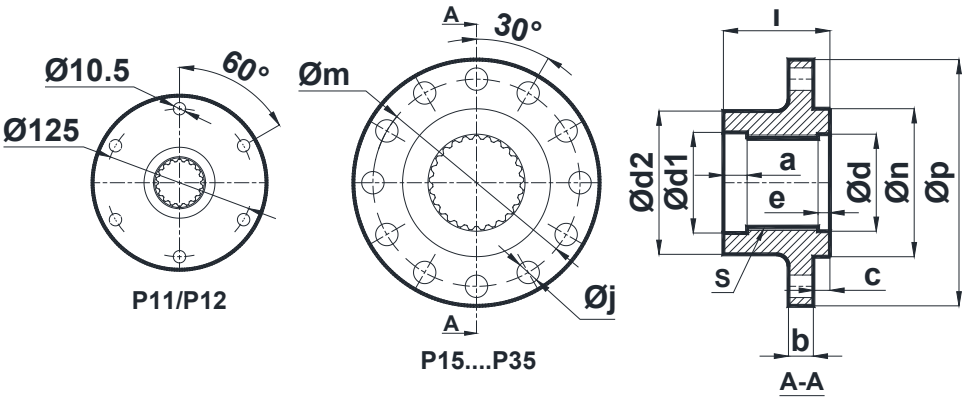
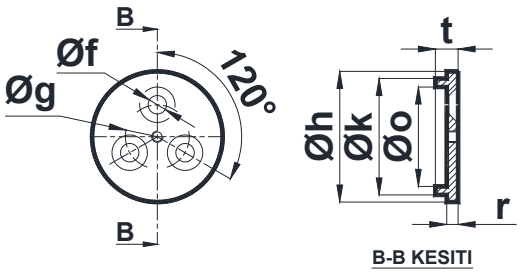


Tambur Bağlantı Flanşı / *Drum Connection Flange* / Trommelflansch



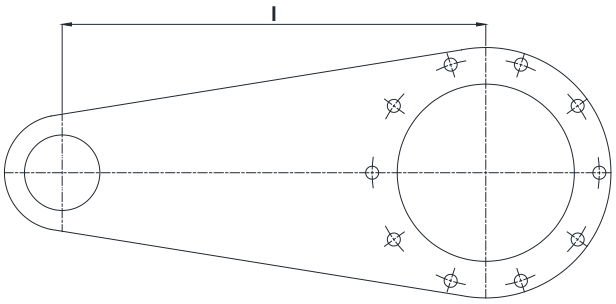
	a	b	c	Ød	Ød1	Ød2	e	Øj	l	Øm	Øn	Øp	S (DIN 5480)
P11 / P12	15	10	8	42	42	60	5	10,5	55	125	60	147	N40x2x30x18x9H
P15 / P16	15	14	10	62	62	95	8	12,5	68	145	95	165	N60x2x30x28x9H
P19	20	21	14	72	72	121	10	19	90	175	125	208	N70x3x30x22x9H
P23 / P24	20	21	14	82	85	121	10	19	90	175	125	208	N80x3x30x25x9H
P27 / P29	32	24	20	105	105	145	12	21	110	212	170	254	N100x4x30x24x9H
P35	32	31	19	122	122	181	10	25	130	260	200	309	N120x4x30x28x9H

Çektirme Pulu / *Assembly Ring* / Montagescheibe



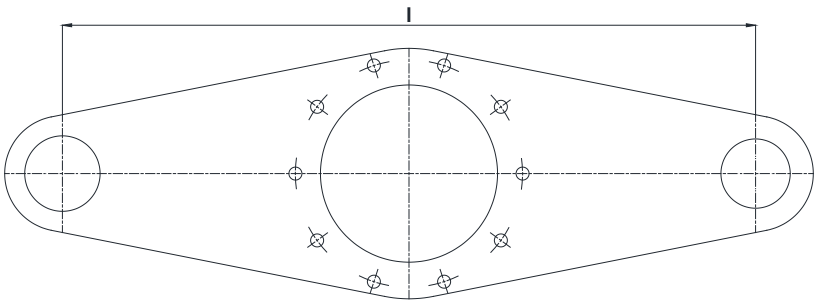
	Øf	Øg	Øh	Øk	Øo	Ør	t
P11 / P12	6,5	24	52	42	35	4	8
P15 / P16	10,5	32	70	62	50	7	13
P19	11	45	80	72	60	7	15
P23 / P24	13	45	92	82	70	8	16
P27 / P29	15	65	114	105	85	10	20
P35	17	70	134	122	100	11	20

Tek Taraflı Tork Kolu / *One Sided Torque Arm* / Einseitige Drehmomentstütze

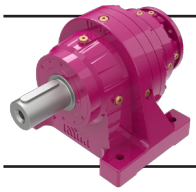


	I
P11 / P12	300
P15 / P16	350
P19	400
P23 / P24	450
P27	700
P29	800
P35	900

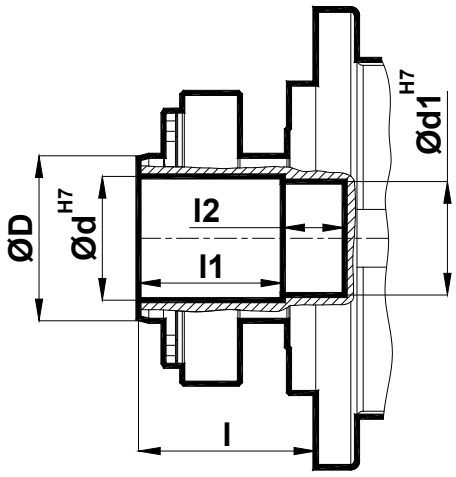
Çift Taraflı Tork Kolu / *Two Sided Torque Arm* / Doppelseitige Drehmomentstütze



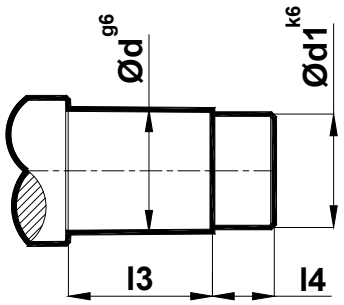
	I
P11 / P12	450
P15 / P16	500
P19	600
P23 / P24	700
P27	1000
P29	1100
P35	1200



P SERİSİ DELİK MİLLİ SIKMA BİLEZİKLİ REDÜKTÖRLER
P SERIES HOLLOW SHAFT WITH SHRINK DISC CONNECTOR
P SERIE HOHLWELLE MIT SCHRUMPFSCHEIBE



Makine Mili / *Machine Shaft* / Maschinenwelle



Gövde *Size* Baugröße	ØD	Ød	Ød1	I	I1	I2	I3	I4	M x z (12.9)	Ta [Nm]
P11..0S	50	42	35	50	42	15	37	15	M6x8	12
P12..0S	62	52	35	50	42	15	37	15	M6x10	12
P15/16..0S	90	75	65	85	70	26	65	26	M8x10	30
P19..0S	110	90	75	115	90	50	85	50	M10x10	59
P23/24..0S	130	100	85	120	100	35	95	35	M12x12	100
P27..0S	175	130	-	290	155	-	150	-	M16x10	250
P29..0S	175	135	-	190	150	-	145	-	M16x10	250
P35..0S	185	140	130	235	135	60	130	60	M16x15	250

İstenilen yüzey pürüzlülüğü değeri: Rz ≤ 16 µm
Desired surface roughness value: Rz ≤ 16 µm
Gewünschter Oberflächenrauhigkeitswert: Rz ≤ 16 µm

Ta: Sıkma torku / *Tightening torque* / Anzugsmoment

Notlar / *Notes* / Notizen

Notlar / *Notes* / Notizen

Notlar / *Notes* / Notizen