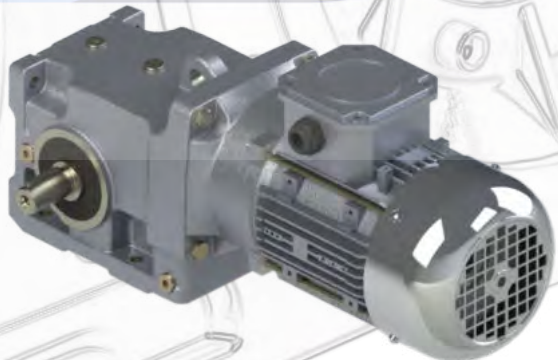
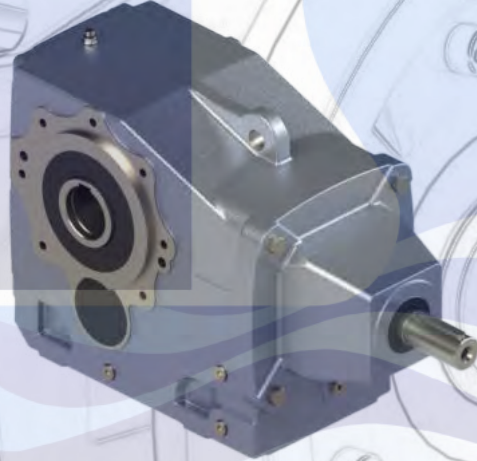
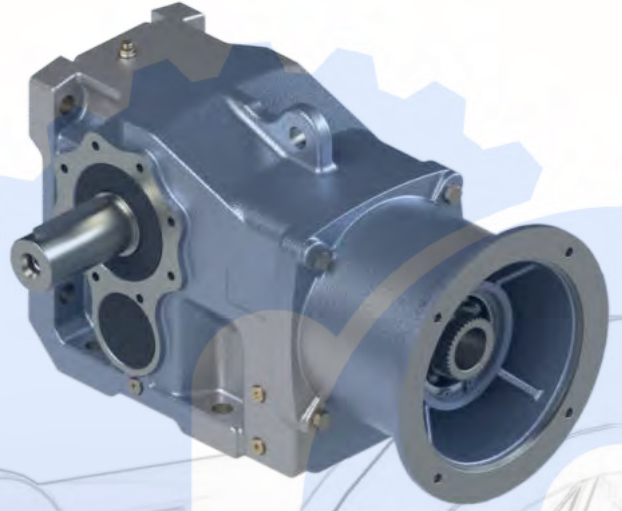
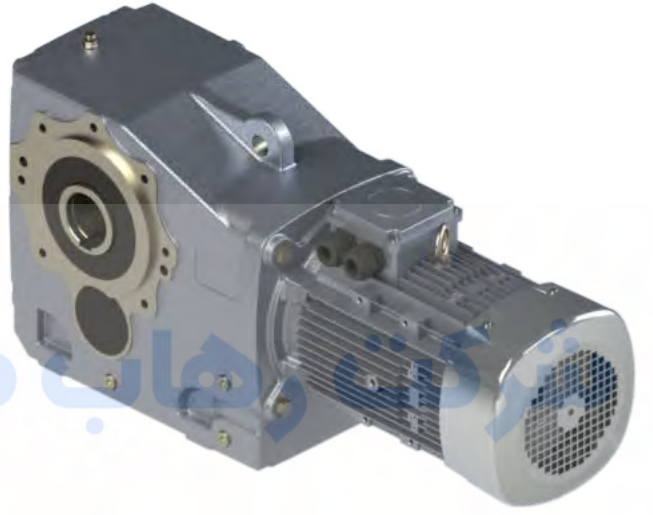


PGR®

DRIVE TECHNOLOGIES

Helisel Konik Dişli Redüktör
Helical Bevel Gear Units

PKD SERIES



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TR

KALİTE POLİTİKAMIZ

POLAT GROUP REDÜKTÖR A.Ş. ürünlerinin kalitesinde en iyiyi yakalamak için; sektöründeki teknolojik gelişmeleri takip etmeyi, pazar payındaki istikrarını sürdürmek için müşterilerinin istek ve beklentilerine eksiksiz ve zamanında cevap vererek, sürekli artan müşteri memnuniyetini sağlamayı, eğitimli çalışanlarının performansını huzurlu bir çalışma ortamı sağlayarak arttırmayı ve bu şekilde kalite yönetim sistemini sürekli iyileştirmeyi kalite politikası olarak benimsemiştir.

VİZYONUMUZ

Müşteri ve çalışan memnuniyetini en üst düzeyde tutan, gelişmeleri izleyen değil yaratan bir dünya şirketi olmaktır.

MİSYONUMUZ

Müşterilerimizin ihtiyaçlarını karşılayacak çözümleri bilgi teknolojilerini kullanarak en verimli ve kaliteli şekilde sunmaktır.

Polat Group Redüktör olarak birçok farklı ürün yelpazesi ile, müşteri ihtiyacını maksimum seviyede karşılamak için eş zamanlı mühendislik yöntemlerini kullanarak çalışmalarını sürdürmektedir. Tasarım faaliyetleri, ürün geliştirme programları ve bilgisayar destekli çalışmalarımız sürekli gelişen bir grafik çizmektedir. Rekabetçi ve güçlü kalite politikamız müşteri yelpazemizi genişletmektedir.

EN

OUR QUALITY POLICY

To achieve the best quality of its products, POLAT GROUP REDÜKTÖR A.Ş. adopts with its own quality politics by following the technological developments of its sector, in order to keep up the stabilization on its own market share ensuring the customers' gladness increasing permanently by answering the customers' wishes and expectations completely at the right time to have the well-educated staffs increase their performance by providing a peaceful working place and making better the quality management system all the time.

OUR VISION

Our vision is to become a world company which meets and surpasses the customer satisfaction and which not only follows the development but also creates the development itself.

OUR MISSION

Our mission is to provide the solutions to our customers in the most efficient and qualified way by making use of the information technologies.

Our reducer group carries out its work using simultaneous engineering methods in order to meet the demands of our customers by presenting several different product ranges. Design and planning activities, product development programmes and computer supporting work how a continuously growing chart. Our competitive and strong quality policy is to develop our customer spectrum.

RAHAB
SANAT

TR

TEKNİK AÇIKLAMALAR

Dişli Ünitesini Seçme

Bir dişli ünitesini seçerken PGR üç fazlı asenkron AC motorlarını veya tek fazlı AC motorları kullanılır ve teknik olarak kıyaslanabilen motorlar için geçerlidir. Başka motorlar kullanırken, lütfen PGR'e danışınız. Bir dişli ünitesini seçme ile ilgili aşağıdaki önemli ana esaslara bağlı kalınmazsa, aşırı bir yük durumunun olması muhtemeldir. Bu durumda, tüm garantiler geçersizdir. Şüpheli durumda, lütfen dişli ünitesi tasarımını kontrol etmek için birlikte çalışabileceğiniz teknik bilgilerden sorumlu PGR satış ofisi ile irtibata geçiniz. Karşılıklı çıkarlarımız açısından, dişli ünitelerinde aşırı yüklemenin neden olduğu tüm problemler her durumda, önlenmelidir.

Kriter

Seçme kriteri aşağıdakilerden oluşur:

1. Termal olarak transfer edilebilen güç (termal sınır)

Dişli ünitesinin aşırı ısınmaması için, bu güç transferi (3 saat) daha uzun bir çalışma zamanını aşmamalıdır. Termal olarak transfer edilebilen güç sadece PA\PF 62, PD\PM 62 ve daha büyük (iki kademeli dişli üniteleri için) gövdeler ve PA\PF 73, PD\PM 73, PKD 6390-7390 ve daha büyük gövdeler (üç kademeli dişli üniteleri) için olası bir sınırı gösterir. Aşağıdaki maddelerden iki veya daha fazlasının geçerli olması durumunda çalışma durumunu kontrol ediniz.

- Ortam sıcaklığı $> 40^{\circ}\text{C}$
- Dönme hızı $n_1 > 1500 \text{ min}^{-1}$
- Motor gücü $P_1 > 100 \text{ kW}$
- W kovanlı ve IEC adaptörlü redüktörler
- Dik olarak montajı yapılan redüktörler (sayfa 41- 42)
- Tahvil oranı $i_{top} < 20$ (Polat konik dişli için $i_{top} < 40$)

2. Mekanik olarak transfer edilebilen güç "P"

Bu güç, katalogdaki ilgili tablodaki servis faktörü f_s tarafından göz önüne alınır. Bir sonraki bölüm, gerekli servis faktörünün saptanmasını tanımlar. Genel olarak, dişli ünitesi ekleme, ısı radyasyonu, dar yer vs gibi özel montaj koşulları olduğunda bize danışınız. Özel ölçüler (veya su soğutucusu) termal aşırı yüküne karşı var olduğunda; lütfen PGR'e danışınız.

Giriş gücü ve servis faktörü

Her bir uygulama için gerekli giriş gücü, hesaplama ile saptanır. Motor anma gücü (P_1), bu giriş gücünden sonra seçilir. Normal olarak, belirli uygulama özel çalıştırma koşullarına ait güvenlik faktörleri gözleneceği ve anma motor çıkış seviyeleri genellikle standart çıkış seviyesi aralığında olduğu için motorun anma gücü istenilen güçten biraz daha yüksektir.

Montajı yapılacak 3 fazlı bir AC motorun anma gücünü seçerken kısa dönem ve seyrek tork tesirini göz önüne almak gerekmez. Bir frekans inventörü üzerindeki 3 fazlı bir AC motor çalıştırırken ilave faktörler anma çıkış gücünün seçimini etkiler. Motorun aksine, kısa dönem ve seyrek tork tesiri önemli derecede dişli ünitesinin seçimini etkiler. Dişli ünitesi servis faktörü f_B bu kısa dönem ve seyrek tork tesirini ve ayrıca yeterli doğrulukla dişli ünitesi üzerinde etkileri göz önüne alır.

4. sayfadaki **diyagram 1** çalışma saatine veya güne bağlı olarak yük sınıflandırması, devir ve minimum servis faktörü arasındaki ilişkiyi sunmaktadır.

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EXPLANATORY NOTES

Selecting Gear Unit

Gear unit selection includes PGR's three-phase AC motor or single phase AC motor and technically equal different motor could be applied. If you intend to use a motor other than PGR please contact PGR. There are some condition for selecting gear unit and these condition must be considered overloading could be happened badly if restrictions are not considered. In these situations, all guarantees could be invalidated. Under suspicious situation please refer to PGR sales office department which is responsible for giving technical information to you

Conditions

The conditions of selecting gear unit are as the following:

1. Thermal Limit

Thermal transfer power should not be exceeded over running time (3 hours) to prevent overheated gear unit. In larger gear unit size this condition is important and units have thermal limit for instance PA\PF 62 and greater unit size, PA\PF 73, PD\PM 73, PKD 6390-7390. For these problems, you must check ambient and some other conditions which are explained below. In case of any suspicion please contact PGR.

- Ambient temperature $> 40^{\circ}\text{C}$
- Rotational speed $n_1 > 1500 \text{ min}^{-1}$
- Input power $P_1 > 100 \text{ kW}$
- With W-cylinder and IEC adapter gear units
- Vertical mounting position (see page 41- 42)
- Reduction ratio $i_{top} < 20$ (for helical-bevel gear units $i_{top} < 40$)

2. Power transfer with service factor "P"

Service factor f_s is important for power transfer, determination of minimum service factor will be provided at the following section.

In special operating conditions; eg. heat radiation in bounded field (little space) which is required special devices (oil cooler or water cooler) please contact PGR

Input power and service factor

For every application, the requiring input power could be calculated. After determining input power, the rated motor power (P_1) is selected. Normally motor power is greater than the required input power because the safety factor is used according to operating conditions.

Selecting a motor type is important for right calculation for instance; three phase AC motor which is mounted to gear unit, affecting infrequent torque could not be considered but if you mount three-phase AC motor on frequency inverter latest available factor effects the output power. Besides of motor type short and infrequent torque impression effects selecting gear unit for that service factor is considered.

Diagram 1 which is shown on page 4, presents relation between types of load, revolution per hour and minimum service factor depend on operation hours or day.

TR

SERVİS FAKTÖRÜ

Diyagram 1, günlük çalışma zamanına bağlı gerekli minimum servis faktörü f_{Bmin} , 'Z' saatteki çevrimleri, ve uygulama yükü sınıflandırması 'U', 'M', 'H' gösterir. Çalışma düzgünlüğüne ve kütle hız faktörüne bağlı olarak, üç yük sınıflandırması belirlenmiştir. Hareket ettiren makineden gelen etkiler çalışma düzgünlüğü sınıflandırmasında tanımlanırken, kütle hız faktörü en fazla olan yük üzerinde etkili olur.

Not : Elde edilen servis faktörü f_B kullanılan sürücü (tahrik) tipine göre "k" katsayısı ile çarpılır.

k = 1 ; elektrik motoru veya hidromotor,
k = 1.25 ; çok silindirli içten yanmalı motor,
k = 1.50 ; tek silindirli içten yanmalı motor

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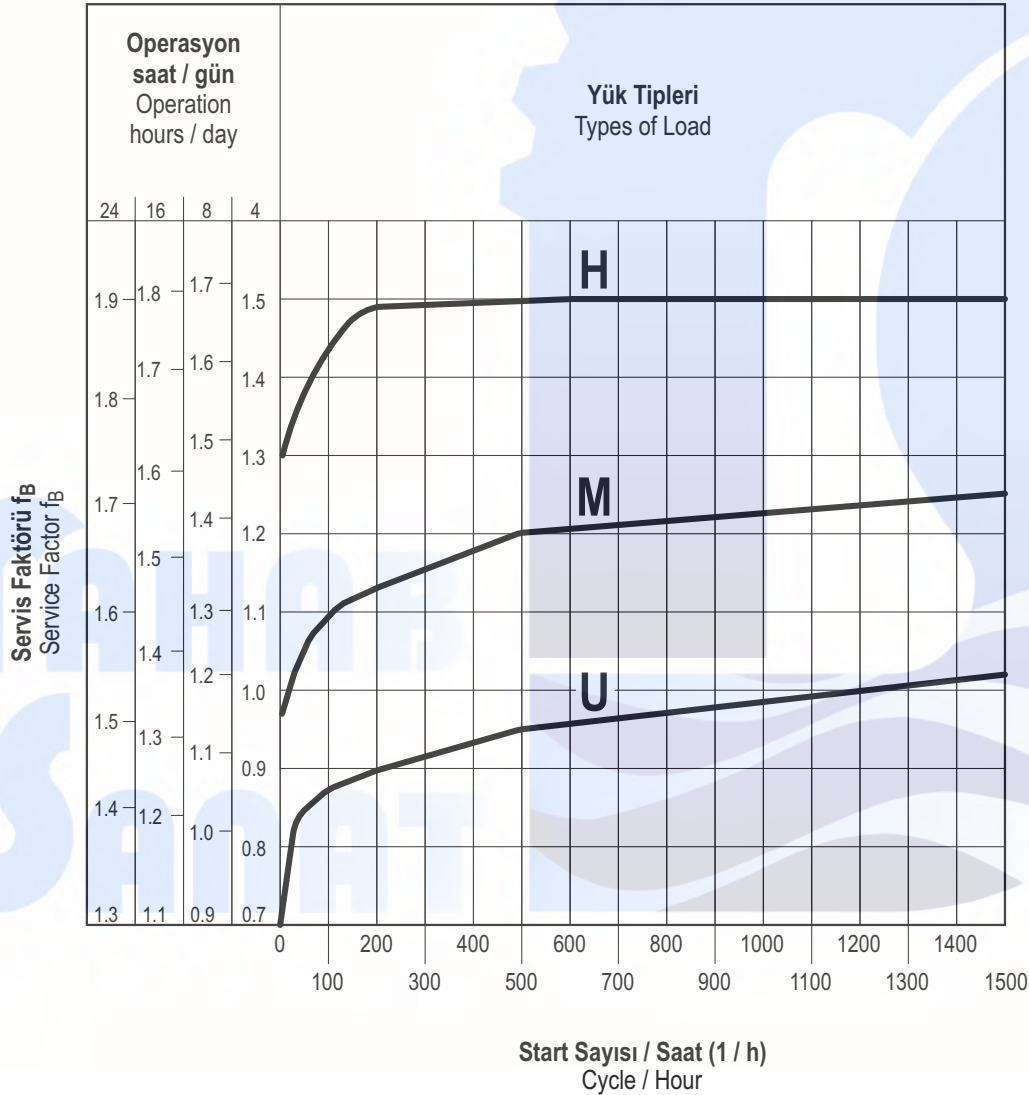
SERVICE FACTOR

Diagram 1 shows requiring minimum service factor depend on revolution per hours 'Z' and types of load 'U', 'M' or 'H'. In the following section the information regarding mass acceleration factor, how it effects and the relation between load classification will be explained. Forces or loads which are applied from driven machine to gear unit while determine load classification, mass acceleration factor is played important role on the high load classification which is designated with 'H' sign.

Note : Service factor f_B which is acquired from diagram should be modified with factor "k" that, depends on driver type.

k = 1 ; hydraulic motor and electrical motor
k = 1.25 ; multi-cylinder engine
k = 1.50 ; single-cylinder engine

Diyagram - 1



TR

TEKNİK BİLGİLER

Dişli Ünitesini Seçme

Bir çalışmanın sınıflandırılması :

U) Düzgün çalışma

Küçük karıştırıcılar, asansörler, konveyörler, montaj bantları, doldurma makineleri, bantlı konveyörler, temizleme makineleri, fanlar, test makineleri.

M) Yumuşak şoklar, düzgün olmayan çalışma

Ağır konveyör bantları, değirmenler, ahır gübre makineleri, vinç hareketli mekanizmalar, bükme makineleri, çimento karıştırıcılar, dişli makineleri, ahşap işleme makineleri için sürücüler, vinçler, kayar kapılar, dengeleme makineleri.

H) Ağır şoklar, aşırı düzgün olmayan çalışma

Taş kırıcılar, eksantrik presler, doğrayıcılar, presler, taşlama milleri, çekiçli kırıcılar, kağıt öğütücüler, ağır karıştırıcılar, delme makineleri, katlama makineleri, dönen tezgahlar, yatay karıştırıcılar, kesiciler, vibratörler, santrifüj makineleri, döner tablalar.

Yük sınıflandırması, çalışma düzgünlüğünden ve aşağıdaki tabloya göre kütle hız faktörü (m_{af}) den belirlenir. Burada, çalışma veya kütle hız faktöründen gelen daha yüksek sınıf yük sınıflandırmasında geçerlidir. (Örnek: aşırı düzgün olmayan çalışma ve $m_{af} = 3,8$ gibi durumda yük sınıfı 'H' olarak belirlenir.

Yük Sınıfı	Çalışma	Kütle hız faktörü
U	Düzgün çalışma	$m_{af} \leq 0.25$
M	Düzgün olmayan çalışma	$0.25 < m_{af} \leq 3$
H	Aşırı düzgün olmayan çalışma	$3 < m_{af} \leq 10$

$$m_{af} = \frac{J_{ex.red}}{J_{mot}} = \frac{J_{ex}}{J_{mot}} \times \left(\frac{1}{i_{ges}} \right)^2$$

i_{ges} = Toplam dişli ünitesi oranı

$J_{ex.red}$ = Hareket motoru üzerindeki azaltılmış tüm dış kütle atalet momenti

J_{ex} = Tüm dış kütle atalet momenti

J_{mot} = Motorun kütle atalet momenti

Kütle hız faktörü m_{af} , çıkış tarafındaki dış kütleler ile giriş tarafındaki yüksek hız kütlelerin arasındaki ilişkiyi gösterir. Kütle hız faktörü, başlatma ve frenleme işlemlerine ve titreşime göre dişli ünitesindeki tork tesir seviyesini önemli derecede etkiler.

Örneğin; bantlı konveyör sistemlerinde dış kütle atalet momenti taşıyan ürün kadar yük uygular. $m_{af} > 10$ ise, transfer elemanlarında büyük bir oynama, yük sınıflamasında belirsizlik varsa veya şüphedeyseniz, PGR'e danışınız.

Servis faktörü f_B , maksimum dişli ünitesi çıkış momenti M_{amax} ile montajlanmış motor gücü P_1 , çıkış hızı n_2 ve dişli ünitesiverimi (η) sonucu ortaya çıkan momenti M_a arasındaki ilişkidir.

$$M_2 = \frac{9550 \cdot P_1 \cdot \eta}{n_2} \quad [Nm], P_1 [kW], n_2 [min^{-1}]$$

$$f_B = \frac{M_{amax}}{M_2}$$

EN

EXPLANATORY NOTES

Selecting a Gear Unit

Operation classification;

U) Uniform application

Small agitators, elevators, conveyors, assembly belts, filling machines, conveyor belts, cleaning machines, fans, testing machines.

M) Moderate shocks, non-uniform application

Heavy conveyors belts, mills, stall dunging machines, crane traveling mechanisms, bending machines, cement mixers, gear pumps, decoilers, tapping units, packaging machines, feed drives for wood processing machines, hoists, winches sliding doors, balancing machines.

H) Heavy shocks, extreme non-uniform application

Stone crusher, eccentric presses, choppers, presses, spindle grinding mills, hammer mills, shredders, heavy mixers, punching machines, folding machines, rolling stands, tumbling barrels, shears, vibrators, centrifuges, roller tables.

Load classification is obtained from operation class and mass acceleration factor (m_{af}). For this reason in any situation you must use the greater factor for calculation. (Eg; heavy - shock and $m_{af} = 3,8$ load classification must be 'H')

Load Classification	Operation	Mass Acceleration Factor
U	Uniform application	$m_{af} \leq 0.25$
M	Non-uniform application	$0.25 < m_{af} \leq 3$
H	Extreme non-uniform application	$3 < m_{af} \leq 10$

i_{ges} = Total gear unit ratio

$J_{ex.red}$ = All external mass moment of inertia on the drive motor, reduced

J_{ex} = All external mass moment of inertia

J_{mot} = Mass moment of inertia of the motors

Technically mass acceleration factor m_{af} mass different between external output-side and high speed input-side. m_{af} plays more important role at the level of torque propulsive than in the gear unit.

It is mostly effected at start-up, braking operation and vibration. Please contact PGR where m_{af} is greater than 10 and if there be large fluctuations in transfer elements and vibration in the system.

Calculation of service factor is illuminated below. It depends on maximum output moment of gear unit and the output moment which is calculated from motor power, rotation speed and efficiency.

TR

TEKNİK BİLGİLER

EN

EXPLANATORY NOTES

$$P_1 = \frac{M_2 \cdot n_2}{9550} \cdot \eta \text{ [kW]}, M_2 \text{ [Nm]}, n_2 \text{ [min}^{-1} \text{]}$$

Dişli ünitesini doğru şekilde seçtiğinizde, çıkış ve hız genel açıklamalarından alınan servis faktörü f_B , diyagram 1'e göre minimum servis faktörü $f_{B \min}$ 'den büyük veya eşittir.

If selection of gear unit is correctly done, service factor which is taken from selection of gear motors table, must be greater than minimum service factor $f_{B \min}$ which is taken from diagram-1 (see page 4) according to types of load.

$$f_B \geq f_{B \min}$$

Helisel, parallel mil ve helisel konik dişli ünitelerinde her bir kademe için çok yüksek bir seviyede verimlilik vardır (herbir kademe için yaklaşık %98 veya $\eta=0,98$). Bu yüzden hesaplamalarda verim $\eta=1,0$ alınması yeterli doğru sonuçlara ulaşılmasına yardımcı olur. Helisel sonsuz dişliler ile ilgili dişli ünitesi verimliliği, her bir çıkış hızı n_2 'ye ait çıkış ve diş oran tablolarında listelenmiştir. W kovanı montajlı (serbest hareket mili) redüktörde çıkış gücü aşağıdaki formülden hesaplanır.

Efficiency is approximately 98% at helical, helical bevel parallel shaft gear units. For that reason efficiency could be taken $\eta=1$ it shows that efficiency does not affect the calculation. But, for helical worm gear efficiency is given at table which depends on output speed and gear ratio. With W cylinder (free drive shafts); the installed drive output P_1 may, at the must be;

$$P_1 = \frac{M_{amax} \cdot n_2}{9550 \cdot f_{B \min}} \cdot \eta \text{ [kW]}, M_{amax} \text{ [Nm]}, n_2 \text{ [min}^{-1} \text{]}$$

Burada, azami hareket gücü $P_{1 \max}$ aşılamaz.

Value which calculated from formula P_1 , must be less than $P_{1 \max}$ which is taken from the selection of W cylinder tables.

$$P_1 \leq P_{1 \max}$$

W ve IEC tipi redüktörler için performans tablosunda her bir çıkış devri n_2 , maksimum çıkış momenti M_{amax} , maksimum motor gücü $P_{1 \max}$ listelenmiştir.

$P_{1 \max}$ is shown at performance table for W cylinder (with free input shaft) and IEC adapter.

Hareketli tarafa fren bağlandığında, (frenli motorlar gibi) fren momenti de bir dişli ünitesini seçmede göz önüne alınmalıdır. Gezinti hareketleri, çember dişliler, döner tablolar, kapı hareketleri, karıştırıcılar ve yüzey havalandırıcı ile ilgili uygulamalarda sıkça karşılaşılan yüksek dış kütle atalet momenti ($m_{af} > 2$) kullanımlarda frenleme momentinin, seçilen anma momentinin 1,2 katını aşmasını öneririz. Daha yüksek frenleme torkları kullanılacaksa, bu durum dişli ünitesini seçerken göz önünde bulundurulmalıdır. Lütfen PGR'e danışınız.

In selecting gear units brake can be optionally equipped which it is attached to the shaft or solid. It must be considered because of break torque. Application which have high external mass moment of inertia such as $m_{af} > 2$. We suggest break torque does not overrun 1,2 times motor torque.

Radyal ve Eksenel Kuvvetler

Çıkış momenti ve hız genel açıklamalarındaki tablolarda, çıkış mili üzerine izin verilen radyal kuvvetler F_R ve eksenel kuvvetler F_A listelenmiştir. Tercihen güçlendirilmiş çıkış mili yatakları bir çok dişli ünitesi tipi için geçerlidir. Güçlendirilmiş yataklardaki radyal ve eksenel kuvvetler tablolarda F_{RGR} ve F_{AGR} olarak belirtilmiştir. Listelenen radyal ve eksenel kuvvetler, mil çıkışlı ayak ve flanş bağlantılı dişli üniteleri için uygulanır. Radyal ve eksenel kuvvetler, bu kuvvetlerden biri 0 (sıfır)'a eşit iken hesaplanmıştır.

Axial and Radial Forces

Permissible forces on the output shaft are given at the selection of gear motor. F_R represents radial load and F_A represents axial load. F_{RGR} and F_{AGR} represents permissible load with reinforced bearings. These values are calculated when one of them is equal to zero.

Ayrıca, radyal ve eksenel kuvvetlere ait bir servis faktörü $f_B = 1$ çıkış gücü ve devir açıklamalı genel tablolarda verilen kuvvetlerin temeline dayanır. Darbeli tipli kuvvetlerin olduğu ve aşırı çalışmalı (> 8 saat/gün) uygulamalarda uygun servis faktörü $f_B > 1$ radyal ve eksenel kuvvetler için de göz önünde bulundurulmalıdır. İzin verilen kuvvetler F_A ve F_R belirli oranda azaltılır.

In selecting gear motor tables service factor is given with permissible axial and radial load but it must be considered when operating times is greater than 8 hours and service factor must be greater than 1 for that reason permissible radial and axial loads are reduced.

TR

TEKNİK BİLGİLER

Listelenen radyal kuvvetler, milin ucunun orta kısmında etki eden bir kuvvete karşılık gelir. İzin verilen kuvvetleri saptarken, uygulanan kuvvetin hiç istenmeyen yönü ve dönme yönü varsayıldı. Tam bir hesaplama için, daha yüksek radyal ve eksenel kuvvetler muhtemeldir. Bu yüzden lütfen bize istenen servis süresinin yanısıra gerçek güç ve dönme yönünün detaylarını da belirtiniz.

Transfer elemanları, çıkış miline eklenirse, ilgili faktör fz radyal kuvveti saptamada göz önüne alınmalıdır.

fz için Tablo

Transfer Elemanları	Faktör fz	Açıklama
Dişliler	1.1	$z \leq 17$ diş
Zincir Dişliler	1.4	$z \leq 13$ diş
Zincir Dişliler	1.2	$z \leq 20$ diş
Dar V-Kayış Makaralar	1.7	ön gerilim kuvveti
Düz kayış Makaralar	2.5	

Mil üzerinde ortaya çıkan radyal kuvvet, aşağıdaki formül kullanılarak hesaplanmıştır.

$$F_{Rvorth} = \frac{2 \cdot M_a}{d_0} f_z \leq F_R$$

M_2 : Dişli ünitesi çıkış momenti [Nm]

f_z : Tablodan alınan katsayı

d_0 : Etkili daire çapı [mm]

F_R : Devir ve çıkış gücü tablolarından alınan müsaade edilebilir radyal kuvvet [kN]

F_{Rvorth} : Mil üzerindeki radyal kuvvet [kN]

Kuvvet mil ortasına uygulanmazsa, herhangi bir 'X' noktasında izin verilen radyal kuvvet **formül I** ve **II** kullanılarak hesaplanır.

Formül - I

$$F_{RXL} = F_R \cdot \frac{z}{y + x}$$

Formül - II

$$F_{RXW} = \frac{C}{(f + x) \cdot 1000}$$

X : mil faturasından kuvvet uygulama noktasına olan uzaklık [mm]
X noktası - mil kararlılığı

F_{RXW} : izin verilen radyal yük [kN]

F_R : hız ve çıkış tabloları ve milin ortasına uygulanan kuvvetten alınan radyal kuvvet [kN]
X Noktası - yatak servis ömrü

F_{RXL} : izin verilen radyal yük [kN]

C

C_{GR}

f

y

z



9 - 10

[Nmm]

[Nmm]

[mm]

[mm]

[mm]

Belirtilmemiş ki, hesaplamalarda **formül I** yatak servis ömrünü, **formül II** ise mil kararlılığını hesaplamada kullanılır.

Hesaplamalar sonucunda küçük değer dikkate alınmalıdır.

EN

EXPLANATORY NOTES

Axial and radial forces are calculated where force acting on the middle of the shaft end see page 39. Direction of rotation plays an important role in calculation. For that reason these forces are calculated and the value of the result is found from forces to the shaft worse. Hence, please explain details in your orders.

For belt-pulley operations or any other motion transfer applications fz factor must be considered while calculating radial and axial load.

fz values are shown at table.

Transfer Elements	Factor fz	Notice
Gears	1.1	$z \leq 17$ teeth
Chain Sprockets	1.4	$z \leq 13$ teeth
Chain Sprockets	1.2	$z \leq 20$ teeth
Narrow V-belt pulleys	1.7	by
Flat belt pulleys	2.5	Pre-Tensioning

Radial load is determined with the following formula;

$$F_{Rvorth} = \frac{2 \cdot M_a}{d_0} f_z \leq F_R$$

M_2 : Output torque of gear unit [Nm]

f_z : Factor which is taken from table

d_0 : Effective circular diameter [mm]

F_R : Permitted radial force which is taken from the speed and output moment tables. [kN]

F_{Rvorth} : Radial force on the gear unit shaft [kN]

The formula which is mentioned above is used when force is not acting on the middle of shaft. In other situations the following formula is applied

Formula - I

$$F_{RXL} = F_R \cdot \frac{z}{y + x}$$

Formula - II

$$F_{RXW} = \frac{C}{(f + x) \cdot 1000}$$

X : distance from the shaft collar to the point of force application [mm]
point X - shaft stability

F_{RXW} : permitted overhung force [kN]

F_R : overhung force from the speed and output tables, force applied at the middle of the shaft [kN]
point X - bearing service life

F_{RXL} : permitted overhung load [kN]

[Nmm]

[Nmm]

[mm]

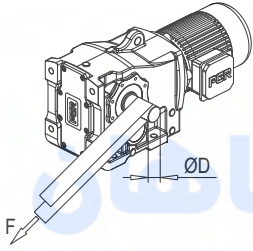
[mm]

[mm]

Notify that, **formula I** and **formula II** are applied for calculating radial load where **formula I** is used for service life and **equation II** is used for shaft stability. After the calculations were done some points should be taken into consideration.

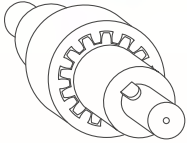
TR

RADYAL YÜK HESABI



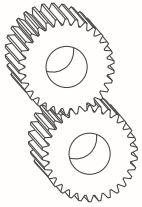
RADYAL YÜKLERİN HESABI

Radyal yük F_R (N)'nin hesaplanmasında gerekli tahrik momenti M_a (Nm), kasnak veya dişli çapı D (mm) olmak üzere aşağıdaki formüller kullanılır.



1 - Elastik Kaplin

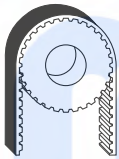
Çalışma sırasında oluşan sapmalar kaplinin güvenlik sınırları içerisinde ise kuvvetler ihmal edilebilir.



2 - Düz Dişli (20° kavrama açılı)



3 - Küçük Hızlarda Zincir Dişli (Z < 17)



4 - Triger Kayış



5 - V Kayış



6 - Gerdirme Makaralı Kayış

EN

CALCULATION OF OVERHUNG LOADS

CALCULATION OF OVERHUNG LOADS

Radial load F_R (N) is calculated with the following formulas where required moment M_a (Nm) and hoop or gear diameter D (mm) is

1 - Elastik Coupling

If elastic coupling is working in its reliable working area, the overhung loads can be neglected.

2 - For Spur Gear (Pressure angle 20°)

$$F_R = \frac{2100 \times M_a}{D}$$

3 - For Chain Drive With Low Speed (Z < 17)

$$F_R = \frac{2100 \times M_a}{D}$$

4 - For Trigger Belt

$$F_R = \frac{2500 \times M_a}{D}$$

5 - For V Belt

$$F_R = \frac{5000 \times M_a}{D}$$

6 - Flat Belt With Spanning Pulley

$$F_R = \frac{5000 \times M_a}{D}$$

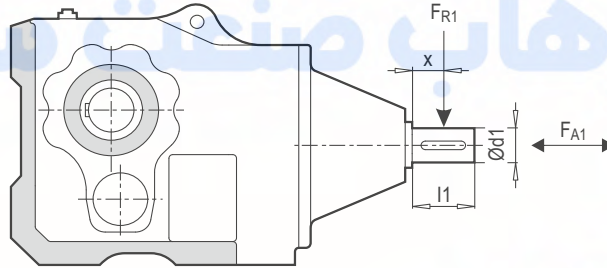
TR

RADYAL YÜK HESABI

EN

CALCULATION OF OVERHUNG LOADS

W



GİRİŞ ŞAFTINDAKİ RADYAL VE EKSENEL YÜK HESAPLAMALARI İÇİN DEĞERLER
VALUE TABLE FOR RADIAL AND AXIAL LOADS AT INPUT SHAFT f=0

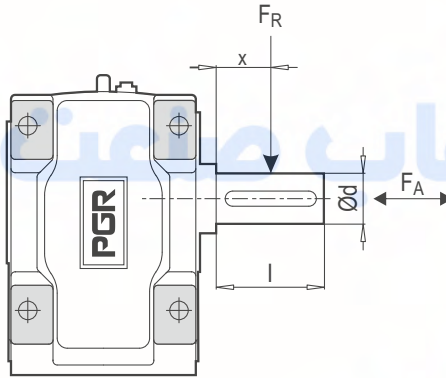
Helisel Konik Redüktör Helical Bevel Gearboxes	y (mm)	z (mm)	c (Nmm)	d1 (mm)	l1 (mm)
PKD A 0290 PKD B 0290	58.5	78.5	0.027×10^6	14	40
PKD C 1290	58.5	78.5	0.037×10^6	16	40
PKD F 4290	59.5	79.5	0.032×10^6	19	40
PKD H 5290	69.0	94.0	0.109×10^6	24	50
PKD 1390 PKD G 1390 PKD 1490 PKD G 1490 PKD 2390 PKD 2490 PKD 3490	70.0	90.0	3.64×10^4	16	40
PKD 3390 PKD 4490 PKD 5490	96.5	121.5	1.07×10^5	24	50
PKD 4390 PKD 5390	110.5	150.5	4.70×10^5	38	80
PKD 6390 PKD 7390	149.5	204.5	4.60×10^5	42	110
PKD 8390 PKD G 8390 PKD 9390	207.5	277.5	1.82×10^6	65	140
PKD G 9390	299.0	369.0	—	70	140

TR

RADYAL YÜK HESABI

EN

CALCULATION OF OVERHUNG LOADS



ÇIKIŞ ŞAFTINDAKİ RADYAL VE EKSENEL YÜK HESAPLAMALARI İÇİN DEĞERLER
VALUE TABLE FOR RADIAL AND AXIAL LOADS AT OUTPUT SHAFT

Redüktör Tipi Gearbox Type	y (mm)	z (mm)	c Normal Normal (Nmm)	c Güçlendirilmiş Reinforced (Nmm)	f (mm)	d (mm)	l (mm)
PKD A 0290	95.0	115.0	0.06×10^6	—	0	20	40
PKD B 0290	111.0	131.0	0.05×10^6	—	0	20	40
PKD C 1290	128.0	153.0	0.08×10^6	—	0	25	50
PKD F 4290	136.0	166.0	0.12×10^6	—	0	30	60
PKD H 5290	153.0	188.0	0.16×10^6	—	0	35	70
PKD 1390 - PKD 1490	111.0	141.0	0.14×10^6	0.24×10^6	0	30	60
PKD G 1390 - PKD G 1490	111.0	146.0	0.25×10^6	0.41×10^6	0	35	70
PKD 2390 - PKD 2490	144.0	179.0	0.17×10^6	0.30×10^6	0	35	70
PKD 3390 - PKD 3490	171.5	216.5	0.29×10^6	0.58×10^6	0	45	90
PKD 4390 - PKD 4490	181.0	241.0	1.22×10^6	1.99×10^6	0	60	120
PKD 5390 - PKD 5490	237.0	307.0	1.75×10^6	3.08×10^6	0	70	140
PKD 6390	281.0	366.0	4.49×10^6	7.05×10^6	0	90	170
PKD 7390	281.0	366.0	4.49×10^6	7.05×10^6	0	90	170
PKD 8390	326.7	431.7	8.36×10^6	12.82×10^6	0	110	210
PKD G 8390	422.0	527.0	9.56×10^6	15.60×10^6	0	120	210
PKD 9390	515.0	640.0	14.40×10^6	24.61×10^6		140	250
PKD G 9390	550.0	710.0	48.73×10^6	—		140	320

TR

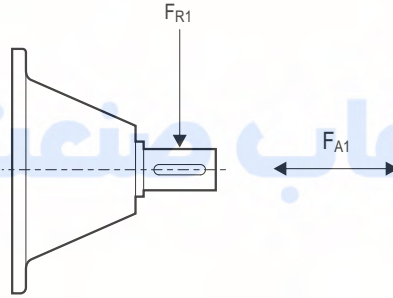
RADYAL YÜK HESABI

EN

CALCULATION OF OVERHUNG LOADS

- W ADAPTÖR

- W ADAPTER



Tip Type	PKD A 0290 PKD B 0290		PKD C 1290		PKD F 4290		PKD H 5290		PKD 1390 PKD G 1390 PKD 2390 PKD 1490 PKD G 1490 PKD 2490 PKD 3490		PKD 3390 PKD 4490 PKD 5490		PKD 4390 PKD 5390		PKD 6390 PKD 7390		PKD 8390 PKD G 8390 PKD 9390 PKD G 9390	
	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]	[kN]
P ₁ (kW)	F _{A1}	F _{R1}	F _{A1}	F _{R1}	F _{A1}	F _{R1}	F _{A1}	F _{R1}	F _{A1}	F _{R1}	F _{A1}	F _{R1}	F _{A1}	F _{R1}	F _{A1}	F _{R1}	F _{A1}	F _{R1}
0.12	1.2	0.55	1.2	0.85	2.9	2.13	3.7	2.3	1.2	0.85	2.9	2.1	-	-	-	-	-	-
0.18	1.1	0.54	1.1	0.82	2.9	2.1	3.5	2.2	1.1	0.82	2.9	2.1	-	-	-	-	-	-
0.25	1.0	0.53	1.0	0.78	2.8	2.1	3.2	2.1	1.0	0.78	2.8	2.1	-	-	-	-	-	-
0.37	0.89	0.50	0.89	0.75	2.6	2.1	3.1	2.1	0.89	0.75	2.6	2.1	4.1	2.1	-	-	-	-
0.55	0.77	0.47	0.77	0.72	2.5	2.0	3.0	2.2	0.77	0.72	2.5	2.0	3.9	2.8	-	-	-	-
0.75	0.58	0.44	0.58	0.70	2.3	1.9	2.8	2.0	0.58	0.70	2.3	1.9	3.8	2.4	6.1	4.4	-	-
1.10	0.35	0.37	0.35	0.61	2.1	1.8	2.6	1.9	0.35	0.61	2.1	1.8	3.5	2.7	5.9	4.3	-	-
1.50	0.29	0.30	0.29	0.43	2.0	1.8	2.4	1.9	0.29	0.43	2.0	1.8	3.3	2.6	5.8	4.2	-	-
2.20	-	-	0.20	0.42	1.7	1.7	2.2	1.8	0.20	0.42	1.7	1.7	2.7	2.4	5.5	4.1	-	-
3.00	-	-	0.15	0.23	1.5	1.6	2.0	1.8	0.15	0.23	1.5	1.6	2.5	2.3	5.2	3.9	4.3	11.0
4.00	-	-	-	-	0.98	1.1	1.9	1.6	-	-	0.98	1.1	2.3	2.1	4.9	3.7	4.2	10.9
5.50	-	-	-	-	0.66	1.0	1.8	1.5	-	-	0.65	1.0	1.6	1.8	4.4	3.4	4.1	10.8
7.50	-	-	-	-	0.45	1.0	1.5	1.3	-	-	0.27	1.0	1.4	1.3	4.3	3.4	3.8	10.4
9.20	-	-	-	-	0.28	0.74	1.1	1.0	-	-	-	-	1.0	0.98	3.9	3.1	3.6	10.1
11.0	-	-	-	-	-	-	-	-	-	-	-	-	0.59	0.47	3.3	2.7	3.4	9.9
15.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.3	2.7	3.1	9.5
18.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7	2.3	3.0	9.3
22.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	1.8	2.9	9.3
30.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.1	1.2	2.3	8.4
37.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.74	0.87	2.0	8.1
45.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	8.3
55.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.5	7.4
75.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.78	4.6
90.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.24	5.2
110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
132	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
160	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

$F_{A1} \rightarrow F_{A1} = 0$

$F_{R1} \rightarrow F_{R1} = 0$



7

TR

KISALTMALAR

EN

ABBREVIATIONS

f_B = Servis Faktörü (Mamax / Ma)	f_B = Service factor (Mamax / Ma)
F_A = Çıkış tarafındaki müsaade edilebilir eksenel yük [kN]	F_A = Permissible axial load at the output side [kN]
F_R = Çıkış tarafındaki, milin orta noktasına etkiyen müsaade edilebilir radyal yük [kN]	F_R = Permissible overhung load at the output side, force acting at the shaft's midpoint [kN]
$i_{toplaml}$ = Dişli ünitesindeki toplam tahvil oranı	i_{total} = Gear units total ratio= Gear units total ratio
i_{ges} = Tahvil oranı	i_{ges} = Reduction ratio
M_2 = Çıkış momenti [Nm]	M_2 = Output torque [Nm]
M_{amax} = Müsaade edilebilir maksimum çıkış momenti [Nm]	M_{amax} = Max. permissible output torque [Nm]
n_2 = Çıkış hızı [d/dk]	n_2 = Output speed [min ⁻¹]
P_e = Mamax referans alınarak hesaplanan güç [kW]	P_e = Calculated power [kW] with reference to Mamax
P_n = Motor güç oranı [kW]	P_n = Motor power [kW]
η = Verim [%]	η = Efficiency [%]
kg = Redüktörün ağırlığı	kg = Weight of the geared motor

1) 4 ve 5 kademeli redüktörlerin 0,75 kW'a kadar olan 4 kutuplu motorlarında kayıp yaklaşık 40 W olarak hesaplanmıştır. Kayıp, motor hızına bağlı olarak o oranda değişir.

1) Gear units or gear motors which have 4 and 5 stagereduction 4 pole motor up to 0,75 kW losses arecalculated nearly 40 W, losses are dependent motor speed.

RAHAB
SANAT

TR

PKD TANITIMI

POLAT KONİK DİŞLİLİ (PKD)

Polat Group Redüktör ürünü olan Polat Konik Dişlili PKD serisini farklı tahvil oranları ile 17 farklı gövde büyüklüğünde hizmete sunmaktadır. PKD serisi, kullanıcılara yapısında bulunan konik dişlilerle kendisine verilen hareketin devrini düşürerek hareketin 90 derece çevirip aktarımını sağlar.

Yekpare gövde tasarımı PKD serisinde sağlam bir gövde yapısını sağlayarak dişliler arası eksen kaçıklığına neden olabilecek bağlantı elemanı (vida v.b.) içermez. Döküm gövde salınım etkisini an aza indirir. Kullanıcı isteğine göre her iki yönde de sağlanan çıkış yaklaşık olarak % 96 gibi yüksek verim olanağı ile sunulmaktadır.

Fabrikamızda bulunan son sistem CNC tezgahlarında açılan dişliler yüksek imalat toleransı ile günümüzün uluslararası standartlarını karşılamaktadır. Dövmeye malzemeden yapılan dişlerimiz gerekli ısıtma işlemi, sementasyon, honlama gibi proseslerden geçirilerek sessiz ve dayanıklı, uzun süre çalışabilen redüktörler imal edilmektedir. Bununla birlikte zorlu çalışma koşullarında güvenli çalışma sağlanır. PKD serisi redüktörlerimiz her türlü endüstriyel uygulamada kullanılabilir.

Bu eşsiz tasarımda temin ettiğimiz motorlu, W kovanlı veya IEC adaptörlü standart ürünlerimiz ;

- * Delik Milli, Mil Çıkışı
- * Delik Milli, Konik Sıktırmalı
- * Tork Kollu
- * B5 veya B14 Flanşlı

Helisel Konik Dişlili Redüktör :

0.12 kW dan 200 kW'ya kadar 17 boy mevcuttur. 65000 Nm'ye kadar çıkış momenti bulunur.

EN

DESCRIPTION OF PKD

POLAT HELICAL BEVEL GEARED MOTOR (PKD)

Concept of Polat Helical-Bevel Gear unit series are presented to a service by POLAT GROUP REDÜKTÖR with different reduction range and 17 different case width. This design have helical bevel gearset, for that reason this series provide 90 degree angle between input and output direction for transmitting motion.

This robust design have bloc case, this bloc case design ensures strong structure and layout does not include fasteners (e.g. screw) which could be caused a misalignment at gear. PKD series case which is founded from casting, ensure and facilitate mounting from case and it reduces effecting of vibration or oscillation. According to customer demand output direction could be both left and right with 96 per cent efficiency.

Our manufacturing gears which are machined at high technology CNC machines, meet up to date international high standards. Gears are manufactured from forging materials and heat treatment, carburizing and honning processes are applied for silent, strength running for longer time. Besides, units available for hars environments. PKD series could be used all of industry applications.

Available products of PKD series with motor or W cylinder or IEC adapter is;

- * Hollow Shaft, Solid Shaft
- * Hollow Shaft, With Shrink disc
- * Torque Arm
- * Flange B5 and B14

Helical Bevel Gearboxes :

65000 Nm output moment altering from 0,12 kW to 200 kW

MAX. MÜSAADE EDİLEBİLİR ÇIKIŞ MOMENTİ $M_a \text{ max.}$

MAX. PERMISSIBLE OUTPUT TORQUES $M_a \text{ max.}$

213 - 230

İki, Üç ve dört kademeli helisel konik dişlili redüktör

Helical - bevel gear boxes double, triple and quadruple reduction

Redüktör Tipi Gearbox type	PKD A 0290	PKD B 0290	PKD C 1290	PKD F 4290	PKD H 5290	PKD 1390 PKD 1490	PKD G 1390 PKD G 1490	PKD 2390 PKD 2490	PKD 3390 PKD 3490
$M_a \text{ max. (Nm)}$	90	120	230	380	660	400	610	860	1550

Redüktör Tipi Gearbox type	PKD 4390 PKD 4490	PKD 5390 PKD 5490	PKD 6390	PKD 7390	PKD 8390	PKD G 8390	PKD 9390	PKD G 9390
$M_a \text{ max. (Nm)}$	2800	4800	8200	8500	13000	20000	32000	50000

TR

W VE IEC ADAPTÖR

W kovanlı redüktörlerin max. tahrik gücü geçerli olan çıkış devri ve tahvil oranına göre tablolarda verilmiştir. (Bknz 213-230) IEC adaptörlü dişli ünitelerinde, her gövde büyüklüğünün standart gücü DIN EN 50347'ye göre verilir. P1 değeri W ve IEC seçim sayfalarında listelenmiştir. Bu listedeki değerlerden fazla bir güç istenirse özel hesaplamalar gerekmektedir. Lütfen danışınız.

W kovanlı redüktörlerin giriş mili rulmanları düzenli olarak yağlanmalıdır. 2 kademeli redüktörlerden PA\PF 62, PD\PM 62 ve üst gövdeler, 3 kademeli redüktörlerden PA\PF 73, PD\PM 73, PKD 6390 ve üst gövdeler için her 4000 çalışma saatinde yaklaşık 20-25gr gres içeren otomatik yağlayıcı kullanılarak giriş shaftı rulmanı yağlamasını öneririz. Kullanılan yağlayıcı Petamo GHY 133 N' dir. Ayrıca W kovanlı redüktörlerde bu yağlayıcıdan ayrı opsiyon olarak dişli ünitesinin soğumasını sağlamak için dış fan da mevcuttur. Lütfen danışınız.

Otomatik yağlayıcı üniteleri IEC 160 motor büyüklüğünden başlayarak en düşük 2 kademeli redüktörlerden PA\PF 62, PD\PM 62, 3 kademeli redüktörlerden de PA\PF 73, PD\PM 73, PKD 6390 gövdelerine bağlanmaktadır. Bu otomatik yağlayıcı rulmanlara kalıcı bir yağlama sağlar. Redüktörü çalıştırmadan önce devreye sokulmalıdır. Günlük ortalama 8 saat çalışıyorsa yılda 1 kez, bunun dışındaki çalışma saatlerinde 6 ayda bir değiştirilmelidir. Otomatik yağlayıcı içindeki gres dış ortam sıcaklığı 0° C - 40° C arasındaki çalışmalara uygundur. Çok uzun süreli çalışmalarda ve belirtilen dış ortam sıcaklığı değişimlerinde daha özel yağlayıcı kullanılmalıdır. Lütfen danışınız.

Otomatik yağlayıcı IEC'ler belirtilen çalışma şartları içerisinde dikey montaj pozisyonunda (M2 ve M4) önerilmez. Bu gibi durumlarda direkt motor montajı önerilir. Eğer motor boyutu 160 ve daha büyük IEC'ler dikey montaj pozisyonunda kullanılacaksa, kullanım şartları göz önünde bulundurularak tarafımızdan kontrol edilmeli ve onaylanmalıdır. Lütfen buna dikkat ediniz. Dikey montaj pozisyonu çalışmaları (M2) sızdırmazlık elemanlarının ömrü azalabilmektedir. Bu gibi durumlarda daha kısa aralıklarla bakım yapılmalıdır. 2 kademeli redüktörlerden PA\PF 52, PD\PM 52'ye kadar ve 3 kademeli redüktörlerden PA\PF 63, PD\PM 63, PKD 5390'a kadar olan IEC adaptörlü dişli üniteleri çalışma ömürleri süresince sızdırmazlığa sahip yağlanmış rulman içerir. Bunlar için bakım süreleri kullanım kılavuzunda önerilen bakım süreleri geçerlidir.

Motor boyutu 63'ten 180'e kadar olan IEC adaptörün kaplinarızaya karşı emniyetli değildir. Fakat otomatik yağlayıcı kullanılan IEC 160-180 ve daha büyük boyutlu adaptörlerdeki kaplinler arızaya karşı emniyetlidir. Kaldırma, asansör ve bu gibi insan yaralanmalarına neden olabilecek çalışmalar için özel hesaplamalar gerekmektedir. Lütfen PGR'ye danışınız. Direkt motor montajlı redüktörle karşılaştırmak gerekirse IEC ilave mil kaplinine ve extra rulman yataklanmasına sahiptir.

Direk motor montajına göre IEC bağlantılı redüktörlerde güç kayıpları daha fazladır. PGR olarak biz direk motor montajını öneririz. Bu size sadece teknik avantaj değil finansal olarak da avantaj sağlar.A

EN

W AND IEC ADAPTER FOR GEAR UNITS

The way of selecting W cylinder (with free input shaft) and IEC adapter are listed on page 213-230. Maximum power are given according to gear reduction ratio and output speed. Gear units with IEC adapter standard power are specified according to DIN EN 50347. For other power values which are not shown on table, special calculations are required for operating safety limits. For these cases, please contact PGR

Polat gear unit series such as PA\PF 62, PD\PM 62 and greater cases which are 2 stage reducers, PA\PF 73, PD\PM 73, PKD 6390 and greater cases which are 3 stage reducers with W adapter (with free input shaft) input solid shaft bearings must be lubricated orderly. Automatic lubricator could be used for increasing service life of bearings. This unit includes approximately 20-25 g grease and it supplies fresh grease at every 4000 running hours. PGR recommends using Petamo GHY 133 N type of lubricate. At the same time, fan option is available for cool gear unit for safe operation. For this option contact PGR.

Automatic lubricator design is used from IEC 160 motor size and greater motor size to small gear units which are for 2 stage reducers PA\PF 62, PD\PM 62 and for 3 stage reducers PA\PF 73, PD\PM 73 and PKD 6390. This unit provides permanent lubrication to bearings. Automatic lubricator must be changed once a year in case gear unit runs 8 hours or less at daily operation for other running hours it must be changed every 6 months. Automatic lubricator must be actuated before starting the reducers. Grease is acceptable between 0° C - 40° C operation conditions. At long-term running and except from specified ambient temperature special lubricate must be used. Please, consult us.

Under determined operating conditions, IEC with automatic lubricator is not suggested for vertical mounting positions (M2 and M4 mounting positions). For these cases direct motor mounting should be applied. If IEC 160 and greater size will be used at vertical mounting positions, it must be controlled by PGR for suitable and safe operations with considering actual operating conditions. For mounting position M2 (vertical alignment) life cycle of seals are affected badly for that reason maintenance of these reducer must be at shorter times from which maintenance time is determined at manual. 2 stage reducers up to PA\PF 52, PD\PM 52 and 3 stage reducer up to PA\PF 63, PD\PM 63, PKD 5390 gear units are included seals for bearings as long as their service life. For these gear units maintenance time is valid as the time specified at manual.

Coupling is used for installing motor to IEC adapter. From IEC 63 to IEC 180, coupling is not safe for important application since human injuries could occur. But IEC 160 - IEC 180 with automatic lubricator and greater size of IEC adapter is safe for application but on the other hand for operations where accident could be caused personnel damage special calculation is required, please consult us. Direct motor mounting has a lot of advantage according to mounting of IEC adapter. At gear units with IEC adapter has additional solid shaft coupling and bearing seats for that reason power losses are greater than direct motor mounting. Last but not least direct motor coupling not only has technical advantages but also financial advantages.

TR	KULLANIM ALANLARI	EN	APPLICATION AREAS
	UYGULAMALAR		APPLICATIONS
	<u>KARIŞTIRICILAR</u>		<u>AGITATORS (MIXERS)</u>
	* Saf Sıvılar * Sıvılar ve Katılar * Değişken Yoğunluklu Sıvılar		* Pure Liquids * Liquids and Solids * Liquids - Variable Density
	<u>HAVALANDIRMA TERTİBATLARI</u>		<u>BLOWERS</u>
	* Santrifüj * Lob * Pervane		* Centrifugal * Lobe * Vane
	<u>MAYALAMA VE DAMITMA</u>		<u>BREWING AND DISTILLING</u>
	* Şişeleme Mekanizması * Mayalama Kazanları - Kesintisiz İş * Fırınlr, Ocaklar - Kesintisiz İş * Ezme, Karışım Kazanları - Kesintisiz İş * Ölçü Haznesi - Sık Sık Başlama		* Bottling Machinery * Brew Kettles - Continuous Duty * Cookers - Continuous Duty * Mash Tubs - Continuous Duty * Scale Hopper - Frequent Starts
	<u>TOPRAK İŞLEME MAKİNELERİ</u>		<u>CLAY WORKING MACHINERY</u>
	* Tuğla Presi * Briket Makinesi * Çamur Karma Makinesi		* Brick Press * Briquette Machine * Pug Mill
	<u>KOMPRESÖRLER</u>		<u>COMPRESSORS</u>
	* Santrifüj * Lob * Çok Pistonlu * Tek Pistonlu		* Centrifugal * Lobe * Reciprocating, Multi-Cylinder * Reciprocating, Single-Cylinder
	<u>KONVEYÖRLER - GENEL MAKSATLI</u>		<u>CONVEYORS - GENERAL PURPOSE</u>
	* Üniform Yüklü * Üniform Yüklü Olmayan * Pistonlu veya Karıştırıcı		* Uniformly Loaded or Fed * Not Uniformly fed * Reciprocating Or Shaker
	<u>VİNÇLER</u>		<u>CRANES</u>
	* Kuru Havuz - Ana Kaldırma vinci - Yardımcı Vinç - Direkli Vinç - Döndürme İş - Çekme İş * Endüstriyel İş - Ana Kaldırma Vinci		* Dry Dock - Main Hoist - Auxiliary Hoist - Boom Hoist - Slewing Drive - Traction Drive * Industrial Duty - Main Hoist
	<u>ASANSÖRLER</u>		<u>ELEVATORS</u>
	* Kova * Santrifuj Boşaltma * Yürüyen Merdiven * Taşıma, Nakliye * Yerçekimi Boşaltım		* Bucket * Centrifugal Discharge * Escalators * Freight * Gravity Discharge
	<u>KIRMA MAKİNELERİ</u>		<u>CRUSHER</u>
	* Taş ya da Maden		* Stone or Ore

TR	KULLANIM ALANLARI	EN	APPLICATION AREAS
	UYGULAMALAR		APPLICATIONS
	TARAMA MAKİNELERİ		DREDGES
	* Kablo Bobinleri * Konveyörler * Pompalar * İstifleme Makineleri * Vinçler		* Cable Reels * Conveyors * Pumps * Stackers * Winches
	EKSTRUDERLER		EXTRUDERS
	* Genel * Plastikler - Değişken Hızlı Tahrir - Sabit Hızlı Tahrir * Kauçuk, Lastik - Kesintisiz Vida İşlemleri - Kesintili Vida İşlemleri		* General * Plastics - Variable Speed Drive - Fixed Speed Drive * Rubber - Continuous Screw Operation - Intermittent Screw Operation
	FANLAR		FANS
	* Santrifüj * Yüksek Emişli * İndüklenmiş Çekiş * Endüstriyel ve Maden Ocağı		* Centrifugal * Forced Draft * Induced Draft * Industrial and Mine
	BESLEME ÜNİTELERİ		FEEDERS
	* Palet * Bant * Disk * Pistonlu * Vida		* Apron * Belt * Disc * Reciprocating * Screw
	GIDA ENDÜSTRİSİ		FOOD INDUSTRY
	* Hububat Fırını * Hamur Karıştırıcı * Kıyma Makinesi * Dilimleyici		* Cereal Cooker * Dough Mixer * Meat Grinder * Slicer
	METAL İŞLEMELERİ		METAL MILLS
	* Çekme Makinesi Taşıma ve Ana Tahrir * Hammadde İtici * Makaslar * Tel Çekme * Tel Sargı Makinesi * Salgı Tezgahı - Geri Dönmesiz - Tek Tahrir - Grup Tahriki		* Draw Bench Carriage and Main Drive * Slab Pushers * Shears * Wire Drawing * Wire Winding Machine * Runout Table - Non-Reversing - Individual Drives - Group Drives
	DÖNER İŞLEMELER		MILLS (ROTARY TYPE)
	* Küresel ve Çubuk - Düz Halka Dişli - Helisel Halka Dişli - Doğrudan Bağlı * Çimento Fırını * Kurutucular ve Soğutucular		* Ball and Rod - Spur Ring Gear - Helical Ring Gear - Direct Connected * Cement Kilns * Dryers and Coolers

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KULLANIM ALANLARI

EN

APPLICATION AREAS

UYGULAMALAR

KERESTE ENDÜSTRİSİ

- * Kabuk Soyucular
 - Besleme Tamburu
 - Ana Tahrir
- * Konveyörler
 - Brülör
 - Ana Yük veya Ağır Yük
 - Ana Kütük
 - Hızır ve Taşıma Bandı
 - Kalın Dilim
 - Taşıma
- * Kesme Testereleeri
 - Zincir
 - Sürüklenme
- * İndirme Boşaltma Tamburları
- * Uzun Deste
- * Tomruk Çekme-Eğme
- * Kütük Döndürme Aygıtları
- * Sıralama Tablası
- * Taşıma
 - Zincir
 - Kreynyolu
- * Tabla Tahriki

KAĞIT İŞLEMELERİ

- * Karıştırıcı
- * Saf çözeltiler için Karıştırıcı
- * Kabuk Soyma Tromelleri
- * Mekanik Kabuk Soyucu
- * Dövecü - Öğütücü
- * Düzleştirme Makinesi
- * Kalenderleme
- * Yüzey Pürüzlendirici
- * Çentik Besleyici
- * Kaplama Merdanesi
- * Konveyörler
 - Çentik, Kabuk, Kimyasal
 - Kalın Dilimler İçeren Kütükler
- * Kesici
- * Silindir Kalıpları
- * Kurutucu
 - Kağıt Makinesi
 - Konveyör Tip
- * Kabartmalı Basıcı
- * Ekstrüder
- * Kağıt Merdaneleri
- * Presler
- * Küspe Makinesi
- * Pompalar

FİLTRELER

- * Havalı Yıkama
- * Döner - Taş veya Çakıl
- * Hareketli Su Girişi

APPLICATIONS

LUMBER INDUSTRY

- * Barkers
 - Spindle Feed
 - Main Drive
- * Conveyors
 - Burner
 - Main or Heavy Duty
 - Main Log
 - Re-saw, Merry-Go-Round
 - Slab
 - Transfer
- * Cut-Off Saws
 - Chain
 - Drag
- * Debarking Drums
- * Long Deck
- * Log Hauls - Incline
- * Log Turning Devices
- * Sorting Table
- * Transfers
 - Chain
 - Causeway
- * Tray Drives

PAPER MILLS

- * Agitator (Mixer)
- * Agitator for Pure Liquors
- * Barking Drums
- * Mechanical Barkers
- * Beater
- * Breaker Stack
- * Calender
- * Chipper
- * Chip Feeder
- * Coating Rolls
- * Conveyors
 - Chip, Bark, Chemical
 - Log (including Slab)
- * Cutter
- * Cylinder Molds
- * Dryer
 - Paper Machine
 - Conveyor Type
- * Embosser
- * Extruder
- * Paper Rolls
- * Presses
- * Pulper
- * Pumps

SCREENS

- * Air Washing
- * Rotary - Stone or Gravel
- * Traveling Water Intake

TR	KULLANIM ALANLARI	EN	APPLICATION AREAS
	UYGULAMALAR		APPLICATIONS
	<u>PLASTİK ENDÜSTRİSİ</u> <u>İLK İŞLEMLER</u>		<u>PLASTIC INDUSTRY</u> <u>PRIMARY PROCESSING</u>
	* Yoğun İç Karıştırıcılar Harmanlayıcı Kesintisiz Karıştırıcı		* Intensive Internal Mixers Batch Mixers Continuous Mixers
	<u>PLASTİK ENDÜSTRİSİ</u> <u>İKİNCİL İŞLEMLER</u>		<u>PLASTIC INDUSTRY</u> <u>SECONDARY PROCESSING</u>
	* Hacim Kalıpcıları * Kaplama * Tabaka * Boru * Ön Plastikleştirme * Rot * Saç, Plaka * Borular		* Blow Molders * Coating * Film * Pipe * Pre-Plasticizers * Rods * Sheet * Tubing
	<u>POMPALAR</u>		<u>PUMPS</u>
	* Santrifüj * Oranlama * Pistonlu Tek Tesirli - 3 veya daha fazla Silindir Çift Tesirli - 2 veya daha fazla Silindir * Döner Şanzuman Tipi Lob Pervane		* Centrifugal * Proportioning * Reciprocating Single Acting - 3 or more cylinders Double Acting - 2 or more cylinders * Rotary Gear Type Lobe Vane
	<u>KAUÇUK - LASTİK ENDÜSTRİSİ</u>		<u>RUBBER INDUSTRY</u>
	* Yoğun İç Karıştırıcılar Harmanlayıcılar Kesintisiz Karıştırıcılar * Karıştırma İşlemi 2 Yumuşak Mordane 1 veya 2 Oluklu Mordane * Toplu İşleme - 2 Yumuşak Silindir * Kırıcı ve Isıtıcı - 2 Mordane, 1 Oluklu Mordane * Kırıcı - 2 Oluklu Mordane * Tutma, Besleme, Karıştırma İşlemi - 2 Mordane * Artıcı - 2 Mordane * Kalenderler		* Intensive Internal Mixers Batch Mixers Continuous Mixers * Mixing Mill 2 Smooth Rolls 1 or 2 corrugated Rolls * Batch Drop Mill - 2 Smooth Rolls * Cracker Warmer-2 Rolls, 1 Corr. Roll * Cracker - 2 Corrugated Rolls * Holding, Feed and Blend Mill - 2 Rolls * Refiner - 2 Rolls * Calenders
	<u>ATIK SU BOŞALTIM EKİPMANLARI</u>		<u>SEWAGE DISPOSAL EQUIPMENT</u>
	* Çubuklu Elek * Kimyasal Besleme Üniteleri * Su Boşaltma Eleği * Köpük Kesici * Yavaş veya Hızlı Karıştırıcılar * Tortu Toplayıcı * Koyulaştırıcı * Vakumlu Filtre		* Bar Screens * Chemical Feeders * Dewatering Screen * Scum Breaker * Slow or Rapid Mixers * Sludge Collector * Thickener * Vacuum Filter
	<u>KOMPAKTÖRLER</u>		<u>COMPACTORS</u>
	<u>ÇEKTİRMELER - YAVAŞ VE KUVVETLİ</u>		<u>PULLERS - BARGE HAUL</u>

TR

KULLANIM ALANLARI

EN

APPLICATION AREAS

UYGULAMALAR

ŞEKER ENDÜSTRİSİ

- * Pancar Dilimleme Aleti
- * Kamış Bıçakları
- * Kırma Makineleri

TEKSTİL ENDÜSTRİSİ

- * Harman Ölçer
- * Kalenderler
- * Şablonlar
- * Kuru Konserveler
- * Boyama Makinesi
- * Dokuma Tezgahları
- * Çamaşır Sıkma Makinesi - Mordane
- * Kaplama
- * Doldurma Makinesi
- * Haşıl Makinesi
- * Halat Yıkama Makinesi
- * Eğirme Makinesi
- * Germe Kurutma Makineleri
- * Yıkama Makineleri
- * Masura Sarıcısı

DAMPERLİ ARAÇLAR

ÇEKİCİ ARAÇLAR

ARITICILAR

KONSERVE DOLUM MAKİNELERİ

APPLICATIONS

SUGAR INDUSTRY

- * Beet Slicer
- * Cane Knives
- * Crushers

TEXTILE INDUSTRY

- * Batcher
- * Calenders
- * Cards
- * Dry Cans
- * Dyeing Machinery
- * Looms
- * Mangle
- * Napper
- * Pads
- * Sialshers
- * Soapers
- * Spinners
- * Tenter Frames
- * Washers
- * Winders

CAR DUMPERS

CAR PULLERS

CLARIFIERS

CAN FILLING MACHINES

TR	KULLANILAN TERİMLER	EN	NOMENCLATURE
REDÜKTÖR TİPİ / GEAR TYPE	REDÜKTÖR DİZAYNI / GEAR DESIGN		
Ayak montajlı Foot mounted	TMA... = Ayak montajlı, Tek mil çıkışlı Foot mounted, Solid shaft		
PKD A 0290 ... H 5290 = İki kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Double reduction	DA... = Ayak montajlı, Delik milli Foot mounted, Hollow shaft		
PKD 1390 ... PKD G 9390 = Üç kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Triple reduction	ÇMA... = Ayak montajlı, Çift mil çıkışlı, Foot mounted, Solid shaft on both sides.		
PKD 1490 ... PKD 5490 = Dört kademeli, helisel konik dişlili redüktör Helical bevel gearboxes Quadruple reduction	DA/KS... = Ayak montajlı, Delik milli, Konik sıkırtmalı Foot mounted, Hollow shaft, Shrink disc connector		
PKD 6390/32 ... PKD G 9390/62 = Beş kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Quintuple reduction	TMA/B5... = Ayak montajlı, Tek mil çıkışlı, B5 flanşlı Foot mounted, Solid shaft, Flange B5		
Gövdeden montajlı Case mounted	DA/B5... = Ayak montajlı, Delik milli, B5 flanşlı Foot mounted, Hollow shaft, Flange B5		
PKD A 0290 ... PKD H 5290 = İki kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Double reduction	DA/KS-B5... = Ayak montajlı, Delik milli, Konik sıkırtmalı, B5 flanşlı Foot mounted, Hollow shaft, Shrink disc connector, Flange B5		
PKD 1390 ... PKD G 9390 = Üç kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Triple reduction	TMA/B14... = Ayak montajlı, Tek mil çıkışlı, B14 flanşlı Foot mounted, Solid shaft, Flange B14		
PKD 1490 ... PKD 5490 = Dört kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Quadruple reduction	DA/B14... = Ayak montajlı, Delik milli, B14 flanşlı Foot mounted, Hollow shaft, Flange B14		
PKD 6390/32 ... PKD G 9390/62 = Beş kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Quintuple reduction	ÇMA/B14... = Ayak montajlı, Çift mil çıkışlı, B14 flanşlı Foot mounted, Solid shaft on both sides, Flange B14		
Gövdeden montajlı, B5 flanşlı Case mounted, Flange B5	DA/KS-B14... = Ayak montajlı, Delik milli, Konik sıkırtmalı, B14 flanşlı Foot mounted, Hollow shaft, Shrink disc connector, Flange B14		
PKD A 0290 ... PKD H 5290 = İki kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Double reduction	DG/B14... = Gövdeden montajlı, Delik milli, B14 flanşlı Case mounted, Hollow shaft, Flange B14		
PKD 1390 ... PKD G 9390 = Üç kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Triple reduction	DG/KS-B14... = Gövdeden montajlı, Delik milli, Konik sıkırtmalı, B14 flanşlı Case mounted, Hollow shaft, Shrink disc connector, Flange B14		
PKD 1490 ... PKD 5490 = Dört kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Quadruple reduction	DG/TK... = Gövdeden montajlı, Delik milli, Tork kolu Case mounted, Hollow shaft, Torque arm		
PKD 6390/32 ... PKD G 9390/62 = Beş kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Quintuple reduction	DG/KS-TK... = Gövdeden montajlı, Delik milli, Konik sıkırtmalı, Tork kolu Case mounted, Hollow shaft, Shrink disc connector, Torque arm		
Gövdeden montajlı, B5 flanşlı Case mounted, Flange B5	DG/TKP-B14... = Gövdeden montajlı, Delik milli, Tork kolu platformu B14 flanşlı Case mounted, Hollow shaft, Torque arm platform, Flange B14		
PKD A 0290 ... PKD H 5290 = İki kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Double reduction	DG/KS-TKP-B14... = Gövdeden montajlı, Delik milli, Konik sıkırtmalı, Tork kolu platformu, B14 flanşlı Case mounted, Hollow shaft, Shrink disc connector Torque arm platform, Flange B14		
PKD 1390 ... PKD G 9390 = Üç kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Triple reduction	TMG/B5... = Gövdeden montajlı, Tek mil çıkışlı, B5 flanşlı Case mounted, Solid shaft, Flange B5		
PKD 1490 ... PKD 5490 = Dört kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Quadruple reduction	DG/B5... = Gövdeden montajlı, Delik milli, B5 flanşlı Case mounted, Hollow shaft, Flange B5		
PKD 6390/32 ... PKD G 9390/62 = Beş kademeli, helisel konik dişlili redüktör Helical bevel gearboxes, Quintuple reduction	DG/KS-B5... = Gövdeden montajlı, Delik milli, Konik sıkırtmalı, B5 flanşlı Case mounted, Hollow shaft, Shrink disc connector, Flange B5		
	TMG/B14... = Gövdeden montajlı, Tek mil çıkışlı, B14 flanşlı Case mounted, Solid shaft, Flange B14		

TR

KULLANILAN TERİMLER

EN

NOMENCLATURE

Giriş Aksamları Input Options	Motor Motor	Kutup Numarası Number of Poles	Motor Seçenekleri Motor Options
W = Motorsuz girişli redüktörler için aksam = With free input shaft IEC = DIN 42677' ye göre standart motorlar için aksamlar = For assembly with IEC standard motors acc. to DIN 42677 T = Turbo kaplin = Turbo coupling	Üç fazlı motor Motor boyutu 63 - 315 Three phase motor Motor size 63 - 315 EExell = Patlamaya karşı güvenliği artırılmış üç fazlı motor = Explosion proof three phase motor increased safety	2 = 2 Kutuplu = 2 - Poles 4 = 4 Kutuplu = 4 - Poles 6 = 6 Kutuplu = 6 - Poles 4 - 2 = 1:2 oranında hız değiştirici dahlander bağlantısı = Pole changing 1:2 Dahlander connection 8 - 2 = 1:4 oranında hız değiştirici ayrılmış sarmal dizilişli = Pole changing 1:4 Separate windings Diğer kutup kombinasyonları talep karşısında karşılanacaktır Other pole combinations on request	BRE = Frenli = With brake EF = Tek fazlı, fanlı = Separate fan, single phase ZF = Çift fazlı, fanlı = Separate fan, double phase DF = Üç fazlı, fanlı = Separate fan, three phase IG = Enkoderli = With encoder KK/FK = Debriyajlı = With clutches SR = Toza karşı korumalı fren = Brake dust - proof TF = Termistörlü = Thermistor RG = Korozyon korumalı frenli = Brake corrosion - protected WU = Yumuşak kalkışlı rotor = Soft start rotor B = Geri dönmeye karşı kilitli = Backstop TW = Isıya duyarlı = Thermal trip HL = Manuel frenli motor = Brake motor with hand release

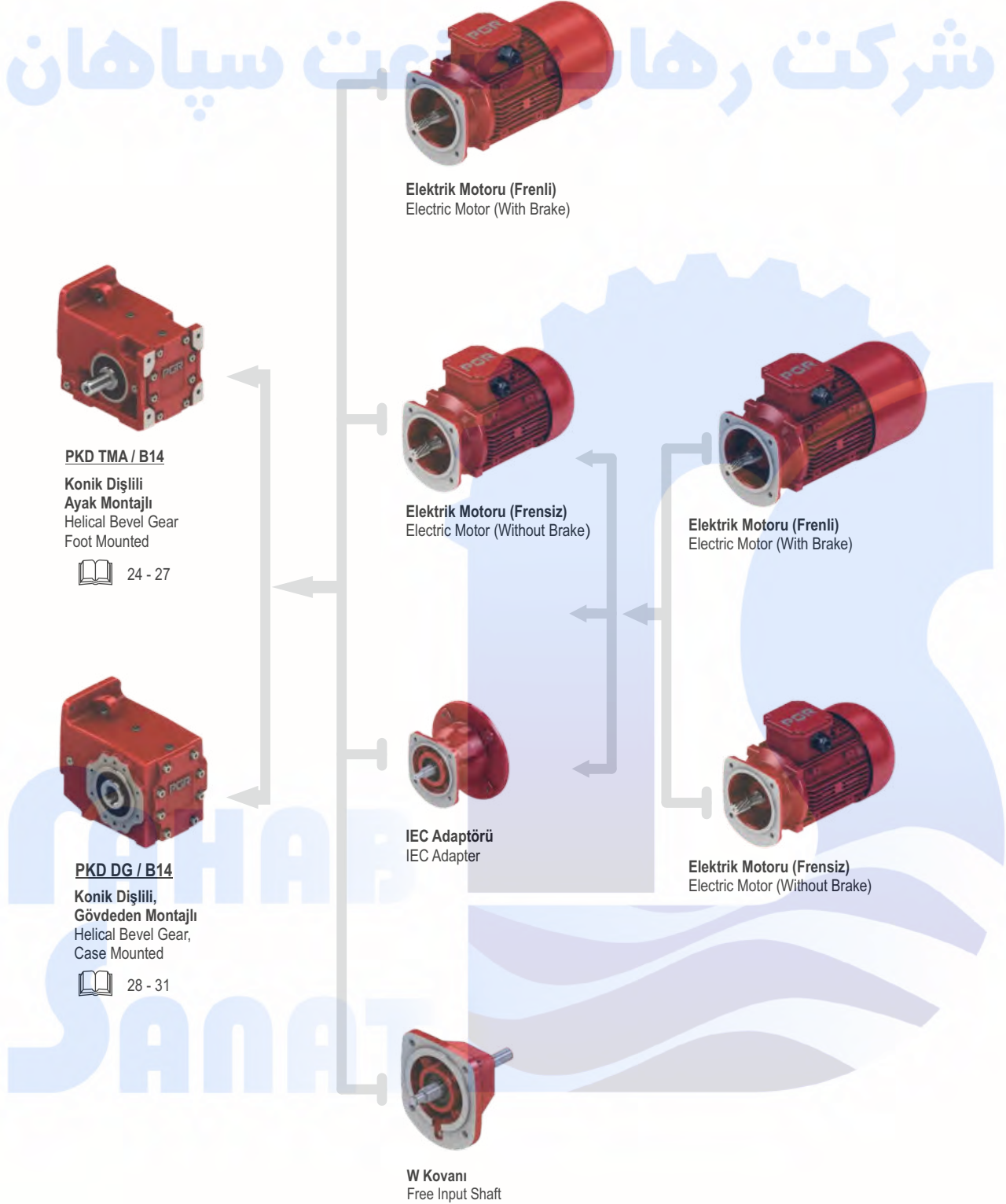
TR

PKD MODÜLER SİSTEMİ

EN

MODULAR SYSTEM OF PKD

İKİ KADEME / DOUBLE REDUCTION



TR

PKD MODÜLER SİSTEMİ

EN

MODULAR SYSTEM OF PKD

ÜÇ KADEME / TRIPLE REDUCTION



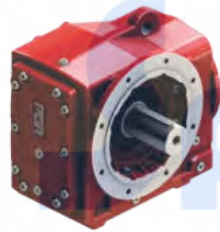
PKD TMA / B14
Konik Dişlili
Ayak Montajlı
Helical Bevel Gear
Foot Mounted

26 - 31



PKD DG / B14
Konik Dişlili,
Gövdeden Montajlı
Helical Bevel Gear,
Case Mounted

32 - 38



PKD TMG / B5
Konik Dişlili, Gövdeden
Montajlı, B5 Flanşlı
Helical Bevel Gear, Case
Mounted, B5 Flange

32 - 38



Elektrik Motoru (Frenli)
Electric Motor (With Brake)



Elektrik Motoru (Frensiz)
Electric Motor (Without Brake)



Helisel Dişlili İndirgeç
Helical Reduction Gearcase



Helisel Dişlili Flanşlı Redüktör
Helical Gearbox Flange Mounted



IEC Adaptörü
IEC Adapter



W Kovanı
Free Input Shaft



Elektrik Motoru (Frenli)
Electric Motor (With Brake)



Elektrik Motoru (Frensiz)
Electric Motor (Without Brake)



W Kovanı
Free Input Shaft



IEC Adaptörü
IEC Adapter



Elektrik Motoru (Frenli)
Electric Motor (With Brake)



Elektrik Motoru (Frensiz)
Electric Motor (Without Brake)

TR

MEVCUT DİZAYNLARA GENEL BAKIŞ

EN

OVERVIEW TO AVAILABLE DESIGNS

Kısaltmalar Abbrev.	Anlamı Meaning	Helisel Konik Dişlili Redüktör Helical Bevel Gear Units
DG/B5	Gövdeden montajlı, Delik milli, B5 flanşlı / Case mounted, Hollow shaft, Flange B5	✓ (2)
DA	Ayak montajlı, Delik milli, / Foot mounted, Hollow shaft,	✓
DA/B5	Ayak montajlı, Delik milli, B5 flanşlı / Foot mounted, Hollow shaft, Flange B5	✓ (1)
DA/B14	Ayak montajlı, Delik milli, B14 flanşlı / Foot mounted, Hollow shaft, Flange B14	✓
DG/B14	Gövdeden montajlı, Delik milli, B14 flanşlı / Case mounted, Hollow shaft, Flange B14	✓ (2)
DG/TK	Gövdeden montajlı, Delik milli, Tork kolu / Case mounted, Hollow shaft, Torque arm	✓ (1) (2)
DG/TKP-B14	Gövdeden montajlı, Delik milli, Tork kolu platformu, B14 flanşlı / Case mounted, Hollow shaft, Torque arm console, Flange B14	✓ (2)
Ç	Çektirme elementli / Fixing elements for hollow shaft	✓
DIN 5480	Kayıcı delik milli DIN 5480 / Splined hollow shaft, DIN 5480	✓
KK	Koruma kapaklı / Cover as a touch guard	✓
IEC	IEC adaptörü / Adapter for mounting B5 IEC standard motors	✓
ÇMA	Ayak montajlı, Çift mil çıkışlı / Foot mounted, Solid shaft on both sides	✓
B	Kilit / Integrated backstop	✓
WB	W kilidi / Backstop in W adapter	✓
KS	Konik sıkırma / Hollow shaft with shrink disc	✓
GKS	Güçlendirilmiş konik sıkırma / Hollow shaft with reinforced shrink disc	✓
TMG/B5	Gövdeden montajlı, Tek mil çıkışlı, B5 flanşlı / Case mounted, Solid shaft, Flange B5	✓ (2)
GR	Güçlendirilmiş rulman / Reinforced bearing	✓
GB5	Güçlendirilmiş B5 Flanşı / Agitator design	✓
TMA/B5	Ayak montajlı, Tek mil çıkışlı, B5 flanşlı / Foot mounted, Solid shaft, Flange B5	✓
TMA	Ayak montajlı, Tek mil çıkışlı / Foot mounted, Solid shaft	✓
TMG/B14	Gövdeden montajlı, Tek mil çıkışlı, B14 flanşlı / Case Mounted, Solid shaft, Flange B14	✓ (2)
W	W kovani / Free input shaft	✓

✓ Mevcut tasarımlar onay işareti ile belirtilmiştir.

- 1-) PKD 7390 (dahil)'a kadar mevcuttur.
2-) Gövdenin alt kısmında ilave dış açılmış delikler mevcuttur. Bu delikler redüktörün montajı için değildir.

✓ Sign is presented which designs are existed for gear units.

- 1) This designs exist for PKD 7390 and lesser case
2) This number shows, there are threaded holes at the bottom of gear unit but these are not used for installation

TR

ÜRÜNLERİMİZ

1) PKD B 0290... TMA - 63 M / 4 R

Tek mil çıkışlı, Ayak montajlı, İki kademeli,
Helisel konik dişli, Motorlu redüktör
Helical bevel gear unit, Solid shaft,
Foot mounted, Double reduction, With motor

PKD B 0290... TMA - IEC 63 R

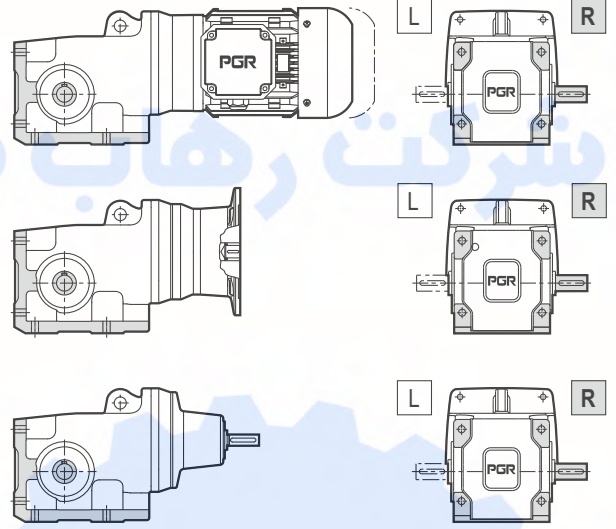
Tek mil çıkışlı, Ayak montajlı, İki kademeli,
Helisel konik dişli, IEC adaptörlü redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Double reduction, With IEC adapter

PKD B 0290... TMA - W R

Tek mil çıkışlı, Ayak montajlı, İki kademeli,
Helisel konik dişli, W kovanlı redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Double reduction, With free input shaft

EN

PRODUCTS



2) PKD B 0290... DA - 63 M / 4

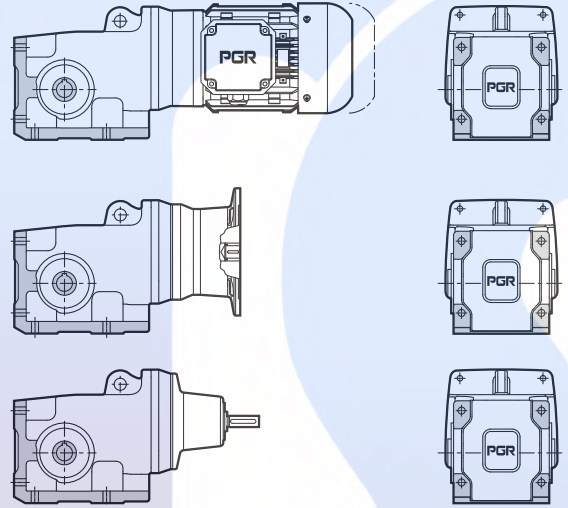
Delik millî, Ayak montajlı, İki kademeli,
Helisel konik dişli, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Double reduction, With motor

PKD B 0290... DA - IEC 63

Delik millî, Ayak montajlı, İki kademeli,
Helisel konik dişli, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Double reduction, With IEC adapter

PKD B 0290... DA - W

Delik millî, Ayak montajlı, İki kademeli,
Helisel konik dişli, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Double reduction, With free input shaft



3) PKD B 0290... DA / KS - 63 M / 4 R

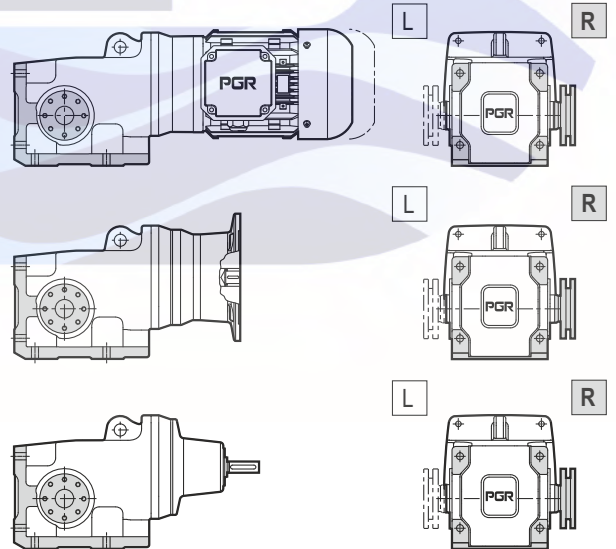
Delik millî, Ayak montajlı, Konik sıkırtmalı,
İki kademeli, Helisel konik dişli, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Shrink disc connector, Double reduction, With motor

PKD B 0290... DA / KS - IEC 63 R

Delik millî, Ayak montajlı, Konik sıkırtmalı, İki kademeli,
Helisel konik dişli, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Shrink disc connector, Double reduction, With IEC adapter

PKD B 0290... DA / KS - W R

Delik millî, Ayak montajlı, Konik sıkırtmalı, İki kademeli,
Helisel konik dişli, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Shrink disc connector, Double reduction, With free input shaft



Not : L ve R çıkış yönünü göstermektedir.

Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

4) PKD B 0290... **ÇMA** - 63 M / 4

Çift mil çıkışlı, Ayak montajlı, İki kademeli,
Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Solid shaft on both sides,
Foot mounted, Double reduction, With motor

PKD B 0290... **ÇMA** - IEC 63

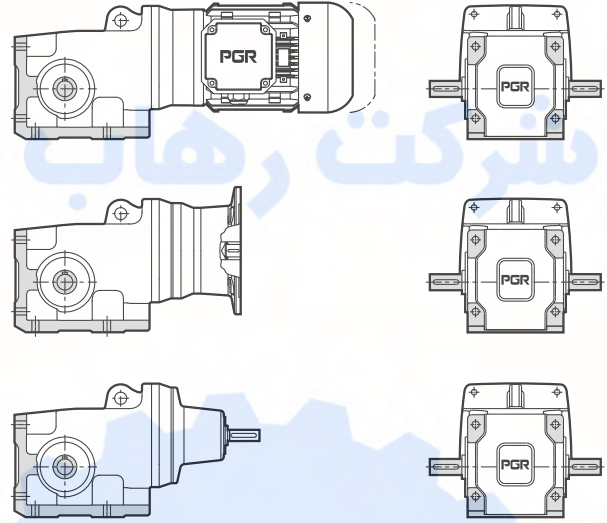
Çift mil çıkışlı, Ayak montajlı, İki kademeli,
Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Double reduction, With IEC adapter

PKD B 0290... **ÇMA** - W

Çift mil çıkışlı, Ayak montajlı, İki kademeli,
Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Solid shaft on both sides,
Foot mounted, Double reduction, With free input shaft

EN

PRODUCTS



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

1) PKD 1390... TMA - 63 M / 4 R

Tek mil çıkışlı, Ayak montajlı, Üç kademeli,
Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Triple reduction, With motor

PKD 1390... TMA - IEC 63 R

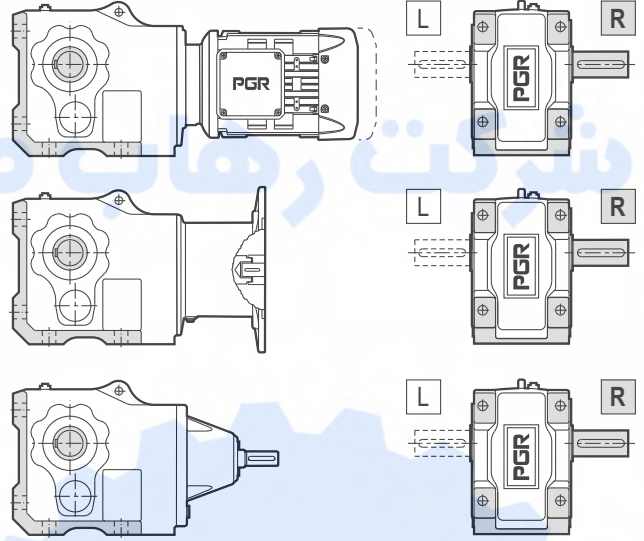
Tek mil çıkışlı, Ayak montajlı, Üç kademeli,
Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Triple reduction, With IEC adapter

PKD 1390... TMA - W R

Tek mil çıkışlı, Ayak montajlı, Üç kademeli,
Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Triple reduction, With free input shaft

EN

PRODUCTS



2) PKD 1390... DA - 63 M / 4

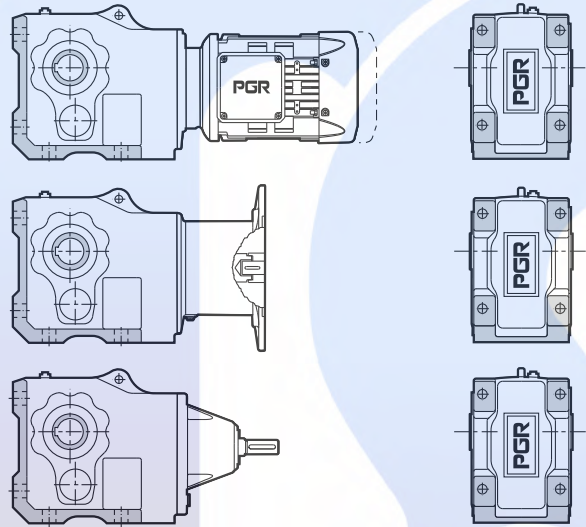
Delik millî, Ayak montajlı, Üç kademeli,
Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Triple reduction, With motor

PKD 1390... DA - IEC 63

Delik millî, Ayak montajlı, Üç kademeli,
Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Triple reduction, With free input shaft

PKD 1390... DA - W

Delik millî, Ayak montajlı, İki kademeli,
Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Double reduction, With free input shaft



3) PKD 1390... ÇMA - 63 M / 4

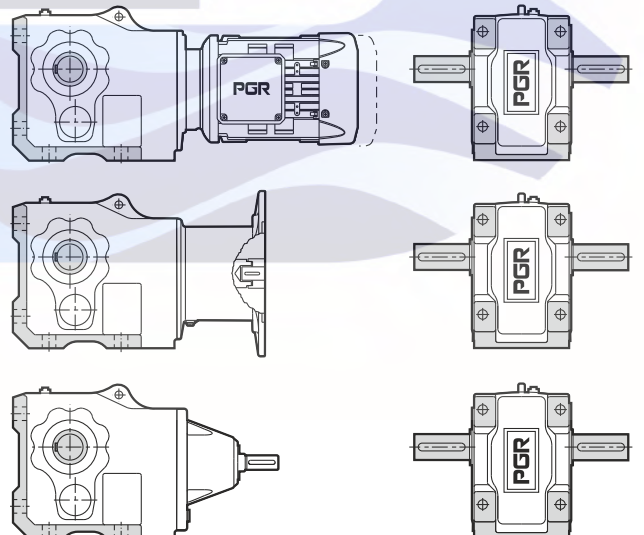
Çift mil çıkışlı, Ayak montajlı, Üç kademeli,
Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Solid shaft on both sides,
Foot mounted, Triple reduction, With motor

PKD 1390... ÇMA - IEC 63

Çift mil çıkışlı, Ayak montajlı, Üç kademeli,
Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Solid shaft on both sides,
Foot mounted, Triple reduction, With IEC adapter

PKD 1390... ÇMA - W

Çift mil çıkışlı, Ayak montajlı, Üç kademeli,
Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Solid shaft on both sides,
Foot mounted, Triple reduction, With free input shaft



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

4) PKD 1390... DA / KS - 63 M / 4 R

Delik milli, Ayak montajlı, Konik sıkırtmalı,
Üç kademeli, Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Shrink disc connector, Triple reduction, With motor

PKD 1390... DA / KS - IEC 63 R

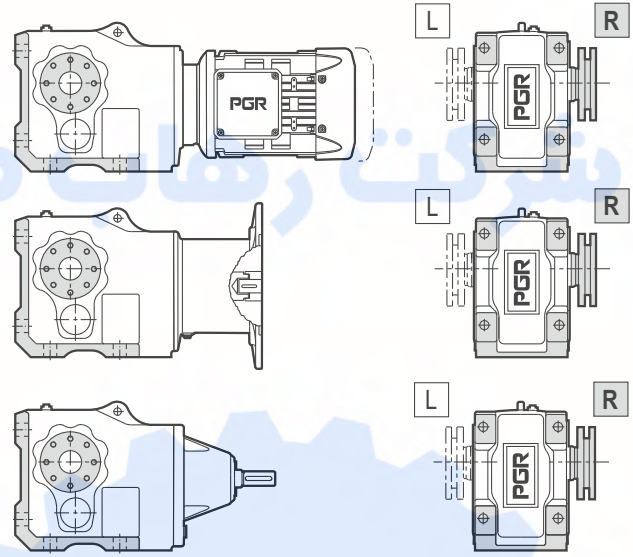
Delik milli, Ayak montajlı, Konik sıkırtmalı,
Üç kademeli, Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Shrink disc connector, Triple reduction, With IEC adapter

PKD 1390... DA / KS - W R

Delik milli, Ayak montajlı, Konik sıkırtmalı,
Üç kademeli, Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted, Shrink
disc connector, Triple reduction, With free input shaft

EN

PRODUCTS



5) PKD 1390... TMA / B5 - 63 M / 4 R

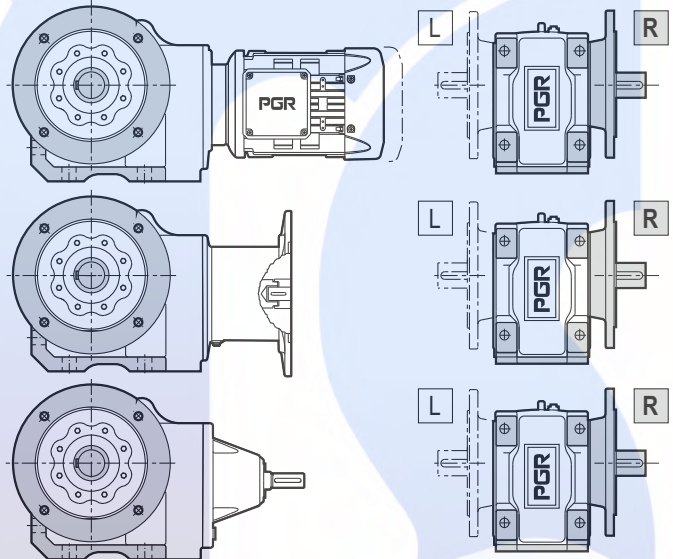
Tek mil çıkışlı, Ayak montajlı, B5 flanşlı,
Üç kademeli Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Flange B5, Triple reduction, With motor

PKD 1390... TMA / B5 - IEC 63 R

Tek mil çıkışlı, Ayak montajlı, B5 flanşlı, Üç kademeli,
Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Flange B5, Triple reduction, With IEC adapter

PKD 1390... TMA / B5 - W R

Tek mil çıkışlı, Ayak montajlı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Flange B5, Triple reduction, With free input shaft



6) PKD 1390... DA / B5 - 63 M / 4 R

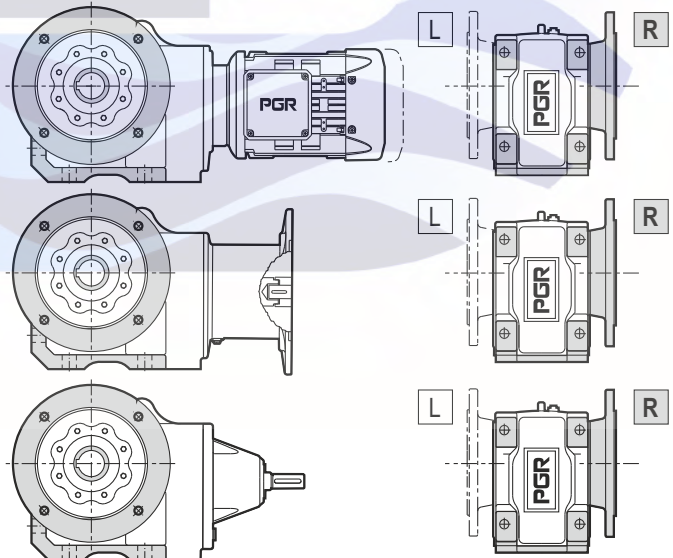
Delik milli, Ayak montajlı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Flange B5, Triple reduction, With motor

PKD 1390... DA / B5 - IEC 63 R

Delik milli, Ayak montajlı, B5 flanşlı, Üç kademeli,
Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Flange B5, Triple reduction, With IEC adapter

PKD 1390... DA / B5 - W R

Delik milli, Ayak montajlı, B5 flanşlı, Üç kademeli,
Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Flange B5, Triple reduction, With free input shaft



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

EN

PRODUCTS

7) PKD 1390... DA / KS-B5 - 63 M / 4 **R**

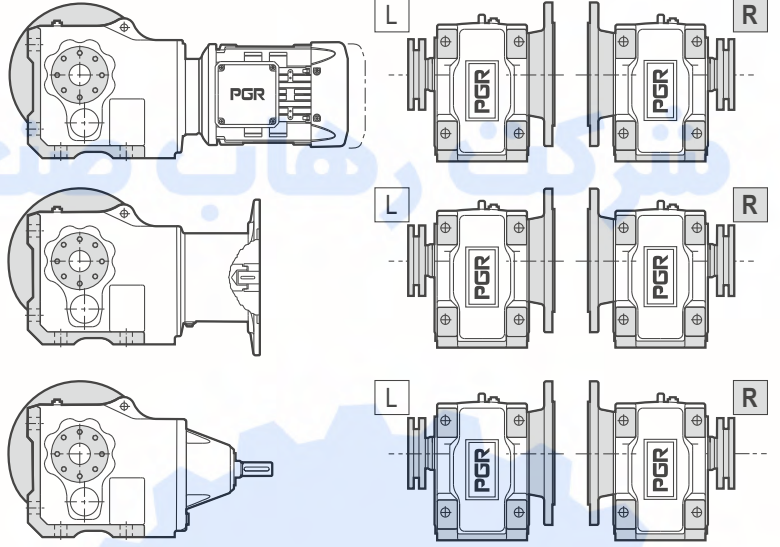
Delik milli, 0 Ayak montajlı, Konik sıkırtmalı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted, Shrink
disc connector, Flange B5, Triple reduction, With motor

PKD 1390... DA / KS-B5 - IEC 63 **R**

Delik milli, Ayak montajlı, Konik sıkırtmalı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted, Shrink
disc connector, Flange B5, Triple reduction, With IEC adapter

PKD 1390... DA / KS-B5 - W **R**

Delik milli, Ayak montajlı, Konik sıkırtmalı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted, Shrink disc
connector, Flange B5, Triple reduction, With free input shaft



8) PKD 1390... TMA / B14 - 63 M / 4 **R**

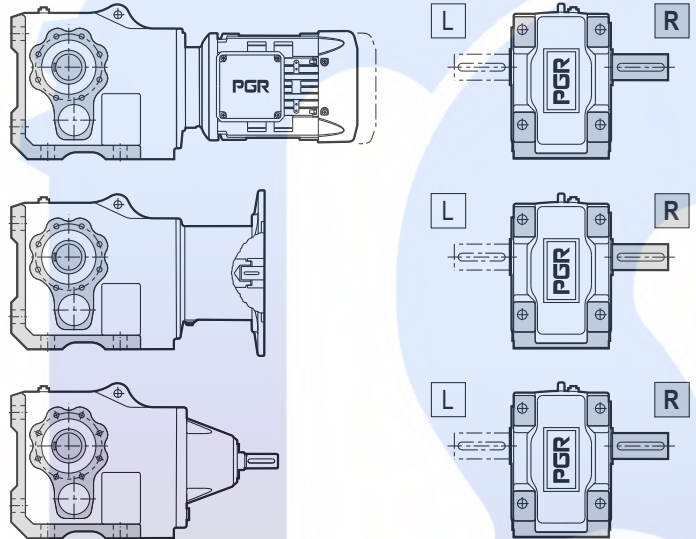
Tek mil çıkışlı, Ayak montajlı, Üç kademeli, B14 flanşlı,
Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Triple reduction, Flange B14, With motor

PKD 1390... TMA / B14 - IEC 63 **R**

Tek mil çıkışlı, Ayak montajlı, Üç kademeli, B14 flanşlı,
Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Solid shaft, Foot mounted,
Triple reduction, Flange B14, With IEC adapter

PKD 1390... TMA / B14 - W **R**

Tek mil çıkışlı, Ayak montajlı, Üç kademeli, B14 flanşlı,
Helisel konik dişlili, W kovanlı redüktör



9) PKD 1390... DA / B14 - 63 M / 4

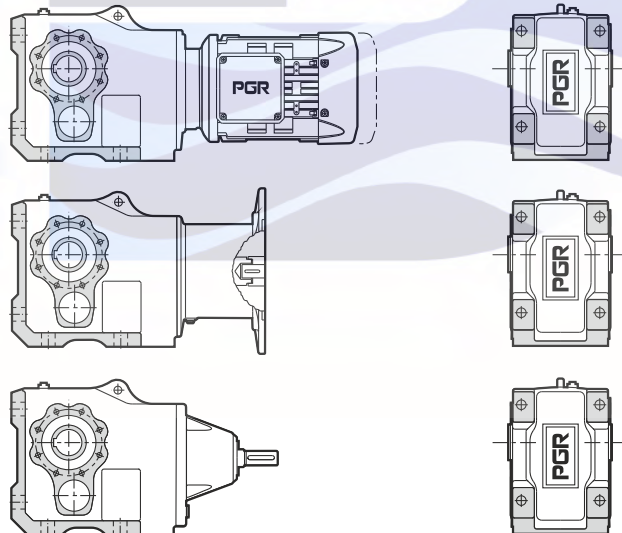
Delik milli, Ayak montajlı, Üç kademeli, B14 flanşlı,
Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Triple reduction, Flange B14, With motor

PKD 1390... DA / B14 - IEC 63

Delik milli, Ayak montajlı, Üç kademeli, B14 flanşlı,
Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Triple reduction, Flange B14, With IEC adapter

PKD 1390... DA / B14 - W

Delik milli, Ayak montajlı, Üç kademeli, B14 flanşlı,
Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted,
Triple reduction, Flange B14, With free input shaft



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

10) PKD 1390... ÇMA / B14 - 63 M / 4

Çift mil çıkışlı, Ayak montajlı, Üç kademeli, B14 Flanşlı,
Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Solid shaft on both sides, Foot mounted,
Triple reduction, Flange B14, With motor

PKD 1390... ÇMA / B14 - IEC 63

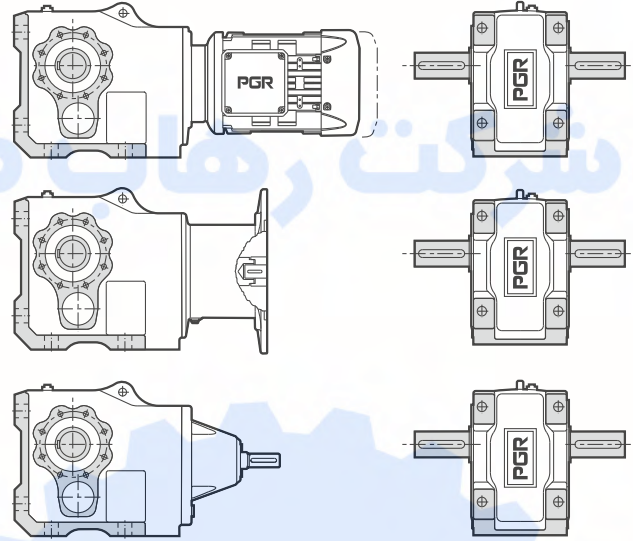
Çift mil çıkışlı, Ayak montajlı, Üç kademeli, B14 Flanşlı,
Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Solid shaft on both sides, Foot mounted,
Triple reduction, Flange B14, With IEC

PKD 1390... ÇMA / B14 - W

Çift mil çıkışlı, Ayak montajlı, Üç kademeli, B14 Flanşlı,
Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Solid shaft on both sides, Foot mounted,
Triple reduction, Flange B14, With free input shaft

EN

PRODUCTS



11) PKD 1390... DA / KS-B14 - 63 M / 4 R

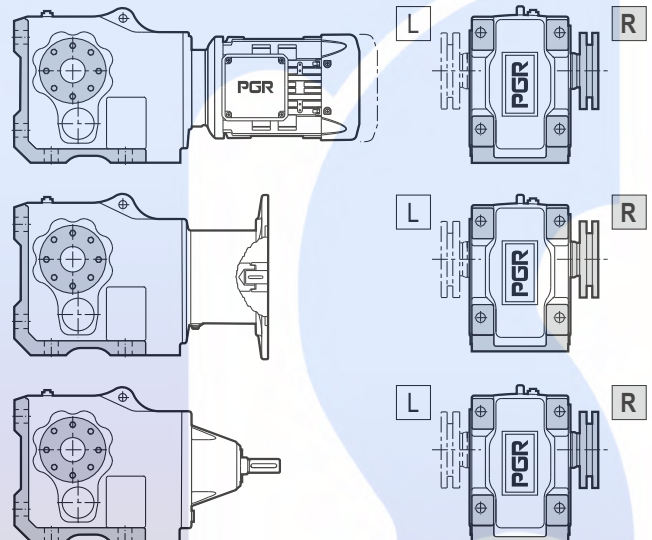
Delik milli, Ayak montajlı, Konik sıkırtmalı, Üç kademeli,
B14 flanşlı, Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted, Shrink disc
connector, Triple reduction, Flange B14, With motor

PKD 1390... DA / KS-B14 - IEC 63 R

Delik milli, Ayak montajlı, Konik sıkırtmalı, Üç kademeli,
B14 flanşlı, Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted, Shrink disc
connector, Triple reduction, Flange B14, With IEC adapter

PKD 1390... DA / KS-B14 - W R

Delik milli, Ayak montajlı, Konik sıkırtmalı, Üç kademeli,
B14 flanşlı, Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Foot mounted, Shrink disc
connector, Triple reduction, Flange B14, With free input shaft



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

1) PKD B 0290... DG / B14 - 63 M / 4

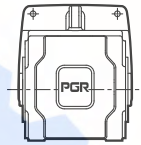
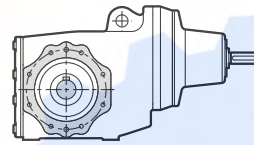
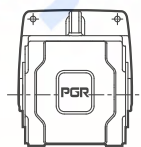
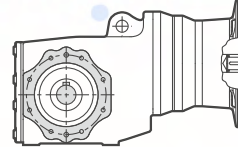
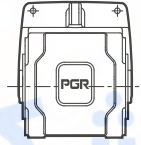
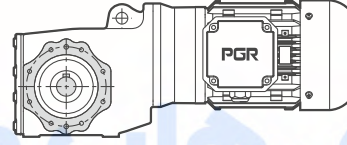
Delik milli, Gövdeden montajlı, İki kademeli,
B14 flanşlı, Helisel konik dişli, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Double reduction, Flange B14, With motor

PKD B 0290... DG / B14 - IEC 63

Delik milli, Gövdeden montajlı, İki kademeli,
B14 flanşlı, Helisel konik dişli, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Double reduction, Flange B14, With IEC adapter

PKD B 0290... DG / B14 - W

Delik Milli, Gövdeden Montajlı, İki Kademeli,
B14 flanşlı, Helisel konik dişli, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Double reduction, Flange B14, With free input shaft



2) PKD B 0290... DG / KS-B14 - 63 M / 4

R

Delik milli, Gövdeden montajlı, Konik sıkırtmalı, İki kademeli,
B14 flanşlı, Helisel konik dişli, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Case mounted, Shrink disc
connector, Double reduction, Flange B14, With motor.

PKD B 0290... DG / KS-B14 - IEC 63

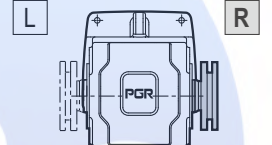
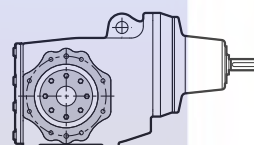
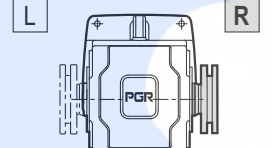
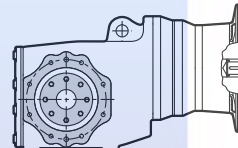
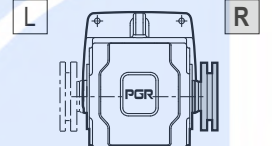
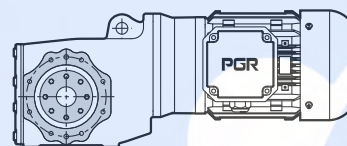
R

Delik milli, Gövdeden montajlı, Konik sıkırtmalı, İki kademeli,
B14 flanşlı, Helisel konik dişli, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Case mounted, Shrink disc
connector, Double reduction, Flange B14, With IEC adapter

PKD B 0290... DG / KS-B14 - W

R

Delik milli, Gövdeden montajlı, Konik sıkırtmalı, İki kademeli,
B14 flanşlı, Helisel konik dişli, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Case mounted, Shrink disc
connector, Double reduction, Flange B14, With free input shaft



3) PKD B 0290... TMG / B14 - 63 M / 4

R

Tek mil çıkışlı, Gövdeden montajlı, İki kademeli,
B14 flanşlı, Helisel konik dişli, Motorlu redüktör
Helical bevel gear unit, Solid shaft, Case mounted,
Double reduction, Flange B14, With motor

PKD B 0290... TMG / B14 - IEC 63

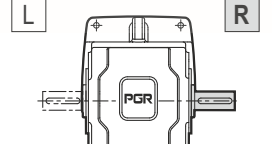
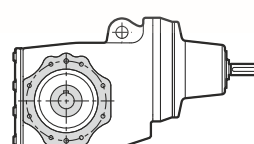
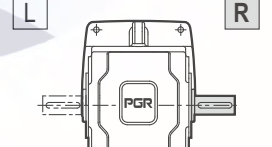
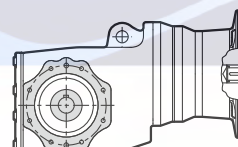
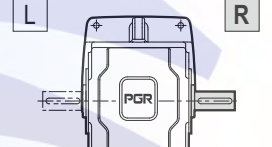
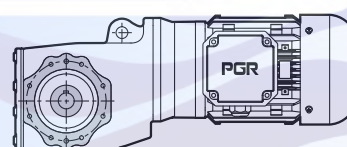
R

Tek mil çıkışlı, Gövdeden montajlı, İki kademeli,
B14 flanşlı, Helisel konik dişli, IEC adaptörlü redüktör
Helical bevel gear unit, Solid shaft, Case mounted,
Double reduction, Flange B14, With IEC adapter

PKD B 0290... TMG / B14 - W

R

Tek mil çıkışlı, Gövdeden montajlı, İki kademeli,
B14 flanşlı, Helisel konik dişli, W kovanlı redüktör
Helical bevel gear unit, Solid shaft, Case mounted,
Double reduction, Flange B14, With free input shaft



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

EN

PRODUCTS

4) PKD B 0290... **TMG / B5** - 63 M / 4

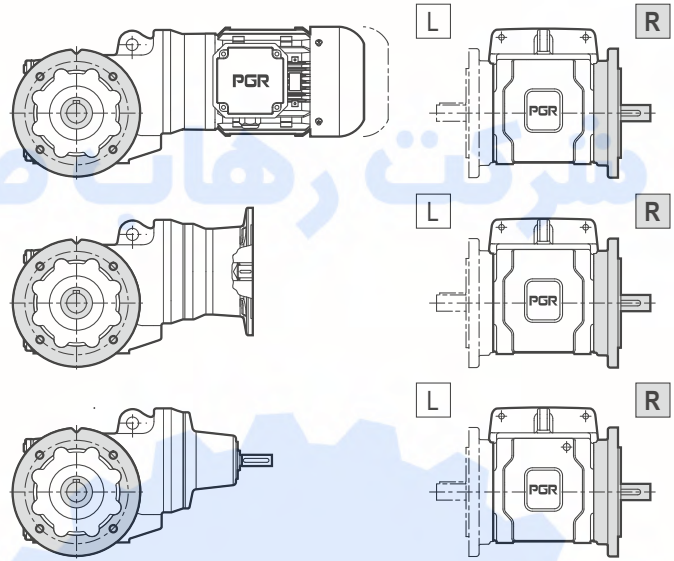
Tek mil çıkışlı, Gövdeden montajlı, B5 flanşlı,
İki kademelili, Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Solid shaft, Case mounted,
Flange B5, Double reduction, With motor

PKD B 0290... **TMG / B5** - IEC 63

Tek mil çıkışlı, Gövdeden montajlı, B5 flanşlı,
İki kademelili, Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Solid shaft, Case mounted,
Flange B5, Double reduction, With IEC adapter

PKD B 0290... **TMG / B5** - W

Tek mil çıkışlı, Gövdeden montajlı, B5 flanşlı,
İki kademelili, Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Solid shaft, Case mounted,
Flange B5, Double reduction, With free input shaft



5) PKD B 0290... **DG / B5** - 63 M / 4

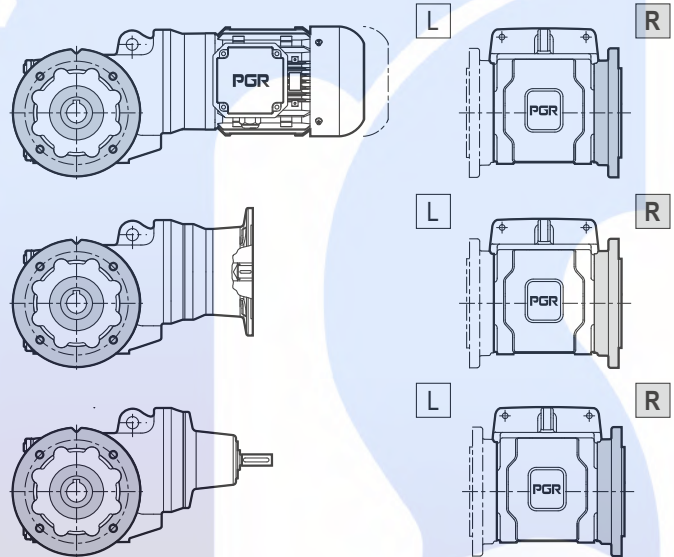
Delik millili, Gövdeden montajlı, B5 flanşlı,
İki kademelili, Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Flange B5, Double reduction, With motor

PKD B 0290... **DG / B5** - IEC 63

Delik millili, Gövdeden montajlı, B5 flanşlı, İki kademelili,
Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Flange B5, Double reduction, With IEC adapter

PKD B 0290... **DG / B5** - W

Delik millili, Gövdeden montajlı, B5 flanşlı, İki kademelili,
Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Flange B5, Double reduction, With free input shaft



6) PKD B 0290... **DG / KS-B5** - 63 M / 4

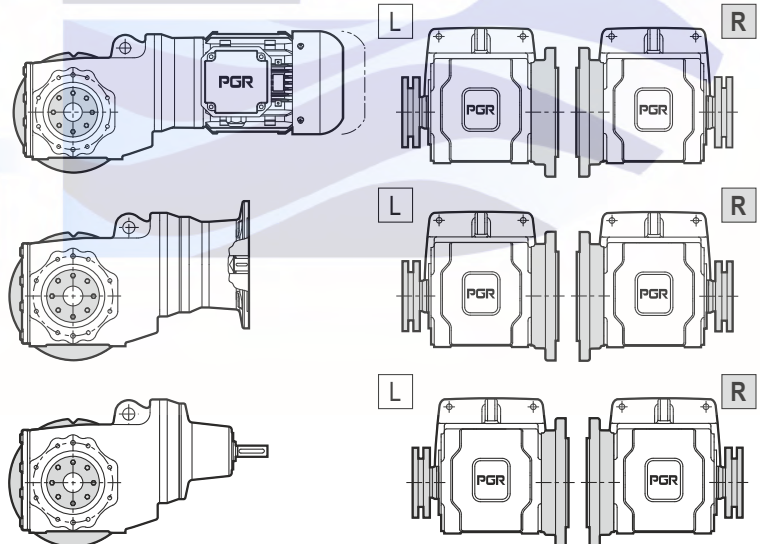
Delik millili, Gövdeden montajlı, Konik sıkırtırmalı, B5 flanşlı,
İki kademelili, Helisel konik dişlili, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Flange B5, Double reduction, With motor

PKD B 0290... **DG / KS-B5** - IEC 63

Delik millili, Gövdeden montajlı, Konik sıkırtırmalı, B5 flanşlı,
İki kademelili, Helisel konik dişlili, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Flange B5, Double reduction,
With IEC adapter

PKD B 0290... **DG / KS-B5** - W

Delik millili, Gövdeden montajlı, Konik sıkırtırmalı, B5 flanşlı,
İki kademelili, Helisel konik dişlili, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Flange B5, Double reduction,
With freeinput shaft



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

9) PKD B 0290... DG / TK - 63 M / 4 R

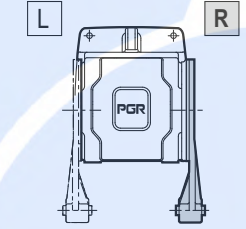
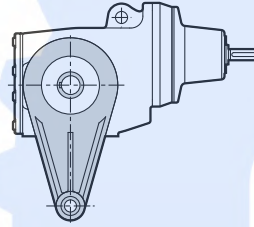
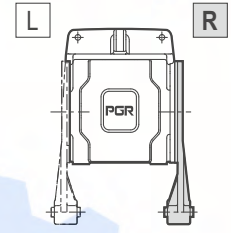
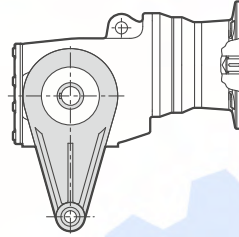
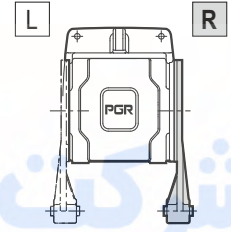
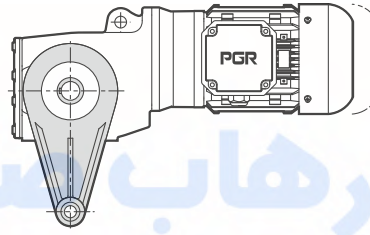
Delik milli, Gövdeden montajlı, Tork kolu,
İki kademeli, Helisel konik dişli, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Torque arm, Double reduction, With motor

PKD B 0290... DG / TK - IEC R

Delik milli, Gövdeden montajlı, Tork kolu, İki kademeli,
Helisel konik dişli, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Torque arm, Double reduction, With IEC adapter

PKD B 0290... DG / TK - W R

Delik milli, Gövdeden montajlı, Tork kolu,
İki kademeli, Helisel konik dişli, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Torque arm, Double reduction, With free input shaft



10) PKD B 0290... DG / KS-TK - 63 M / 4 R

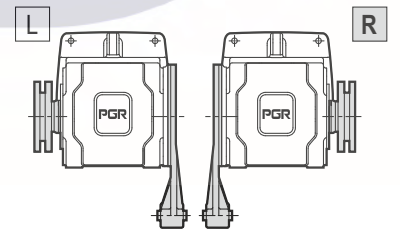
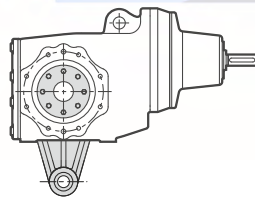
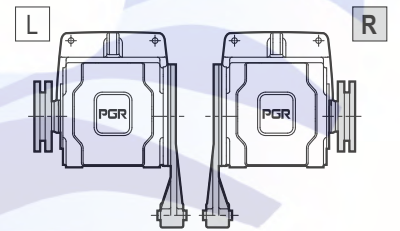
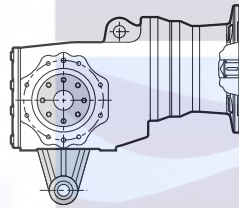
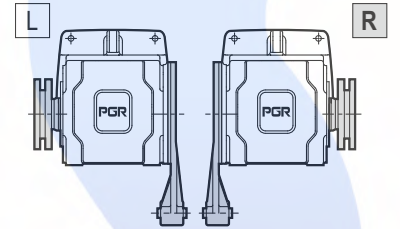
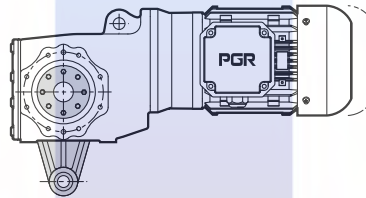
Delik milli, Gövdeden montajlı, Konik sıkırtmalı,
Tork kolu, İki kademeli, Helisel konik dişli, Motorlu redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Torque arm, Double reduction, With motor

PKD B 0290... DG / KS-TK - IEC R

Delik milli, Gövdeden montajlı, Konik sıkırtmalı, Tork kolu,
İki kademeli, Helisel konik dişli, IEC adaptörlü redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Torque arm, Double reduction,
With IEC adapter

PKD 1390... DG / KS-TK - W R

Delik milli, Gövdeden montajlı, Konik sıkırtmalı, Tork kolu,
İki kademeli, Helisel konik dişli, W kovanlı redüktör
Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Torque arm, Double reduction, With free
input shaft



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

1) PKD B 1390... DG / B14 - 63 M / 4

Delik milli, Gövdeden montajlı, Üç kademeli,
B14 flanşlı, Helisel konik dişli, Motorlu redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Triple reduction, Flange B14, With motor

PKD 1390... DG / B14 - IEC 63

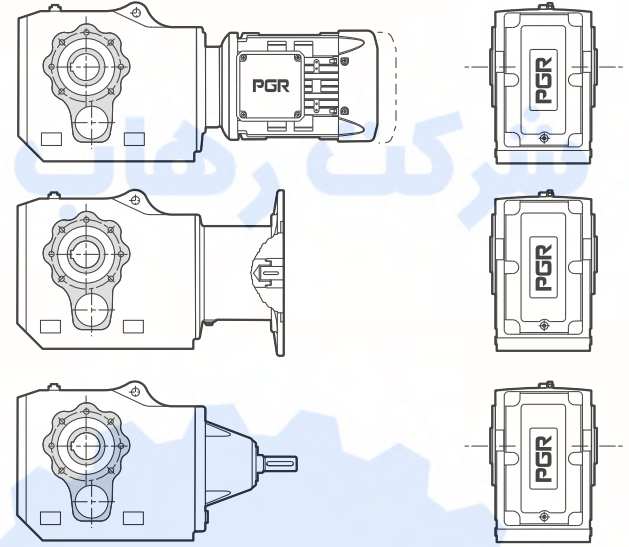
Delik milli, Gövdeden montajlı, Üç kademeli,
B14 flanşlı, Helisel konik dişli, IEC adaptörlü redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Triple reduction, Flange B14, With IEC adapter

PKD 1390... DG / B14 - W

Delik Milli, Gövdeden Montajlı, Üç Kademeli,
B14 flanşlı, Helisel konik dişli, W kovanlı redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Triple reduction, Flange B14, With free input shaft

EN

PRODUCTS



2) PKD 1390... DG / KS-B14 - 63 M / 4

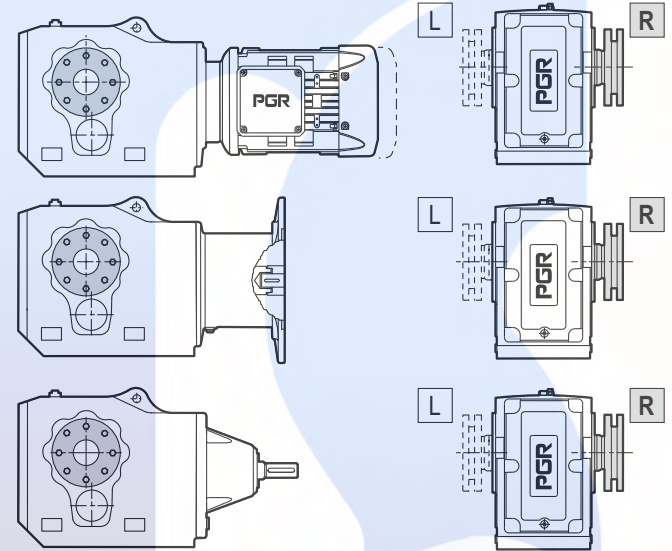
Delik milli, Gövdeden montajlı, Konik sıkırtmalı,
Üç kademeli, B14 flanşlı, Helisel konik dişli,
Motorlu redüktör / Helical bevel gear unit,
Hollow shaft, Case mounted, Shrink disc connector,
Triple reduction, Flange B14, With motor.

PKD 1390... DG / KS-B14 - IEC 63

Delik milli, Gövdeden montajlı, Konik sıkırtmalı,
Üç kademeli, B14 flanşlı, Helisel konik dişli,
IEC adaptörlü redüktör / Helical bevel gear unit,
Hollow shaft, Case mounted, Shrink disc connector,
Triple reduction, Flange B14, With IEC adapter

PKD 1390... DG / KS-B14 - W

Delik milli, Gövdeden montajlı, Konik sıkırtmalı,
Üç kademeli, B14 flanşlı, Helisel konik dişli,
W kovanlı redüktör / Helical bevel gear unit,
Hollow shaft, Case mounted, Shrink disc connector,
Triple reduction, Flange B14, With free input shaft



3) PKD 1390... TMG / B14 - 63 M / 4

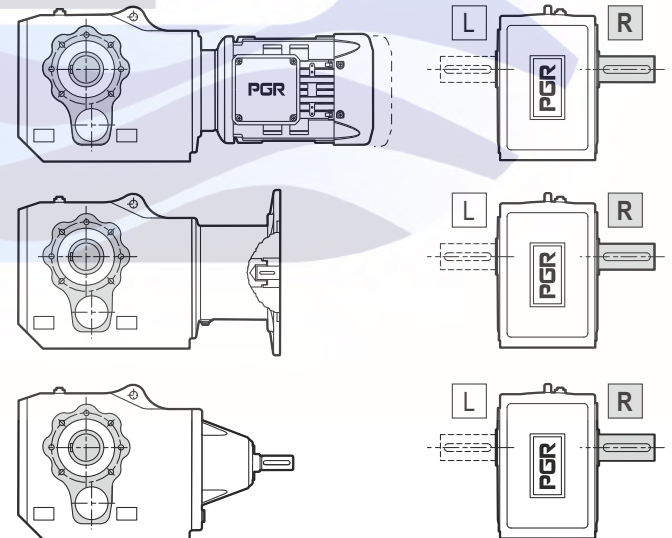
Tek mil çıkışlı, Gövdeden montajlı, Üç kademeli,
B14 flanşlı, Helisel konik dişli, Motorlu redüktör /
Helical bevel gear unit, Solid shaft, Case mounted,
Triple reduction, Flange B14, With motor

PKD 1390... TMG / B14 - IEC 63

Tek mil çıkışlı, Gövdeden montajlı, Üç kademeli,
B14 flanşlı, Helisel konik dişli, IEC adaptörlü redüktör /
Helical bevel gear unit, Solid shaft, Case mounted,
Triple reduction, Flange B14, With IEC adapter

PKD 1390... TMG / B14 - W

Tek mil çıkışlı, Gövdeden montajlı, Üç kademeli,
B14 flanşlı, Helisel konik dişli, W kovanlı redüktör /
Helical bevel gear unit, Solid shaft, Case mounted,
Triple reduction, Flange B14, With free input shaft



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

4) PKD 1390... TMG / B5 - 63 M / 4

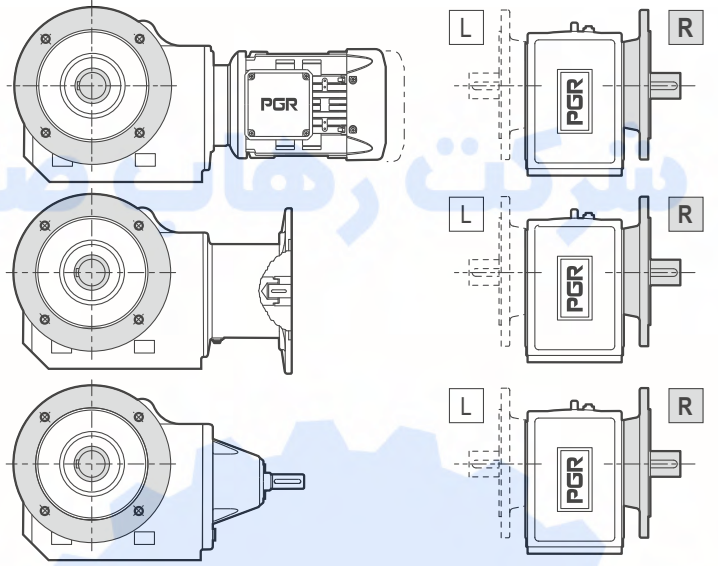
Tek mil çıkışlı, Gövdeden montajlı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, Motorlu redüktör /
Helical bevel gear unit, Solid shaft, Case mounted,
Flange B5, Triple reduction, With motor

PKD 1390... TMG / B5 - IEC 63

Tek mil çıkışlı, Gövdeden montajlı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, IEC adaptörlü redüktör /
Helical bevel gear unit, Solid shaft, Case
mounted, Flange B5, Triple reduction, With IEC adapter

PKD 1390... TMG / B5 - W

Tek mil çıkışlı, Gövdeden montajlı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, W kovanlı redüktör /
Helical bevel gear unit, Solid shaft, Case mounted,
Flange B5, Triple reduction, With free input shaft



5) PKD 1390... DG / B5 - 63 M / 4

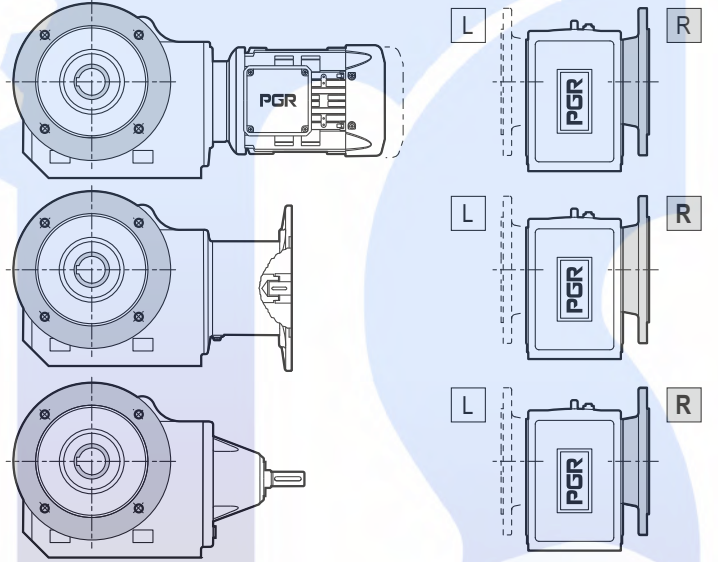
Delik millî, Gövdeden montajlı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, Motorlu redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Flange B5, Triple reduction, With motor

PKD 1390... DG / B5 - IEC 63

Delik millî, Gövdeden montajlı, B5 flanşlı, Üç kademeli,
Helisel konik dişlili, IEC adaptörlü redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Flange B5, Triple reduction, With IEC adapter

PKD 1390... DG / B5 - W

Delik millî, Gövdeden montajlı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, W kovanlı redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Flange B5, Triple reduction, With free input shaft



6) PKD 1390... DG / KS-B5 - 63 M / 4

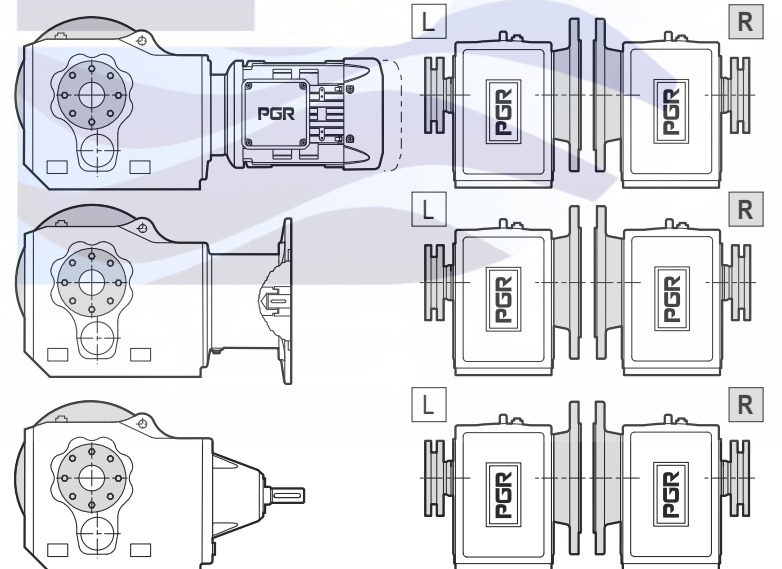
Delik millî, Gövdeden montajlı, Konik sıkırtmalı,
B5 flanşlı, Üç kademeli, Helisel konik dişlili, Motorlu redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Flange B5, Triple reduction, With motor

PKD 1390... DG / KS-B5 - IEC 63

Delik millî, Gövdeden montajlı, Konik sıkırtmalı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, IEC adaptörlü redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted, Shrink disc
connector, Flange B5, Triple reduction, With IEC adapter

PKD 1390... DG / KS-B5 - W

Delik millî, Gövdeden montajlı, Konik sıkırtmalı, B5 flanşlı,
Üç kademeli, Helisel konik dişlili, W kovanlı redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted, Shrink disc
connector, Flange B5, Triple reduction, With free input shaft



Not : L ve R çıkış yönünü göstermektedir.

Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

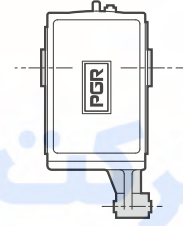
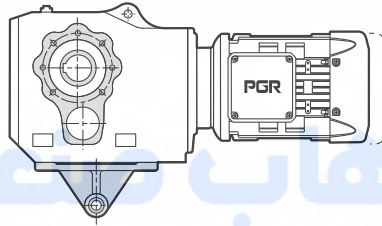
EN

PRODUCTS

7) PKD 1390... DG / TKP-B14 - 63 M / 4

Delik milli, Gövdeden montajlı, Üç kademeli,
Tork kolu platformu, B14 flanşlı, Helisel konik
dişlili, Motorlu redüktör

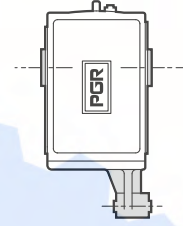
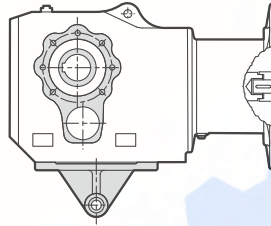
Helical bevel gear unit, Hollow shaft, Case mounted,
Triple reduction, Torque arm platform, Flange B14,
With motor



PKD 1390... DG / TKP-B14 - IEC 63

Delik milli, Gövdeden montajlı, Üç kademeli,
Tork kolu platformu, B14 flanşlı, Helisel konik dişlili,
IEC adaptörlü redüktör

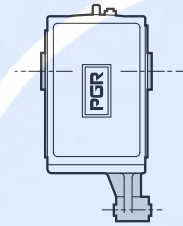
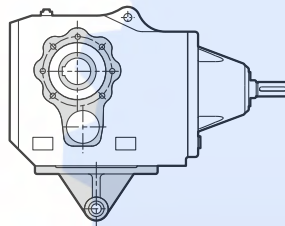
Helical bevel gear unit, Hollow shaft, Case mounted,
Triple reduction, Torque arm platform, Flange B14,
With IEC adapter



PKD 1390... DG / TKP-B14 - W

Delik milli, Gövdeden montajlı, Üç kademeli,
Tork kolu platformu, B14 flanşlı, Helisel konik dişlili,
W kovanlı redüktör

Helical bevel gear unit, Hollow shaft, Case mounted,
Triple reduction, Torque arm platform, Flange B14,
With free input shaft

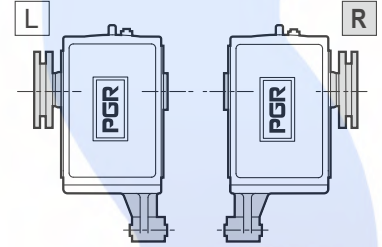
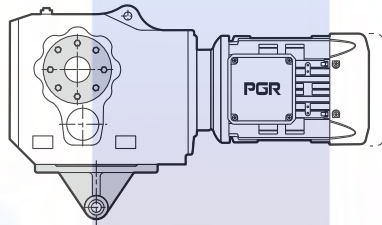


8) PKD 1390... DG / KS-TKP-B14 - 63 M / 4

Delik milli, Gövdeden montajlı, Konik sıkırtmalı,
Üç kademeli, Tork kolu platformu, B14 flanşlı,
Helisel konik dişlili, Motorlu redüktör

Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Triple reduction, Torque arm
platform, Flange B14, With motor

R

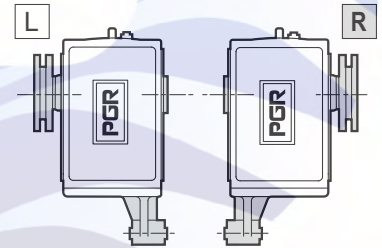
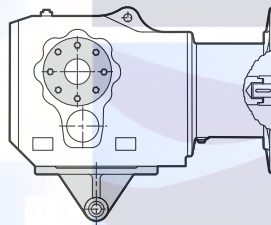


PKD 1390... DG / KS-TKP-B14 - IEC

Delik milli, Gövdeden montajlı, Konik sıkırtmalı,
Üç kademeli, Tork kolu platformu, B14 flanşlı,
Helisel konik dişlili, IEC adaptörlü redüktör

Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Triple reduction, Torque arm
platform, Flange B14, With IEC adapter

R

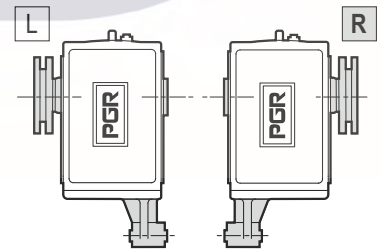
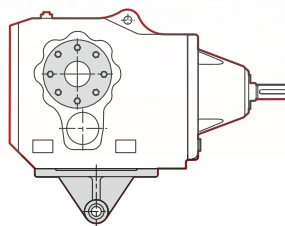


PKD 1390... DG / KS-TKP-B14 - W

Delik milli, Gövdeden montajlı, Konik sıkırtmalı,
Üç kademeli, Tork kolu platformu, B14 flanşlı,
Helisel konik dişlili, W kovanlı redüktör

Helical bevel gear unit, Hollow shaft, Case mounted,
Shrink disc connector, Triple reduction, Torque arm
platform, Flange B14, With free input shaft

R



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

ÜRÜNLERİMİZ

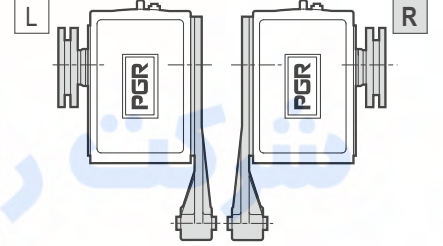
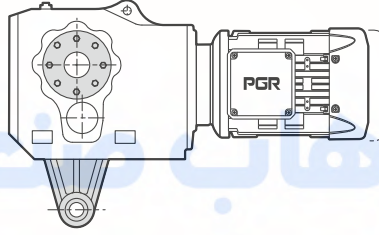
EN

PRODUCTS

9) PKD 1390... DG / KS-TK - 63 M / 4

R

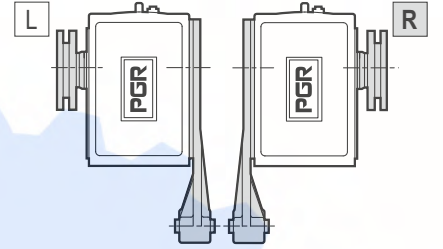
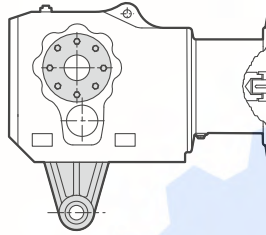
Delik milli, Gövdeden montajlı, Konik sıkırtmalı,
Tork kollu, Üç kademeli, Helisel konik dişli,
Motorlu redüktör / Helical bevel gear unit, Hollow shaft,
Case mounted, Shrink disc connector, Torque arm,
Triple reduction, With motor



PKD 1390... DG / KS-TK - IEC

R

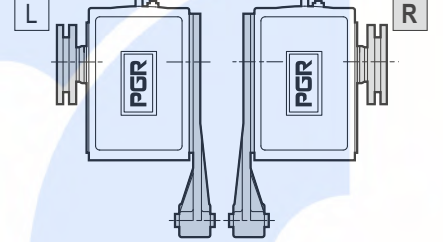
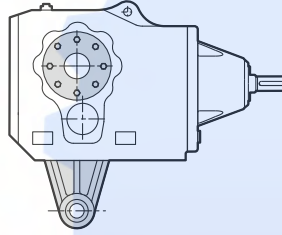
Delik milli, Gövdeden montajlı, Konik sıkırtmalı, Tork kollu,
Üç kademeli, Helisel konik dişli, IEC adaptörlü redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted, Shrink disc
connector, Torque arm, Triple reduction, With IEC adapter



PKD 1390... DG / KS-TK - W

R

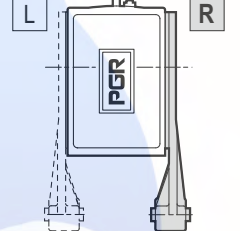
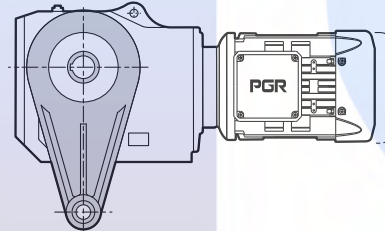
Delik milli, Gövdeden montajlı, Konik sıkırtmalı, Tork kollu,
Üç kademeli, Helisel konik dişli, W kovanlı redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted, Shrink disc
connector, Torque arm, Triple reduction, With free input shaft



10) PKD 1390... DG / TK - 63 M / 4

R

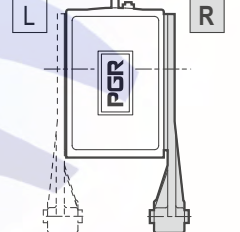
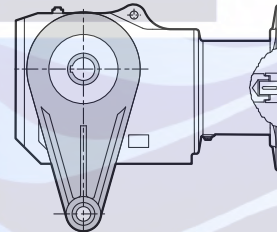
Delik milli, Gövdeden montajlı, Tork kollu, Üç kademeli,
Helisel konik dişli, Motorlu redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Torque arm, Triple reduction, With motor



PKD 1390... DG / TK - IEC

R

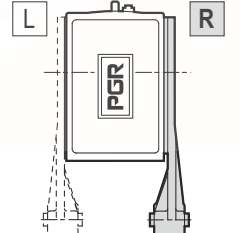
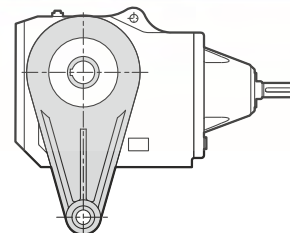
Delik milli, Gövdeden montajlı, Tork kollu, Üç kademeli,
Helisel konik dişli, IEC adaptörlü redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Torque arm, Triple reduction, With IEC adapter



PKD 1390... DG / TK - W

R

Delik milli, Gövdeden montajlı, Tork kollu, Üç kademeli,
Helisel konik dişli, W kovanlı redüktör /
Helical bevel gear unit, Hollow shaft, Case mounted,
Torque arm, Triple reduction, With free input shaft



Not : L ve R çıkış yönünü göstermektedir.
Note: L and R shows that output direction.

TR

SİPARİŞ ÖRNEĞİ

EN

EXAMPLE FOR ORDERING

PKD 6390/32 297.35 DA / KS

- 90 S / 4 BRE

R

Çıkış Yönü
Output Direction
L/R : Sol/Sağ
L/R : Left/Right
26 - 38



IEC
IEC



W
W

Motorlu
With Motor

Gövde Büyüklüğü
Case Width

63 M
71 M
80 M
90 S/L
100 L
112 M
132 S/M
160 M/L
180 M/L
200 L
225 S
250 S/M/L
280 S/M/L
315 S/M/L

Kutup sayısı
Number of Poles

2
4
6
4 - 2
8 - 2
2 - 12

Motor Seçenekleri
Motor Options

BRE
RG
SR
HL
TF
TW
WU
EF
ZF
DF
IG
KK/FK
RLS

Diğer Kutup
kombinasyonları
istendiğinde
karşılacaktır.
Other pole
combinations
on request

22

İşes: Tahvil Oranı
İşes: Reduction Ratio
73 - 112

Standart Ürünler

Available standard products

DA/KS: Ayak montajlı, Delik milli, Konik sıkırtmalı

DA/KS: Foot mounted, Hollow shaft, Shrink disc connector

TMA	DA	ÇMA	DA / KS	TMA / B5	DA / B5
DA / KS - B5	TMA / B14	DA / B14	ÇMA / B14	DA / KS - B14	
DG / B14	DG / KS - B14	DG / TK	DG / KS - TK	DG / TKP - B14	
DG / KS - TKP - B14	TMG / B5	DG / B5	DG / KS - B5	TMG / B14	26 - 38

6
Gövde Büyüklüğü
Case Width

*A0
*B0
*C1
*F4
*H5
1
G1
2
3
4
5
6
7
8
G8
9
G9

3
Kademe
Reduction

2
3
4
115 - 163

90°
Giriş çıkış açısı
Angle between
input-output

PF GÖVDE
PF CASE

3
Gövde Büyüklüğü
Case Width

3
4
5
6

2
Kademe
Reduction

2
3

162 - 163

Tip : POLAT Konik Dişlili Redüktör)
Type : POLAT Helical - Bevel Geared Motor)

* İki kademeli, Konik Dişlili Redüktör
* Double Reduction, Helical Bevel Gear Unit

TR

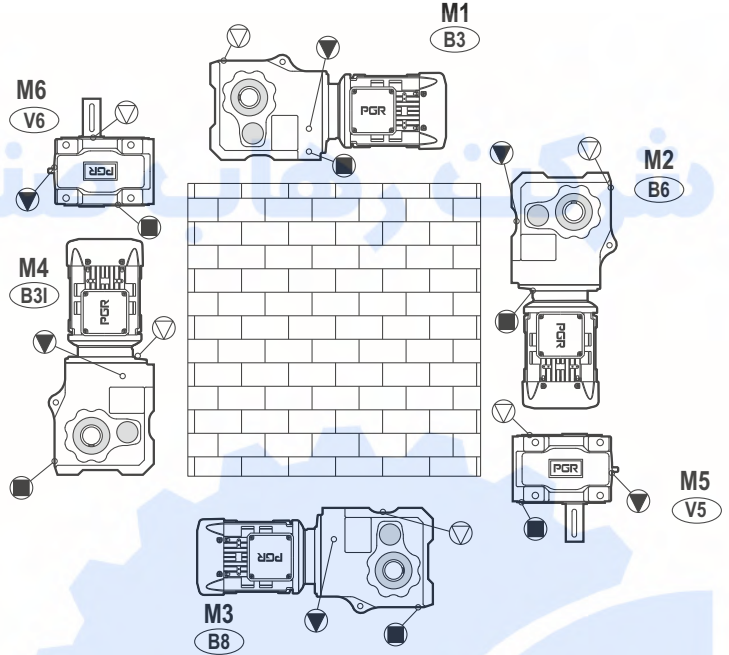
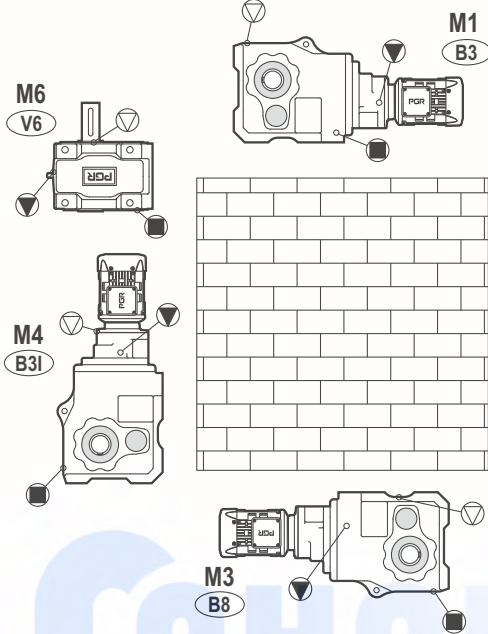
MONTAJ POZİSYONLARI

EN

MOUNTING POSITIONS

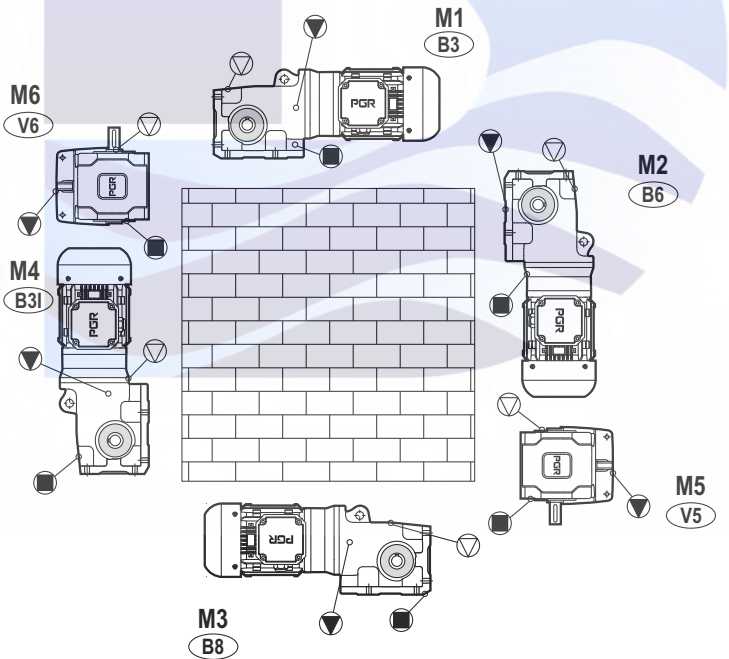
AYAK MONTAJLI / FOOT MOUNTED

PKD 1390
PKD G 1390
PKD 2390
PKD 3390
PKD 4390
PKD 5390
PKD 6390
PKD 7390
PKD 8390
PKD G 8390
PKD 9390
PKD G 9390



PKD 1490
PKD G 1490
PKD 2490
PKD 3490
PKD 4490
PKD 5490

PKD A 0290
PKD B 0290
PKD C 1290
PKD F 4290
PKD H 5290



○ Havalandırma tapası / Vent plug

● Boşaltma tapası / Drain plug

▼ Yağ Seviye tapası / Oil level

TR

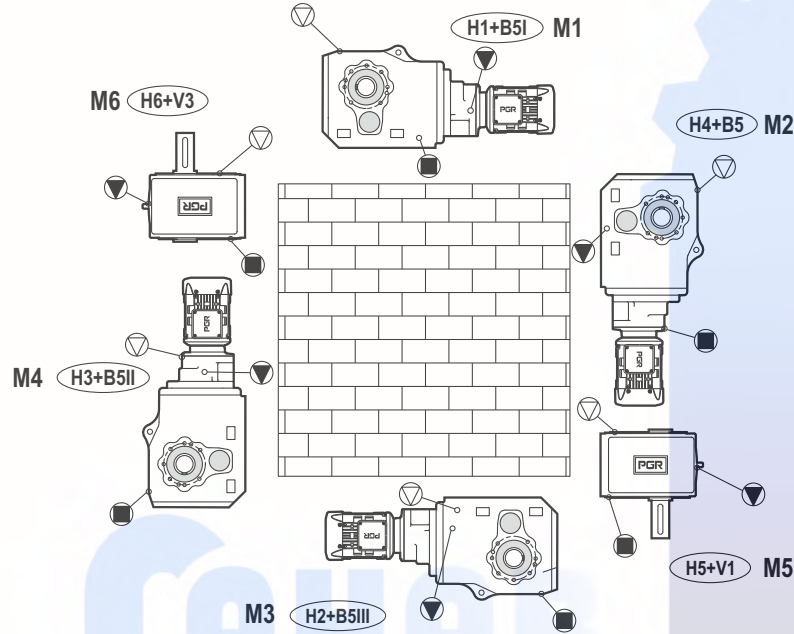
MONTAJ POZİSYONLARI

EN

MOUNTING POSITIONS

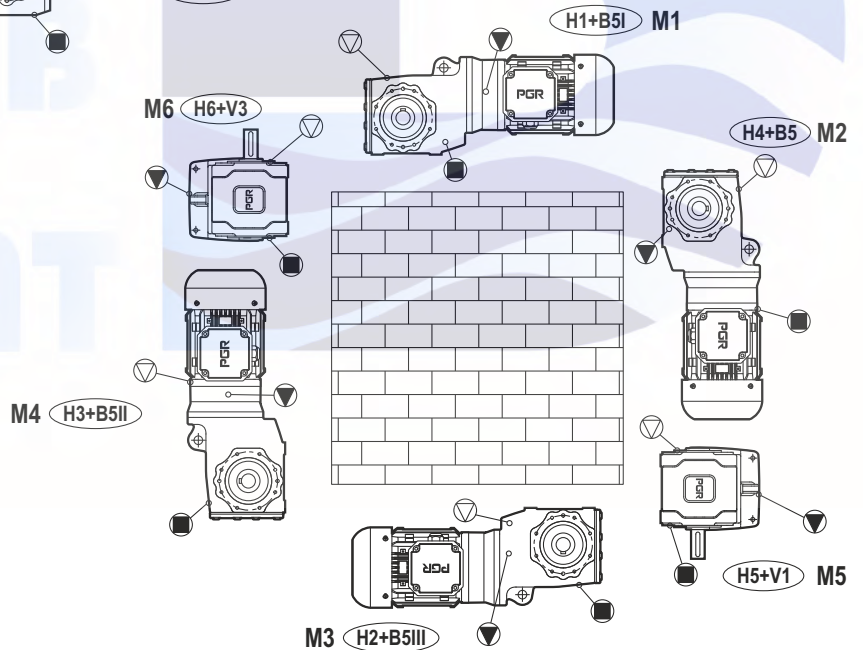
GÖVDEDEN MONTAJLI / CASE MOUNTED

PKD 1390
PKD G 1390
PKD 2390
PKD 3390
PKD 4390
PKD 5390
PKD 6390
PKD 7390
PKD 8390
PKD G 8390
PKD 9390
PKD G 9390



PKD 1490
PKD G 1490
PKD 2490
PKD 3490
PKD 4490
PKD 5490

PKD A 0290
PKD B 0290
PKD C 1290
PKD F 4290
PKD H 5290



○ Havalandırma tapası / Vent plug

● Boşaltma tapası / Drain plug

▼ Yağ Seviye tapası / Oil level

TR

MONTAJ POZİSYONLARI

M4 montaj pozisyonunda ilave yağlama ünitesi kullanılır

Tabloda gösterilen bu montaj pozisyonları helisel konik dişli redüktörlerin W kovani ve IEC adaptör olanlar için de geçerlidir.

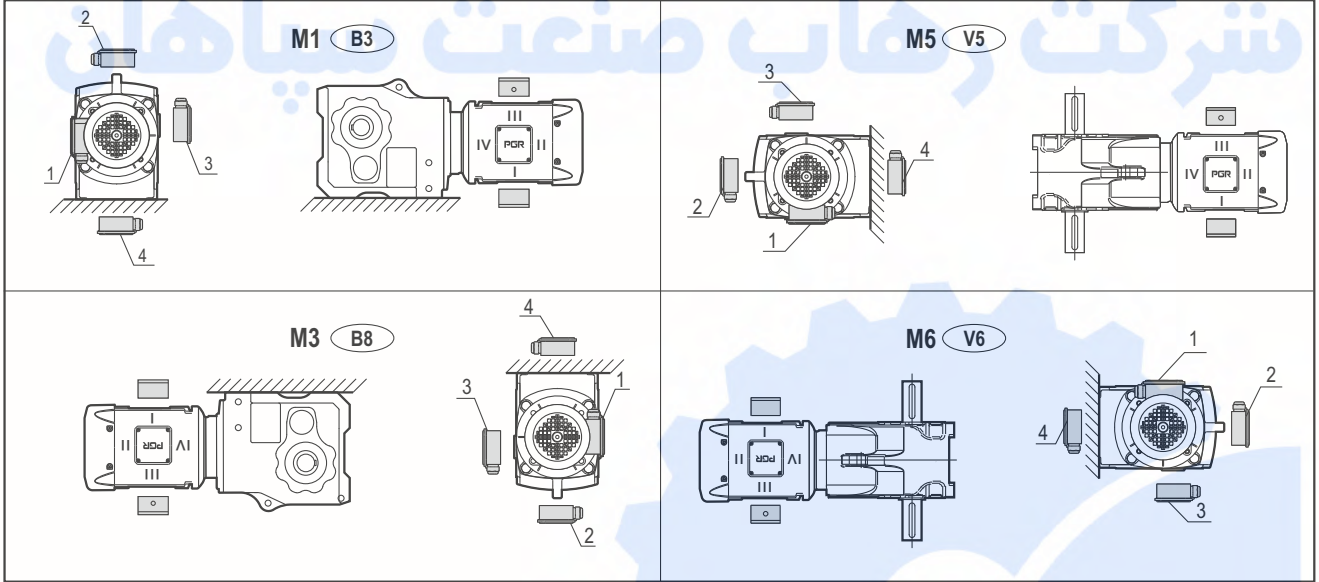
EN

MOUNTING POSITIONS

Mounting position M4 with additional lubricant volume

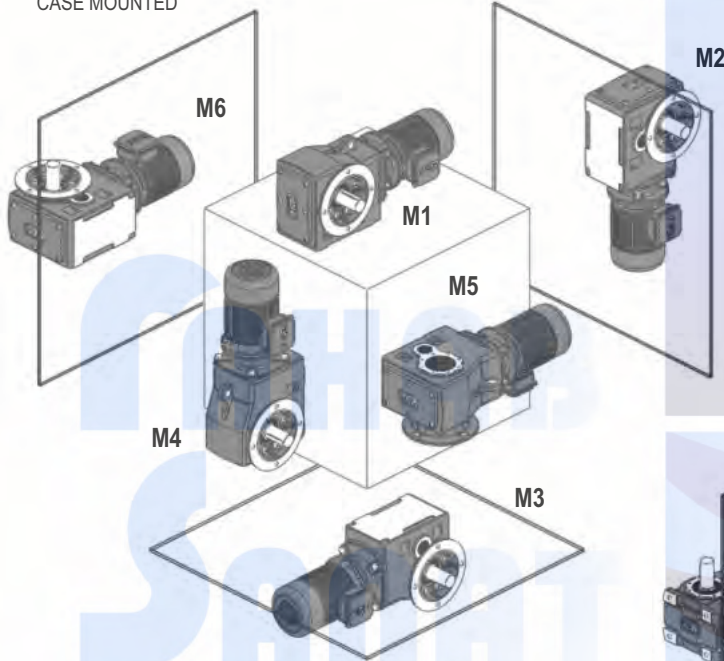
65

Mounting positions which are shown below are used for all types of helical-bevel gear units. (Type W cylinder, IEC adapter and geared motor)

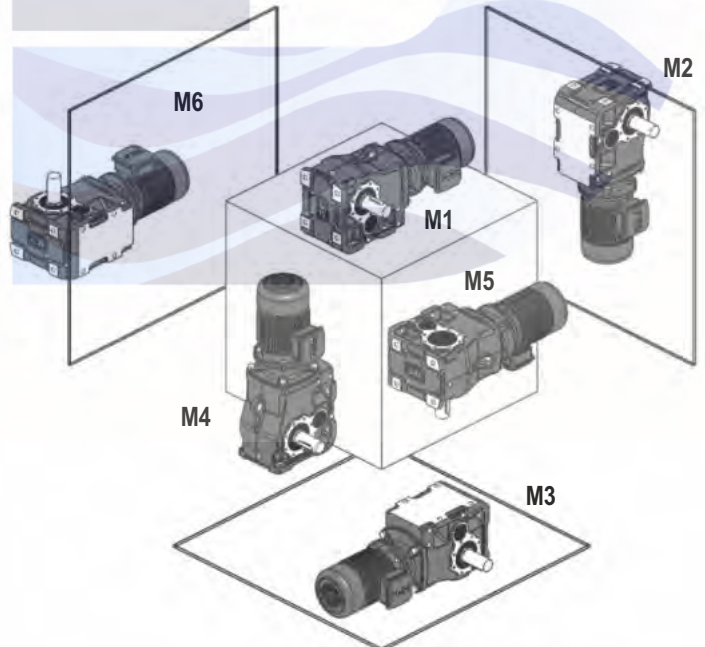


Montaj yüzeyi / Mounting surface

GÖVDEDEN MONTAJLI
CASE MOUNTED



AYAK MONTAJLI
FOOT MOUNTED



TR

YAĞLAMA

Çalıştırmadan veya uzun süreli olarak depoya kaldırmadan önce ventildeki tapa sökülüp, havalandırma tapası takılarak aşırı basınç ve yağ sızıntısı önlenmelidir.

Redüktörler fabrikadan çalışmaya hazır ve mineral yağ doldurulmuş olarak gönderilirler. Bütün dişli üniteler aşağıdaki tablonun ortam sıcaklığı sütununda listesi verilen yağlayıcı (normal) ile dolu olarak sevk edilirler. Diğer ortam sıcaklıkları için listede verilen yağlayıcılar ek ücret karşılığında temin edilebilir.

Yağlayıcı her 10 000 çalışma saatinde veya 2 yıl sonra değiştirilmelidir. Sentetik yağlar için yağ değişikliği her 20000 çalışma saatinde veya 4 yıl sonra yapılmalıdır. Zorlu çalışma koşullarında örneğin yüksek rutubet ve büyük sıcaklık değişimleri ve kötü çevre şartları gibi durumlarda daha kısa aralıklarla yağ değişimi yapılması tavsiye edilir. Yağ değişiminin üniteyi komple temizleme işlemi ile birleştirilmesi önerilir. Rulman içerisindeki gres her 10000 çalışma saatinden değiştirilmeli ve yeni gres ile doldurulmalıdır. Bu işlem yapılırken rulmanın 1/3 ünün gresle dolu olması sağlanmalıdır.

Not: Sentetik ve mineral yağlayıcılar birbirine karıştırılmamalıdır.

Note: Consider that different kinds of oil (synthetic and mineral oil) should not be mixed.

EN

LUBRICATION

Lubricating oil properties and selection of oil must be done correctly for the reducers to have long life and to run with good performance. In order to prevent oil leakage during long period storage due to inner pressure, top plug should be removed according to assembly type and venting plug should be mounted.

Reducers are delivered as being filled with mineral oil. Properties of oils depending on ambient temperature are presented at the following table. Gear units which are W or IEC adapter type and gear motors are charged with lubricant. Ambient temperature plays an important role for choosing lubricant. Relation between ambient temperature and properties of oils are shown in table.

Lubricants must be changed every 10000 hour or after two years, but this time changes when synthetic oil is used. Lubricants must be changed every 20000 hour or after four years if synthetic oil is used. However, operating conditions should be considered for changing oil time eg. in aggressive environment severe temperature changing, oil must be changed frequently. For bearings grease should be changed every 10000 running time and it should be done with fresh grease and least 1/3 of bearing must be covered.

Redüktör Tipi Type of gearbox	Yağ Tipi Type of Lubricant	Ortam Sıcaklığı Ambient Temp. °C	ISO vizkozite sınıfı ISO viscosity class	SHELL	MOBİL	BP	ESSO	DEA	ARAL	CASTROL	TRIBOL	KLÜBER
Helisel Dişli Redüktör	Mineral yağ	- 5...40 Normal	ISO VG 220	Shell Omala Oel 220	Mobilgear 600 XP 220	Energol GR-XP 220	Spartan EP 220	Deagear DX SAE 85W-90 Falcon CLP 220	Degol BG 220	Alpha SP 220 Alpha MW 220 Alpha MAX 220	Tribol 1100/220	Klüberoil GEM 1-220
	Mineral oil	-15...25	ISO VG 100	Shell omala Oel 100	Mobilgear 600 XP 150	Energol GR-XP 100	Spartan EP 100	Deagear DX SAE 80W Falcon CLP 150	Degol BG 100	Alpha SP 100 Alpha MW 100 Alpha MAX 220 Hyspin AWS 15	Tribol 1100/100	Klüberoil GEM 1-100
	Sentetik yağ Synthetic oil	- 25...80	ISO VG 220	Shell Tivela Oel WB	Mobil Glygoye 30	Enersyn SG-XP 220	ESSO Glycolube 220	Polydea PGLP 220	Degol GS 220	Alphasyn PG 220	Tribol 800/220	Klübersynth GH 6 - 220
	Biyolojik Sentetik yağ Biodegradable oil	- 25...80	ISO VG 220					Plantogear 220 S	Bio-Degol S 220	Carelube GES 220	Tribol Bio Top1418/220	Klüber - Bio GM 2 - 220
	Gıda yağları Food - grade oil	- 25...80	ISO VG 220	Cassida 220	Mobil SHC Cibus 220		GEAR OIL FM 220	Renolin 220	Degol FG 220	OPTIMOL optileb GE 220	Tribol Food Proof 1810/220	Klüberoil 4UH1 - 220
	Akışkan sentetik gres Synthetic fluid grease	- 35...60		Shell Tivela compound A	Mobil SHC Polyrex 005	Enersyn GSF	Fliessfett S 420	Glissando 6833 EP 00	Aralub SKA 00	Alpha Gel 00	Tribol 800/1000	Klübersynth GE 46 - 1200
Rulmanlar Anti Friction Bearings	Mineral yağlı gres	- 30...60 Normal		Alvania Fett R 3 oder Alvania Fett RL 3	Mobilux 3 Mobilux 2	Energol LS 3	Beacon 3	Glissando 30 Glissando 20	Aralub HL 3 Aralub HL 2	Speerol AP 3 Speerol AP 2 LZV - EP	Tribol 3030/100-2 Tribol 4020/220-2 Tribol 3785	Centoplex 3 Centoplex 2
	Mineral oil grease	# 50...110				Energol LS 2	Beacon 2	Glissando FT 3	Aralub BAB EP 2	Speerol EPL 2		
	Sentetik gres Synthetic grease	# - 50...110		Aero Shell Grease 16 oder 7	Mobiltemp SHC 32		Beacon 325	Discor 8 - EP 2	Aralub SKL 2	Product 783/46	Tribol 3499	Isoflex Topas NB52

- 30° C altında ve 60° C üzerindeki ortam sıcaklıklarında şafttaki sızdırmazlık elemanı için özel kalitedeki malzeme kullanılmalıdır.

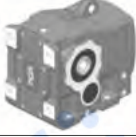
Different materials should be used for sealing rings at operation temperature where temperature is below -30 °C and above 60 °C.

TR

YAĞ MİKTAR TABLOSU

EN

LUBRICATION LEVELS

(Litre) (L)	Ayak Montajlı Foot Mounted						Gövdeden Montajlı Case Mounted					
												
43	M1	M2	M3	M4	M5	M6	M1	M2	M3	M4	M5	M6
41 - 42	B3	B6	B8	B3I	V5	V6	B5I	B5	B5III	B5II	V1	V3
							H1	H4	H2	H3	H5	H6
PKD A 0290	0.45	0.65	0.55	0.55	0.45	0.45	0.45	0.65	0.55	0.55	0.45	0.45
PKD B 0290	0.65	0.95	1	1.15	0.8	0.67	0.55	1	0.95	1.1	0.8	0.7
PKD C 1290	0.95	1.35	1.5	1.65	1.25	1.25	1.2	1.55	1.25	1.75	1.2	1.2
PKD F 4290	1.85	3.55	3.25	3.45	2.65	2.65	1.6	2.85	2.55	3.35	2.5	2.5
PKD H 5290	2.35	4.55	4.65	5.35	4.15	4.15	2.8	4.45	4.55	5.6	3.55	3.55
PKD 1390	0.75	1.65	2	2.2	1.25	1.75	0.75	2	2.3	2.2	1.25	1.75
PKD G 1390	0.75	1.65	2	2.2	1.25	1.75	0.75	2	2.3	2.2	1.25	1.75
PKD 2390	1.35	2.65	3.55	4.3	2.05	2.9	1.35	2.65	3.9	4.3	2.05	2.9
PKD 3390	1.75	4.85	6.5	6.8	4.15	5.15	2	5.3	6.5	7.4	3.35	5.15
PKD 4390	4.45	8.75	10.1	9.9	6.85	7.55	3.65	9.8	11.5	11.6	6.55	8.25
PKD 5390	6.6	16.1	19.1	21.6	11.1	15.6	7.6	16.6	20.1	23.6	11.6	18.1
PKD 6390	10.5	28	32.5	36.5	18.5	24.5	12.5	28	33.5	39	19.5	26.5
PKD 7390	10.5	28	32.5	36.5	18.5	24.5	12.5	28	33.5	39	19.5	26.5
PKD 8390	17.5	52	63	72	33.5	47	21.5	54.5	66.5	80.5	38.5	52.5
PKD G 8390	26.5	73.5	85.5	102.5	48.5	62.5	36.5	78.5	91.5	101.5	53.5	76.5
PKD 9390	36.5	157.5	170.5	172.5	80.5	90.5	40.5	130.5	154.5	175.5	82.5	91.5
PKD G 9390	99	188	195	255	110	153	99	188	194	258	114	157

(Litre) (L)	Ayak Montajlı Foot Mounted						Gövdeden Montajlı Case Mounted					
												
43	M1	M2	M3	M4	M5	M6	M1	M2	M3	M4	M5	M6
41 - 42	B3	B6	B8	B3I	V5	V6	B5I	B5	B5III	B5II	V1	V3
							H1	H4	H2	H3	H5	H6
PKD 1490	1.25	2.1	2.25	3.10	1.5	2	1.25	2.35	2.25	3.1	1.5	2
PKD G 1490	1.25	2.1	2.25	3.10	1.5	2	1.25	2.4	2.25	3.1	1.5	2
PKD 2490	2.5	3.1	3.85	5.35	2.25	3.2	2.5	3.1	3.85	5.35	2.25	3.2
PKD 3490	3.35	6.65	7.1	7.9	4.4	5.2	3.85	5.75	7	8.6	3.7	5.7
PKD 4490	4.65	10.3	10.8	13	5.3	6.8	5.75	10.3	14.8	14.8	6.7	9.7
PKD 5490	10.1	17.1	20.1	24.3	11.6	16.6	12.6	18.1	26.6	26.6	13.1	17.1

M1 Yeni Montaj Pozisyonu

The New Mounted Position

B3 Eski Montaj Pozisyonu

The Old Mounted Position

TR

KİLİT SİSTEMİ

Kilit Sistemli Helisel Konik Dişli Redüktör

Her helisel konik dişli redüktör kilit sistemli yapılabilir.

Kilit sistemi yağlaması için ayrı bir yağlama sistemine gerek yoktur.

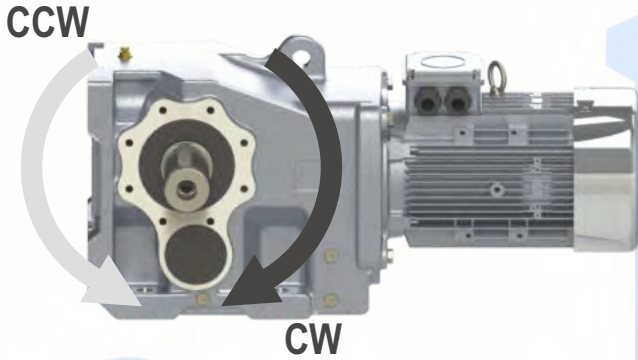
Dikkat: Çalıştırılmadan önce redüktör ve motorun dönüş yönleri herhangi bir kırılmaya karşı olabilecek riski önlemek için kontrol edilmelidir.

Çıkış shaftı sonundaki yüzeyin kilitleme yönüne göre gösterimi:

CW : Saat yönü

CCW : Saat yönü tersi

A



EN

BACKSTOP

Backstop System For Helical - Bevel Gear Unit

Backstop system is available for all type of helical-bevel gear unit.

There is not require another lubricating system because, backstop is lubricated through the gear unit's oil.

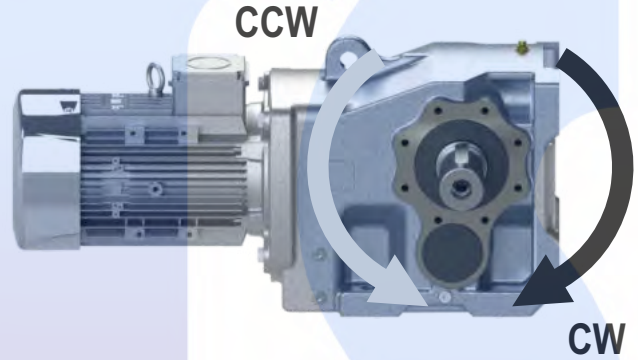
Precaution: When you receive gear units, please check direction of rotation before running or installation to avoid damage.

"I" and "II" signs are shown locking direction from viewing at face of output shaft.

CW : Clockwise rotation

CCW : Counterclockwise rotation

B



Bütün shaft tasarımları ve çift çıkışlı shaftlar için geçerlidir.

These designation is used for all hollow shaft design and output shaft on both sides

TR

TOLERANSLAR

MOTOR VE REDÜKTÖRLERDE BOYUT - ÇİZİM BİLGİLERİ

Motor ölçüleri istenen opsiyona göre ölçüleri değişebilir.

DELİK MİLLİLER

Delik mil çapı toleransı için (DIN 748) ISO H7.
Müşteri mili çap toleransı ISO h6. "H" yükleme tipi bulunuyorsa ISO k6.

IEC - ADAPTÖR

Flanş merkezi çap toleransı için ISO H7

GİRİŞ VE ÇIKIŞ ŞAFTLARI

Mil çapı toleransı (DIN 748) :

Ø 14 ile Ø 50 mm arası için ISO k6,
Ø 50 mm üzeri için ISO m6

Şaftta dış çekilmiş delikler için DIN 332/2 ye göre;

= Ø 13 - Ø 16	M5
> Ø 16 - Ø 21	M6
> Ø 21 - Ø 24	M8
> Ø 24 - Ø 30	M10
> Ø 30 - Ø 38	M12
> Ø 38 - Ø 50	M16
> Ø 50 - Ø 85	M20
> Ø 85 - Ø 130	M24



113-211

Kama yatakları DIN 6885
Şaft boyu "h" DIN 747

FLANŞLAR

Flanş merkezi çap toleransı (DIN 42948);
≤ Ø 230 mm' ye kadar ISO j6,
> Ø 230 mm üzeri için ISO h6

EN

TOLERANCES

**DIMENSIONS OF GEARED MOTORS AND GEARBOXES -
DRAWING INFORMATION**

Motor dimension could be changed according to customer purchase.

HOLLOW SHAFTS

Tolerance of hollow shaft (DIN 748) ISO H7.
Tolerance of customer's solid shaft which is used for hollow shaft ISO h6.
With type of load classification 'H' which is heavy shock operation ISO k6.

IEC - ADAPTER

Diameter tolerance of flange centering is machined according to ISO H7.

INPUT AND OUTPUT SHAFT

Tolerances of solid shaft (DIN 748) :

between Ø 14 - Ø 50 mm to ISO k6,
greater than Ø 50 mm to ISO m6.

Tapped center hole is machined according to DIN 332, sheet 2 ;

= Ø 13 - Ø 16	M5
> Ø 16 - Ø 21	M6
> Ø 21 - Ø 24	M8
> Ø 24 - Ø 30	M10
> Ø 30 - Ø 38	M12
> Ø 38 - Ø 50	M16
> Ø 50 - Ø 85	M20
> Ø 85 - Ø 130	M24



113-211

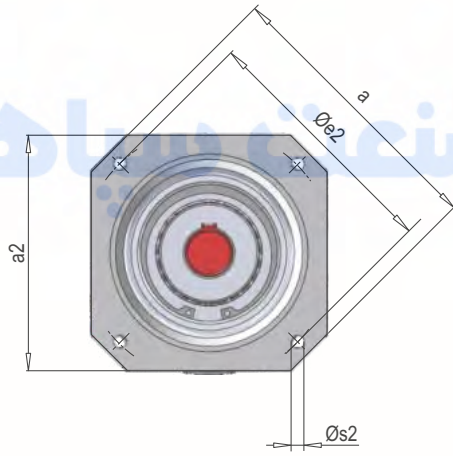
Keyways are machined according to DIN 6885, sheet 1
Shaft heights are machined according to "h" to DIN 747

FLANGES

Diameter tolerance of flange centering is machined according to (DIN 42948);
≤ Ø 230 mm to ISO j6,
> Ø 230 mm to ISO h6

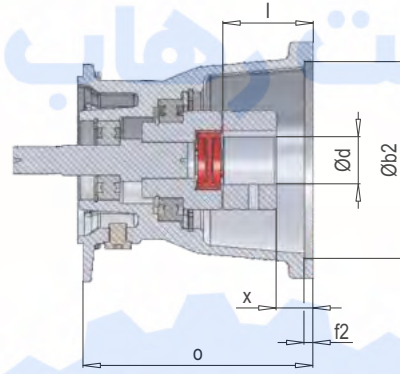
TR

SERVOMOTOR ADAPTÖRÜ



EN

SERVOMOTOR ADAPTERS



Redüktör Tipi Gear Unit Type	Motor Büyüklüğü / Motor Size							Şaft Ebatı Shaft Size		Silindir Cylinder	M _{knom} [Nm]	Adaptör tipi Adapter type
	a	a2	b2	e2	f2	s2	x	d	l			
PKD 1390, G 1390, 2390	120	96	80	100	4	M6	15	19	40	124	10	Servo 100 / 160 S
PKD 1390, G 1390, 2390	165	126	110	130	4	M8	20	24	50	136	35	Servo 130 / 160 S
PKD 3390	155	126	110	130	4	M8	20	24	50	150	35	Servo 130 / 250 S
PKD 1390, G 1390, 2390	186	155	130	165	5	M10	23	32	58	151	95	Servo 165 / 160 S
PKD 3390	186	155	130	165	5	M10	23	32	58	166	95	Servo 165 / 250 S
PKD 3390	240	192	180	215	5	M12	45	38	80	187	95	Servo 215/ 250 S
PKD 4390, 5390	240	192	180	215	5	M12	24	38	80	229	310	Servo 215/ 300 S
PKD 4390, 5390	350	260	250	300	5	M16	26	48	82	231	310	Servo 300/ 300 S
PKD 6390, 7390, 8390, G 8390, 9390, G 9390	350	260	250	300	5	M16	26	48	82	249	310	Servo 300/ 350 S

SEP tipi servo motor bağlantı adaptörünün bağlantısı kamalı olarak yapılmaktadır. SEK tiplerinde ise servo motor adaptörünün bağlantısı setuskur civata sıkırtması ile yapılmaktadır. Servo motor bağlantı adaptörünün bağlantı flanşının farklı olması durumunda yüksek adetteki siparişler üretime alınır.

For connecting SEP adapter which is shown above on this page, servo motor's output shaft is designed with locking key. For connecting SEK type adapter, connecting is supplied with a clamp coupling sleeve. An intermediate flange is required when other servo motor types are used with IEC adapter. Offers are manufactured gladly by PGR.

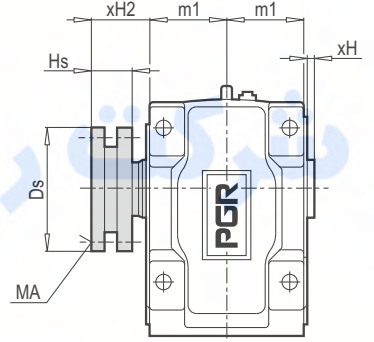
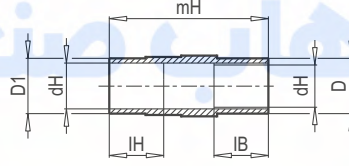
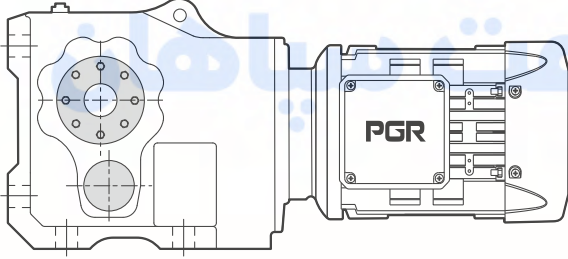
TR

KONİK SIKTIRMA

EN

SHRINK DISC CONNECTOR

AYAK MONTAJLI / FOOT MOUNTED (DA/KS)



Daha iyi ve kolay montaj ve demontaj için konik sıkırtmalı tavsiye edilebilir.
PGR recommends to use shrink disc for easier installation and disassembly

Tip Type	Konik sıkırtma diski Shrink disc connector						Şaft ölçüleri Shaft dimensions										Vida tork değeri Hexagon screw		
	Tip Type	Mamax [Nm]	S _{h6}	S _{f6}	D _s	H _s	D	D1	dH ^{H7}	IB	IH	mH	xH	xH2	m1	d x l	Zs	MA [Nm]	
PKD 1390 DA/KS PKD 1490 DA/KS	KS 30/40	400	2.45	2.15	80	36	45	40	30	30	36	184	3	39	71	M6x35*	8	12	
PKD G 1390 DA/KS PKD G 1490 DA/KS	KS 30/40	400	2.45	2.15	80	36	45	40	30	30	36	184	3	39	71	M6x35*	8	12	
PKD 2390 DA/KS PKD 2490 DA/KS	KS 35/46	720	1.98	1.73	90	40	50	46	35	40	40	221	4	45	86	M6x35*	10	12	
PKD 3390 DA/KS PKD 3490 DA/KS	KS 40/55	1.300	1.79	1.57	112	44	55	55	40	40	44	255	5	50	100	M8x40	8	30	
PKD 4390 DA/KS PKD 4490 DA/KS	KS 50/62	2.400	1.82	1.70	125	46	70	62	50	50	46	290	5	55	115	M8x40	10	30	
PKD 5390 DA/KS PKD 5490 DA/KS	KS 60/76	4.200	1.93	1.79	156	58	85	76	60	60	58	365	5	70	145	M10x50	10	59	
PKD 6390 DA/KS PKD 6390/32 DA/KS PKD 6390/42 DA/KS	KS 70/90	7.200	1.91	1.79	182	74	100	90	70	70	74	430	5	85	170	M12x70*	10	100	
PKD 7390 DA/KS PKD 7390/32 DA/KS PKD 7390/42 DA/KS	KS 80/108	8.500	3.70	3.56	208	83	120	108	80	82	80	430	5	85	170	M12x70*	14	100	
PKD 8390 DA/KS PKD 8390/42 DA/KS PKD 8390/52 DA/KS	KS 100/128	12.000	2.53	2.40	240	92	130	128	100	70	82	505	10	95	200	M16x80*	8	250	
PKD G 8390 DA/KS PKD G 8390/52 DA/KS	KS 110/138	18.000	1.92	1.83	266	74	140	138	110	80	74	576	12	88	238	M16x70	8	250	
PKD 9390 DA/KS PKD 9390/52 DA/KS	KS 125/158	26.000	2.24	2.13	296	98	160	158	125	80	98	710	10	110	295	M16x80*	12	250	
PKD G 9390 DA/KS PKD G 9390/62 DA/KS PKD G 9390/63 DA/KS	İstenildiğinde / On Request																		

S = h6 veya f6 ile konik sıkırtmanın güvenirliği.
MA = Civatayı sıkmak için gerekli olan tork

Z_s = Vida miktarı
M_{amax} = max. izin verilebilir çıkış momenti

H_s ölçüsü civata sıkılmadan önceki ölçüsüdür. Konik sıkırtmalı, genellikle kullanıcının milinin karşı tarafına montaj edilmelidir. Kullanıcı mil uzunluğu ile şaft uzunluğu (mH) örtüşmelidir. Şaft çapı ISO h6 veya f6'ya göre imal edilmelidir. (f6= Kolay montaj) 46

S = Assurance of shrink disc (with h6 and f6 tolerance)
MA = Screw torque for tightening

Z_s = Amount of screw
M_{amax} = maximum allowable output moment

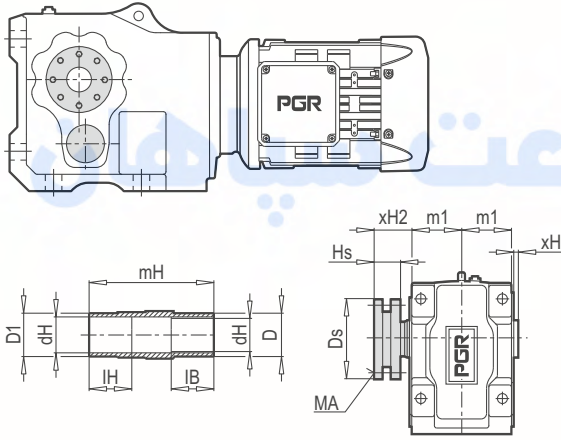
H_s values show dimension before tightening screw. When customer shaft is installed to the gear unit, shrink disc should be mounted on opposite side of it. Consider that, customer shaft must be equal 'mH' dimension which is length of hollow shaft and customer diameter shaft should be machined according to ISO h6 or f6 tolerances. 46

TR

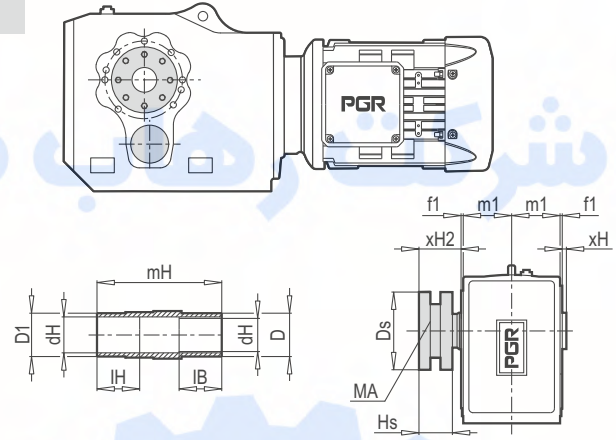
GÜÇLENDİRİLMİŞ KONİK SIKTIRMA

EN

WITH REINFORCED SHRINK DISC CONNECTOR



GKS



Tip Type	Konik sıkırma diski Shrink disc connector						Şaft ölçüleri Shaft dimensions										Vida tork değeri Hexagon screw			
	Tip Type	M _{amax} [Nm]	S _{h6}	S _{f6}	Ds	Hs	D	D1	dH ^{H7}	IB	IH	mH	xH	xH2	m1	d x l	Zs	MA [Nm]		
PKD 8390 DA/GKS PKD 8390/42 DA/GKS PKD 8390/52 DA/GKS	GKS 100/128	12000	3.92	3.69	266	136	130	128	100	70	136	559	10	149	200	M20x100	8	490		
PKD G 8390 DA/GKS PKD G 8390/52 DA/GKS	GKS 110/138	18000	4.52	4.32	296	160	140	138	110	80	160	663	12	175	238	M20x130	12	490		
PKD 9390 DA/GKS PKD 9390/52 DA/GKS	GKS 130/158	26000	3.81	3.63	315	170	160	158	130	80	170	782	10	182	295	M20x130	12	490		
PKD G 9390 DA/GKS PKD G 9390/62 DA/GKS PKD G 9390/63 DA/GKS	İstenildiğinde / On Request																			
Aşağıdaki ölçüler gövdeden montajlıya aittir / Dimensions are used for case mounted designs.																				
PKD 6390 DG/GKS-B14 PKD 6390/32 DG/GKS-B14 PKD 6390/42 DG/GKS-B14	GKS 85/108	7200	4.48	4.21	236	110	110	108	85	80	110	464	5	119	165	M16x90	10	250		
PKD 7390 DG/GKS-B14 PKD 7390/32 DG/GKS-B14 PKD 7390/42 DG/GKS-B14	GKS 95/108	8500	4.95	4.80	236	110	120	108	95	80	110	464	5	119	165	M16x90	10	250		
PKD 8390 DG/GKS-B14 PKD 8390/42 DG/GKS-B14 PKD 8390/52 DG/GKS-B14	GKS 110/138	12000	6.78	6.49	296	160	140	138	110	80	160	587	8	175	195	M20x130	12	490		
PKD G 8390 DG/GKS-B14 PKD G 8390/52 DG/GKS-B14	GKS 130/158	18000	5.50	5.24	315	170	160	158	130	80	170	674	8	182	235	M20x130	12	490		
PKD 9390 DG/GKS-B14 PKD 9390/52 DG/GKS-B14	GKS 150/210	26000	4.41	4.17	386	130	200	210	150	100	130	754	10	154	288	M20x100	14	490		
PKD G 9390 DG/GKS-B14 PKD G 9390/62 DG/GKS-B14 PKD G 9390/63 DG/GKS-B14	GKS 155/185	50000	3.80	3.70	430	230	200	195	155/160	95	140	904	10	240	320	M24x180	14	835		

Daha iyi ve kolay montaj ve demontaj için konik sıkırtırmalı tavsiye edilebilir.

S = h6 veya f6 ile konik sıkırtırmının güvenilirliği.
MA = Civatayı sıkmak için gerekli olan tork
Zs = Vida miktarı
Mamax = max. izin verilebilir çıkış momenti

Hs ölçüsü civata sıkılmadan önceki ölçüsüdür.
Konik sıkırtırmalı, genellikle kullanıcı milinin karşı tarafına montaj edilmelidir.
Kullanıcı mil uzunluğu ile shaft uzunluğu (mH) örtüşmelidir. Shaft çapı ISO h6 veya f6'ya göre imal edilmelidir. (f6= Kolay montaj)

Yukarıdaki bütün ölçüler Helisel konik dişli- Tip W, Tip IEC ve Helisel konik dişli motorları için geçerlidir.

Mevcut tasarımlar için 26 - 38

PGR recommends to use shrink disc for easier installation and disassembly.

S = Assurance of shrink disc (with h6 and f6 tolerance)
MA = Screw torque for tightening
Zs = Amount of screw
Mamax = maximum allowable output moment

Hs values show dimension before tightening screw. When customer shaft is installed to the gear unit, shrink disc should be mounted on opposite side of it. Consider that, customer shaft must be equal 'mH' dimension which is length of hollow shaft and customer diameter shaft should be machined according to ISO h6 or f6 tolerances.

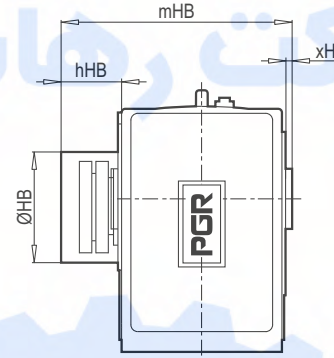
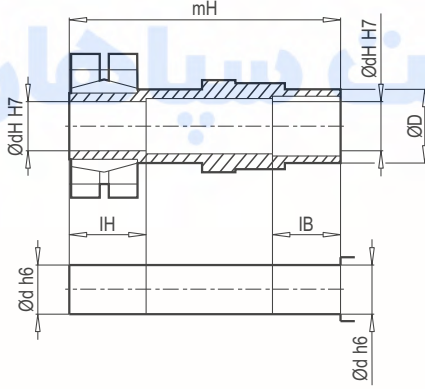
Dimension which are shown above of this page are used for all type helical-bevel gear units. (Type W, IEC adapter and helical-bevel geared motor)

For existing designs 26 - 38

TR GÜÇLENDİRİLMİŞ KONİK SIKTIRMA KORUMA KAPAĞI

EN COVER OF REINFORCED SHRINK DISC

GKS - KK



Tip / Type	ØD	ØdH H7	Ød h6	IB	IH	mH	xH	hHB	HB	mHB
PKD 6390 DG/GKS-B14 KK PKD 6390/32 DG/GKS-B14 KK PKD 6390/42 DG/GKS-B14 KK	110	85	85	80	110	464	5	149	260	489
PKD 7390 DG/GKS-B14 KK PKD 7390/32 DG/GKS-B14 KK PKD 7390/42 DG/GKS-B14 KK	120	95(85)	95(85)	80	110	464	5	149	260	489
PKD 8390 DG/GKS-B14 KK PKD 8390/42 DG/GKS-B14 KK PKD 8390/52 DG/GKS-B14 KK	140	110	110	80	160	587	8	210	308	615
PKD G8390 DG/GKS-B14 KK PKD G8390/52 DG/GKS-B14 KK	160	130	130	80	170	674	8	237	366	722
PKD 9390 DG/GKS-B14 KK PKD 9390/52 DG/GKS-B14 KK	200	150	150	100	130	754	10	237	366	830
PKD G 9390 DG/GKS-B14 KK PKD G 9390/62 DG/GKS-B14 KK PKD G 9390/63 DG/GKS-B14 KK	200	155	160	95	140	904	10	273	452	930

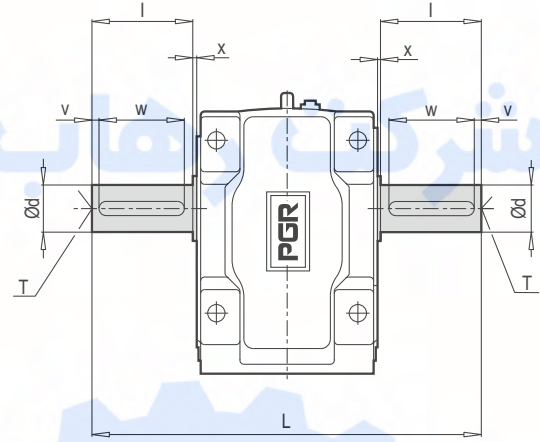
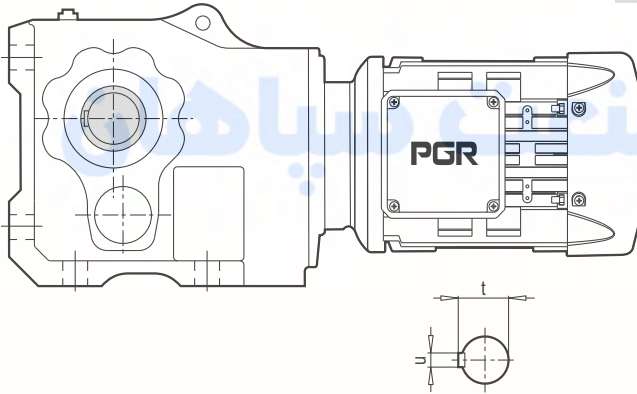
TR

AYAK MONTAJLI, ÇİFT MİL ÇIKIŞLI

EN

FOOT MOUNTED, SOLID SHAFT ON BOTH SIDES

ÇMA



Tip Type	Şaft ölçüleri Shaft dimensions								
	Ød	I	L	t	u	v	w	x	T
PKD A 0290 ÇMA	20	40	196	22.5	6	4	32	3	M6
PKD B 0290 ÇMA	20	40	214	22.5	6	4	32	3	M6
PKD C 1290 ÇMA	25	50	264	28	8	5	40	4	M10
PKD F 4290 ÇMA	30	60	290	33	8	5	50	4	M10
PKD H 5290 ÇMA	35	70	332	38	10	5	60	5	M12
PKD 1390 ÇMA PKD 1490 ÇMA	30	60	270	33.0	8	5	50	4	M10
PKD G 1390 ÇMA PKD G 1490 ÇMA	35	70	290	38.0	10	7	56	4	M12
PKD 2390 ÇMA PKD 2490 ÇMA	35	70	322	38.0	10	7	56	5	M12
PKD 3390 ÇMA PKD 3490 ÇMA	45	90	392	48.5	14	5	80	6	M16
PKD 4390 ÇMA PKD 4490 ÇMA	60	120	480	64.0	18	10	100	5	M20
PKD 5390 ÇMA PKD 5490 ÇMA	70	140	582	74.5	20	15	110	6	M20
PKD 6390 ÇMA PKD 6390/32 ÇMA PKD 6390/42 ÇMA	90	170	694	95.0	25	15	140	7	M24
PKD 7390 ÇMA PKD 7390/32 ÇMA PKD 7390/42 ÇMA	90	170	694	95.0	25	15	140	7	M24
PKD 8390 ÇMA PKD 8390/42 ÇMA PKD 8390/52 ÇMA	110	210	836	116.0	28	15	180	8	M24
PKD G 8390 ÇMA PKD G 8390/52 ÇMA	120	210	914	127.0	32	15	180	9	M24
PKD 9390 ÇMA PKD 9390/52 ÇMA	140	250	1110	148.0	36	15	220	10	M24
PKD G 9390 ÇMA PKD G 9390/42 ÇMA PKD G 9390/52 ÇMA	190	320	1314	200	45	10	300	10.5	M30

Lütfen sipariş verirken kama kanallarının pozisyonlarını belirtiniz.
Yukarıdaki bütün ölçüler Helisel konik dişli - Tip W, Tip IEC ve Helisel konik dişli motorları için geçerlidir.

'w' and 'v' dimensions are important for aligned keyways.
For that reason, when you order, please determine this values. Dimensions which are shown above of this page are used for all type of helical-bevel gear units. (Type W, IEC adapter and helical bevel geared motor)

Mevcut tasarımlar için 26 - 38

For existing designs 26 - 38

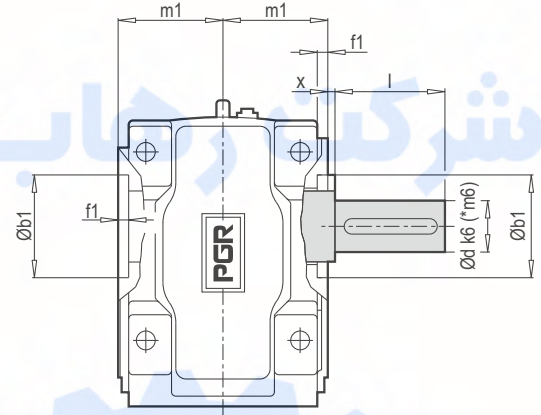
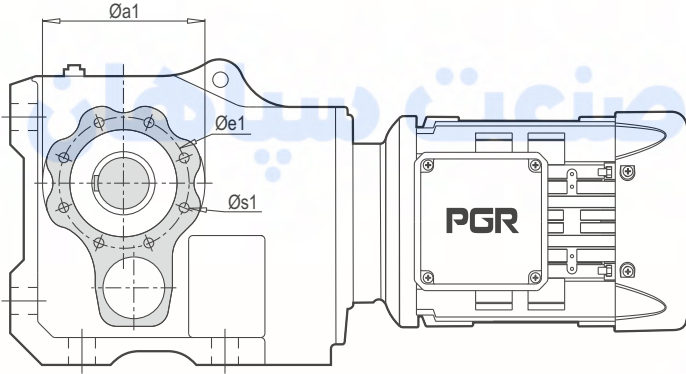
TR

AYAK MONTAJLI, B14 FLANŞLI

EN

FOOT MOUNTED, FLANGE B14

TMA - B14



Tip Type	Montaj ölçüleri Mounting dimensions					Ana Ölçüler Outline dimensions			
	a1	b1 ^{j6}	e1	f1	s1	m1	X	d	l
PKD 1390 TMA/B14 PKD 1490 TMA/B14	110	75	100	4	M8 x 13	71	4	30	60
PKD G 1390 TMA/B14 PKD G 1490 TMA/B14	110	75	100	4	M8 x 13	71	4	35	70
PKD 2390 TMA/B14 PKD 2490 TMA/B14	125	90	115	4	M8 x 13	86	5	35	70
PKD 3390 TMA/B14 PKD 3490 TMA/B14	150	100	130	5	M10 x 16	100	6	45	90
PKD 4390 TMA/B14 PKD 4490 TMA/B14	180	125	165	5	M12 x 20	115	5	*60	120
PKD 5390 TMA/B14 PKD 5490 TMA/B14	220	150	194	5	M12 x 20	145	6	*70	140
PKD 6390 TMA/B14 PKD 6390/32 TMA/B14 PKD 6390/42 TMA/B14	250	180	215	5	M12 x 20	170	7	*90	170
PKD 7390 TMA/B14 PKD 7390/32 TMA/B14 PKD 7390/42 TMA/B14	250	180	215	5	M12 x 20	170	7	*90	170
PKD 8390 TMA/B14 PKD 8390/42 TMA/B14 PKD 8390/52 TMA/B14	300	230	265	5	M12 x 20	200	8	*110	210
PKD G 8390 TMA/B14 PKD G 8390/52 TMA/B14	350	250	300	5	M16 x 25	238	9	*120	210
PKD 9390 TMA/B14 PKD 9390/52 TMA/B14	400	290	350	5	M20 x 30	295	10	*140	250
PKD G 9390 TMA/B14 PKD G 9390/62 TMA/B14 PKD G 9390/63 TMA/B14	480	310	400	5	M20 x 30	326.5	10.5	*190	320

Ayak montajlı ve her iki taraftan B14 flanşlı delik miller için de geçerlidir.
Tip PKD 3390 DA/B14

Yukarıdaki bütün ölçüler Helisel konik dişli - Tip W, Tip IEC ve Helisel konik dişli motorları için geçerlidir.

Mevcut tasarımlar için 26 - 38

TMG/B14 için sayfa 115 -163. sayfalara bakınız.

Flange B14 which is used for hollow shaft on both sides is available for foot mounted designs. (e.g. PKD 3390 DA/B14)

Dimensions which are shown above of this page are used for all type of helical-bevel gear units. (Type W, IEC adapter and helical-bevel geared motor)

For existing designs 26 - 38

TR

AYAK MONTAJLI, B5 FLANŞLI

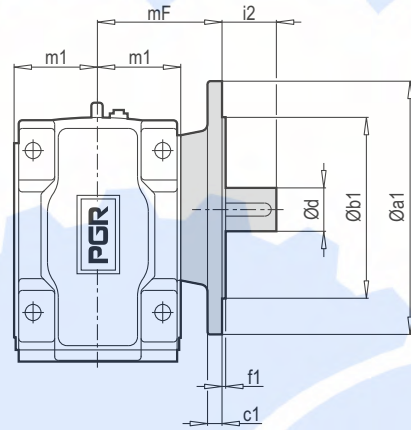
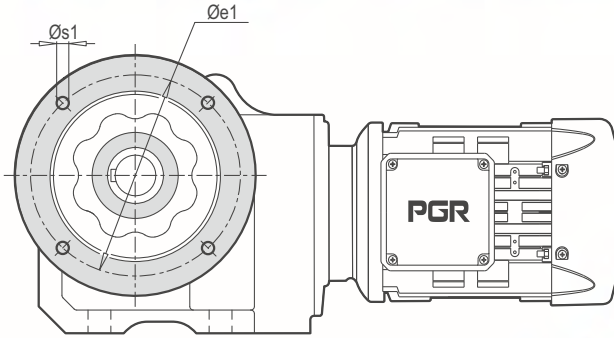
Bu tasarım gövdeden yapılacak montaj için uygun değildir. (Gövdeden montaj için Tip TMG/B5)

EN

FOOT MOUNTED, FLANGE B5

This B5 flange is not suitable for case mounted gear units. Consider that, if you use B5 flange on case mounted, you should look for B5 flange mounted pages. (e.g. Type TMG/B5)

TMA - B5



Tip Type	Montaj ölçüleri Mounting dimensions						Ana Ölçüler Outline dimensions				
	a1	b1 ^{i6(*h6)}	c1	e1	f1	s1	i2	m1	mF	d	l
PKD 1390 TMA/B5 PKD 1490 TMA/B5	160	110	12	130	3.5	9	44	71	101	30	60
PKD G 1390 TMA/B5 PKD G 1490 TMA/B5	160	110	12	130	3.5	9	44	71	101	35	70
PKD 2390 TMA/B5 PKD 2490 TMA/B5	200	130	12	165	3.5	11	40	86	121	35	70
PKD 3390 TMA/B5 PKD 3490 TMA/B5	250	180	16	215	4.0	14	56	100	140	45	90
PKD 4390 TMA/B5 PKD 4490 TMA/B5	300	230	20	265	4.0	14	80	115	160	60	120
PKD 5390 TMA/B5 PKD 5490 TMA/B5	350	250*	20	300	5.0	18	86	145	205	70	140
PKD 6390 TMA/B5 PKD 6390/32 TMA/B5 PKD 6390/42 TMA/B5	400	300*	20	350	5.0	18	112	170	235	90	170
PKD 7390 TMA/B5 PKD 7390/32 TMA/B5 PKD 7390/42 TMA/B5	400	300*	20	350	5.0	18	112	170	235	90	170

Delik millilerde de ayak montajlı ve B5 flanş montajı bulunabilir. Tip PKD 3390 DA/B5

Yukarıdaki bütün ölçüler Helisel konik dişli - Tip W, Tip IEC ve Helisel konik dişli motorları için geçerlidir.

Mevcut tasarımlar için 26 - 38

Flange B5 which is used for hollow shaft on both sides is available for foot mounted design. (e.g. PKD 3390 DA/B5)

Dimensions which are shown above of this page are used for all type of helical-bevel gear units. (Type W, IEC adapter and helical - bevel geared motor.)

For existing designs 26 - 38

TR

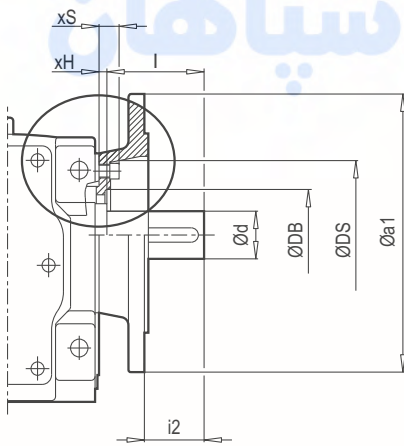
B5 FLANŞI ÖLÇÜLERİ

EN

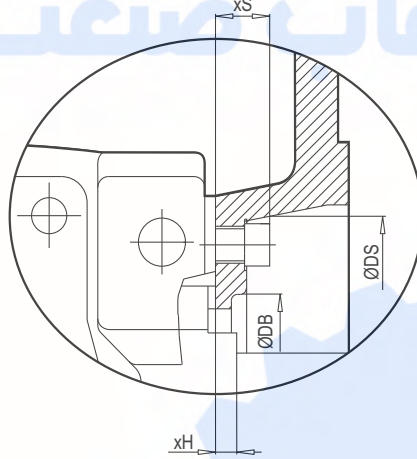
DIMENSION OF FLANGE B5

AYAK MONTAJLI B5 FLANŞLI / FOOT MOUNTED WITH B5 FLANGE

TMA - B5 / DA - B5



TMA



DA

Tip Type	Flanş ø Flange ø	Şaft ölçüleri Shaft dimensions					Ana Ölçüler Outline dimensions				
	a1	d	l	x	D	xH	øDB	øDS	i2	i3	xS
PKD 1390 PKD 1490	160	30	60	4	45	3	76	100	34	27	17
PKD G 1390 PKD G 1490	160	30	60	4	45	3	76	100	34	27	17
PKD 2390 PKD 2490	200	35	70	5	50	4	77	115	40	31	17
PKD 3390 PKD 3490	250	45	90	6	70	5	90	130	56	35	20
PKD 4390 PKD 4490	300	60	120	5	80	5	115	165	80	40	24
PKD 5390 PKD 5490	350	70	140	6	100	5	135	185	86	55	27
PKD 6390 PKD 6390/32 PKD 6390/42	400	90	170	7	110	5	165	220	112	60	27
PKD 7390 PKD 7390/32 PKD 7390/42	400	90	170	7	110	5	165	220	112	60	27

Yukarıdaki bütün ölçüler Helisel konik dişli - Tip W, Tip IEC ve Helisel konik dişli motorları için geçerlidir.

Dimensions which are shown above of this page are used for all type of helical bevel gear units. (Type W, IEC adapter and helical - bevel geared motor.)

Mevcut tasarımlar için



26 - 38

For existing designs



26 - 38

TR

GÜÇLENDİRİLMİŞ B5 FLANŞI

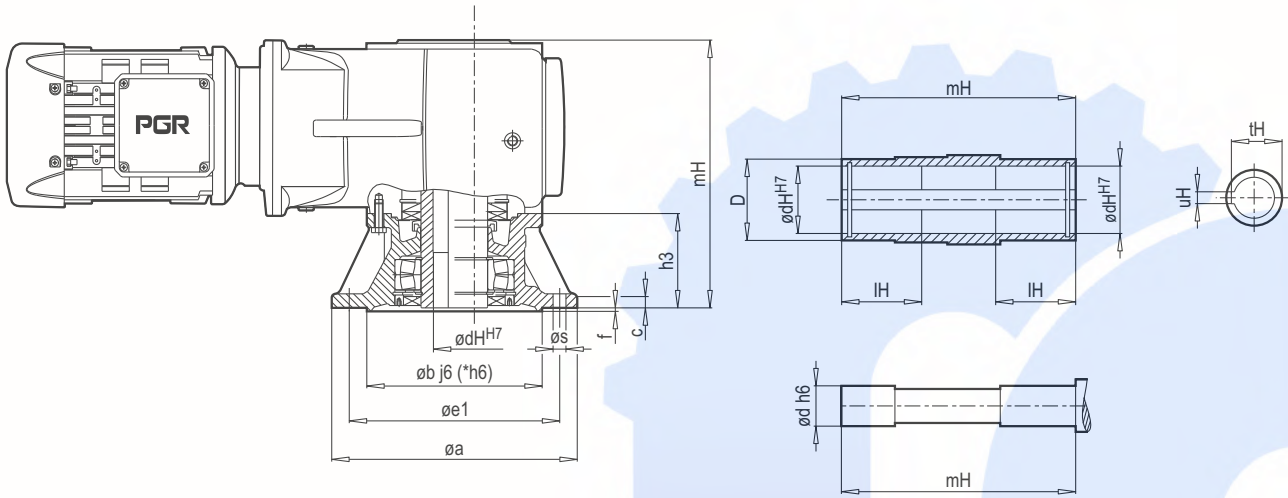
PGR özellikle karıştırıcılarda kullanılan şaftların rulman mesafelerinin artması sebebiyle güçlendirilmiş B5 flanşı kullanarak şaftın rulman arası mesafelerini arttırmıştır. Bu tasarım daha uzun rulman ömrü ile birlikte yüksek radyal ve eksenel kuvvetlerin absorbe edilmesini sağlar. Özellikle oynak makaralı rulmanlar uzun karıştırıcı şaftların eksenel kaçıklıklarını karşılayabilirler. Bu aksesuar gövdeden montajlı tiplerde kullanılmaktadır.

EN

REINFORCED FLANGE B5

Longer shaft is used at agitator application that is caused increasing bearing distance for that reason, PGR increased bearing distance with using reinforced B5 flange at that design. Reinforced B5 flange design provides longer bearing life and could be used where high radial and axial load is effected to the gear unit. Due to increasing bearing distance and absorbing high radial and axial load spherical roller bearing are used however it is useful for recuperating misalignment at long shaft. These accessories are used case mounting versions.

GB5



Tip / Type	a	b	c	e1	f	h3	s	uH	tH	mH	dH ^{H7}	IH
PKD 1390 DG/GB5 PKD 1490 DG/GB5	200	130	12	165	3.5	75	4 x 11	10	38.5	218	35	50
PKD 2390 DG/GB5 PKD 2490 DG/GB5	250	180	16	215	4.0	86	4 x 13.5	12	43.5	258	40	60
PKD 3390 DG/GB5 PKD 3490 DG/GB5	300	230	20	265	4.0	85	4 x 14	14	54.0	287	50	70
PKD 4390 DG/GB5 PKD 4490 DG/GB5	350	*250	20	300	5.0	135	4 x 18	18	64.5	362.5	60	80
PKD 5390 DG/GB5 PKD 5490 DG/GB5	400	*300	22	350	5.0	166	4 x 18	20	75.0	457	70	100
PKD 6390 DG/GB5 PKD 6390/32 DG/GB5 PKD 6390/42 DG/GB5	450	*350	24	400	5.0	184	8 x 18	22	85.5	524	80	120
PKD 7390 DG/GB5 PKD 7390/32 DG/GB5 PKD 7390/42 DG/GB5	450	*350	24	400	5.0	184	8 x 18	22	85.5	524	80	120
PKD 8390 DG/GB5 PKD 8390/42 DG/GB5 PKD 8390/52 DG/GB5	550	*450	28	500	5.0	210	8 x 18	28	116.5	615	110	140
PKD 8390 DG/GB5 PKD 8390/52 DG/GB5	660	*550	32	600	6.0	262	8 x 22	32	127.5	747	120	160

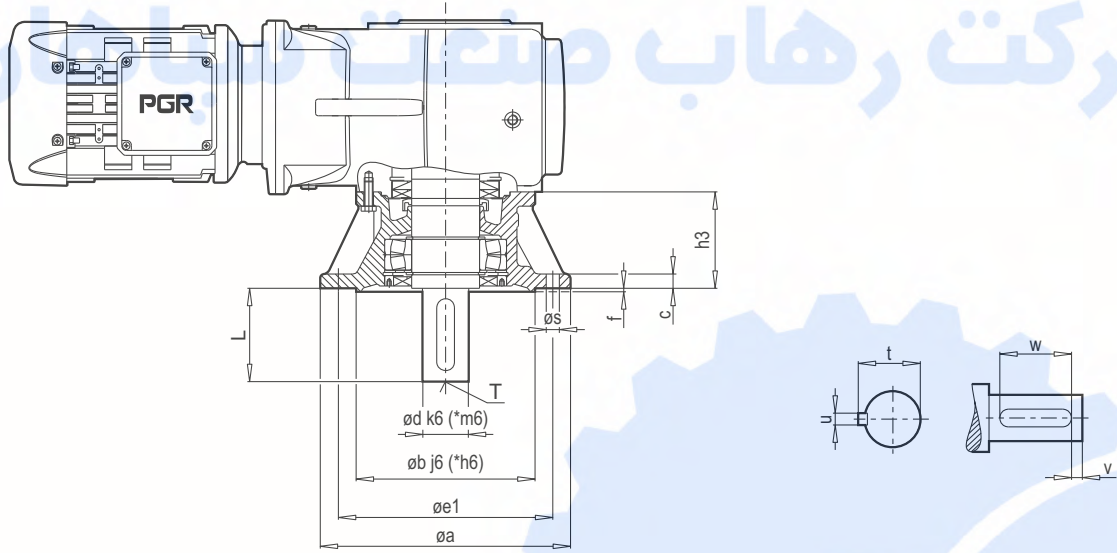
TR

GÜÇLENDİRİLMİŞ B5 FLANŞI

EN

REINFORCED FLANGE B5

GB5

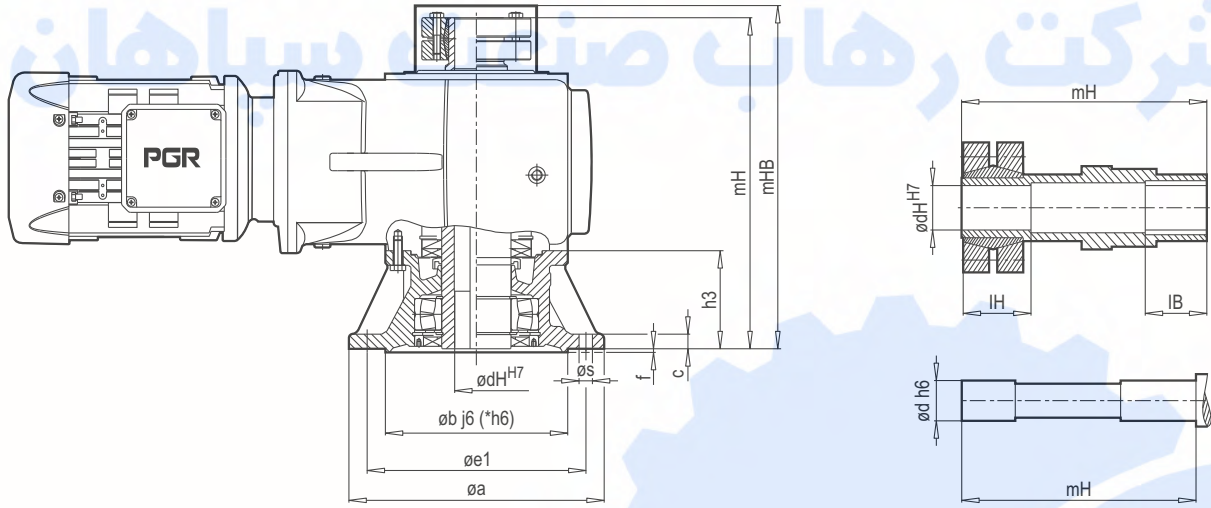


Tip / Type	a	b	c	e1	f	h3	s	d	L	t	u	v	w	T
PKD 1390 TMG/GB5 PKD 1490 TMG/GB5	200	130	12	165	3.5	75	4 x 11	30	60	33.0	8	5	50	M10
PKD 2390 TMG/GB5 PKD 2490 TMG/GB5	250	180	16	215	4.0	86	4 x 13.5	35	70	38.0	10	7	56	M12
PKD 3390 TMG/GB5 PKD 3490 TMG/GB5	300	230	20	265	4.0	85	4 x 14	45	90	48.5	14	5	80	M16
PKD 4390 TMG/GB5 PKD 4490 TMG/GB5	350	*250	20	300	5.0	135	4 x 18	*65	130	69.0	18	15	100	M20
PKD 5390 TMG/GB5 PKD 5490 TMG/GB5	400	*300	22	350	5.0	166	4 x 18	*75	140	79.5	20	7.5	125	M20
PKD 6390 TMG/GB5 PKD 6390/32 TMG/GB5 PKD 6390/42 TMG/GB5	450	*350	24	400	5.0	184	8 x 18	*90	170	95.0	25	15	140	M24
PKD 7390 TMG/GB5 PKD 7390/32 TMG/GB5 PKD 7390/42 TMG/GB5	450	*350	24	400	5.0	184	8 x 18	*90	170	95.0	25	15	140	M24
PKD 8390 TMG/GB5 PKD 8390/42 TMG/GB5 PKD 8390/52 TMG/GB5	550	*450	28	500	5.0	210	8 x 18	*110	210	116.0	28	15	180	M24
PKD 8390 TMG/GB5 PKD 8390/52 TMG/GB5	660	*550	32	600	6.0	262	8 x 22	*120	210	127.0	32	15	180	M24
PKD 9390 TMG/GB5 PKD 9390/52 TMG/GB5	660	*550	32	600	6.0	262	8 x 22	*140	250	148.0	36	25	200	M24
PKD G 9390 TMG/GB5 PKD G 9390/62 TMG/GB5 PKD G 9390/63 TMG/GB5	660	*550	35	600	8.0	302	8 x 26	*190	320	200.0	45	10	300	M30x60

TR KONİK SIKTIRMALI GÜÇLENDİRİLMİŞ B5 FLANŞI

EN REINFORCED FLANGE B5 WITH SHRINK DISC

KS - GB5



Tip / Type	a	b	c	e1	f	h3	s	dH / d	mH	mHB	IB	IH
PKD 1390 DG/KS-GB5 PKD 1490 DG/KS-GB5	200	130	12	165	3.5	75	4 x 11	35	263	278	41	40
PKD 2390 DG/KS-GB5 PKD 2490 DG/KS-GB5	250	180	16	215	4.0	86	4 x 13.5	40	308	319	41.5	44
PKD 3390 DG/KS-GB5 PKD 3490 DG/KS-GB5	300	230	20	265	4.0	85	4 x 14	50	337	355	51.5	46
PKD 4390 DG/KS-GB5 PKD 4490 DG/KS-GB5	350	*250	20	300	5.0	135	4 x 18	60	427.5	446	61.5	58
PKD 5390 DG/KS-GB5 PKD 5490 DG/KS-GB5	400	*300	22	350	5.0	166	4 x 18	70	537	558	71	74
PKD 6390 DG/KS-GB5 PKD 6390/32 DG/KS-GB5 PKD 6390/42 DG/KS-GB5	450	*350	24	400	5.0	184	8 x 18	80	609	629	81	82
PKD 7390 DG/KS-GB5 PKD 7390/32 DG/KS-GB5 PKD 7390/42 VLB5/KS	450	*350	24	400	5.0	184	8 x 18	80	609	629	81	82
PKD 8390 DG/KS-GB5 PKD 8390/42 DG/KS-GB5 PKD 8390/52 DG/KS-GB5	550	*450	28	500	5.0	210	8 x 18	110	695	734	81	74
PKD 8390 DG/KS-GB5 PKD 8390/52 DG/KS-GB5	660	*550	32	600	6.0	262	8 x 22	125	851	892	81	98
PKD 9390 DG/KS-GB5 PKD 9390/52 DG/KS-GB5	660	*550	32	600	6.0	262	8 x 22	150	955	998	101	98
PKD G 9390 DG/KS-GB5 PKD G 9390/62 DG/KS-GB5 PKD G 9390/63 DG/KS-GB5	660	*550	35	600	8.0	302	8 x 26	160/155	1089	1134	95	140

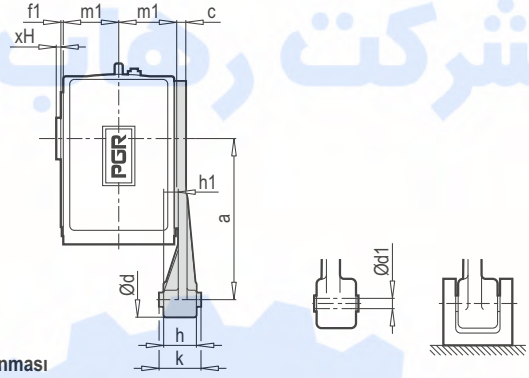
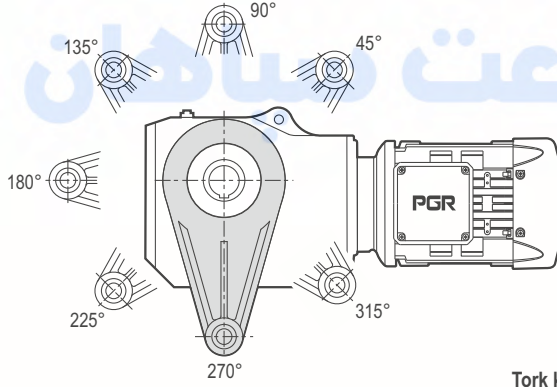
TR

TORK KOLU

EN

TORQUE ARM

TK



Tork kolunun pozisyonlanması
Positions of torque arm

PKD 1390 DG/TK ... 7390 DG/TK için 45°...270° / PKD 1390 DG/TK ... 7390 DG/TK for 45°...270°
PKD B0290 DG/TK ... H5290 DG/TK için 90°...315° / PKD B0290 DG/TK ... H5290 DG/TK for 90°...315°

Tip / Type	Montaj Ölçüleri Mounting Dimensions								Ana Ölçüler Outline Dimensions	
	a	c	d	d1	f1	h	h1	k	m1	xH
PKD A 0290 DG/TK	--	--	--	--	--	--	--	--	55	3
PKD B 0290 DG/TK	120	10	40	10.5	3	32	10	36	62	4
PKD C 1290 DG/TK	160	14	40	10.5	3	32	11.5	36	75	4
PKD F 4290 DG/TK	160	14	40	10.5	3	32	11.5	36	78	4
PKD H 5290 DG/TK	200	14	60	16.5	4	56	26	60	87	5
PKD 1390 DG/TK PKD 1490 DG/TK	160	16	40	10.5	3	32	11.5	36	68	3
PKD G 1390 DG/TK PKD G 1490 DG/TK	160	16.5	40	10.5	3	32	11.5	36	68	3
PKD 2390 DG/TK PKD 2490 DG/TK	200	16.5	60	16.5	4	56	26	60	82	4
PKD 3390 DG/TK PKD 3490 DG/TK	250	20.5	60	16.5	3	56	22	60	97	5
PKD 4390 DG/TK PKD 4490 DG/TK	300	24	80	25	7	92	42	100	108	5
PKD 5390 DG/TK PKD 5490 DG/TK	350	26.5	80	25	4	92	42	100	141	5
PKD 6390 DG/TK PKD 6390/32 DG/TK PKD 6390/42 DG/TK	450	28	80	25	5	92	42	100	165	5
PKD 7390 DG/TK PKD 7390/32 DG/TK PKD 7390/42 DG/TK	450	28	80	25	5	92	42	100	165	5

Sipariş verirken tork kolunun pozisyonunu belirtiniz (Örn. 270°).
Tork kolu L yada R tarafına bağlanabilir.

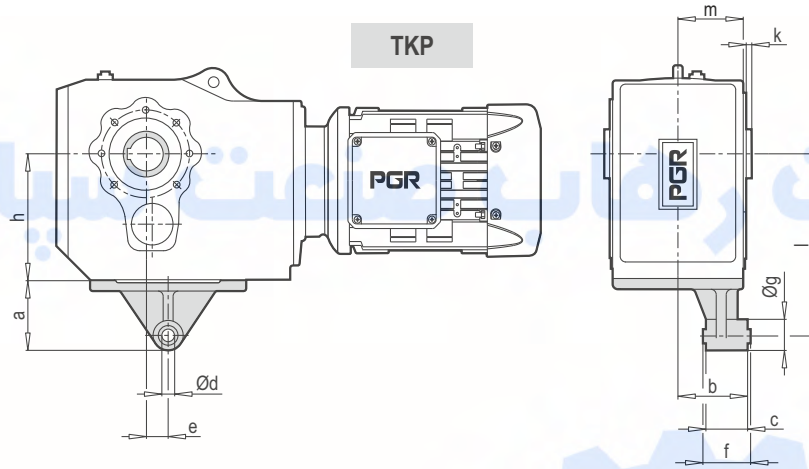
Determine position of torque arm when commission. (e.g. 270°).
Determine mounted and connecting position for instance side L or side R of gear unit when you commission.

TR

TORK KOLU PLATFORMU

EN

TORQUE ARM PLATFORM



PKD 1390 DG/TKP ... PKD 7390 DG/TKP

Tip / Type	a	b	c	Ød	e	f	Øg	h	k	l	m
PKD 1390 DG/TKP PKD 1490 DG/TKP PKD G 1390 DG/TKP PKD G 1490 DG/TKP	70.5	52	32	10.5	30	36	45	112	3	160	68
PKD 2390 DG/TKP PKD 2490 DG/TKP	87	65	56	16.5	45	60	60	143	4	200	82
PKD 3390 DG/TKP PKD 3490 DG/TKP	100	80	56	16.5	52.5	60	60	180	5	250	97
PKD 4390 DG/TKP PKD 4490 DG/TKP	123	89	92	25	60	100	80	217	5	300	108
PKD 5390 DG/TKP PKD 5490 DG/TKP	128	110	92	25	70	100	80	262	5	350	141
PKD 6390 DG/TKP	175	130	92	25	74	100	80	315	5	450	165
PKD 7390 DG/TKP	175	130	92	25	74	100	80	315	5	450	165



PKD 8390 DG/TKP ... PKD G 9390 DG/TKP

Tip Type	Montaj Ölçüleri Mounting Dimensions									Ana Ölçüler Outline Dimensions	
	A	AA	AB	C	C1	D	H	H1	MK	m1	xH
PKD 8390 DG/TKP PKD 8390/42 DG/TKP PKD 8390/52 DG/TKP	550	75	95	56	30	31	375	225	45	195	8
PKD G 8390 DG/TKP PKD G 8390/52 DG/TKP	650	55	95	56	40	31	450	250	5	235	8
PKD 9390 DG/TKP PKD 9390/52 DG/TKP	700	80	108	56	40	31	500	250	58	288	10
PKD G 9390 DG/TKP PKD G 9390/62 DG/TKP PKD G 9390/63 DG/TKP	900	70	140	80	50	52	600	300	45	320	10.5

TR

TORK KOLU PLATFORMU DELİKLERİ

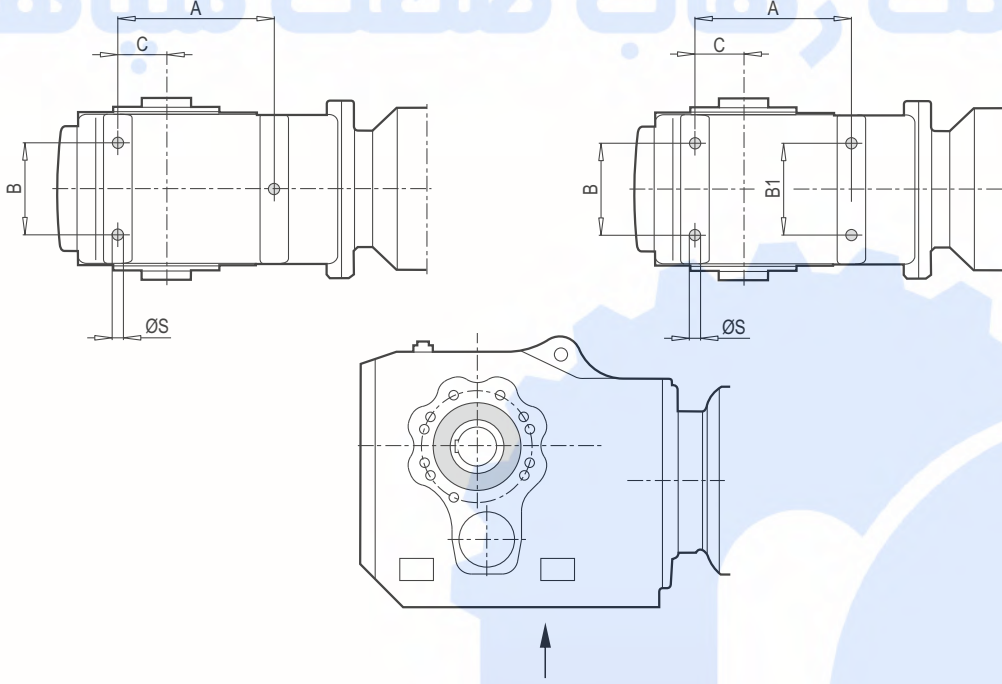
EN

TORQUE ARM PLATFORM HOLES

GÖVDEDEN MONTAJLI / CASE MOUNTED

PKD 1390...PKD 5390

PKD 6390...PKD G 9390



Tip Type	A	B	B1	C	ØS
PKD 1390 DG/TKP PKD 1490 DG/TKP	152	60	-	35	M10x16
PKD G 1390 DG/TKP PKD G 1490 DG/TKP	152	60	-	35	M10x16
PKD 2390 DG/TKP PKD 2490 DG/TKP	152	100	-	42	M12x20
PKD 3390 DG/TKP PKD 3490 DG/TKP	190	110	-	55	M12x20
PKD 4390 DG/TKP PKD 4490 DG/TKP	220	130	-	68	M16x25
PKD 5390 DG/TKP PKD 5490 DG/TKP	277	185	-	92	M16x25
PKD 6390 DG/TKP PKD 6390/32 DG/TKP PKD 6390/42 DG/TKP	345	220	170	120	M20x30
PKD 7390 DG/TKP PKD 7390/32 DG/TKP PKD 7390/42 DG/TKP	290	190	190	100	M24x36
PKD 8390 DG/TKP PKD 8390/42 DG/TKP PKD 8390/52 DG/TKP	430	260	260	140	M24x36
PKD G 8390 DG/TKP PKD G 8390/52 DG/TKP	430	320	320	160	M36x55
PKD 9390 DG/TKP PKD 9390/52 DG/TKP	520	400	400	180	M36x55
PKD G 9390 DG/TKP PKD G 9390/62 DG/TKP PKD G 9390/63 DG/TKP	580	440	440	220	M42x72

TR

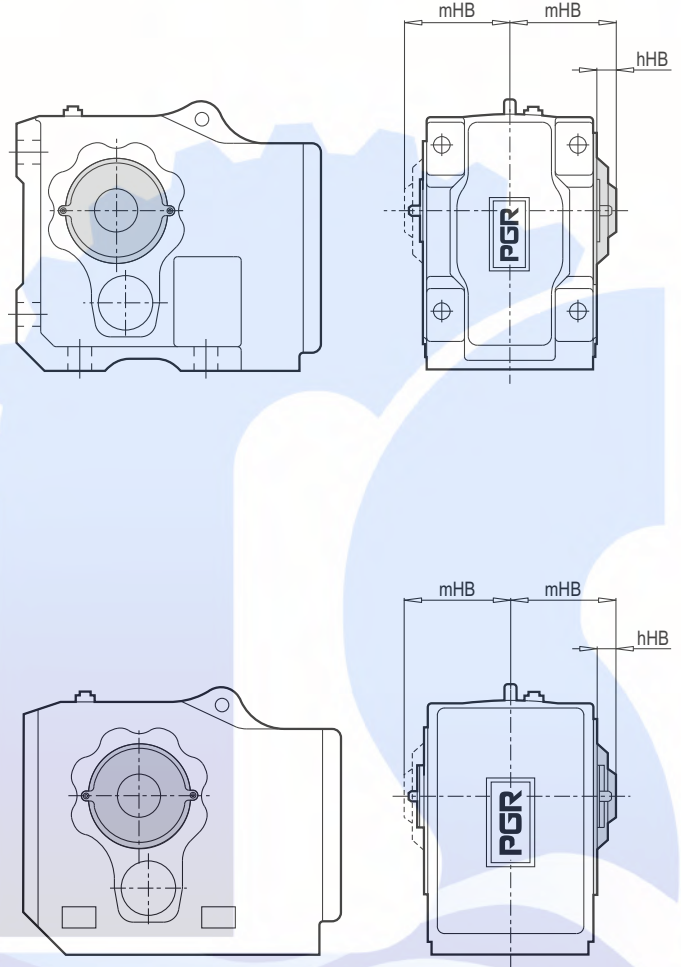
KORUMA KAPAĞI

EN

COVER

Delik milli şaft koruma kapağı
Cover cup for hollow shaft

Tip Type	Montaj ve Ana Ölçüleri Outline and Mounting Dimensions	
	hHB	mHB
PKD A 0290 DA PKD A 0290 DG	35	87.5
PKD B 0290 DA PKD B 0290 DG	38	100
PKD C 1290 DA PKD C 1290 DG	43	118
PKD F 4290 DA PKD F 4290 DG	43	121
PKD H 5290 DA PKD H 5290 DG	45	132
PKD 1390 DA PKD 1490 DA	38	109
PKD 1390 DG PKD 1490 DG	43	111
PKD G 1390 DA PKD G 1490 DA	38	109
PKD G 1390 DG PKD G 1490 DG	43	111
PKD 2390 DA PKD 2490 DA	43	129
PKD 2390 DG PKD 2490 DG	45	127
PKD 3390 DA PKD 3490 DA	45	145
PKD 3390 DG PKD 3490 DG	48	145
PKD 4390 DA PKD 4490 DA	46	161
PKD 4390 DG PKD 4490 DG	56	164
PKD 5390 DA PKD 5490 DA	48	193
PKD 5390 DG PKD 5490 DG	61	202
PKD 6390 DA	55	225
PKD 6390 DG	64	229
PKD 7390 DA	55	225
PKD 7390 DG	64	229
PKD 8390 DA	62	262
PKD 8390 DG	67	262
PKD G 8390 DA	55	293
PKD G 8390 DG	86	321

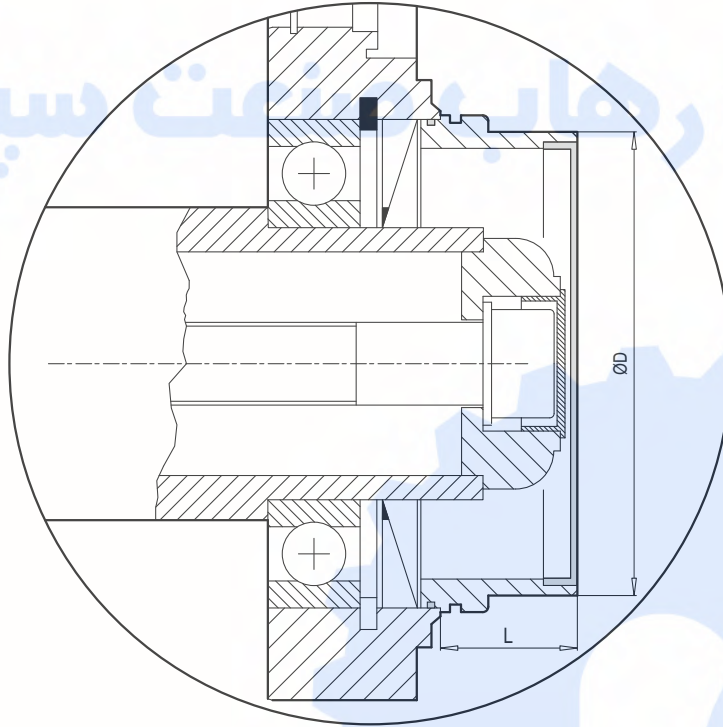


TR

IP 66 UYGULAMASI

EN

PROTECTION IP 66



Tip Type	ØD	L
PKD 1390 DA - KK 66	81	25
PKD 1390 DG/B14 - KK 66	86	28
PKD G 1390 DA - KK 66	81	25
PKD G 1390 DG/B14 - KK 66	86	28
PKD 2390 DA - KK 66	96	30
PKD 2390 DG/B14 - KK 66	105	35
PKD 3390 DA - KK 66	105	35
PKD 3390 DG/B14 - KK 66	116	35
PKD 4390 DA - KK 66	146	35
PKD 4390 DG/B14 - KK 66	146	38
PKD 5390 DA - KK 66	155	38
PKD 5390 DG/B14 - KK 66	189	38
PKD 6390 DA - KK 66	189	38
PKD 6390 DG/B14 - KK 66	189	35
PKD 7390 DA - KK 66	189	38
PKD 7390 DG/B14 - KK 66	216	35
PKD 8390 DA - KK 66	246	45
PKD 8390 DG/B14 - KK 66	261	50
PKD G 8390 DA - KK 66	261	55
PKD G 8390 DG/B14 - KK 66	316	50

TR

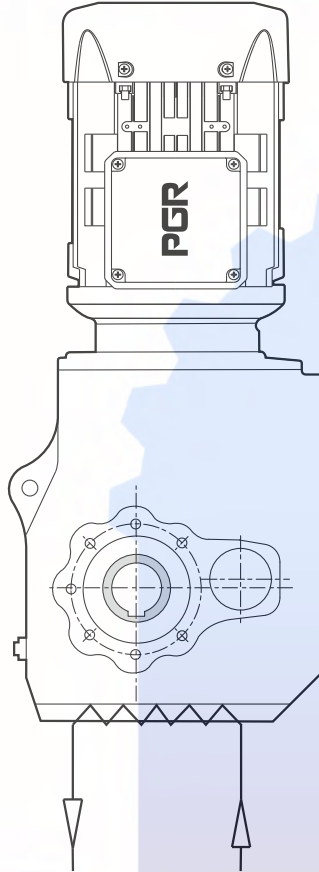
SU SOĞUTMALI

Entegre edilmiş bir ısı dönüştürücüsü, helisel konik dişli üniteleri ve paralel dişli ünitelerinde isteğe bağlı olarak mevcuttur. Dişli ünitesini soğutan soğutma suyu ısı dönüştürücüsü içinden akar. PGR, redüktör sıcaklığının ve soğutma suyunun akışının izlenmesini önerir. Soğutma bobini, yağ odası içinde bulunmamaktadır, PGR su soğutması. Soğutma suyu patlayıcı çalışma ortamlarında çalışması uygundur. Düşük sıcaklıklarda, ısı dönüştürücüsü, dişli ünitesine ısı sağlayabilir.

EN

WATER COOLING

For cooling gear unit, conjugate heat exchanger is optionally available (This design exists for helical-bevel and parallel shaft gear units.) PGR suggests to check cooling water flow and temperature of gear unit because coil of heat exchanger is on the cover of gear unit Heat transfer from oilor gear unit to cooling water should be monitored. This design could be used in explosive areas. Heat exchanger might supply heat to the gear unit in low temperature.



Su soğutma ünitesinin kullanılabileceği montaj pozisyonları

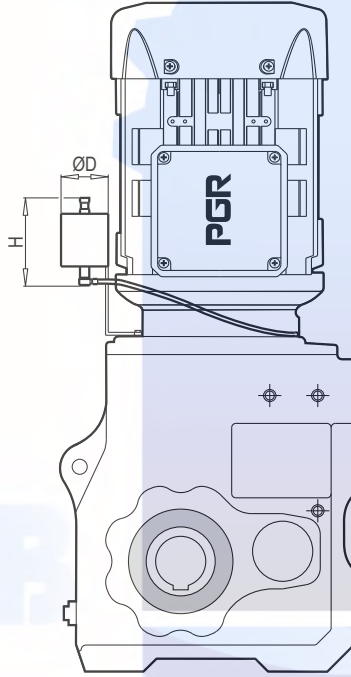
Table shows that suitability of water cooling for which mounting positions

Tip / Type	Montaj Pozisyonları / Mounting Positions					
	M1	M2	M3	M4	M5	M6
PKD 8390			✓	✓		
PKD G 8390			✓	✓		
PKD 9390			✓	✓		
PKD G 9390			✓	✓		

TR M4 MONTAJ POZİSYONU İÇİN İLAVE YAĞ HACMİ

EN ADDITIONAL LUBRICANT VOLUME FOR MOUNTING POSITION M4

Tip Type	Boyut Size	ØD [mm]	H [mm]	[kg]
PKD 4390 / PKD 4490	I	100	180	6
PKD 5390 / PKD 5490				
PKD 6390	II	150	300	7
PKD 7390				
PKD 8390				
PKD G 8390	III	180	300	8
PKD 9390				
PKD G 9390				



Bu ilave yağ hacim ünitesinin kullanılması dikey montaj pozisyonlarında (M4) ve kötü çalışma şartları altında bile havalandırma tapasından yağ sızmasını önler. Dikey çalışma ortamlarında redüktör içindeki yağ köpüklenme yapabilir ve bu ünite ilave bir hacim sağlar. İlave yağ hacim ünitesi, tahvil oranı 20' den küçük helisel konik dişli üniteler PKD 4390 ve daha üst gövdelerin dikey montaj pozisyonu uygulamalarında kullanımı önerilir.



41 - 42

Additional lubricant volume unit is used to prevent oil leakage from venting plug when gear unit is mounted with M4 mounting position. It is important because at vertical mounting position oil could be foamed. PGR suggest that additional lubrication volume units should be used when gear reduction is less than 20 and for polat helical bevel gear unit series from PKD 4390 and bigger cases when M4 vertical mounting position is applied.



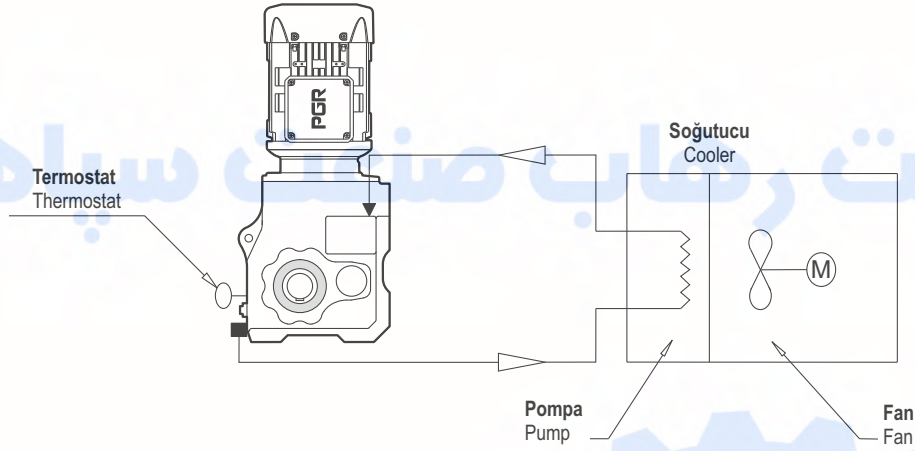
41 - 42

TR

YAĞ SOĞUTMALI

EN

OIL COOLING



■ Çıkış = Emme hattı

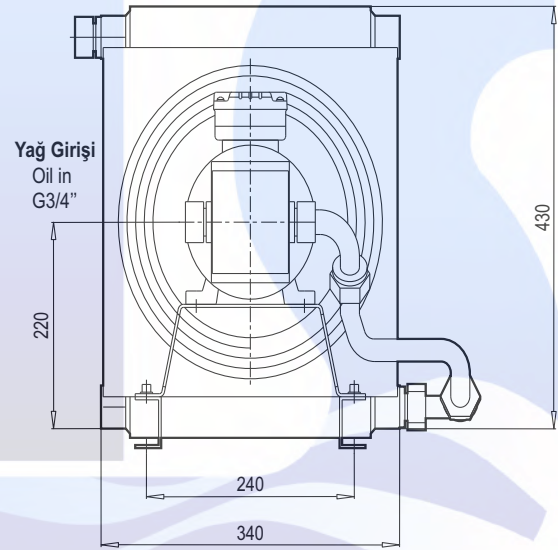
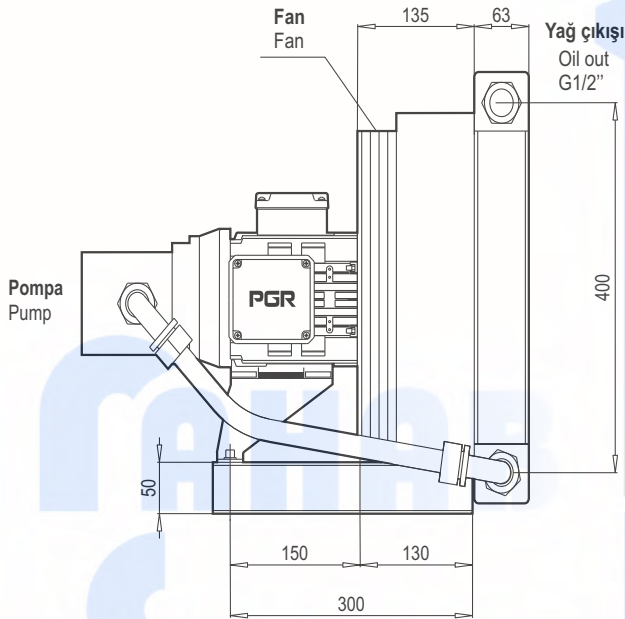
▼ Yağ seviyesi = Basınç hattı

■ Output = Suction line

▼ Oil level = Pressure line

Dişli ünitesi yağı, bir pompa tarafından çekilir ve bir ısı dönüştürücüsü boyunca akar. Yağ, bir fan tarafından yaratılan bir hava akımı ile soğutulur. Yağ, ısı dönüştürücünün dışına taşınır ve tekrar haznesine geri gönderilir. Sıcaklık bir termostat tarafından kontrol edilir. PGR, sıcaklığın izlenmesini önerir.

The above picture shows cycle of the cooling unit. There is a thermostat on the gear unit for checking oil temperature. Oil flows from suction line to pressure line which is provided by a pump. In this way, oil temperature is cooled down by a fan which is supplying air flow of oil. Then, oil flows to the house of gear unit.



*** Potansiyel patlayıcı atmosferli alanlar için uygun değildir.**

Dizayn

Soğutucu	: TFS/A 8,5-400-F-03-11
Düşürme	: Dış 1/2" iç 3/4"
Motorlar	: Spannung 3x400 V
Çıkış gücü	: 0,55 kW
Akım	: 1,7 A
Hız	: 1350 d/dk
Koruma sınıfı	: IP 55
Yalıtım sınıfı	: F
Sıcaklık sınıfı	: B

Aşağıdaki özelliklerde mevcuttur:

- Özel voltaj 60 HZ - Özel motor
- Ağırlık : 35 kg

*** Not suited for areas with potentially explosive atmosphere**

Design

Cooler	: TFS/A 8,5-400-F-03-11
Reduction	: Out 1/2" / in 3/4"
Motors	: Spannung 3x400 V
Output Power	: 0,55 kW
Rated Current	: 1,7 A
Speed	: 1350 rpm
Protection Class	: IP 55
Insulation Class	: F
Temperature Class	: B

Available with:

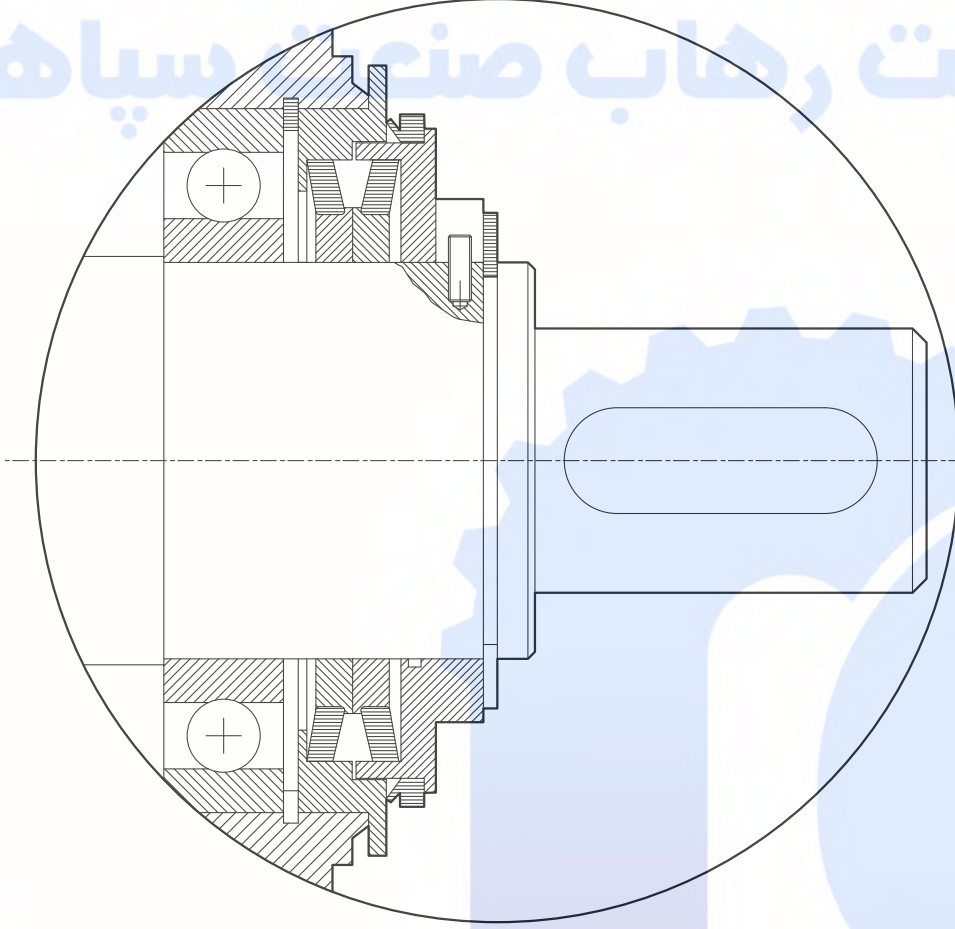
- Special voltage 60 HZ - Special motor
- Weight : 35 kg

TR

MEKANİK KEÇE

EN

MECHANICAL SEAL



Özellikle aşırı çalışmalarda ve çok kötü çalışma koşullarında uygundur. Daldırmalı veya sulu çalışma ortamlarından etkilenmemektedir. Bu keçe tipi dış çevre koşullarından kesin koruma sağlar.

Seals are important to prevent oil leakage and for protection in bad environments. In hazardous environment and extreme operation conditions sealing must be considered. For that reason mechanical seals are applicable for using at hazardous environment, submerged operation.

TR

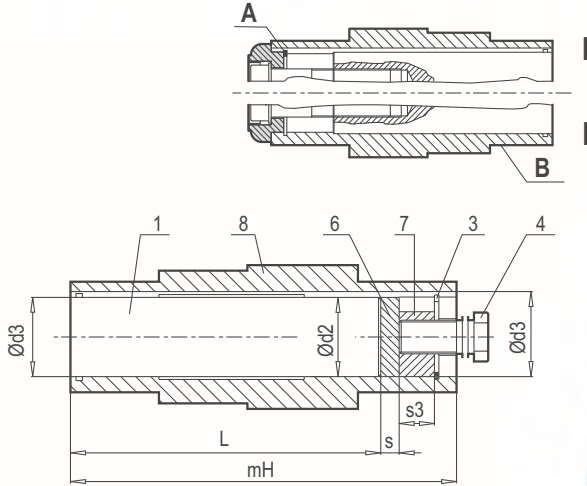
ÇEKTİRME KİTİ

Çektirme Kiti

Çektirme kiti, şaft montajlı dişli ünitelerinde opsiyonel olarak bulunur.

Kullanım Şartları:

- Kullanılacak müşteri milinin merkezinde DIN 332/2 standartlarında bir delik açılmalıdır.
- Müşterinin mili, faturalı yada faturasız olsa da, çekirtme kiti ile sabitlenebilmektedir.
- I'deki montaj kullanıldığında, müşteri mili, redüktör şaftı içinde bulunan segman ile tutturulur. (Parça A)
- II'deki montaj kullanıldığında, müşteri milinin üzerinde bulunan fatura kullanarak doğrudan redüktör şaftı üzerine tutturulur. (Parça B)



DEMONTAJ / DISASSEMBLY

L= max. kullanıcı şaft boyu

L= maximum length of the solid shaft

- 1) Müşteri mili
- 2) Rondela DIN 127
- 3) * İç Segman DIN 472
- 4) * Çektirme civatası
- 5) Aylan başlı civata DIN 912
- 6) * Yaylı rondela
- 7) * Somun
- 8) Redüktör şaftı
- 9) Çektirme rondelası

*Dikkat, yıldızlı ürünler PGR tarafından temin edilmez.

DEMONTAJ:

- 1) Aylanbaşı civata sökölmalıdır. (poz.5)
- 2) Çektirme rondelası çıkartılmalıdır. (poz.9)
- 3) Yaylı rondela takılmalıdır. (poz.6)
- 4) Somun yerleştirilmelidir. (poz.7)
- 5) Segman takılmalıdır. (poz.3)
- 6) Çektirme civatasını gevşeterek müşteri mili şafttan ayrılmalıdır. (poz.4)

KOŞULLAR:

Kullanıcı mili DIN 332/2' e göre merkezine dış açılmış delik gerekmektedir. Müşteri mili "L" uzunluğunu geçmemelidir aksi halde çekirtme işlemi uygulanamaz. (poz. 5,6,7)

MONTAJ:

- 1) Müşteri mili, redüktör şaftının içerisine yerleştirilmelidir. (poz.8)
- 2) Çektirme rondelası redüktör şaftının içine yerleştirilmelidir.
- 3) Çektirme rondelası ile aylan başlı civata ve rondela sabitlenmelidir. (poz.2-5)

EN

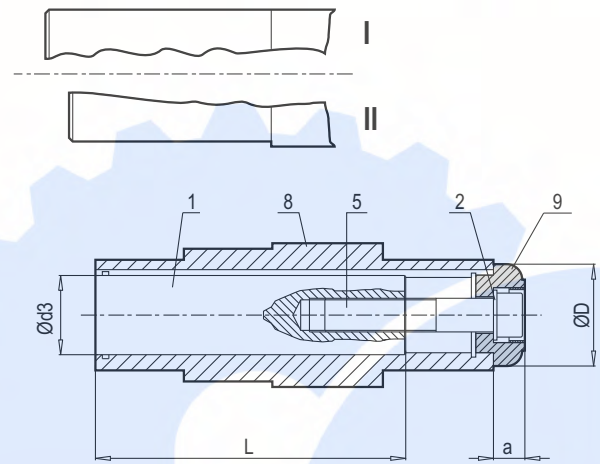
PULLER KIT

Puller Kit

The puller kit is optionally available on shaft mounted gear units.

Using conditions:

- The centre hole must be DIN 332/2 for customer solid shaft.
- The customer shaft can be fixed with the puller kit (with shoulder or without shoulder)
- When the assembly in Fig. I is used, the customer shaft is fasten by the circlip in the gear unit shaft.(Track A)
- When the assembly in Fig. II is used,It is fasten directly to the gearbox shaft using the invoice on the customer shaft.



MONTAJ / ASSEMBLY

- 1) Customer's shaft
- 2) Washer DIN 127
- 3) * Circlip DIN 472
- 4) * Puller screw
- 5) Socket head screw DIN 912
- 6) * Thrust washer
- 7) * Nut
- 8) Hollow shaft
- 9) Puller washer

*Star signs are shown this item are not provided by PGR

DISASSEMBLING:

- 1) Loosen the socket head screw (5)
- 2) Remove puller washer (9)
- 3) Install spring washer (6)
- 4) Install nut(7)
- 5) Install circlip (3)
- 6) Remove solid shaft from hollow shaft with using puller screw (4)

CONDITIONS

The user shaft must be threaded to the center according to DIN 332/2. The customer shaft must not exceed the "L" length, otherwise the puller cannot be applied. (pos. 5,6,7)

ASSEMBLING:

- 1) The customer shaft must be mounted inside the gear units shaft. (8)
- 2) The puller washer must be mounted inside the gear units shaft. (9)
- 3) The bolt and washer must be fixed with the puller washer. (2-5)

TR

ÇEKTİRME KİTİ ÖLÇÜLERİ

EN

PULLER KIT DIMENSIONS

Tip / Type	1 L	2	3	4	5	6 d2 s	d3	7 s3	8 d x mH	9 a D
PKD A 0290 DA/Ç	100	A10	125 x 1.5	M12	M10 X 45	24.9 3	24.9	12	M12	25 x 116 15 38
PKD B 0290 DA/Ç	115	A6	120 x 1.5	M10	M6 X 30	19.9 3	19.9	10	M10	20 x 134 15 38
PKD C 1290 DA/Ç	140	A10	130 x 1.5	M12	M10 X 45	29.9 3	29.9	12	M12	30 x 164 20 40
PKD F 4290 DA/Ç	140	A12	135 x 1.5	M12	M12 X 55	34.9 3	34.9	16	M16	35 x 170 24.5 45
PKD H 5290 DA/Ç	160	A16	140 x 2.0	M16	M16 X 70	39.9 4	39.9	16	M16	40 x 192 25 55
PKD 1390 DA/Ç	120	A10	130 x 1.5	M12	M10 X 45	29.9 3	29.9	12	M12	30 x 148 20 40
PKD G1390 DA/Ç	120	A10	130 x 1.5	M12	M10 X 45	29.9 3	29.9	12	M12	30 x 148 20 40
PKD 2390 DA/Ç	150	A12	135 x 1.5	M16	M12 X 55	34.9 3	34.9	16	M16	35 x 180 24.5 45
PKD 3390 DA/Ç	170	A16	140 x 2.0	M16	M16 X 70	39.9 4	39.9	16	M16	40 x 210 25 55
PKD 4390 DA/Ç	200	A16	150 x 2.5	M20	M16 X 70	49.9 4	49.9	20	M20	50 x 240 26 65
PKD 5390 DA/Ç	255	A20	160 x 3.0	M24	M20 X 90	59.9 5	59.9	24	M24	60 x 300 31 75
PKD 6390 DA/Ç	305	A20	170 x 3.0	M24	M20 X 90	69.9 5	69.9	24	M24	70 x 350 32 78
PKD 7390 DA/Ç	305	A24	190 x 4.0	M30	M24 X 110	89.9 8	89.9	22	M30	90 x 350 36 102
PKD 8390 DA/Ç	365	A24	1100 x 4.0	M30	M24 X 110	99.9 8	99.9	30	M30	100 x 420 36.5 120
PKD G8390 DA/Ç	440	A24	1110 x 5.0	M30	M24 X 110	109.9 10	109.9	30	M30	110 x 500 36 135
PKD 9390 DA/Ç	550	A24	1120 x 5.0	M36	M24 X 110	119.9 10	119.9	32	M36	120 x 610 34.5 150
PKD G9390 DA/Ç	605	A24	1160 x 4.0	M36	M24 X 110	159.9 10	159.9	34	M36	160 x 674 34 200

Tip / Type	1 L	2	3	4	5	6 d2 s	d3	7 s3	8 d x mH	9 a D
PKD A 0290 DG/Ç	100	A10	125 x 1.5	M12	M10 X 45	24.9 3	24.9	12	M12	25 x 116 20 38
PKD B 0290 DG/Ç	120	A10	125 x 1.5	M12	M10 X 45	24.9 3	24.9	12	M12	25 x 138 20 38
PKD C 1290 DG/Ç	140	A10	130 x 1.5	M12	M10 X 45	29.9 3	29.9	12	M12	30 x 164 20 40
PKD F 4290 DG/Ç	140	A12	135 x 1.5	M12	M12 X 55	34.9 3	34.9	16	M16	35 x 170 24.5 45
PKD H 5290 DG/Ç	160	A16	140 x 2.0	M16	M16 X 70	39.9 4	39.9	16	M16	40 x 192 25 55
PKD 1390 DG/Ç	120	A12	135 x 1.5	M16	M12 X 55	34.9 3	34.9	16	M16	35 x 148 24.5 45
PKD G1390 DG/Ç	120	A16	140 x 2.0	M16	M16 X 70	39.9 4	39.9	16	M16	40 x 148 25 55
PKD 2390 DG/Ç	150	A16	140 x 2.0	M16	M16 X 70	39.9 4	39.9	16	M16	40 x 180 25 55
PKD 3390 DG/Ç	170	A16	150 x 2.5	M20	M16 X 70	49.9 4	49.9	20	M20	50 x 210 26 65
PKD 4390 DG/Ç	195	A20	160 x 3.0	M24	M20 X 90	59.9 5	59.9	24	M24	60 x 240 30 75
PKD 5390 DG/Ç	255	A20	170 x 3.0	M24	M20 X 90	69.9 5	69.9	24	M24	70 x 300 31.5 95
PKD 6390 DG/Ç	295	A20	180 x 4.0	M30	M20 X 100	79.9 8	79.9	30	M30	80 x 350 32 88
PKD 7390 DG/Ç	305	A24	190 x 4.0	M30	M24 X 110	89.9 8	89.9	22	M30	90 x 350 36 102
PKD 8390 DG/Ç	360	A24	1110 x 5.0	M30	M24 X 110	109.9 10	109.9	30	M30	110 x 420 36.5 135
PKD G 8390 DG/Ç	440	A24	1120 x 5.0	M36	M24 X 110	119.9 10	119.9	32	M36	120 x 500 36.5 150
PKD 9390 DG/Ç	550	A24	1150 x 5.0	M36	M24 X 110	149.9 10	149.9	32	M36	150 x 610 34.5 200
PKD G 9390 DG/Ç	605	A24	1160 x 4.0	M36	M24 X 110	159.9 10	159.9	34	M36	160 x 674 34 200

Tabloda belirtilen numaralar Sayfa 66' de açıklanmaktadır.
The numbers which are specified at table are explained on Page 66

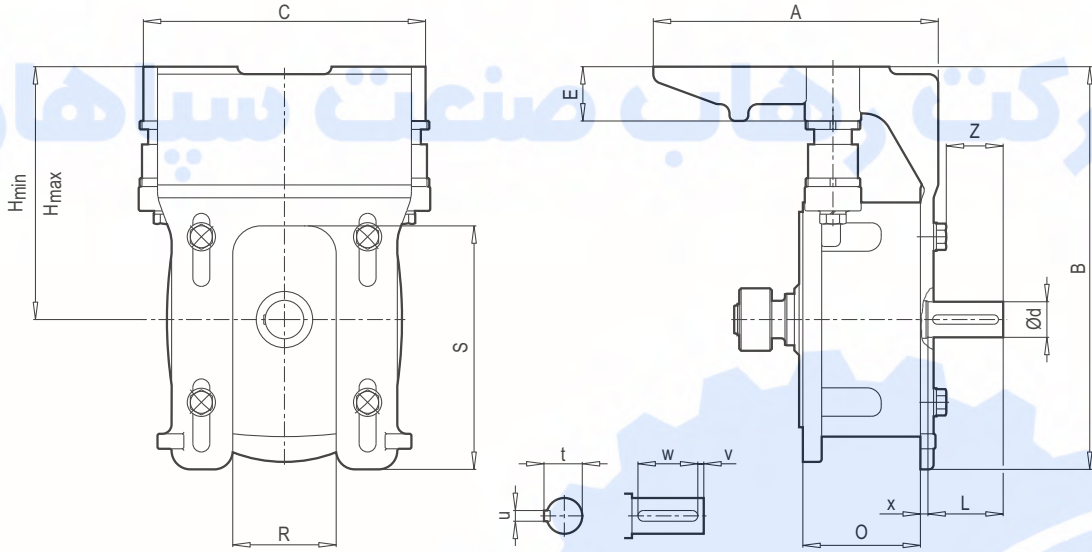
TR

MOTOR PLATFORMU

EN

MOTOR PLATFORM INSTALLATION

Motor Platformu Ölçüleri
Motor Platform Dimensions



Tip Type	Bağlantı boyutları ve platform ölçüleri Connection and Platform dimensions										Mil Ölçüleri Shaft size				Flanş Flange
	A	B	C	E	R	S	H min	H max	Z	O	Ød L	t u	v w	x	
MK I 63 M - 100 L	224	253	206	45	60	140	153	173	41	121.5	24 50	27 8	5 40	8	160 S
MK II 80 M - 112 M	238	320	252	50	66	145	199	224	48	115.5	28 60	31 8	5 50	9	250 S
MK III-A 90 S - 132 M	305	430	302	58	110	260	254	286	61	127	38 80	41 10	5 70	8	300 S
MK III-B 90 S - 132 M	305	430	302	58	110	260	254	286	91	172	42 110	45 12	10 90	8	Ø250
MK IV 112 M - 200 L	478	530	402	75	130	315	315	355	116	254	65 140	69 18	15 110	8	Ø350
MK V 200 L - 250 M	664	690	572	105	382	369	465	515	119	247	65 140	69 18	15 110	12	Ø450

Motor Platform Montajı

Motor platform tasarımı PGR monoblok dişli ünitesi serilerinin tüm montaj pozisyonlarında kullanılabilir. 5 motor platformu boyutu tüm motor-redüktör kombinasyonlarını kapsar. Çok kademeli redüktörleri de karşılayan ayrı ayrı redüktörler için seçim tablolarından motor platformları bakılabilir.

- * Her montaj pozisyonu için kullanılabilir.
- * Optimum kayış gerilimi için kolayca yönlendirilebilen yükseklik ayarlaması yapılabilir.
- * Sabitleme elemanları da dahil olmak üzere korozyonkarşı direçlidir.
- * Hafif, vibrasyonu absorbe eden alüminyum yapı mevcuttur..
- * Birçok motor boyutu için kullanım kolaylığı sağlar.
- * Tabloya göre "i" oranının 1'e eşit olduğu durumlar için önerilir.
- * Her yöne 90°'ye kadar eksen etrafında dönebilir.

Assembling Motor Platform

Motor platform design could be used at all PGR monoblock gear unit series for all mounting positions. There are 5 motor platform designs. These platforms are provided with the possibility of using all motor gear unit series. Motor platform types, dimension and suitable belt types could be followed from table which is shown on page 68-70, on the other hand this table is valid for multi stage gear units.

- * It could be used for all mounting positions.
- * It could be adjusted for optimum belt-tension and height easily.
- * It has high corrosion resistance even fixing elements have this property.
- * Alumium structure provide vibration absorbing and light weight.
- * It could be used with all motor type.
- * It is recommended to be used when "i" ratio equals to one.
- * It could be adjusted to all directions up to 90°.

TR

MOTOR PLATFORMU

EN

MOTOR PLATFORM INSTALLATION

Tip Type	PKD 1390 PKD G 1390 PKD 2390	PKD 3390	PKD 4390 PKD 5390	PKD 6390 PKD 7390	PKD 8390	PKD G 8390	PKD 9390 PKD G9390
Motor	W III	W II	W III	W III W IV	W V W IV	W V W IV	W IV
63 M	MK I						
71 M	MK I						
80 M	MK I	MK II					
90 S 90 L	MK I	MK II	MK III - A	MK III - B			
100 L	MK I	MK II	MK III - A	MK III - B			
112 M		MK II	MK III - A	MK III - B	MK IV	MK IV	
132 S 132 M			MK III - A	MK III - B	MK IV	MK IV	
160 M 160 L				MK IV	MK IV	MK IV	
180 M 180 L				MK IV	MK IV	MK IV **	
200 L				MK IV	MK IV	MK IV **	MK V
225 S 225 M					MK V	MK V	MK V
250 M					MK V	MK V	MK V
280 M							MK V

** Ayarlanabilir mesafe (sınırlı)

** Distance adjustment (Limited)

Seçim Örneği:

Çıkış gücü ve hızına göre gerekli olan dişli ünitesinin temel tipini ve gerekli çıkış gücü veya çıkış dönüş hızına dayanan çıkış gücü ve dişli oranını saptayınız.

Örnek : 0.18 kW , 5.8 min , i = 232.89
PKD 2390 100L

Bu esas dişli ünitesi tipi için, motor platformu MK I tayin edildiğini tablodan (yukarıya bakınız) saptayınız. Bu nedenle, tam tip tanımı PKD 2390 - MK I - 100'dür.

MK I tablodan (sayfa 72) bant makarası ve bant tipi ile ilgili daha fazla bilgi alabilirsiniz.

Esas boyutlar, tabloda gösterilmiştir. (sayfa 70)

Selection Example:

Motor platform assignment could be explained in one example hence, according to according to selecting gear unit reduction ratio, output speed and motor power is determined.

Example : 0.18 kW , 5.8 min , i = 232.89
PKD 2390 100L

According to the above table type of gear unit (column) and motor type (row) are intersected. Hence, from this motor bracket MK I dimension should be used. Full designation is PKD 2390 - MK I - 100

The following page shows more detail about belt pulley and type of belt (see page 72). You can see dimension of belt length with motor platform assignment.

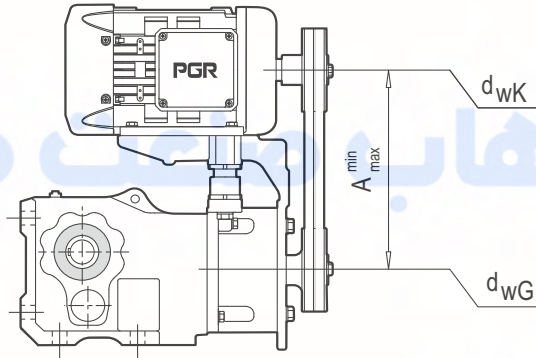
The basic dimensions are seen on page 70.

TR

MOTOR PLATFORMU

EN

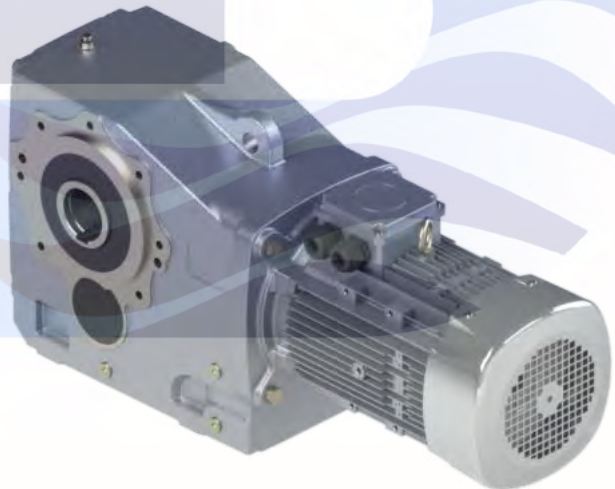
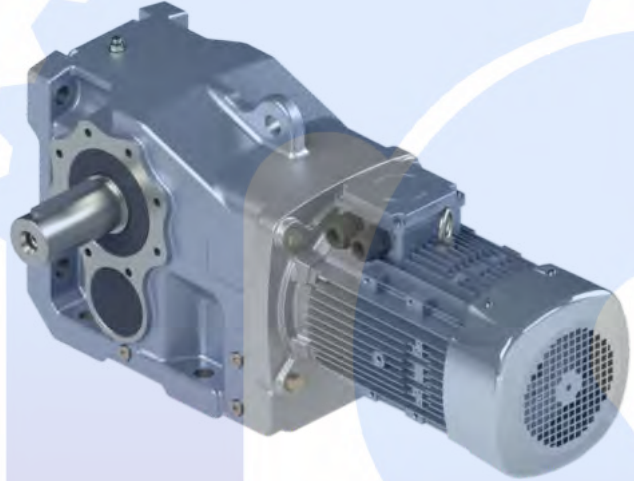
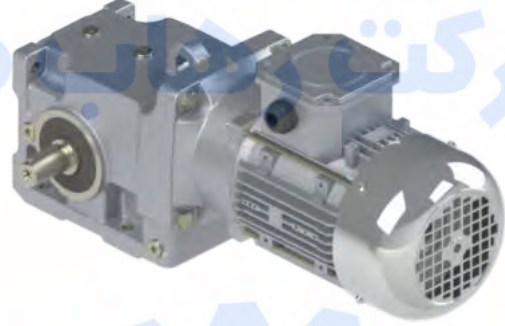
MOTOR PLATFORM INSTALLATION



	Motor	Çıkış Output (kW)	Ayar aralığı Adjustment range		Kayış uzunluğu Belt length	Mil merkezi uzaklığı Shaft centre distance A	Kayış sayısı Number of belts
			Amin	Amax			
MK I Kayış Tipi SPZ Belt type SPZ	63 M/4A	0.12	216	236	(dwg = 80) (i = 1) Lw 697 697 710 710 737 737 750 750 772 772	223	1
	63 M/4B	0.18	216	236		223	1
	71 M/4A	0.25	224	244		229	1
	71 M/4B	0.37	224	244		229	1
	80 M/4A	0.55	233	253		243	1
	80 M/4B	0.75	233	253		243	1
	90 S/4A	1.10	243	263		249	1
	90 L/4A	1.50	243	263		249	2
	100 L/4A	2.20	253	273		260	2
	100 L/4B	3.00	253	273		260	3
MK II Kayış Tipi XPZ Belt type XPZ	80 M/4A	0.55	279	304	(dwg = 112) (i = 1) Lw 930 930 950 950 980 980 1000	289	1
	80 M/4B	0.75	279	304		289	1
	90 S/4A	1.10	289	314		299	1
	90 L/4A	1.50	289	314		299	1
	100 L/4A	2.20	299	324		314	1
	100 L/4B	3.00	299	324		314	2
	112 M/4B	4.00	311	336		324	2
MK III Kayış Tipi SPZ Belt type SPZ	90 S/4A	1.10	344	376	(dwg = 160) (i = 1) Lw 1222 1222 1250 1250 1262 1312 1312 1312	360	1
	90 L/4B	1.50	344	376		360	1
	100 L/4A	2.20	354	386		374	1
	100 L/4B	3.00	354	386		374	1
	112 M/4B	4.00	366	398		380	2
	132 S/4C	5.50	386	418		405	2
	132 M/4B	7.50	386	418		405	3
	132 M/4	9.20	386	418		405	3
MK IV Kayış Tipi XPA Belt type XPA	112 M/4B	4.00	427	467	(dwg = 200) (i = 1) Lw 1500 1550 1550 1550 1600 1600 1650 1650 1700	436	1
	132 S/4C	5.50	447	487		461	1
	132 M/4B	7.50	447	487		461	2
	132 M/4	9.20	447	487		461	2
	160 M/4B	11.0	475	515		486	2
	160 L/4A	15.0	475	515		486	3
	180 M/4B	18.5	495	535		511	3
	180 L/4B	22.0	495	535		511	4
	200 L/4C	30.0	515	555		536	4
MK V Kayış Tipi SPA Belt type SPA	200 L/4C	30.0	665	715	(dwg = 250) (i = 1) Lw 2182 2207 2207	698	4
	225 S/4A	37.0	690	740		710	4
	225 M/4C	45.0	690	740		710	5
MK V Kayış Tipi SPB Belt type SPB	250 M/4C	55.0	715	765	(dwg = 250) (i = 1) Lw 2240	727	4

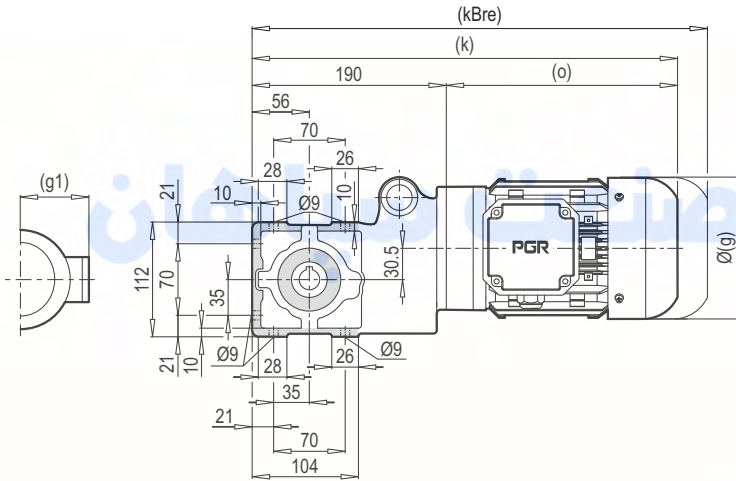
Ölçü Tabloları

Dimension Tables

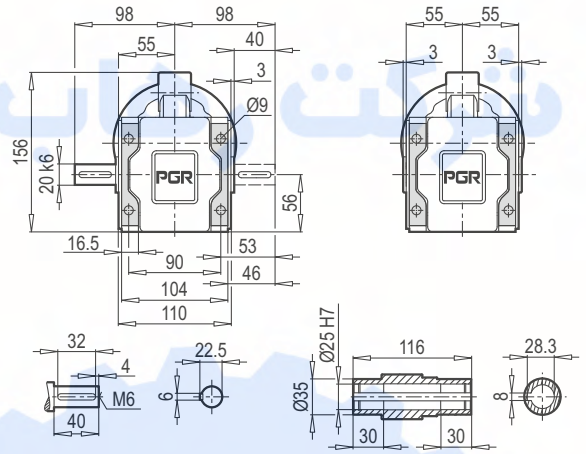


PKD...

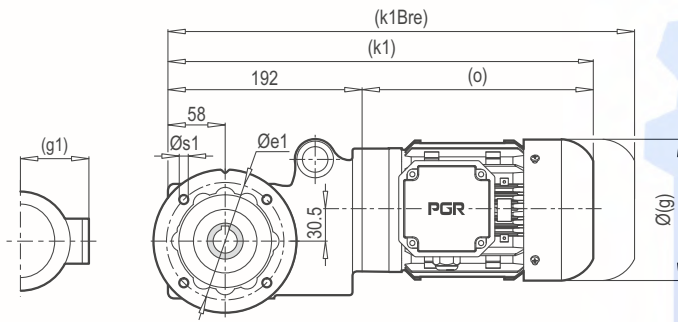
PKD A 0290 TMA



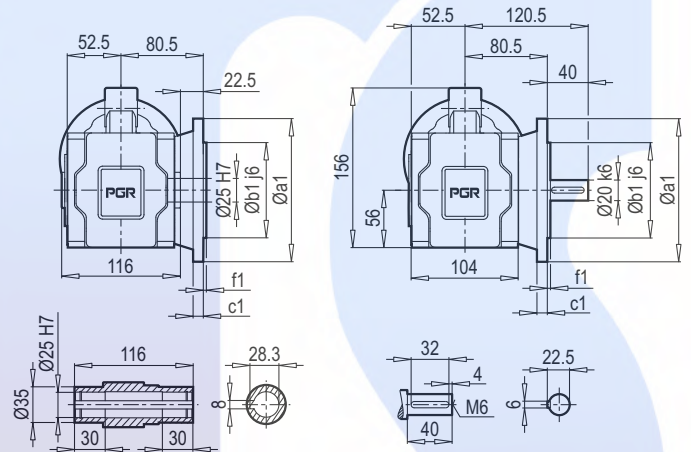
PKD A 0290 DA



PKD A 0290 DG/B5



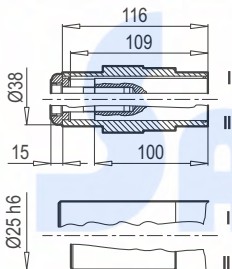
PKD A 0290 TMG/B5



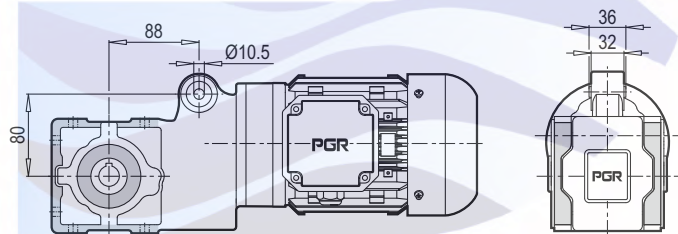
a1	b1	c1	e1	f1	s1
140	95	10	115	3	4x9

PKD A 0290 DA/Ç

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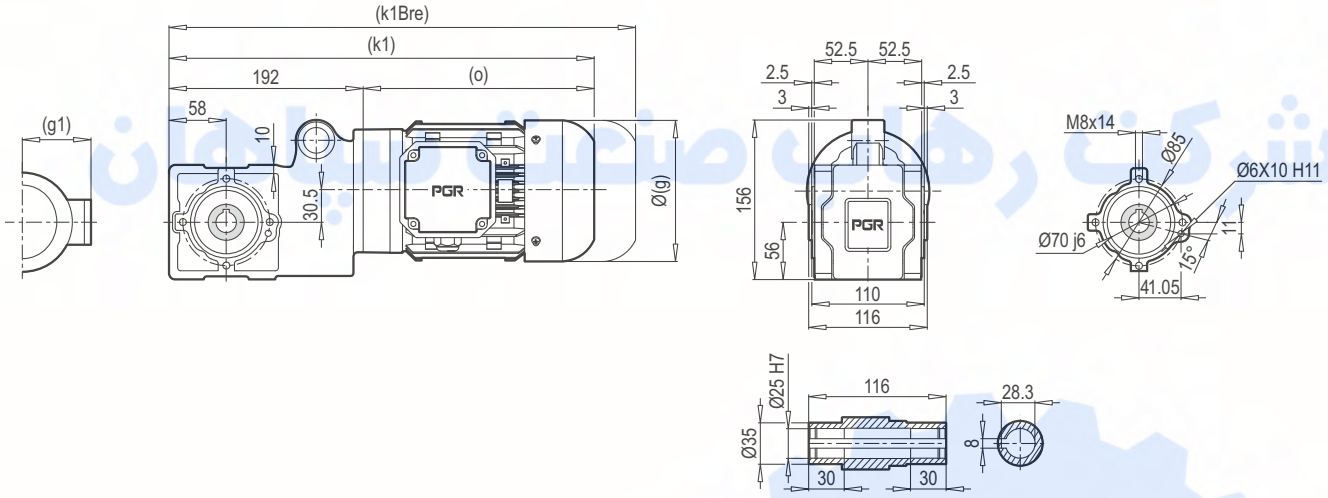
PKD A 0290 TK



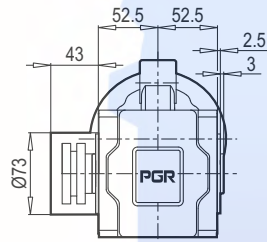
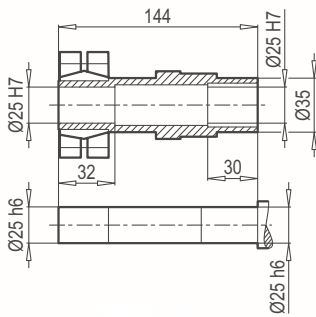
	63 M	71 M	80 M	90 S	90 L			
g	124	140	159	193	193			
g1	111	119	127	151	151			
k/ k1	388/390	417/419	444/446	470/472	490/492			
kBre/ k1Bre	440/442	477/479	506/508	543/545	563/565			
o	198	227	254	280	300			

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

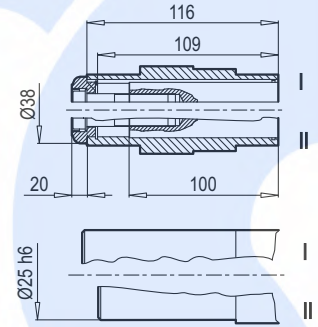
PKD A 0290 DG/B14



PKD A 0290 DG/KS



PKD A 0290 DG/Ç



66-67

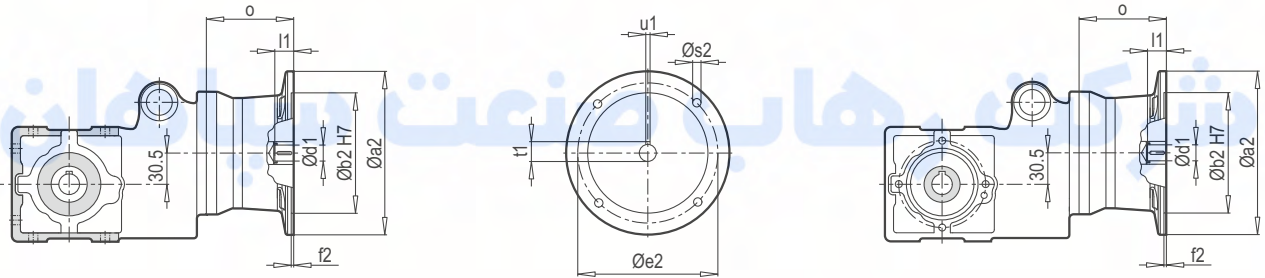
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 25/34	90	4.19	3.28	M5x25	6	7

	63 M	71 M	80 M	90 S	90 L			
g	124	140	159	193	193			
g1	111	119	127	151	151			
k1	390	419	446	472	492			
k1Bre	442	479	508	545	565			
o	198	227	254	280	300			

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD A 0290

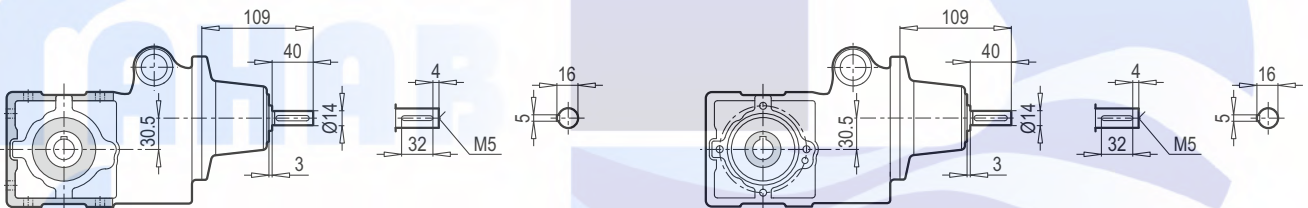
PKD A 0290 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD A 0290	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89
	80	200	130	165	4.0	M10	19	40	21.8	6	103

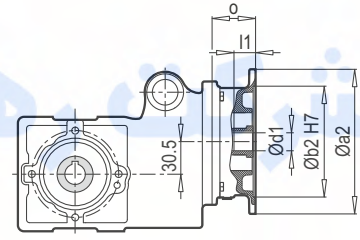
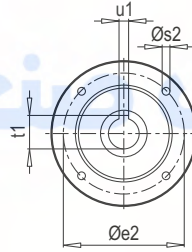
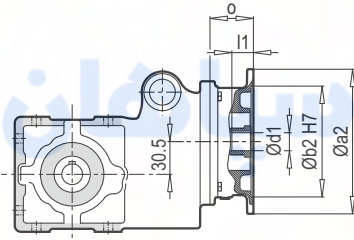
~ Kg	
IEC	PKD A 0290
63	8
71	9
80	11

PKD A 0290 TMA-W



W ~ Kg	
PKD A 0290	6

PKD A 0290 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD A 0290	63	160	110	130	4.0	M8	14	30	16.3	5	85
	71	200	130	165	4.0	M10	19	40	21.8	6	89
	80	200	130	165	4.0	M10	24	50	27.3	8	103

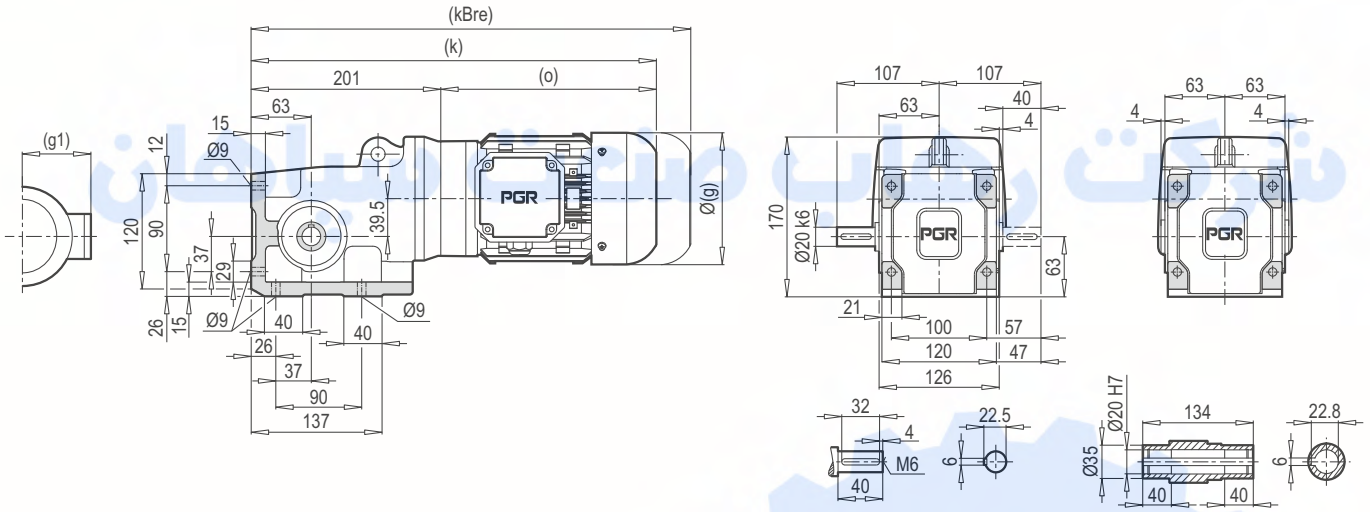
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD A 0290	63	90	60	75	4.0	6	11	23	12.8	4	85
	71	105	70	85	4.0	7	14	30	16.3	5	89
	80	120	80	100	4.0	7	19	40	21.8	6	103

~ Kg	
PAM B5	PKD A 0290
63	7
71	8
80	10

~ Kg	
PAM B14	PKD A 0290
63	7
71	8
80	10

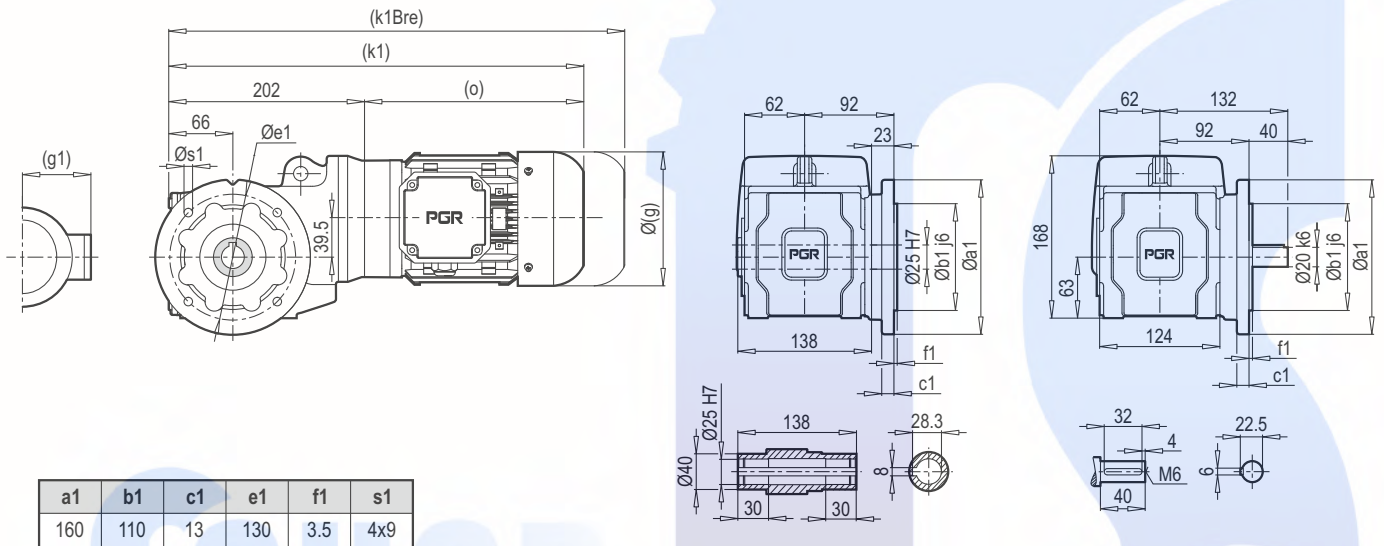
PKD B 0290 TMA

PKD B 0290 DA



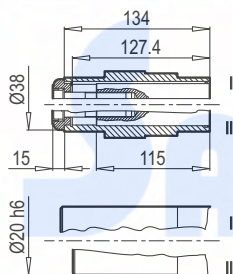
PKD B 0290 DG/B5

PKD B 0290 TMG/B5



PKD B 0290 DA/Ç

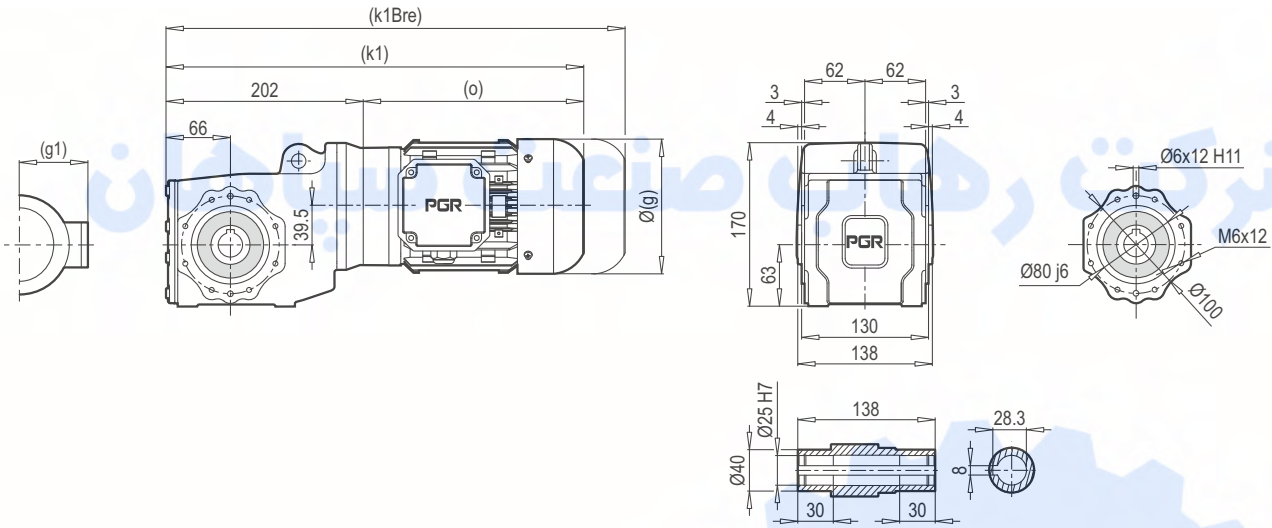
66-67



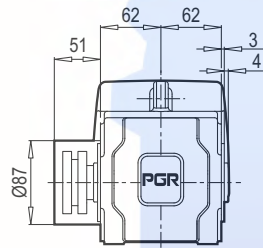
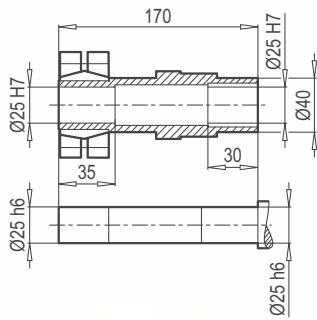
	63 M	71 M	80 M	90 S	90 L			
g	124	140	159	193	193			
g1	111	119	127	151	151			
k/ k1	399/400	428/429	455/456	481/482	501/502			
kBre/ k1Bre	451/452	488/489	517/518	554/555	574/575			
o	198	227	254	280	300			

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

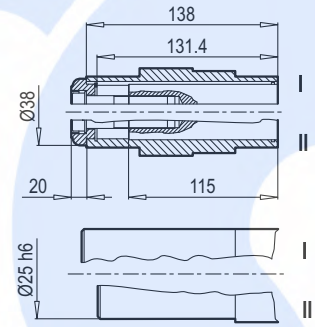
PKD B 0290 DG/B14



PKD B 0290 DG/KS



PKD B 0290 DG/Ç



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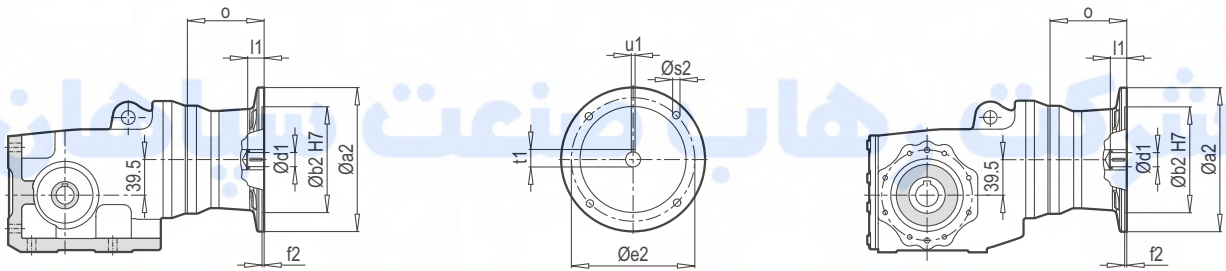
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 25/35	120	4.23	3.43	M5x25	8	7

	63 M	71 M	80 M	90 S	90 L		
g	124	140	159	193	193		
g1	111	119	127	151	151		
k1	400	429	456	482	502		
k1Bre	452	489	518	555	575		
o	198	227	254	280	300		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD B 0290

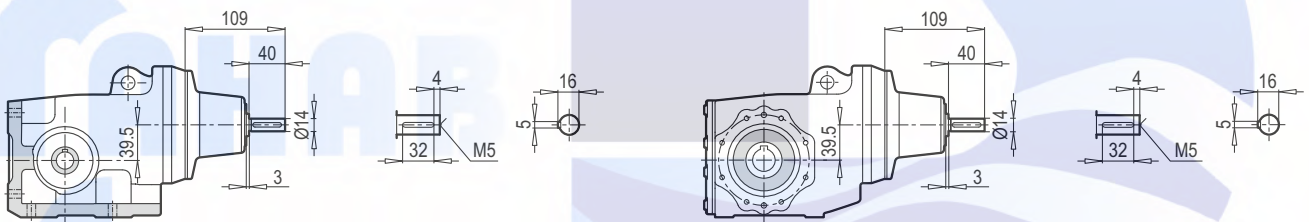
PKD B 0290 TMA-IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD B 0290	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	85
	80	200	130	165	4.0	M10	19	40	21.8	6	103
	90	200	130	165	4.0	M10	24	50	27.3	8	103

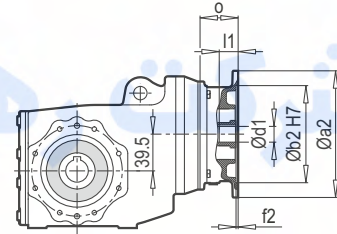
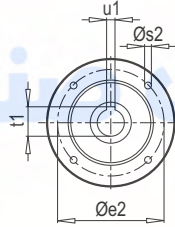
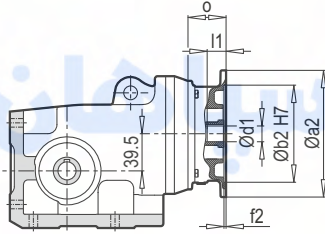
~ Kg	
IEC	PKD B 0290
63	13
71	14
80	16
90	16

PKD B 0290 TMA-W



W ~ Kg	
PKD B 0290	11

PKD B 0290 PAM B5/B14



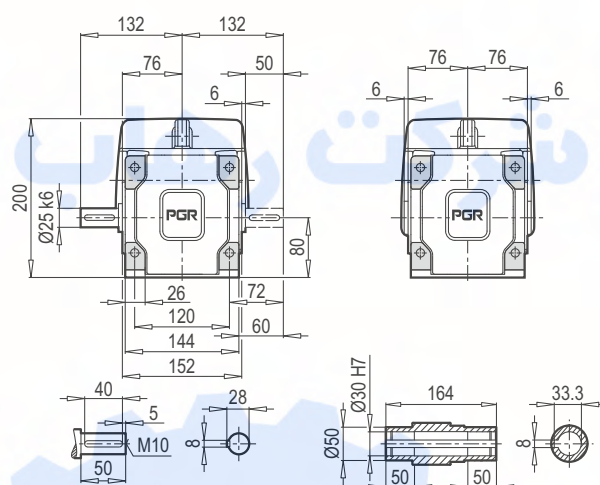
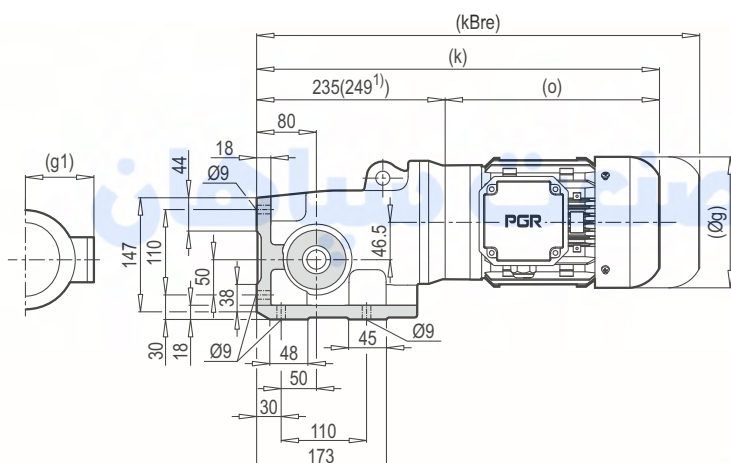
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD B 0290	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	85
	80	200	130	165	4.0	M10	19	40	21.8	6	103
	90	200	130	165	4.0	M10	24	50	27.3	8	103

~ Kg	
PAM B5	PKD B 0290
63	12
71	13
80	15
90	15

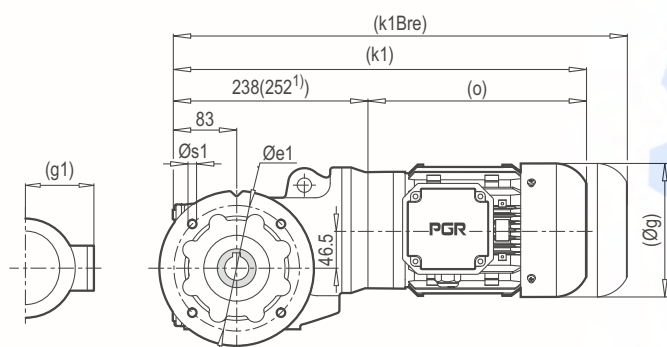
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD B 0290	63	90	60	75	4.0	6	11	23	12.8	4	85
	71	105	70	85	4.0	7	14	30	16.3	5	85
	80	120	80	100	4.0	7	19	40	21.8	6	103
	90	140	95	115	4.0	9	24	50	27.3	8	103

~ Kg	
PAM B14	PKD B 0290
63	12
71	13
80	15
90	15

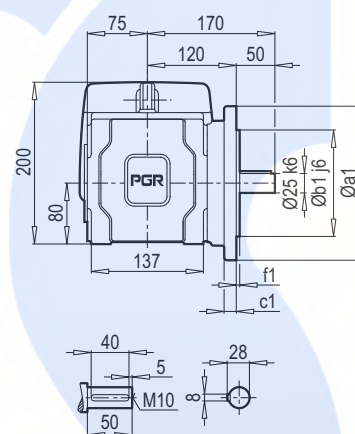
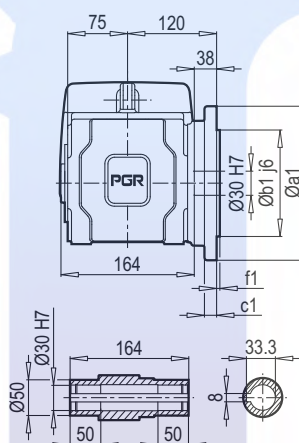
PKD C 1290 DA



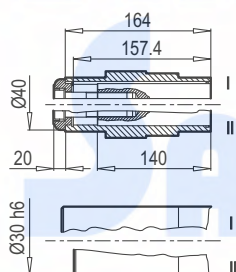
PKD C 1290 TMG/B5



a1	b1	c1	e1	f1	s1
160	110	12	130	3.5	4x9
200	130	12	165	3.5	4x11



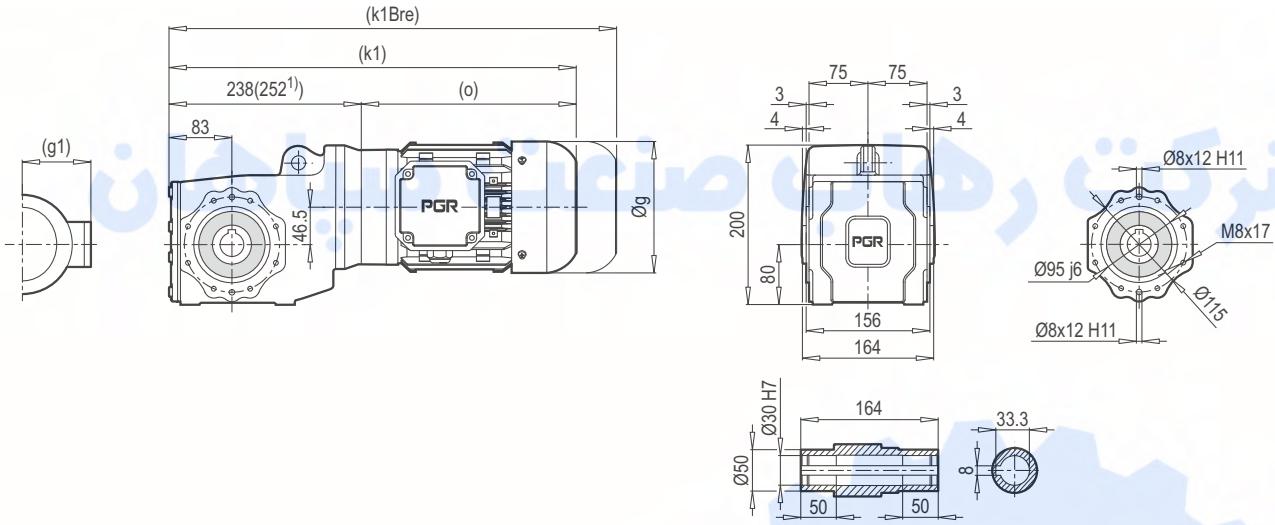
PKD C 1290 DA/Ç



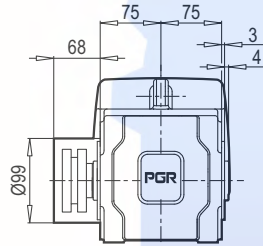
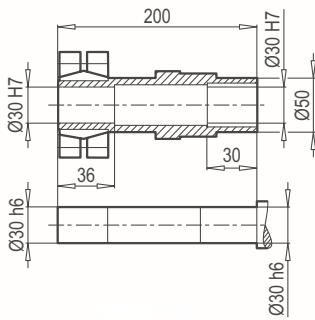
	63 M	71 M	80 M	90 S	90 L	100 L ⁽¹⁾		
g	124	140	159	193	193	217		
g ¹	111	119	127	151	151	160		
k/ k1	433/436	462/465	489/492	529/532	549/552	560/563		
kBre/ k1Bre	485/488	522/525	551/554	602/605	622/625	641/644		
o	198	227	254	280	300	311		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / **Note :** The dimensions which have (...) sign vary depending on the motor brand.

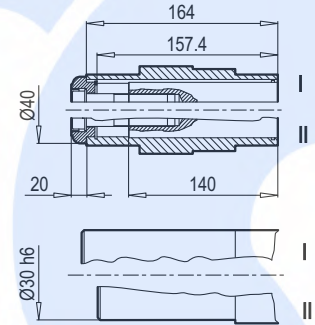
PKD C 1290 DG/B14



PKD C 1290 DG/KS



PKD C 1290 DG/Ç



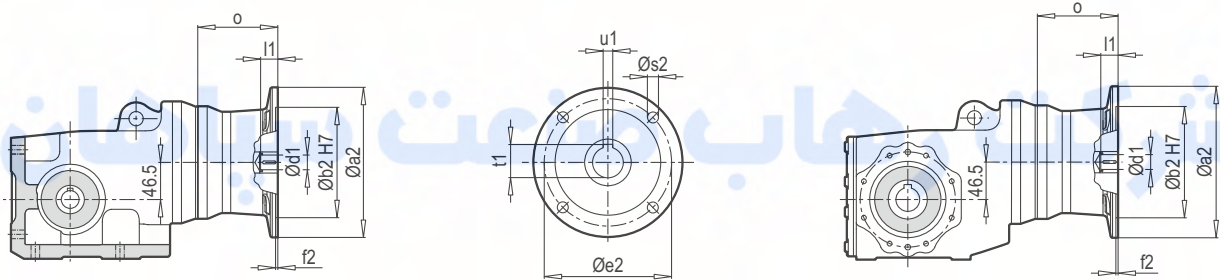
66-67

Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 30/40	230	4.26	3.73	M6x35*	8	12

	63 M	71 M	80 M	90 S	90 L	100 L (1)		
g	124	140	159	193	193	217		
g1	111	119	127	151	151	160		
k1	436	465	492	532	552	563		
k1Bre	488	525	554	605	625	644		
o	198	227	254	280	300	311		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

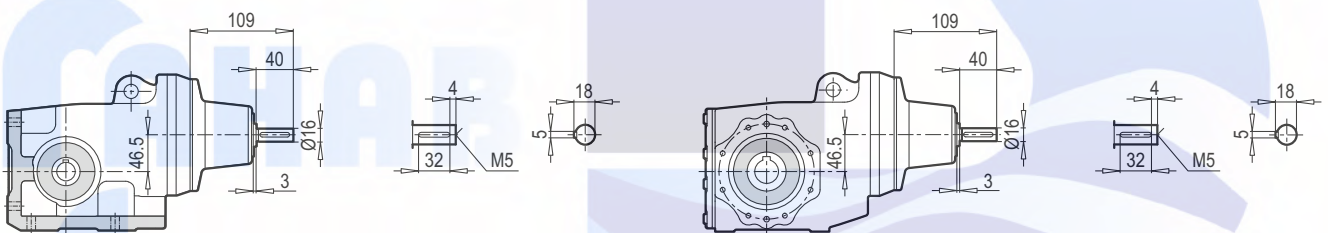
PKD C 1290 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD C 1290	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	85
	80	200	130	165	4.0	M10	19	40	21.8	6	103
	90	200	130	165	4.0	M10	24	50	27.3	8	103
	100	250	180	215	5.0	M12	28	60	31.3	8	126

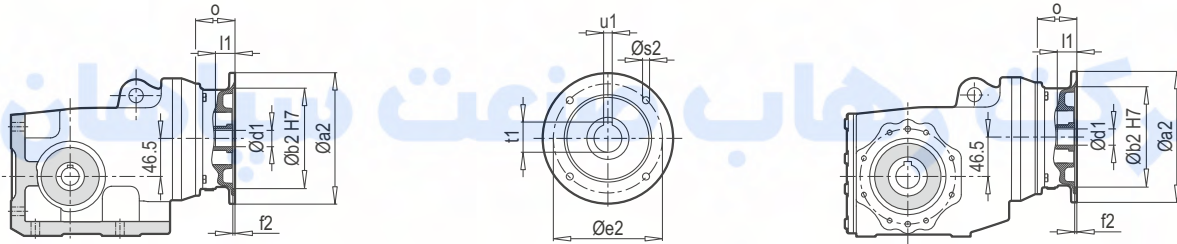
~ Kg	
IEC	PKD C 1290
63	19
71	20
80	22
90	22
100	27

PKD C 1290 TMA-W



W ~ Kg	
PKD C 1290	18

PKD C 1290 PAM B5/B14



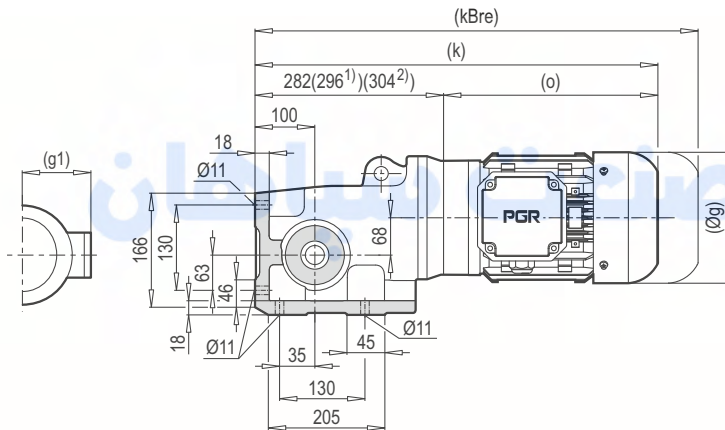
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD C 1290	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	85
	80	200	130	165	4.0	M10	19	40	21.8	6	103
	90	200	130	165	4.0	M10	24	50	27.3	8	103
	100	250	180	215	5.0	M12	28	60	31.3	8	126

~ kg	
PAM B5	PKD C 1290
63	18
71	19
80	21
90	21
100	26

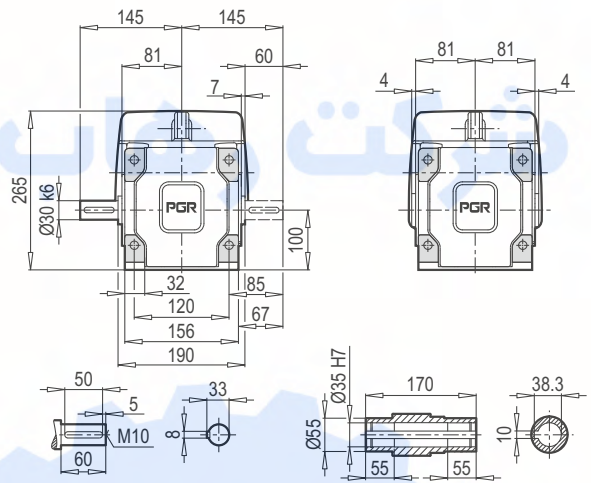
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD C 1290	63	90	60	75	4.0	6	11	23	12.8	4	85
	71	105	70	85	4.0	7	14	30	16.3	5	85
	80	120	80	100	4.0	7	19	40	21.8	6	103
	90	140	95	115	4.0	9	24	50	27.3	8	103
	100	160	110	130	5.0	9	28	60	31.3	8	126

~ kg	
PAM B14	PKD C 1290
63	18
71	19
80	21
90	21
100	26

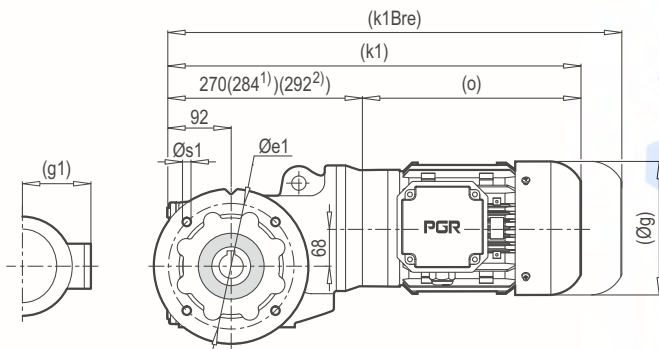
PKD F 4290 TMA



PKD F 4290 DA

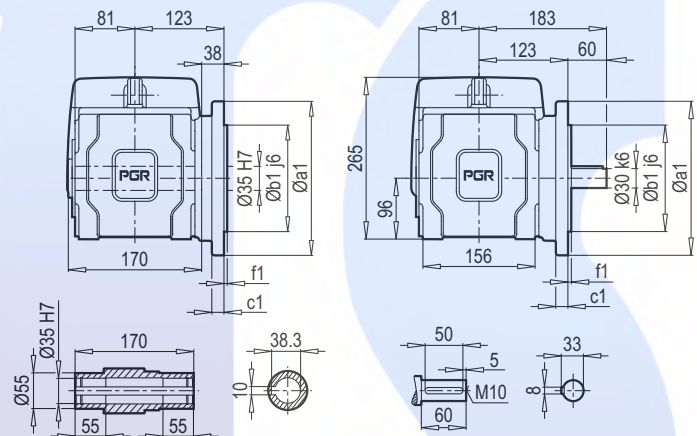
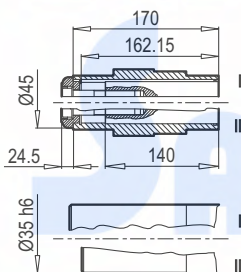


PKD F 4290 DG/B5



a1	b1	c1	e1	f1	s1
160	110	12	130	3.5	4x9
200	130	12	165	3.5	4x11

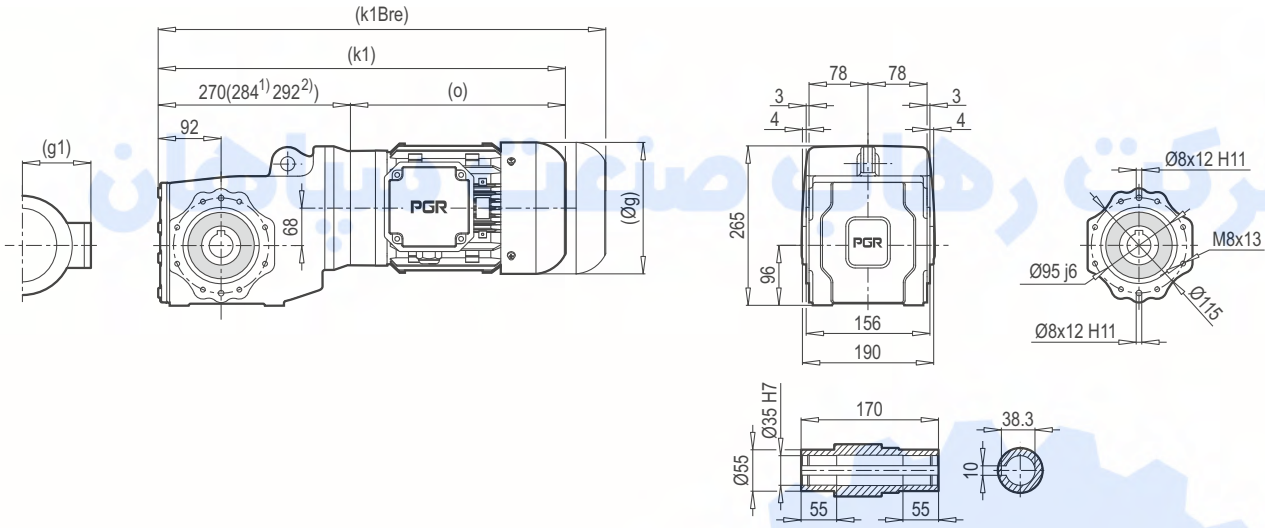
PKD F 4290 TMG/B5

PKD F 4290 DA/Ç₃

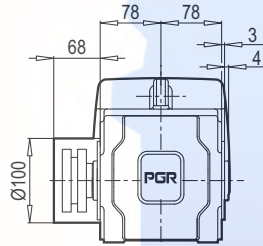
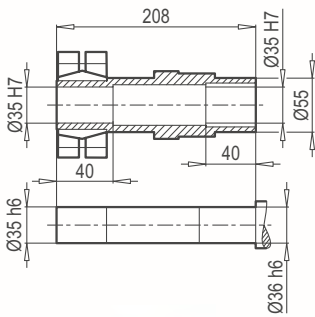
	63 M	71 M	80 M	90 S	90 L	100 L ⁽¹⁾	112 M ⁽²⁾	132 S ⁽²⁾	132 M ⁽²⁾
g	124	140	159	193	193	217	232	279	279
g ¹	111	119	127	151	151	160	168	182	182
k/ k1	480/468	509/497	536/524	576/564	596/584	607/595	672/660	677/665	712/700
kBre/ k1Bre	532/520	569/557	598/586	649/637	669/657	688/676	752/740	785/773	853/841
o	198	227	254	280	300	311	368	373	408

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / **Note :** The dimensions which have (...) sign vary depending on the motor brand.

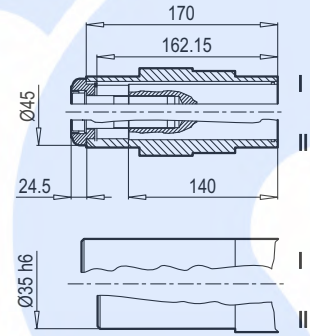
PKD F 4290 DG/B14



PKD F 4290 DG/KS



PKD F 4290 DG/Ç



66-67

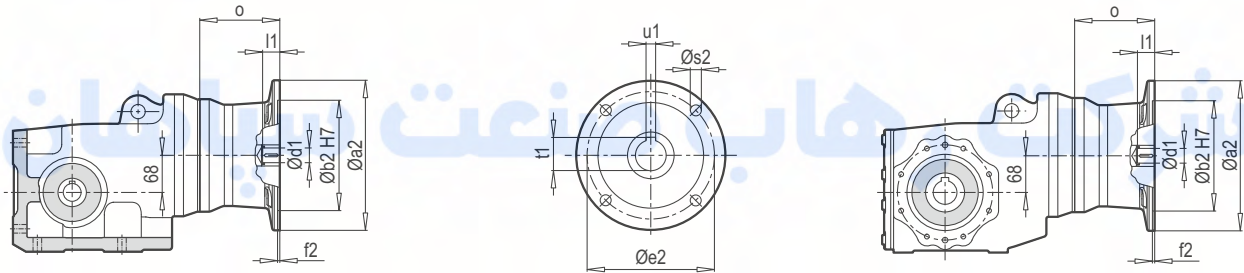
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 35/46	380	3.77	3.27	M6x35*	10	12

	63 M	71 M	80 M	90 S	90 L	100 L ⁽¹⁾	112 M ⁽²⁾	132 S ⁽²⁾	132 M ⁽²⁾
g	124	140	159	193	193	217	232	279	279
g1	111	119	127	151	151	160	168	182	182
k1	468	497	524	564	584	595	660	665	700
k1Bre	520	557	586	637	657	676	740	773	841
o	198	227	254	280	300	311	368	373	408

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD F 4290

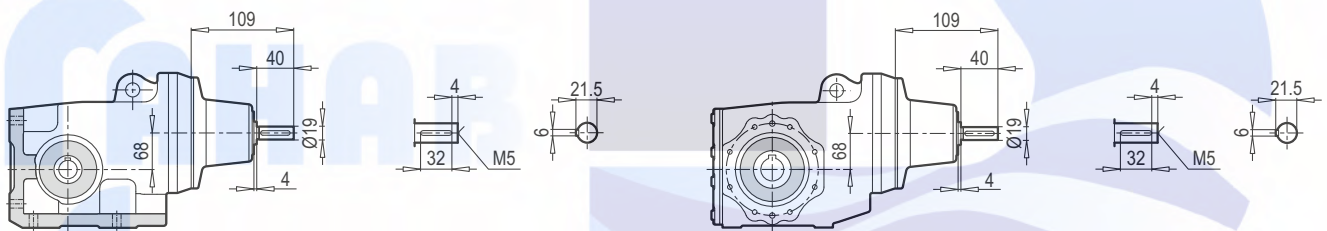
PKD F 4290 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD F 4290	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	85
	80	200	130	165	4.0	M10	19	40	21.8	6	103
	90	200	130	165	4.0	M10	24	50	27.3	8	103
	100	250	180	215	5.0	M12	28	60	31.3	8	126
	112	250	180	215	5.0	M12	28	60	31.3	8	126
	132	300	230	265	5.0	M12	38	80	41.3	10	175

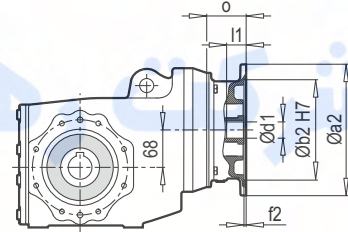
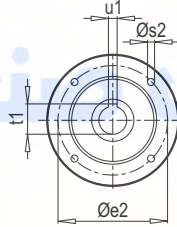
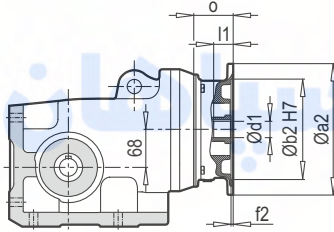
~ Kg	
IEC	PKD F 4290
63	36
71	37
80	39
90	39
100	44
112	44
132	51

PKD F 4290 W



W ~ Kg	
PKD F 4290	35.5

PKD F 4290 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD F 4290	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	85
	80	200	130	165	4.0	M10	19	40	21.8	6	103
	90	200	130	165	4.0	M10	24	50	27.3	8	103
	100	250	180	215	5.0	M12	28	60	31.3	8	126
	112	250	180	215	5.0	M12	28	60	31.3	8	126
	132	300	230	265	5.0	M12	38	80	41.3	10	175

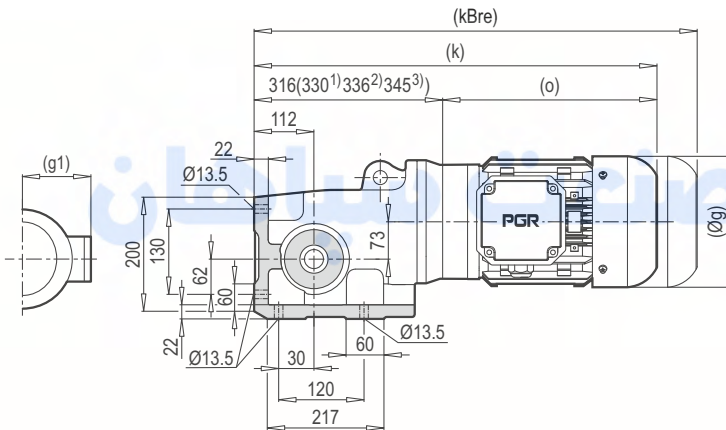
~ Kg	
PAM B5	PKD F 4290
63	35
71	36
80	38
90	38
100	43
112	43
132	50

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD F 4290	63	90	60	75	4.0	6	11	23	12.8	4	85
	71	105	70	85	4.0	7	14	30	16.3	5	85
	80	120	80	100	4.0	7	19	40	21.8	6	103
	90	140	95	115	4.0	9	24	50	27.3	8	103
	100	160	110	130	5.0	9	28	60	31.3	8	126
	112	160	110	130	5.0	9	28	60	31.3	8	126
	132	200	130	165	5.0	11	38	80	41.3	10	175

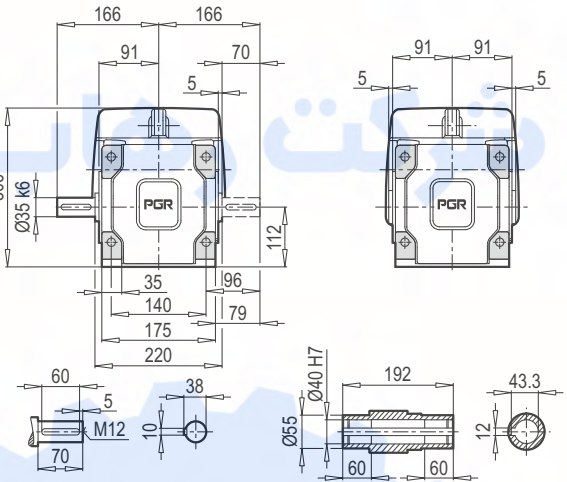
~ Kg	
PAM B14	PKD F 4290
63	34
71	35
80	37
90	37
100	42
112	42
132	49

PKD H 5290

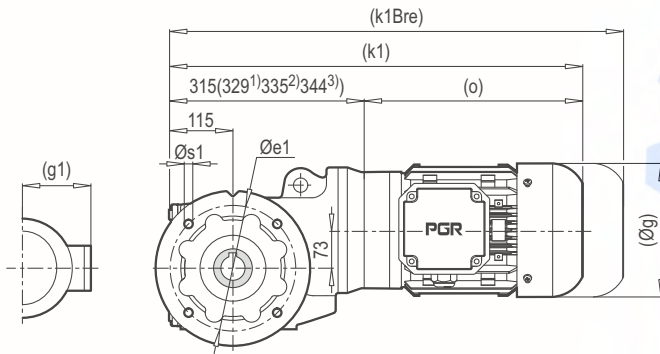
PKD H 5290 TMA



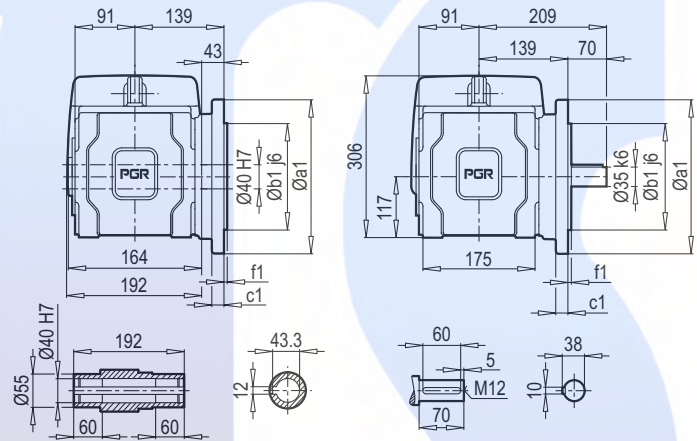
PKD H 5290 DA



PKD H 5290 DG/B5



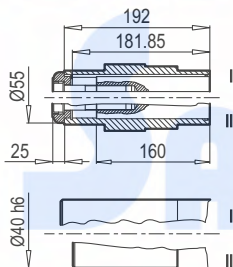
PKD H 5290 TMG/B5



a1	b1	c1	e1	f1	s1
250	180	16	215	4	4x13.5

PKD H 5290 DA/Ç

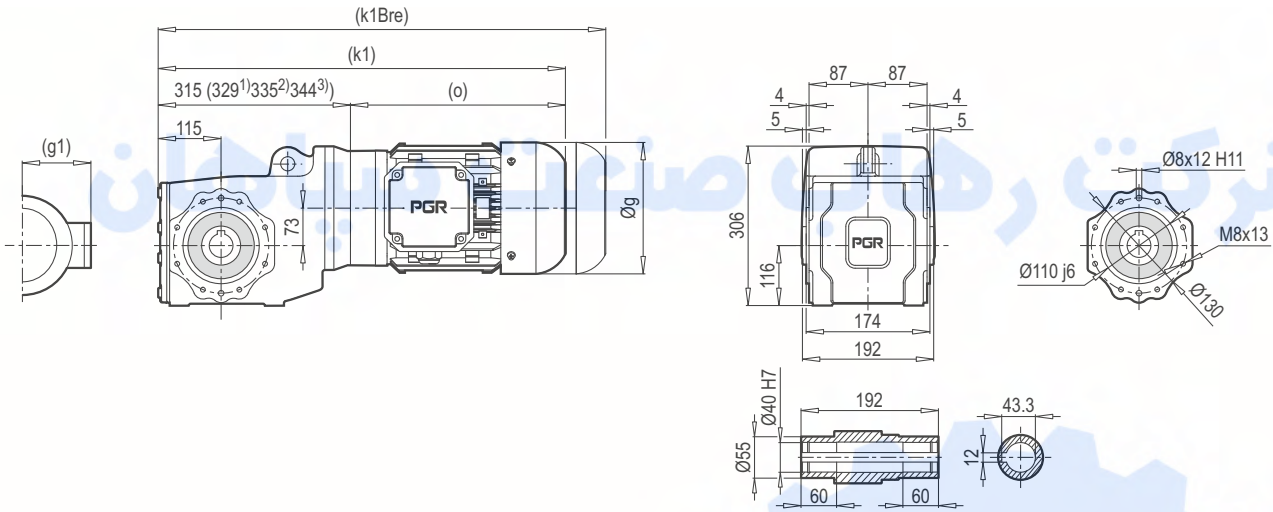
66-67



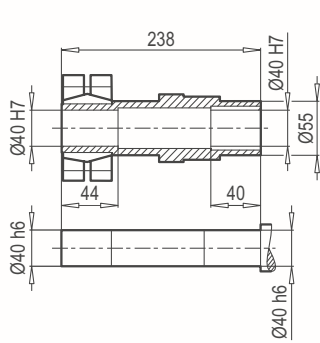
	80 M	90 S	90 L	100 L ⁽¹⁾	112 M ⁽²⁾	132 S ⁽³⁾	132 M ⁽³⁾
g	159	193	193	217	232	279	279
g1	127	151	151	160	168	182	182
k/ k1	570/569	610/609	630/629	641/640	706/705	718/717	753/752
kBre/ k1Bre	632/631	683/682	703/702	722/721	786/785	826/825	894/893
o	254	280	300	311	368	373	408

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

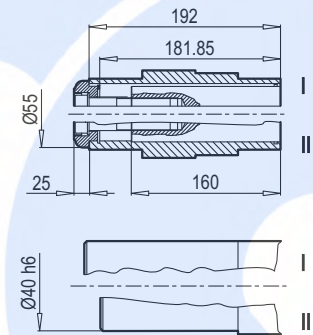
PKD H 5290 DG/B14



PKD H 5290 DG/KS



PKD H 5290 DG/Ç



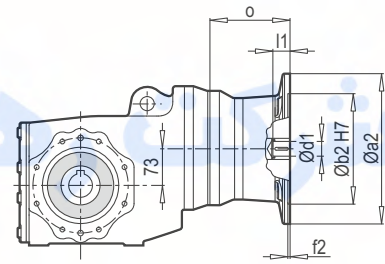
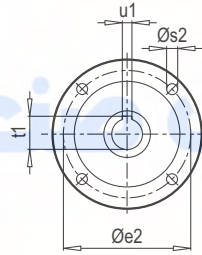
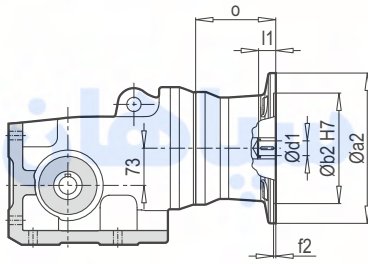
66-67

Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 40/55	660	3.53	3.09	M8x40	8	30

	80 M	90 S	90 L	100 L ⁽¹⁾	112 M ⁽²⁾	132 S ⁽³⁾	132 M ⁽³⁾	
g	159	193	193	217	232	279	279	
g1	127	151	151	160	168	182	182	
k1	569	609	629	640	705	717	752	
k1Bre	631	682	702	721	785	825	893	
o	254	280	300	311	368	373	408	

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

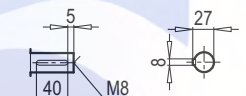
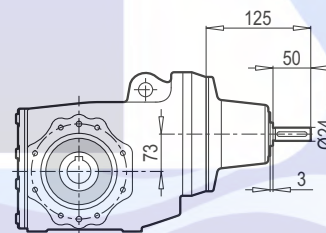
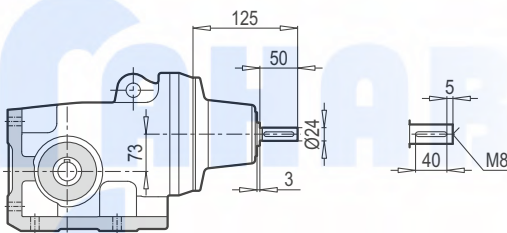
PKD H 5290 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD H 5290	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89
	80	200	130	165	4.0	M10	19	40	21.8	6	103
	90	200	130	165	4.0	M10	24	50	27.3	8	103
	100	250	180	215	5.0	M12	28	60	31.3	8	126
	112	250	180	215	5.0	M12	28	60	31.3	8	126
	132	300	230	265	5.0	M12	38	80	41.3	10	175

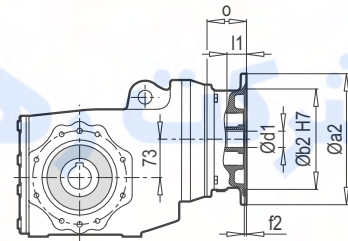
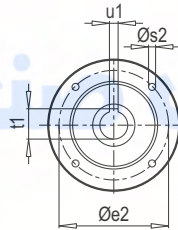
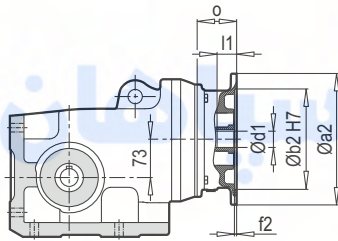
~ Kg	
IEC	PKD H 5290
63	45
71	46
80	48
90	48
100	53
112	53
132	60

PKD H 5290 W



W ~ Kg	
PKD H 5290	46

PKD H 5290 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD H 5290	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89
	80	200	130	165	4.0	M10	19	40	21.8	6	103
	90	200	130	165	4.0	M10	24	50	27.3	8	103
	100	250	180	215	5.0	M12	28	60	31.3	8	126
	112	250	180	215	5.0	M12	28	60	31.3	8	126
	132	300	230	265	5.0	M12	38	80	41.3	10	175

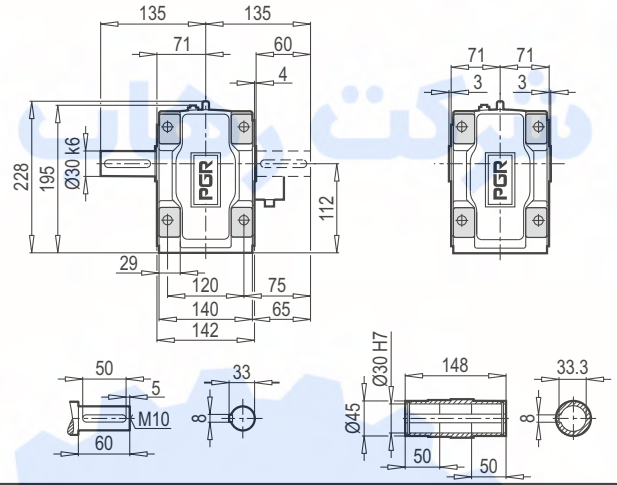
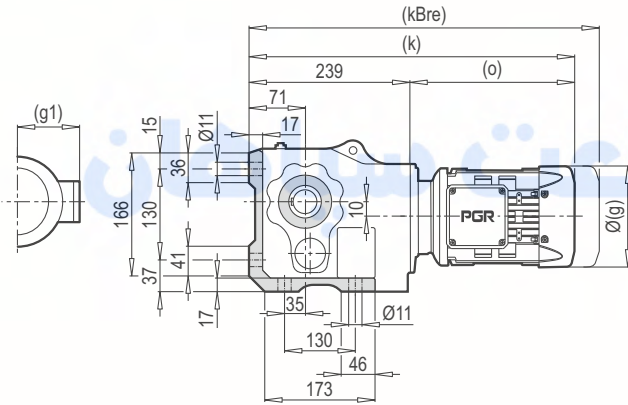
~ Kg	
PAM B5	PKD H 5290
63	44
71	45
80	47
90	47
100	52
112	52
132	59

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD H 5290	63	90	60	75	4.0	6	11	23	12.8	4	85
	71	105	70	85	4.0	7	14	30	16.3	5	89
	80	120	80	100	4.0	7	19	40	21.8	6	103
	90	140	95	115	4.0	9	24	50	27.3	8	103
	100	160	110	130	5.0	9	28	60	31.3	8	126
	112	160	110	130	5.0	9	28	60	31.3	8	126
	132	200	130	165	5.0	11	38	80	41.3	10	175

~ Kg	
PAM B14	PKD H 5290
63	43
71	44
80	46
90	46
100	51
112	51
132	58

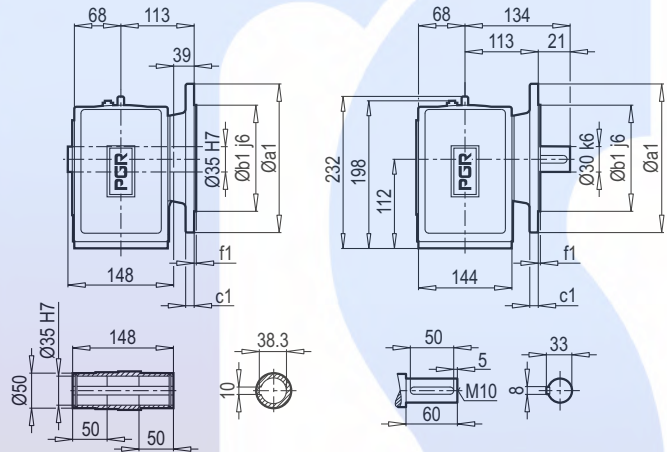
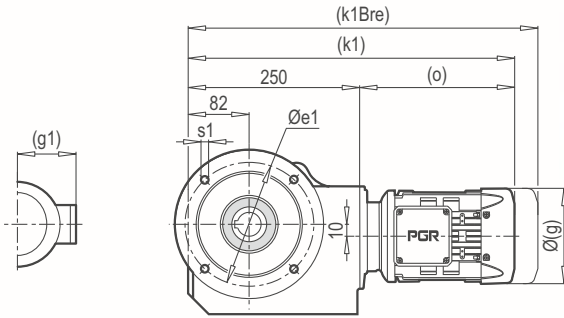
PKD 1390 TMA

PKD 1390 DA



PKD 1390 DG/B5

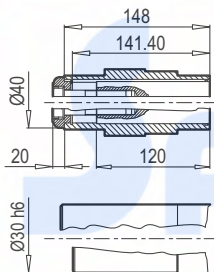
PKD 1390 TMG/B5



a1	b1	c1	e1	f1	s1
200	130	12	165	3.5	4x11

PKD 1390 DA/Ç

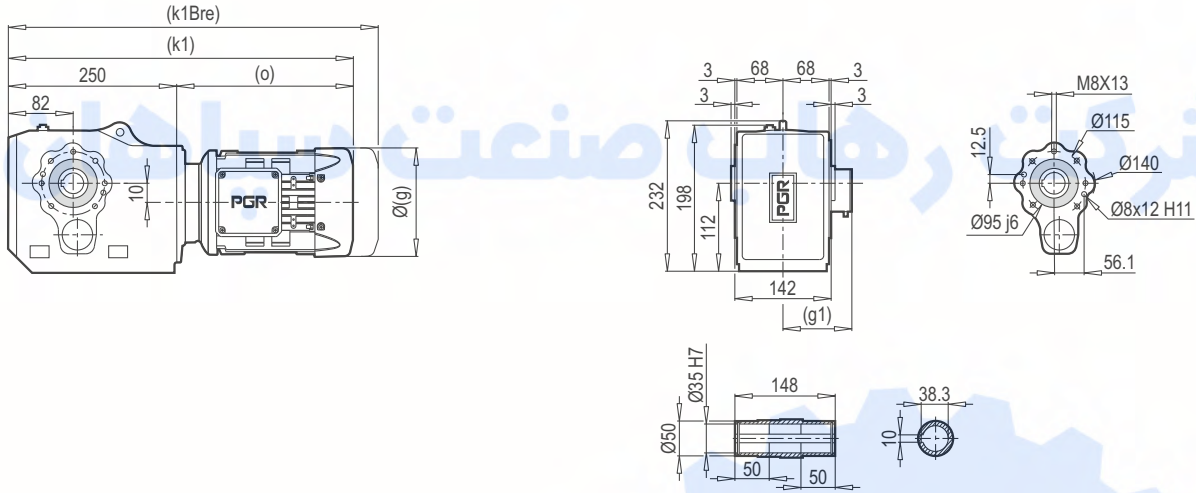
66-67



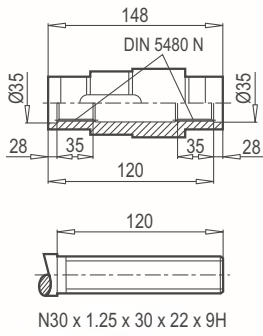
	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	124	140	159	193	217	232		
g1	111	119	127	151	160	168		
k	437	479	506	529/549	577	622		
kBre	489	539	568	602/622	658	702		
o	198	240	267	290/310	338	383		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

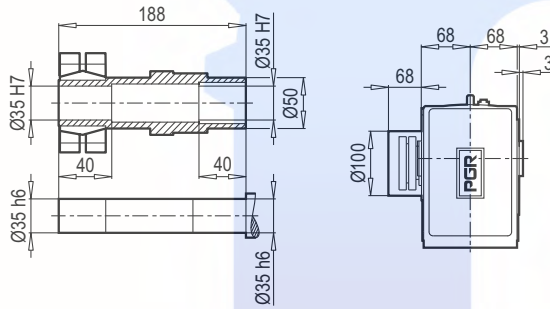
PKD 1390 DG/B14



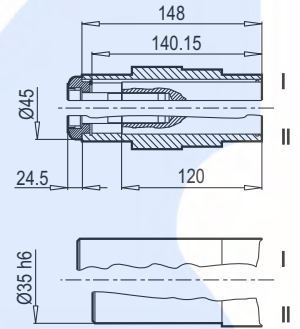
PKD 1390 DG/DIN 5480



PKD 1390 DG/KS



PKD 1390 DG/Ç



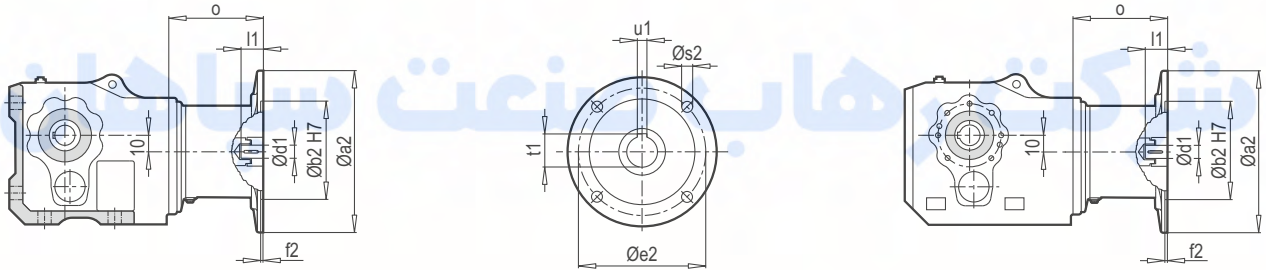
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	d _{xl}	Zs	MA (Nm)
KS 35/46	400	3.58	3.11	M6x35*	10	12

	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	124	140	159	193	217	232		
g1	111	119	127	151	160	168		
k1	448	490	517	540/560	588	633		
k1Bre	500	550	579	613/633	669	713		
o	198	240	267	290/310	338	383		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 1390

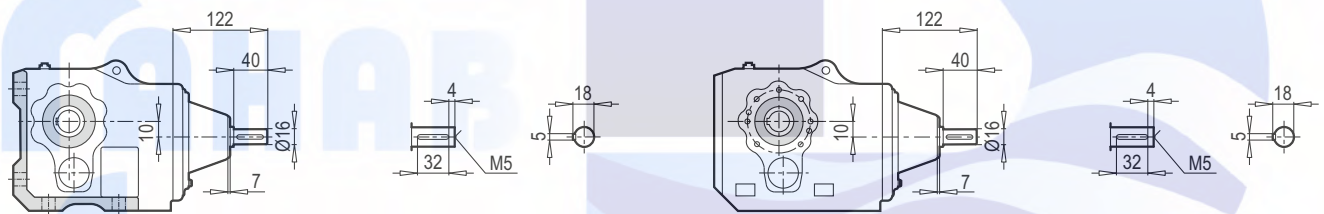
PKD 1390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 1390	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89
	80	200	130	165	4.0	M10	19	40	21.8	6	105
	90	200	130	165	4.0	M10	24	50	27.3	8	105
	100	250	180	215	5.0	M12	28	60	31.3	8	130
	112	250	180	215	5.0	M12	28	60	31.3	8	130

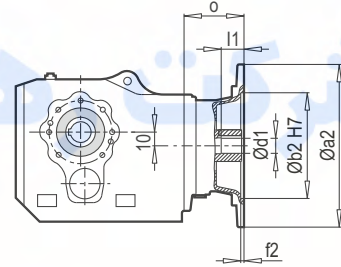
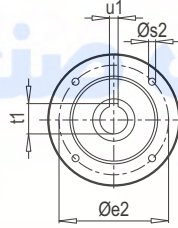
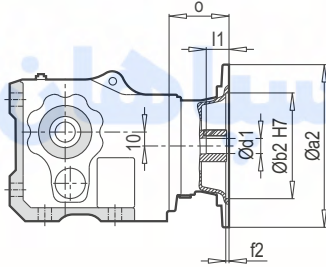
~ Kg	
IEC	PKD 1390
63	36
71	37
80	41
90	41
100	48
112	48

PKD 1390 W



W ~ Kg	
PKD 1390	35

PKD 1390 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 1390	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	55
	80	200	130	165	4.0	M10	19	40	21.8	6	74
	90	200	130	165	4.0	M10	24	50	27.3	8	74
	100	250	180	215	5.0	M12	28	60	31.3	8	131.5
	112	250	180	215	5.0	M12	28	60	31.3	8	131.5

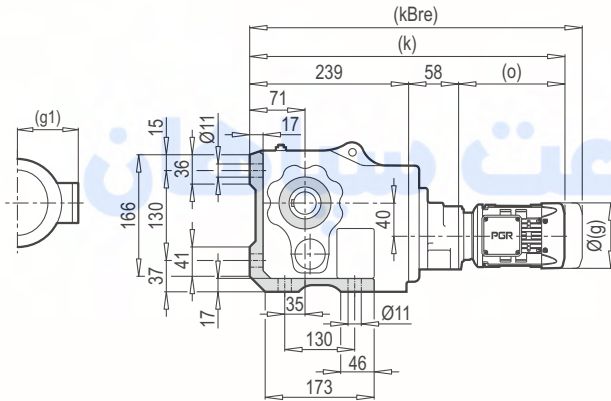
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 1390	63	90	60	75	4.0	6	11	23	12.8	4	60
	71	105	70	85	4.0	7	14	30	16.3	5	55
	80	120	80	100	4.0	7	19	40	21.8	6	74
	90	140	95	115	4.0	9	24	50	27.3	8	74
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	11	28	60	31.3	8	75

~ Kg	
PAM B5	PKD 1390
63	34
71	34
80	35
90	35
100	42
112	42

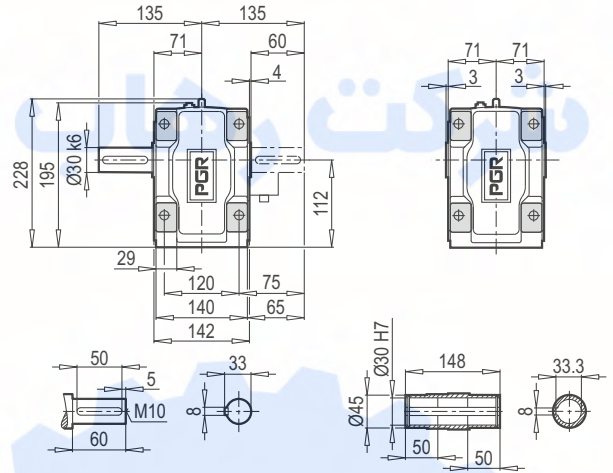
~ Kg	
PAM B14	PKD 1390
63	33
71	33
80	34
90	34
100	35
112	35

PKD 1490

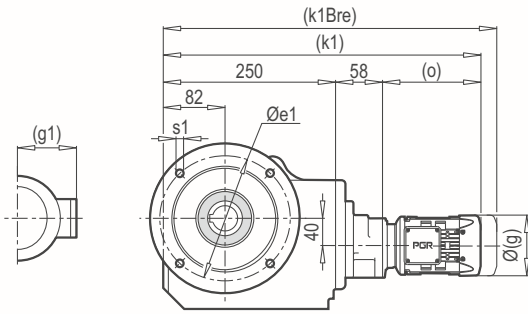
PKD 1490 TMA



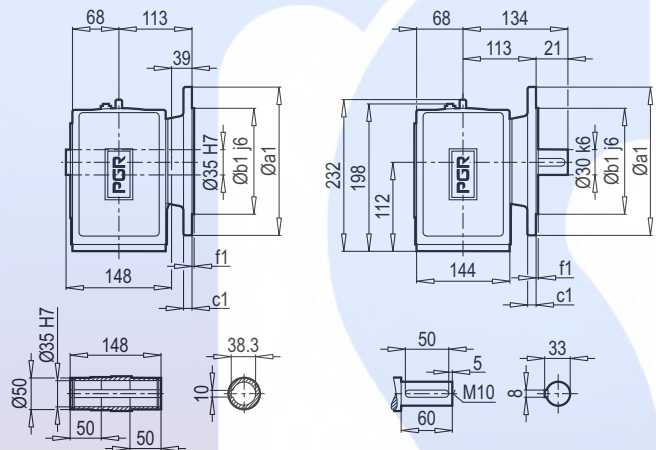
PKD 1490 DA



PKD 1490 DG/B5



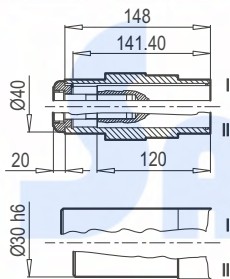
PKD 1490 TMG/B5



a1	b1	c1	e1	f1	s1
200	130	12	165	3.5	4x11

PKD 1490 DA/Ç

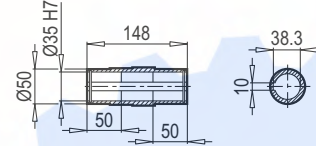
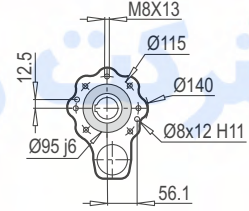
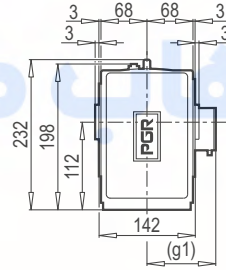
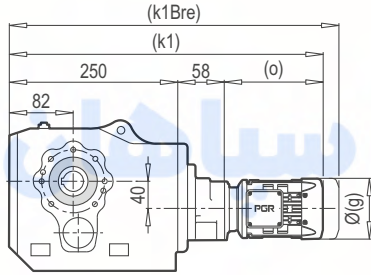
66-67



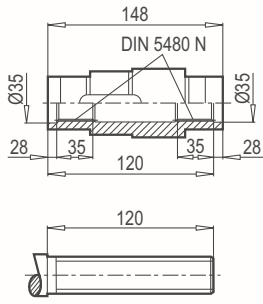
	63 M	71 M					
g	124	140					
g1	111	119					
k	495	537					
kBre	547	597					
o	198	240					

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 1490 DG/B14

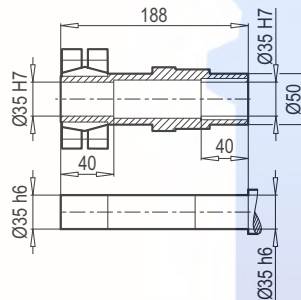


PKD 1490 DG/DIN 5480

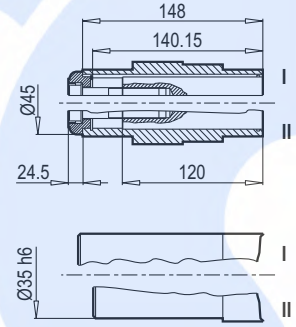


N30 x 1.25 x 30 x 22 x 9H

PKD 1490 DG/KS



PKD 1490 DG/Ç



66-67

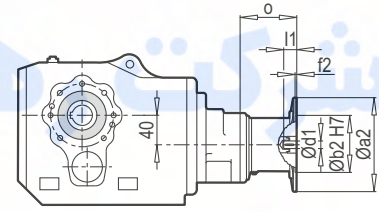
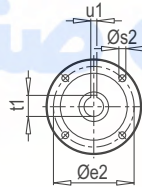
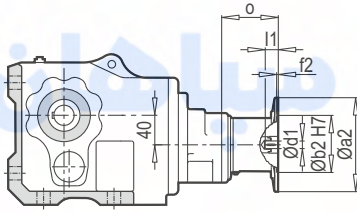
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	DIN 931 / DIN 933* 10.9Vz		
				d _{xl}	Zs	MA (Nm)
KS 35/46	400	3.58	3.11	M6x35*	10	12

	63 M	71 M					
g	124	140					
g1	111	119					
k1	506	548					
k1Bre	558	608					
o	198	240					

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 1490

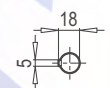
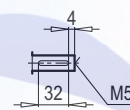
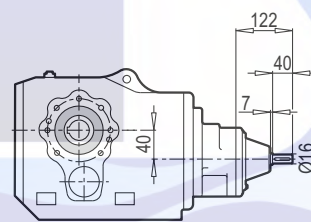
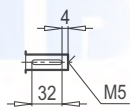
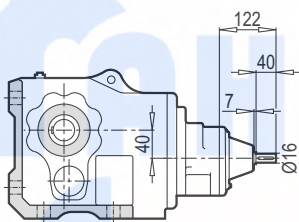
PKD 1490 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 1490	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89

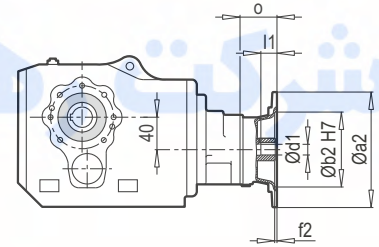
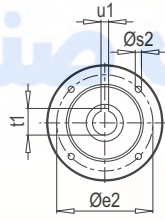
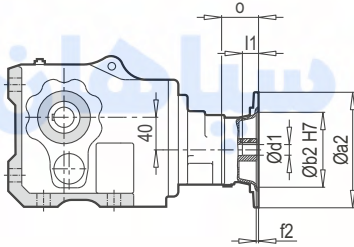
~ Kg	
IEC	PKD 1490
63	36
71	37

PKD 1490 W



W ~ Kg	
PKD 1490	41

PKD 1490 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 1490	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	55

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 1490	63	90	60	75	4.0	6	11	23	12.8	4	60
	71	105	70	85	4.0	7	14	30	16.3	5	55

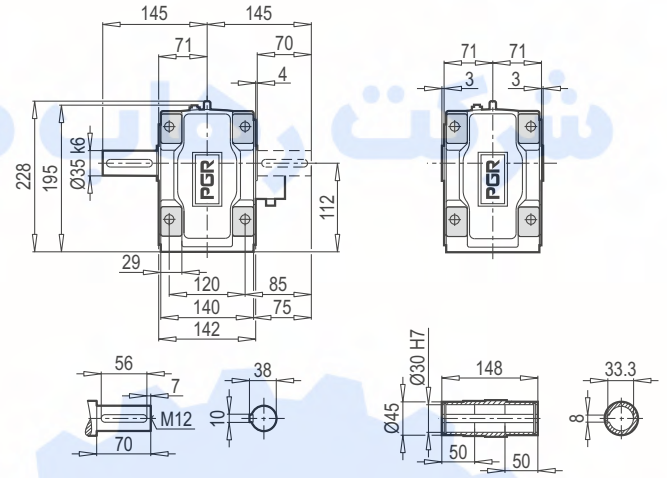
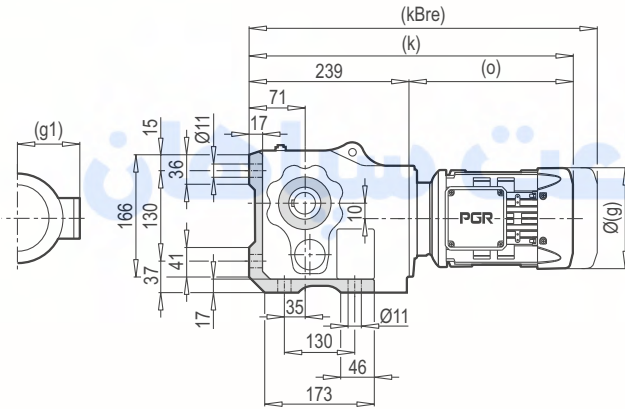
~ kg	
PAM B5	PKD 1490
63	39
71	39

~ kg	
PAM B14	PKD 1490
63	38
71	38

PKD G 1390

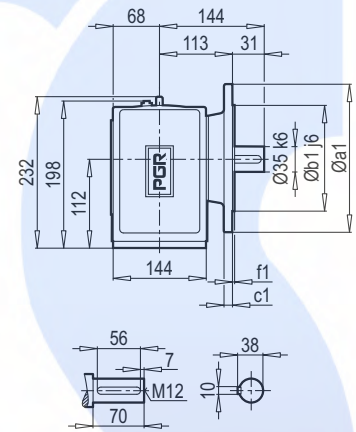
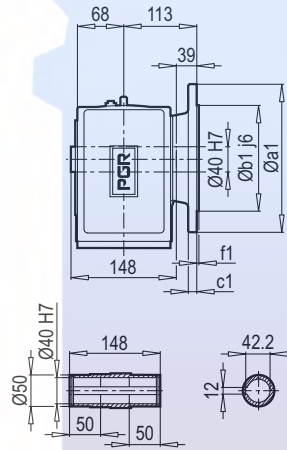
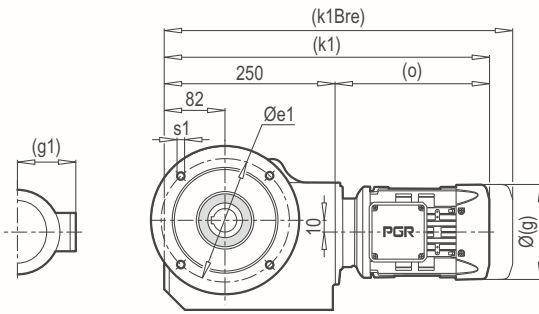
PKD G 1390 TMA

PKD G 1390 DA



PKD G 1390 DG/B5

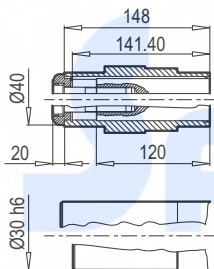
PKD G 1390 TMG/B5



a1	b1	c1	e1	f1	s1
200	130	12	165	3.5	4x11

PKD G 1390 DA/Ç

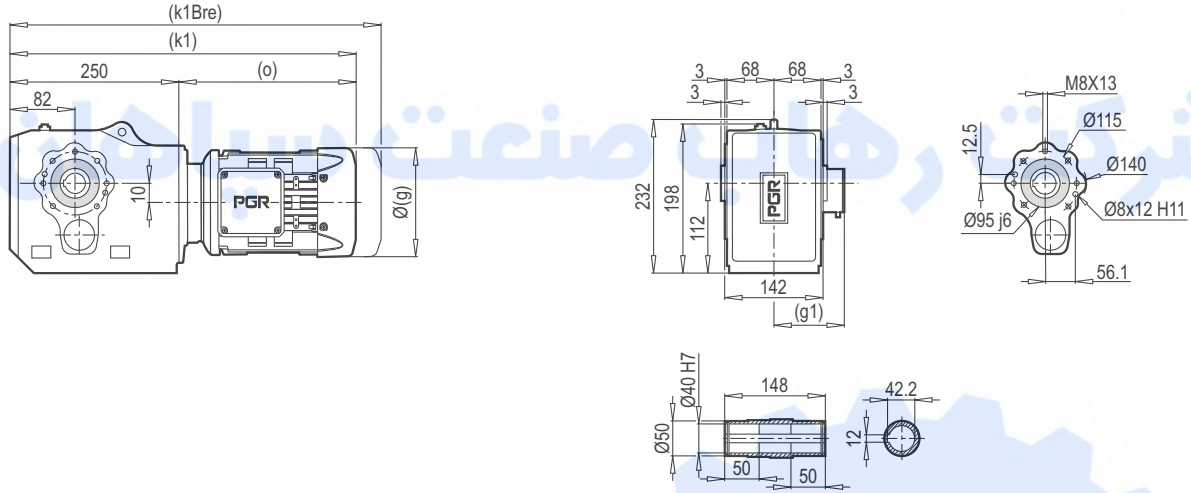
66-67



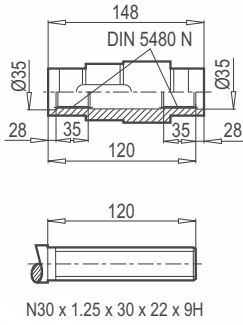
	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	124	140	159	193	217	232		
g1	111	119	127	151	160	168		
k	437	479	506	529/549	577	622		
kBre	489	539	568	602/622	658	702		
o	198	240	267	290/310	338	383		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

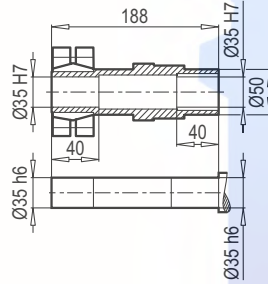
PKD G 1390 DG/B14



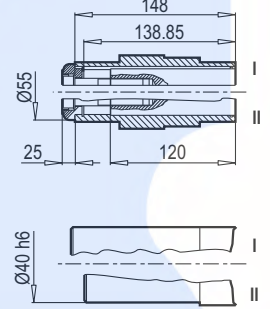
PKD G 1390 DG/DIN 5480



PKD G 1390 DG/KS



PKD G 1390 DG/Ç



66-67

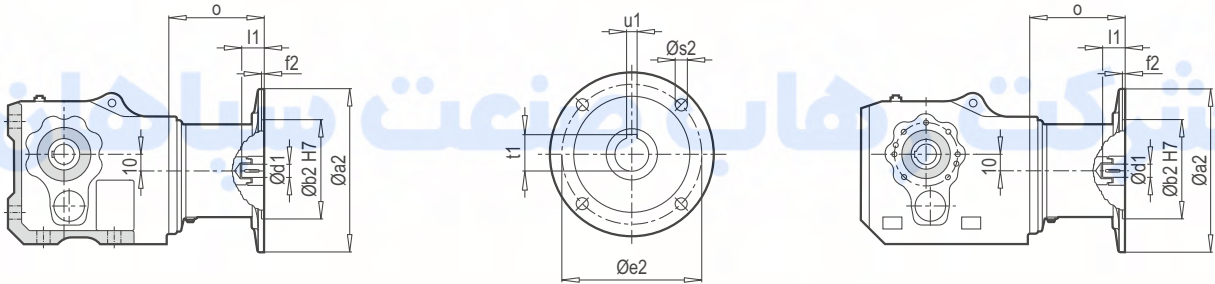
Konik sıkırtırma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s _{h6}	s _{f6}	dxl	Zs	MA (Nm)
KS 35/46	400	3.58	3.11	M6x35*	10	12

	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	124	140	159	193	217	232		
g1	111	119	127	151	160	168		
k1	448	490	517	540/560	588	633		
k1Bre	500	550	579	613/633	669	713		
o	198	240	267	290/310	338	383		

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD G 1390

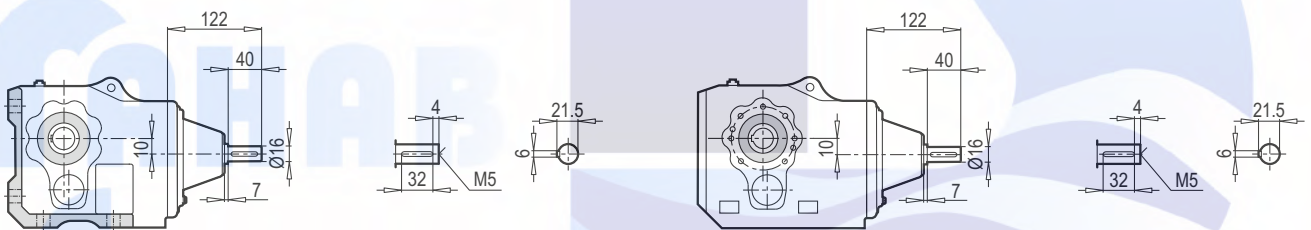
PKD G 1390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 1390	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89
	80	200	130	165	4.0	M10	19	40	21.8	6	105
	90	200	130	165	4.0	M10	24	50	27.3	8	105
	100	250	180	215	5.0	M12	28	60	31.3	8	130
	112	250	180	215	5.0	M12	28	60	31.3	8	130

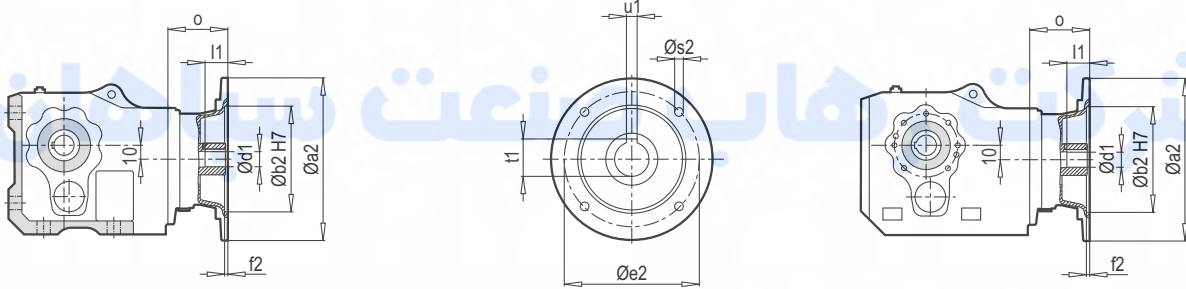
~ Kg	
IEC	PKD G 1390
63	36
71	37
80	41
90	41
100	48
112	48

PKD G 1390 W



W ~ Kg	
PKD G 1390	41

PKD G 1390 PAM B5/B14



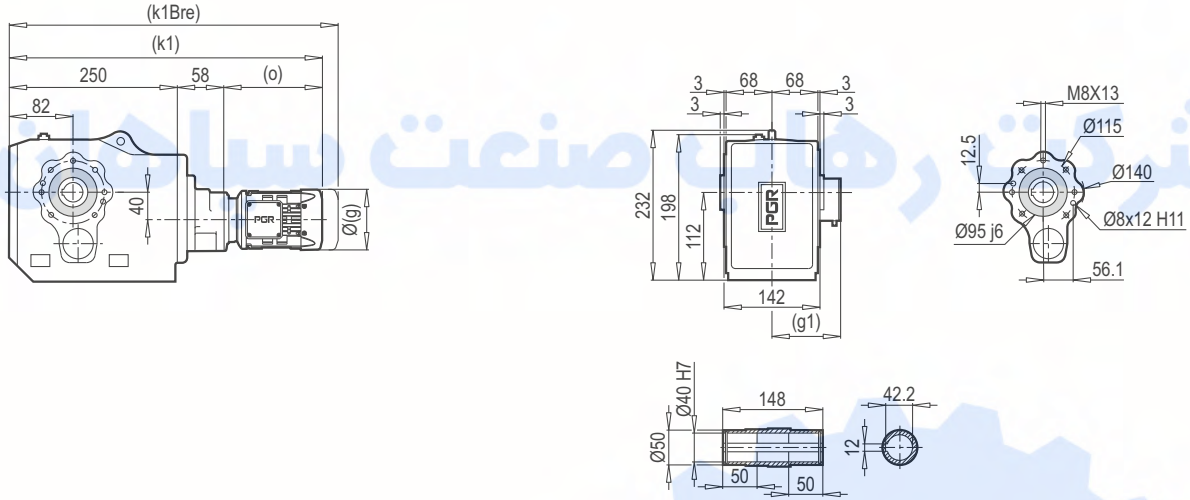
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 1390	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	55
	80	200	130	165	4.0	M10	19	40	21.8	6	74
	90	200	130	165	4.0	M10	24	50	27.3	8	74
	100	250	180	215	5.0	M12	28	60	31.3	8	131.5
	112	250	180	215	5.0	M12	28	60	31.3	8	131.5

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 1390	63	90	60	75	4.0	6	11	23	12.8	4	60
	71	105	70	85	4.0	7	14	30	16.3	5	55
	80	120	80	100	4.0	7	19	40	21.8	6	74
	90	140	95	115	4.0	9	24	50	27.3	8	74
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75

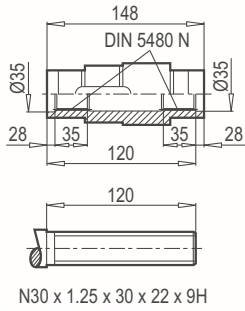
~ Kg	
PAM B5	PKD G 1390
63	35
71	35
80	36
90	36
100	43
112	43

~ Kg	
PAM B14	PKD G 1390
63	34
71	34
80	35
90	35
100	36
112	36

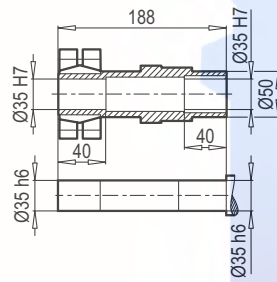
PKD G 1490 DG/B14



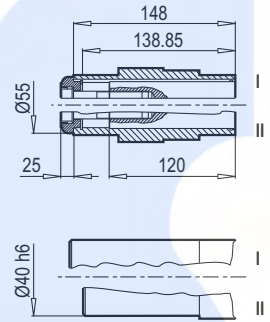
PKD G 1490 DG/DIN 5480



PKD G 1490 DG/KS



PKD G 1490 DG/Ç



66-67

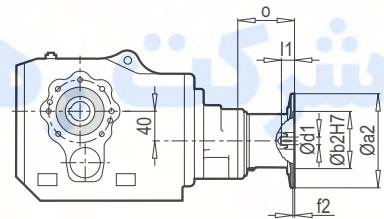
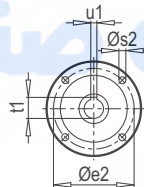
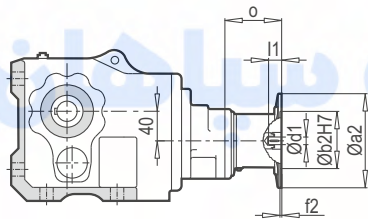
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s _{h6}	s _{f6}	d _{xl}	Zs	MA (Nm)
KS 35/46	400	3.58	3.11	M6x35*	10	12

	63 M	71 M					
g	124	140					
g1	111	119					
k1	506	548					
k1Bre	558	608					
o	198	240					

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD G 1490

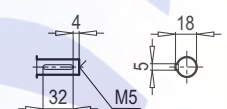
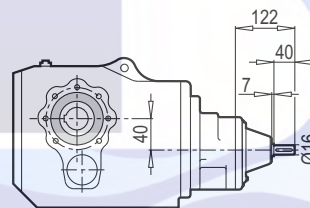
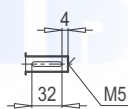
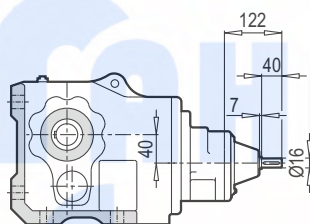
PKD G 1490 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 1490	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89

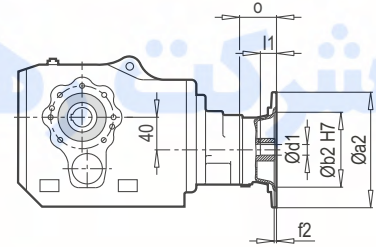
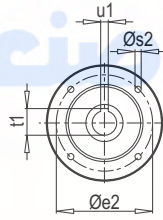
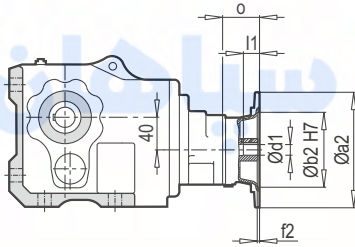
~ Kg	
IEC	PKD G 1490
63	36
71	37

PKD G 1490 W



W ~ Kg	
PKD G 1490	42

PKD G 1490 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 1490	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	55

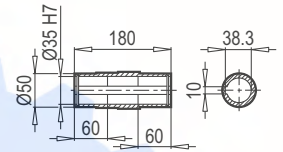
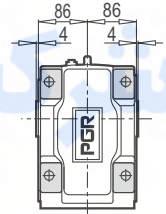
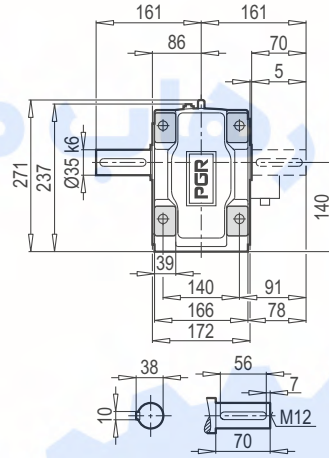
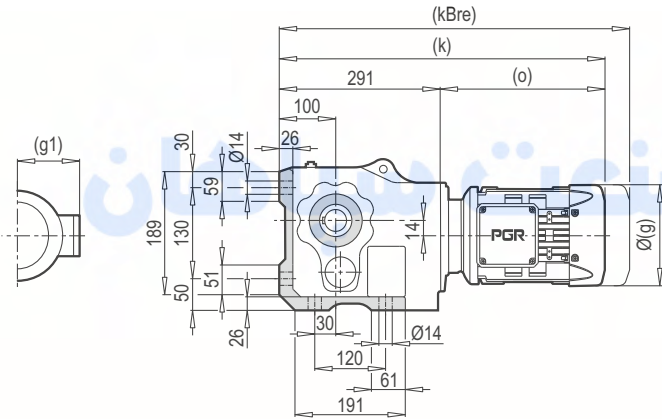
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 1490	63	90	60	75	4.0	6	11	23	12.8	4	60
	71	105	70	85	4.0	7	14	30	16.3	5	55

~ kg	
PAM B5	PKD G 1490
63	40
71	40

~ kg	
PAM B14	PKD G 1490
63	39
71	39

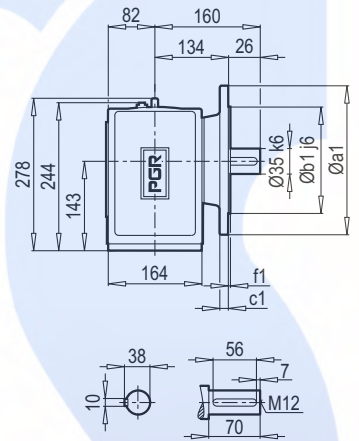
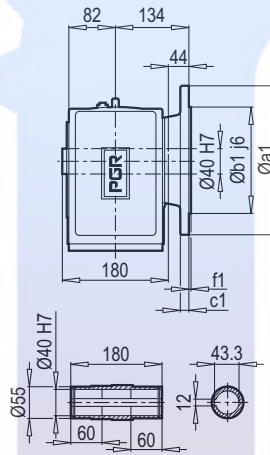
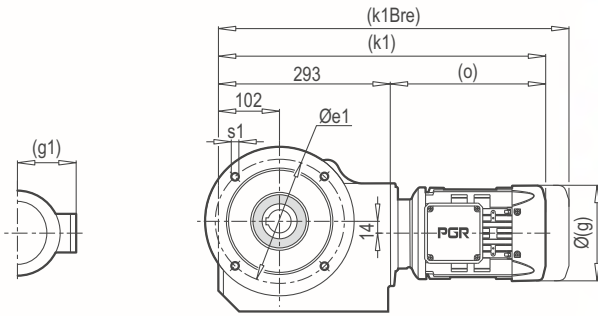
PKD 2390 TMA

PKD 2390 DA



PKD 2390 DG/B5

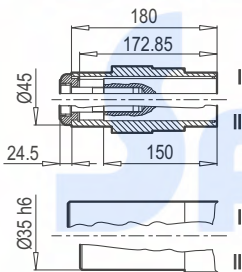
PKD 2390 TMG/B5



a1	b1	c1	e1	f1	s1
250	180	16	215	4	4x14

PKD 2390 DA/Ç

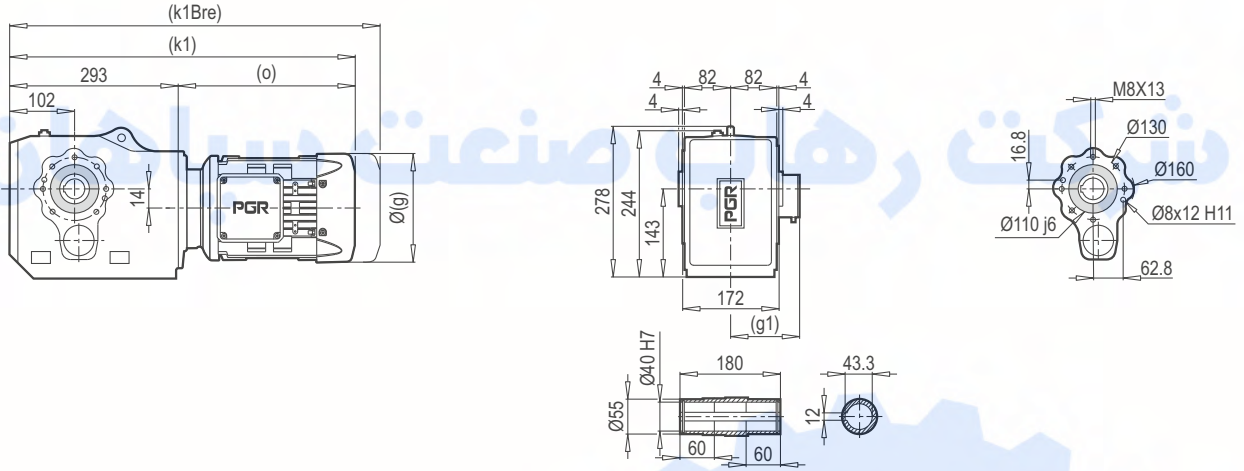
66-67



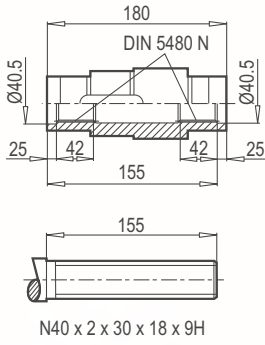
	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	124	140	159	193	217	232		
g1	111	119	127	151	160	168		
k	489	531	558	581/601	629	674		
kBre	541	591	620	654/674	710	754		
o	198	240	267	290/310	338	383		

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

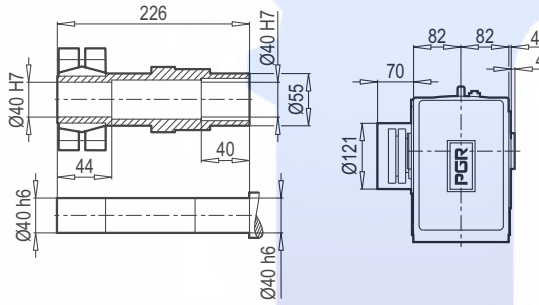
PKD 2390 DG/B14



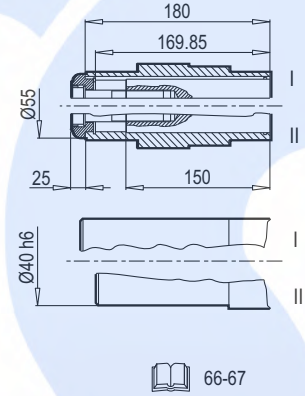
PKD 2390 DG/DIN 5480



PKD 2390 DG/KS



PKD 2390 DG/Ç



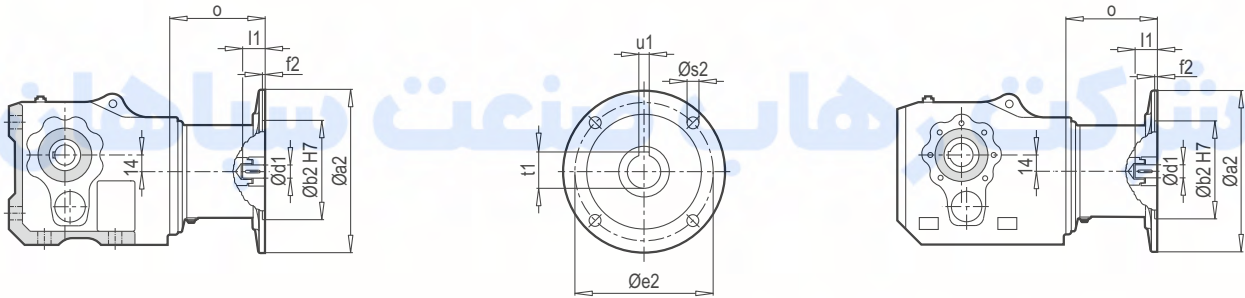
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 40/55	860	2.71	2.37	M8x40	8	30

	63 M	71 M	80 M	90 S/L	100 L	112 M		
g	124	140	159	193	217	232		
g1	111	119	127	151	160	168		
k1	491	533	560	583/603	631	676		
k1Bre	543	593	622	656/676	712	756		
o	198	240	267	290/310	338	383		

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 2390

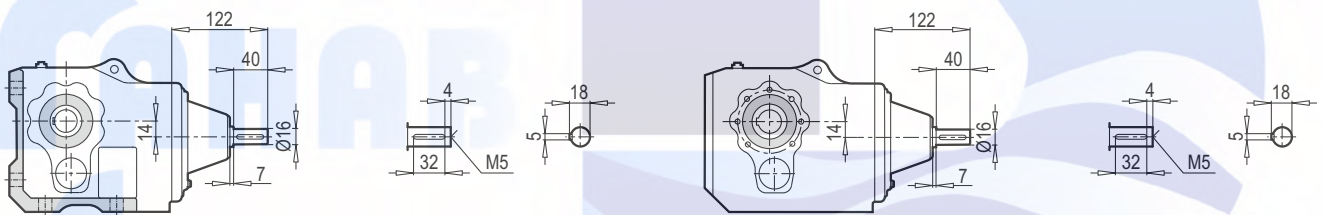
PKD 2390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 2390	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89
	80	200	130	165	4.0	M10	19	40	21.8	6	105
	90	200	130	165	4.0	M10	24	50	27.3	8	105
	100	250	180	215	5.0	M12	28	60	31.3	8	130
	112	250	180	215	5.0	M12	28	60	31.3	8	130

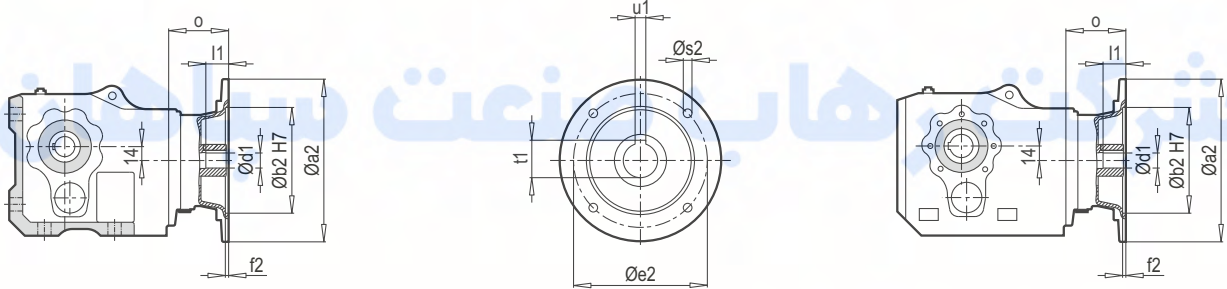
~ Kg	
IEC	PKD 2390
63	36
71	37
80	41
90	41
100	48
112	48

PKD 2390 W



W ~ Kg	
PKD 2390	44

PKD 2390 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 2390	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	55
	80	200	130	165	4.0	M10	19	40	21.8	6	74
	90	200	130	165	4.0	M10	24	50	27.3	8	74
	100	250	180	215	5.0	M12	28	60	31.3	8	131.5
	112	250	180	215	5.0	M12	28	60	31.3	8	131.5

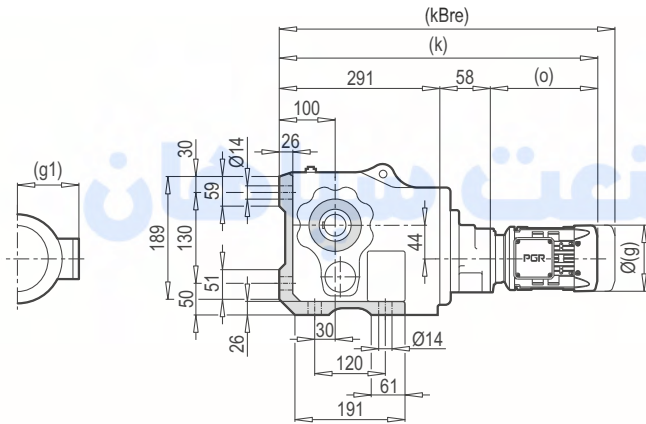
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 2390	63	90	60	75	4.0	6	11	23	12.8	4	60
	71	105	70	85	4.0	7	14	30	16.3	5	55
	80	120	80	100	4.0	7	19	40	21.8	6	74
	90	140	95	115	4.0	9	24	50	27.3	8	74
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75

~ Kg	
PAM B5	PKD 2390
63	42
71	42
80	43
90	43
100	50
112	50

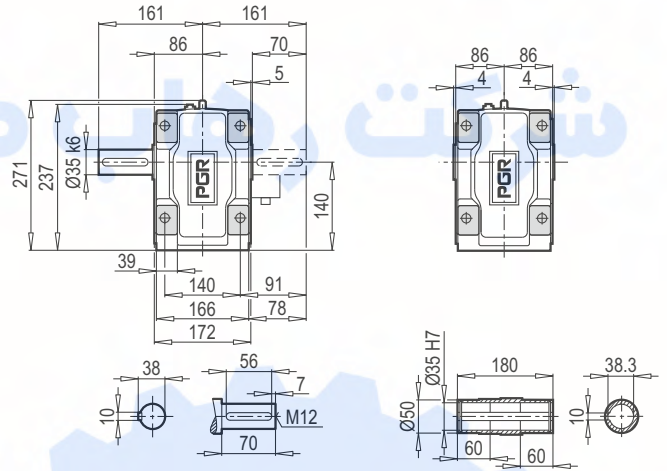
~ Kg	
PAM B14	PKD 2390
63	41
71	41
80	42
90	42
100	43
112	43

PKD 2490

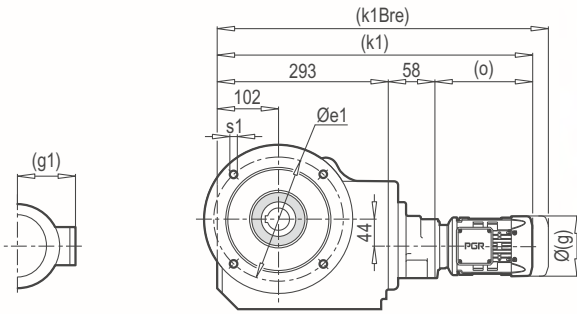
PKD 2490 TMA



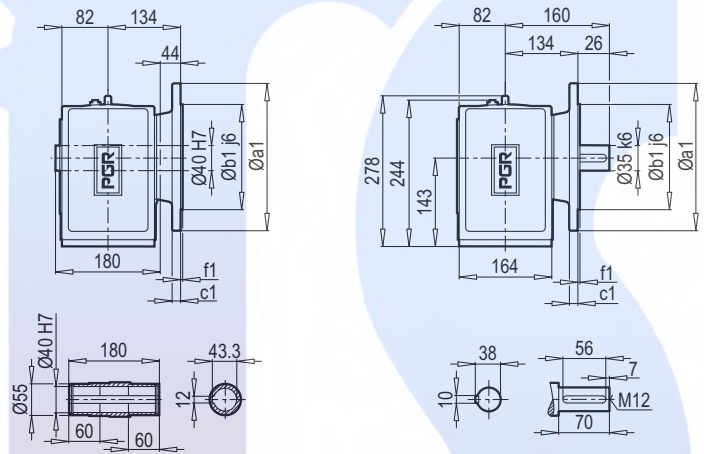
PKD 2490 DA



PKD 2490 DG/B5



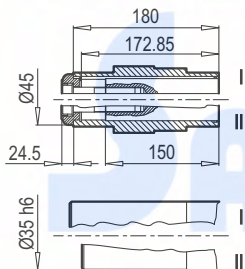
PKD 2490 TMG/B5



a1	b1	c1	e1	f1	s1
250	180	16	215	4	4x14

PKD 2490 DA/Ç

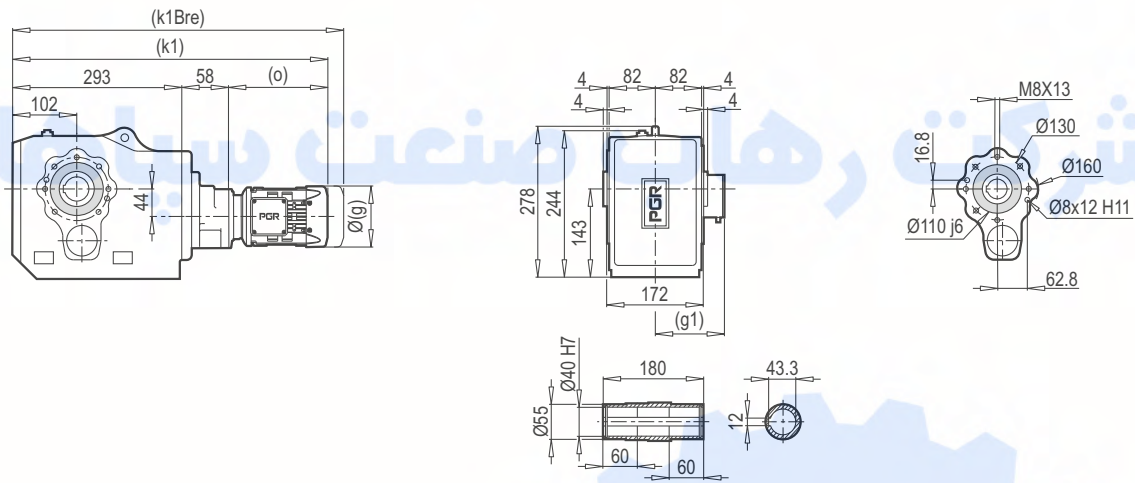
66-67



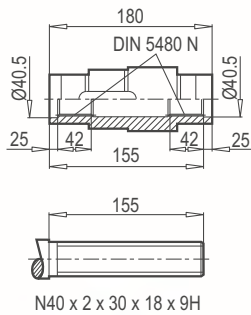
	63 M	71 M					
g	124	140					
g1	111	119					
k	547	589					
kBre	599	649					
o	198	240					

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

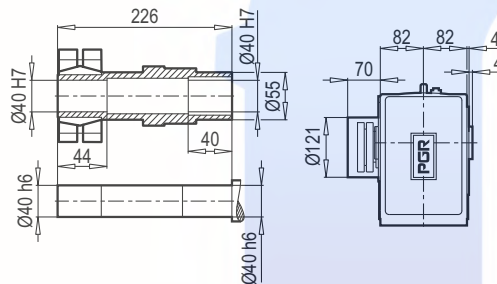
PKD 2490 DG/B14



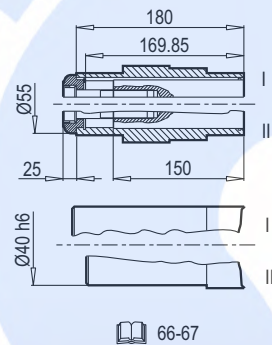
PKD 2490 DG/DIN 5480



PKD 2490 DG/KS



PKD 2490 DG/Ç



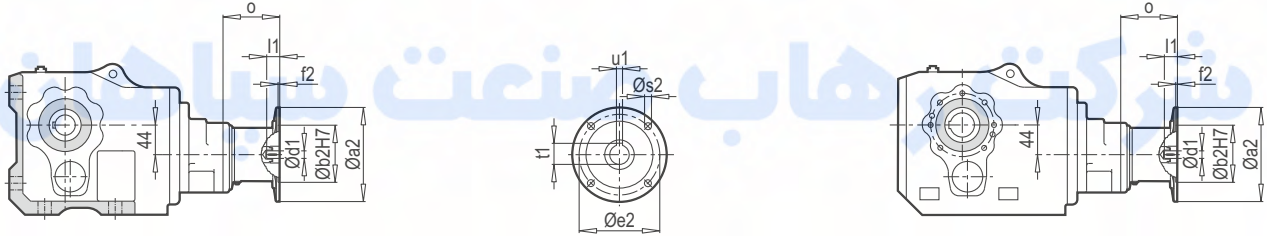
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 40/55	860	2.71	2.37	M8x40	8	30

	63 M	71 M						
g	124	140						
g1	111	119						
k1	549	591						
k1Bre	601	651						
o	198	240						

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / **Note :** The dimensions which have (...) sign vary depending on the motor brand.

PKD 2490

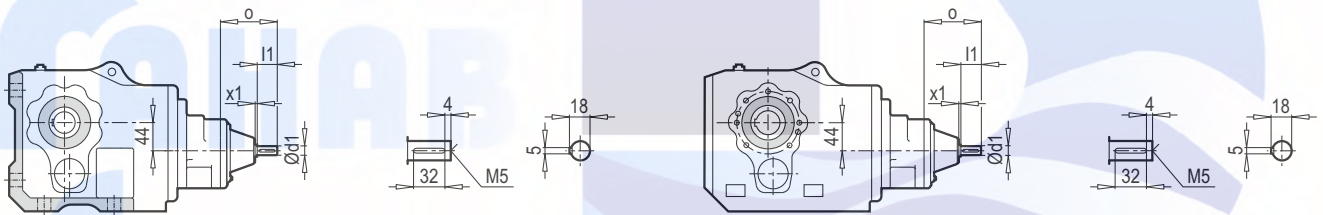
PKD 2490 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 2490	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89

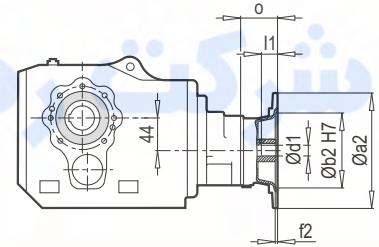
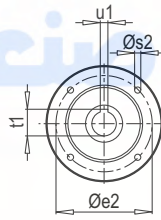
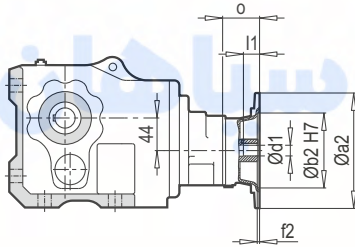
~ Kg	
IEC	PKD 2490
63	36
71	37

PKD 2490 W



W ~ Kg	
PKD 2490	49

PKD 2490 PAM B5/B14



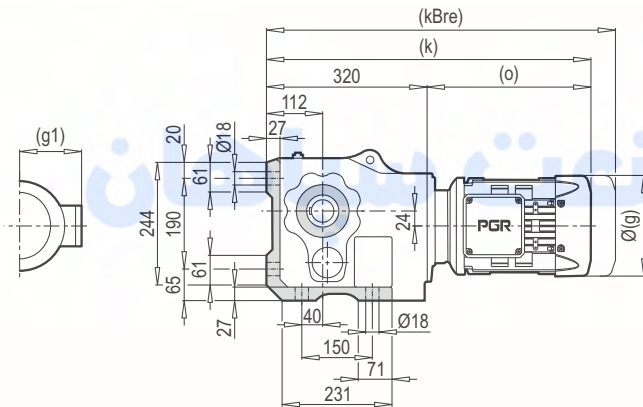
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 2490	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	55

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 2490	63	90	60	75	4.0	6	11	23	12.8	4	60
	71	105	70	85	4.0	7	14	30	16.3	5	55

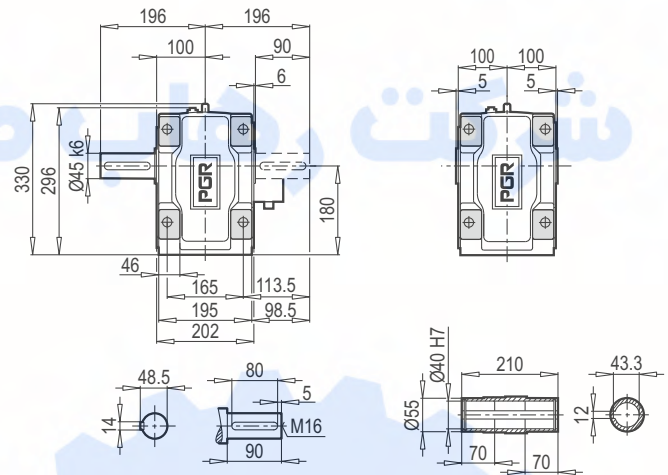
~ kg	
PAM B5	PKD 2490
63	47
71	47

~ kg	
PAM B14	PKD 2490
63	46
71	46

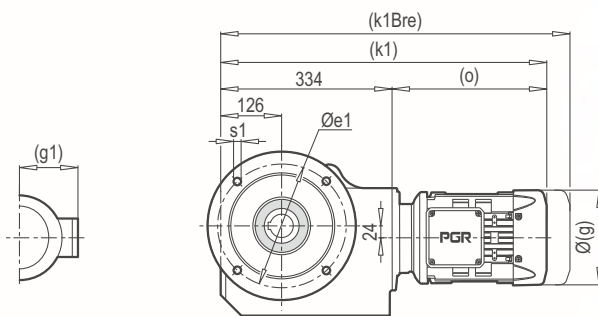
PKD 3390 TMA



PKD 3390 DA

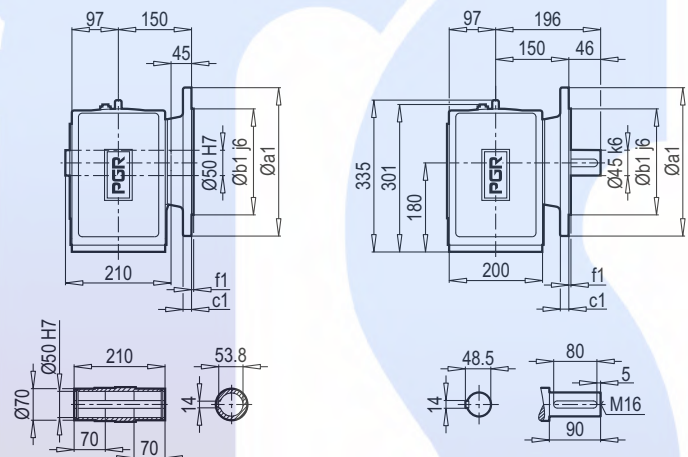
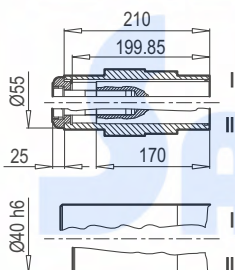


PKD 3390 DG/B5



a1	b1	c1	e1	f1	s1
250	180	16	215	4	4x14
300	230	20	265	4	4x14

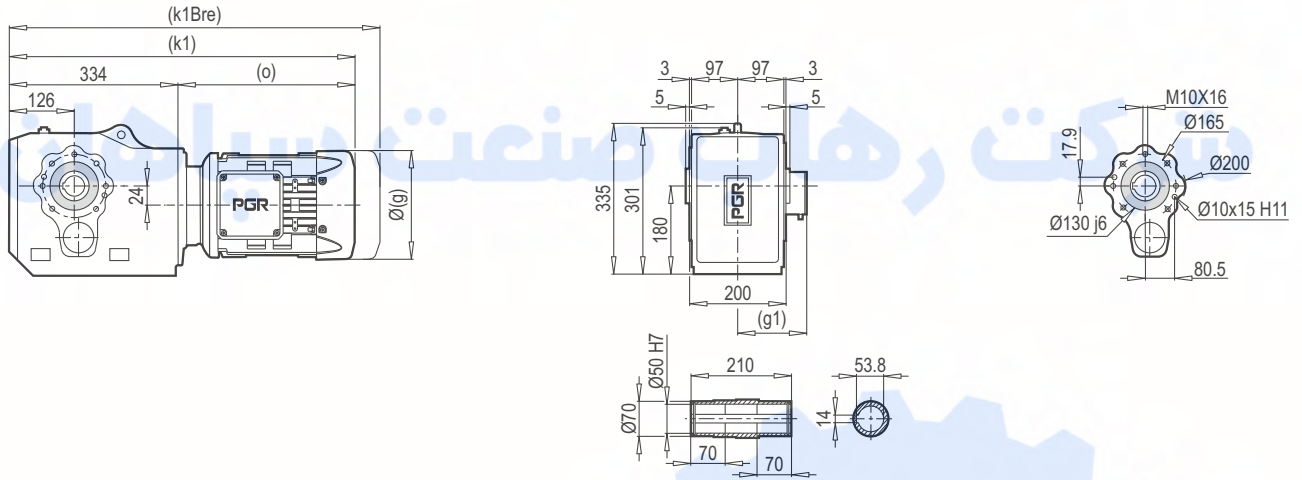
PKD 3390 TMG/B5

PKD 3390 DA/Ç₃

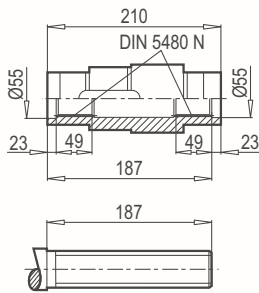
	71 M	80 M	90 S/L	100 L	112 M	132 S/M		
g	140	159	193	217	232	279		
g1	119	127	151	160	168	182		
k	556	582	605/625	653	698	705/740		
kBre	616	644	678/698	734	778	813/881		
o	236	262	285/305	333	378	385/420		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / **Note :** The dimensions which have (...) sign vary depending on the motor brand.

PKD 3390 DG/B14

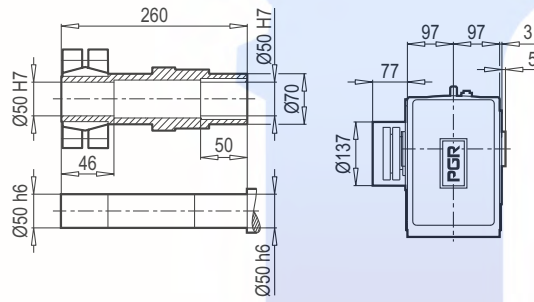


PKD 3390 DG/DIN 5480

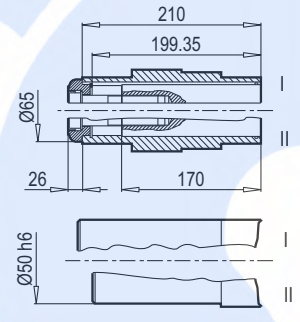


N50 x 2 x 30 x 24 x 9H

PKD 3390 DG/KS



PKD 3390 DG/Ç



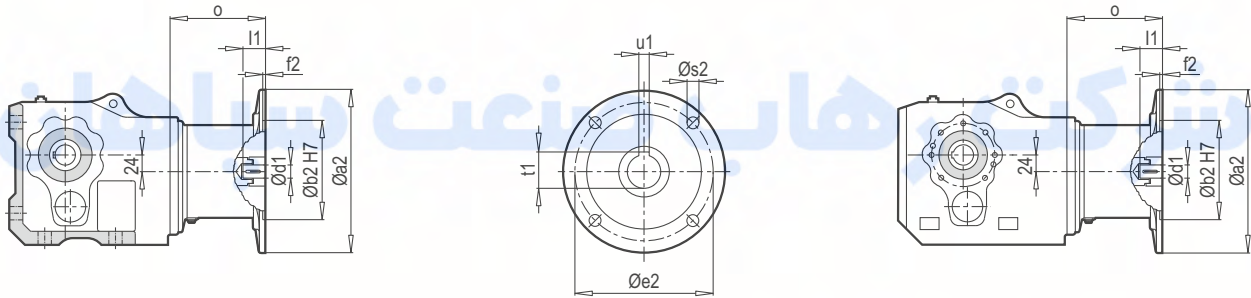
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 50/62	1550	2.83	2.63	M8x40	10	30

	71 M	80 M	90 S/L	100 L	112 M	132 S/M		
g	140	159	193	217	232	279		
g1	119	127	151	160	168	182		
k1	570	596	619/639	667	712	719/754		
k1Bre	630	658	692/712	748	792	827/895		
o	236	262	285/305	333	378	385/420		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 3390

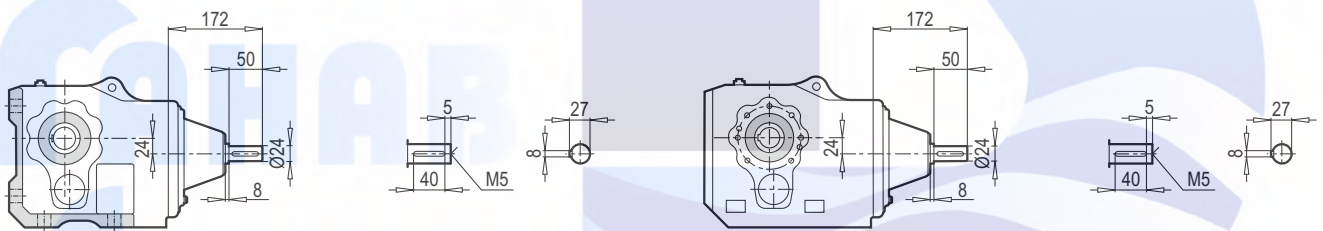
PKD 3390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 3390	71	160	110	130	4.0	M8	14	30	16.3	5	88
	80	200	130	165	4.0	M10	19	40	21.8	6	107
	90	200	130	165	4.0	M10	24	50	27.3	8	107
	100	250	180	215	5.0	M12	28	60	31.3	8	124
	112	250	180	215	5.0	M12	28	60	31.3	8	124
	132	300	230	265	5.0	M12	38	80	41.3	10	156

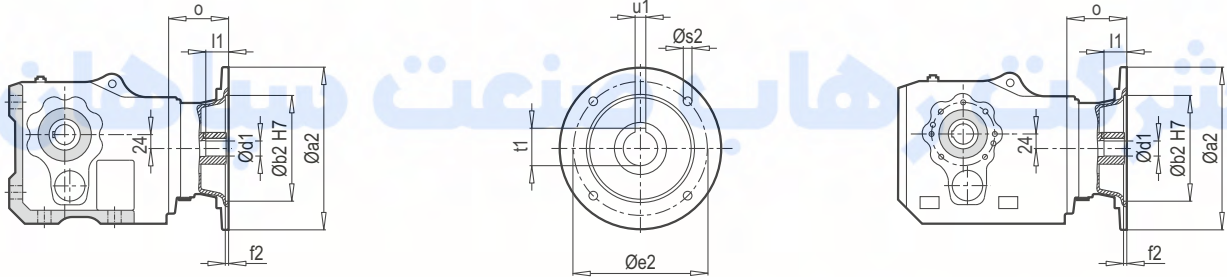
~ Kg	
IEC	PKD 3390
71	69
80	73
90	73
100	77
112	77
132	86

PKD 3390 W



W ~ Kg	
PKD 3390	71

PKD 3390 PAM B5/B14



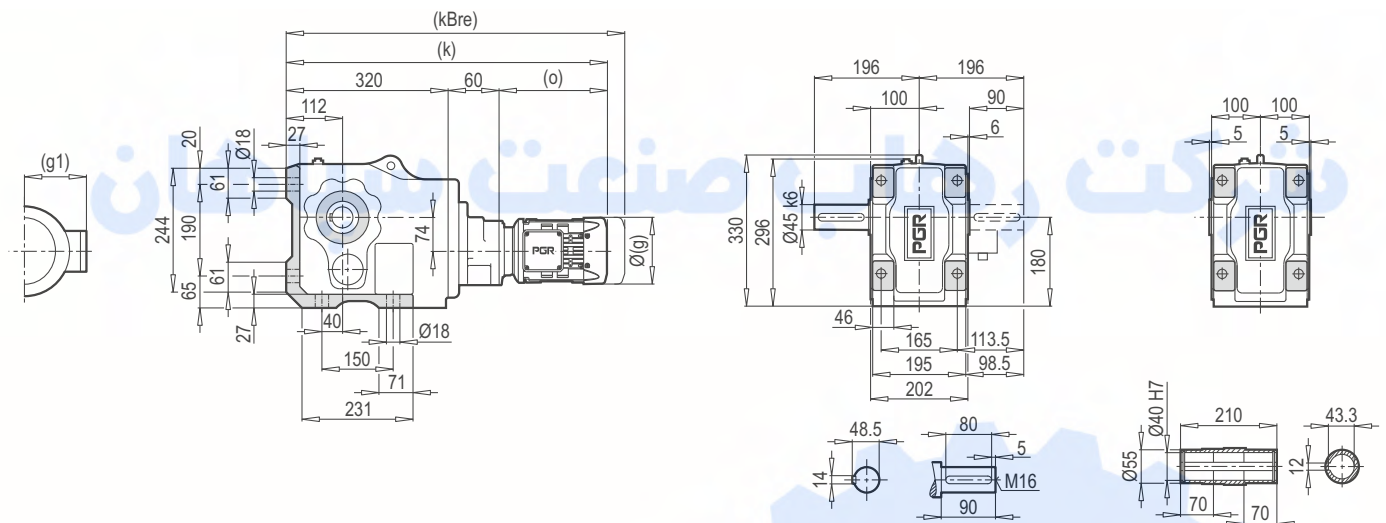
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 3390	71	160	110	130	4.0	M8	14	30	16.3	5	88
	80	200	130	165	4.0	M10	19	40	21.8	6	72
	90	200	130	165	4.0	M10	24	50	27.3	8	72
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75
	132	300	230	265	5.0	M12	38	80	41.3	10	94

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 3390	71	105	70	85	4.0	7	14	30	16.3	5	88
	80	120	80	100	4.0	7	19	40	21.8	6	72
	90	140	95	115	4.0	9	24	50	27.3	8	72
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75
	132	200	130	165	5.0	11	38	80	41.3	10	94

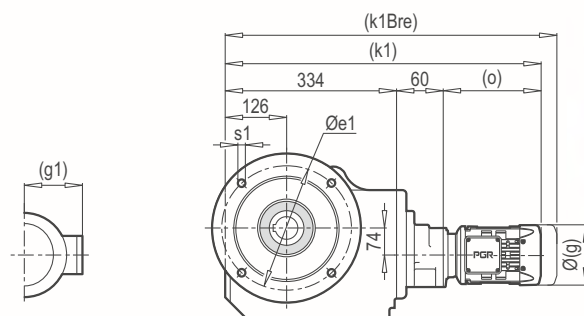
~ Kg	
PAM B5	PKD 3390
71	65
80	66
90	66
100	67
112	67
132	77

~ Kg	
PAM B14	PKD 3390
71	63
80	64
90	64
100	66
112	66
132	70

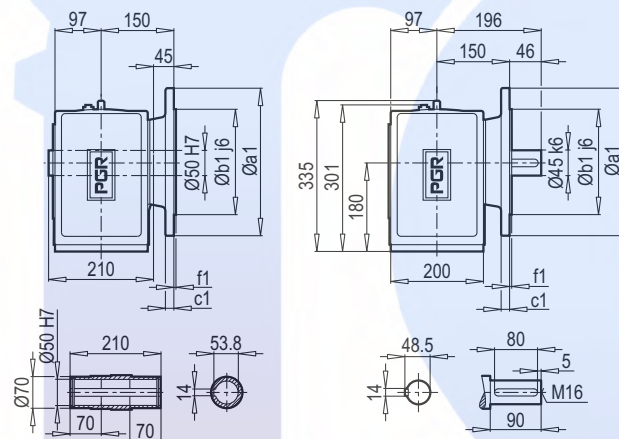
PKD 3490 DA



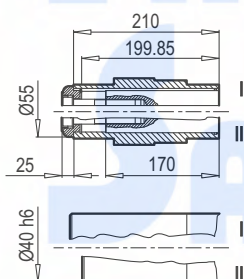
PKD 3490 TMG/B5



a1	b1	c1	e1	f1	s1
250	180	16	215	4	4x14
300	230	20	265	4	4x14



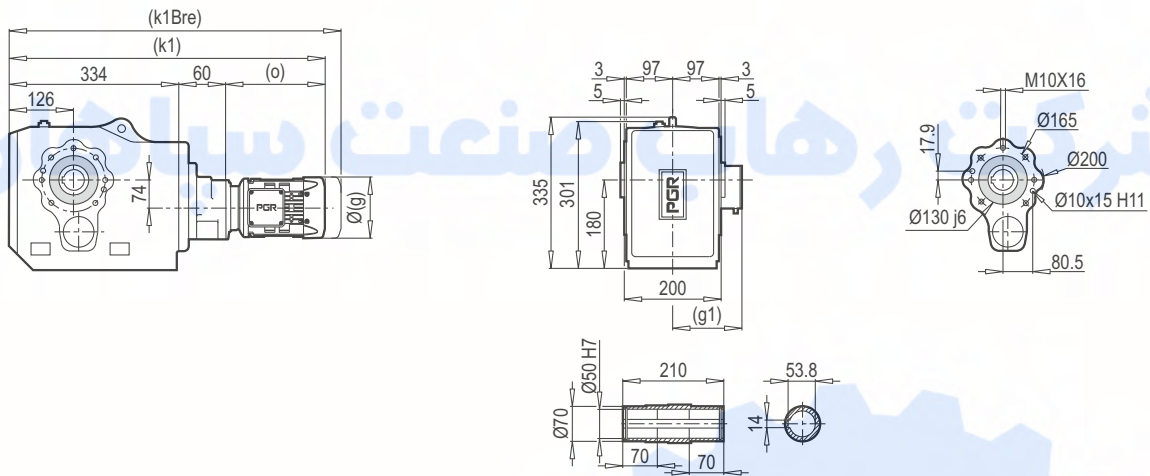
PKD 3490 DA/Ç



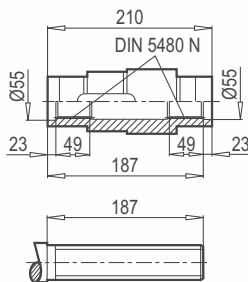
	63 M	71 M	80 M	90 S/L				
g	124	140	159	193				
g1	111	119	127	151				
k	578	620	647	670/690				
kBre	630	680	709	743/763				
o	198	240	267	290/310				

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 3490 DG/B14

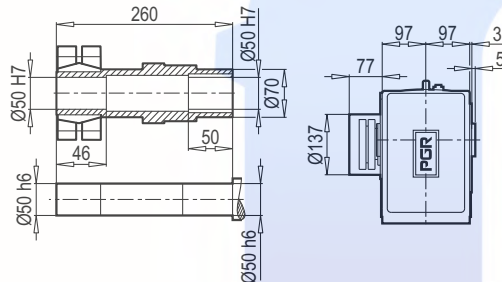
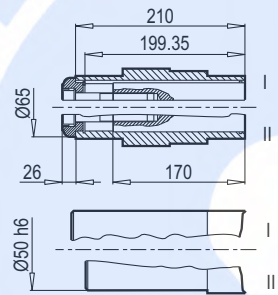


PKD 3490 DG/DIN 5480



N50 x 2 x 30 x 24 x 9H

PKD 3490 DG/KS

PKD 3490 DG/Ç₃ 66-67

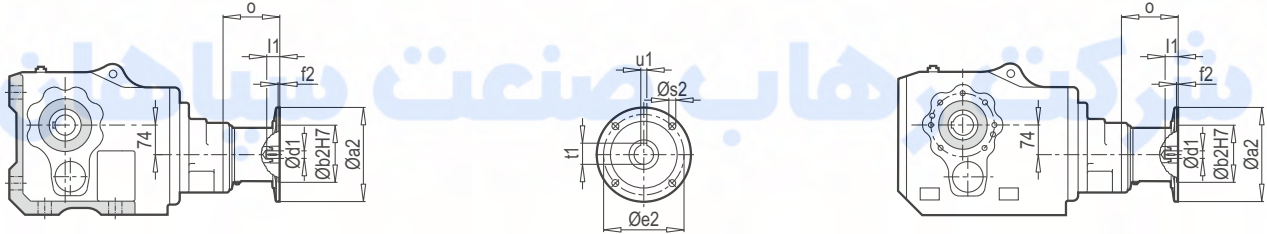
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 50/62	1550	2.83	2.63	M8x40	10	30

	63 M	71 M	80 M	90 S/L				
g	124	140	159	193				
g1	111	119	127	151				
k1	592	634	661	684/704				
k1Bre	644	694	723	757/777				
o	198	240	267	290/310				

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / **Note :** The dimensions which have (...) sign vary depending on the motor brand.

PKD 3490

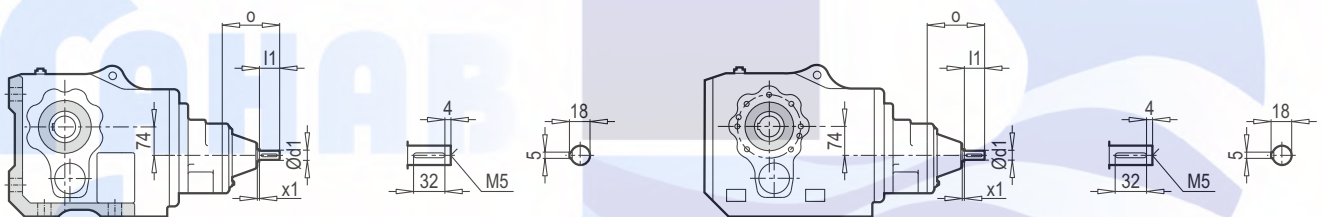
PKD 3490 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 3490	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	89
	80	200	130	165	4.0	M10	19	40	21.8	6	105
	90	200	130	165	4.0	M10	24	50	27.3	8	105

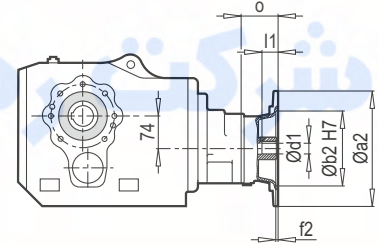
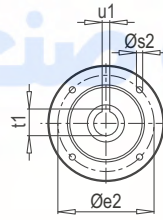
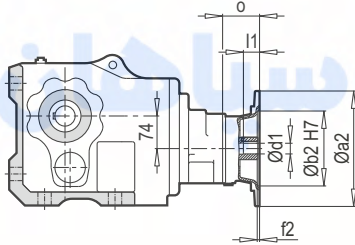
~ Kg	
IEC	PKD 3490
63	74
71	75
80	78
90	78

PKD 3490 W



W ~ Kg	
PKD 3490	73

PKD 3490 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 3490	63	140	95	115	3.5	M8	11	23	12.8	4	85
	71	160	110	130	4.0	M8	14	30	16.3	5	55
	80	200	130	165	4.0	M10	19	40	21.8	6	74
	90	200	130	165	4.0	M10	24	50	27.3	8	74

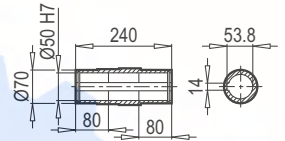
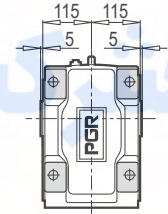
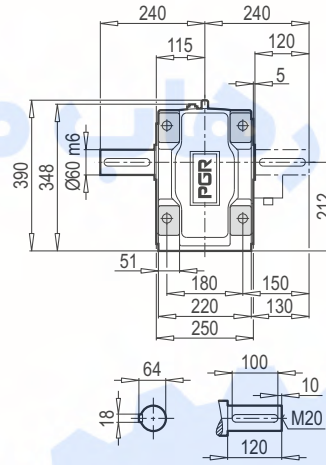
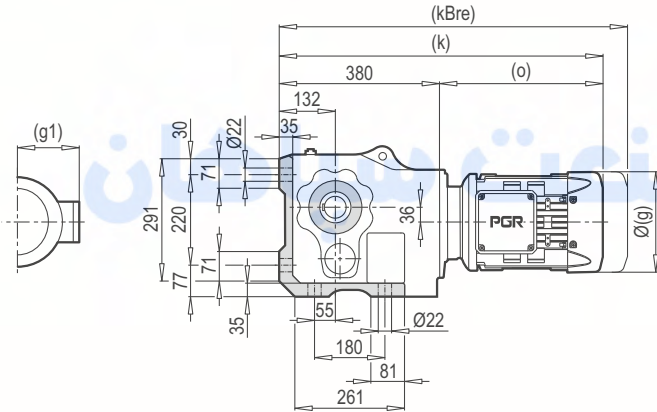
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 3490	63	90	60	75	4.0	6	11	23	12.8	4	60
	71	105	70	85	4.0	7	14	30	16.3	5	55
	80	120	80	100	4.0	7	19	40	21.8	6	74
	90	140	95	115	4.0	9	24	50	27.3	8	74

~ Kg	
PAM B5	PKD 3490
63	70
71	70
80	71
90	71

~ Kg	
PAM B14	PKD 3490
63	69
71	69
80	70
90	70

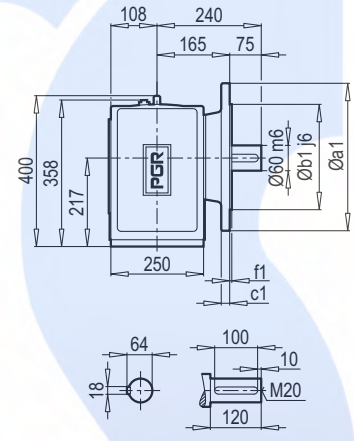
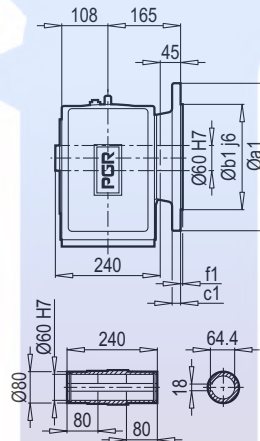
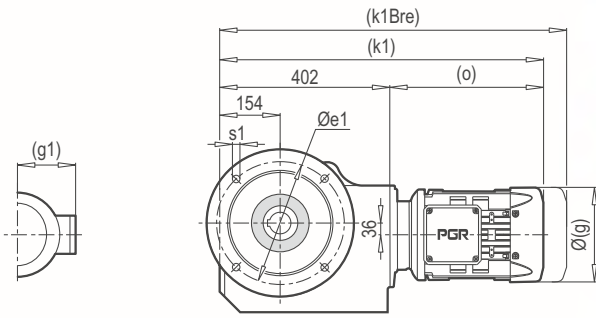
PKD 4390 TMA

PKD 4390 DA



PKD 4390 DG/B5

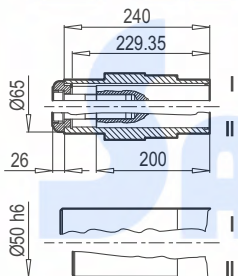
PKD 4390 TMG/B5



a1	b1	c1	e1	f1	s1
350	250	20	300	5	4x18

PKD 4390 DA/Ç

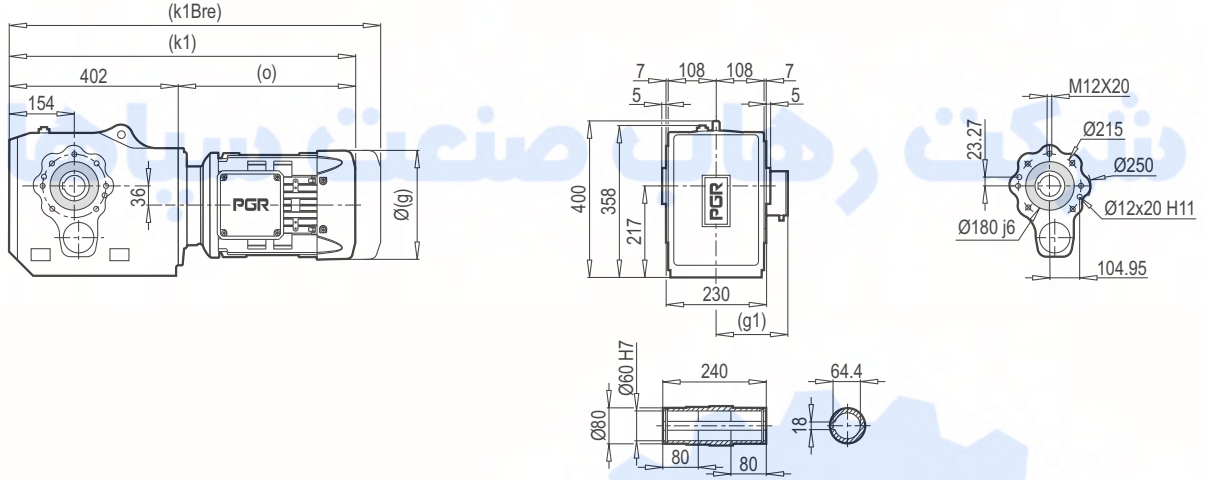
66-67



	90 S/L	100 L	112 M	132 S/M	160 M/L			
g	193	217	232	279	323			
g1	151	160	168	182	200			
k	645/665	693	738	745/780	885			
kBre	718/738	774	818	853/921	1037			
o	265/285	313	358	365/400	505			

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

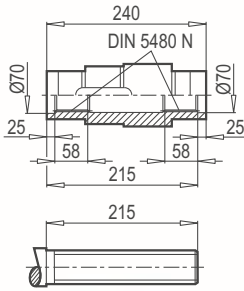
PKD 4390 DG/B14



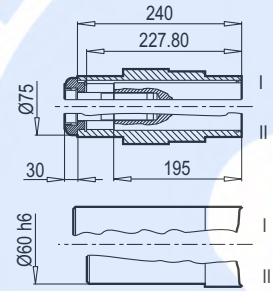
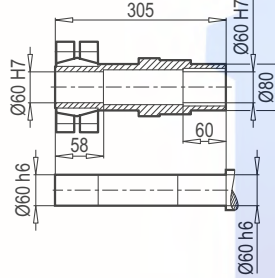
PKD 4390 DG/DIN 5480

PKD 4390 DG/KS

PKD 4390 DG/Ç



N65 x 2 x 30 x 31 x 9H



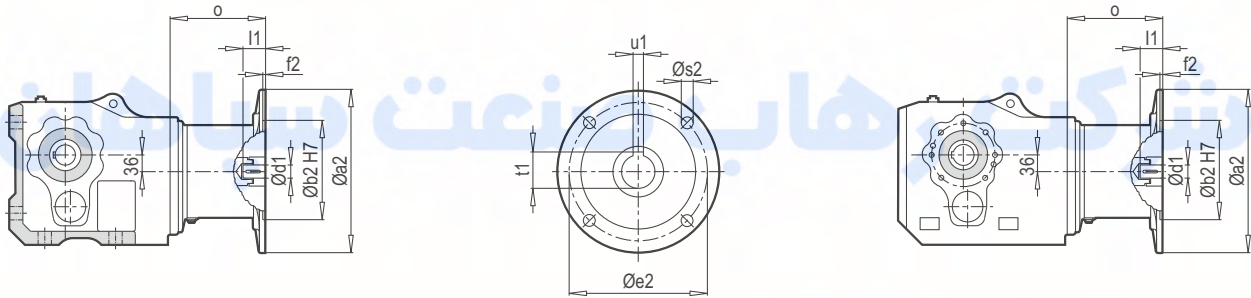
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s _{h6}	s _{f6}	dxl	Zs	MA (Nm)
KS 60/76	2800	2.90	2.69	M10x50	10	59

	90 S/L	100 L	112 M	132 S/M	160 M/L			
g	193	217	232	279	323			
g1	151	160	168	182	200			
k1	667/687	715	760	767/802	907			
k1Bre	740/760	796	840	875/943	1059			
o	265/285	313	358	365/400	505			

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 4390

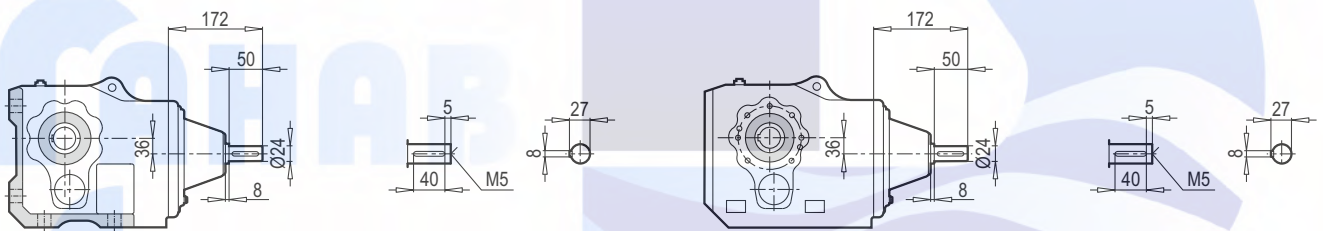
PKD 4390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 4390	90	200	130	165	4.0	M10	24	50	27.3	8	109
	100	250	180	215	5.0	M12	28	60	31.3	8	133
	112	250	180	215	5.0	M12	28	60	31.3	8	133
	132	300	230	265	5.0	M12	38	80	41.3	10	190
	160	350	250	300	6.0	M16	42	110	45.3	12	194

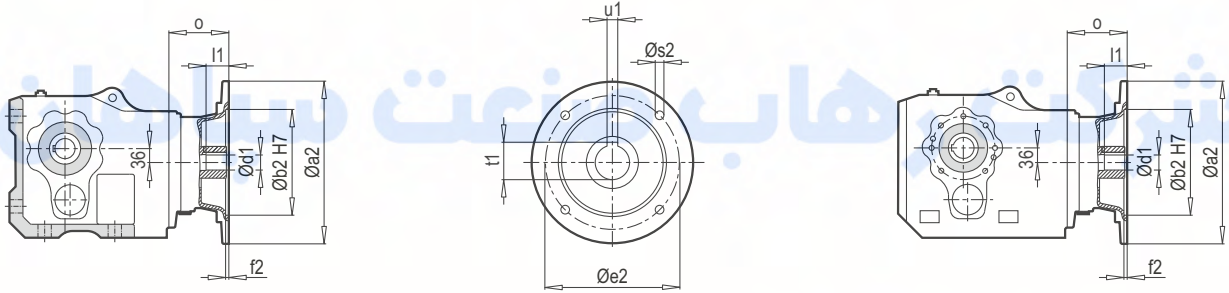
~ Kg	
IEC	PKD 4390
90	126
100	133
112	133
132	148
160	149

PKD 4390 W



W ~ Kg	
PKD 4390	131

PKD 4390 PAM B5/B14



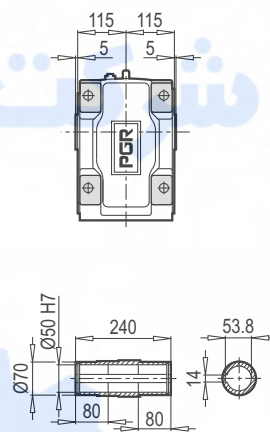
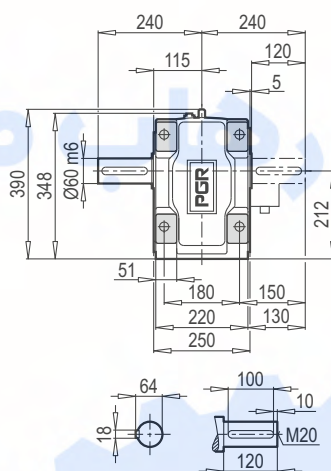
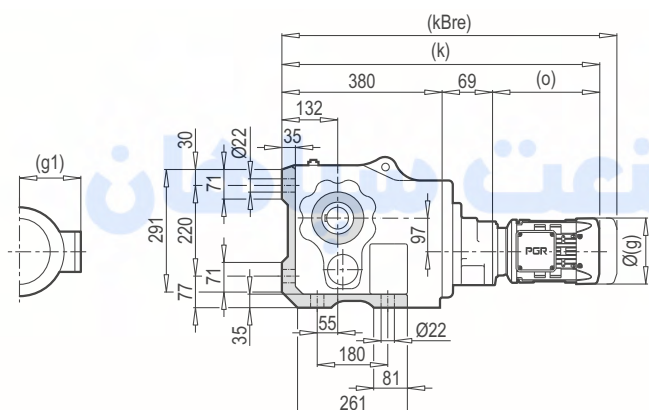
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 4390	90	200	130	165	4.0	M10	24	50	27.3	8	72
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75
	132	300	230	265	5.0	M12	38	80	41.3	10	94
	160	350	250	300	6.0	M16	42	110	45.3	12	120

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 4390	90	140	95	115	4.0	9	24	50	27.3	8	72
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75
	132	200	130	165	5.0	11	38	80	41.3	10	94

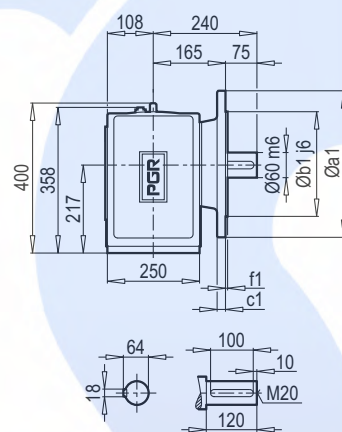
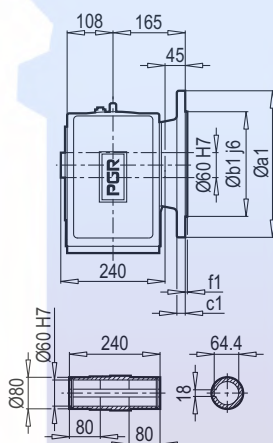
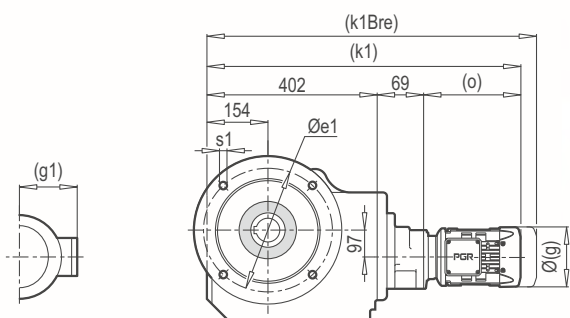
~ Kg	
PAM B5	PKD 4390
90	116
100	117
112	117
132	126
160	134

~ Kg	
PAM B14	PKD 4390
90	115
100	116
112	116
132	121

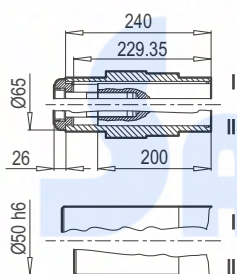
PKD 4490 DA



PKD 4490 TMG/B5



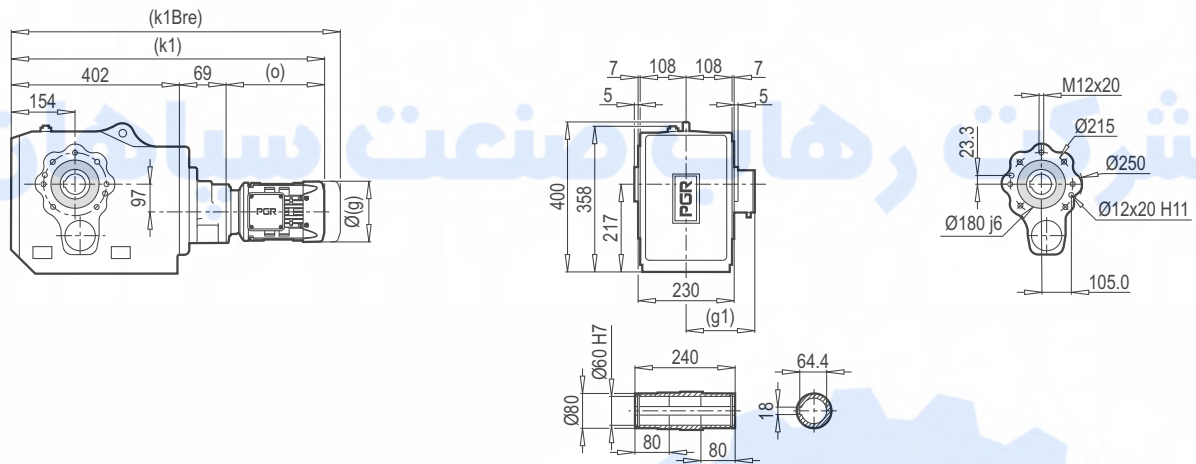
a1	b1	c1	e1	f1	s1
350	250	20	300	5	4x18

 66-67

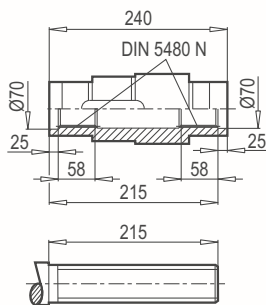
	71 M	80 M	90 S/L	100L		
g	140	159	193	217		
g1	119	127	151	160		
k	685	711	734/754	782		
kBre	745	773	807/827	863		
o	236	262	285/305	333		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / **Note :** The dimensions which have (...) sign vary depending on the motor brand.

PKD 4490 DG / B14 ...

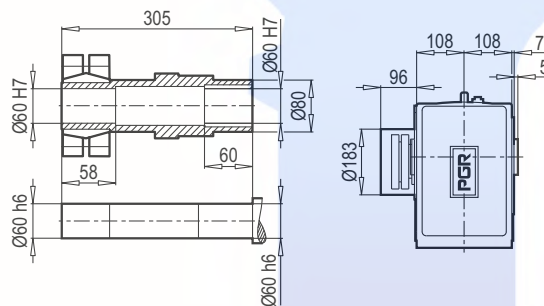


PKD 4490 DG/DIN 5480

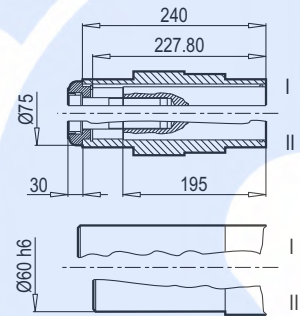


N65 x 2 x 30 x 31 x 9H

PKD 4490 DG/KS



PKD 4490 DG/Ç

 66-67

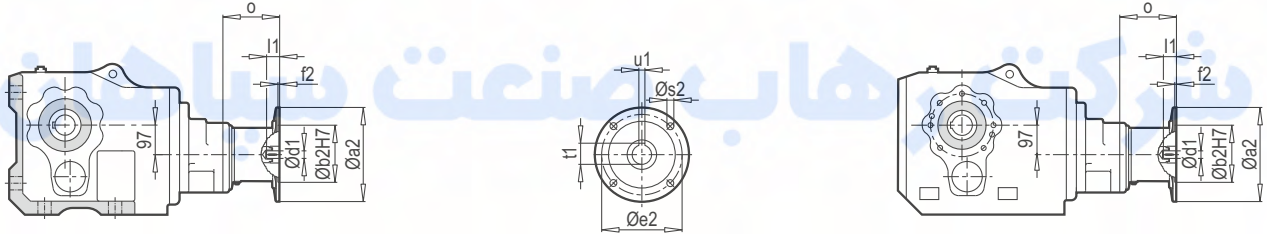
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	Mamax (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 60/76	2800	2.90	2.69	M10x50	10	59

	71 M	80 M	90 S/L	100L				
g	140	159	193	217				
g1	119	127	151	160				
k1	707	733	756/776	804				
k1Bre	767	795	829/849	885				
o	236	262	285/305	333				

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / **Note :** The dimensions which have (...) sign vary depending on the motor brand.

PKD 4490

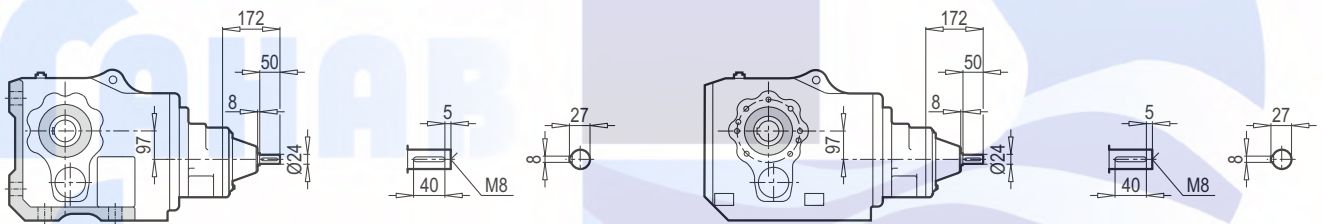
PKD 4490 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 4490	71	160	110	130	4.0	M8	14	30	16.3	5	89
	80	200	130	165	4.0	M10	19	40	21.8	6	107
	90	200	130	165	4.0	M10	24	50	27.3	8	107
	100	250	180	215	5.0	M12	28	60	31.3	8	124
	112	250	180	215	5.0	M12	28	60	31.3	8	124

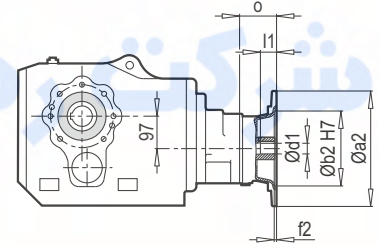
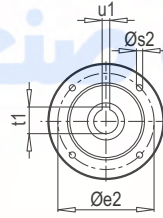
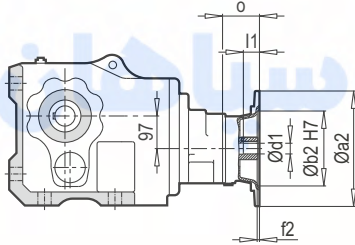
~ Kg	
IEC	PKD 4490
71	134
80	139
90	139
100	143
112	143

PKD 4490 W



W ~ Kg	
PKD 4490	137

PKD 4490 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 4490	71	160	110	130	4.0	M8	14	30	16.3	5	88
	80	200	130	165	4.0	M10	19	40	21.8	6	72
	90	200	130	165	4.0	M10	24	50	27.3	8	72
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75

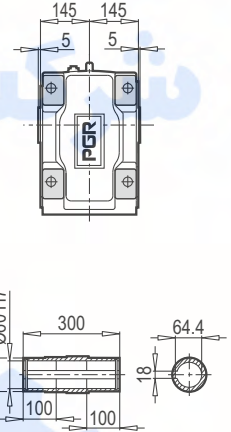
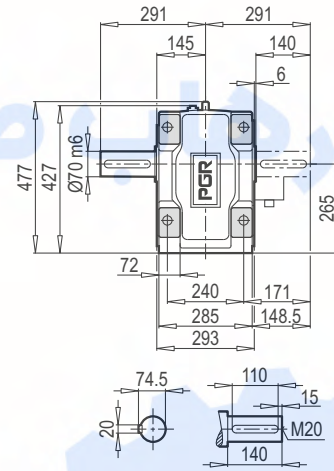
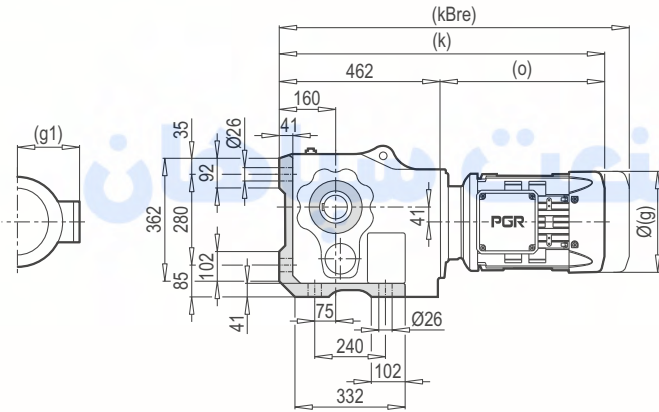
~ Kg	
PAM B5	PKD 4490
71	127
80	128
90	128
100	129
112	129

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 4490	71	105	70	85	4.0	7	14	30	16.3	5	88
	80	120	80	100	4.0	7	19	40	21.8	6	72
	90	140	95	115	4.0	9	24	50	27.3	8	72
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75

~ Kg	
PAM B14	PKD 4490
71	125
80	126
90	126
100	128
112	128

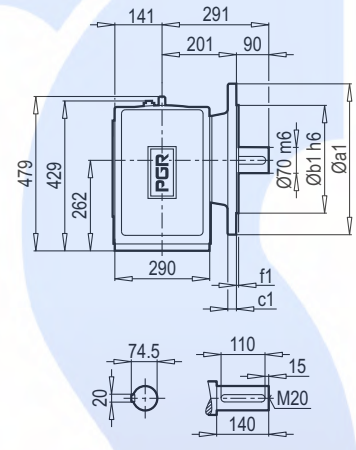
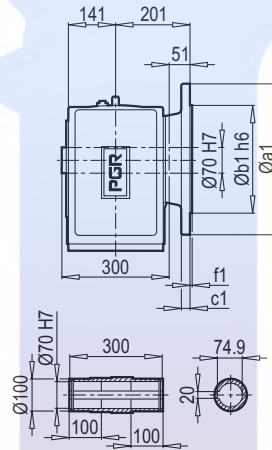
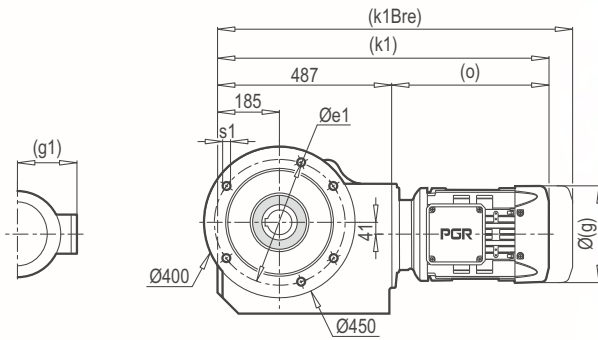
PKD 5390 TMA

PKD 5390 DA



PKD 5390 DG/B5

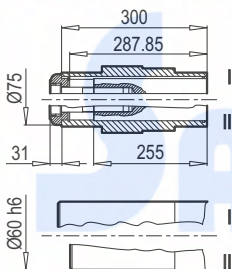
PKD 5390 TMG/B5



a1	b1	c1	e1	f1	s1
400	300	20	350	5	4x18
450	350	22	400	5	8x18

PKD 5390 DA/Ç

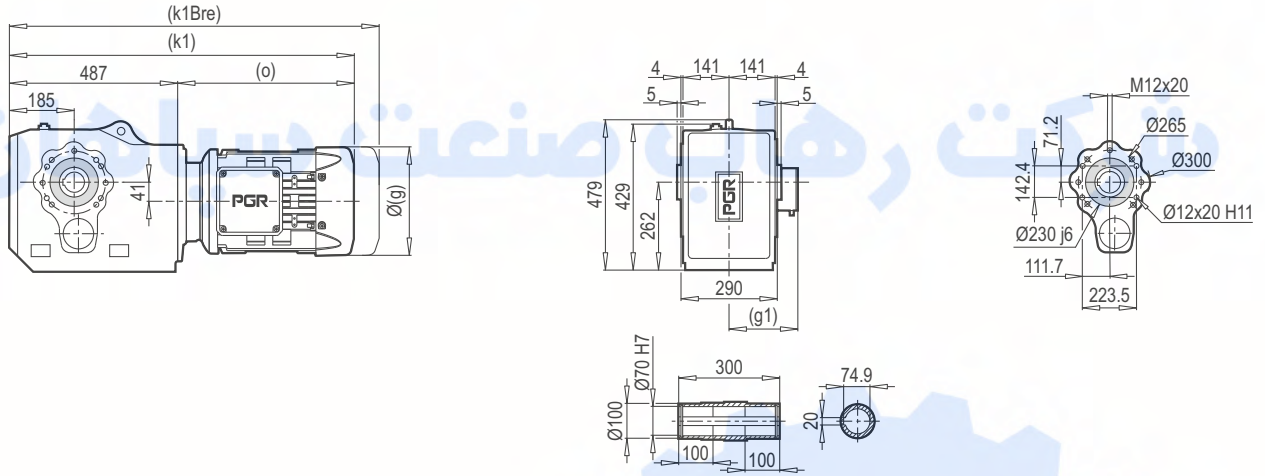
66-67



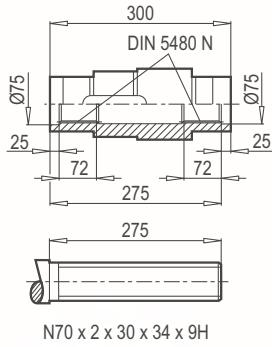
	90 S/L	100 L	112 M	132 S/M	160 M/L	180 M/L		
g	193	217	232	279	323	370		
g1	151	160	168	182	200	248		
k	727/747	775	820	827/862	967	1041		
kBre	800/820	856	900	935/1003	1119	1203		
o	265/285	313	358	365/400	505	579		

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

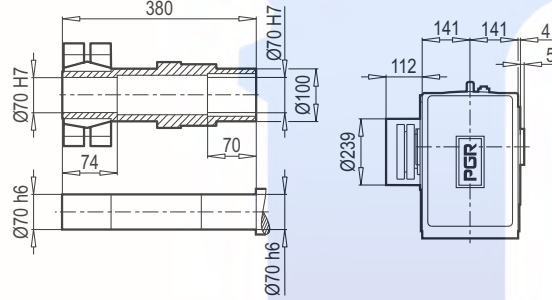
PKD 5390 DG/B14



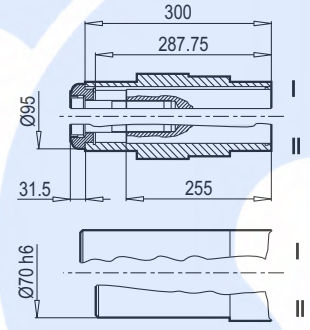
PKD 5390 DG/DIN 5480



PKD 5390 DG/KS



PKD 5390 DG/Ç



66-67

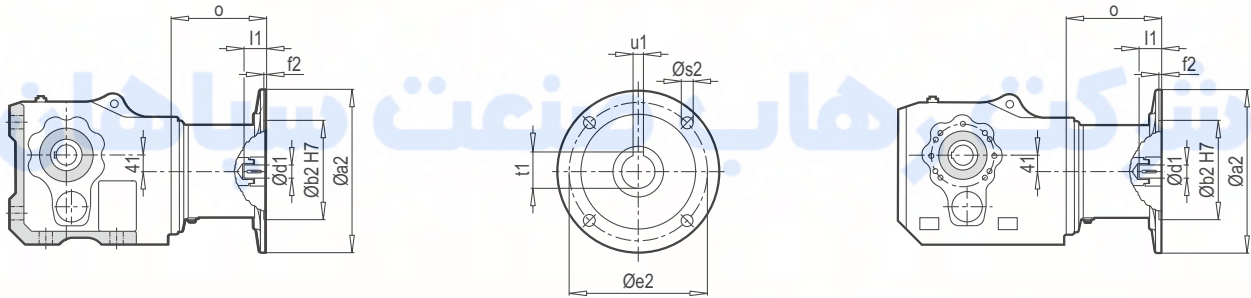
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{2max} (Nm)	s ^{h6}	s ^{f6}	dxl	Zs	MA (Nm)
KS 70/90	4800	2.87	2.69	M12x70*	10	100

	90 S/L	100 L	112 M	132 S/M	160 M/L	180 M/L		
g	193	217	232	279	323	370		
g1	151	160	168	182	200	248		
k1	752/772	800	845	852/887	992	1066		
k1Bre	825/845	881	925	960/1028	1144	1228		
o	265/285	313	358	365/400	505	579		

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 5390

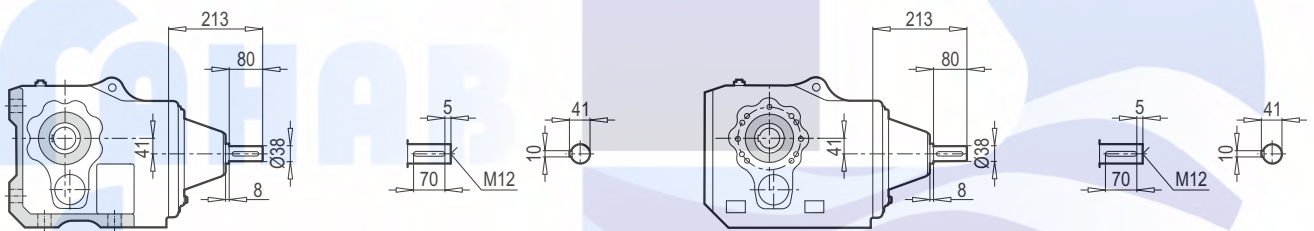
PKD 5390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 5390	90	200	130	165	4.0	M10	24	50	27.3	8	109
	100	250	180	215	5.0	M12	28	60	31.3	8	133
	112	250	180	215	5.0	M12	28	60	31.3	8	133
	132	300	230	265	5.0	M12	38	80	41.3	10	190
	160	350	250	300	6.0	M16	42	110	45.3	12	194
	180	350	250	300	6.0	M16	48	110	51.8	14	194

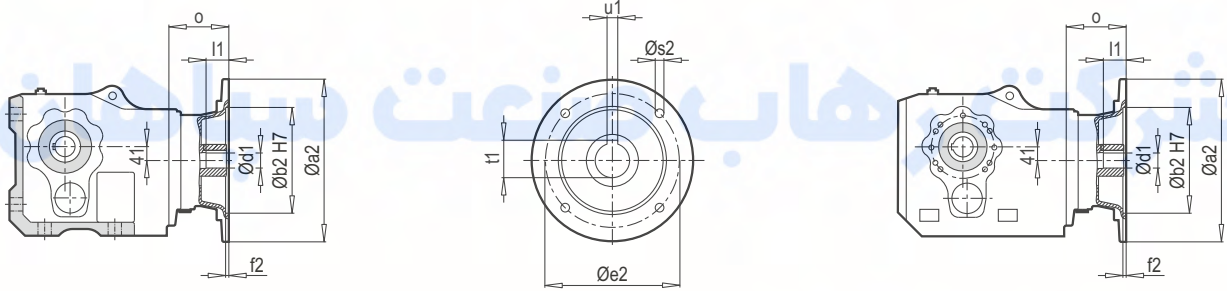
~ Kg	
IEC	PKD 5390
90	205
100	212
112	212
132	227
160	237
180	237

PKD 5390 W



W ~ Kg	
PKD 5390	210

PKD 5390 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 5390	90	200	130	165	4.0	M10	24	50	27.3	8	72
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75
	132	300	230	265	5.0	M12	38	80	41.3	10	94
	160	350	250	300	6.0	M16	42	110	45.3	12	120
	180	350	250	300	6.0	M16	48	110	51.8	14	120

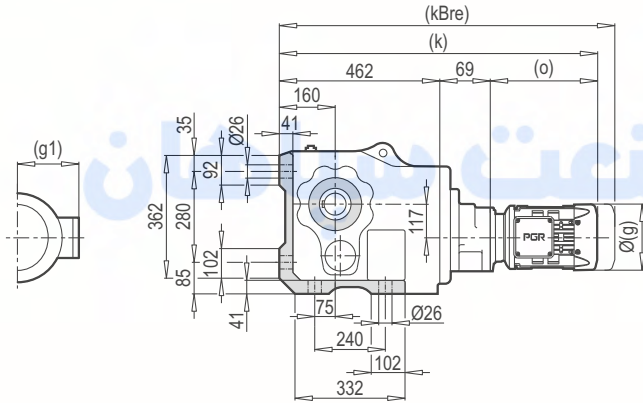
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 5390	90	140	95	115	4.0	9	24	50	27.3	8	72
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75
	132	200	130	165	5.0	11	38	80	41.3	10	94

~ Kg	
PAM B5	PKD 5390
90	191
100	192
112	192
132	201
160	209
180	209

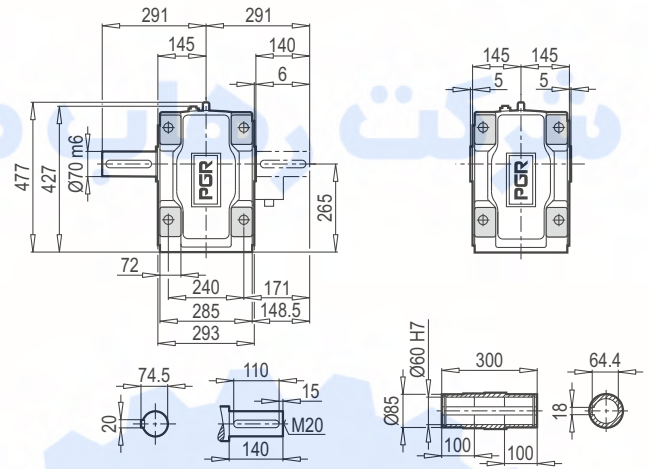
~ Kg	
PAM B14	PKD 5390
90	190
100	191
112	191
132	196

PKD 5490

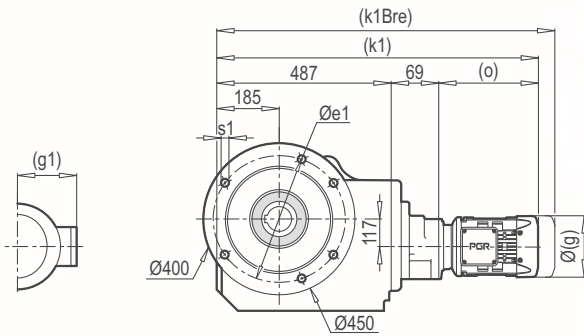
PKD 5490 TMA



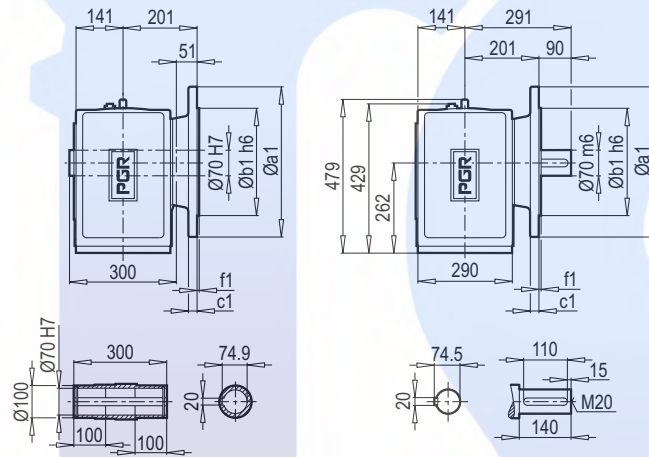
PKD 5490 DA



PKD 5490 DG/B5



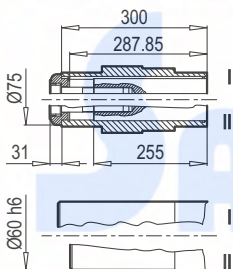
PKD 5490 TMG/B5



a1	b1	c1	e1	f1	s1
400	300	20	350	5	4x18
450	350	22	400	5	8x18

PKD 5490 DA/Ç

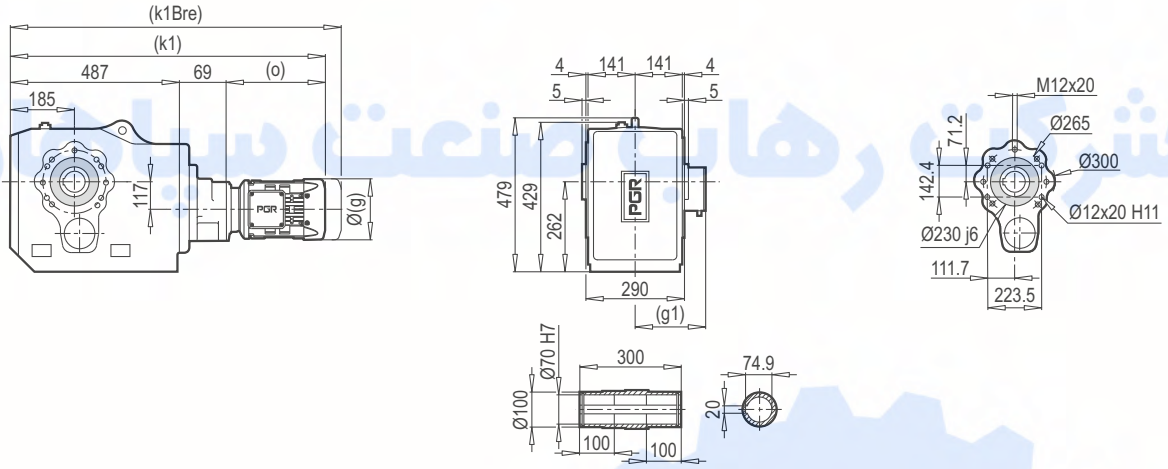
66-67



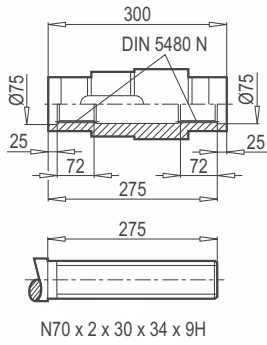
	71 M	80 M	90 S/L	100L	112M			
g	140	159	193	217	232			
g1	119	127	151	160	168			
k	767	793	816/836	864	909			
kBre	827	855	889/909	945	989			
o	236	262	285/305	333	378			

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

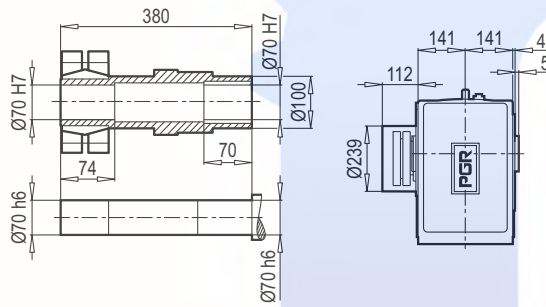
PKD 5490 DG/B14



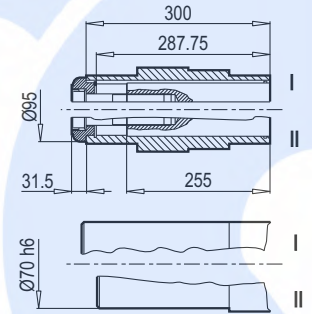
PKD 5490 DG/DIN 5480



PKD 5490 DG/KS



PKD 5490 DG/Ç

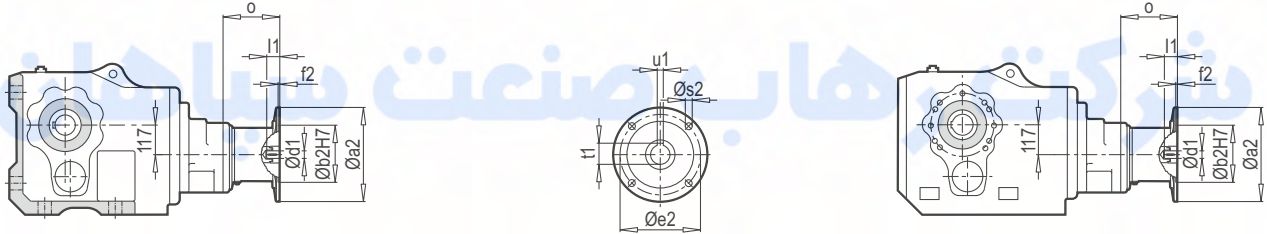


Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s _{h6}	s _{f6}	dxl	Zs	MA (Nm)
KS 70/90	4800	2.87	2.69	M12x70*	10	100

	71 M	80 M	90 S/L	100L	112M			
g	140	159	193	217	232			
g1	119	127	151	160	168			
k1	792	818	841/861	889	934			
k1Bre	852	880	914/934	970	1014			
o	236	262	285/305	333	378			

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

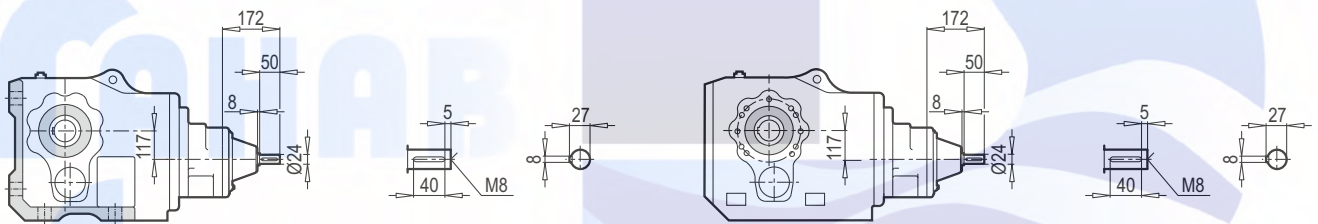
PKD 5490 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 5490	71	160	110	130	4.0	M8	14	30	16.3	5	88
	80	200	130	165	4.0	M10	19	40	21.8	6	107
	90	200	130	165	4.0	M10	24	50	27.3	8	107
	100	250	180	215	5.0	M12	28	60	31.3	8	124
	112	250	180	215	5.0	M12	28	60	31.3	8	124

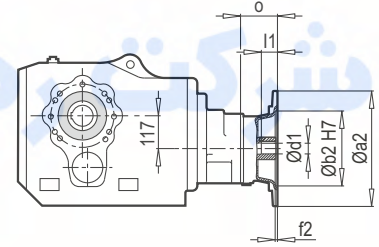
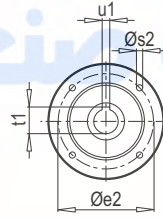
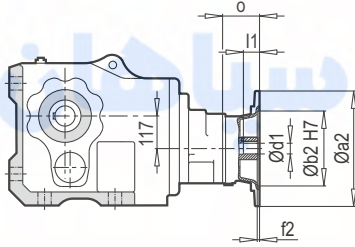
~ Kg	
IEC	PKD 5490
71	216
80	221
90	221
100	225
112	225

PKD 5490 W



W ~ Kg	
PKD 5490	218

PKD 5490 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 5490	71	160	110	130	4.0	M8	14	30	16.3	5	88
	80	200	130	165	4.0	M10	19	40	21.8	6	72
	90	200	130	165	4.0	M10	24	50	27.3	8	72
	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75

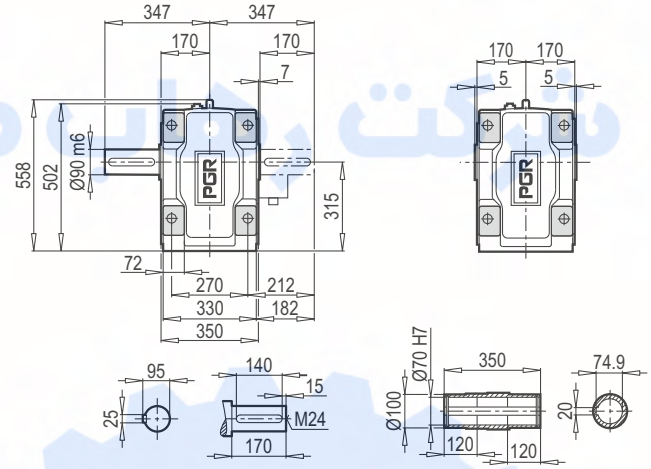
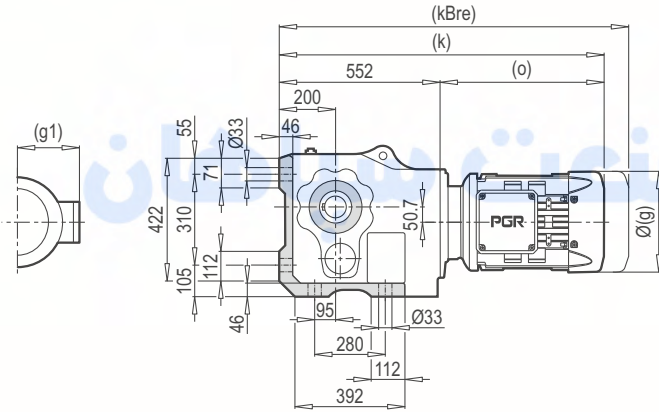
~ kg	
PAM B5	PKD 5490
71	205
80	206
90	206
100	207
112	207

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 5490	71	105	70	85	4.0	7	14	30	16.3	5	88
	80	120	80	100	4.0	7	19	40	21.8	6	72
	90	140	95	115	4.0	9	24	50	27.3	8	72
	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75

~ kg	
PAM B14	PKD 5490
71	203
80	204
90	204
100	206
112	206

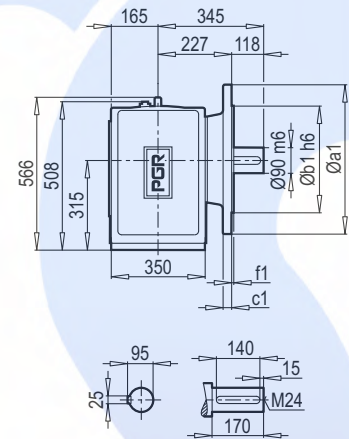
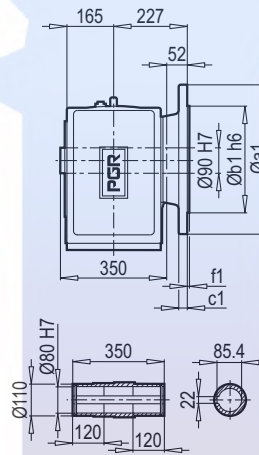
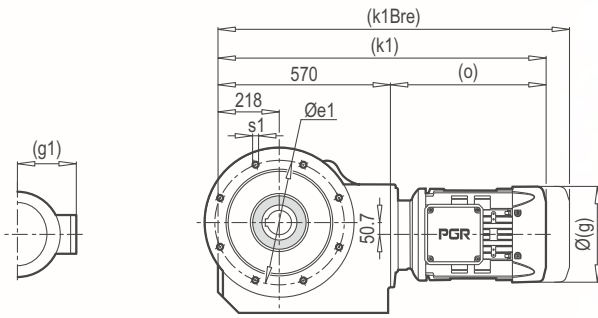
PKD 6390 TMA

PKD 6390 DA



PKD 6390 DG/B5

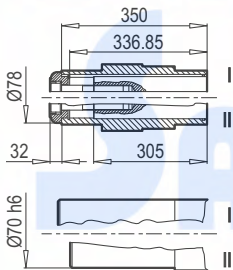
PKD 6390 TMG/B5



a1	b1	c1	e1	f1	s1
450	350	22	400	5	8x18
550	450	28	500	5	8x18

PKD 6390 DA/Ç

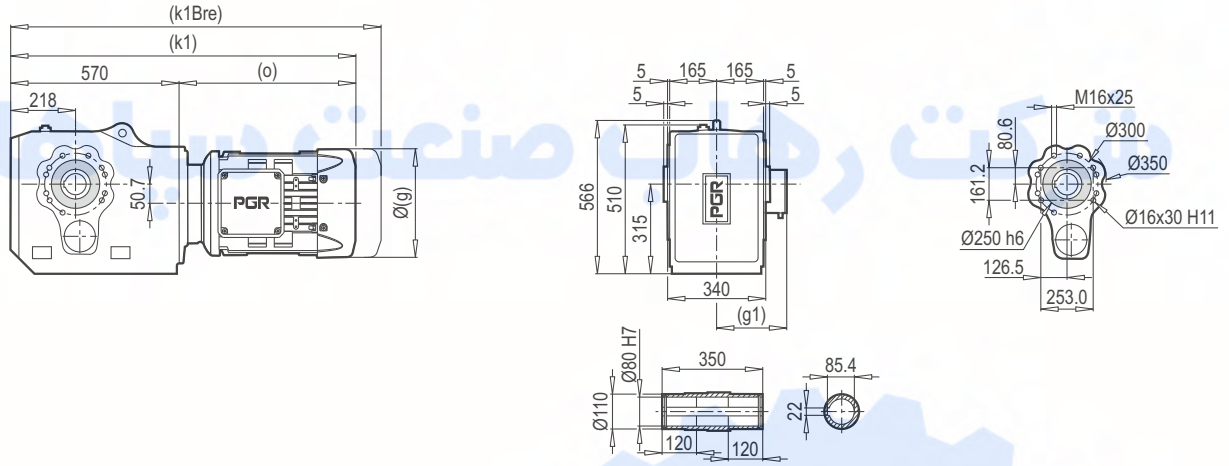
66-67



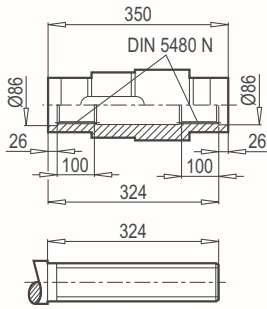
	100 L	112 M	132 S/M	160 M/L	180 M/L	200 L	225 S/M
g	217	232	279	323	370	415	456
g1	160	168	182	200	248	260	260
k	864	912	915/950	1016	1075	1170	1252
kBre	945	992	1023/1091	1168	1237	1317	1424
o	312	360	363/398	464	523	618	700

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 6390 DG/B14

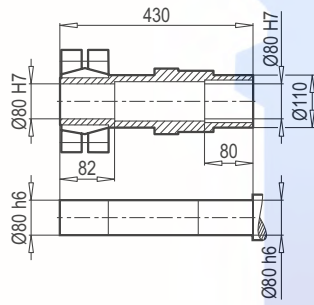


PKD 6390 DG/DIN 5480

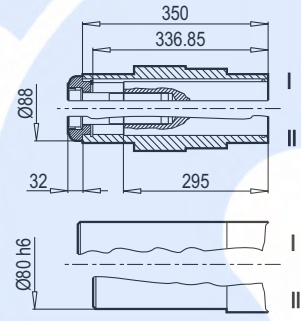


N85 x 3 x 30 x 27 x 9H

PKD 6390 DG/KS



PKD 6390 DG/Ç



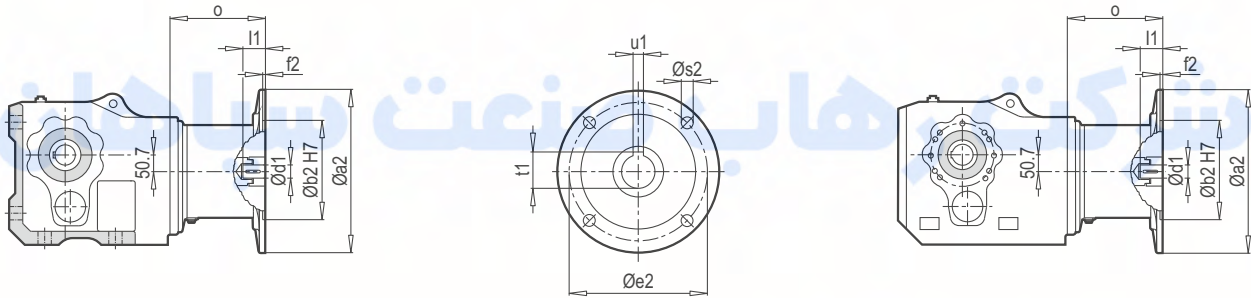
66-67

Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s _{h6}	s _{f6}	dxl	Zs	MA (Nm)
KS 80/108	8500	3.70	3.56	M12x70*	14	100

	100 L	112 M	132 S/M	160 M/L	180 M/L	200 L	225 S/M
g	217	232	279	323	370	415	456
g1	160	168	182	200	248	260	260
k1	882	930	933/968	1034	1093	1188	1270
k1Bre	963	1010	1041/1109	1186	1255	1335	1442
o	312	360	363/398	464	523	618	700

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

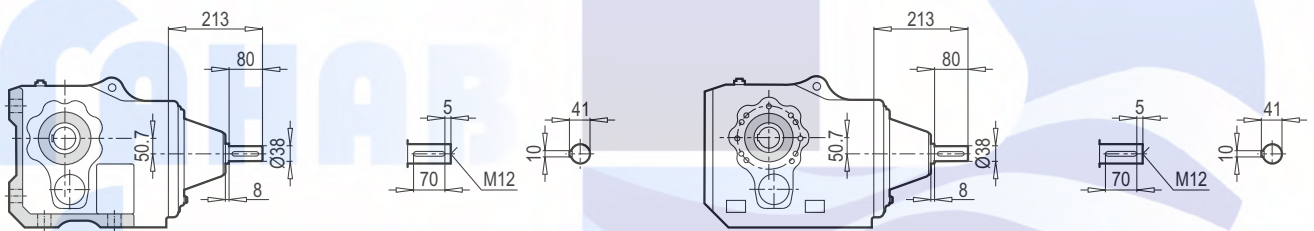
PKD 6390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 6390	100	250	180	215	5.0	M12	28	60	31.3	8	127
	112	250	180	215	5.0	M12	28	60	31.3	8	127
	132	300	230	265	5.0	M12	38	80	41.3	10	177
	160	350	250	300	6.0	M16	42	110	45.3	12	266
	180	350	250	300	6.0	M16	48	110	51.8	14	266
	200	400	300	350	6.0	M16	55	110	59.3	16	229
	225	450	350	400	6.0	M16	60	140	64.4	18	303

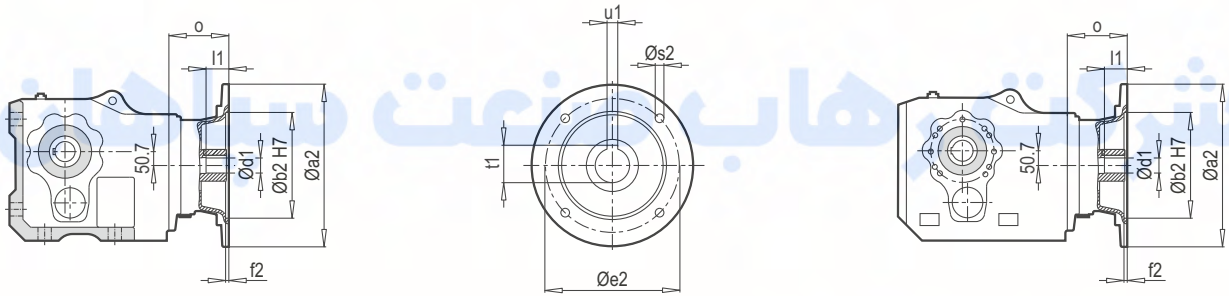
~ Kg	
IEC	PKD 6390
100	365
112	365
132	379
160	405
180	405
200	420
225	436

PKD 6390 W



W ~ Kg	
PKD 6390	378

PKD 6390 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 6390	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75
	132	300	230	265	5.0	M12	38	80	41.3	10	110
	160	350	250	300	6.0	M16	42	110	45.3	12	145
	180	350	250	300	6.0	M16	48	110	51.8	14	145
	200	400	300	350	6.0	M16	55	110	59.3	16	157
	225	450	350	400	6.0	M16	60	140	64.4	18	183

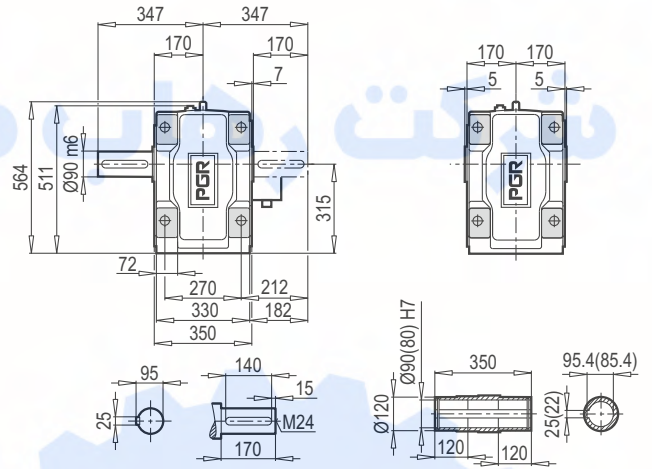
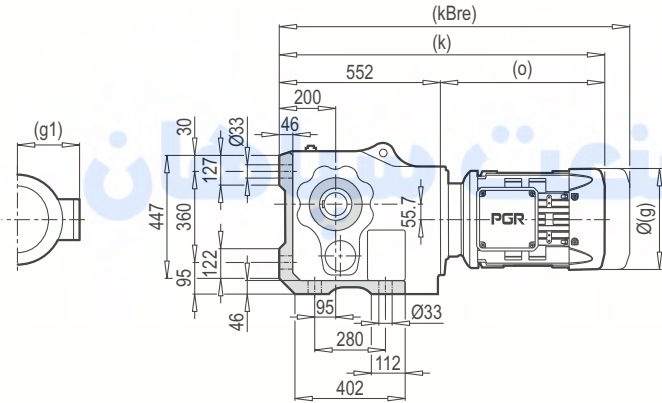
Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 6390	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75
	132	200	130	165	5.0	11	38	80	41.3	10	110

~ Kg	
PAM B5	PKD 6390
100	335
112	335
132	346
160	363
180	363
200	370
225	380

~ Kg	
PAM B14	PKD 6390
100	334
112	334
132	341

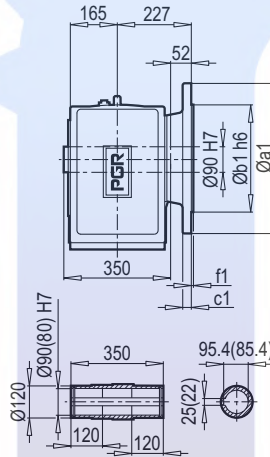
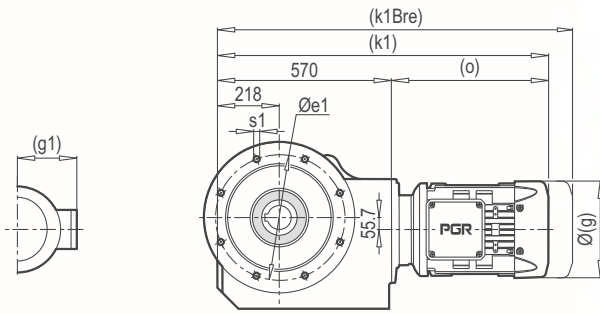
PKD 7390 TMA

PKD 7390 DA



PKD 7390 DG/B5

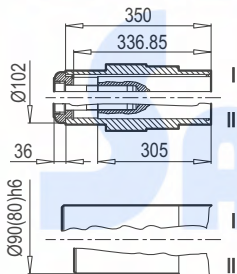
PKD 7390 TMG/B5



a1	b1	c1	e1	f1	s1
450	350	22	400	5	8x18
550	450	28	500	5	8x18

PKD 7390 DA/Ç

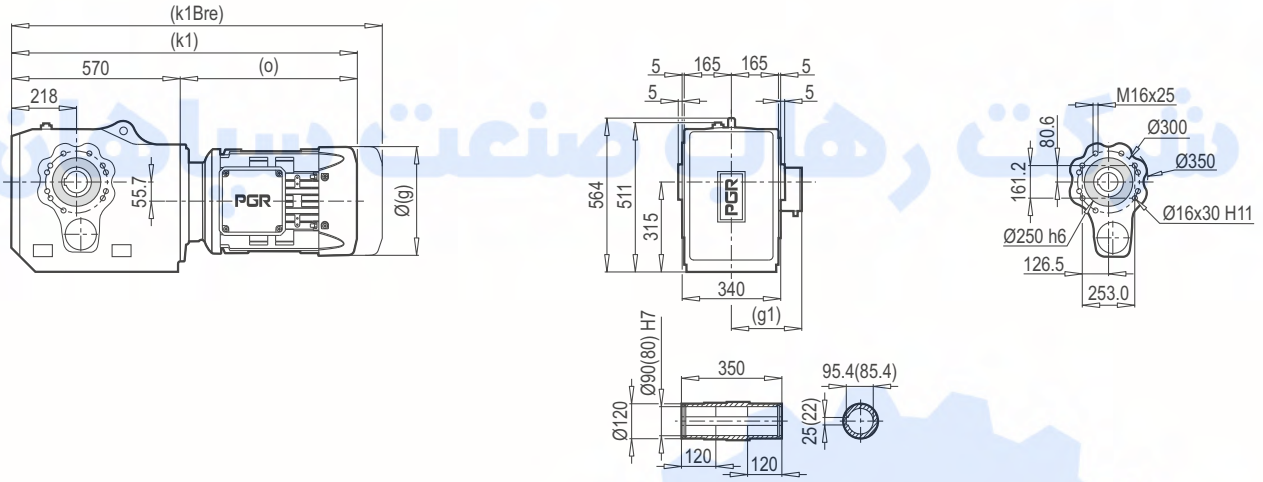
66-67



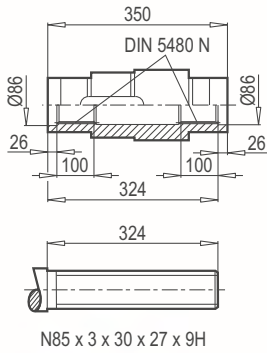
	100 L	112 M	132 S/M	160 M/L	180 M/L	200 L	225 S/M
g	217	232	279	323	370	415	456
g1	160	168	182	200	248	260	260
k	864	912	915/950	1016	1075	1170	1252
kBre	945	992	1023/1091	1168	1237	1317	1424
o	312	360	363/398	464	523	618	700

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

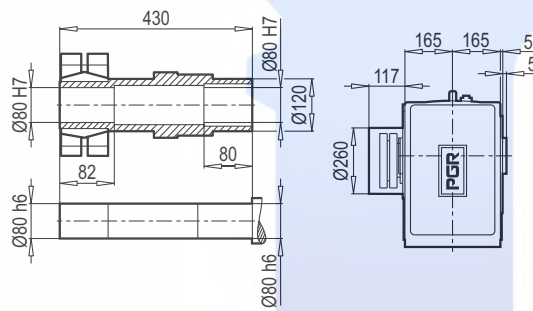
PKD 7390 DG/B14



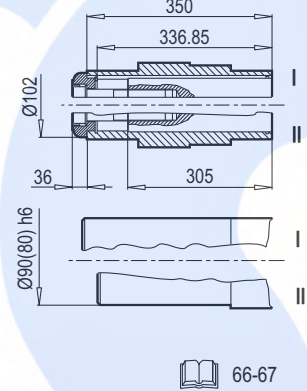
PKD 7390 DG/DIN 5480



PKD 7390 DG/KS



PKD 7390 DG/Ç



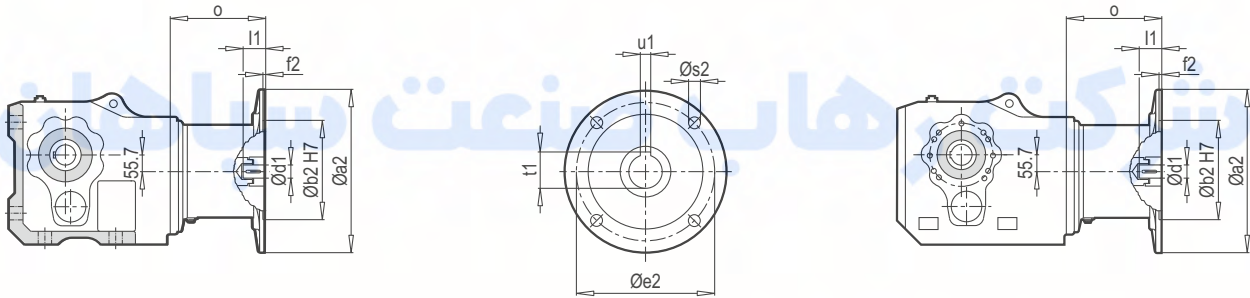
Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s _{h6}	s _{f6}	dxl	Zs	MA (Nm)
KS 80/108	8500	3.70	3.56	M12x70*	14	100

	100 L	112 M	132 S/M	160 M/L	180 M/L	200 L	225 S/M	
g	217	232	279	323	370	415	456	
g1	160	168	182	200	248	260	260	
k1	882	930	933/968	1034	1093	1188	1270	
k1Bre	963	1010	1041/1109	1186	1255	1335	1442	
o	312	360	363/398	464	523	618	700	

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 7390

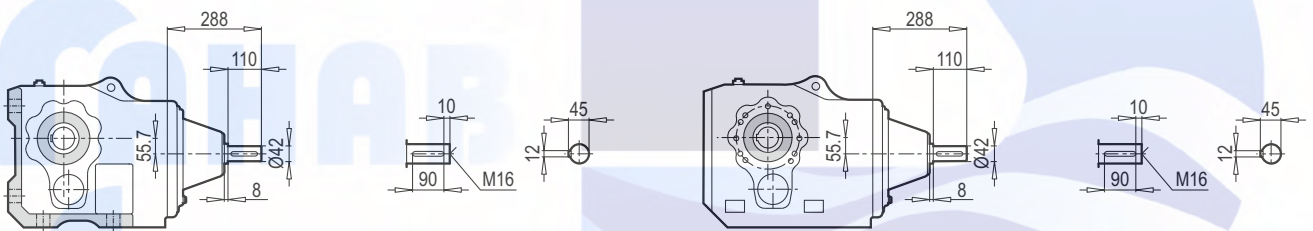
PKD 7390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 7390	100	250	180	215	5.0	M12	28	60	31.3	8	127
	112	250	180	215	5.0	M12	28	60	31.3	8	127
	132	300	230	265	5.0	M12	38	80	41.3	10	177
	160	350	250	300	6.0	M16	42	110	45.3	12	266
	180	350	250	300	6.0	M16	48	110	51.8	14	266
	200	400	300	350	6.0	M16	55	110	59.3	16	229
	225	450	350	400	6.0	M16	60	140	64.4	18	303

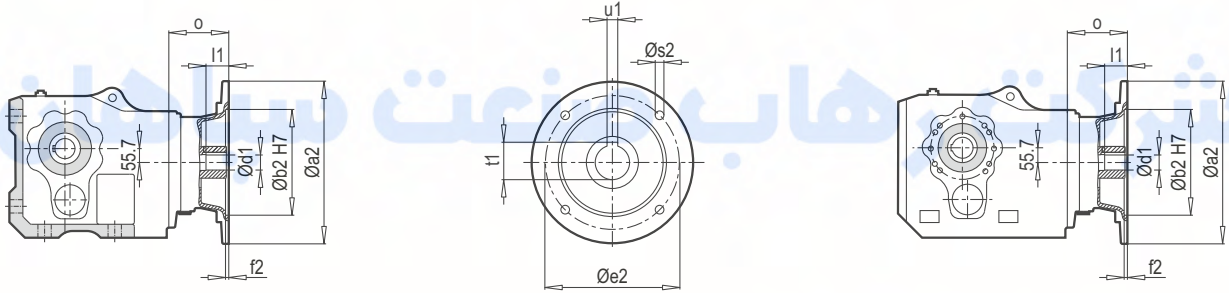
~ Kg	
IEC	PKD 7390
100	365
112	365
132	379
160	405
180	405
200	420
225	436

PKD 7390 W



W ~ Kg	
PKD 7390	378

PKD 7390 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 7390	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75
	132	300	230	265	5.0	M12	38	80	41.3	10	110
	160	350	250	300	6.0	M16	42	110	45.3	12	145
	180	350	250	300	6.0	M16	48	110	51.8	14	145
	200	400	300	350	6.0	M16	55	100	59.3	16	157
	225	450	350	400	6.0	M16	60	140	64.4	18	183

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 7390	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75
	132	200	130	165	5.0	11	38	80	41.3	10	110

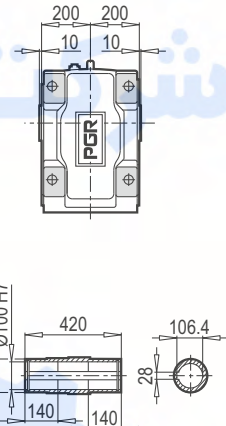
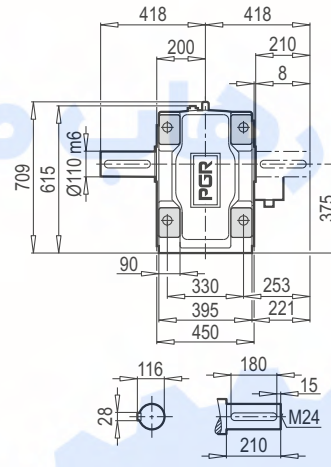
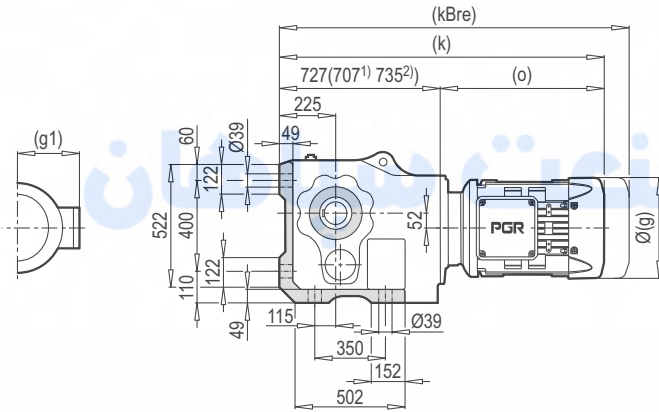
~ Kg	
PAM B5	PKD 7390
100	335
112	335
132	346
160	363
180	363
200	370
225	380

~ Kg	
PAM B14	PKD 7390
100	334
112	334
132	341

PKD 8390

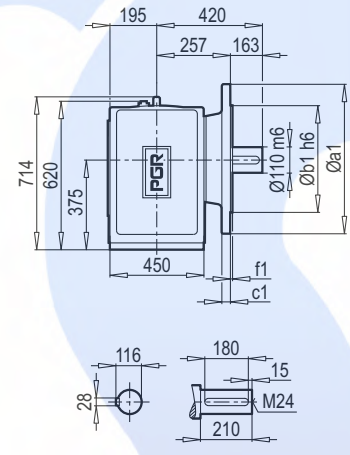
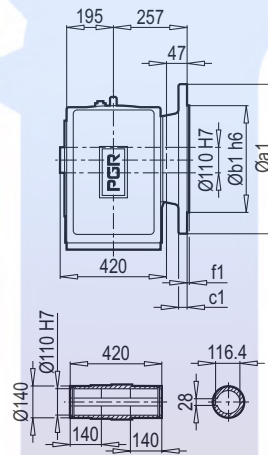
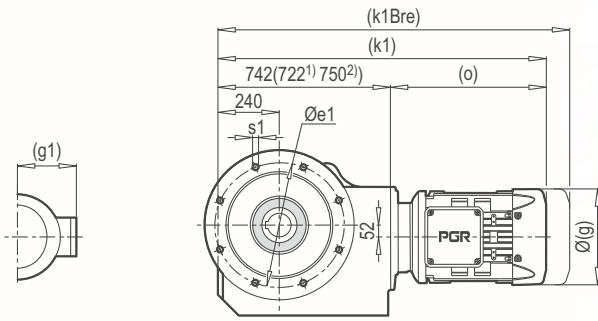
PKD 8390 TMA

PKD 8390 DA



PKD 8390 DG/B5

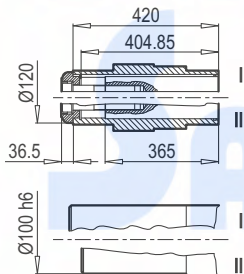
PKD 8390 TMG/B5



a1	b1	c1	e1	f1	s1
550	450	28	500	5	8x18

PKD 8390 DA/Ç

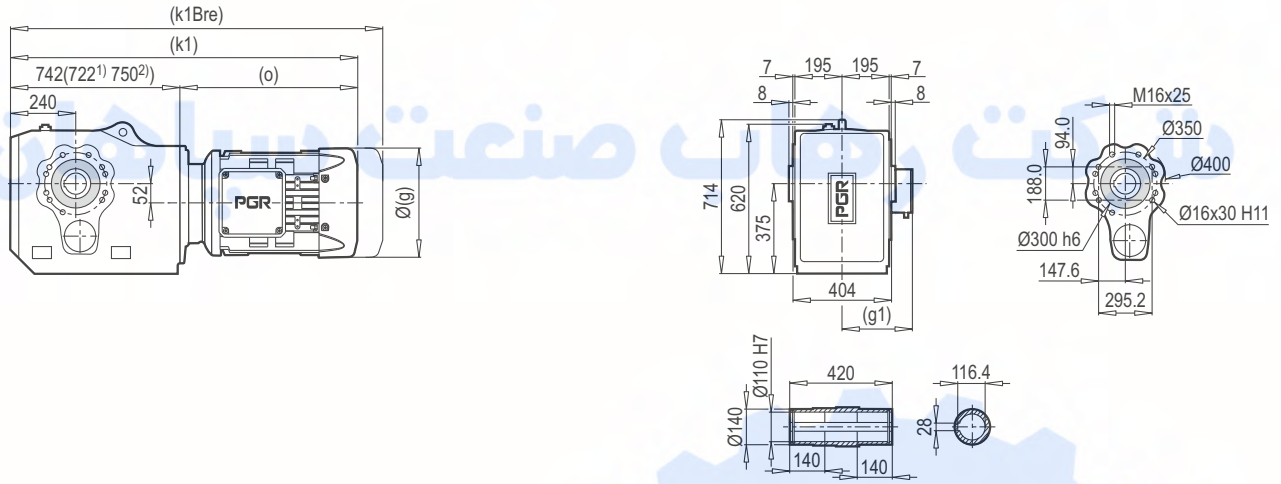
66-67



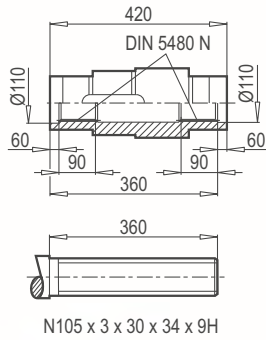
	132 S/M	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ²⁾	
g	279	323	370	415	456	495	527	
g1	182	200	248	260	260	392	367	
k	1090/1125	1191	1250	1345	1427	1351	1653	
kBre	1198/1266	1343	1412	1492	1599	1481	-	
o	363/398	464	523	618	700	644	888	

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

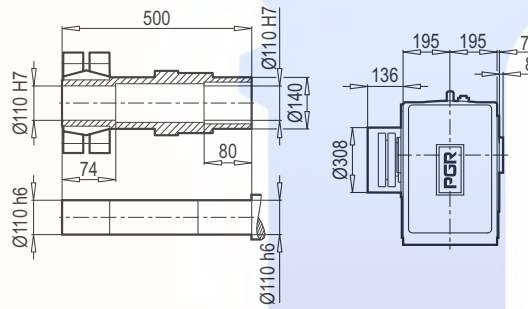
PKD 8390 DG/B14



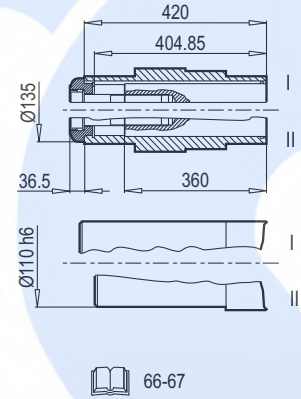
PKD 8390 DG/DIN 5480



PKD 8390 DG/KS



PKD 8390 DG/Ç

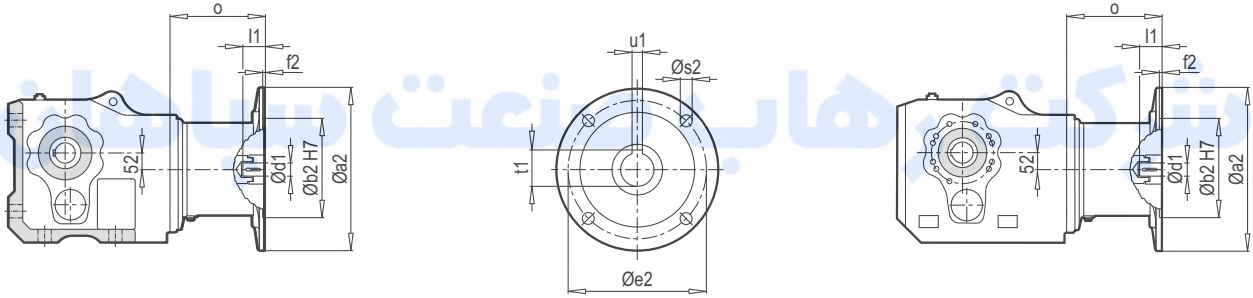


Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s _{h6}	s _{f6}	d _{xl}	Zs	MA (Nm)
KS 110/138	13000	2.66	2.54	M16x70	8	250

	132 S/M	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ²⁾	
g	279	323	370	415	456	495	527	
g1	182	200	248	260	260	392	367	
k1	1105/1140	1206	1265	1360	1442	1366	1638	
k1Bre	1213/1281	1358	1427	1507	1614	1496	-	
o	363/398	464	523	618	700	644	888	

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

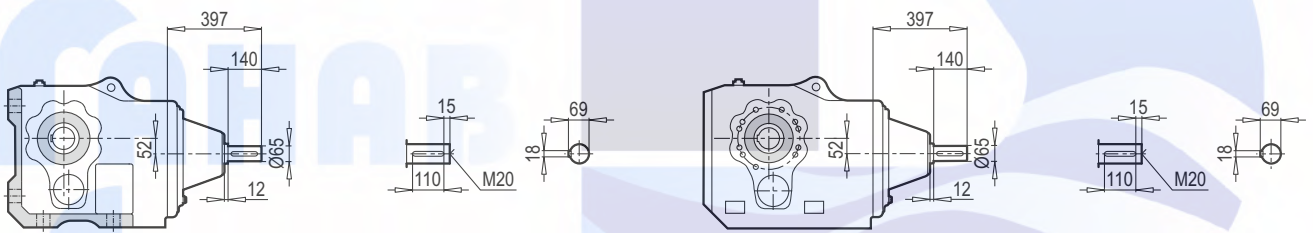
PKD 8390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 8390	132	300	230	265	5.0	M12	38	80	41.3	10	177
	160	350	250	300	6.0	M16	42	110	45.3	12	266
	180	350	250	300	6.0	M16	48	110	51.8	14	266
	200	400	300	350	6.0	M16	55	110	59.3	16	229
	225	450	350	400	6.0	M16	60	140	64.4	18	303
	250	550	450	500	6.0	M16	65	140	69.4	18	303
	280	550	450	500	6.0	M16	75	140	79.9	20	303
	315	660	550	600	7.0	M20	80	170	85.4	22	381

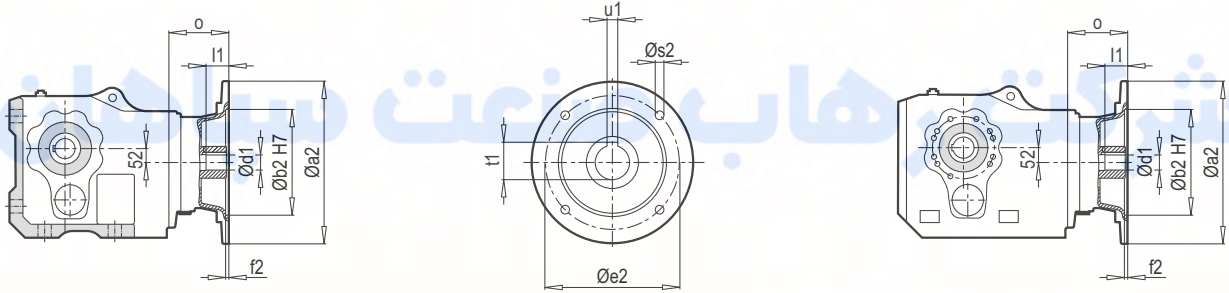
~ Kg	
IEC	PKD 8390
132	658
160	685
180	685
200	700
225	716
250	774
280	774
315	859

PKD 8390 W



W ~ Kg	
PKD 8390	737

PKD 8390 PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 8390	100	250	180	215	5.0	M12	28	60	31.3	8	75
	112	250	180	215	5.0	M12	28	60	31.3	8	75
	132	300	230	265	5.0	M12	38	80	41.3	10	110
	160	350	250	300	6.0	M16	42	110	45.3	12	145
	180	350	250	300	6.0	M16	48	110	51.8	14	145
	200	400	300	350	6.0	M16	55	110	59.3	16	157
	225	450	350	400	6.0	M16	60	140	64.4	18	183
	250	550	450	500	6.0	M16	65	140	69.4	18	202
	280	550	450	500	6.0	M16	75	140	79.9	20	202

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 8390	100	160	110	130	5.0	9	28	60	31.3	8	75
	112	160	110	130	5.0	9	28	60	31.3	8	75
	132	200	130	165	5.0	11	38	80	41.3	10	110

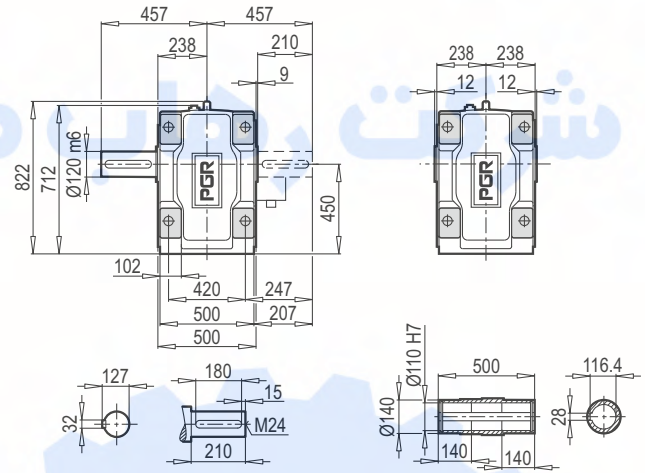
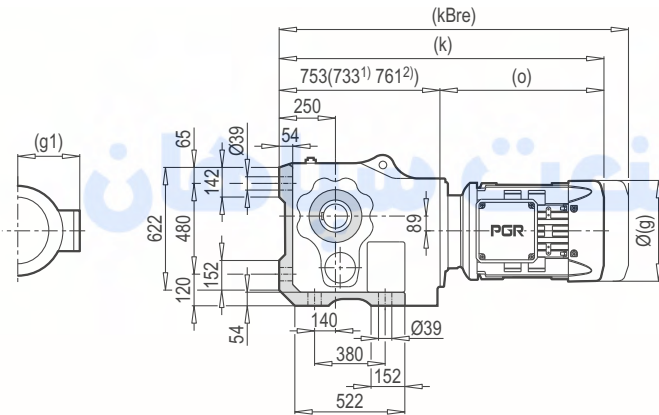
~ Kg	
PAM B5	PKD 8390
100	595
112	595
132	606
160	623
180	623
200	630
225	640
250	700
280	700

~ Kg	
PAM B14	PKD 8390
100	594
112	594
132	601

PKD G 8390

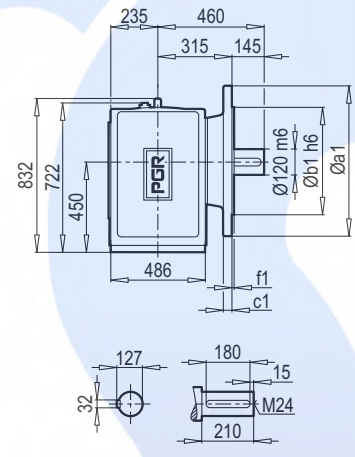
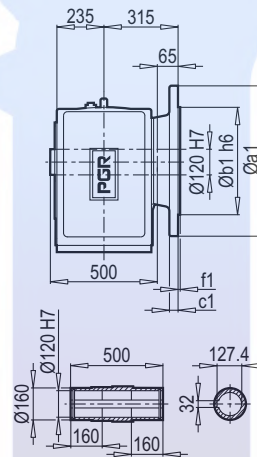
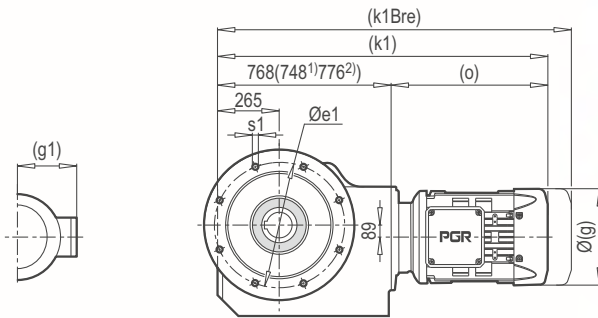
PKD G 8390 TMA

PKD G 8390 DA



PKD G 8390 DG/B5

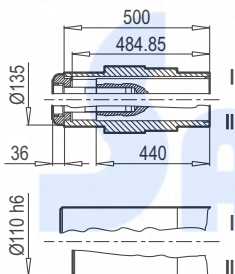
PKD G 8390 TMG/B5



a1	b1	c1	e1	f1	s1
660	550	32	600	6	8x22

PKD G 8390 DA/Ç

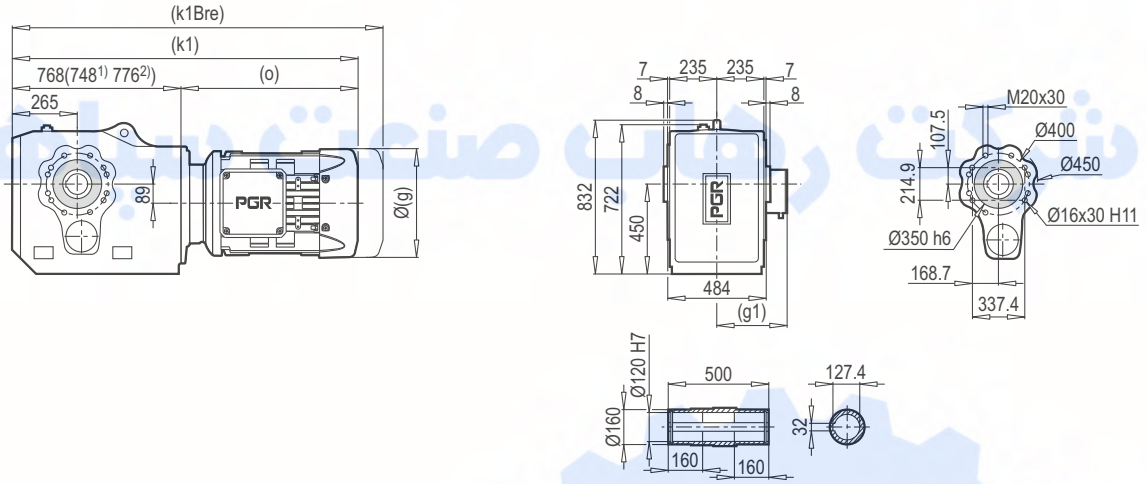
66-67



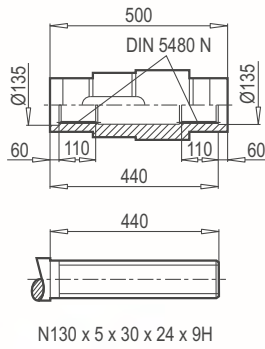
	132 S/M	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ²⁾	315 S ²⁾	315 M ²⁾
g	279	323	370	415	456	495	527	-	-
g1	182	200	248	260	260	392	367	-	-
k	1116/1151	1217	1276	1371	1453	1377	1649	-	-
kBre	1224/1292	1369	1438	1518	1625	1507	-	-	-
o	363/398	464	523	618	700	644	888	-	-

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

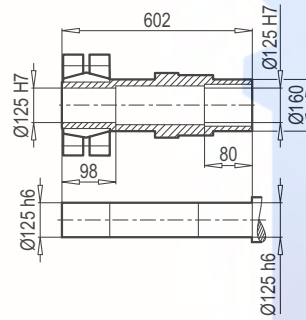
PKD G 8390 DG/B14



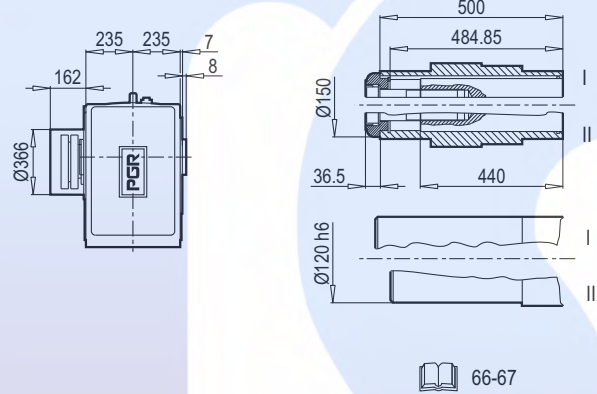
PKD G 8390 DG/DIN 5480



PKD G 8390 DG/KS



PKD G 8390 DG/Ç



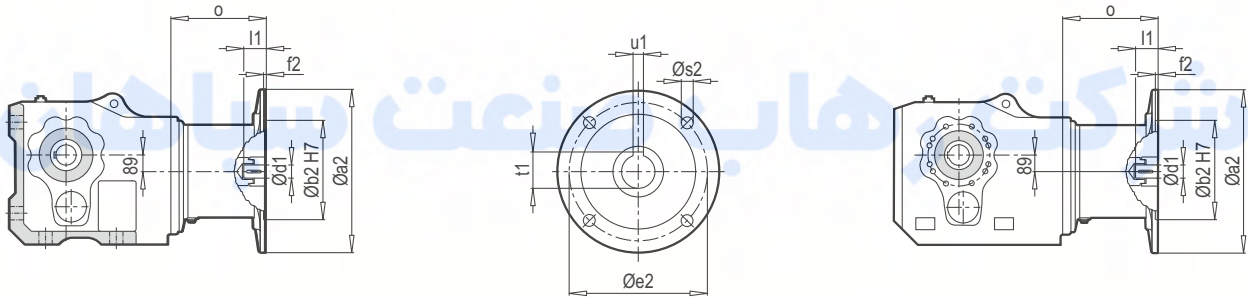
Konik sıkırma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{amax} (Nm)	s _{h6}	s _{f6}	dxl	Zs	MA (Nm)
KS 125/158	20000	2.91	2.77	M16x80*	12	250

	132 S/M	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ²⁾	315 S ²⁾	315 M ²⁾
g	279	323	370	415	456	495	527	-	-
g1	182	200	248	260	260	392	367	-	-
k1	1131/1166	1232	1291	1386	1468	1392	1664	-	-
k1Bre	1239/1307	1384	1453	1533	1640	1522	-	-	-
o	363/398	464	523	618	700	644	888	-	-

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD G 8390

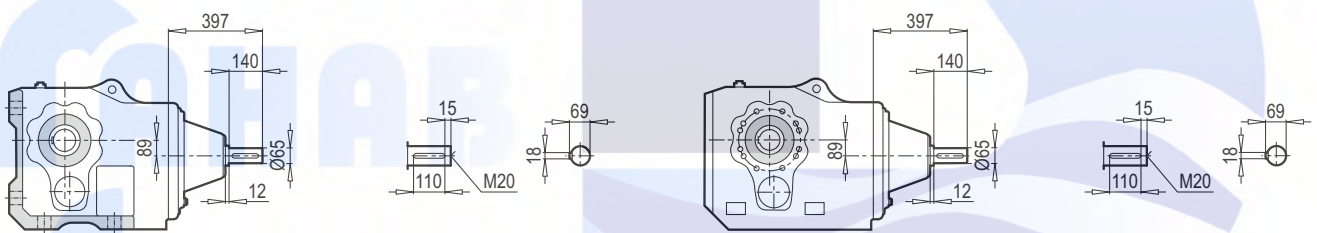
PKD G 8390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 8390	132	300	230	265	5.0	M12	38	80	41.3	10	177
	160	350	250	300	6.0	M16	42	110	45.3	12	266
	180	350	250	300	6.0	M16	48	110	51.8	14	266
	200	400	300	350	6.0	M16	55	110	59.3	16	229
	225	450	350	400	6.0	M16	60	140	64.4	18	303
	250	550	450	500	6.0	M16	65	140	69.4	18	303
	280	550	450	500	6.0	M16	75	140	79.9	20	303
	315	660	550	600	7.0	M20	80	170	85.4	22	381

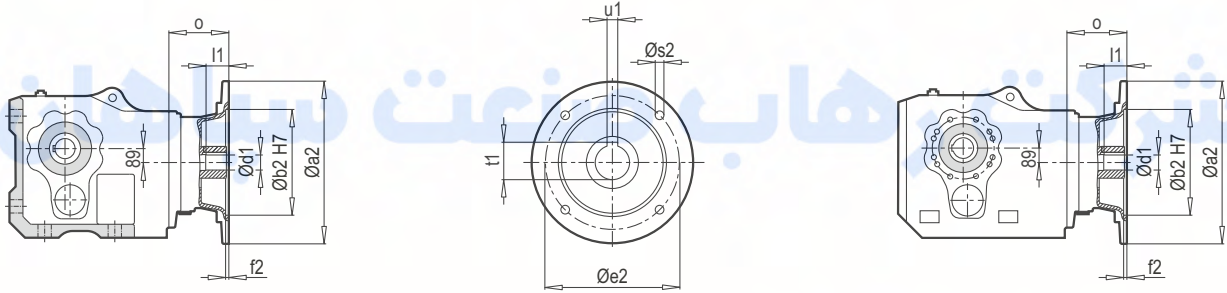
~ Kg	
IEC	PKD G 8390
132	923
160	950
180	950
200	965
225	981
225	1039
280	1039
315	1124

PKD G 8390 W



W ~ Kg	
PKD G 8390	1002

PKD G 8390 PAM B5/B14



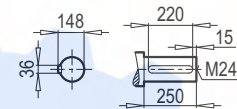
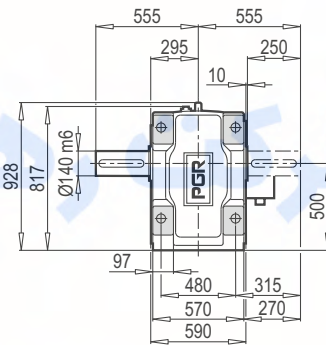
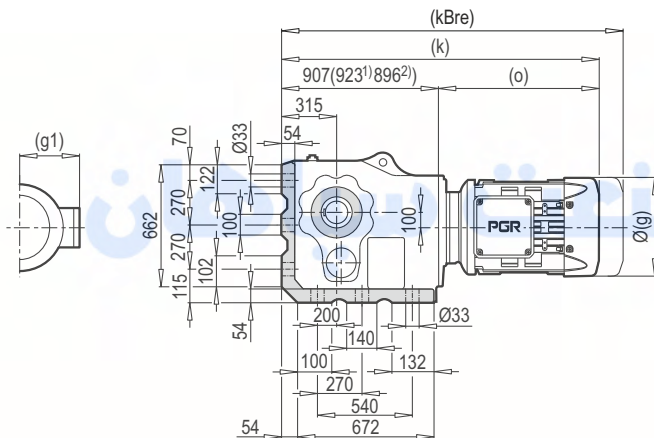
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 8390	132	300	230	265	5.0	M12	38	80	41.3	10	110
	160	350	250	300	6.0	M16	42	110	45.3	12	145
	180	350	250	300	6.0	M16	48	110	51.8	14	145
	200	400	300	350	6.0	M16	55	110	59.3	16	157
	225	450	350	400	6.0	M16	60	140	64.4	18	183
	250	550	450	500	6.0	M16	65	140	69.4	18	202
	280	550	450	500	6.0	M16	75	140	79.9	20	202

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 8390	132	200	130	165	5.0	11	38	80	41.3	10	110

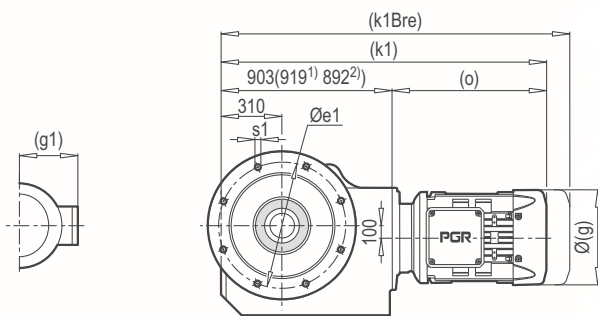
~ kg	
PAM B5	PKD G 8390
132	856
160	873
180	873
200	880
225	890
250	950
280	950

~ kg	
PAM B14	PKD G 8390
132	851

PKD 9390 TMA

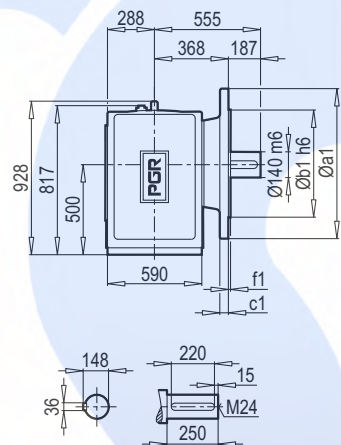
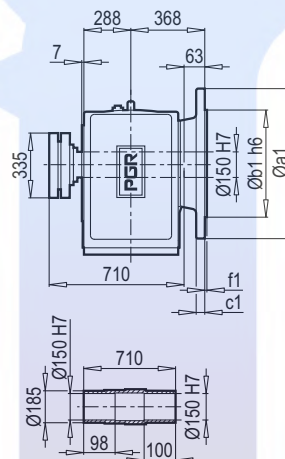


PKD 9390 DG/KS/B5



a1	b1	c1	e1	f1	s1
660	550	32	600	6	8x22

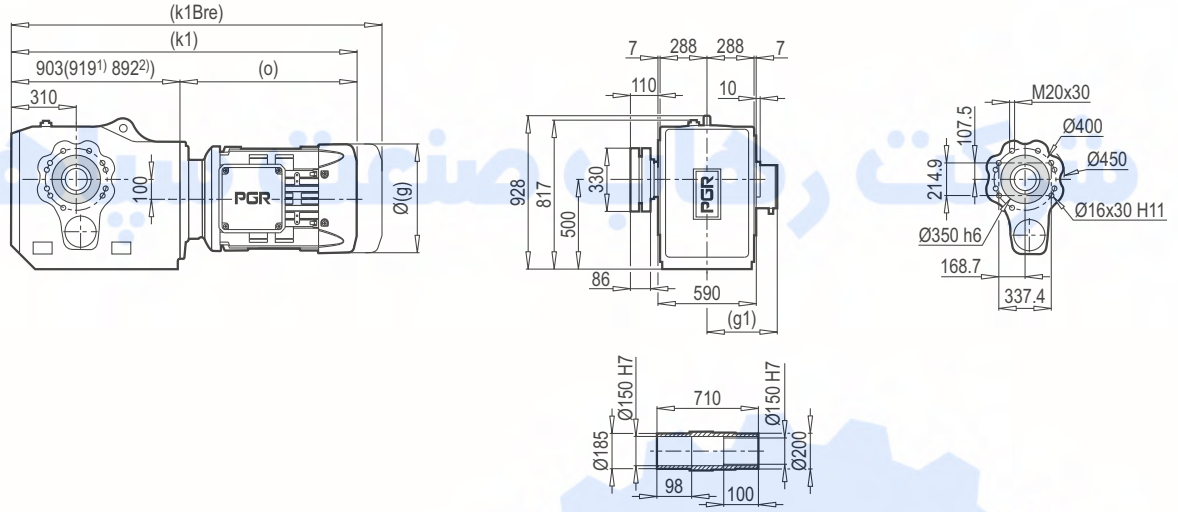
PKD 9390 TMG/B5



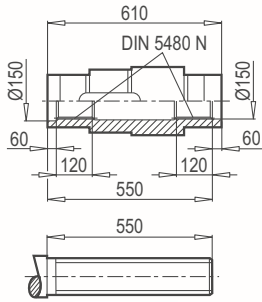
	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ²⁾	315 S ²⁾	315 M ²⁾
g	323	370	415	456	495	527	-	-
g1	200	248	260	260	392	367	-	-
k	1371	1430	1525	1607	1567	1784	-	-
kBre	1523	1592	1672	1779	1697	-	-	-
o	464	523	618	700	644	888	-	-

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / **Note :** The dimensions which have (...) sign vary depending on the motor brand.

PKD 9390 DG/KS/B14

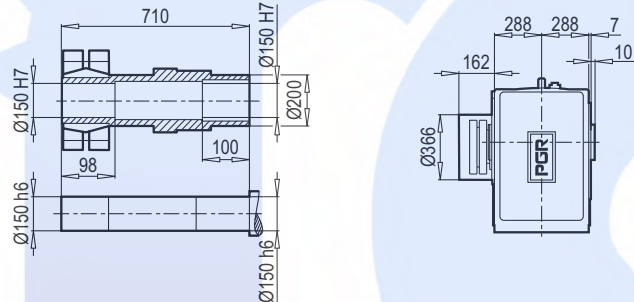


PKD 9390 DG/DIN 5480



N140 x 3 x 30 x 45 x 9H

PKD 9390 DG/KS

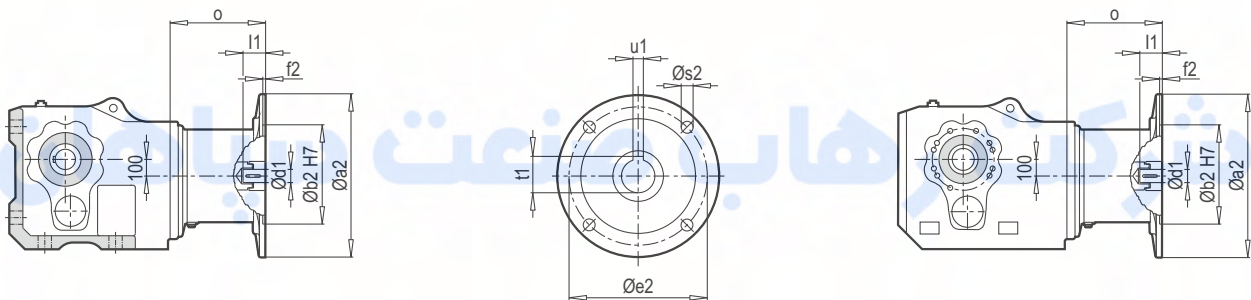


Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{2max} (Nm)	s _{h6}	s _{f6}	dxl	Zs	MA (Nm)
KS 150/185	32000	2.66	2.56	M16x80*	14	250

	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ²⁾	315 S ²⁾	315 M ²⁾
g	323	370	415	456	495	527	-	-
g1	200	248	260	260	392	367	-	-
k1	1367	1426	1521	1603	1563	1780	-	-
k1Bre	1519	1588	1668	1775	1693	-	-	-
o	464	523	618	700	644	888	-	-

Not : (...) İşaretili olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

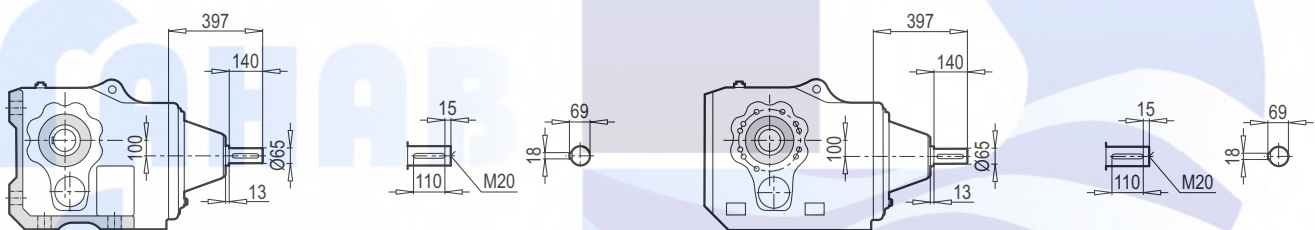
PKD 9390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 9390	132	300	230	265	5.0	M12	38	80	41.3	10	177
	160	350	250	300	6.0	M16	42	110	45.3	12	266
	180	350	250	300	6.0	M16	48	110	51.8	14	266
	200	400	300	350	6.0	M16	55	110	59.3	16	229
	225	450	350	400	6.0	M16	60	140	64.4	18	303
	250	550	450	500	6.0	M16	65	140	69.4	18	303
	280	550	450	500	6.0	M16	75	140	79.9	20	303
	315	660	550	600	7.0	M20	80	170	85.4	22	381

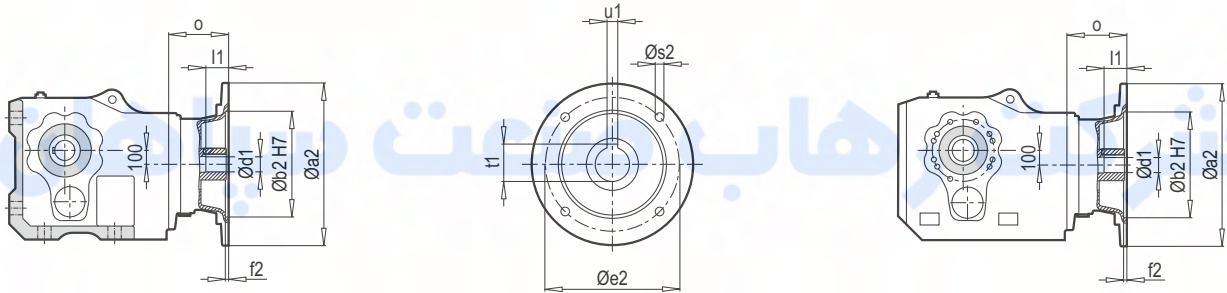
~ Kg	
IEC	PKD 9390
132	1527
160	1554
180	1554
200	1569
225	1585
250	1643
280	1643
315	1728

PKD 9390 W



W ~ Kg	
PKD 9390	1606

PKD 9390 PAM B5/B14



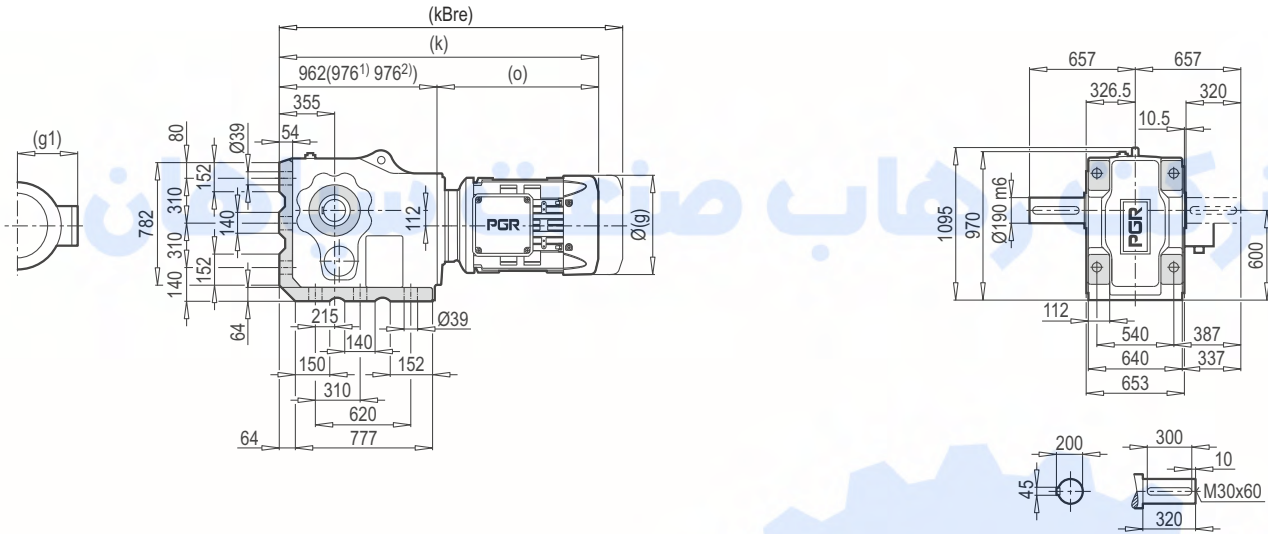
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 9390	132	300	230	265	5.0	M12	38	80	41.3	10	110
	160	350	250	300	6.0	M16	42	110	45.3	12	145
	180	350	250	300	6.0	M16	48	110	51.8	14	145
	200	400	300	350	6.0	M16	55	110	59.3	16	157
	225	450	350	400	6.0	M16	60	140	64.4	18	183
	250	550	450	500	6.0	M16	65	140	69.4	18	202
	280	550	450	500	6.0	M16	75	140	79.9	20	202

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 9390	132	200	130	165	5.0	11	38	80	41.3	10	110

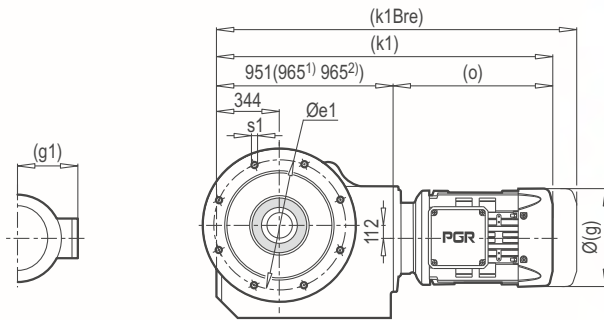
~ Kg	
PAM B5	PKD 9390
132	1426
160	1443
180	1443
200	1450
225	1460
250	1520
280	1520

~ Kg	
PAM B14	PKD 9390
132	1421

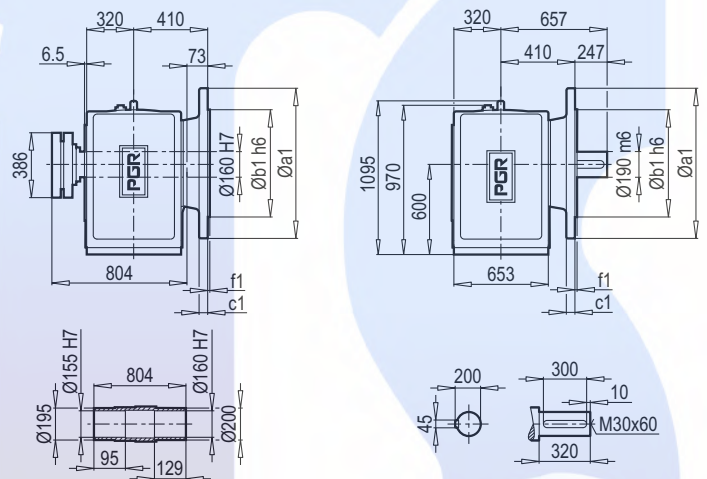
PKD G 9390 TMA



PKD G 9390 DG/KS/B5



PKD G 9390 TMG/B5

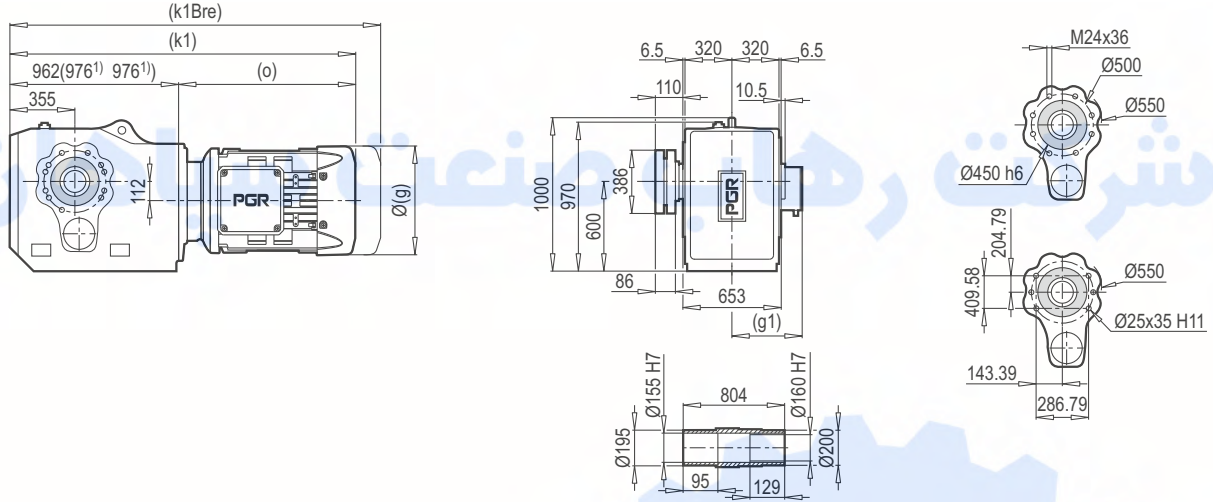


a1	b1	c1	e1	f1	s1
660	550	32	600	6	8x22

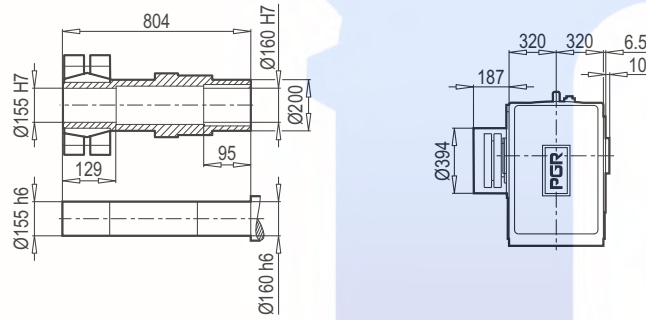
	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ²⁾	315 S ²⁾	315 M ²⁾
g	323	370	415	456	495	527	-	-
g1	200	248	260	260	392	367	-	-
k	1426	1485	1580	1662	1623	1864	-	-
kBre	1578	1647	1727	1834	1753	-	-	-
o	464	523	618	700	647	888	-	-

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD G 9390 DG/KS/B14



PKD G 9390 DG/KS

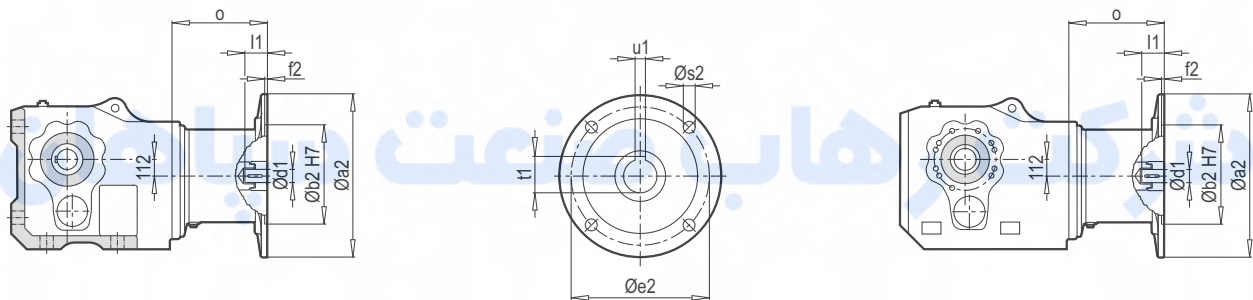


Konik sıkırtma / Shrink disc				Altıköşe başlı civata / Hexagonal screw DIN 931 / DIN 933* 10.9Vz		
Tip/Type	M _{2max} (Nm)	s _{h6}	s _{f6}	d _{xl}	Zs	MA (Nm)
KS 150/195	50000	2.71	2.61	M20x100*	14	490

	160 M/L	180 M/L	200 L	225 S/M	250 M ¹⁾	280 M ²⁾	315 S ²⁾	315 M ²⁾
g	323	370	415	456	495	527	-	-
g1	200	248	260	260	392	367	-	-
k1	1426	1485	1580	1662	1623	1864	-	-
k1Bre	1578	1647	1727	1834	1753	-	-	-
o	464	523	618	700	647	888	-	-

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

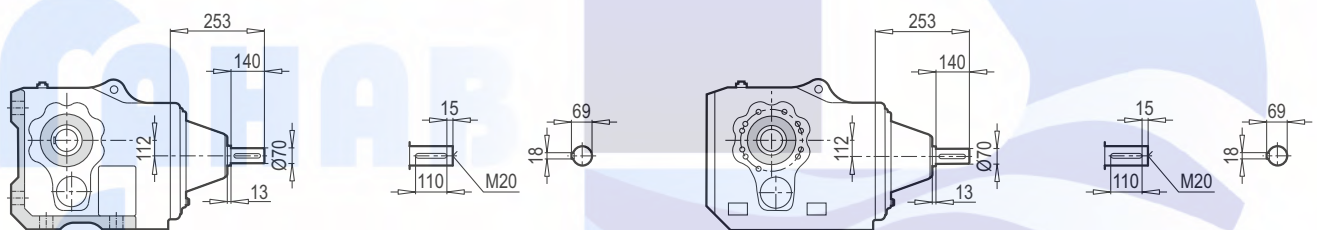
PKD G 9390 IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 9390	132	300	230	265	5.0	M12	38	80	41.3	10	177
	160	350	250	300	6.0	M16	42	110	45.3	12	266
	180	350	250	300	6.0	M16	48	110	51.8	14	266
	200	400	300	350	6.0	M16	55	110	59.3	16	229
	225	450	350	400	6.0	M16	60	140	64.4	18	303
	250	550	450	500	6.0	M16	65	140	69.4	18	303
	280	550	450	500	6.0	M16	75	140	79.9	20	303
	315	660	550	600	7.0	M20	80	170	85.4	22	381

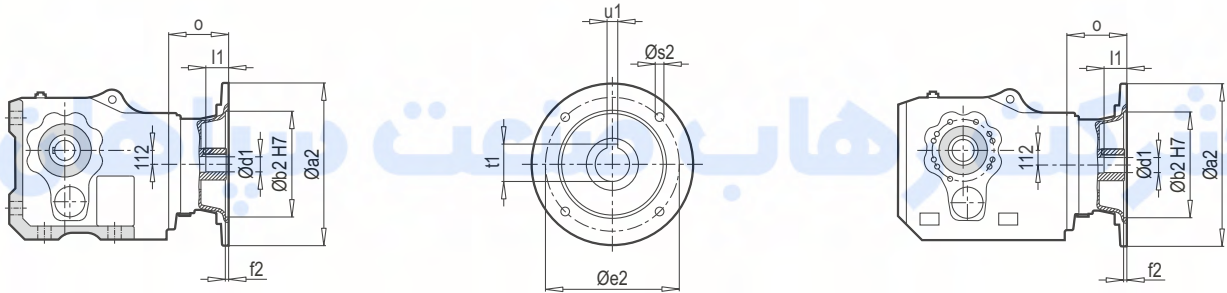
~ Kg	
IEC	PKD G 9390
132	1527
160	1554
180	1554
200	1569
225	1585
250	1643
280	1643
315	1750

PKD G 9390 W



W ~ Kg	
PKD G 9390	1606

PKD G 9390 PAM B5/B14



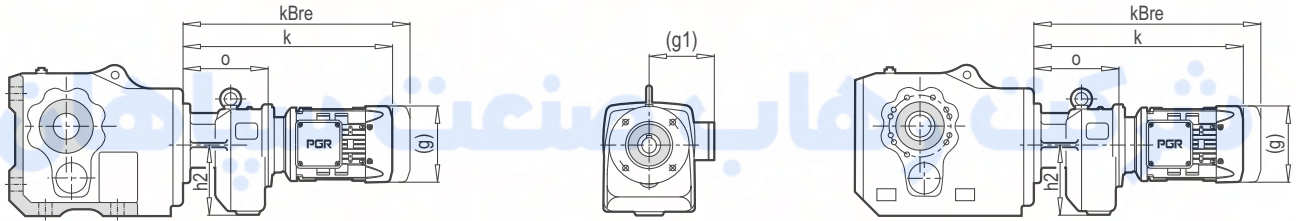
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 9390	132	300	230	265	5.0	M12	38	80	41.3	10	110
	160	350	250	300	6.0	M16	42	110	45.3	12	145
	180	350	250	300	6.0	M16	48	110	51.8	14	145
	200	400	300	350	6.0	M16	55	110	59.3	16	157
	225	450	350	400	6.0	M16	60	140	64.4	18	183
	250	550	450	500	6.0	M16	65	140	69.4	18	202
	280	550	450	500	6.0	M16	75	140	79.9	20	202

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD G 9390	132	200	130	165	5.0	11	38	80	41.3	10	110

~ kg	
PAM B5	PKD G 9390
132	1501
160	1518
180	1518
200	1525
225	1535
250	1595
280	1595

~ kg	
PAM B14	PKD G 9390
132	1496

PKD 6390/32 PKD 6390/42
PKD 7390/32 PKD 7390/42

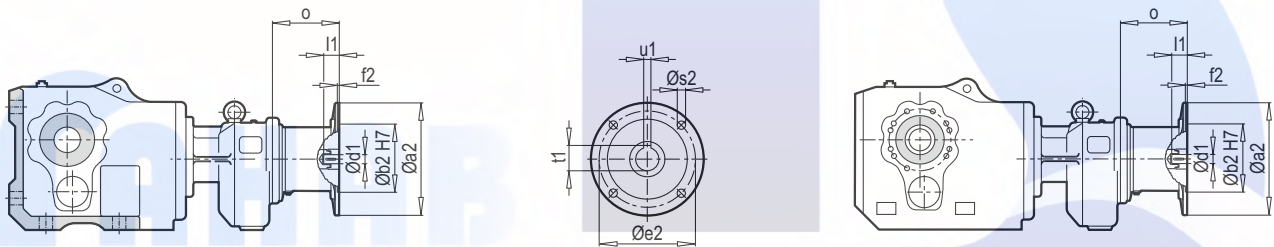


Tip / Type	Motor	g	g1	h2	z	k	kBre
PA/PF 63/22 PA/PF 73/22	71 M	140	119	159	220	456	516
	80 M	159	127			482	544
	90 S/L	193	151			505/525	578/598
	100 L	217	160			553	634
	112 M	232	168			598	678
	132 S/M	279	182			605/640	713/781
PA/PF 73/32 PA/PF 83/32	90 S/L	193	151	179	262	527/547	600/620
	100 L	217	160			575	656
	112 M	232	168			620	700
	132 S/M	279	182			627/662	735/803

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 6390/32 PKD 6390/42
PKD 7390/32 PKD 7390/42

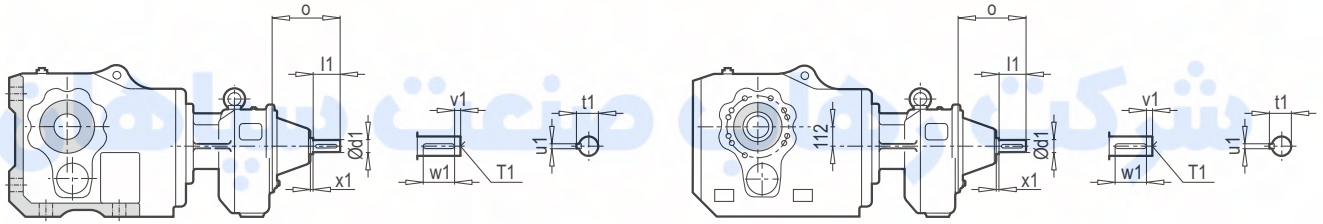
IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PKD 6390/32 7390/32 o	PKD 6390/42 7390/42 o	~ Kg		
													IEC	PKD 6390/32 PKD 7390/32	PKD 6390/42 PKD 7390/42
PKD 6390/32-7390/32	71	160	110	130	4.0	M8	14	30	16.3	5	88	-	71	380	-
PKD 6390/32-7390/32	80	200	130	165	4.0	M10	19	40	21.8	6	107	-	80	384	-
PKD 6390/32-7390/32-6390/42-7390/42	90	200	130	165	4.0	M10	24	50	27.3	8	107	107	90	384	405
PKD 6390/32-7390/32-6390/42-7390/42	100	250	180	215	5.0	M12	28	60	31.3	8	124	133	100	389	413
PKD 6390/32-7390/32-6390/42-7390/42	112	250	180	215	5.0	M12	28	60	31.3	8	124	133	112	389	413
PKD 6390/32-7390/32-6390/42-7390/42	132	300	230	265	5.0	M12	38	80	41.3	10	156	190	132	398	427
PKD 6390/42-7390/42	160	350	250	300	6.0	M16	42	110	45.3	12	-	194	160	-	438

PKD 6390/32 PKD 6390/42
PKD 7390/32 PKD 7390/42

W

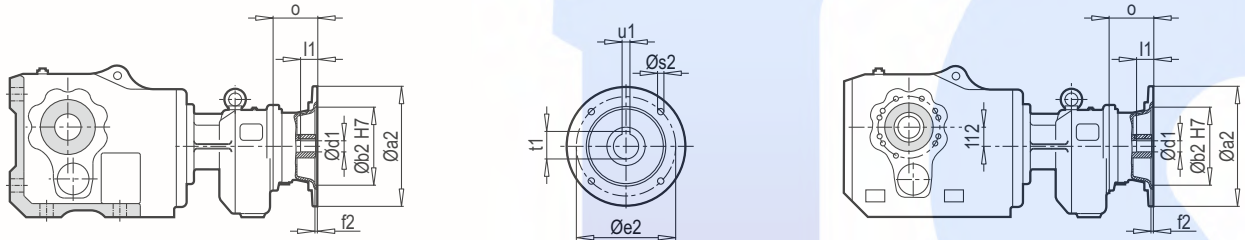


Tip / Type	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PKD 6390/32	24	8	50	172	M8	27.0	8	5	40
PKD 7390/32	24	8	50	172	M8	27.0	8	5	40
PKD 6390/42	38	8	80	213	M12	41.0	10	5	70
PKD 7390/42	38	8	80	213	M12	41.0	10	5	70

W ~ Kg	
PKD 6390/32	382
PKD 7390/32	382
PKD 6390/42	411
PKD 7390/42	411

PKD 6390/32 PKD 6390/42
PKD 7390/32 PKD 7390/42

PAM B5/B14



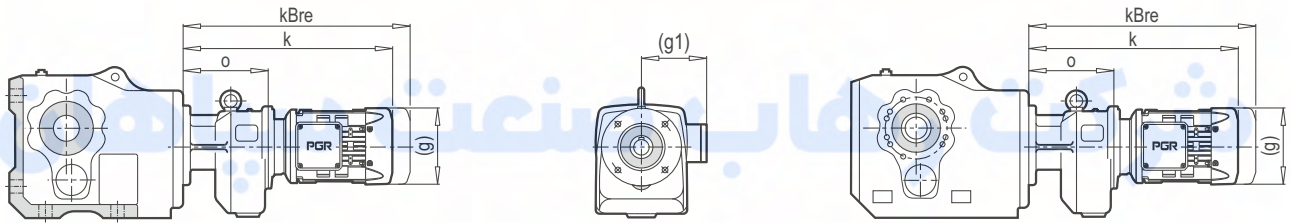
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 6390/32-7390/32	71	160	110	130	4.0	M8	14	30	16.3	5	88
PKD 6390/32-7390/32	80	200	130	165	4.0	M10	19	40	21.8	6	72
PKD 6390/32-7390/32-6390/42-7390/42	90	200	130	165	4.0	M10	24	50	27.3	8	72
PKD 6390/32-7390/32-6390/42-7390/42	100	250	180	215	5.0	M12	28	60	31.3	8	75
PKD 6390/32-7390/32-6390/42-7390/42	112	250	180	215	5.0	M12	28	60	31.3	8	75
PKD 6390/32-7390/32-6390/42-7390/42	132	300	230	265	5.0	M12	38	80	41.3	10	94
PKD 6390/42-7390/42	160	350	250	300	6.0	M16	42	110	45.3	12	120

~ Kg				
PAM B5	PKD 6390/32	PKD 6390/42	PKD 7390/32	PKD 7390/42
71	361	-	361	-
80	362	-	362	-
90	362	382	362	382
100	363	383	363	383
112	363	383	363	383
132	373	392	373	392
160	-	400	-	400

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 6390/32-7390/32	71	105	70	85	4.0	7	14	30	16.3	5	88
PKD 6390/32-7390/32	80	120	80	100	4.0	7	19	40	21.8	6	72
PKD 6390/32-7390/32-6390/42-7390/42	90	140	95	115	4.0	9	24	50	27.3	8	72
PKD 6390/32-7390/32-6390/42-7390/42	100	160	110	130	5.0	9	28	60	31.3	8	75
PKD 6390/32-7390/32-6390/42-7390/42	112	160	110	130	5.0	9	28	60	31.3	8	75
PKD 6390/32-7390/32-6390/42-7390/42	132	200	130	165	5.0	11	38	80	41.3	10	94

~ Kg				
PAM B14	PKD 6390/32	PKD 6390/42	PKD 7390/32	PKD 7390/42
71	359	-	359	-
80	360	-	360	-
90	360	381	360	381
100	362	382	362	382
112	362	382	362	382
132	366	387	366	387

PKD 8390/42 PKD 8390/52
PKD G 8390/52
PKD 9390/52

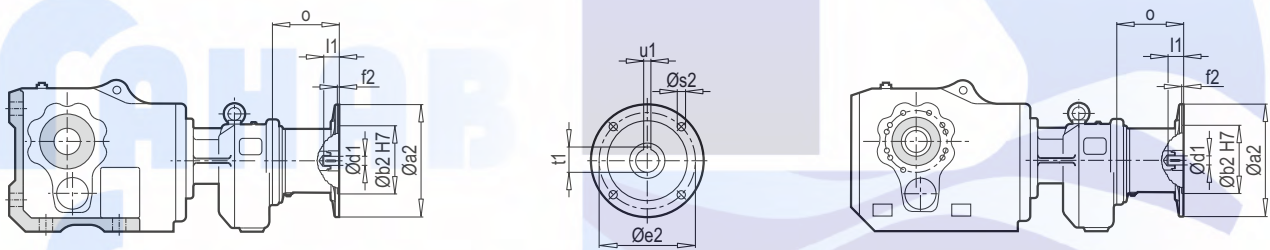


Tip / Type	Motor	g	g1	h2	z	k	kBre
PKD 8390/42	90 S/L	193	151	179	262	527/547	600/620
	100 L	217	160			575	656
	112 M	232	168			620	700
	132 S/M	279	182			627/662	735/803
	160 M/L	323	200			767	919
PKD 8390/52 PKD G 8390/52 PKD 9390/52	90 S/L	193	151	218	301	566/586	639/659
	100 L	217	160			614	695
	112 M	232	168			659	739
	132 S/M	279	182			666/701	774
	160 M/L	323	200			806	842
	180 M/L	370	248			880	958

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD 8390/42 PKD 8390/52
PKD G 8390/52
PKD 9390/52

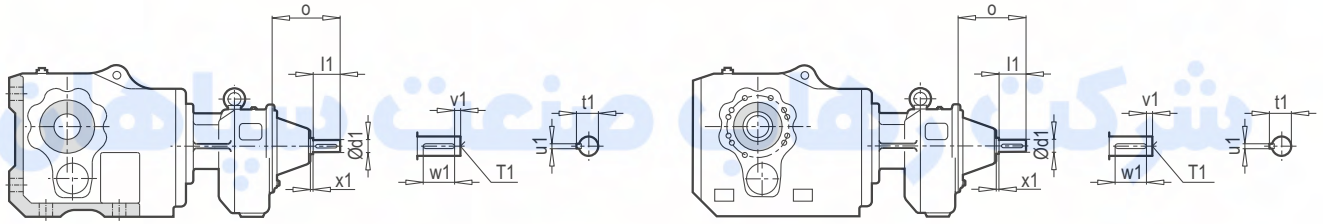
IEC



Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PKD 8390/42 o	PKD 8390/52 o	PKD G8390/52 9390/52 o	~ Kg				
														IEC	PKD 8390/42	PKD 8390/52	PKD G 8390/52	PKD 9390/52
PKD 8390/42-G8390/52-9390/52	90	200	130	165	4.0	M10	24	50	27.3	8	109	-	109	90	685	-	976	1580
PKD 8390/42-8390/52-G8390/52-9390/52	100	250	180	215	5.0	M12	28	60	31.3	8	133	133	133	100	692	719	984	1588
PKD 8390/42-8390/52-G8390/52-9390/52	112	250	180	215	5.0	M12	28	60	31.3	8	133	133	133	112	692	719	984	1588
PKD 8390/42-8390/52-G8390/52-9390/52	132	300	230	265	5.0	M12	38	80	41.3	10	190	190	190	132	707	734	999	1603
PKD 8390/42-8390/52-G8390/52-9390/52	160	350	250	300	6.0	M16	42	110	45.3	12	194	194	194	160	718	744	1009	1613
PKD 8390/52-G8390/52-9390/52	180	350	250	300	6.0	M16	48	110	51.8	14	-	194	194	180	-	744	1009	1613

PKD 8390/42 PKD 8390/52
PKD G 8390/52
PKD 9390/52

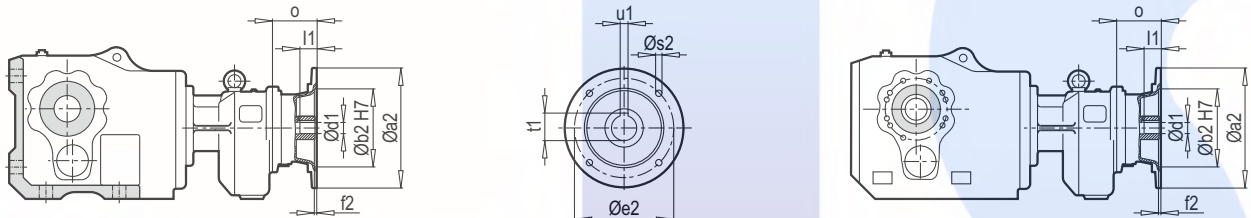
W



W ~ Kg	
PKD 8390/42	690
PKD 8390/52	717
PKD G 8390/52	982
PKD 9390/52	1586

PKD 8390/42 PKD 8390/52
PKD G 8390/52
PKD 9390/52

PAM B5/B14



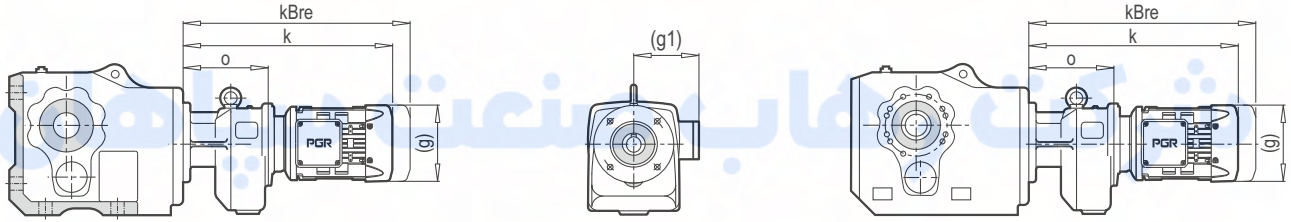
Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 8390/42-G8390/52-9390/52	90	200	130	165	4.0	M10	24	50	27.3	8	72
PKD 8390/42-8390/52-G8390/52-9390/52	100	250	180	215	5.0	M12	28	60	31.3	8	75
PKD 8390/42-8390/52-G8390/52-9390/52	112	250	180	215	5.0	M12	28	60	31.3	8	75
PKD 8390/42-8390/52-G8390/52-9390/52	132	300	230	265	5.0	M12	38	80	41.3	10	94
PKD 8390/42-8390/52-G8390/52-9390/52	160	350	250	300	6.0	M16	42	110	45.3	12	120
PKD 8390/52-G8390/52-9390/52	180	350	250	300	6.0	M16	48	110	51.8	14	120

~ Kg				
PAM B5	PKD 8390/42	PKD 8390/52	PKD G 8390/52	PKD 9390/52
90	642	-	917	1487
100	643	668	918	1488
112	643	668	918	1488
132	652	677	927	1597
160	660	685	935	1605
180	-	685	935	1605

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o
PKD 8390/42-G8390/52-9390/52	90	140	95	115	4.0	9	24	50	27.3	8	72
PKD 8390/42-8390/52-G8390/52-9390/52	100	160	110	130	5.0	9	28	60	31.3	8	75
PKD 8390/42-8390/52-G8390/52-9390/52	112	160	110	130	5.0	9	28	60	31.3	8	75
PKD 8390/42-8390/52-G8390/52-9390/52	132	200	130	165	5.0	11	38	80	41.3	10	94

~ Kg				
PAM B14	PKD 8390/42	PKD 8390/52	PKD G 8390/52	PKD 9390/52
90	641	-	916	1486
100	642	667	917	1487
112	642	667	917	1487
132	647	672	923	1492

PKD G 9390/62 PKD G 9390/63

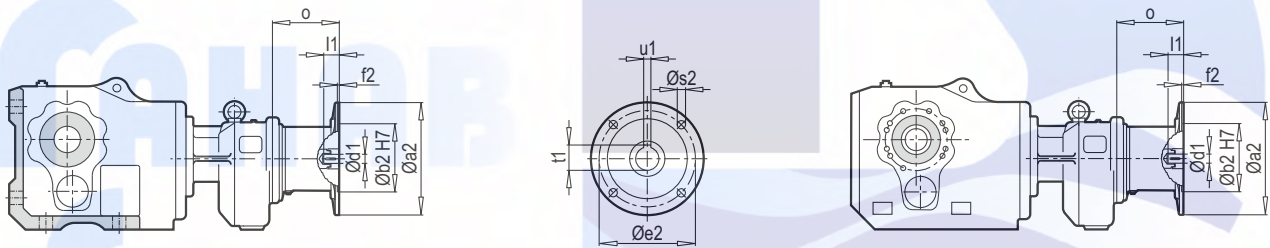


Tip / Type	Motor	g	g1	h2	z	k	kBre
PKD G9390/62	100 L	217	160	245	402	714	795
	112 M	232	168			762	842
	132 S/M	279	182			765/800	873/941
	160 M/L	323	200			866	1018
	180 M/L	370	248			925	1087
	200 L	415	260			1020	1167
	225 S/M	456	260			1102	1274
PKD G9390/63	90 S/L	193	151	245	376	641/661	714/734
	100 L	217	160			689	770
	112 M	232	168			734	814
	132 S/M	279	182			741/776	849/917
	160 M/L	323	200			881	1033
	180 M/L	370	248			955	1117

Not : (...) İşaretli olan ölçüler Motor markasına göre farklılık gösterir / Note : The dimensions which have (...) sign vary depending on the motor brand.

PKD G 9390/62 PKD G 9390/63

IEC

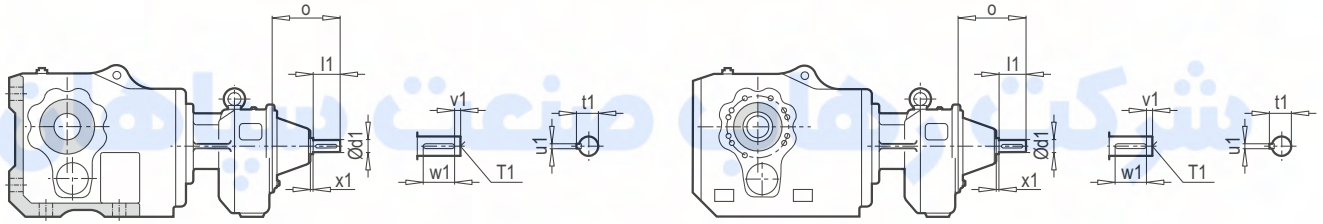


Tip / Type	IEC	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	PKD G 9390/62 o	PKD G 9390/63 o
PKD G9390/63	90	200	130	165	4.0	M10	24	50	27.3	8	-	109
PKD G9390/62-G9390/63	100	250	180	215	5.0	M12	28	60	31.3	8	127	133
PKD G9390/62-G9390/63	112	250	180	215	5.0	M12	28	60	31.3	8	127	133
PKD G9390/62-G9390/63	132	300	230	265	5.0	M12	38	80	41.3	10	177	190
PKD G9390/62-G9390/63	160	350	250	300	6.0	M16	42	110	45.3	12	266	194
PKD G9390/62-G9390/63	180	350	250	300	6.0	M16	48	110	51.8	14	266	194
PKD G9390/62	200	400	300	350	6.0	M16	55	110	59.3	16	229	-
PKD G9390/62	225	450	350	400	6.0	M16	60	140	64.4	18	303	-

	~ Kg	
IEC	PKD G 9390/62	PKD G 9390/63
90	-	1886
100	1902	1894
112	1902	1894
132	1916	1908
160	1942	1919
180	1942	1919
200	1957	-
225	1972	-

PKD G 9390/62 PKD G 9390/63

W

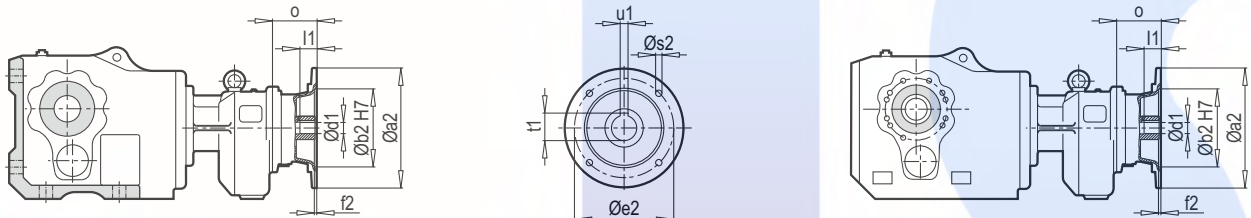


Tip / Type	Ød1	x1	l1	o	T1	t1	u1	v1	w1
PKD G 9390/62	42	8	110	288	M16	45.0	12	10	90
PKD G 9390/63	38	8	80	213	M12	41.0	10	5	70

W ~ Kg	
PKD G 9390/62	1891
PKD G 9390/63	1915

PKD G 9390/62 PKD G 9390/63

PAM B5/B14



Tip / Type	PAM B5	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o (62)	o (63)
PKD G9390/63	90	200	130	165	4.0	M10	24	50	27.3	8	-	72
PKD G9390/62-G9390/63	100	250	180	215	5.0	M12	28	60	31.3	8	75	75
PKD G9390/62-G9390/63	112	250	180	215	5.0	M12	28	60	31.3	8	75	75
PKD G9390/62-G9390/63	132	300	230	265	5.0	M12	38	80	41.3	10	110	94
PKD G9390/62-G9390/63	160	350	250	300	6.0	M16	42	110	45.3	12	145	120
PKD G9390/62-G9390/63	180	350	250	300	6.0	M16	48	110	51.8	14	145	120
PKD G9390/62	200	400	300	350	6.0	M16	55	110	59.3	16	157	-
PKD G9390/62	225	450	350	400	6.0	M16	60	140	64.4	18	183	-

~ Kg		
PAM B5	PKD G 9390/62	PKD G 9390/63
90	-	1879
100	1879	1880
112	1879	1880
132	1890	1889
160	1907	1897
180	1907	1897
200	1914	-
225	1924	-

Tip / Type	PAM B14	Øa2	Øb2	Øe2	f2	Øs2	Ød1	l1	t1	u1	o (62)	o (63)
PKD G9390/63	90	140	95	115	4.0	9	24	50	27.3	8	-	72
PKD G9390/62-G9390/63	100	160	110	130	5.0	9	28	60	31.3	8	75	75
PKD G9390/62-G9390/63	112	160	110	130	5.0	9	28	60	31.3	8	75	75
PKD G9390/62-G9390/63	132	200	130	165	5.0	11	38	80	41.3	10	110	94

~ Kg		
PAM B14	PKD G 9390/62	PKD G 9390/63
90	-	1878
100	1878	1879
112	1878	1879
132	1885	1884