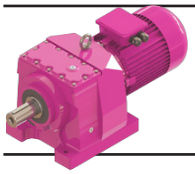

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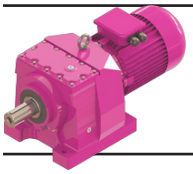

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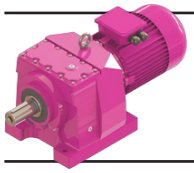
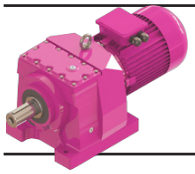


Genel Bilgiler
General Information
Einführung

Sembollerin Açıklaması	*Key of Symbols*	Erklärung der Bezeichnungen
c_t : Anahtarın devreye girme zamanı katsayısı	c_t : *Coefficient of switch on time.*	c_t : Koeffizient der Tätigkeitszeit von Schalter
f_s : Servis faktörü	f_s : *Service factor*	f_s : Betriebsfaktor
F_{ama} : Çıkış milinde müsade edilen eksenel yükler [kN]	F_{ama} : *Permissible axial loads which can be applied to output shafts [kN]*	F_{ama} : Zulässige Axialkräfte auf Abtriebswelle [kN]
F_{ame} : Giriş milinde müsade edilen eksenel yükler [kN]	F_{ame} : *Permissible axial loads which can be applied to input shafts [kN]*	F_{ame} : Zulässige Axialkräfte auf Antriebswelle [kN]
F_{qam} : Çıkış milinde izin verilen radyal yöndeki yükler [N]	F_{qam} : *Permissible overhung loads which can be applied to output shafts [N]*	F_{qam} : Zulässige Querkräfte auf Abtriebswelle [N]
F_{qem} : Giriş milinde izin verilen radyal yöndeki yükler [N]	F_{qem} : *Permissible overhung loads which can be applied to input shafts [N]*	F_{qem} : Zulässige Querkräfte auf Antriebswelle [N]
F_{qa} : Çıkış miline gelen radyal yöndeki yükler [N]	F_{qa} : *Overhung loads applied to the output shaft [N]*	F_{qa} : Querkräfte auf Abtriebswelle [N]
F_{qe} : Giriş miline gelen radyal yönde ki yükler [N]	F_{qe} : *Overhung loads applied to the input shafts [N]*	F_{qe} : Querkräfte auf Antriebswelle [N]
F_q : Radyal yöndeki yükler [N]	F_q : *Overhung loads on output shaft [N]*	F_q : Querkräfte auf Abtriebswelle [N]
F_a : Eksenel yöndeki yükler [N]	F_a : *Axial loads on output shaft [N]*	F_a : Querkräfte auf Antriebswelle [N]
i : Tahvil oranı	i : *Transmission ratio*	i : Übersetzungsverhältnis
J_{ext} : Motor miline indirgenmiş toplam dış atalet momenti [kgm^2]	J_{ext} : *The total inertia of rotating parts at outside reduced at the motor shaft [kgm^2]*	J_{ext} : Die Gesamtträgheit der rotierende Teile von der Aus gangsseite reduziert auf Motor welle [kgm^2]
M_2 : Çıkış momenti [Nm]	M_2 : *Output torque [Nm]*	M_2 : Ausgangsdrehmoment [Nm]
M_a : Anma momenti [Nm]	M_a : *Nominal torque [Nm]*	M_a : Nenndrehmoment [Nm]
n_1 : Redüktör giriş mili devri [d/dak]	n_1 : *Input speed of gearbox [rpm]*	n_1 : Antriebsdrehzahl [U/min]
n_2 : Redüktör çıkış mili devri [d/dak]	n_2 : *Output speed of gearbox [rpm]*	n_2 : Abtriebsdrehzahl [U/min]
P_{eq} : Eşdeğer güç [kW]	P_{eq} : *Equivalent power [kW]*	P_{eq} : Äquivalente Leistung [kW]
P_e : Nominal güç (Bak. Güç-Devir Tabloları) [kW]	P_e : *Nominal power (given on per formance tables) [kW]*	P_e : Getriebe Nennleistung (siehe Leistung- Drehzahltabellen[kW]
P_M : Tahrik edilecek makina için gerekli güç (Değişken yükler için eşdeğer güç alınır) [kW]	P_M : *Power consumption of the driven machine (for alternating power, refer to equivalent power) [kW]*	P_M : Leistung benötigt an der Ab triebswelle (Zur Berechnung bei variabler Leistungen äqui valente Leistung benutzen) [kW]
t : Zaman [s]	t : *Time [s]*	t : Zeit [s]
T_e : Eşdeğer moment [Nm]	T_e : *Equivalent torque [Nm]*	T_e : Minimales Drehmoment [Nm]



Genel Bilgiler
General Information
Einführung

Ürün Yelpazesi

Elinizdeki katalog sadece ***M ve N serisi*** ürünleri içermektedir.

- M ve N Serisi

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

- D Serisi

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

- E Serisi

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

- Y Serisi

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

- K Serisi

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

- H ve B Serisi

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

- T Serisi

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

- P ve R Serisi

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

- VR Serisi

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

Production Range

*This catalogue is containing **M and N series** of gearboxes only.*

- M and N Series

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

- D Series

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

- E Series

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

- Y Series

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

- K Series

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

- H and B Series

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

- T Series

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

- P and R Series

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

- VR Serie

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

Produktpalette

Dieses Katalog umfasst nur die **M und N Serie** Getriebe.

- M und N Serie

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

- D Serie

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

-E Serie

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

- Y Serie

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

- K Serie

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

- H und B Serie

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

- T Serie

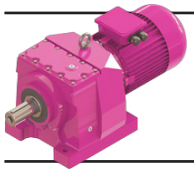
TSerien Getriebe sind zwei stufige, schrägverzahnte Hohlwellenflachgetriebe in Monoblockgehäuse. Die T Serie hat eine kompakte Gehäuse und ist serienmäßig mit Abgangshohlwelle hergestellt, so dass das Getriebe minimalen Platzbedarf hat.

- P und R Serie

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

- **VR Serie**

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



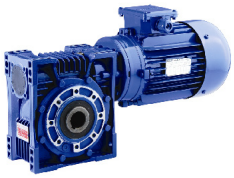
Genel Bilgiler
General Information
Einführung

M ...

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

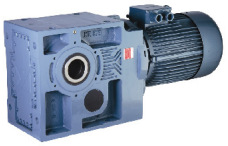
N ...

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



E ...

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



K ...

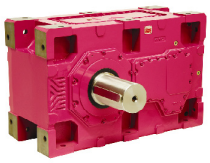
7 farklı büyüklükte;
Moment aralığı: 200 - 15.000 Nm
Devir aralığı: 0,1 - 400 d/dak
7 different sizes:
Torque range: 200 - 15.000 Nm
Speed range: 0,1 - 400 rpm
7 verschiedene Baugrößen:
Drehmomentbereich:200 - 15.000 Nm
Drehzahlbereich : 0,1 - 400 U/min

D...

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

Y ...

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



H ...

13 farklı büyüklükte;
Moment aralığı: 2.500 - 150.000 Nm
Devir aralığı: 0,1 - 250 d/dak
13 different sizes:
Torque range: 2.500 - 150.000 Nm
Speed range: 0,1 - 250 rpm
13 verschiedene Baugrößen:
Drehmomentber. :2.500 - 150.000 Nm
Drehzahlbereich : 0,1 - 250 U/min

B ...

13 farklı büyüklükte;
Moment aralığı: 5.000 - 150.000 Nm
Devir aralığı: 0,1 - 115 d/dak
13 different sizes:
Torque range: 5.000 - 150.000 Nm
Speed range: 0,1 - 115 rpm
13 verschiedene Baugrößen:
Drehmomentber. :5.000-150.000 Nm
Drehzahlbereich : 0,1-115 U/min

P ...

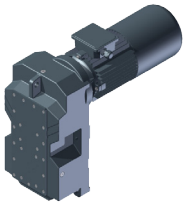
10 farklı büyüklükte;
Moment aralığı: 1.000 - 50.000 Nm
Tahvil oranları: 3,5 - 3000 arası
10 different sizes:
Torque range: 1.000 - 50.000 Nm
Transmission ratio: 3,5 - 3000
10 verschiedene Baugrößen:
Drehmomentber. : 1.000 - 50.000 Nm
Übersetzung: 3,5 - 3000

R ...

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

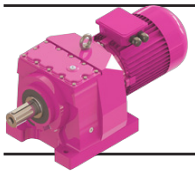
T ...

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



VR ...

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



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M Serisi Redüktörlerin Genel Özellikleri

YILMAZ REDÜKTÖR M serisi redüktörlerini rijitlik, sızdırmazlık, ses ve dişli mukavemetlerinde büyük avantajlar sağlayan bir prensip olan tekil gövde (monoblok) prensibine göre geliştirmiştir. Redüktörler içinde yataklamalar herhangi bir kapak veya gövdeye birleşimi olan parça üzerinde değil, direkt olarak gövdenin kendi üzerinde kalmaktadır. Gövde eksenlerinin tek operasyonda işlenmesi , yüksek imalat hassasiyeti sağlamaktadır. Yüksek teknolojiyle dişli toleranslarında elde ettiğimiz yüksek kalitelere GG20-22 malzemeden olan gövde cevap vermektedir. Bu prensip aynı zamanda rulman ve dişli ömürlerinde bir artış sağlamakta olup; yüksek radyal yükler taşınabilmektedir. Redüktör içinde kullanılan rulman, dişli ve mil hesaplamaları güncel standartlara dayanan profesyonel yazılımlar ile yapılmaktadır. Redüktör gövdesindeki ara perde gövde ana gövdeyle bir bütündür. Ara perde, dişlilerin her iki taraftan, dişliye en yakın noktadan yataklanmasını sağlar. Böylelikle millerin sehim ve salgılarının minimum düzeye inmesini sağlayarak sessiz redüktörlerin üretiminde rol oynamaktadır.
M serisi redüktörler kolay montaj ve esnek kullanım olanağına sahiptir. Redüktörlerin motor bağlantısı müşteri isteğine bağlı olarak standart akuple, IEC B5 veya B14'e uygun olabilir. Tüm modeller ayaklı veya flanşlı olarak, tek gövde içinde iki veya üç kademeli olarak sunulmaktadır. Redüktörler aynı güç ve devir değerleri için daha kompakt hale ve daha düşük eksen mil yüksekliklerine getirilmiştir. Tüm redüktörler modüler sistemde düşünülmüş olup, çiftli redüktörlerde ara bağlantılardaki değişiklikler minimum seviyeye indirilmiştir. Tüm toleranslar kalite güvence sistemi ile aktif kontrol altındadır.

YILMAZ REDÜKTÖR olarak tasarım prensibimiz;

-Yüksek teknoloji kullanmak
-Güvenilirlik,
-Yüksek güç yoğunluğu,
-Yüksek verim,
-Montaj uyumluluğu,
-Esnek çözümler

Dikkat Edilecek Hususlar !
- Bu katalogda verilen resimler görsel amaçlıdır ve şekilsel detaylar bağlayıcı değildir.
- YILMAZ REDÜKTÖR, ürünler ve kataloglar üzerinde, müşterileri bilgilendirmeksizin her türlü değişikliği yapma hakkına sahiptir.
- Ürünler teslim alındıktan sonra ürünle birlikte verilen kullanım kılavuzu okunmadan sistem devreye alınmamalıdır.
- Katalogda verilen yağ miktarları referans amaçlıdır. Gerçek yağ seviyesi için redüktör üzerinde bulunan yağ seviye tapası kullanılmalıdır. Yağ vizkozitesi için, redüktör etiketine bakınız.
- Sipariş anında montaj pozisyonu bildirilmeyen M serisi redüktörler **M1,** N serisi redüktörler **M4** montaj pozisyonuna uygun sevk edilir. Etikette yazan montaj pozisyonundan farklı bağlanan redüktörler garanti kapsamından çıkar. Bu katalogda verilen redüktör ağırlıkları ortalama ağırlık değerleridir. Tahvil oranına ve üzerinde bağlı olan aksesuara göre ağırlıklar farklılık gösterebilir.

General Specifications of M Series Gearboxes

YILMAZ REDÜKTÖR M series gearboxes has been developed according to the one part housing principle (monoblock) which has advantages in rigidity, oil leakage, noise level and gear strength. All bearings are supported by one part housing itself and not by cover plates or other parts which connects some other parts. Machining axes with one operation cycle gives high precision and very tight tolerances to axes. With high manufacturing technologies achieved high gear qualities have response with housing from GG20-22 material. This design ensures high bearing and gear lifetime at the mean time; high overhung loads can be taken. Calculations of bearings, gears and shafts used in the gearbox has been made with professional software, which are implemented according to up-to-date standards. The middle bearing support plate makes it possible to have optimum support for bearings used in three stage gearboxes. So run out and deformation by running on load is minimized which makes low noise gearbox production possible.
M series gearboxes have the ability of easy mounting and flexible usage. Motor connection of gearboxes can be offered according to customers request suitable to direct, IEC B5 or B14 connection. All models can be delivered foot or flange mounted with two or three stages in one housing . Gearboxes have lower axis height than the old models and compact for the same power and speed. All gearboxes has been designed modular so double gearboxes can be coupled with minimum change. Each tolerances on every part used in gearbox are actively controlled by our quality assurance system.

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

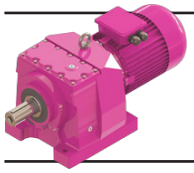
Attention to the following points !
- Drawings are examples only and the details on the drawings or illustrations are not strictly binding.
- YILMAZ REDÜKTÖR reserve the right to make all kinds of changes in products and cataloques without any notice.
- Prior to commissioning, the operating instructions provided with the gearbox must be observed.
- Oil quantities given are guide values only. The exact quantity of oil should be checked by using the provided oil level plugs according mounting positions. For correct oil viscosity refer to the nameplate.
- If the mounting position is not informed upon ordering, the M series gear units are delivered according to **M1** and N series gear units are delivered according to **M4** *mounting position. A different operation then the indicated mounting position on the name plate cancels the warranty. The weights given in this catalogue are mean values. Depending on the ratio and accessories the weights can differ.*

Allgemeine Eigenschaften von M Serie Getrieben

YILMAZ REDÜKTÖR M Serie-Getriebe wurde nach dem Prinzip Blockgehäuse, welche Vorteile beim Steifigkeit, Dichtheit, Geräusch und Zahnradfestigkeit hervorbringt, entwickelt. Alle Lagerungen sitzen auf nicht geteilte Oberfläche des Gehäuses, wo es keine Verbindung für Deckel oder ein anderes Teil gibt. Alle Achsen werden mit einer Aufspannung bearbeitet. Dieses Vorgehen erlaubt höchste Genauigkeit bei Achsentoleranzen. Mit hohen Fertigungstechnologien erreichte hohe Zahnqualitäten werden mit Gehäuse aus GG20-22 ergänzt. Diese Konstruktion sorgt für hohe Lager- und Zahnlebensdauer; so können hohe Querkräfte getragen werden. Berechnungen von Lagern, Getrieben und Wellen im Getriebe werden mit professioneller Software, die gemäß aktuellen Standards implementiert sind, durchgeführt. Die mittlere Trägerplatte ermöglicht eine optimale Unterstützung für Lager welches in der drei stufige Getriebe eingesetzt wird. So werden Rundlauffehler und Verformung unter Last minimiert, was Produktion von geräuscharmen Getrieben möglich macht.
M Serie-Getriebe sind leicht montierbar und einsetzbar. Motoranschluss von Getrieben kann nach Kundenwunsch geeignet zu direkte, IEC B5 oder B14-Verbindung angeboten werden. Alle Modelle können mit Fuß oder Flansch in zwei oder drei stufige Getriebegehäusen geliefert werden. Diese Getriebe haben niedrige Achsenhöhe als alte Modelle und sind kompakter für die gleiche Leistung und Geschwindigkeit. Alle Getrieben wurde modular konzipiert, sodass Doppel-Getriebe mit wenigem Aufwand gekoppelt werden kann. Jede Toleranzen auf jedem Teil in Getriebe werden aktiv durch Qualitätssicherungssystem überprüft.

Als YILMAZ REDÜKTÖR unsere Entwurfsprinzipien sind;
- Verwenden von hohen Fertigungstechniken
- Hohe Betriebssicherheit
- Leistungsdichte
- Hoher Wirkungsgrad
- Universale Montagemöglichkeit
- Sonderlösungen

Bitte folgende Punkte beachten !
- Die Abbildungen sind beispielhaft und nicht verbindlich.
- Alle Änderungen auf dem Katalog und an der Produkte bleiben vorbehalten und können ohne Kenntnisnahme erfolgen.
- Vor Inbetriebnahme ist die mit gelieferter Betriebsanleitung zu beachten.
-Angaben über Ölmengen sind unverbindlich. Maßgebend ist die Ölstandsschraube in der geeigneten Montageposition. Ölviskosität und Sorte muss den Angaben des Typenschieldes entsprechen.
- Wenn die Bauform bei der Bestellung nicht angegeben ist, erfolgt die Lieferung in der Bauform **M1** für M Serie und **M4** für N Serie**.** Wenn die Getriebe anders als auf dem Namenschild benannte Bauform eingesetzt werden, verliert die Garantie ihre Gültigkeit. Die angegebenen Gewichte sind unverbindliche Mittelwerte ohne Zubehör; genauere Gewichte sind abhängig von Zubehör und Übersetzung.



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Teknik Tanımlamalar

- Çıkış Momenti (M_2): [Nm]
Motorun verdiği momentin tahvil oranı ve verimle ile çarpılarak elde edilen değerdir. Redüktörün çıkışından alınabilecek momenti gösterir.

- Anma Momenti (M_a): [Nm]
Redüktörün f_s=1 şartı için mekanik olarak taşıdığı moment değeridir.

- Nominal Güç (P_e): [kW]
Nominal güç, redüktörün f_s=1 şartı için mekanik olarak taşıyabileceği güç değeridir. Redüktörlerin nominal güçleri, güç devir tablolarında verilmiştir.

- Çevrim oranı (i):
Redüktörün giriş devrinin çıkış devrine oranıdır. Yılmaz Redüktör M serisi redüktörlerde 3,5-23500 arasında değişen çevrim oranları mevcuttur.

- Eşdeğer Güç ve Moment
P_{eq} [kW], T_e [Nm]
Sabit devir altında ancak değişken yük değerlerinde çalışan redüktörlerde, sabit yük altında çalışma şartlarına eşdeğer gelen moment ve güç değerleridir. Hesaplama yöntemi sayfa 23'de verilmiştir.

- İhtiyaç güç (P_M): [kW]
Redüktörlerin kullanılacağı uygulamanın istenilen şekilde çalışabilmesi için ihtiyaç duyduğu güç değeridir.

- İhtiyaç moment (T): [Nm]
Redüktörün kullanılacağı uygulamanın çalışabilmesi için ihtiyaç duyduğu moment değeridir. Seçilen redüktör için herzaman çıkış momentine eşit yada daha düşük olmalıdır.

- Müsade Edilen Eksenel ve Radyal Yükler Fqem, Fqam: [N]
Redüktörün giriş veya çıkış milinde müsade edilen eksenel ve radyal yüklerdir.

- Servis Faktörü (f_s):
Redüktörün çalıştığı şartlar ile uyumlu olması için gerekli olan emniyet katsayısıdır. f_s=1, düzgün ve sakin yüklerde, günlük sekiz saat, saatte 100 dur-kalk çalışmayı karşılar. Detaylar için redüktör seçim bölümüne bakınız.

Teknik Özellikler:

- Ses seviyesi:
Redüktörlerimizin ses seviyesi VDI 2159' da verilen redüktörler için müsade edilen ses seviyelerinin altındadır.

- Boya ve Korozyon Koruması:
Redüktörlerin standart rengi DIN1843'e göre RAL 5010 dur. İstek üzerine farklı renklerde boyanabilir. Nemli ve korozif bölgeler için istek üzerine farklı boya uygulanabilir.

Technical Explanations

- Output Torque (M_2): [Nm]
Multiplication of motor output torque with transmission ratio and efficiency gives the result of output torque at the output shaft of the gear unit.

- Nominal Torque (M_a): [Nm]
Nominal torque is the mechanical torque which the gearbox can resist under f_s=1 conditions.

- Nominal Power (P_e): [kW]
The nominal power is the power which gearbox can mechanicaly resist under f_s=1 condition. The nominal powers are given on the performance tables.

- Ratio (i):
Ratio between output shaft speed and input shaft speed. Available ratios of Yilmaz Redüktör M series are between 3,5 to 23500.

- Equivalent Power and Torque
P_{eq}: [kW], T_e [Nm]
For gearbox unit with constant speed but variable working conditions : This is the calculated power or torque which is equivalent to the values at working under constant working conditions.

***- Required Power (P_M):* [kW]**
Required power for the applications which is able to drive the system.

- Required Torque (T): [Nm]
Required torque for applications. Required torque always must be equal or smaller than output torque for selected gearbox.

- Permissible Axial and Overhung Loads: Fqem, Fqam [N]
Permissible axial and overhung load at the output or input shaft of gearboxes.

- Service Factor (f_s):
Service factor is a safety coefficient, which takes into account the different running conditions of the driven machine. f_s=1 is used for uniform loads 8 hours working per day and up to 100 cycle per hour.

Technical Specifications:

- Noise Level:
The noise level of our gearboxes is below the permitted values defined in VDI guidelines 2159 for gear units.

- Coating and Corrosion Protection:
The gearboxes are painted with RAL 5010 according DIN1843. Different colors are avaliable upon request. Paintings for high humidity or chemically aggressive environments are available upon request .

Technische Erläuterungen

- Ausgangsmoment (M_2): [Nm]
Multiplikation von Ausgangsmoment des Motors mit Übersetzung und Division das Ergebnis mit Wirkungsgrad ergibt den Betrag von Ausgangsmoment der Getriebe.
- Nennmoment (M_a): [Nm]
Mechanisches Belastungsmoment der Getriebe unter dem Bedingung f_s=1.

- Nennleistung (P_e): [kW]
Die Nennleistung ist die mechanische Grenzfestigkeitsleistung für fs=1. Kann von der Leistung- Drehzahltabelle abgelesen werden.

- Übersetzung (i):
Wird aus dem Verhältnis von Ausgang- zu Eingangswinkelgeschwindigkeit bestimmt. Gängige Übersetzungen von Yilmaz M Serie Getrieben liegt zwischen 3,5 bis 23500.

-Äquivalente Leistung und Moment
P_{eq}: [kW], T_e [Nm]
Für mit konstanten Drehzahl aber unter veränderlichen Betriebsbedingungen arbeitende Getriebe berechnete Leistung und Moment äquivalent zu Werten beim Arbeiten unter konstanten Betriebsbedingungen.

- Notwendige Leistung (P_M): [kW]
Für das Getriebe notwendige Leistung, um Arbeiten von Getriebe bei der für das Getriebe gedachten Anwendung zu gewährleisten.

- Notwendige Moment (T): [Nm]
Notwendige Moment für Anwendungen. Für den ausgewählte Getriebe soll das notwendige Moment gleich dem Ausgangsmoment oder kleiner als diesem Moment sein.

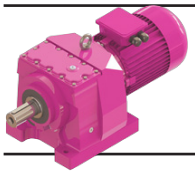
- Zulässige Axial- oder Querkräfte:
Fqem, Fqam [N]
Bei der Anwendungen während der Betrieb zulässige axiale oder radiale Eingangs- oder Ausgangsbelastungen.

- Betriebsfaktor (f_s):
Dieser Faktor f_s ist ein Sicherheitsfaktor, damit die Getriebe unter verschiedenen Bedingungen mit genügender Sicherheit arbeitet. f_s=1 gilt für gleichförmig Belastung, mit 8 Betriebsstunden pro Tag und bis zum 100 Schaltungen pro Stunde.

Technische Informationen:

- Geräuschpegel:
Geräuschstärken aller Getriebe bleiben unter die zulässigen Werte, die für die Getriebe in der VDI-Richtlinie 2159 festgelegt sind.

- Lackierung und Korrosionsschutz:
Die Getriebe werden mit der Farbe RAL 5010 nach DIN1843 lackiert. Auf Wunsch sind Sonderlackierungen möglich. Alle Getriebe können auf Wunsch auch in korrosionsgeschützter Ausführung für aggressive Umgebungen geliefert werden.



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- Yağlama:

M ve N Serisi redüktörler yağlama tablolarında verilen yağlar ile doldurulmaktadır.Yağ detayları için yağlama bölümüne bakınız.

- Aksesuarlar:

M ve N Serisi redüktörlerde aşağıdaki aksesuarlar kullanılabilir.
- IEC B5/B14 Motor bağlantı flanşları
- Çıkış Bağlantı Flanşları
- Geri dönüş kilidi
- Özel keçe çözümleri,
- Şeffaf yağ seviye göstergesi
- Elektromanyetik frenler

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

- Lubrication:

M and N series of gearboxes are filled with oils which is indicated on lubrication tables. For lubrication details please refer to the lubrication section.

- Accessories:

The following accessories can be applied to M and N series gearboxes.
- *IEC B5/B14 Motor connection flange*
- *Output flanges*
- *Backstops*
- *Special sealing solutions.*
- *Transparent oil level indicator,*
- *Electromagnetic brakes.*

For other accessories please contact, YILMAZ REDÜKTÖR.

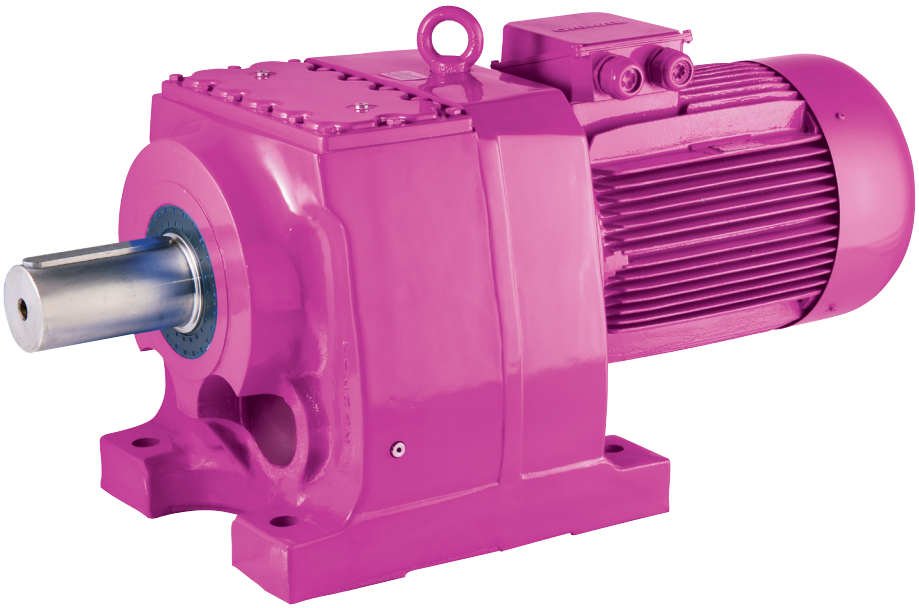
- Schmierung:

M und N Serien Getriebe werden mit Ölen entsprechend der Schmierungstabellen, falls nicht anders vereinbart, geliefert. Für weitere Schmierungsangaben siehe Kapitel Schmierung.

- Zubehör:

Folgendes Zubehör kann für Getriebe der M und N Serien geliefert werden.
- IEC B5/B14 Motor Adapter,
- Abtriebsflansch,
- Rücklaufsperren,
- Spezielle Dichtungssysteme,
- Transparente Ölstandsanzeige
- Elektromagnetische Bremsen

Für weiteres Zubehör kontaktieren Sie bitte mit,
YILMAZ REDÜKTÖR.



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Tip Tanımlaması / *Unit Designation* **/** Typenbezeichnungen

M R 4 7 3 - 90S / 4 - L02

Fren / *Brake* / Bremse

L-220V **Fanlı** / *With Fan* / Mit Lüfter
P-24V **Fanlı** / *With Fan* / Mit Lüfter
S-220 V **Fansız** / *Without Fan* / Ohne Lüfter
Z-24 V **Fansız** / *Without Fan* / Ohne Lüfter

01-10 Nm **10**-100 Nm
02-25 Nm **20**-200 Nm
04-40 Nm **30**-300 Nm
05-50 Nm **40**-400 Nm

Kutup sayısı / *Number of poles* / Anzahl der Polen

Motor Büyüklüğü / *Motor Size* **/** Motorbaugröße

MR / NR ve MV / NV tipleri için / *For MR / NR and MV / NV Types /* Für die Typen MR / NR und MV / NV

90S / 4

Kutup Sayısı / *Pole Number* / Anzahl der Polen
Gövde uzunluğu / *Frame Lenght* / Gehäuselänge des Motors
Motor büyüklüğü / *Motor size* / Motorbaugröße

MN / NN tipleri için / *For MN / NN types /* Für die Typen MN / NN

A06 :63 B5	**A09** : 90 B5	**A13**:132 B5	**A25**: 250 B5
B06 :63 B14	**B09** : 90 B14	**B13**:132 B14	**A28**: 280 B5
A07 :71 B5	**A10** :100 B5	**A16**:160 B5	**A31**: 315 B5
B07 :71 B14	**B10** :100 B14	**A18**:180 B5	
A08 :80 B5	**A11** :112 B5	**A20**:200 B5	
B08 :80 B14	**B11** :112 B14	**A22**:225 B5	

Kademe Sayısı / *Stage* **/** Anzahl der Stufen

2 Kademe / *2 Stages* / 2 stufig
3 Kademe / *3 Stages* / 3 stufig
4 Kademe / *4 Stages* / 4 stufig
5 Kademe / *5 Stages* / 5 stufig
6 Kademe / *6 Stages* / 6 stufig

Revizyon Numarası / *Revision Number /* Änderungsnummer

Gövde Büyüklük / *Housing Size* **/** Größe der Gehäuse

1...9

Giriş Tipi / *Input Type* **/** Eingangstyp

R :**Motorlu** / *With Motor* / Mit Motor

N :**Motorsuz ve IEC B5/B14 Flanş Girişli** / *IEC B5 / B14 Flanged without Motor* / *Mit* IEC B5/B14 Motorflansch ohne Motor

V :**Motorlu ve IEC B5/B14 Flanş Girişli** / *IEC B5 / B14 Flanged with Motor* / Mit Motor und IEC B5/B14 Motorflansch

T :**Motorsuz Giriş Milli** / *With Solid Input Shaft* / Eingang ohne Motor

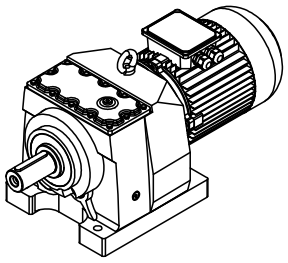
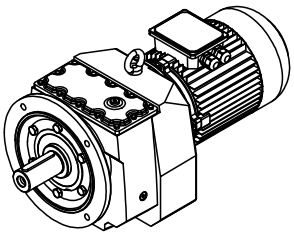
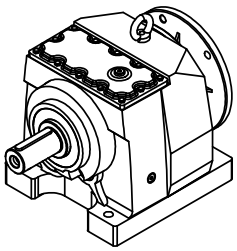
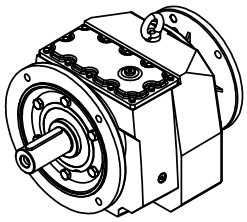
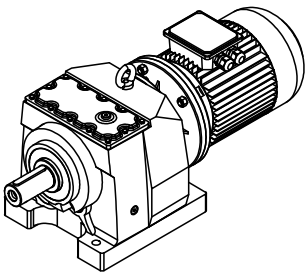
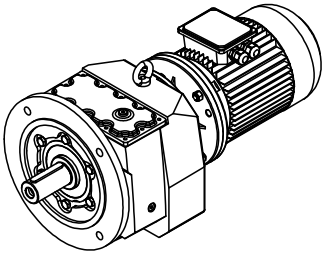
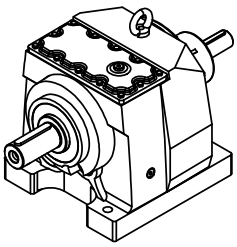
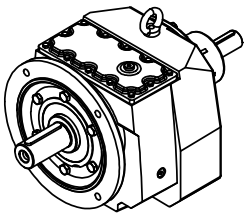
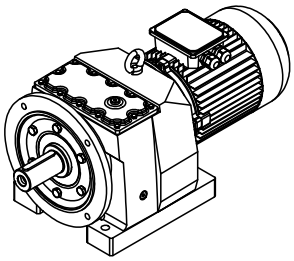
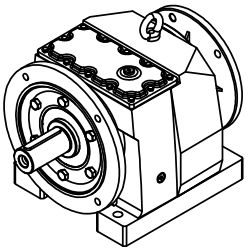
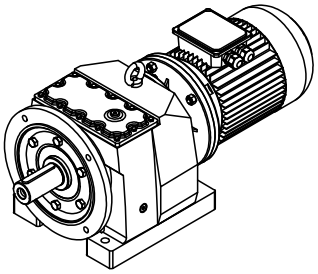
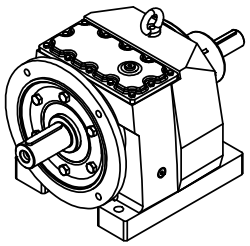
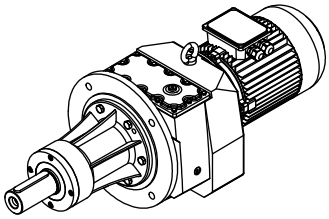
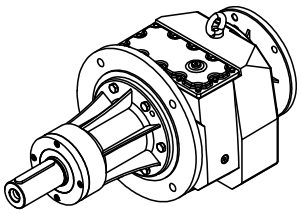
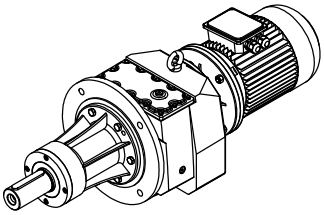
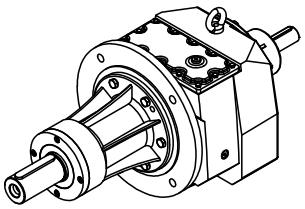
Redüktör Tipi */ Gearbox Type /* Getriebe

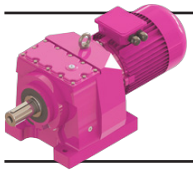
M Serisi / *M Serie* / M Serie
N Serisi / *N Serie* / N Serie

Tip Tanımlaması / *Unit Designation /* Typenbezeichnungen

MR...	**Monoblok tip, helisel redüktörler, motorlu, ayaklı** / Monoblock type helical geared motors, foot mounted / Stirnradgetriebemotoren mit Blockgehäuse, Ausführung mit Fuss
NR...	**Monoblok tip, helisel redüktörler, motorlu, flanşlı** / Monoblock type helical geared motors, flange mounted / Stirnradgetriebemotoren mit Blockgehäuse, Ausführung mit Flansch
MN...	**Monoblok tip, helisel redüktörler, motorsuz, IEC B5/B14 flanşlı, ayaklı** / Monoblock type helical geared units with IEC B5/B14 motor flange, foot mounted / Stirnradgetriebe mit Blockgehäuse und IEC B5/B14 Motorflansch, Ausführung mit Fuss
NN...	**Monoblok tip, helisel redüktörler, motorsuz, IEC B5/B14 flanşlı, çıkış flanşlı** / Monoblock type helical geared units with IEC B5/B14 motor flange, flange mounted / Stirnradgetriebe mit Blockgehäuse und IEC B5/B14-Flansch, Ausführung mit Flansch
MV...	**Monoblok tip, helisel redüktörler, IEC B5/B14 flanşlı, motorlu, ayaklı** / Monoblock type helical geared motors with IEC B5/B14 motor flange, foot mounted / Stirnradgetriebemotoren mit Blockgehäuse und IEC B5/B14-Flansch, Ausführung mit Fuss
NV...	**Monoblok tip, helisel redüktörler, IEC B5/B14 flanşlı, motorlu, flanşlı** / Monoblock type helical geared motors with IEC B5/B14 motor flange, flange mounted / Strinradgetriebemotoren mit Blockgehäuse und IEC B5/B14, Ausführung mit Flansch
MT...	**Monoblok tip, helisel redüktörler, motorsuz, mil girişli, ayaklı** / Monoblock type helical geared units with solid input shaft, foot mounted / Stirnradgetriebe mit Blockgehäuse und Eingangsvollwelle, Ausführung mit Fuss
NT...	**Monoblok tip, helisel redüktörler, motorsuz, mil girişli, flanşlı** / Monoblock type helical geared units with solid input shaft, flange mounted / Strinradgetriebe mit Blockgehäuse und Eingangsvollwelle, Ausführung mit Flansch
MRF...	**Monoblok tip, helisel redüktörler, ayaklı, çıkış flanşlı, motorlu** / *Monoblock type helical geared motors, foot mounted, with output flange* / Stirnradgetriebemotoren mit Ausgangsflansch, Ausführung mit Fuss
MNF...	**Monoblok tip, helisel redüktörler, ayaklı, çıkış flanşlı, motorsuz, IEC B5/B14 flanşlı** / *Monoblock type helical geared units, foot mounted, with IEC B5/B14 flange, with output flange* / Stirnradgetriebemotoren mit Ausgangsflansch und IEC B5/B14-Flansch, Ausführung mit Fuss
MVF...	**Monoblok tip, helisel redüktörler, ayaklı, çıkış flanşlı, motorlu, IEC B5/B14 flanşlı** / *Monoblock type helical geared motors, foot mounted, with IEC B5/B14 flange, with output flange* / Stirnradgetriebemotoren mit Ausgangsflansch und IEC B5/B14-Flansch, Ausführung mit Fuss
MTF...	**Monoblok tip, helisel redüktörler, ayaklı, çıkış flanşlı, motorsuz, giriş milli** / *Monoblock type helical geared units, foot mounted, with solid input shaft, with output flange* / Stirnradgetriebe mit Ausgangsflansch und Eingangsvollwelle, Ausführung mit Fuss**.**
NRB...	**Monoblok tip, helisel redüktörler, agitator boğazlı, motorlu** / *Monoblock type helical geared motors, with agitator output flange* / Stirnradgetriebemotoren mit Blockgehäuse und Mischerflansch
NNB...	**Monoblok tip, helisel redüktörler, agitator boğazlı, motorsuz, IEC B5/B14 flanşlı** / *Monoblock type helical geared units, with agitator output flange with IEC B5/B14 flange* / Stirnradgetriebe mit Blockgehäuse, IEC B5/B14- und Mischerflansch
NVB...	**Monoblok tip, helisel redüktörler, agitator boğazlı, motorlu, IEC B5/B14 flanşlı** / *Monoblock type helical geared motors, with agitator output flange with IEC B5/B14 flange* / Stirnradgetriebemotoren mit Blockgehäuse, IEC B5/B14- und Mischerflansch
NTB...	**Monoblok tip, helisel redüktörler, agitator boğazlı, motorsuz, mil girişli** / *Monoblock type helical geared units, with agitator output flange, with solid input shaft* / Stirnradgetriebe mit Blockgehäuse, Eingangsvollwelle und Mischerflansch

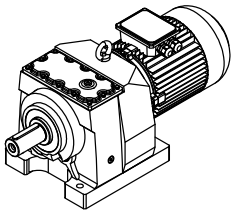
Tip Tanımlaması / *Unit Designation* **/** Typenbezeichnungen

 **MR...**	 **NR...**	 **MN...**	 **NN...**
 **MV...**	 **NV...**	 **MT...**	 **NT...**
 **MRF...**	 **MNF...**	 **MVF...**	 **MTF...**
 **NRB...**	 **NNB...**	 **NVB...**	 **NTB...**



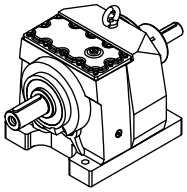
Genel Bilgiler
General Information
Einführung

Örnek Tip Tanımlamaları
MR172 - 90S/4 - L05



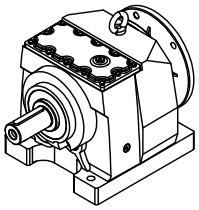
M.....: M serisi redüktör
R.....: Motor bağlantılı
1.....: Gövde büyüklük
7.....: Revizyon numarası
2.....: Kademe sayısı
90S.....: Motor büyüklüğü
4.....: Motor kutup sayısı
L05.....: Fren Tipi

MT373



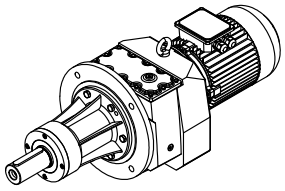
M.....: M serisi redüktör
T.....: Motorsuz giriş milli
3.....: Gövde büyüklüğü
7.....: Revizyon numarası
3.....: Kademe sayısı

MN473 - A11



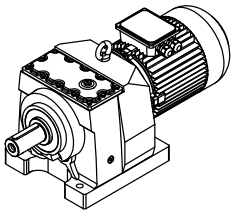
M.....: M serisi redüktör
N.....: Motorsuz ve IEC B5 giriş flanşlı
4.....: Gövde büyüklüğü
7.....: Revizyon numarası
3.....: Kademe sayısı
A11.....: 112 tip motor, B5 bağlantı flanşı

NRB473 - 100L/4



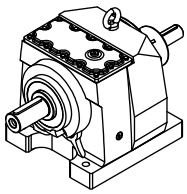
N.....: N serisi redüktör
R.....: Motorlu
B.....: Agitator boğazlı
4.....: Gövde büyüklüğü
7.....: Revizyon numarası
3.....: Kademe sayısı
100L.....: Motor büyüklüğü
4.....: Motor kutup sayısı

Sample Designations
MR172 - 90S/4 - L05



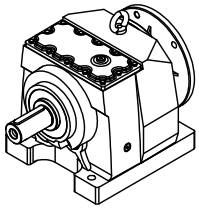
M.....: *M series gearbox*
R.....: *With motor connection*
1.....: *Gear unit size*
7.....: *Revision number*
2.....: *Stage number*
90S.....: *Motor frame size*
4.....: *Number of poles*
L05.....: *Brake type*

MT373



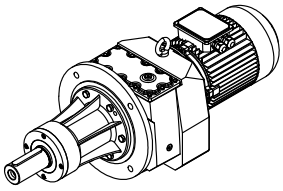
M.....: *M series gearbox*
T.....: *Solid input shaft*
3.....: *Gear unit size*
7.....: *Revision number*
3.....: *Stage number*

MN473 - A11



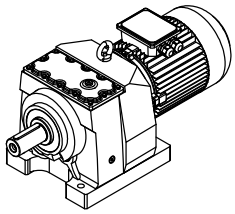
M.....: *M series gearbox*
N.....: *IEC B5 flange without motor input*
4.....: *Gear unit size.*
7.....: *Revision number*
3.....: *Stage number*
A11.....: Motor type 112, B5 flange

NRB473 - 100L/4



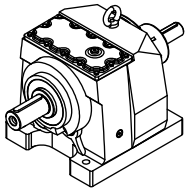
N.....: N series gearbox
R.....: With motor
B.....: Agitator flange
4.....: Gear unit size
7.....: Revision number
3.....: Stage number
100L.....: Motor size
4.....: Number of poles

Beispiele für Typenbezeichnung
MR172 - 90S/4 - L05



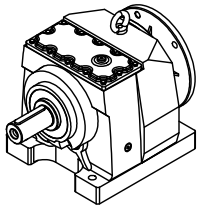
M.....: M Serie Getriebe
R.....: Motorverbindung
1.....: Größe der Gehäuse
7.....: Änderungsnummer
2.....: Stufenanzahl
90S.....: Motorbaugröße
4.....: Anzahl der Polen
L05.....: Bremse

MT373



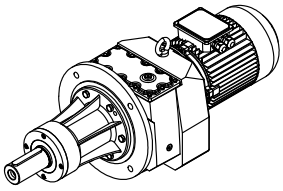
M.....: M Serie Getriebe
T.....: Vollwelleneingang ohne Motor
3.....: Größe der Gehäuse
7.....: Änderungsnummer
3.....: Stufenanzahl

MN473 - A11

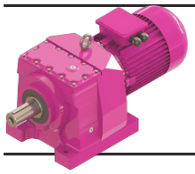


M.....: M Serie Getriebe
N.....: IEC B5 Flansch ohne Motor
4.....: Größe der Gehäuse
7.....: Änderungsnummer
3.....: Stufenanzahl
A11.....: Motortyp 112, B5 Motorflansch

NRB473 - 100L/4



N.....: N Serie Getriebe
R.....: Mit Motor
B.....: Mischerhals
4.....: Größe der Gehäuse
7.....: Änderungsnummer
3.....: Stufenanzahl
100L.....: Motorbaugröße
4.....: Anzahl der Pole



Motor Büyüklüğüne Göre Geometrik Mümkün Çevrim Oranları
Geometrically Possible Combinations of Ratios According to Motor Size
Geometrisch mögliche Kombinationen von Übersetzungen nach Motorbaugröße

Tip Type Typ	Kademe *Stages* Stufen	**Motor Büyüklüğü** / *Motor Size* / Motorbaugröße						
		63	**71**	**80**	**90**	**100**	**112**	**132**
MR002	2	3,62 - 11,14	3,62 - 11,14	3,62 - 11,14	3,62 - 11,14	-	-	-
MR003	3	13,61 - 45,18	13,61 - 45,18	13,61 - 32,02	13,61 - 32,02	-	-	-
MR102	2	3,94 - 15,95	3,94 - 15,95	3,94 - 15,95	3,94 - 15,95	-	-	-
MR103	3	17,33 - 50,51	17,33 - 50,51	17,33 - 50,51	17,33 - 50,51	-	-	-
MR172	2	3,38 - 20,92	3,38 - 20,92	3,38 - 20,92	3,38 - 20,92	3,38 - 18,28	3,38 - 6,60 11,08 - 12,66	-
MR173	3	26,10 - 99,21	26,10 - 99,21	26,10 - 99,21	26,10 - 99,21	26,10 - 87,60	26,10 - 30,26 49,81 - 57,76	-
MR202	2	3,50 - 23,01	3,50 - 23,01	3,50 - 23,01	3,50 - 23,01	3,50 - 20,10	3,50 - 13,92	-
MR203	3	23,23 - 68,03	23,23 - 68,03	23,23 - 68,03	23,23 - 68,03	23,23 - 24,77 36,02 - 59,43	36,02 - 41,16	-
MR272	2	3,16 - 25,89	3,16 - 25,89	3,16 - 25,89	3,16 - 25,89	3,16 - 21,43	3,16 - 16,07	-
MR273	3	19,00 - 138,55	19,00 - 138,55	19,00 - 138,55	19,00 - 138,55	19,00 - 121,03	19,00 - 83,83	-
MR275	5	149,02 - 1194,61	149,02 - 1194,61	149,02 - 1194,61	149,02 - 1194,61	-	-	-
MR276	6	1463,49 - 2920,17	1463,49 - 2920,17	1463,49 - 2920,17	1463,49 - 2920,17	-	-	-
MR282	2	-	4,20 - 6,25 9,61 - 30,37	4,20 - 6,25 9,61 - 30,37	4,20 - 6,25 9,61 - 30,37	3,15 - 25,23	3,15 - 19,06	3,15 - 14,31
MR283	3	-	18,33 - 27,80 41,96 - 137,91	18,33 - 27,80 41,96 - 137,91	18,33 - 27,80 41,96 - 137,91	18,33 - 114,14	18,33 - 85,60	18,33 - 27,80 41,96 - 63,65
MR284	4	158,52 - 431,18	158,52 - 431,18	158,52 - 431,18	158,52 - 431,18	-	-	-
MR285	5	376,94 - 1365,28	376,94 - 1365,28	376,94 - 1365,28	376,94 - 1365,28	-	-	-
MR286	6	1817,07 - 3214,82	1817,07 - 3214,82	1817,07 - 3214,82	1817,07 - 3214,82	-	-	-
MR372	2	-	13,53 - 23,33	13,53 - 23,33	13,53 - 23,33	3,28 - 23,33	3,28 - 20,62	3,28 - 16,20
MR373	3	-	18,68 - 20,64 29,47 ; 48,00 - 157,76	18,68 - 20,64 29,47 ; 48,00 - 157,76	18,68 - 20,64 29,47 ; 48,00 - 157,76	18,68 - 138,72	18,68 - 97,92	18,68 - 72,81
MR374	4	181,34 - 524,07	181,34 - 524,07	181,34 - 524,07	181,34 - 524,07	-	-	-
MR375	5	488,82 - 1561,78	488,82 - 1561,78	488,82 - 1561,78	488,82 - 1561,78	-	-	-
MR376	6	1217,14 - 4945,64	1217,14 - 4945,64	1217,14 - 4945,64	1217,14 - 4945,64	-	-	-
MR472	2	-	-	18,72 - 22,15	18,72 - 22,15	4,89 ; 8,47 - 22,15	4,89 ; 8,47 - 22,15	3,27 - 22,15
MR473	3	-	-	86,52 - 219,00	86,52 - 219,00	21,74 ; 30,93 - 157,90	18,04 - 139,54	18,04 - 109,64
MR474	4	-	229,46 - 674,46	229,46 - 674,46	229,46 - 674,46	229,46 - 295,98	229,46 - 259,55	-
MR475	5	726,85 - 2522,85	726,85 - 2522,85	726,85 - 2522,85	726,85 - 2522,85	726,85 - 1631,08	726,85 - 1386,75	-
MR476	6	2148,94 - 7458,85	2148,94 - 7458,85	2148,94 - 7458,85	2148,94 - 7458,85	2148,94 - 5141,34	2148,94 - 4822,33	-
MR572	2	-	-	-	-	17,07 - 27,00	17,07 - 27,00	4,95 - 27,00
MR573	3	-	-	-	-	26,54 - 167,32	22,64 - 134,45	22,64 - 118,95
MR574	4	-	144,37 - 574,90	144,37 - 574,90	144,37 - 574,90	144,37 - 402,12	144,37 - 194,15 301,59	144,37
MR575	5	620,62 - 2736,94	620,62 - 2736,94	620,62 - 2736,94	620,62 - 2736,94	-	-	-
MR576	6	2850,22 - 8091,82	2850,22 - 8091,82	2850,22 - 8091,82	2850,22 - 8091,82	-	-	-
MR672	2	-	-	-	-	-	20,74 - 23,18	5,08 - 5,73 10,62 - 23,18
MR673	3	-	-	-	-	-	110,55 - 196,61	30,20 - 174,89
MR674	4	-	-	-	215,97 - 500,39	215,97 - 500,39	215,97 - 442,20	-
MR675	5	-	730,46 - 2578,93	730,46 - 2578,93	730,46 - 2578,93	583,04 - 2578,93	583,04 - 1113,08	583,04 - 995,91
MR676	6	-	2863,86 - 17441,07	2863,86 - 17441,07	2863,86 - 17441,07	2863,86 - 7490,08	2863,86 - 5287,12	2863,86 - 3931,45
MR772	2	-	-	-	-	-	-	6,52 - 7,30 12,98 - 21,40
MR773	3	-	-	-	-	-	-	17,53 - 19,76 ; 34,89 - 39,33 68,15 - 208,82
MR774	4	-	-	-	190,96 - 594,92	190,96 - 594,92	190,96 - 594,92	190,96 - 467.43
MR775	5		641,40 - 4812,09	641,40 - 4812,09	641,40 - 4812,09	641,40 - 3103,85	641,40 822,02 - 1252,60	822,02 - 984,18
MR776	6		2916,59 - 23464,25	2916,59 - 23464,25	2916,59 - 23464,25	2916,59 - 8428,93	2916,59 - 5949,83	2916,59 - 4424,24
MR872	2	-	-	-	-	-	-	-
MR873	3	-	-	-	-	-	-	56,54 - 110,17
MR874	4	-	-	-	-	188,08 - 446,42	188,08 - 390,74	107,60 - 345,67
MR875	5	-	537,75 - 1924,32	537,75 - 1924,32	537,75 - 1924,32	495,97 - 1924,32	495,97 - 1700,56	495,97 - 1336,15
MR876	6	-	2108,33 - 17501,59	2108,33 - 13014,00	2108,33 - 13014,00	2108,33 - 11443,34	2108,33 - 3892,30	2108,33 - 2894,28
MR972	2	-	-	-	-	-	-	-
MR973	3	-	-	-	-	-	-	-
MR974	4	-	-	-	-	172,08 - 510,11	172,08 - 510,11	172,08 - 510,11
MR975	5	-	-	914,74 - 2027,97	914,74 - 2027,97	588,87 - 2027,97	588,87 - 2027,97	462,18 - 2027,97
MR976	6	-	-	2836,64 - 20051,59	2836,64 - 20051,59	2836,64 - 11064,86	2836,64 - 8620,11	2836,64 - 5357,43

Motor Büyüklüğüne Göre Geometrik Mümkün Çevrim Oranları
Geometrically Possible Combinations of Ratios According to Motor Size
Geometrisch mögliche Kombinationen von Übersetzungen nach Motorbaugröße

		Motor Büyüklüğü / *Motor Size* / Motorbaugröße						
Tip Type Typ	**Kademe** *Stages* Stufen	**160**	**180**	**200**	**225**	**250**	**280**	**315**
MR002	2	-	-	-	-	-	-	-
MR003	3	-	-	-	-	-	-	-
MR102	2	-	-	-	-	-	-	-
MR103	3	-	-	-	-	-	-	-
MR172	2	-	-	-	-	-	-	-
MR173	3	-	-	-	-	-	-	-
MR202	2	-	-	-	-	-	-	-
MR203	3	-	-	-	-	-	-	-
MR272	2	-	-	-	-	-	-	-
MR273	3	-	-	-	-	-	-	-
MR275	5	-	-	-	-	-	-	-
MR276	6	-	-	-	-	-	-	-
MR282	2	-	-	-	-	-	-	-
MR283	3	-	-	-	-	-	-	-
MR284	4	-	-	-	-	-	-	-
MR285	5	-	-	-	-	-	-	-
MR286	6	-	-	-	-	-	-	-
MR372	2	3,28 - 13,53	-	-	-	-	-	-
MR373	3	21,65 - 25,27 35,25 - 41,16	-	-	-	-	-	-
MR374	4	-	-	-	-	-	-	-
MR375	5	-	-	-	-	-	-	-
MR376	6	-	-	-	-	-	-	-
MR472	2	3,27 - 18,72	3,27 - 15,35	-	-	-	-	-
MR473	3	18,04 - 84,46 ; 91,58	18,04 - 73,09	-	-	-	-	-
MR474	4	-	-	-	-	-	-	-
MR475	5	-	-	-	-	-	-	-
MR476	6	-	-	-	-	-	-	-
MR572	2	4,37 - 23,02	4,37 - 19,15	4,37 - 14,54	-	-	-	-
MR573	3	22,64 - 100,53	22,64 - 39,98 54,74 - 82,45	-	-	-	-	-
MR574	4	-	-	-	-	-	-	-
MR575	5	-	-	-	-	-	-	-
MR576	6	-	-	-	-	-	-	-
MR672	2	3,29 - 23,18	3,29 - 23,18	3,29 - 17,93	3,29 - 11,97	-	-	-
MR673	3	26,66 - 149,11	26,66 - 124,07	26,66 - 94,17	26,66 - 34,36 53,99 - 61,42	-	-	-
MR674	4	-	-	-	-	-	-	-
MR675	5	583,04 - 673,70	-	-	-	-	-	-
MR676	6	-	-	-	-	-	-	-
MR772	2	4,25 - 21,40	4,25 - 21,40	4,25 - 21,40	4,25 - 14,54	4,25 - 14,54	-	-
MR773	3	15,63 - 178,78	15,63 - 148,73	15,63 - 115,06	15,63 - 76,81	15,63 - 76,81	-	-
MR774	4	-	-	-	-	-	-	-
MR775	5	-	-	-	-	-	-	-
MR776	6	-	-	-	-	-	-	-
MR872	2	4,95 ; 5,99 - 10,09	4,95 ; 5,99 - 10,09	4,32 - 10,09	4,32 - 10,09	4,32 - 10,09	4,32 - 10,09	-
MR873	3	13,30 ; 16,09 - 20,28 27,39 - 110,17	13,30 ; 16,09 - 20,28 27,39 - 110,17	11,59 - 86,51	11,59 - 52,86	11,59 - 52,86	11,59 - 46,12	-
MR874	4	107,60 - 292,15	107,60 - 239,61	107,60 - 174,68	-	-	-	-
MR875	5	495,97 - 537,75	-	-	-	-	-	-
MR876	6	-	-	-	-	-	-	-
MR972	2	7,92 - 9,99 ; 12,86 - 16,23	7,92 - 9,99 ; 12,86 - 16,23	7,11 - 16,23	7,11 - 16,23	7,11 - 16,23	7,11 - 16,23	7,11 - 16,23
MR973	3	20,36 - 26,03 ; 33,08 - 42,30 54,80 - 186,95	20,36 - 26,03 ; 33,08 - 42,30 54,80 - 166,73	18,15 - 132,83	18,15 - 91,56	18,15 - 91,56	18,15 - 70,07	18,15 - 70,07
MR974	4	172,08 - 216,03	172,08 - 193,13	-	-	-	-	-
MR975	5	462,18 - 842,80	462,18 - 750,24	-	-	-	-	-
MR976	6	-	-	-	-	-	-	-

Servis Faktörü

Servis faktörü (fs) redüktörün çalıştığı şartlar ile uyumlu olması için gerekli olan emniyet katsayısıdır. ‘‘fs =1’’ Düzgün ve sakin yüklerde, günlük sekiz saat ve saatte yüz start çalışmayı karşılar.

Aşağıdaki etkenlere bağlıdır:

- Günlük çalışma süresi
- Yük sınıfı
- Bir saatteki start sayısı
- Redüktör tahrik tipi
- Diğer gözlemler

Bu etkenleri göz önüne aldığımızda, gerekli servis faktörünü belirlemek için:
1. Makinanın günlük çalışma süresini tespit ediniz.
2. Makinanın ne türde yükler verdiğini tespit ediniz (Sayfa 17-18).

U - Düzgün ve sabit yükler
M - Orta darbeli yükler
H - Ağır darbeli yükler

Yük sınıfının daha teknik seçimi için rotora indirgenmiş toplam atalet momenti formülünden faydalanabilirsiniz (Sayfa 18).
3. Saatteki start sayısını tespit ediniz.
4.İlk üç maddeye bağlı servis faktörünü aşağıdaki tablodan seçiniz.

5. fs Redüktürümüzün tahrik tipine bağlı olarak “k” katsayısı ile çarpılarak arttırılır.

k=1 :Elektrik motoru veya hidromotor
k=1.25 :İçten yanmalı çok silindirli motor

k=1.5 :İçten yanmalı tek silindirli motor

Service Factor

Service Factor (fs) is a safety coefficient, which takes into account the different running conditions of the driven machine.'' fs=1'' is used for uniform loads 8 hours working per day and up to 100 starts per hour.

Service factor depends on:

- *Running time*
- *Nature of load*
- *Frequency of starting*
- *Driver type*
- *Other considerations*

For the right selection of the needed service factor for your machine;
1. Determine the running time of driven machine.
2. Select the nature of load of driven machine (Page 17-18).

U - Uniform loads
M - Moderate loads
H - Heavy shock loads

For a better selection, the nature of load can be calculated from the formulas given (page 18).

3. Determine frequency of starting
4. After determining the above mentioned factors, the service factor can be easily selected from the table given bellow.
5. The selected service factor must be multiplied with the factor ''k'' according to the driver type;

k=1 :Electric motor or Hydrolicmotor
k=1.25 :Multicylinder internal combustion engine
k=1.5 :Single cylinder internal combustion engine

Betriebsfaktor

Der Betriebsfaktor (fs) ist ein Sicherheitsfaktor für die Getriebe, damit sie unter den Betriebsbedingungen sicher arbeiten. ‘‘fs =1’’ steht für gleichförmige Belastung, 8 Studen pro Tag und bis zu 100 Schaltungen pro Stunde.

Betriebsfaktor ist abhängig von:

- Betriebsdauer
- Belastungsart
- Schalthäufigkeit
- Antriebsart
- Andere Faktoren

Um die richtigen Betriebsfaktor festzulegen;

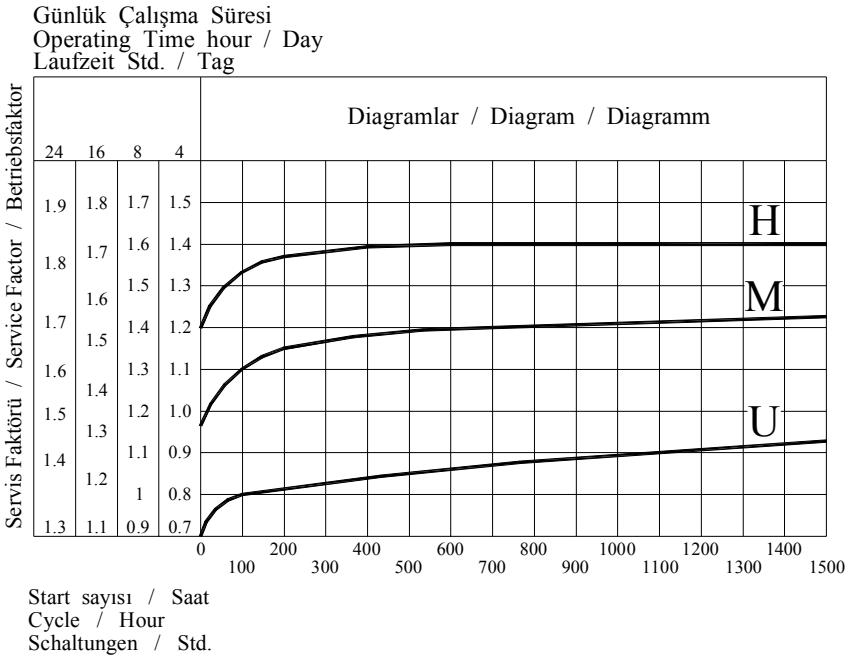
1. Betriebsdauer der angetriebenen Maschine bestimmen.
2. Belastungsart der angetriebenen Maschine auswählen.

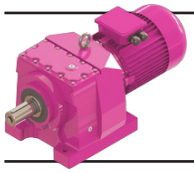
U - Gleichförmig Belastung
M - Ungleichförmig Belastung
H - Stark Ungleichförmig Balastung

Um eine bessere Auswahl zu treffen, können die Belastungsarten mit den angegebenen Formeln (Seite 18) errechnet werden.
3. Schalhäufigkeit bestimmen.
4. Nach Bestimmen der oben angegebenen Werte, können die Betriebsfaktoren von der unten stehenden Tabelle entnommen werden.
5. Der ausgewählte Betriebsfaktor muß mit dem Faktor ‘‘k’’ abhängig von der Antriebsart multipliziert werden

k=1 :Elektromotor oder Hydraulikmotor
k=1.25 :Vielzylindermotor

k=1.5 :Einzylindermotor





Yük Sınıflandırması

Krenler:

U - Kaldırma Dişlileri
- Palanga Dişlileri

M - Bomlu Vinç Dişlileri
- Yana Döndürme Dişlileri

H - Yürütme Dişlileri

Pompalar:

U - Santrifuj Pompalar (ince sıvı)
M - Santrifuj Pompalar (yarı sıvı)
H - Basınçlı Pompalar
- Dalgıç Pompalar

Taş ve Kil İşleme Makinaları:

H - Çekiçli Değirmenler
- Döner Fırınlar
- Dövücü Değirmenler
- Kırıcılar
- Küreli Değirmenler
- Tuğla Presi
- Tüp Değirmenler

Tekstil Makinaları:

M - Basma ve Boyama Makinaları
- Dokuma Tezgahları
- Hallac Makinaları
- Harman Makinaları
- Taneleme (Debegat)Tekneleri

Yağ Sanayi:

M - Besleme Pompaları
- Döner Delme Teçhizatları

Yiyecek Sanayi:

M - Kutu Bıçaklar
- Kutu Kaplama
- Mayalama Tekneleri

H - Kenar Açma

Çamaşır Yıkama Makinaları:

M - Döner Kurutucular
- Yıkama Makinaları

Hadde Makinaları:

M - Hız Ayarlı Silindirler
- Sabit Silindirler
- Sarma Makaraları
- Tel Çekme

H - Çubuk Kesme Makinaları
- Döner Tablalar (büyük)
- Kabuk Sıyırma Makinaları
- Plaka Haddeleme
- Silindir Haddeleme
- Soğuk Haddeleme

Load Classification

Cranes:

U - Hoist Gears
- *Lifting Gears*

M - Defrocking jib Gears
- *Slowing Gears*

H - Travelling Gears

Pumps:

U - Centrifugal Pumps (light liquids)
M - Centrifugal Pumps (semi liquid)
H - Pressure Pumps
- *Plunger Pumps*

Stone and Clay Working Machines:

H - Hammer Mills
- *Rotary Kilns*
- *Beater Mills*
- *Breakers*
- *Ball Mills*
- *Brick Presses*
- *Tup Mills*

Textile Machines:

M - Printing and Dyeing Machines
- *Looms*
- *Willow*
- *Batchers*
- *Tanning Vats*

Oil Industry:

M - Pipeline Pumps
- *Rotary Drilling Equipment*

Food Industry:

M - Cane Knives
- *Cane Crushers*
- *Mach Tubs*

H - Cane Mills

Laundries:

M - Tumblers
- *Washing Machines*

Metal Rolling Mills:

M - Roller Adjustment Drives
- *Roller Straightened*
- *Winding Machines*
- *Wire Drawing Benches*

H - Billet Shears
- *Rotary Tables (heavy)*
- *Descaling Machines,*
- *Sheet Mills*
- *Manipulators*
- *Cold Rolling Mills*

Belastungsart

Krananlagen:

U - Einziehwerke
- Hubwerke

M - Schwenkwerke
- Wippwerke

H - Fahrwerke

Pumpen:

U - Kreiselpumpen (leichte Flüssigkeit)
M - Kreiselpumpen (zahe Flüssigkeit)
H - Prebpumpen
- Plungerpumpen

Steine und ErdenBearbeitende Masch.

H - Hammermühler
- Drehofen
- Schlagmühlen
- Brecher
- Kugelmühlen
- Ziegelpressen
- Rohrmühlen

Textilmaschinen:

M - Drukerei
- Farbereimachinen
- Aufwickler
- Webstuhle
- Gerbfasser
- Reibwolfe

Erdölgewinnung:

M - Pipline Pumpen
- Rotative Bohranlagen

Nahrungsmittelmachinen:

M - Rohrschneiden
- Knetmaschinen
- Maichen

H - Rohrmühlen

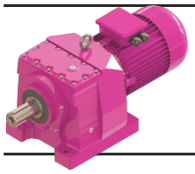
Waschereimaschinen:

M - Trommeltrockner
- Waschmaschinen

Wälzwerke:

M - Rollenrichtmaschinen
- Walzenantriebe
- Drahtzuge
- Haspeln

H - Blechscheren
- Rollgänge (schwer)
- Knüppelscheren
- Schöpfscheren
- Stranggubanlagen
- Kaltwälzwerke



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İnşaat Makinaları:

M - Beton Mikserleri
- Ağır Yük Asansörleri

Kağıt Makinaları:

H - Islak Presler
- Kağıt Hamur Makinaları
- Kurutma Silindirleri
- Perdahlama Silindirleri

Kauçuk Makinaları:

M - Kalenderler
- Mikserler

H - Extruderler
- Hamur Karma
- Silindirler

Kimya Sanayi:

M - Agidatörler (yarı sıvı)
- Kurutma Merdaneleri
- Mikserler ve Silindirleri

Konveyörler:

M - Bant Cepli Konveyörler
- Çelik Bantlı Konveyörler
- Dökme Yüklü Kayışlı Konv.

H - Yük Asansörleri
- Parça Yüklü Kayışlı Konv.

Building Machines:

M - Concreate Mixers
- Hoist

Paper Machines:

H - Wet Presses
- Pulpers
- Drying Cylinders
- Glazing Cylinders

Rubber Machinery:

M - Calenders
- Mixers

H - Extruders
- Pug Mills
- Rolling Mills

Chemical Industry:

M - Aggidators (semi- liquit)
- Drying Drums.
- Mixers and Rolling Mills

Conveyors:

M - Band Pocket Conveyors
- Steel Belt Conveyors
- Belt Conveyors

H - Hoists
- Bulk Belt Conveyors

Baumaschinen:

M - Betonmischermaschinen
- Bauaufzüge

Papiermaschinen:

H - Naßpressen
- Gautschen
- Trockenzylinder
- Glattzylinder

Kunststoffmaschinen:

M - Kalender
- Mischer

H - Extruder
- Knetwerke
- Wälzwerke

Chemische İndustrie:

M - Rührwerke (leichte Flüssig.)
- Trockentrommeln
- Mischer und Wälzwerke

Förderanlagen:

M - Gurttaschenbecherwerke
- Stahlbandförderer
- Gurtbandförderer (Schüttgut)

H - Schrägaufzüge
- Gurtbandförderer(Stückgut)

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

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

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

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

i : **Tahvil oranı**
Transmission ratio
Übersetzung

J_{rotor} : **Motorun atalet momenti**
Moments of inertia to the motor
Massenträgheitsmoment

Redüktör Dönüş Yönleri

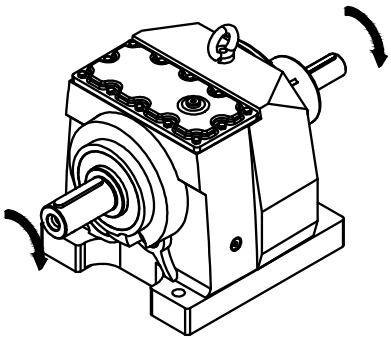
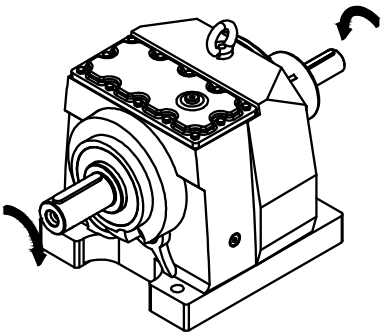
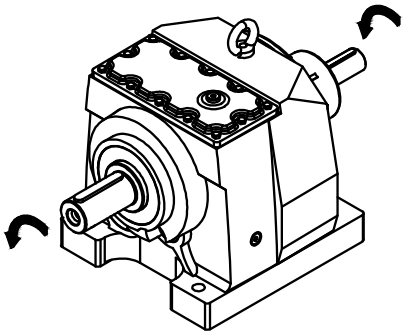
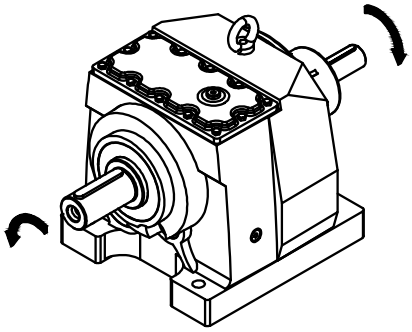
M Serisi ürünlerimiz için kullanılan yön tanımlaması aşağıdaki gibidir. Aşağıdaki tanımlama kilitli redüktörler için de geçerlidir.

Direction of Rotation

M Series direction of rotation of Yilmaz products are defined as follows. The definitions are also valid for gear units with backstop.

Getriebedrehrichtungen

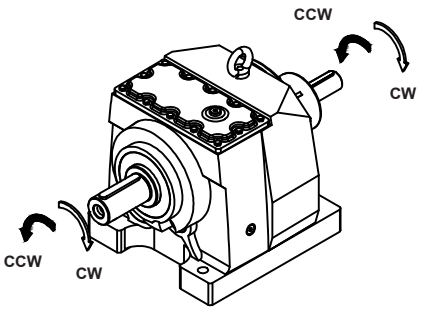
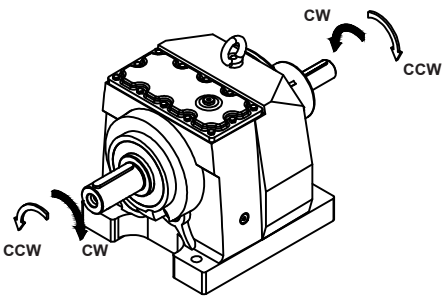
Die Drehrichtungen für M Serie Getriebe sind wie folgt definiert. Die Definition ist auch bei Getrieben mit Rücklaufsperre gültig.

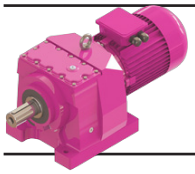
	2-4-6 Kademe / *2-4-6 Stages* / 2-4-6 stufig	**3-5 Kademe** / *3-5 Stages* / 3-5 stufig
Saat Yönünde *Clockwise* im Uhrzeigersinn **CW**		
Saat Tersi Yönünde Counter Clockwise gegen Uhrzeigersinn **CCW**		

Giriş mili dönüş yönüne göre çıkış mili dönüş yönleri aşağıdaki gibidir.

Output shaft rotation directions according to the input shaft rotation directions are as follows.

Drehrichtungen der Abtriebswelle im Abhängigkeit von der Antriebswellen sind wie folgt;

2-4-6 Kademe / *2-4-6 Stages* / 2-4-6 stufig	**3-5 kademe** / *3-5 Stages* / 3-5 stufig
	



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Einführung

Radyal Yükler

Çıkış miline gelebilecek radyal ve eksenel yükler yatak ömrüne göre belirlenmiş ve tablolar halinde verilmiştir. Bu tablolarda verilen F_{qam} güvenilir radyal yükü emniyet katsayısı 1 için ve yükün mil ortasını yüklediği durum için verilmiştir. Darbeli yüklerin olması ($f_s \neq 1$) durumunda izin verilen radyal yük değerleri servis faktörü kadar azaltılmalıdır. Verilen radyal ve eksenel yükler kuvvetin en kötü açı şartında etkidiği durum için verilmiştir. Mil ucuna gelen kuvvetin açısına göre daha yüksek radyal yükler mümkündür (Firmamıza danışınız). Bağlantı şekline göre oluşan radyal yük F_q sayfa 21 de verilen formüller yardımı ile hesaplanır.
Redüktör seçiminde ;

$$F_{qa} \leq F_{qam}$$
$$F_{qe} \leq F_{qem}$$

şartı göz önünde tutulmalı.Eğer etkiyen radyal kuvvet milin orta noktasında değil ise verilen güvenilir değerin aşağıda verilen formül ile düzeltilmesi gerekir.

$$F_{qam'} = F_{qam} \cdot \frac{t}{y + u}$$

$$F_{qem'} = F_{qem} \cdot \frac{t}{y + u}$$

"t", "y" Değerleri aşağıda verilmiştir. "u" Değeri görüldüğü gibi kuvvetin uygulama noktasıdır.

Overhung Loads

The permissible overhung loads are calculated by considering working life and is listed on the tables. The given permissible overhung loads F_{qam} are based on safety factor 1 and are valid for forces which are applied to the midpoint of the shaft.
For shock loading ($f_s \neq 1$) permissible radial loads must be divided with service factor. The listed permissible overhung loads are based on the worst loading direction. Higher overhung loads can be applied for different loading directions (Please ask if requested). The effective overhung load at the gearbox shaft F_q will be determined with the given formulas on page 21.

In Selection ;

$$F_{qa} \leq F_{qam}$$
$$F_{qe} \leq F_{qem}$$

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

$$F_{qam'} = F_{qam} \cdot \frac{t}{y + u}$$

$$F_{qem'} = F_{qem} \cdot \frac{t}{y + u}$$

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

Querkräfte

Die in den nachfolgenden Tabellen angegebenen zulässigen Radialbelastungen F_{qam} gelten bei Kraftangriff auf die Mitte Wellenende. Den Angaben liegt der Sichheitsfaktor gleich 1 zu Grunde. Bei stoßartigen Belastungsfällen ist auch hier der entsprechende Betriebsfaktor ($f_s \neq 1$) zu berücksichtigen. Zulässige Axialkräfte F_{ama} oder F_{ame} wurden für den Fall mit schlechter Belastungsrichtung angegeben. Bei der Ermittlung der zulässige Querkräfte sind höhere Werte möglich (Bitte Rückfragen). Die auftretende Querkraft F_q ab der Getriebewelle wird wie in der nachfolgenden Formel bestimmt.

Bei dieser Auswahl;

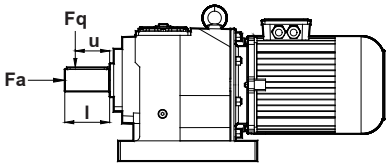
$$F_{qa} \leq F_{qam}$$
$$F_{qe} \leq F_{qem}$$

müssen die oben angebenen Bedingungen berücksichtigt werden. Ist der Kraftangriff nicht auf Wellenmitte, so kann die zulässige Querkraft mit Hilfe der unten stehenden Formel auf jede beliebige Stelle umgerechnet werden.

$$F_{qam'} = F_{qam} \cdot \frac{t}{y + u}$$

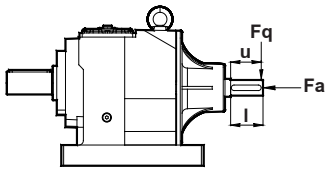
$$F_{qem'} = F_{qem} \cdot \frac{t}{y + u}$$

Die Werte "t" und "y" sind in den nachfolgenden Tabellen angegeben. Der Wert "u" ist die Stelle des Kraftangriffs wie auf der nächsten Seite angegeben.



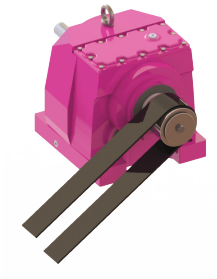
Çıkış Milinde Radyal Kuvvet Hesabı Düzeltme Katsayıları
Overhung Load Correcting Values on Output Shaft
Querkraft auf Ausgangswelle Korrigierungszahlen

Tip *Type* Typ	**MR002-003 NR002-003**	**MR102-103 NR102-103**	**MR172-173 NR172-173**	**MR202-203 NR202-203**	**MR272-273 NR272-273**	**MR282-283 NR282-283**	**MR372-373 NR372-373**	**MR472-473 NR472-473**	**MR572-573 NR572-573**	**MR672-673 NR672-673**	**MR772-773 NR772-773**	**MR872-873 NR872-873**	**MR972-973 NR972-973**
t	90	108	109	140	141	158	170	214	256	291	314	404	440
y	70	83	84	110	106	123	130	164	196	226	244	299	334
l	40	50	50	60	70	70	80	100	120	130	140	210	210



Giriş Milinde Radyal Kuvvet Hesabı Düzeltme Katsayıları
Overhung Load Correcting Values on Input Shaft
Querkraft auf Eingangswelle Korrigierungszahlen

Tip *Type* Typ	**MT002-003 NT002-003**	**MT102-103 NT102-103**	**MT172-173 NT172-173**	**MT202-203 NT202-203**	**MT272-273 NT272-273**	**MT282-283 NT282-283**	**MT372-373 NT372-373**	**MT472-473 NT472-473**	**MT572-573 NT572-573**	**MT672-673 NT672-673**	**MT772-773 NT772-773**	**MT872-873 NT872-873**	**MT972-973 NT972-973**
t	78	108	108	111	111	126	126	137	158	180	207	220	261
y	58	83	83	86	86	96	96	102	113	130	147	165	207
l	40	50	50	50	50	60	60	70	90	100	120	110	110



Radyal Yüklerin Hesabı

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

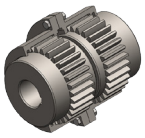
Calc. Of Overhung Loads

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

Berechnung der Querkräfte

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

1

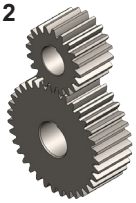


1. Elastik Kaplin
Çalışma sırasında oluşan sapmalar kaplinin güvenlik sınırları içinde ise kuvvetler ihmal edilebilir.

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

1. Elastische Kupplung
Wenn die elastische Kupplung in ihren zulässige Arbeitstoleranz arbeitet, können die radialen Belastungen vernachlässigt werden.

2



2. Düz Dişli
(20° kavrama açılı)

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

2. For Spur Gear
(Pressure angle 20°)

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

2. Stirnradgetriebe
(Angriffwinkel 20°)

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

3

3. Küçük Hızlarda Zincir Dişli (z>17)

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

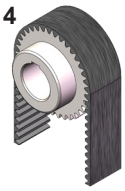
3. For Chain Drive With Low Speed (z>17)

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

3. Kettenantrieb mit niedriger Geschwindigkeit (z>17)

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

4



4. Triger Kayış

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

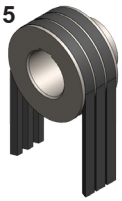
4. For Trigger Belt

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

4. Zahnriemenantrieb

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

5



5. V Kayış

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

5. For V Belt

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

5. Keilriemenantrieb

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

6

6. Gerdirme Makaralı Kayış

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

6. Flat Belt With Spanning Pulley

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

6. Flachriemenantrieb mit Spannungstrommel

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

Eşdeğer Güç Hesabı

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

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

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_n \times T_n^{6.6}}{t}\right)^{\left(\frac{1}{6.6}\right)}$$

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

Eğer $T_n < T_e \times 0.5$ ise

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n}\right)^{\left(\frac{1}{6.6}\right)}$$

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

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

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

Equivalent Power Rating Calculation

The equivalent power by an equivalent constant torque can be calculated for gearboxes working in constant speed but variable torques (or powers). Using this equivalent power it is possible to make a gearbox selection according the usual gearbox selection method with constant torques. The equivalent torque will be determined according the mean of dominating torques. The gearbox working in constant equivalent torque will theoretically have the same lifetime and safety compared to the variable torque one.
To calculate the equivalent torques, the variable torques in a cycle must be sorted from the maximal to the minimal on a horizontal time line (Check the graphic below). According to the graphic below the equivalent torque can be calculated with the following formula;

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_n \times T_n^{6.6}}{t}\right)^{\left(\frac{1}{6.6}\right)}$$

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

If $T_n < T_e \times 0.5$ then

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n}\right)^{\left(\frac{1}{6.6}\right)}$$

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

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

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

Berechnung Äquivalenter Leistung

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

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

$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_n \times T_n^{6.6}}{t}\right)^{\left(\frac{1}{6.6}\right)}$$

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

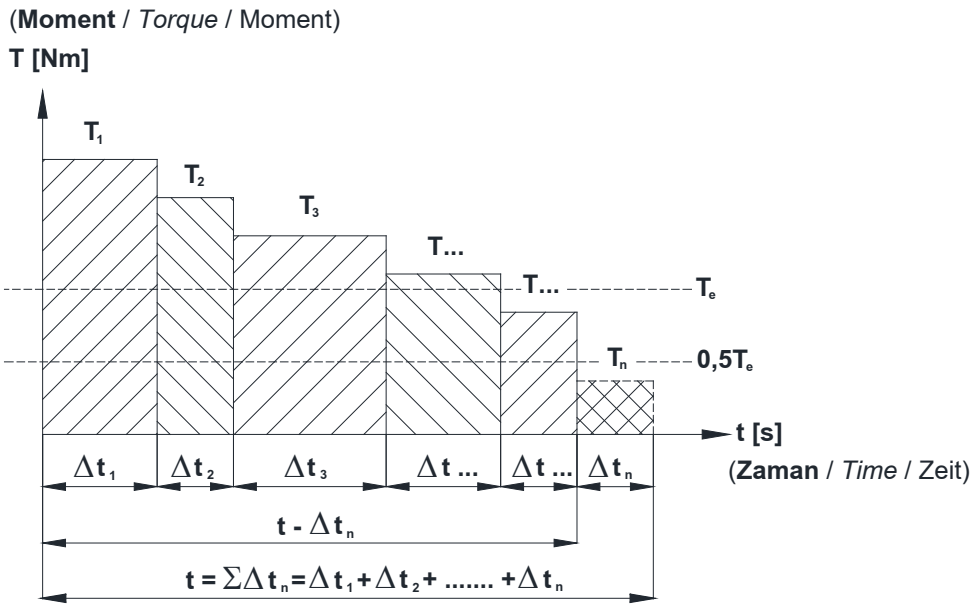
Wenn $T_n < T_e \times 0.5$ dann

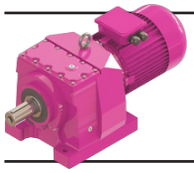
$$T_e = \left(\frac{\Delta t_1 \times T_1^{6.6} + ... + \Delta t_{n-1} \times T_{n-1}^{6.6}}{t - \Delta t_n}\right)^{\left(\frac{1}{6.6}\right)}$$

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

$$P_{eq} = P_N = \frac{T_e \times n}{9550}$$

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





Eşdeğer Güç Hesabı Örneği

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

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

Çözüm:
Bir çevrimin toplam zamanı;

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

Eşdeğer Tork;

$$T_e = \left(\frac{30 \times 48^{6.6} + ... + 43 \times 5^{6.6}}{120}\right)^{\frac{1}{6.6}}$$

$$= 39,2\ kNm$$

%50 eşdeğer tork;

$$0.5 \times T_e = 19.6\ kNm$$

Her bir tork dilimi bu değerin üzerinde olmalı

$$T_4, T_5 < 0.5 \times T_e$$

%50 torkun altındakileri çıkararak hesabı tekrarlayalım;

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

$$T_e = \left(\frac{30 \times 48^{6.6} + ... + 15 \times 28^{6.6}}{67}\right)^{\frac{1}{6.6}}$$

$$= 42,9\ kNm$$

Moment ve devir değerlerini kullanarak eşdeğer gücümüzü hesaplayalım ;

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

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

Equivalent Power Rating Sample

The following data is given for a reversing blooming mill;

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

Solution:
Total time in a cycle;

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

Equivalent Torque;

$$T_e = \left(\frac{30 \times 48^{6.6} + ... + 43 \times 5^{6.6}}{120}\right)^{\frac{1}{6.6}}$$

$$= 39,2\ kNm$$

50% of Equivalent torque;

$$0.5 \times T_e = 19.6\ kNm$$

Every torque part must be lower then this value;

$$T_4, T_5 < 0.5 \times T_e$$

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

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

$$T_e = \left(\frac{30 \times 48^{6.6} + ... + 15 \times 28^{6.6}}{67}\right)^{\frac{1}{6.6}}$$

$$= 42,9\ kNm$$

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

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

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

Beispiel für Äquivalente Leistung

Die nachfolgenden Angaben sind für eine Blechreversierwalze;

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

Lösung:
Gesamte Zeit für einem Arbeitszyklus;

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

Äquivalentes Drehmoment;

$$T_e = \left(\frac{30 \times 48^{6.6} + ... + 43 \times 5^{6.6}}{120}\right)^{\frac{1}{6.6}}$$

$$= 39,2\ kNm$$

50% von äquivalenten Drehmoment;

$$0.5 \times T_e = 19.6\ kNm$$

Drehmomentanteile müssen größer als dieser Wert sein;

$$T_4, T_5 < 0.5 \times T_e$$

Wir wiederholen die Berechnung nochmals ohne die kleine Drehmomentanteile;

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

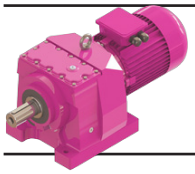
$$T_e = \left(\frac{30 \times 48^{6.6} + ... + 15 \times 28^{6.6}}{67}\right)^{\frac{1}{6.6}}$$

$$= 42,9\ kNm$$

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

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

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



Genel Bilgiler
General Information
Einführung

Redüktör Seçimi

Bir redüktör seçiminde aşağıdaki yol izlenmelidir.

1. Çalışma şartlarına bağlı olarak servis faktörünü (fs) belirleyiniz. (Servis Faktörü Sayfa 16).

2. Makinanız için gerekli olan momenti belirleyiniz M_2 (redüktör gerekli çıkış momenti).

3. Makinanızın devrini belirleyiniz n_2 (redüktör gerekli çıkış devri).

4. Makinanızın güç ihtiyacını (Redüktör çıkış gücünü) ''P_2'' hesaplayınız.

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Redüktör ile makina arasında kullanılan bağlantı elemanına göre radyal yükü hesaplayınız. (Sayfa 20). Yukarıdaki verilere uygun olarak çıkış devri, değerlerine uyan servis faktörü ve radyal yükü bulduğunuzdan daha yüksek veya eşit olan redüktörü, güç-devir seçim tablolarından seçiniz. Helisel tip redüktörlerde verim yüksek olduğundan çıkış gücü verilmemiştir. Hesapladığınız güç değerini giriş gücü olarak kabul edip seçiminizi yapınız. Tablolarda verilen M_2 çıkış momentinin hesapladığınız M_2 den büyük olmasına dikkat ediniz. Eğer seçilen redüktörünki daha ufak ise bir üst motor gücüne geçiniz.

Örnek
1. Makina Cinsi:
Lastik bantlı konveyör , dökme yük taşıyor.

2. Makina için gerekli moment:
Makina için hesaplanan moment
M_2 = 470 Nm.

3. Makina gerekli çıkış devri:
n_2 = 50 dev/dak.

4. Günlük çalışma süresi:
16 saat.

5. Saatte start sayısı:
Saatte 1 start

6. Makina ile bağlantı şekli:
Zincir dişli (çap -160 mm)

- Yük sınıflandırma tablosundan yük sınıfı M olarak seçilir (sayfa 17-18)

- Günlük çalışma süresi 16 saat Saatte start sayısı 1 ve yük sınıfı M'ye tekabül eden servis faktörü tablosundan, servis faktörü için fs= 1.3 değeri bulunur.(sayfa 16)

- Makinanızın güç ihtiyacı (Redüktör Çıkış Gücü) :

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{470 \times 50}{9550} = 2,46\ kW$$

Gearbox Selection

For the correct selection of the appropriate gear units follow this steps.

1.Determine service factor (fs) on the basis of running conditions (Page 16).

2. Determine the required Torque M_2 (required output torque of gearbox) for the driven machine.
3. Determine required speed (output speed of gearbox) for the driven machine.

4. Calculate the required power for your machine(Calculate power ''P_2'' required at output side of gear reducer using the formula);

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Calculate overhung load required at output shaft according to type of connection between gear unit and machine (Refer to directions and values given on page 20). After determining the above mentioned values, the gear reducer which corresponds to our requirements can be selected from the performance tables (the service factor and the permissible overhung load should be less than or equal to our requirement). For Helical gears the output power is not given on the performance tables because they have high efficiency and the output power can be taken as input power. The output torque should be checked if it meets to our requirements. If the output torque is low, search for a higher input power gearbox.

Example:
1. Machine Type:
Belt Conveyor (Bulk Load)

2. Required Torque:
Required Torque calculated for the driven machine is M_2=470 Nm.

3. Required speed:
n_2 = 50 rpm

4. Running time:
16 hours per day

5. Frequency of starting:
1 start per hour

6. Connection type between gear reducer
Chain drive (output dimension-160 mm)

- From the load classification table (on page 17-18), the load class M can be selected for the known application.
- The service factor can be selected as fs =1,3 from the service factor table (page 16) by taking into consideration 16 hours running time, one start per hour, and load class M.

-Required power for your machine(Power at output side of gear reducer) :

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{470 \times 50}{9550} = 2,46\ kW$$

Getriebeauswahl

Für die korrekte Auswahl des Antriebes;

1. Den Betriebsfaktor(fs) in Abhängigkeit von den Betriebsbedingungen bestimmen.(Bezug auf seite 16).

2. Die erforderte Drehmoment M_2 für die angetriebene Machine (Abtriebsdrehmoment für die Getriebe) bestimmen.
3. Erforderte Drehzahl bestimmen (Abtriebsdrehzahl für die Getriebe).

4. Berechnen der erforderte Leistung der angetriebene Maschine (Die an der Abtriebswelle erforderte Leistung''P_2'') mit der unten angegebenen Formel.

$$P_2 = \frac{M_2 \times n_2}{9550}$$

5. Die an der Getriebeabtriebswelle erforderte Querkraft in Abhängigkeit von Antriebselement bestimmen (Bezug auf Seite 20). Nach Bestimmen der oben angegebenen Werte, die passende Getriebe kann von den angegebenen Leistungstabellen entnommen werden. Dabei soll darauf geachtet werden, dass der Betriebsfaktor und Querkraft stets unterhalb von angegebenen Werten liegt. Weil Stirnradgetrieben einen hohen Wirkungsgrad haben, sind die Abtriebsleistungen für Stirnradgetrieben nicht angegeben. Bei dieser Getrieben die erforderte Leistung kann als Antriebsleistung benutzt werden. Achten sie darauf, dass der Abtriebsmoment größer als die erforderte Drehmoment ist.

Beispiel:
1. Maschinentyp:
Gurtbandförderer (Schüttgut)

2. Erforderte Drehmoment:
Für die Machine berechnete Drehmoment
M_2 = 470 Nm.

3. Erforderte Drehzahl:
n_2 = 50 upm

4. Betriebsdauer:
16 stunden pro Tag

5. Schalthäufigkeit:
1 Start pro Stunde

6. Antriebselement für verbindung
Getriebe-Machine:Kettentrieb(Durchmesser-160 mm)
- Von den Belastungsart Tabellen(Seite 17-18) nimmt man Belastungsart M

- Für den Schaltungzahl 1 und die Laufzeit16 und für den passenden Belastungsart erhält man Betriebsfaktor fs =1,3 von Tabelle auf seite 16.

- Erforderte Leistung der angetriebe Machine (Die an der Getriebeabtriebswelle erforderte Leistung)

$$P_2 = \frac{M_2 \times n_2}{9550} = \frac{470 \times 50}{9550} = 2,46\ kW$$

- Zincir dişli uygulaması için (Sayfa 21) Fq değeri;

$$F_q = \frac{2100 \times M_2}{D} = \frac{2100 \times 470}{180} = 5484\ N$$

- Ortaya çıkan redüktör ihtiyacı

$P_2 \geq$ 2,46 kW
$M_2 \geq$ 470 Nm
fs ≥ 1.3
n_2 = 50 d/dak
Fq ≥ 5484 N

Güç ve devir sayfalarından,

MR373-100L/4a seçilir. (Sayfa 81)

P_2=3kW > 2,46 kW
M_2= 573 Nm > 470 Nm
fs=1,3
n_2=47 d/dak
F_{qam}= 6616 N > 5484 N

*- **For chain drive application the requested overhang load can be calculated from (page 21).***

$$F_q = \frac{2100 \times M_2}{D} = \frac{2100 \times 470}{180} = 5484\ N$$

- The required gearbox is as follows:

$P_2 \geq$ 2,46 kW
$M_2 \geq$ 470 Nm
fs ≥ 1.3
n_2 = 50 rpm
Fq ≥ 5484 N

From the performance table,

***MR373-100L/4a** selected. (Page 81)*

P_2=3kW > 2,46 kW
M_2= 573 Nm > 470 Nm
fs=1,3
n_2=47 rpm
F_{qam}= 6616 N > 5484 N

- Für Kettentrieb die erforderte Querkraft (seite 21).

$$F_q = \frac{2100 \times M_2}{D} = \frac{2100 \times 470}{180} = 5484\ N$$

- Von den oben angegebenen Berechungen die erforderte Getriebe ist wie folgt;

$P_2 \geq$ 2,46 kW
$M_2 \geq$ 470 Nm
fs ≥ 1.3
n_2 = 50 U/min
Fq ≥ 5484 N

Von der Leistung- DrahzahlTabelle ,

wurde **MR373-100L/4a** gewählt. (Seite 81)

P_2=3kW > 2,46 kW
M_2= 573 Nm > 470 Nm
fs=1,3
n_2=47 U/min
F_{qam}=6616 N > 5484 N

Redüktör Seçim Formu

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

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

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

Motor Bağlantı Şekli (Elektrik Motorları):
IEC B5 Flanşlı [ ]
NEMA Flanşlı [ ]
B3 Ayaklı [ ]

IEC veya NEMA flanş kodu. .....

Motor Gücü:
-Nominal..... kW

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

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

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

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

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

Motor Redüktör Arası Tahvil Oranı.....

Kalkış için gerekli moment.....Nm

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

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

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

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

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

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

Kilit İhtiyacı:
Var [ ] Yok [ ]

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

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

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

Çıkış mili bağlantı şekli:
Elastik kaplin [ ]
Fıçı tipi kaplin [ ]
Rijit kaplin [ ]
Kayış kasnak [ ]
Zincir dişli [ ]
Pinyon dişli [ ]
Bağlantı elemanı çapı.....mm
Radyal yükü.....N
Radyal yük “u” mesafesi.....mm
Aksiyal yükü (mile doğru +).....N

Çıkış Mili Özelliği:
Dolu Mil Kamalı [ ]
Dolu Mil Kamasız [ ]
Özel Mil [ ]

Giriş Mili Özelliği:
Kamalı [ ]
Kamasız düz mil [ ]
Özel Mil [ ]

Elektrik Gerilimi:
AC-Monofaze [ ] AC-Trifaze [ ] DC [ ]
Voltaj.....Volt
Frekans.....Hz

Koruma Sınıfı:
IP55 [ ] IP65 [ ] Exproof [ ]
Diğer IP.....

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

Diğer Notlar:

Gearbox Selection Form

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

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

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

Motor Connection Type (Electric Motors):
IEC B5 Flange [ ]
NEMA Flange [ ]
B3 Foot Mounted [ ]

IEC or NEMA Flange Code.....

Motor Power:
-Nominal.....kW

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

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

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

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

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

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

Required Starting Torque.....Nm

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

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

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

Mounting Place:
Small closed room (w<1m/sn) [ ]
Closed room (w<3m/sn) [ ]
Big rooms and halls (w>=3m/sn) [ ]
Outdoor [ ]

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

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

Backstop Required:
Yes [ ] No [ ]

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

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

Input Shaft Connection Type:
Elastic Coupling [ ]
Barrel Type Coupling [ ]
Hydraulic Coupling [ ]
Rigid Flange Coupling [ ]
Pulley [ ]
Chain Sprocket [ ]
Pinion [ ]
Diameter of Connection element.....mm
Radial Load.....N
“u” Distance of Radial Load.....mm
Axial Load (Towards Shaft) .....N

Output Shaft Connection Type:
Elastic Coupling [ ]
Barrel Type Coupling [ ]
Rigid Flange Coupling [ ]
Pulley [ ]
Chain Sprocket [ ]
Pinion [ ]
Diameter of Connection Element.....mm
Radial Load.....N
“u” Distance of Radial Load.....mm
Axial Load (Towards Shaft) .....N

Output Shaft Specification:
Solid Shaft with Keyway [ ]
Solid Shaft without Keyway [ ]
Special Shaft [ ]

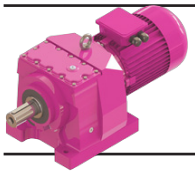
Input Shaft Specification:
Solid Shaft with Keyway [ ]
Solid Shaft without Keyway [ ]
Special Shaft [ ]

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

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

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

Notes:



Formular für Getriebeauswahl

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

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

Antriebsmaschine:
AC Motor [ ]
AC Motor mit Frequenzumrichter [ ]
DC Motor [ ]
Hydromotor [ ]
Kolbenmachinen mit 1-3 Zylinder [ ]
Kolbenmachinen mit 2-4 Zylinder [ ]

Motorverbindungsart (Elektromotoren):
IEC B5 Flansch [ ]
NEMA Flansch [ ]
B3 Fussausführung [ ]

IEC oder NEMA Flanschkode.....

Motorleistung:
-Nominal.....kW

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

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

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

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

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

Übersetzung zwischen Motor und Antriebswelle.....

Erforderliches Anlaufmoment.....Nm

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

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

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

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

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

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

Rücklaufsperre erforderlich:
Ja [ ] Nein [ ]

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

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

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

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

Eigenschaften der Abtriebswelle:
Vollwelle mit Passfeder [ ]
Vollwelle ohne Passfeder [ ]
Sonderwelle [ ]

Eigenschaften der Antriebswelle:
Vollwelle mit Paßfeder [ ]
Vollwelle ohne Paßfeder [ ]
Sonderwelle [ ]

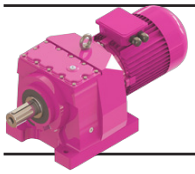
Spannungsversorgung:
AC-1 phasig [ ] AC-3 phasig [ ] DC [ ]
Spannung.....Volt
Frequenz.....Hz

Schutzart:
IP55 [ ] IP65 [ ] Exproof [ ]
Andere IP.....

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

Andere Merkmale:

Notlar / *Notes* / Notizen



Yağlama

Redüktörlerin uzun ömürlü olması ve iyi performansla çalışabilmesi için, kullanılan yağın seçimi doğru olmalı ve belirtilen zamanlarda değişimleri yapılmalıdır.

Yağın seçiminde devir, çevre sıcaklığı, redüktör yağ sıcaklığı, çalışma koşulları ve yağ ömrü önem taşımaktadır. Redüktörler yağı doldurulmuş olarak sevkedilmektedir. Redüktörler uzun süre depolanacakları zaman veya çalışmaya başlanacağı zaman çalışma konumuna göre üstte kalan tapa sökülmeli ve redüktörün beraberinde verilen havalandırma tapası kullanılmalıdır. Bu redüktörün iç basıncından dolayı oluşacak yağ sızmalarını önleyecektir.

Redüktörlerde standart olarak kullanılan yağlar yan sayfadaki tabloda verilmiştir. Redüktörünüzde kullanılan yağ tipi için lütfen etiketine bakınız. Siparişte belirtilmez ise M serisi redüktörler **M1** ve N serisi redüktörler **M4** pozisyonuna göre yağ miktarları ile doldurulur. Bu pozisyonlar dışındaki çalışma durumlarında tablolarda verilen yağ miktarlarına göre ilave veya eksiltme yapılmalıdır. Özel çalışma koşullarında firmamıza danışmanız tavsiye edilir.

Mineral yağlar her 10.000 çalışma saatinde, sentetik yağlar ise her 20.000 çalışma saatinde değiştirilmelidir. Ağır çevre koşullarında (ani ısı değişiklikleri, yüksek nemlilik v.b) yağ değiştirme periyotlarının kısaltılması tavsiye edilir. Mineral yağlar ile sentetik yağlar birbirine kesinlikle karıştırılmamalıdır. Değiştirme işlemi bir çalışma periyodunun hemen peşinden ve yağ sıcakken yapılmalıdır. Bu şekilde bir değiştirme, redüktör içindeki partiküllerin yağa karışmış olarak bulunmasından dolayı iyi bir temizleme ve yağın rahat boşalması neticesini verecektir.

Lubrication

To work in perfect condition and to have long life for the gear box the lubricant must be chosen correctly and changed in time.

In selection of oil it is important to consider speed, ambient temperature, gear box oil temperature, working conditions and the life required from the lubricant. All units are filled with lubricant before shipping. Before the gearbox is stored for a long time or before starting up, the top plug (according to the working position) must be removed and the extra given vent plug must be replaced. This prevents excessive pressure which causes oil leakages.

*The lubricants for standard gear units are given on the table on next page. Please look at your gear units label for filled oil type. If it is not written on the gearbox selection form, the M type gearboxes are filled for mounting position of **M1** and N type gearboxes are filled for mounting position **M4**. For other mounting positions please refer to the table given on the next pages. For special working conditions please contact us.*

The mineral lubricant should be changed after every 10.000 service hours and the synthetic lubricant should be changed after every 20.000 working hours. If the operation conditions are very heavy (e.g. high temperature differences, high humidity) shorter intervals between changes are recommended. Mineral and synthetic oils must not be mixed up. By changing the lubricant complete cleaning is advised. The oil change should be done after a working period. Because oil is hot in this condition and impurities are mixed with it the changing of oil will be done in best result and the oil will drain easily.

Schmierung

Um eine lange Lebensdauer zu gewährleisten muss der Schmierstoff richtig ausgewählt werden.

Für die richtige Ölauswahl müssen Drehzahl, Umgebugstemparatur, Belastungsart und Lebensdauer des Öls berücksichtigt werden. Die mitgelieferte Entlüftungsschraube ist vor Inbetriebnahme oder längeren Lagern gegen die Einfüllschraube auszutauschen, um einen Überdruck im Getriebe und damit eine Undichtigkeit des Getriebes zu vermeiden. Getriebe und Getriebemotoren sind bei Auslieferung betriebsfertig gefüllt.

Ohne besondere Bestellangaben werden die Getriebe grundsätzlich mit den auf der folgenden Seite in der grau unterlegten Spalte angegebenen Schmierstoffen gefüllt. Bitte im Getriebe verwendetes Öl von dem Namenschild ablesen. Die fußbefestigten Getriebe (M Serie) sind gefüllt für Bauform **M1** und die flanschbefestigten Getriebe (N Serie) für Bauform **M4**, wenn bei der Bestellung keine Angaben vorgegeben sind. Für andere Bauformen sind die auf der nächsten Seite angegebenen Füllmengen zu beachten.

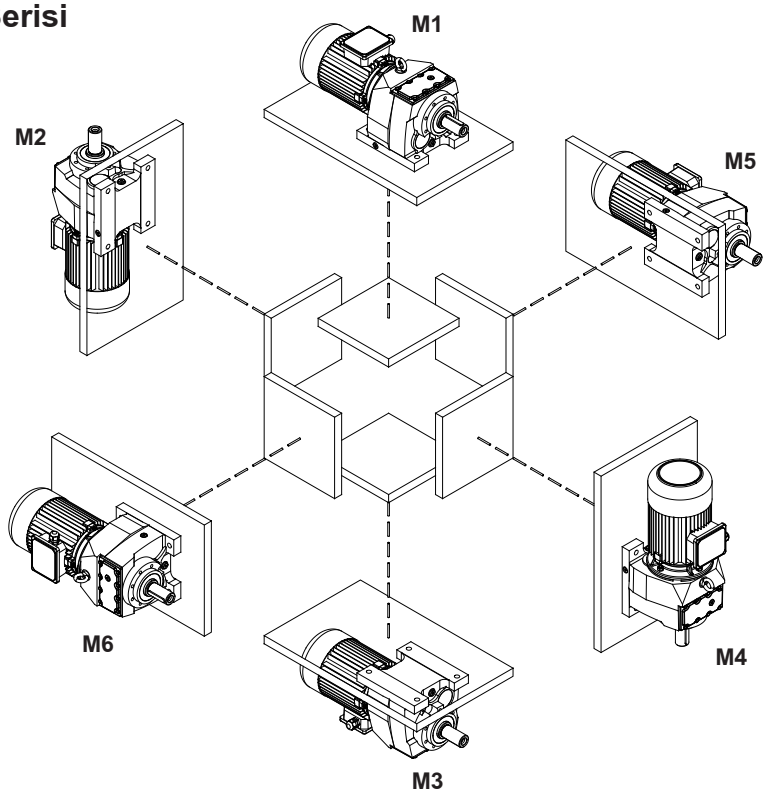
Ein Schmierstoffwechsel sollte alle 10.000 Betriebsstunden durchgeführt werden. Für synthetische Produkte verdoppeln sich diese Fristen. Bei extremen Betriebsbedingungen, z.B. hohe Luftfeuchtigkeit, aggresiver Umgebung und hohen Temparatur-schwankungen sind kürzere Schmierstoffintervalle vorteilhaft. Es ist empfehlenswert, dem Schmierstoffwechsel mit einer gründlichen Reinigung des Getriebes zu verbinden. Synthetische und mineralische Schmierstoffe dürfen nicht miteinander vermischt werden. Das Ablassen des Öls soll unmittelbar nach dem Abschalten erfolgen, solange das Öl noch warm ist. In dieser Zustand ist das Öl mit den Schmutzpartickeln vermischt, so dass eine Entfernung des Altöls eine gute Reinigung benötigt.

Yağ Tipleri / *Oil Types* / Schmierstoffe

Yağ Cinsi *Lubricant* Art des Schmierstoffes	DIN 51517-3	Çevre Sıcaklığı [°C] *Ambient Temp. [°C]* Umgebungstemp. [°C] / Daldırma Yağlama *Dip Lubrication* Tauchschmierung	ISO VG	Aral	Beyond Petroleum	Castrol	Klüber Lubrication	Mobil	Shell	Total
Mineral Yağlar *Mineral Oil* Mineralöl	CLP	0 ... +50	680	Degol BG 680	Energol GR-XP 680	Alpha SP 680	Klüberoil GEM 1-680 N	Mobilgear XMP 680	Omala 680	Carter EP 680
		-5 ... +45	460	Degol BG 460	Energol GR-XP 460	Alpha SP 460	Klüberoil GEM 1-460 N	Mobilgear XMP 460	Omala F460	Carter EP 460
		-10 ... +40	320	Degol BG 320	Energol GR-XP 320	Alpha SP 320	Klüberoil GEM 1-320 N	Mobilgear XMP 320	Omala F320	Carter EP 320
		-15 ... +30	220	Degol BG 220	Energol GR-XP 220	Alpha SP 220	Klüberoil GEM 1-220 N	Mobilgear XMP 220	Omala F220	Carter EP 220
		-20 ... +20	150	Degol BG 150	Energol GR-XP 150	Alpha SP 150	Klüberoil GEM 1-150 N	Mobilgear XMP 150	Omala 150	Carter EP 150
		-25... +10	100	Degol BG 100	Energol GR-XP 100	Alpha SP 100	Klüberoil GEM 1-100 N	–	Omala 100	Carter EP 100
Sentetik Yağlar *Synthetic Oil* Synthetisches Öl	CLP PG	-10 ... +60	680	Degol GS 680	Energsyn SG-XP 680	–	Klübersynth GH 6 -680	Mobil Glygoyle 680	Tivela S 680	Carter SY 680
		-20 ... +50	460	Degol GS 460	Energsyn SG-XP 460	Aphasyn PG 460	Klübersynth GH 6 -460	Mobil Glygoyle 460	Tivela S 460	Carter SY 460
		-25 ... +40	320	Degol GS 320	Energsyn SG-XP 320	Aphasyn PG 320	Klübersynth GH 6 -320	Mobil Glygoyle 320	Tivela S 320	Carter SY 320
		-30 ...+30	220	Degol GS 220	Energsyn SG-XP 220	Aphasyn PG 220	Klübersynth GH 6 -220	–	Tivela S 220	Carter SY 220
		-35 ... +20	150	Degol GS 150	Energsyn SG-XP 150	Aphasyn PG 150	Klübersynth GH 6 -150	–	Tivela S 150	Carter SY 150
		-40 ... +10	100	–	–	–	Klübersynth GH 6 -100	–	–	–
	CLP HC	-10 ... +60	680	–	–	–	Klübersynth GEM 4-680 N	Mobilgear SHC XMP 680	–	Carter SH 680
		-20 ... +50	460	Degol PAS 460	Enersyn EP-XF 460	Alphasyn T 460	Klübersynth GEM 4-460 N	Mobilgear SHC XMP 460	Omala HD 460	Carter SH 460
		-25 ... +40	320	Degol PAS 320	Enersyn EP-XF 320	Alphasyn T 320	Klübersynth GEM 4-320 N	Mobilgear SHC XMP 320	Omala HD 320	Carter SH 320
		-30 ... +30	220	Degol PAS 220	Enersyn EP-XF 220	Alphasyn T 220	Klübersynth GEM 4-220 N	Mobilgear SHC XMP 220	Omala HD 220	Carter SH 220
		-35 ... +20	150	Degol PAS 150	Enersyn EP-XF 150	Alphasyn T 150	Klübersynth GEM 4-150 N	Mobilgear SHC XMP 150	Omala HD 150	Carter SH 150
		-40 ... +10	100	–	–	–	Klübersynth GEM 4-100 N	–	–	–
Gıda Uyumlu Yağ *Food Grade Oil* Lebensmittelöl	CLP NSF H1	-15 ... +25	320	–	–	Optileb GT 320	Klüberoil 4 UH1-320 N	Mobil SHC Cibus 320	Cassida Fluid GL-320	Nevastane SL 320
Çevre Dostu Yağ *Biodegradable Oil* Biologisch abbaubares Öl	CLP E	-25 ... +40	320	–	–	Tribol BioTop 1418-320	Klübersynth GEM 2-320	–	–	Carter Bio 320
Mineral Gresler [-20 .... +130 Çalışma Sıcaklığı °C] *Mineral Grease [-20 .... +130 Working Temperature °C]* Mineral-Fett [-20 .... +130 Betriebstemperatur °C]				Aralub HL3	Energrease LS 3	Spheerol AP3	Centoplex 2 EP	Mobilux EP 3	Alvania RL3	Multis Complex EP 2
Sentetik Gresler [-30 .... +130 Çalışma Sıcaklığı °C] *Synthetic Grease [-30 .... +130 Working Temperature °C]* Synthetisches Fett [-30 .... +130 Betriebstemperatur °C]				–	Energrease SY 2202	–	Petamo GHY 133 N	Mobiltemp SHC 100	Cassida RLS 2	Multis Complex SHD 220

Montaj Pozisyonları / *Mounting Positions* / Bauformen

M Serisi



M1....M6 'ya kadar belirtilen montaj pozisyonları redüktörün duruş yönü referans alınarak belirlenmiştir. Montaj yüzeyleri bağlayıcı değildir.

Figured mounting positions of M1 to M6 are determined as reference of directional position of the gearbox. Mounting surfaces are not binding.

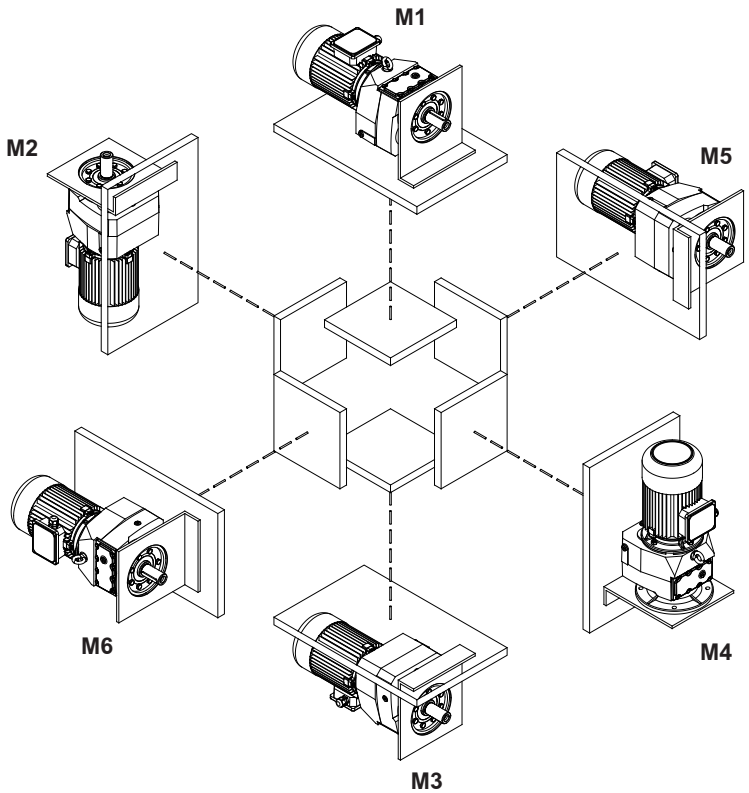
Dargestellte Montagepositionen M1 bis M6 wurden nach der Stehrichtung von Getriebe bestimmt. Montageoberflächen sind unverbindlich.

N Serisi

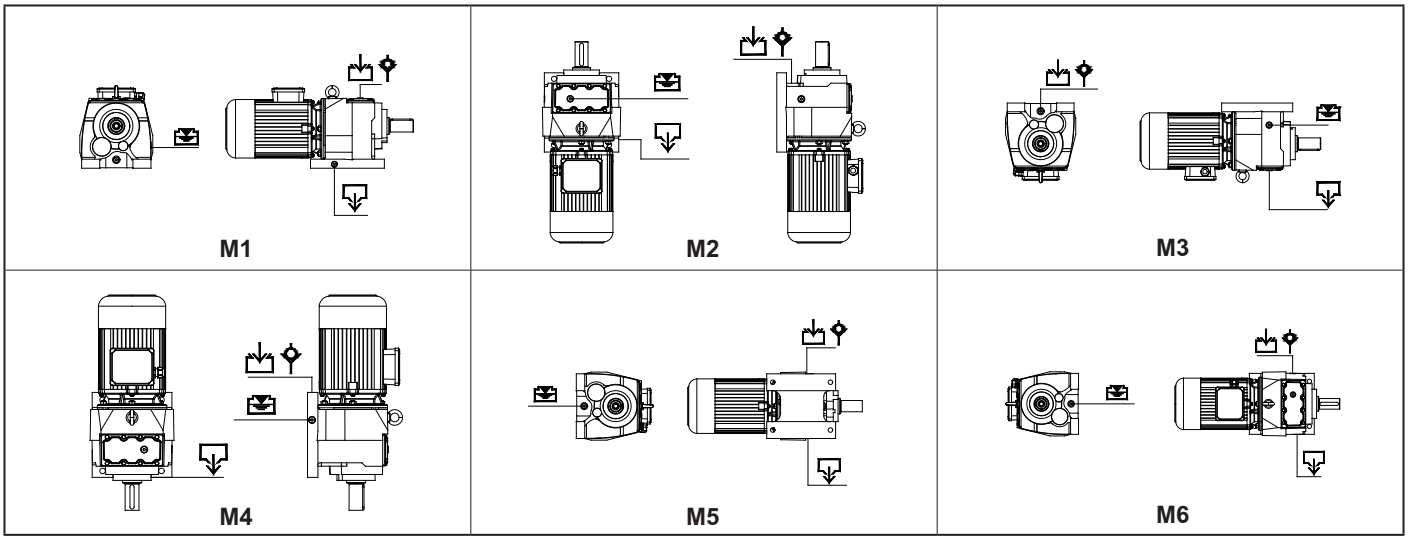
M1....M6 'ya kadar belirtilen montaj pozisyonları redüktörün duruş yönü referans alınarak belirlenmiştir. Montaj yüzeyleri bağlayıcı değildir.

Figured mounting positions of M1 to M6 are determined as reference of directional position of the gearbox. Mounting surfaces are not binding.

Dargestellte Montagepositionen M1 bis M6 wurden nach der Stehrichtung von Getriebe bestimmt. Montageoberflächen sind unverbindlich.



M Serisi İki Üç Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları
M Series Two -Three Stage Helical Gearboxes Oil Level Plugs
M Serie Zwei-Dreistufig Stirnradgetriebe Ölverschlußschrauben



Yağ Miktarları (lt) / *Oil Quantities (lt) / Ölmengen (lt)*

Tip *Type* Typ	**M Serisi 2-3 Kademe Yağ Miktarları** *M Series 2-3 Stages Oil Quantities* Ölmengen von M Serie mit 2-3 Stufen					
	M1	**M2**	**M3**	**M4**	**M5**	**M6**
M002 / 003	0.4 / 0.35	0.6 / 0.55	0.5 / 0.5	0.6 / 0.55	0.5 / 0.4	0.5 / 0.4
M102 / 103	0.65 / 0.6	0.95 / 0.8	0.7 / 0.7	0.95 / 0.8	0.7 / 0.7	0.7 / 0.7
M172 / 173	0.7 / 0.65	0.95 / 0.9	0.8 / 0.8	0.95 / 0.9	0.8 / 0.7	0.8 / 0.7
M202 / 203	1.2 / 1.1	2.1 / 2	2 / 1.9	2.1 / 2	1.4 / 1.3	1.4 / 1.3
M272 / 273	1.1 / 1	2 / 1.7	1.9 / 1.5	2 / 1.7	1.3 / 1.2	1.3 / 1.2
M282 / 283	1.7 / 1.6	3 / 2.85	2.8 / 2.5	3 / 2.85	2.6 / 2.4	2.6 / 2.4
M372 / 373	2 / 1.9	3.4 / 3.3	3.1 / 3	3.4 / 3.3	2.8 / 2.6	2.8 / 2.6
M472 / 473	4.5 / 4	8 / 7.6	7.5 / 7	8 / 7.6	5.5 / 5	5.5 / 5
M572 / 573	7 / 6	12.8 / 11.7	11.5 / 10.5	12.8 / 11.7	8 / 7.5	8 / 7.5
M672 / 673	10 / 8.5	22.5 / 20	20 / 18	22.5 / 20	11 / 11	11 / 11
M772 / 773	20 / 18	35 / 32	30 / 28	35 / 32	22 / 20	22 / 20
M872 / 873	28 / 20	53 / 45	45 / 39	53 / 45	30 / 28	30 / 28
M972 / 973	53 / 50	90 / 87	82 / 80	90 / 87	70 / 65	70 / 65

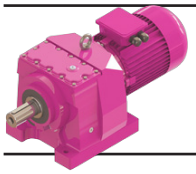
Semboller :
Symbols :
Symbole :

:Yağ doldurma
:Oil filling
:Ölfüllung

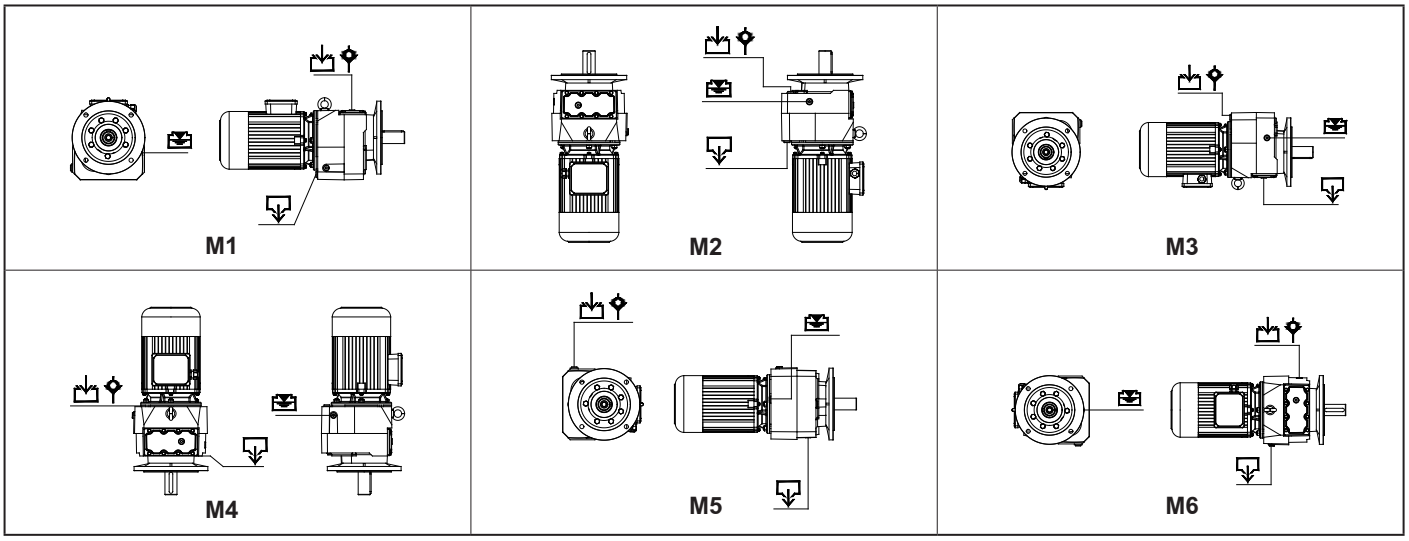
:Yağ boşaltma
:Drain plug
:Ölauslass

:Yağ seviyesi
:Oil level
:Ölstand

:Havalandırma
:Vent Plug
:Entlüftungschraube



N Serisi İki Üç Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları
N Series Two -Three Stage Helical Gearboxes Oil Level Plugs
N Serie Zwei-Dreistufig Stirnradgetriebe Ölverschlußschrauben



Yağ Miktarları (lt) / *Oil Quantities (lt) / Ölmengen (lt)*

Tip *Type* Typ	**N Serisi 2-3 Kademe Yağ Miktarları** *N Series 2-3 Stages Oil Quantities* Ölmengen von N Serie mit 2-3 Stufen					
	M1	**M2**	**M3**	**M4**	**M5**	**M6**
N002 / 003	0.4 / 0.35	0.6 / 0.55	0.5 / 0.5	0.6 / 0.55	0.5 / 0.4	0.5 / 0.4
N102 / 103	0.65 / 0.6	0.95 / 0.8	0.7 / 0.7	0.95 / 0.8	0.7 / 0.7	0.7 / 0.7
N172 / 173	0.7 / 0.65	0.95 / 0.9	0.8 / 0.8	0.95 / 0.9	0.8 / 0.7	0.8 / 0.7
N202 / 203	1.2 / 1.1	2.1 / 2	2 / 1.9	2.1 / 2	1.4 / 1.3	1.4 / 1.3
N272 / 273	1.1 / 1	2 / 1.7	1.9 / 1.5	2 / 1.7	1.3 / 1.2	1.3 / 1.2
N282 / 283	1.7 / 1.6	3 / 2.85	2.8 / 2.5	3 / 2.85	2.6 / 2.4	2.6 / 2.4
N372 / 373	2 / 1.9	3.4 / 3.3	3.1 / 3	3.4 / 3.3	2.8 / 2.6	2.8 / 2.6
N472 / 473	4.5 / 4	8 / 7.6	7.5 / 7	8 / 7.6	5.5 / 5	5.5 / 5
N572 / 573	7 / 6	12.8 / 11.7	11.5 / 10.5	12.8 / 11.7	8 / 7.5	8 / 7.5
N672 / 673	10 / 8.5	22.5 / 20	20 / 18	22.5 / 20	11 / 11	11 / 11
N772 / 773	20 / 18	35 / 32	30 / 28	35 / 32	22 / 20	22 / 20
N872 / 873	28 / 20	53 / 45	45 / 39	53 / 45	30 / 28	30 / 28
N972 / 973	53 / 50	90 / 87	82 / 80	90 / 87	70 / 65	70 / 65

Semboller :
Symbols :
Symbole :

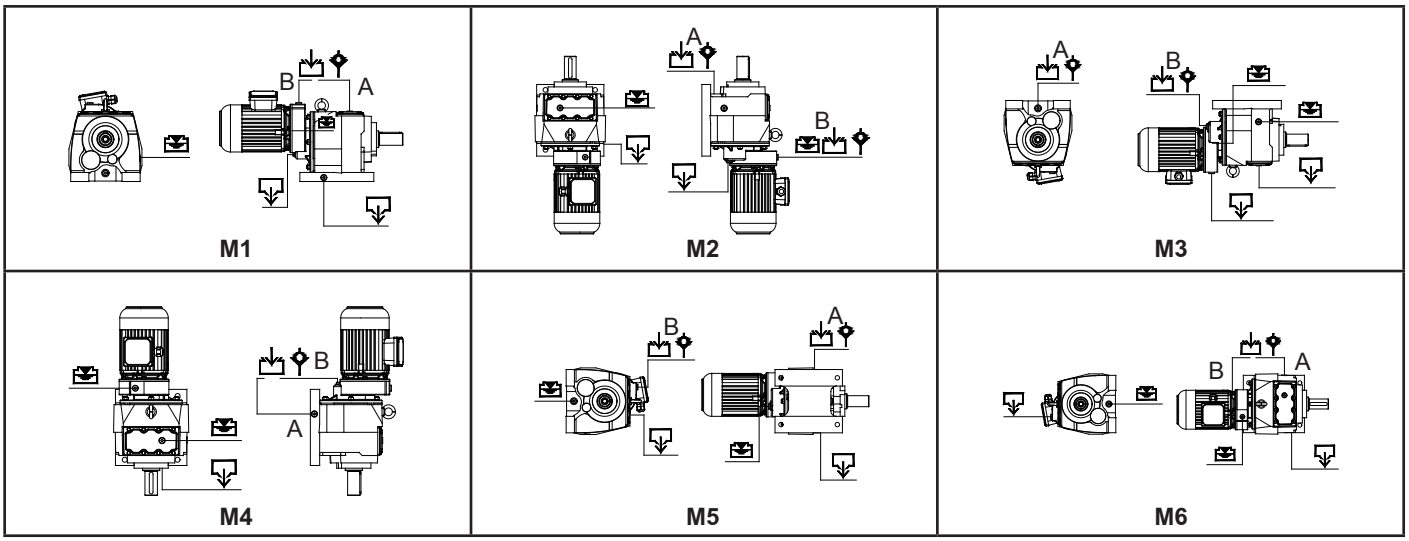
:Yağ doldurma
:Oil filling
:Ölfüllung

:Yağ boşaltma
:Drain plug
:Ölauslass

:Yağ seviyesi
:Oil level
:Ölstand

:Havalandırma
:Vent Plug
:Entlüftungschraube

M Serisi Dört Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları
M Series Four Stage Helical Gearboxes Oil Level Plugs
M Serie Vierstufig Stirnradgetriebe mit Ölverschlußschrauben



Yağ Miktarları (lt) / *Oil Quantities (lt) / Ölmengen (lt)*

Tip *Type* Typ	**M Serisi 4 Kademe Yağ Miktarları** *M Series 4 Stages Oil Quantities* Ölmengen von M Serie mit 4 Stufen					
	M1 A / B	**M2** A / B	**M3** A / B	**M4** A / B	**M5** A / B	**M6** A / B
M284	1.6 / 0.25	2.85 / 0.25	2.5 / 0.25	2.85 / 0.25	2.4 / 0.25	2.4 / 0.25
M374	1.9 / 0.25	3.3 / 0.25	3 / 0.25	3.3 / 0.25	2.6 / 0.25	2.6 / 0.25
M474	4 / 0.4	7.6 / 0.4	7 / 0.4	7.6 / 0.4	5 / 0.4	5 / 0.4
M574	6 / 0.50	11.7 / 0.50	10.5 / 0.50	11.7 / 0.50	7.5 / 0.50	7.5 / 0.50
M674	8.5 / 0.90	20 / 0.90	18 / 0.90	20 / 0.90	11 / 0.90	10.5 / 0.90
M774	18 / 1	32 / 1	28 / 1	32 / 1	20 / 1	20 / 1
M874	20 / 2.15	45 / 2.15	39 / 2.15	45 / 2.15	28 / 2.15	28 / 2.15
M974	50 / 7	87 / 7	80 / 7	87 / 7	65 / 7	65 / 7

Semboller :
Symbols :
Symbole :

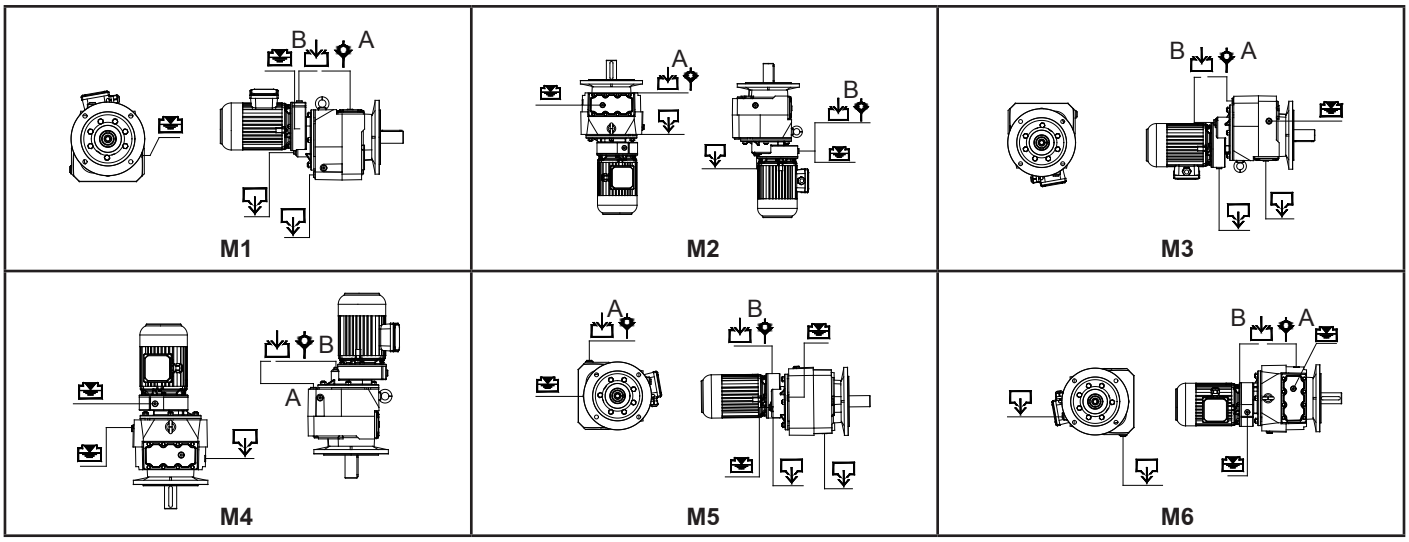
:Yağ doldurma
:Oil filling
:Ölfüllung

:Yağ boşaltma
:Drain plug
:Ölauslass

:Yağ seviyesi
:Oil level
:Ölstand

:Havalandırma
:Vent Plug
:Entlüftungschraube

N Serisi Dört Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları
N Series Four Stage Helical Gearboxes Oil Level Plugs
N Serie Vierstufig Stirnradgetriebe mit Ölverschlußschrauben



Yağ Miktarları (lt) / *Oil Quantities (lt) / Ölmengen (lt)*

Tip *Type* Typ	**N Serisi 4 Kademe Yağ Miktarları** *N Series 4 Stages Oil Quantities* Ölmengen von N Serie mit 4 Stufen					
	M1 A / B	**M2** A / B	**M3** A / B	**M4** A / B	**M5** A / B	**M6** A / B
N284	1.6 / 0.25	2.85 / 0.25	2.5 / 0.25	2.85 / 0.25	2.4 / 0.25	2.4 / 0.25
N374	1.9 / 0.25	3.3 / 0.25	3 / 0.25	3.3 / 0.25	2.6 / 0.25	2.6 / 0.25
N474	4 / 0.4	7.6 / 0.4	7 / 0.4	7.6 / 0.4	5 / 0.4	5 / 0.4
N574	6 / 0.50	11.7 / 0.50	10.5 / 0.50	11.7 / 0.50	7.5 / 0.50	7.5 / 0.50
N674	8.5 / 0.90	20 / 0.90	18 / 0.90	20 / 0.90	11 / 0.90	10.5 / 0.90
N774	18 / 1	32 / 1	28 / 1	32 / 1	20 / 1	20 / 1
N874	20 / 2.15	45 / 2.15	39 / 2.15	45 / 2.15	28 / 2.15	28 / 2.15
N974	50 / 7	87 / 7	80 / 7	87 / 7	65 / 7	65 / 7

Semboller :
Symbols :
Symbole :

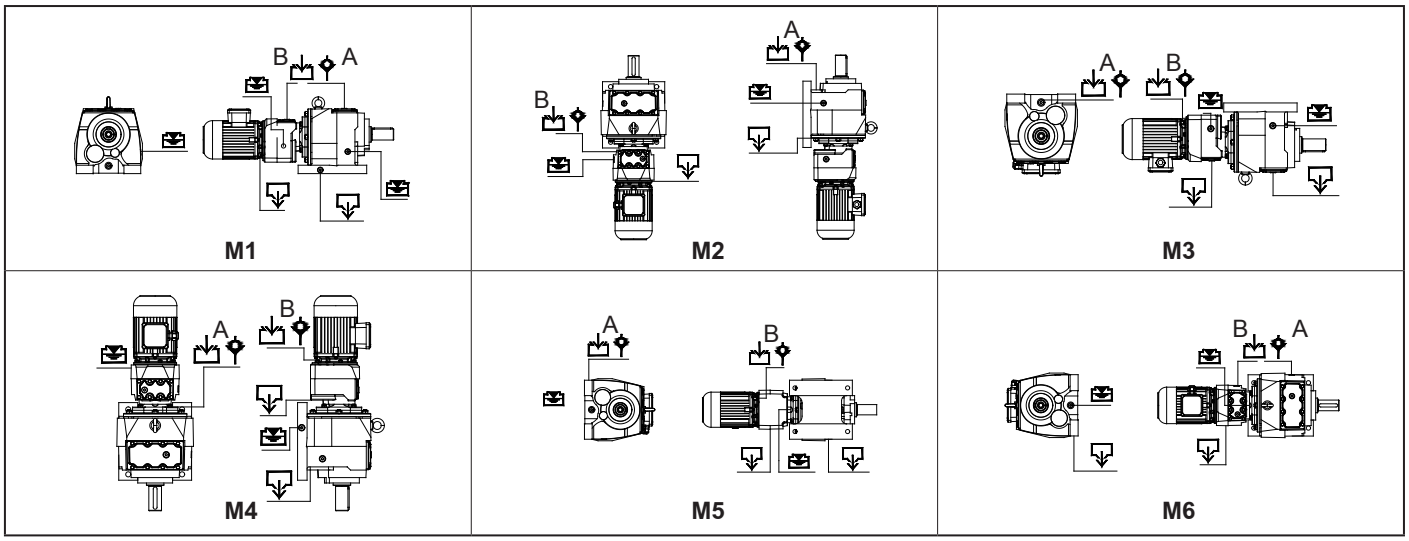
:Yağ doldurma
:Oil filling
:Ölfüllung

:Yağ boşaltma
:Drain plug
:Ölauslass

:Yağ seviyesi
:Oil level
:Ölstand

:Havalandırma
:Vent Plug
:Entlüftungschraube

M Serisi Beş-Altı Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları
M Series Five-Six Stage Helical Gearboxes Oil Level Plugs
M Serie Fünf-Sechsstufig Stirnradgetriebe Ölverschlußschrauben



Yağ Miktarları (lt.) /*Oil Quantities. (lt)* / Ölmengen (lt.)

Tip *Type* Typ	**M Serisi 5-6 Kademe Yağ Miktarları** *M Series 5-6 Stages Oil Quantities* Ölmengen von M Serie mit 5-6 Stufen					
	M1 A / B	**M2** A / B	**M3** A / B	**M4** A / B	**M5** A / B	**M6** A / B
M275	1 / 0.4	1.7 / 0.6	1.5 / 0.5	1.7 / 0.6	1.2 / 0.5	1.2 / 0.5
M285	1.6 / 0.7	2.85 / 0.95	2.5 / 0.7	2.85 / 0.95	2.4 / 0.7	2.4 / 0.7
M375	1.9 / 0.7	3.3 / 0.95	3 / 0.7	3.3 / 0.95	2.6 / 0.7	2.6 / 0.7
M475	4 / 1.2	7.6 / 2.1	7.01 / 2.1	7.6 / 2.1	5 / 1.4	5 / 1.4
M575	6 / 1.2	11.7 / 2.1	10.5 / 2	11.7 / 2.1	7.5 / 1.4	7.5 / 1.4
M675	8.5 / 2	20 / 3.4	18 / 3.1	20 / 3.4	11 / 2.8	10.5 / 2.8
M775	18 / 2	32 / 3.4	28 / 3.1	32 / 3.4	20 / 2.8	20 / 2.8
M875	20 / 2	45 / 3.4	39 / 3.1	45 / 3.4	28 / 2.8	28 / 2.8
M975	50 / 4.5	87 / 8	80 / 7.5	87 / 8	65 / 5.5	65 / 5.5
M276	1 / 0.4	1.7 / 0.55	1.5 / 0.5	1.7 / 0.55	1.2 / 0.4	1.2 / 0.4
M286	1.6 / 0.6	2.85 / 0.8	2.5 / 0.7	2.85 / 0.8	2.4 / 0.7	2.4 / 0.65
M376	1.9 / 0.6	3.3 / 0.8	3 / 0.7	3.3 / 0.8	2.6 / 0.7	2.6 / 0.65
M476	4 / 1.1	7.6 / 2	7 / 1.9	7.6 / 2	5 / 1.3	5 / 1.3
M576	6 / 1.1	11.7 / 2	10.5 / 1.9	11.7 / 2	7.5 / 1.3	7.5 / 1.3
M676	8.5 / 1.9	20 / 3.3	18 / 3	20 / 3.3	11 / 2.6	10.5 / 2.6
M776	18 / 1.9	32 / 3.3	28 / 3	32 / 3.3	20 / 2.6	20 / 2.6
M876	20 / 1.9	45 / 3.3	39 / 3	45 / 3.3	28 / 2.6	28 / 2.6
M976	50 / 4	87 / 7.6	80 / 7	87 / 7.6	65 / 5	65 / 5

Semboller :
Symbols :
Symbole :

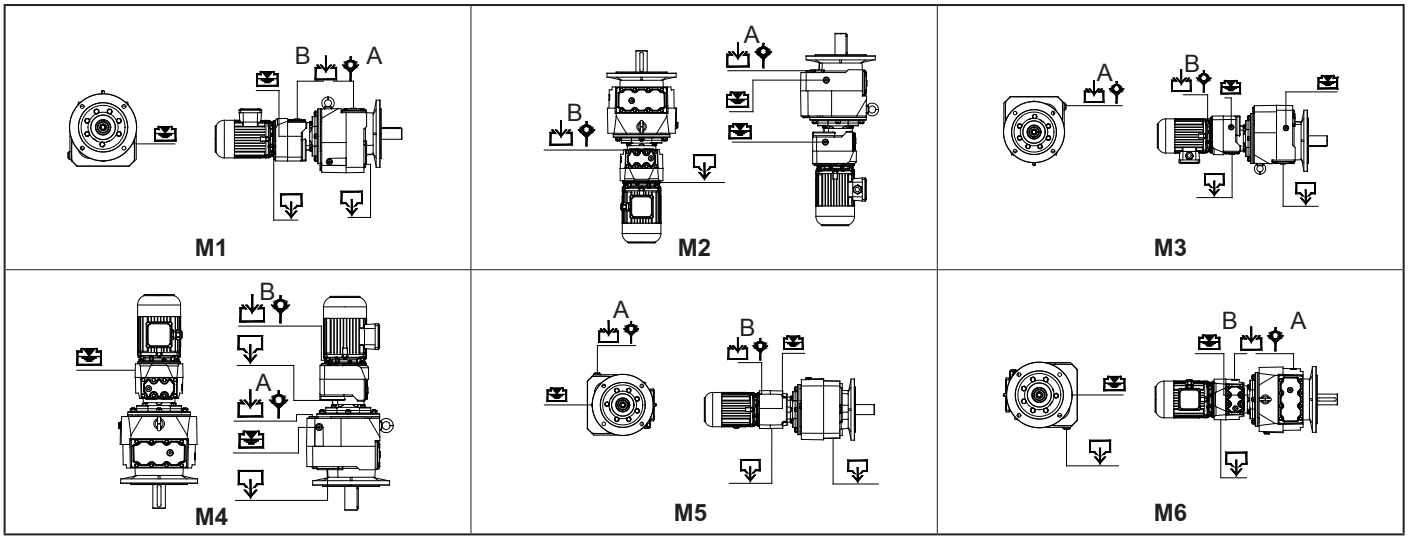
:Yağ doldurma
:Oil filling
:Ölfüllung

:Yağ boşaltma
:Drain plug
:Ölauslass

:Yağ seviyesi
:Oil level
:Ölstand

:Havalandırma
:Vent Plug
:Entlüftungschraube

N Serisi Beş-Altı Kademeli Helisel Dişli Redüktörler Yağ Seviye Tapaları
N Series Five-Six Stage Helical Gearboxes Oil Level Plugs
N Serie Fünf-Sechsstufig Stirnradgetriebe Ölverschlußschrauben



Yağ Miktarları (lt.) /*Oil Quantities. (lt)* / Ölmengen (lt.)

Tip *Type* Typ	**N Serisi 5-6 Kademe Yağ Miktarları** *N Series 5-6 Stages Oil Quantities* Ölmengen von N Serie mit 5-6 Stufen					
	M1 A / B	**M2** A / B	**M3** A / B	**M4** A / B	**M5** A / B	**M6** A / B
N275	1 / 0.4	1.7 / 0.6	1.5 / 0.5	1.7 / 0.6	1.2 / 0.5	1.2 / 0.5
N285	1.6 / 0.7	2.85 / 0.95	2.5 / 0.7	2.85 / 0.95	2.4 / 0.7	2.4 / 0.7
N375	1.9 / 0.7	3.3 / 0.95	3 / 0.7	3.3 / 0.95	2.6 / 0.7	2.6 / 0.7
N475	4 / 1.2	7.6 / 2.1	7.01 / 2.1	7.6 / 2.1	5 / 1.4	5 / 1.4
N575	6 / 1.2	11.7 / 2.1	10.5 / 2	11.7 / 2.1	7.5 / 1.4	7.5 / 1.4
N675	8.5 / 2	20 / 3.4	18 / 3.1	20 / 3.4	11 / 2.8	10.5 / 2.8
N775	18 / 2	32 / 3.4	28 / 3.1	32 / 3.4	20 / 2.8	20 / 2.8
N875	20 / 2	45 / 3.4	39 / 3.1	45 / 3.4	28 / 2.8	28 / 2.8
N975	50 / 4.5	87 / 8	80 / 7.5	87 / 8	65 / 5.5	65 / 5.5
N276	1 / 0.4	1.7 / 0.55	1.5 / 0.5	1.7 / 0.55	1.2 / 0.4	1.2 / 0.4
N286	1.6 / 0.6	2.85 / 0.8	2.5 / 0.7	2.85 / 0.8	2.4 / 0.7	2.4 / 0.65
N376	1.9 / 0.6	3.3 / 0.8	3 / 0.7	3.3 / 0.8	2.6 / 0.7	2.6 / 0.65
N476	4 / 1.1	7.6 / 2	7 / 1.9	7.6 / 2	5 / 1.3	5 / 1.3
N576	6 / 1.1	11.7 / 2	10.5 / 1.9	11.7 / 2	7.5 / 1.3	7.5 / 1.3
N676	8.5 / 1.9	20 / 3.3	18 / 3	20 / 3.3	11 / 2.6	10.5 / 2.6
N776	18 / 1.9	32 / 3.3	28 / 3	32 / 3.3	20 / 2.6	20 / 2.6
N876	20 / 1.9	45 / 3.3	39 / 3	45 / 3.3	28 / 2.6	28 / 2.6
N976	50 / 4	87 / 7.6	80 / 7	87 / 7.6	65 / 5	65 / 5

Semboller :
Symbols :
Symbole :

:Yağ doldurma
:Oil filling
:Ölfüllung

:Yağ boşaltma
:Drain plug
:Ölauslass

:Yağ seviyesi
:Oil level
:Ölstand

:Havalandırma
:Vent Plug
:Entlüftungsschraube

MOTORLAR
AC Motorlar
a- Genel Özellikler:

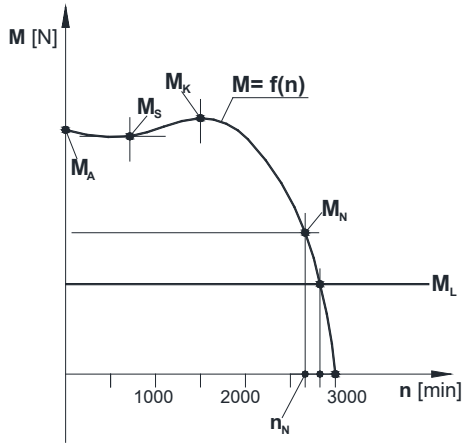
Basit konstrüksiyonlu, bakım gerektirmez, güvenirliği yüksek ve uygun fiyatlı olmaları nedeni ile trifaze asenkron motorlar en çok kullanılan motor cinsidir. Bu motorların çalışma karekteristikleri moment-hız eğrisi ile belirlenir. Aşağıda bu karekteristik eğrisine bir örnek verilmiştir.

MOTORS
AC Motors
a- General Specifications:

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

MOTOREN
Drehstrommotoren:
a- Allgemeine Eigenschaften

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



M_A: Start momenti / *Starting torgue* / Anlaufmoment

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

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

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

M_L: Yük momenti / *Load torque* / Lastmoment

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

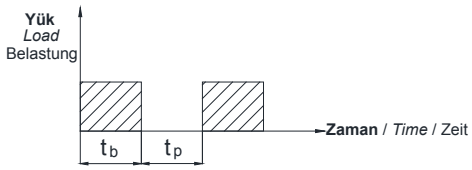
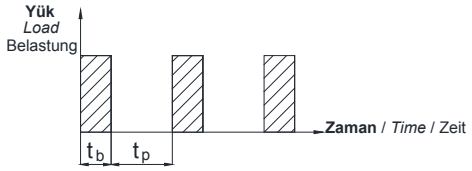
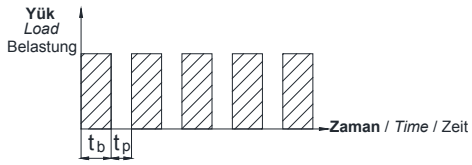
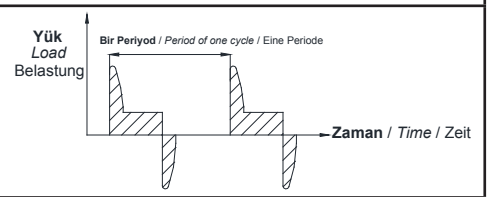
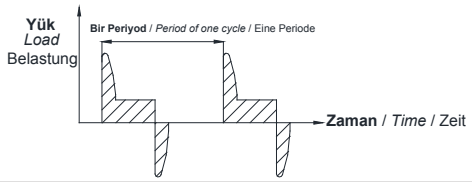
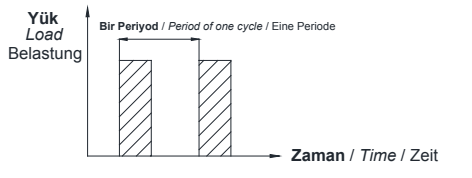
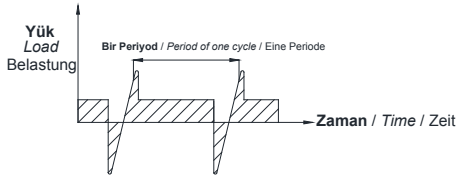
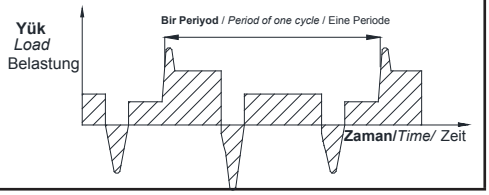
$$s = \frac{n_s - n_N}{n_s} \times 100$$

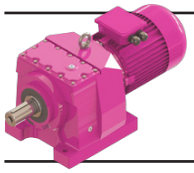
Für die nominale Werte der Drehstrommotoren sind folgende Abweichungen zulässig:
Schlumpf s .....:± 20%
Anzugsstrom .....:± 20%
Anzugsmomet .....:-15 /+25 %
Massentägheitsmoment .....:± 10%
Wirkungsgrad (bis 37 kW).....:-0,15 (1-η)

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

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

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

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



c- Koruma Sınıfı:
Yılmaz Redüktörde standart olarak IP55 (IEC 34-5) koruma sınıflı motorlar kullanılmaktadır. Diğer koruma sınıfları istendiğinde firmamıza danışınız.

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

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

c- Protection Class:
Yilmaz Reduktor uses IP55 (IEC 34-5) protection class electric motors for standard products. If different kind of protection class is requested please contact us.

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

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

c- Schutzarten:
Yilmaz Reduktor Getriebemotoren werden serienmäßig mit Schutzart IP55 (IEC34-5) ausgeführt. Für andere Schutzarten bitte rückfragen.

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

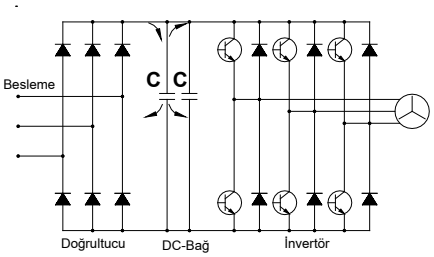
e- Energieeffizienzklassen:
Die Methode für Messung die Effizienz von drei phasigen gering Spannung Asynchronmotoren hat neu mit IEC 60034-2-1:2007 Norm festgestellt. Die neue IE-Klassen gelten für alle Drehstrommotoren im Leistungsbereich von 0,75 bis 375 kW. Anders als EFF-Klassen die IE-Klassen können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

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

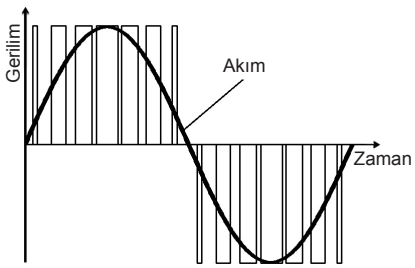
4 Kutuplu Motor Verim Değerleri *Efficiency Values of Motor with 4 poles* Sollwirkungsgrad des Motors mit 4 Polen	**Anma Yükü [kW]** *Nominal Load [kW]* Nennlast [kW]	**Verim Sınıfı** / *Efficiency Class* / Energieeffizienzklasse		
		IE1	IE2	IE3
	0,75	72,1 %	79,6 %	82,5 %
	1,5	77,2 %	82,8 %	85,3 %
	3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

f- AC Frekans İnvertörler

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

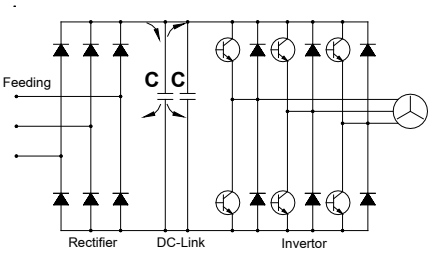


Tam dalga doğrultucuları besleyen üç faz besleme akımı DC-bağ kapasitörlerine iletilir. Kapasitörler voltajdaki dalgalanmaları azaltır ve kısa süreli ağdaki akım kesintilerinde enerji sağlar. Kapasitörlerdeki voltaj kontrolsüzdür ve gelen AC akımın pik akım değerlerine bağlıdır. DC akım tekrar AC akıma,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

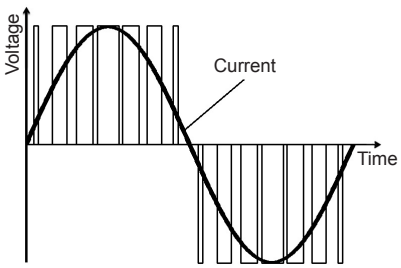


f- AC Frequency Inverters

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

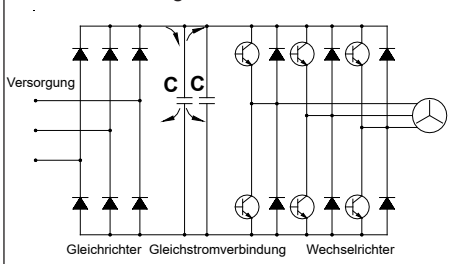


The three phase supply is fed into a full wave rectifier which supplies the DC link capacitors. The capacitors reduce the voltage ripple (especially on single supplies) and supply energy for short mains breaks. The voltage on the capacitors is uncontrolled and depends on the peak AC supply voltage. The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

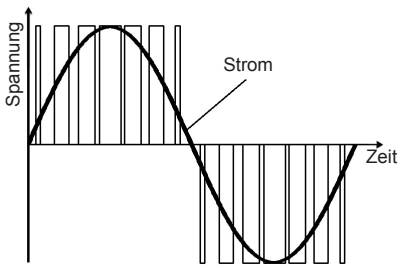


f- AC Frequenz Umrichter

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



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



DC MOTORLAR

a- Genel Özellikler

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

b- DC Motorların Çalışma İlkeleri

DC motorlar için DC çıkış veren bir doğrultucuya ihtiyaç vardır. Motor armatür sargıları, alan sargıları,komutasyon sargıları ve kompanse sargılar olmak üzere rotorda ve statorda bulunan sargılardan oluşur. Rotora voltaj ve akım karbon fırçalar ve komutator sargılarla ulaştırılır. Bu karbon fırçalar aşındığından DC motorlar belirli periyotlarla bakıma alınmalıdır. İyi kontrol edilebilme özelliklerinden dolayı DC motorlar otomasyon teknolojisinde sıkça kullanılmaktadır.

c- DC Motor Çeşitleri

Temel olarak Şönt (Shunt) ve seri sargılı DC motorlar bulunmaktadır. Bu sargıların çeşidine göre moment eğrisi değişmektedir.

d- DC Motorlarda Hız Kontrolü

Bu motorlarda devir değişimi DC voltajın değiştirilmesi ile yapılır. Şönt sarımlı DC motorların sıfır yük ile maximum yük arasındaki davranışı AC motorlara benzer. Devir artan yükle beraber düşer. Bu devir farkı ufak güçlü motorlarda büyük, büyük güçlü motorlarda ise ufaktır. Fakat bu hız farkı DC doğrultucu cihazda armatür voltajı (I x R) ile oynanarak kompanse edilebilir. Hassas hız kontrol gereksinimi olduğunda, tako jeneratörler kullanılabilir. DC motorların gücü aşağıdaki formülden hesaplanır;

$$P_g = U \times I = \frac{P_c}{\eta}$$

P_g : Giriş gücü W
P_C : Çıkış gücü W
U : Armatür gerilimi V
I : Armatür akımı A
η : Motor verimi

DC MOTORS

a- General Specifications of DC Motors

DC drive systems have found new possible applications with the development of the electronic components sector. What was previously extremely expensive and in some cases not economically feasible is nowadays realized by miniaturized power converter technology. Additional functions such as guided startup after a predetermined time, torque and current monitoring with electronic protection against overloading, and many inexpensive special applications have made DC drive systems more attractive.

b- Operating principles of the DC Motors

The DC motor requires, a converter with DC output. The motor includes windings, such as armature, field, commutation and compensation windings, which are arranged in the stator as well as on rotor. Voltage and current are supplied to the rotor via the carbon brushes and the commutator. The carbon brushes are wearing parts therefore a DC motor requires maintenance at service intervals. While its good control properties, the DC motor is an essential item in automation technology.

c- Types of DC Motors

Depending on the wiring of the exciting winding or field winding, two basically different variants are regards torque speed characteristics may be distinguished.

d- Speed Control of DC motors

In DC motors the speed is adjusted by altering the DC voltage. DC shunt wounded motors behave similar to three phase induction motors between no load operation and maximum load. The speed drops with increasing loading of the motor. This difference is greater in small motors and smaller in larger motors. The speed difference can compensated in the DC converter device by adjusting (I x R). If great control accuracy is required, a speed control with measurement of the actual values by a tachogenerator can be used. The power of DC motor;

$$P_g = U \times I = \frac{P_c}{\eta}$$

P_g : *Input Power W*
P_C : *Output Power W*
U : *Armature Voltage V*
I : *Armature Current A*
η : *Motor efficiency*

DC MOTOREN

a- Eigenschaften von DC Motoren

Mit den Entwicklungen bei elektronischen Komponenten haben DC Motoren neue Anwendungsbereiche gefunden. Regelungssysteme, die früher sehr teuer und im manchen Anwendungsfällen ungünstig waren, sind jetzt kompakt und günstig. Bei den DC Motoren ist kontrolliertes Anlauf, Moment- und Stromüberwachung mit Überlastschutz möglich. Es gibt viele günstige Sonderanwendungen für diese Motoren. Wegen oben genannten Eigenschaften werden die DC Motoren immer mehr bei unterschiedlichen Anwendungen benutzt.

b- Funktionsprinzip der DC Motoren

Bei DC Motoren ist eine Kommutatorwicklung im Rotor angeordnet, während der magnetische Fluss vom Stator erzeugt wird. Dies kann wiederum mittels einer Erregerwicklung oder durch Permanentmagnete geschehen. Wie bei der Synchronmaschine wird durch das Erregerfeld in der Ankerwicklung eine Wechselspannung, die bei der Gleichstrommaschine jedoch durch den mechanischen Kommutator und die darauf schleifenden Bürsten in eine Gleichspannung umgeformt wird, induziert.

c- Arten von DC Motoren

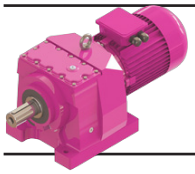
Es gibt zwei verschiedene Wicklungen, nämlich Shunt- und Serial-Wicklung. Das Drehmoment-Drehzahl-Verhältnis ist für beide Wicklungen unterschiedlich.

d- Drehzahl Kontrolle für DC Motoren

Drehzahl von DC Motoren kann man mit Steuerung der DC Spannung ändern. DC Motoren mit Shunt Wicklungen ist ähnlich zu drei phasen AC Motoren zwischen maximalen Last und ohne Last. Drehzahl wird mit der Last reduziert. Mit kleineren Motoren wird dieser Differenz höher mit großeren Motoren kleiner. Der Drehzahlunterschied kann geregelt werden mit (IxR) Veränderung. Wenn eine genaue Kontrolle gebraucht, soll ein Tachogenerator benutzt werden. Leistung des DC Motors;

$$P_g = U \times I = \frac{P_c}{\eta}$$

P_g : Eingangsleistung W
P_C : Ausgangsleistung W
U : Ankerspannung V
I : Ankerstrom A
η : Wirkungsgrad des Motors



Elektromanyetik Frenler

Bu tip frenlerin iki sürtünme yüzeyi vardır. Fren torku, voltaj uygulanmadığı zaman yayların kuvveti ile oluşturulur. Fren elektromanyetik alanın oluşumu ile serbest kalır. Bobinin beslenmesi ile mıknatıslanan balata baskı pulu, elektromıknatısa doğru çekilir. Bu hareket yayları baskı altına alır ve rotor mili üzerine takılan çoklu kama üzerinde aksiyal yönde serbest hareket edebilen balata serbest kalır. Akım kesildiğinde yayların baskısıyla, balata baskı pulu fren balatasına doğru itilir ve bu hareket rotoru frenler.

Fren Çeşitleri
a) Soğutmasız tip frenler
Motor fanı çıkarılıp motor kapağı arkasına akuple edilerek kullanılan frenler; genellikle sıkça açılıp kapanmayan ve kısa zaman aralıklarında çalışan sistemlerde tercih edilir.

b) Soğutmalı tip frenler
Motor fanı çıkarılıp motor kapağı arkasına akuple edilen ve motorun mili uzatılarak fren ve motorun arkasına alınan fan sayesinde daimi bir hava sirkülasyonu sağlanarak kullanılan frenlerdir. Genellikle uzun süreli çalışan ve kapalı mekanlarda kullanılan sistemlerde tercih edilirler.
c) Manuel kol sistemli frenler
Çalışma sistemi olarak her iki fren tipinde de kullanılabilir (soğutmalı veya soğutmasız). Özel durumlarda (elektrik kesilmesi; mekanik problemler) üzerinde bulunan bir kol vasıtası ile sistemi yay baskısından kurtararak serbest kalmasını sağlayan frenlerdir. Genellikle manuel olarak sistemin açılması gereken yerlerde (otomatik giriş kapıları, dış cepe boyama asansörleri v.b.) tercih edilir.

Fren çalışma voltajları
Elektromanyetik frenler 230V AC veya 400V AC beslemeli olarak sipariş edilebilir. Frenler DC fren olmaları nedeni ile besleme ile fren bobini arasında fren tipine bağlı olarak, yarım dalga, tam dalga doğrultucular veya trafolar kullanılır. Özel olarak belirtilmedikçe 230V beslemeli ve yarım dalga doğrultuculu frenler kullanılmaktadır. Özel durumlar için YILMAZ Redüktöre danışınız.

a) 230V AC ile beslenen frenler
Motor klemens kutusundan alınan 230V'luk AC besleme fren tipine bağlı olarak yarım dalga veya tam dalga doğrultucu ile fren bobininin voltajına düşürülür. Fren bobin DC voltajı etiketi üzerinde belirtilmiştir.
b) 400V AC ile beslenen DC frenler
Motor klemens kutusundan alınan 400V'luk AC besleme, yarım dalga doğrultucu ile fren bobininin voltajına düşürülür. Fren bobininin DC voltajı etiket üzerinde belirtilmiştir.
c) 24V DC Frenler
Kullanılan fren momentinin büyüklüğüne göre besleme transformatörü seçilir. Şebekeden veya motorun klemens kutusundan alınan besleme voltajı transformatörde 29 V'a çevrilen gerilim tam dalga doğrultuculardan geçerek 24V DC'ye çevrilir ve fren bobini beslenir.

Electromagnetic Brakes

This type of brakes has two friction surfaces. Brake torque is generated by springs when no voltage is applied. The brake is electromagnetically released. On exciting the electromagnet means of the current, the armature plate is pulled towards the electromagnet itself, thrust loading the pressure spring and enabling the friction disc which is axially movable on the key, to turn freely. When current fails, the pressured springs drive the armature plate towards the disc, thus braking the motor shaft.

Brake Types
a) Brakes without cooling
This type of brakes are assembled on the back cover of the electric motor. There is no fan on the backside. This brake type is mostly preferred in short working times and short working cycles.
b) Fan cooled brakes
This type of brakes are assembled on the back cover of electric motor by removing the electric motor fan. A fan is coupled to the backside of the brake by extending the rotor shaft of the electric motor. Fan cooled brakes are preferred in long working times and closed places without airflow.
c) Brakes with hand release
This brakes can be released by help of an arm. It can be applied to both of the above mentioned brakes and used in special cases (fail of electric current, mechanical problems etc.)These brakes are mostly preferred if operation (releasing) without a current is needed (automatic controlled doors, gates, building wall painting elevators etc.).

Working Voltages
Electromagnetic brakes can be ordered with 230V AC or 400V AC supply voltage. The coil of brakes needs DC voltage and therefore depending on brake type a half wave, a full wave rectifier or transformer should be used between supply and coil voltage. As standard the brakes will be delivered with 230V supply voltage and half wave rectifier, if there is no special request. For special cases please contact YILMAZ Reduktor.
a) Brakes with 230V supply voltage
230V AC supply voltage from the motor terminal box will be reduced to the coil voltage depending on the brake type with half-wave or full-wave rectifier. DC brake coil voltage is indicated on the label.
b) Brakes with 400V supply voltage
400V AC supply voltage from the motor terminal box will be reduced to the coil voltage with half-wave rectifier. DC brake coil voltage indicated on the label.
c) 24V DC Brakes
The transformator's size is selected according to value of brake torque. The current is taken from the electric motor terminal box or from the electric panel and is transformed to 29V DC current. This current is transferred to 24V DC current with full-wave rectifier and supplies brake coil.

Elektromagnetische Bremsen

Die Bremse hat zwei Reibflächen und arbeitet nach dem Ruhestromprinzip. Im stromlosen Zustand wird das Bremsmoment durch den Druck der Feder erzeugt, während die Bremse beim Betrieb elektromagnetisch losgelassen wird. Durch die Erregung der Elektromagneten wird die Ankerscheibe zu den Elektromagneten gezogen und die Feder zusammengedrückt. Dadurch kann sich die Bremsscheibe, die axial beweglich auf dem Mitnehmer angeordnet ist, frei drehen. Wird der Strom unterbrochen, drücken die Feder die Ankerscheibe gegen die Bremsscheibe und halten die Motorwelle an.

Bremsearten:
a)Bremsen ohne Kühlung
Diese Bremsen sind für Kurzlaufzeiten geeignet. Die Lüfterhaube und Lüfter des Motors ist ausgebaut und die Bremse ist an dem Ende der Motorwelle befestigt.

b)Bremsen mit Kühlung
Diese Bremsen sind für lange Laufzeiten und kleine, abgedeckte Räume geeignet. Durch die Verlängerung der Motorwelle wurde Lüfter hinter dem Bremse und dem Motor verbunden. Somit wurde eine konstante Lüftung ermöglicht.

c)Bremsen mit Hebelarm
Diese Bremsenart kann mit oder ohne Kühlung verwendet werden. Diese Bremsen sind bei der speziellen Fälle, wie keine Spannung an der Leitung, mechanische Probleme usw. , anwendbar. Die Bremse wird mit einem Hebelarm manuell betätigt. Diese Bremsen werden am meisten an den Stellen, wo die Lüftung ohne Spannung erfolgen soll, benutzt (automatische Türe, Wandaufzüge).

Betriebsspannungen
Elektromagnetische Bremsen können mit 230V AC oder 400V AC Versorgungsspannung bestellt werden. Die Wicklungen der Bremsen brauchen Gleichspannung und deswegen abhängig von Bremsenart zwischen Versorgungsspannung und Wicklungsspannung soll Halbwellen-, Vollweggleichrichter oder Transformator verwendet werden. Als Standard die Bremsen werden mit 230V Versorgungsspannung und Halbwellengleichrichter geliefert.
a) Bremsen mit 230V Versorgungsspannung
230V AC Versorgungsspannung von Klemmenkasten wird auf die Wicklungsspannung abhängig von der Bremsentyp mit Halbwellen-oder Vollweggleichrichter reduziert. Wicklungsspannung ist auf dem Etikett angegeben.
b) Bremsen mit 400V Versorgungsspannung
400V AC Versorgungsspannung von Klemmenkasten wird auf die Wicklungsspannung mit Halbwellengleichrichter reduziert. Wicklungsspannung ist auf dem Etikett angegeben.
c) 24 V DC Bremsen
Die Spannung wird von den Klemmkasten des Motors oder Elektrikschrank entnommen. Diese Spannung wird zuerst mittels Transformator zu 24 V reduziert. Danach wird diese Spannung mit Hilfe von Gleichrichter zu Gleichstromspannung umgewandelt. Die Größe des Transformators ist abhängig von der Größe des Bremsmoments.

d) Şok ikazlı trafolar
Büyük güçteki ve momentteki frenlerin manyetik doyuma ulaşmaları uzun zaman alır. Şok ikazlı trafolar frenin yay baskısını yenmede gecikmesini engellemek için kullanılır ve zaman rölesi yardımı ile çok kısa bir süre normal besleme voltajının iki katı ile (48V DC) beslenip sistemin ani açılmasını sağlar. Bu sayede gecikmeli açılmada ortaya çıkacak sürtünmeyi engellemeye yarayan bir trafo şeklidir.

Fren bağlantı şekli
a) Gecikmeli frenleme
Genellikle sistemin yavaş ve kaydırılarak durması gereken yerlerde tercih edilen bağlantı şeklidir. Vinç yürütme motorlarındaki sarsıntıyı önlemek için gecikmeli bağlantı şekli kullanılır. Frenler fabrika çıkışında gecikmeli bağlantıya uygun ayarlanır.

b) Ani frenleme
Genellikle sistemin enerjisi kesildiği anda ani olarak durdurulması gereken sistemlerde kullanılan bağlantı şeklidir. Vinç kaldırma sistemleri, asansör motorlarında kullanılan bağlantı şeklidir.

d) Shock voltage supply transformer
Brakes which consist of high power and torques take long time to get in electromagnetic field. Shock voltage supply transformers with time relay are aiming to overcome spring pressure delaying for brakes .Also this transformers provide to open system suddenly by feeding double(48V DC) voltage in a short time and preventing to frictional loses occurring in delayed opening.

Connection Types
a) Delayed Braking
Generally this type of connection uses in slow and sliding brake intended systems. Delayed connection type using to prevent shock loadings in crane driving systems. Brakes are setting up to delayed connection if any other types are not specified by customer

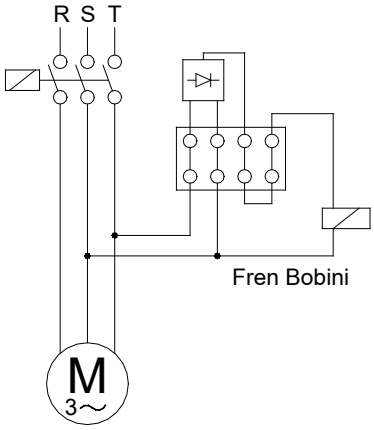
b) Sudden Braking
This type of connections are mostly used in systems when short braking times are needed. The braking torque will be produced as soon as the current fails. These brakes are mostly used in hoisting of lifting units and elevators.

d) Trafos mit Schock-Spannung
Diese Transformatoren werden bei großen Bremsen mit hohen Momenten verwendet. Da die große Bremsen eine lange Zeit braucht, um die erforderliche magnetische Feld zu erzeugen, wird an der Bremse kurz 48V Gleichstromspannung angelegt, um die Zeit zur Bildung von magnetischem Feld zu kürzen. Dies ermöglicht kürzere Reibungszeiten beim Start.

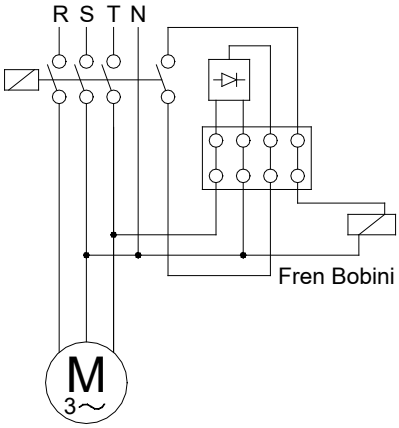
Schaltungsarten:
a)Verspätetes Bremsen
Diese Schaltung wird benutzt, wenn ein langsames und gleitendes Bremsen erforderlich ist. Am meisten wird es bei Fahrgetriebemotoren von Aufzügen verwendet. Wenn keine Angabe bei der Bestellung gegeben wird, werden die Bremsen mit verspäteter Schaltung geliefert.

b)Schnelles Bremsen:
Allgemein verwendet man diese Schaltung bei Bedarf an plötzlichen Bremsen in dem Augenblick, in dem das System keine Energie mehr erhält. Diese Schaltungsart wird meist bei Kräne und Motoren von Aufzüge verwendet.

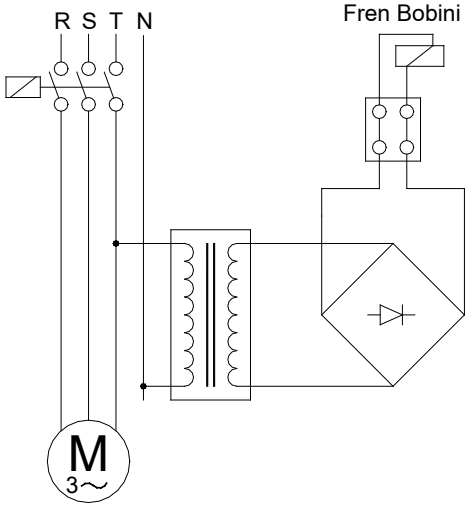
Gecikmeli Frenleme / *Delayed Running Brake* / Verspätete Bremsung
(230 V)



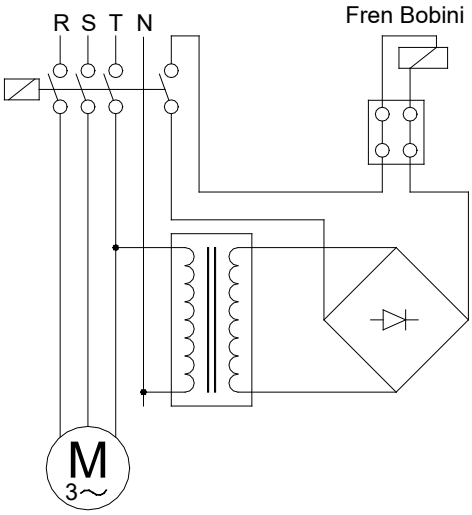
Ani Frenleme / *Sudden Brake* / Plötzliche Bremsung
(230 V)

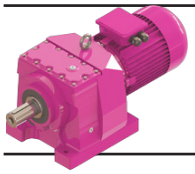


Gecikmeli Frenleme / *Delayed Running Brake* / Verspätete Bremsung
(24 V)



Ani Frenleme / *Sudden Brake* / Plötzliche Bremsung
(24 V)





Genel Bilgiler
General Information
Einführung

Fren Seçimi:

Doğru bir fren seçimi için aşağıdaki parametreler bilinmelidir.

- I_{tot} [kg.m²] : Motor miline indirgenmiş toplam atalet momenti
- n_0 [d/dak] :Maksimum motor devir sayısı
- t_f [s] :İstenilen en uzun frenlemezamanı
- c_t :Anahtarın devreye girme zamanı katsayısı (ortalama 0,995).
- M_L [Nm] : Sistemin statik tork ihtiyacı.
- C_s : Emniyet katsayısı (C_S≥2 olmalı)

Gerekli fren momenti aşağıdaki şekilde hesaplanır:

a)M_L Statik yük torku, motor dönüş yönünde (motorun dönüşüne yardımcı olarak, yükün indirilmesi veya hızlandırıcı sabit yük momenti hali):

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b) M_L Statik yük torku, motor aksi dönüş yönünde (motorun dönüşüne engel olarak, yükün yukarı kaldırılması veya frenleyici sabit yük/direnç momenti hali):

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

Yukarıda bulunan sonuç C_S katsayısı ile çarpılarak ($C_S \geq 2$), fren momenti seçilir;

$$M_f = M_{fc} \times C_s$$

Yaklaşım Yolu ile Fren Seçimi:
Eğer yalnızca motorun gücü ve en yüksek devri biliniyor ise :

W [Watt]: Motorun nominal gücü

$$M_f = \frac{W}{(\frac{2\pi \times n_0}{60})} \times C_s \quad (C_s \geq 2)$$

Brake Selection:

To select a brake correctly the following data are necessary;

- I_{tot} [kg . m²] : *The total inertia of rotating parts reduced at the motor shaft*
- n_0 [rpm] : *Maximum motor speed.*
- t_f [s] : *The maximum admitted time of the braking.*
- c_t : *Coefficient of switch on time (average 0,995).*
- M_L [Nm] : *Required static torque of system.*
- C_s : *Safety coefficient ($C_S \geq 2$)*

The necessary braking torque calculates below;

a) The static load torque M_L ,same direction of motor rotation(Descent of a load or steady resisting torque which favours the rotation of the motor)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b)The static load torque M_L ,opposes the rotation of the motor (Lifting of a load or steady resisting torque which opposes the rotation of the motor)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

The necessary braking torque will result from the following equation using C_S ($C_S \geq 2$);

$$M_f = M_{fc} \times C_s$$

Approximated Brake Selection
Its only the motor power and its maximum speed are known:

W [Watt]: Motor Nominal Power

$$M_f = \frac{W}{(\frac{2\pi \times n_0}{60})} \times C_s \quad (C_s \geq 2)$$

Bremswahl:

Um die richtige Bremse auszuwählen, braucht man unten aufgelistete Variablen;

- I_{tot} [kg . m²] :Die Gesamtträgheit der rotierenden Teile(siehe Anwendungsbeispiele)
- n_0 [U/min] : Die höchste Drehzahl desMotors
- t_f [s] :Die längste zulässige Bremszeit
- c_t : Reduktionskoeffizient der Tätigkeitszeit (gemittelt 0,995).
- M_L [Nm] : Vom system benötigtes, statisches drehmoment.
- C_s : Sicherheitskoeffizient ($C_S \geq 2$)

Die benötigte Bremskraft wird wie folgt berechnet:

a) konstantes Belastungsmoment M_L, das die Motordrehung fördert (konstante Erhöhung der Motorgeschwindigkeit oder Herunterlassen der Last)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} + M_L$$

b) konstantes Belastungsmoment M_L, das sich entgegen der Motordrehung widersetzt (konstante Verminderung der Motorgeschwindigkeit oder Aufheben der Last)

$$M_{fc} = \frac{(2\pi \times n_0 \div 60) \times I_{tot}}{t_f \times c_t} - M_L$$

Wenn die Bremskraft mit dem Sicherheitskoeffizient C_S ($C_S \geq 2$) multipliziert wird, erhält man die erforderliche Bremskraft;

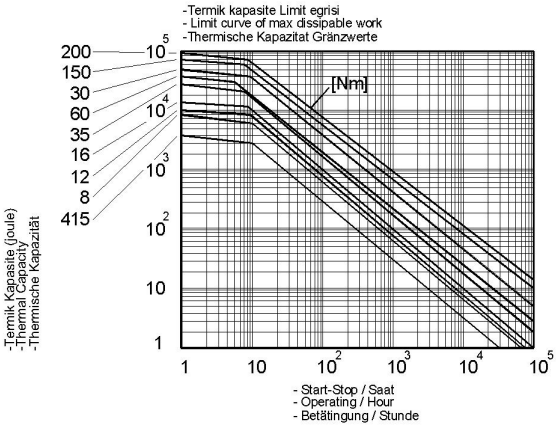
$$M_f = M_{fc} \times C_s$$

Abschätzung zur Bremswahl
Wenn man nur die Motorleistung und die höchste Drehzahl kennt, kann die Bremskraft mit der folgenden Formel annähernd berechnet werden:
W [Watt] : Nennleistung des Motors

$$M_f = \frac{W}{(\frac{2\pi \times n_0}{60})} \times C_s \quad (C_s \geq 2)$$

Standart Frenler / *Standard Brakes* / Standart Bremsen

Fren statik momenti [Nm] *Brake Static Torque [Nm]* Statische Bremskraft [Nm]	4,5	8	12	16	35	60	80	150	200
Fren Dinamik Momenti [Nm] *Brake Dynamic Torque [Nm]* Dynamische Bremskraft [Nm]	3,6	6,4	9,6	12,8	28	48	64	120	160
Maksimum Motor Hızı [d/dak] *Maximum Motor Speed [rpm]* Maximale Motordrehzahl [U/min]	3000	3000	3000	3000	3000	3000	3000	1500	1500
Giriş Gücü [W] *Input Power [W]* Antriebsleistung [W]	15	20	25	30	45	50	55	60	65



Frenin Termik Kapasitesi

Yukarıdaki seçime ek olarak frenin termik kapasitesinin kontrol edilmesi gerekir. L (joule) olarak gerekli soğutma işi aşağıdaki formüller ile hesaplanır ve ''Termik kapasite limit eğrisi'' kullanılarak eğrinin altında kalıp kalmadığı kontrol edilir.

a) M_L Statik yük torku motor dönüş yönünde (motorun dönüşüne yardımcı olarak, yükün indirilmesi hali)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

b) M_L Statik yük torku motor aksi dönüş yönünde (motorun dönüşüne engel olarak, yükün kaldırılması hali):

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) M_L Statik yük torku sabit, motor yönünde veya aksi yönde (kaldırma ve indirme harici hızlandırıcı veya frenleyici sabit bir yük momenti hali).

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2}$$

Fren Hava Boşluğunun Ayarı:

Frenden sürekli aynı performansın alınabilmesi için, fren balatasının aşınmasına bağlı olarak, fren hava boşluğu belirli zaman aralıklarında yeniden ayarlanmalıdır. Fren hava boşluğu ayar zaman aralığı ve ayarın yapılması için firmamıza danışınız.

Fren Seçim Örneği:
İstenilen en uzun frenleme zamanı: 0,5 sn.
Motor devri: 1400 d/dak
Motora indirgenmiş toplam atalet momenti: 0,08 kgm^2
Gerekli çalışma momenti: 50 Nm
Yük Durumu: Yük motor dönüş yönü ile aynı (Vinçten yük indirmesi: Saatte dur-kalk sayısı:30

$$M_{fc} = \frac{(2\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ Nm$$

$$M_f = 73,6 \times 2 = 147,2\ Nm$$

Standart frenler tablosundan 150 Nm lik fren seçilebilir.
Gerekli termik kapasite;

$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right)$$

=1302,0<18000 Joule (150 Nm eğrisinden)
150 Nm lik fren uygun görülüyor.

The Thermal Capacity of Brake

The thermal capacity of the brake must also be checked after the above mentioned calculations heat dissipation energy L (joule) can be calculated from the following equation and must be checked if the result is under the limit curve shown on ''Limit curve of may dissipated work''.

a) The static load torgue M_L ,favours the rotation of the motor (Descent of a load which favours the rotation of the motor)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

b) The static load torgue M_L ,opposes the rotation of the motor (Lifting of a load which opposes the rotation of the motor)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) The static load torgue M_L ,is constant and opposes or favours the rotation of the motor (except lifting of a load)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2}$$

Adjustment of the air-gap:

In order to obtain the same performance from the brake during its lifetime,the air-gap of the brake must be re-adjusted after a limited time of operation For the air-gap and the time interval of the adjustment please contact us.

Selection Example:
The maximum admitted time for braking 0,5 s
Motor speed: 1400 rpm
Total inertia reduced at motor shaft: 0,08 kgm^2

Required operating torque:50 Nm
Nature of load: Load direction is same as motor direction(Unloading process: Start-stop time per hour :30)

$$M_{fc} = \frac{(2\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ Nm$$

$$M_f = 73,6 \times 2 = 147,2\ Nm$$

From the brake selection table a standard brake of 150 Nm is selected.
Necessary thermal capacity

$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right)$$

=1302,0<18000 Joule (from 150 Nm curve)
The selected brake with 150 Nm is suitable.

Thermische Kapazität der Bremsen

Nach den oben genannten Berechnungen muss die thermische Kapazität überprüft werden. Die Wärme, d.h. die gebrauchte Energie L, werden mit den folgenden Formeln berechnet. Die gerechnete Werte von Kapazitäten sollen unter dem Grenzkurve ''Thermische Kapazität Grenzwerte'' der gewählten Bremse liegen.

a) Konstantes Belastungsmoment M_L, das die Motordrehung fördert (Herunterlassen der Last)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \left(\frac{M_f}{M_f - M_L}\right)$$

b) Konstantes Belastungsmoment M_L , das sich entgegen der Motordrehung widersetzt (Aufheben der Last)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2} \times \frac{M_f}{M_f + M_L}$$

c) Konstantes Belastungsmoment M_L , das sich gegen der Motorbewegung widersetzt oder die Motorrotation fördert (Konstante Verminderung oder Erhöhung der Motorgeschwindigkeit, kein Herunterlassen oder Aufheben der Last)

$$L = \frac{I_{tot} \times (2\pi \times n_0 \div 60)^2}{2}$$

Einstellung des Luftspaltes:

Um eine immer konstant bleibende Bremsfähigkeit zu erhalten, muss das Luftspalt nach einer bestimmten Arbeitszeit neu eingestellt werden. Für die Bestimmung des Luftspaltes und die Einstellzeiten bitten wir Sie um Rückfrage.

Beispiel für eine Auswahl:
Die höchste zulässige Bremszeit: 0,5 s
Motordrehzahl: 1400 U/min
Gesamtträgheit der rotierenden Teile: 0,08 kgm^2
Das auf das System wirkende Drehmoment: 50 Nm
Belastungsart: Drehmoment, das die Motor-rotation fördert (Herunterlassen der Last)
Betätigungen pro Stunde:30

$$M_{fc} = \frac{(2\pi \times 1400 \div 60)}{0,5 \times 0,995} + 50 = 73,6\ Nm$$

$$M_f = 73,6 \times 2 = 147,2\ Nm$$

Eine Bremse von 150 Nm kann man auswählen.

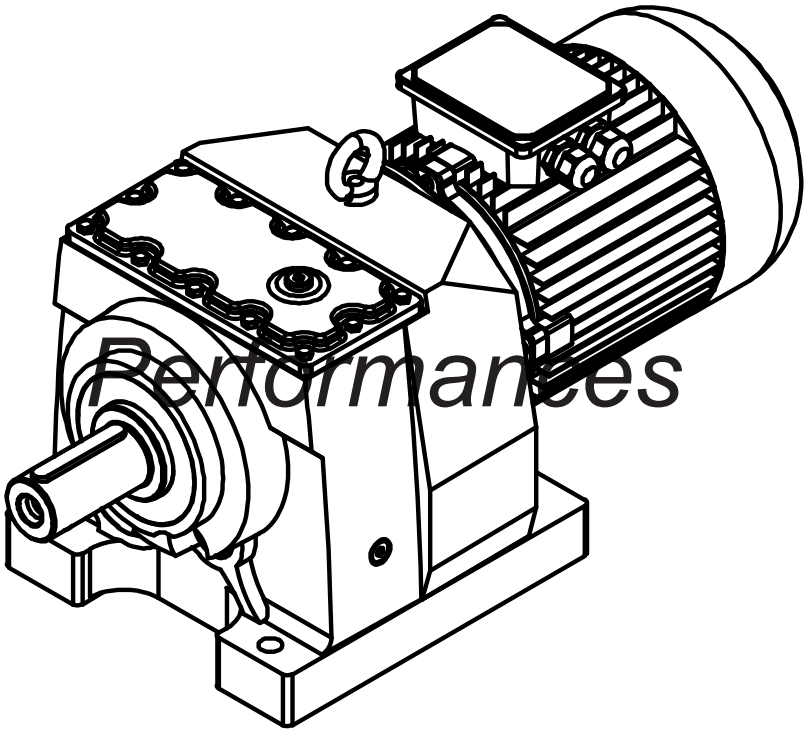
Die thermische Kapazität;

$$L = \frac{0,08 \times (2\pi \times 1400 \div 60)^2}{2} \times \left(\frac{147,2}{147,2 - 50}\right)$$

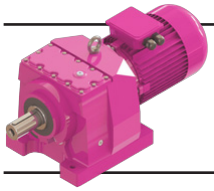
=1302,0<18000 Joule (von 150 Nm Kurve) Die ausgewählte 150 Nm Bremse ist ausreichend.

Notlar / *Notes* / Notizen

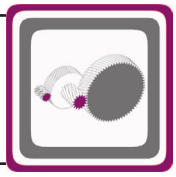
Güç ve Devir Tabloları



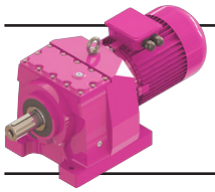
Leistung und Drehzahlübersicht



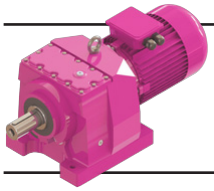
Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren



Güç *Power* Leistung P_g [kW] P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
0,12 0,18	0,28 0,32 0,42 0,49	3161 2811 2157 1825	**4953,44** **4402,68** **3372,36** **2850,22**	18719 20916 24268 25640	0,9 1,1 1,4 1,6	**MR576-63/4a** **NR576-63/4a**	0,41	157 151	119	MR402 NR402
	0,51 0,61 0,74 0,84 0,94 1,1 1,2	1786 1511 1239 1095 973 824 748	**2736,94** **2313,18** **1897,20** **1675,43** **1489,14** **1259,61** **1140,65**	25789 26807 27712 28156 28508 28915 29153	1,7 2,0 2,4 2,7 3,1 3,6 4,0	**MR575-63/4a** **NR575-63/4a**	0,41	155 149	119	MR403 NR403
	0,55 0,66 0,70 0,81 0,86 1,0 1,1 1,2 1,3 1,5	1648 1378 1302 1139 1070 910 845 792 694 617	**2522,85** **2107,15** **1990,76** **1738,98** **1631,08** **1386,75** **1285,79** **1204,49** **1053,93** **934,94**	13992 17772 18643 20338 21007 22317 22818 23218 23939 24430	0,9 1,1 1,2 1,4 1,4 1,7 1,8 2,0 2,2 2,5	**MR475-63/4a** **NR475-63/4a**	0,41	100 103	116	MR003 NR003
	0,90 1,0 1,2 1,4 1,7 1,8 2,1 2,2 2,6	1019 902 759 646 554 501 443 414 351	**1561,78** **1380,71** **1161,33** **987,33** **845,97** **765,58** **676,02** **631,45** **533,70**	7642 10238 12601 14090 15082 15595 16127 16378 16915	0,8 0,9 1,1 1,3 1,5 1,6 1,8 2,0 2,3	**MR375-63/4a** **NR375-63/4a**	0,41	76 78	113	MR004 NR004
	2,7 3,3 3,8	352 284 249	**524,07** **421,85** **369,93**	16901 17401 17646	2,3 2,9 3,3	**MR374-63/4a** **NR374-63/4a**	0,41	55 58	112	MR005 NR005
	1,2 1,4 1,6 1,9 2,1 2,4 2,8	789 664 565 484 439 375 322	**1206,98** **1015,21** **863,11** **739,53** **669,25** **573,81** **491,50**	3708 7884 9893 11164 11789 12571 13143	0,8 0,9 1,1 1,2 1,4 1,6 1,9	**MR285-63/4a** **NR285-63/4a**	0,41	74 75	110	MR006 NR006
	3,2 3,8 4,3	290 248 218	**431,18** **368,77** **323,39**	13466 13836 14123	2,1 2,4 2,8	**MR284-63/4a** **NR284-63/4a**	0,41	74 75	109	MR007 NR007
	1,7 1,9 2,3 2,8 3,3 3,9 4,2 5,6	541 474 392 328 275 236 219 166	**827,44** **724,01** **598,70** **499,32** **418,57** **358,33** **332,52** **252,20**	5983 6562 7152 7553 7843 8034 8108 8350	0,8 0,9 1,1 1,4 1,6 1,9 2,1 2,7	**MR275-63/4a** **NR275-63/4a**	0,41	41 43	107	MR008 NR008



Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,12 0,18	6,5 6,8 7,8 9,4	142 135 119 98	**215,91** **205,95** **180,21** **149,02**	8.446 8.474 8.540 8.615	3,2 3,3 3,8 4,0	**MR275-63/4a** **NR275-63/4a**	0,41	41 43	107	MR008 NR008
	10 12 13	105 91 86	**138,55** **121,03** **113,52**	8.588 8.640 8.656	4,0 4,0 4,0	**MR273-63/4a** **NR273-63/4a**	0,41	30 32	106	MR009 NR009
	14 16 17 20 24 28	75 66 62 52 44 38	**99,21** **87,60** **81,82** **69,16** **57,76** **49,81**	5723 5524 5417 5159 4891 4679	2,7 3,0 3,2 3,8 4,0 4,0	**MR173-63/4a** **NR173-63/4a**	0,41	30 32	104	MR010 NR010
	31 35 44 49 58 66 68 73 77 83 95 103	34 30 24 21 18 16 16 15 14 13 11 10	**45,18** **40,04** **32,02** **28,38** **24,13** **21,26** **20,66** **19,17** **18,20** **16,89** **14,67** **13,61**	2844 2862 2894 2906 2773 2655 2626 2558 2515 2450 2337 2277	2,4 2,7 3,4 3,8 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**MR003-63/4a** **NR003-63/4a**	0,41	12 13	102	MR011 NR011
	126 142 161 166 179 188 203 233 251 307 359 387	9 8 7 6 6 6 5 5 4 3 3 3	**11,14** **9,87** **8,70** **8,45** **7,84** **7,45** **6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	2137 2050 1963 1942 1892 1860 1812 1727 1684 1574 1493 1455	4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**MR002-63/4a** **NR002-63/4a**	0,41	11 12	102	MR012 NR012
0,18 0,25	0,11 0,12 0,14 0,16 0,18 0,20 0,23 0,26 0,31 0,37	13102 11333 9902 8741 7781 6974 6125 5423 4571 3893	**8345,18** **7233,00** **6313,78** **5569,66** **4954,95** **4438,59** **3892,30** **3441,02** **2894,28** **2460,65**	71858 81412 87961 92611 96036 98943 101645 103736 106104 107857	1,0 1,1 1,3 1,5 1,7 1,9 2,1 2,4 2,8 3,3	**MR876-71/6a** **NR876-71/6a**	0,61	605 620	128	MR013 NR013
	0,15 0,17	9332 8263	**5949,83** **5260,00**	43189 47843	0,9 1,0	**MR776-71/6a** **NR776-71/6a**	0,61	258 320	125	MR404 NR404
	0,19 0,21	7732 6850	**4812,09** **4263,81**	49999 53064	1,0 1,2	**MR775-71/6a** **NR775-71/6a**	0,61	255 315	125	MR405 NR405



Motorlu Güç Devir Sayfaları
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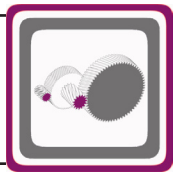
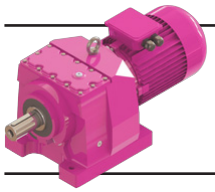
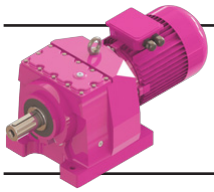


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,18 0,25	0,24 0,29 0,34 0,39 0,44 0,50 0,57 0,63 0,72	6132 5004 4319 3744 3277 2891 2567 2290 2027	**3814,39** **3103,85** **2684,10** **2324,10** **2032,66** **1791,91** **1589,68** **1417,41** **1252,60**	55325 58620 60366 61720 62744 63542 64179 64789 65282	1,3 1,6 1,9 2,1 2,4 2,8 3,1 3,5 3,9	**MR775-71/6a** **NR775-71/6a**	0,61	255 315	125	MR405 NR405
	0,31	4523	**2863,86**	25026	1,0	**MR676-71/6a** **NR676-71/6a**	0,61	238 247	122	MR406 NR406
	0,35 0,41 0,48 0,55 0,63 0,71 0,81 0,90 1,0 1,2	4159 3536 3043 2643 2312 2034 1801 1612 1418 1187	**2578,93** **2196,86** **1888,53** **1638,93** **1432,74** **1259,54** **1113,08** **995,91** **874,56** **730,46**	27204 30417 32546 34152 35318 36200 36968 37525 38071 38688	1,0 1,2 1,4 1,6 1,9 2,1 2,4 2,7 3,0 3,6	**MR675-71/6a** **NR675-71/6a**	0,61	228 242	122	MR407 NR407
	0,49	2889	**2850,22**	20466	1,0	**MR576-63/4b** **NR576-63/4b**	0,60	160 153	119	MR408 NR408
	0,51 0,61 0,74 0,84 0,94 1,1 1,2	2828 2392 1961 1733 1541 1305 1184	**2736,94** **2313,18** **1897,20** **1675,43** **1489,14** **1259,61** **1140,65**	20831 23153 25085 26009 26691 27489 27867	1,1 1,3 1,5 1,7 1,9 2,3 2,5	**MR575-63/4b** **NR575-63/4b**	0,60	152 148	119	MR409 NR409
	1,6 1,9 2,2	954 807 670	**574,90** **485,89** **402,12**	28543 28992 29334	3,1 3,7 4,0	**MR574-71/6a** **NR574-71/6a**	0,61	135 133	118	MR410 NR410
	0,81 0,86 1,0 1,1 1,2	1804 1693 1441 1339 1253	**1738,98** **1631,08** **1386,75** **1285,79** **1204,49**	11081 13214 17001 18231 19174	0,9 0,9 1,1 1,2 1,2	**MR475-63/4b** **NR475-63/4b**	0,60	111 115	116	MR016 NR016
	1,3 1,5 1,7 2,0 2,2 2,6 3,0	1119 1001 880 736 696 577 494	**674,46** **603,46** **529,93** **442,61** **418,16** **346,07** **295,98**	20517 21579 22559 23617 23900 24656 25177	1,4 1,5 1,8 2,1 2,2 2,7 3,1	**MR474-71/6a** **NR474-71/6a**	0,61	94 98	115	MR017 NR017
	1,4 1,7	1022 877	**987,33** **845,97**	7515 10731	0,8 0,9	**MR375-63/4b** **NR375-63/4b**	0,60	76 81	113	MR018 NR018



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
0,18 0,25	1,7 2,1 2,4	867 698 613	**524,07** **421,85** **369,93**	10899 13419 14433	0,9 1,2 1,3	**MR374-71/6a** **NR374-71/6a**	0,61	58 61	112	MR019 NR019
	2,7 3,3 3,8	558 449 394	**524,07** **421,85** **369,93**	15060 16080 16545	1,5 1,8 2,1	**MR374-63/4b** **NR374-63/4b**	0,60	55 58	112	MR020 NR020
	5,7 6,5	280 246	**157,76** **138,72**	16612 15997	2,9 3,3	**MR373-71/6a** **NR373-71/6a**	0,61	54 57	111	MR021 NR021
	2,1 2,4 2,8	715 611 536	**431,18** **368,77** **323,39**	6617 9042 10374	0,8 1,0 1,1	**MR284-71/6a** **NR284-71/6a**	0,61	62 65	109	MR022 NR022
	3,2 3,8 4,3 4,9 5,8	459 393 345 305 257	**431,18** **368,77** **323,39** **285,89** **240,47**	11525 12359 12886 13313 13658	1,3 1,5 1,7 2,0 2,3	**MR284-63/4b** **NR284-63/4b**	0,60	60 63	109	MR023 NR023
	6,5 7,9	245 203	**137,91** **114,14**	13228 12532	2,4 3,0	**MR283-71/6a** **NR283-71/6a**	0,61	40 42	108	MR024 NR024
	2,8 3,3 3,9 4,2 5,6	519 435 373 347 263	**499,32** **418,57** **358,33** **332,52** **252,20**	6.196 6.857 7.277 7.439 7.904	0,9 1,0 1,2 1,3 1,7	**MR275-63/4b** **NR275-63/4b**	0,60	41 43	107	MR025 NR025
	6,5 7,4 7,9 9,3	246 215 202 172	**138,55** **121,03** **113,52** **96,52**	7.988 8.133 8.195 8.324	1,8 2,1 2,2 2,6	**MR273-71/6a** **NR273-71/6a**	0,61	30 32	106	MR026 NR026
	10 12 13	158 138 130	**138,55** **121,03** **113,52**	8.388 8.461 8.490	2,8 3,3 3,5	**MR273-63/4b** **NR273-63/4b**	0,60	28 30	106	MR027 NR027
	13 15 16	121 106 99	**68,03** **59,43** **55,74**	8463 8501 8427	2,3 2,6 2,8	**MR203-71/6a** **NR203-71/6a**	0,61	28 30	105	MR028 NR028
	21	78	**68,03**	7840	3,6	**MR203-63/4b** **NR203-63/4b**	0,60	27 29	105	MR029 NR029
	9,1 10 11 13	176 156 146 123	**99,21** **87,60** **81,82** **69,16**	5799 5900 5846 5613	1,1 1,3 1,4 1,6	**MR173-71/6a** **NR173-71/6a**	0,61	16 18	104	MR030 NR030
	14 16 17	113 100 93	**99,21** **87,60** **81,82**	5501 5328 5234	1,8 2,0 2,1	**MR173-63/4b** **NR173-63/4b**	0,60	13 15	104	MR031 NR031



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
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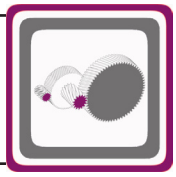
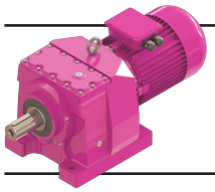
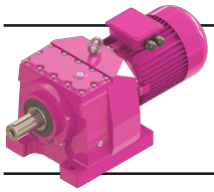


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,18 0,25	20 24 28	79 66 57	**69,16** **57,76** **49,81**	5004 4762 4567	2,5 3,0 3,5	**MR173-63/4b** **NR173-63/4b**	0,60	13 15	104	MR031 NR031
	18 20 22	90 80 74	**50,51** **44,60** **41,66**	3538 3437 3382	1,6 1,8 1,9	**MR103-71/6a** **NR103-71/6a**	0,61	15 17	103	MR032 NR032
	28 31 34 40	58 51 48 40	**50,51** **44,60** **41,66** **35,21**	3177 3076 3021 2886	2,4 2,7 2,9 3,5	**MR103-63/4b** **NR103-63/4b**	0,60	16 18	103	MR033 NR033
	20 22 28	80 71 57	**45,18** **40,04** **32,02**	2507 2585 2691	1,0 1,2 1,4	**MR003-71/6a** **NR003-71/6a**	0,61	14 15	102	MR034 NR034
	31 35 44 49 58 66 68 73 77 83 95 103	51 46 36 32 28 24 24 22 21 19 17 16	**45,18** **40,04** **32,02** **28,38** **24,13** **21,26** **20,66** **19,17** **18,20** **16,89** **14,67** **13,61**	2730 2770 2818 2772 2717 2646 2654 2587 2544 2477 2361 2300	1,6 1,8 2,2 2,5 3,0 3,4 3,5 3,7 3,9 4,0 4,0 4,0	**MR003-63/4b** **NR003-63/4b**	0,60	13 14	102	MR035 NR035
	126 142 161 166 179 188 203 233 251 307 359 387	13 11 10 10 9 9 8 7 6 5 5 4	**11,14** **9,87** **8,70** **8,45** **7,84** **7,45** **6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	2162 2073 1983 1962 1910 1878 1829 1743 1698 1587 1504 1465	4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**MR002-63/4b** **NR002-63/4b**	0,60	12 13	102	MR036 NR036
	405 467 503 615 718 774	4 3 3 3 2 2	**6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	1437 1370 1335 1248 1184 1154	4,0 4,0 4,0 4,0 4,0 4,0	**MR002-63/2a** **NR002-63/2a**	0,50	12 13	102	MR037 NR037
0,25 0,34	0,12 0,17 0,19 0,22 0,25 0,28 0,32 0,36	16352 11945 10332 9027 7969 7094 6358 5584	**11443,34** **8345,18** **7233,00** **6313,78** **5569,66** **4954,95** **4438,59** **3892,30**	47139 78313 86091 91518 95396 98545 100925 103268	0,8 1,1 1,3 1,4 1,6 1,8 2,0 2,3	**MR876-71/4a** **NR876-71/4a**	0,81	610 625	128	MR038 NR038



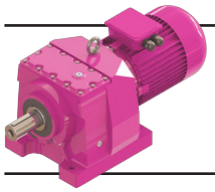
Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,25 0,34	0,41 0,48 0,57 0,66	4944 4167 3549 3046	**3441,02** **2894,28** **2460,65** **2108,33**	105090 107163 108704 109889	2,6 3,1 3,7 4,0	**MR876-71/4a** **NR876-71/4a**	0,81	610 625	128	MR038 NR038
	0,24 0,27	8508 7533	**5949,83** **5260,00**	46821 50676	0,9 1,1	**MR776-71/4a** **NR776-71/4a**	0,81	258 320	125	MR411 NR411
	0,29 0,33 0,37 0,45 0,52 0,60 0,69 0,78 0,88 0,99 1,1	7049 6245 5591 4562 3938 3413 2988 2636 2340 2087 1848	**4812,09** **4263,81** **3814,39** **3103,85** **2684,10** **2324,10** **2032,66** **1791,91** **1589,68** **1417,41** **1252,60**	52395 54986 56998 59765 61275 62452 63346 64046 64693 65170 65609	1,1 1,3 1,4 1,8 2,0 2,3 2,7 3,0 3,4 3,8 4,0	**MR775-71/4a** **NR775-71/4a**	0,81	255 316	125	MR412 NR412
	0,42 0,49	4805 4124	**3342,43** **2863,86**	23089 27402	0,9 1,0	**MR676-71/4a** **NR676-71/4a**	0,81	230 242	122	MR413 NR413
	0,54 0,64 0,74 0,85 0,98 1,1 1,3 1,4 1,6 1,9	3792 3224 2774 2410 2108 1855 1642 1469 1293 1082	**2578,93** **2196,86** **1888,53** **1638,93** **1432,74** **1259,54** **1113,08** **995,91** **874,56** **730,46**	29170 31808 33656 34935 35973 36805 37438 37928 38410 38957	1,1 1,3 1,5 1,8 2,0 2,3 2,6 2,9 3,3 4,0	**MR675-71/4a** **NR675-71/4a**	0,81	228 243	122	MR414 NR414
	0,74 0,84 0,94 1,1 1,2	2781 2458 2186 1850 1680	**1897,20** **1675,43** **1489,14** **1259,61** **1140,65**	21134 22834 24122 25531 26185	1,1 1,2 1,4 1,6 1,8	**MR575-71/4a** **NR575-71/4a**	0,81	151 147	119	MR415 NR415
	1,6 1,9 2,2	1353 1145 950	**574,90** **485,89** **402,12**	27325 27982 28571	2,2 2,6 3,2	**MR574-71/6b** **NR574-71/6b**	0,83	137 133	118	MR416 NR416
	2,4 2,9	870 736	**574,90** **485,89**	28808 29182	3,5 4,0	**MR574-71/4a** **NR574-71/4a**	0,81	132 128	118	MR417 NR417
	1,1 1,2	1898 1777	**1285,79** **1204,49**	8731 11638	0,8 0,9	**MR475-71/4a** **NR475-71/4a**	0,81	100 105	116	MR045 NR045
	1,3 1,5 1,7 2,0	1587 1419 1248 1044	**674,46** **603,46** **529,93** **442,61**	14952 17270 19226 21195	1,0 1,1 1,2 1,5	**MR474-71/6b** **NR474-71/6b**	0,83	95 100	115	MR046 NR046



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,25 0,34	2,1 2,3 2,6 3,2 3,3 4,0	1020 912 802 671 634 526	**674,46** **603,46** **529,93** **442,61** **418,16** **346,07**	21400 22299 23156 24046 24302 24977	1,5 1,7 1,9 2,3 2,4 2,9	**MR474-71/4a** **NR474-71/4a**	0,81	95 100	115	MR047 NR047
	2,1 2,4	990 869	**421,85** **369,93**	8390 10865	0,8 0,9	**MR374-71/6b** **NR374-71/6b**	0,83	58 63	112	MR048 NR048
	2,7 3,3 3,8 4,3 5,1	791 637 559 495 416	**524,07** **421,85** **369,93** **327,04** **275,08**	12141 14175 15022 15661 16358	1,0 1,3 1,5 1,7 2,0	**MR374-71/4a** **NR374-71/4a**	0,81	58 63	112	MR049 NR049
	5,7 6,5 8,1	390 343 276	**157,76** **138,72** **111,67**	16204 15639 14708	2,1 2,4 3,0	**MR373-71/6b** **NR373-71/6b**	0,83	58 63	111	MR050 NR050
	8,9	251	**157,76**	14306	3,3	**MR373-71/4a** **NR373-71/4a**	0,81	52 57	111	MR051 NR051
	2,4 2,8	866 761	**368,77** **323,39**	- 5008	0,7 0,8	**MR284-71/6b** **NR284-71/6b**	0,83	62 65	109	MR052 NR052
	3,2 3,8 4,3 4,9 5,8	651 557 489 433 364	**431,18** **368,77** **323,39** **285,89** **240,47**	8204 10030 11099 11849 12678	0,9 1,1 1,2 1,4 1,6	**MR284-71/4a** **NR284-71/4a**	0,81	62 65	109	MR053 NR053
	6,5 7,9 9,2	341 283 242	**137,91** **114,14** **97,62**	12835 12207 11696	1,8 2,1 2,5	**MR283-71/6b** **NR283-71/6b**	0,83	30 32	108	MR054 NR054
	10 12	219 182	**137,91** **114,14**	11387 10791	2,7 3,3	**MR283-71/4a** **NR283-71/4a**	0,81	30 32	108	MR055 NR055
	3,9 4,2 5,6	529 492 373	**358,33** **332,52** **252,20**	6.097 6.422 7.281	0,9 0,9 1,2	**MR275-71/4a** **NR275-71/4a**	0,81	45 47	107	MR056 NR056
	6,5 7,4 7,9 9,3	343 300 281 239	**138,55** **121,03** **113,52** **96,52**	7.465 7.711 7.802 8.021	1,3 1,5 1,6 1,9	**MR273-71/6b** **NR273-71/6b**	0,83	30 32	106	MR057 NR057
	10 12 13 15 17	220 193 181 154 134	**138,55** **121,03** **113,52** **96,52** **83,83**	8.110 8.238 8.287 8.400 8.475	2,0 2,3 2,5 2,9 3,4	**MR273-71/4a** **NR273-71/4a**	0,81	30 32	106	MR058 NR058



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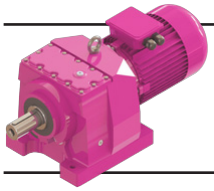
Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,25 0,34	13 15 16	169 148 138	**68,03** **59,43** **55,74**	8300 8381 8234	1,7 1,9 2,0	**MR203-71/6b** **NR203-71/6b**	0,83	28 30	105	MR059 NR059
	21 24 25 30	108 95 89 76	**68,03** **59,43** **55,74** **47,39**	7689 7395 7258 6919	2,6 3,0 3,1 3,7	**MR203-71/4a** **NR203-71/4a**	0,81	28 30	105	MR060 NR060
	9,1 10	245 217	**99,21** **87,60**	5390 5574	0,8 0,9	**MR173-71/6b** **NR173-71/6b**	0,83	17 19	104	MR061 NR061
	14 16 17 20 24 28 31 33 39	158 139 130 110 92 79 73 68 58	**99,21** **87,60** **81,82** **69,16** **57,76** **49,81** **45,90** **42,87** **36,24**	5241 5099 5020 4823 4611 4437 4342 4263 4070	1,3 1,4 1,5 1,8 2,2 2,5 2,7 2,9 3,5	**MR173-71/4a** **NR173-71/4a**	0,81	18 19	104	MR062 NR062
	18 20 22	125 111 103	**50,51** **44,60** **41,66**	3320 3244 3201	1,1 1,3 1,4	**MR103-71/6b** **NR103-71/6b**	0,83	17 19	103	MR063 NR063
	28 31 34 40 43 48 56	80 71 67 56 52 47 40	**50,51** **44,60** **41,66** **35,21** **32,25** **29,40** **24,86**	3037 2952 2905 2788 2727 2663 2519	1,7 2,0 2,1 2,5 2,7 3,0 3,3	**MR103-71/4a** **NR103-71/4a**	0,81	16 17	103	MR064 NR064
	20 22 28	111 99 79	**45,18** **40,04** **32,02**	1844 1969 2224	0,7 0,8 1,0	**MR003-71/6b** **NR003-71/6b**	0,83	13 14	102	MR065 NR065
	31 35 44 49 58 66 68 73 77 83 95 103	72 64 51 45 38 34 33 31 29 27 23 22	**45,18** **40,04** **32,02** **28,38** **24,13** **21,26** **20,66** **19,17** **18,20** **16,89** **14,67** **13,61**	2290 2326 2414 2409 2408 2367 2389 2375 2341 2324 2255 2233	1,1 1,3 1,6 1,8 2,1 2,4 2,5 2,7 2,8 3,0 3,5 3,7	**MR003-71/4a** **NR003-71/4a**	0,81	12 13	102	MR066 NR066
	126 142 161 166 179 188 203	18 16 14 14 13 12 11	**11,14** **9,87** **8,70** **8,45** **7,84** **7,45** **6,91**	2192 2099 2008 1984 1932 1898 1848	3,6 4,0 4,0 4,0 4,0 4,0 4,0	**MR002-71/4a** **NR002-71/4a**	0,81	12 13	102	MR067 NR067



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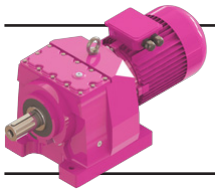
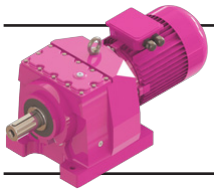
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,25 0,34	233 251 307 359 387	10 9 7 6 6	**6,00** **5,57** **4,56** **3,90** **3,62**	1760 1714 1602 1517 1477	4,0 4,0 4,0 4,0 4,0	**MR002-71/4a** **NR002-71/4a**	0,81	12 13	102	MR067 NR067
	405 467 503 615 718 774	6 5 4 4 3 3	**6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	1447 1379 1343 1256 1190 1160	4,0 4,0 4,0 4,0 4,0 4,0	**MR002-63/2b** **NR002-63/2b**	0,67	13 14	102	MR068 NR068
0,37 0,50	0,19 0,22 0,25 0,28 0,32 0,36 0,41 0,48 0,57 0,66	15764 13773 12159 10823 9700 8520 7544 6358 5415 4648	**7233,00** **6313,78** **5569,66** **4954,95** **4438,59** **3892,30** **3441,02** **2894,28** **2460,65** **2108,33**	52556 67696 77181 83854 88809 93432 97015 100924 103759 105897	0,8 0,9 1,1 1,2 1,3 1,5 1,7 2,0 2,4 2,8	**MR876-71/4b** **NR876-71/4b**	1,15	598 610	128	MR069
	0,73 0,82 0,92	4328 3831 3428	**1924,32** **1700,56** **1521,55**	106745 108012 108994	3,0 3,4 3,8	**MR875-71/4b** **NR875-71/4b**	1,15	595 605	128	MR070 NR070
	0,37 0,45 0,52 0,60 0,69 0,78 0,88 0,99 1,1 1,2 1,4	8530 6960 6008 5208 4558 4022 3570 3185 2820 2524 2220	**3814,39** **3103,85** **2684,10** **2324,10** **2032,66** **1791,91** **1589,68** **1417,41** **1252,60** **1120,74** **984,18**	46727 52696 55691 58071 59774 61080 62109 62938 63685 64261 64921	0,9 1,1 1,3 1,5 1,8 2,0 2,2 2,5 2,8 3,2 3,6	**MR775-71/4b** **NR775-71/4b**	1,15	263 321	125	MR418 NR418
	1,5 1,7	2141 1916	**594,92** **532,29**	65069 65485	3,7 4,0	**MR774-80/6a** **NR774-80/6a**	1,10	243 300	124	MR419 NR419
	0,74 0,85 0,98 1,1 1,3 1,4 1,6	4233 3677 3217 2830 2505 2242 1972	**1888,53** **1638,93** **1432,74** **1259,54** **1113,08** **995,91** **874,56**	26785 29744 31839 33442 34659 35549 36387	1,0 1,2 1,3 1,5 1,7 1,9 2,2	**MR675-71/4b** **NR675-71/4b**	1,15	227 243	122	MR420 NR420
	1,8 2,0 2,4 2,8 3,2	1801 1594 1356 1167 1014	**500,39** **442,20** **376,69** **323,82** **281,02**	36969 37577 38240 38740 39128	2,4 2,7 3,2 3,7 4,0	**MR674-80/6a** **NR674-80/6a**	1,10	217 233	121	MR421 NR421



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
0,37 0,50	1,1 1,2 1,5	2823 2563 2168	**1259,61** **1140,65** **964,05**	20859 22299 24194	1,1 1,2 1,4	**MR575-71/4b** **NR575-71/4b**	1,15	151 148	119	MR422 NR422
	1,6 1,9 2,2	2064 1747 1449	**574,90** **485,89** **402,12**	24650 25930 27005	1,5 1,7 2,1	**MR574-80/6a** **NR574-80/6a**	1,10	137 133	118	MR423 NR423
	2,4 2,9 3,5 4,1 4,6 4,8	1327 1123 931 797 700 675	**574,90** **485,89** **402,12** **343,91** **301,59** **291,25**	27421 28074 28679 29031 29283 29347	2,3 2,7 3,2 3,8 4,0 4,0	**MR574-71/4b** **NR574-71/4b**	1,15	132 128	118	MR424 NR424
	1,7 2,0	1904 1593	**529,93** **442,61**	8618 14843	0,8 1,0	**MR474-80/6a** **NR474-80/6a**	1,10	135 140	115	MR077 NR077
	2,1 2,3 2,6 3,2 3,3 4,0	1557 1392 1224 1024 968 803	**674,46** **603,46** **529,93** **442,61** **418,16** **346,07**	15399 17638 19503 21375 21849 23137	1,0 1,1 1,3 1,5 1,6 1,9	**MR474-71/4b** **NR474-71/4b**	1,15	130 135	115	MR078 NR078
	4,1 4,6 5,7 6,4 7,2	802 710 579 512 458	**219,00** **194,05** **157,90** **139,54** **124,85**	23145 23820 24655 25068 25377	1,9 2,2 2,7 3,0 3,4	**MR473-80/6a** **NR473-80/6a**	1,10	85 88	114	MR079 NR079
	3,3 3,8 4,3 5,1	971 853 755 635	**421,85** **369,93** **327,04** **275,08**	8839 11153 12665 14178	0,8 1,0 1,1 1,3	**MR374-71/4b** **NR374-71/4b**	1,15	58 63	112	MR080 NR080
	5,7 6,5 8,1	577 507 409	**157,76** **138,72** **111,67**	14828 15025 14214	1,4 1,6 2,0	**MR373-80/6a** **NR373-80/6a**	1,10	63 68	111	MR081 NR081
	8,9 10 13 14	372 327 264 231	**157,76** **138,72** **111,67** **97,92**	13857 13384 12603 12142	2,2 2,5 3,1 3,5	**MR373-71/4b** **NR373-71/4b**	1,15	52 57	111	MR082 NR082
	4,9	660	**285,89**	8020	0,9	**MR284-71/4b** **NR284-71/4b**	1,15	62 65	109	MR083 NR083
	6,5 7,9 9,2	504 418 358	**137,91** **114,14** **97,62**	10851 11649 11219	1,2 1,4 1,7	**MR283-80/6a** **NR283-80/6a**	1,10	42 44	108	MR084 NR084
	10 12 14	325 270 231	**137,91** **114,14** **97,62**	10953 10432 10006	1,8 2,2 2,6	**MR283-71/4b** **NR283-71/4b**	1,15	38 41	108	MR085 NR085



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Geared Motors Performance Tables
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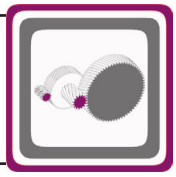
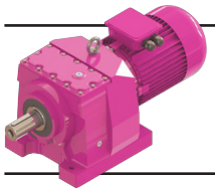
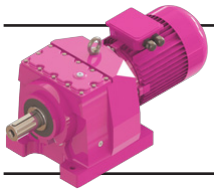


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,37 0,50	16	202	**85,60**	9654	3,0	**MR283-71/4b** **NR283-71/4b**	1,15	38 41	108	MR085 NR085
	6,5 7,4 7,9 9,3	507 443 416 354	**138,55** **121,03** **113,52** **96,52**	6.295 6.799 6.994 7.399	0,9 1,0 1,1 1,3	**MR273-80/6a** **NR273-80/6a**	1,10	30 33	106	MR086 NR086
	10 11 12 15 17 19 23	327 286 268 228 198 174 144	**138,55** **121,03** **113,52** **96,52** **83,83** **73,35** **60,66**	7.558 7.785 7.884 8.074 8.210 8.316 7.857	1,4 1,6 1,7 2,0 2,3 2,6 3,1	**MR273-71/4b** **NR273-71/4b**	1,15	28 31	106	MR087 NR087
	13 15 16	249 218 205	**68,03** **59,43** **55,74**	7966 8029 7904	1,1 1,3 1,4	**MR203-80/6a** **NR203-80/6a**	1,10	35 37	105	MR088 NR088
	21 24 25 30 32 34 39	161 141 132 112 104 98 86	**68,03** **59,43** **55,74** **47,39** **43,94** **41,16** **36,02**	7430 7168 7046 6738 6597 6477 6234	1,7 2,0 2,1 2,5 2,7 2,9 3,3	**MR203-71/4b** **NR203-71/4b**	1,15	33 36	105	MR089 NR089
	14 16 17 20 24 28 31 33 39 46 54	234 207 193 163 137 118 109 102 86 72 62	**99,21** **87,60** **81,82** **69,16** **57,76** **49,81** **45,90** **42,87** **36,24** **30,26** **26,10**	4796 4706 4653 4513 4352 4214 4136 4070 3908 3734 3591	0,9 1,0 1,0 1,2 1,5 1,7 1,8 2,0 2,3 2,8 3,2	**MR173-71/4b** **NR173-71/4b**	1,15	18 19	104	MR090 NR090
	18 20 22	185 164 153	**50,51** **44,60** **41,66**	2945 2913 2892	0,8 0,9 0,9	**MR103-80/6a** **NR103-80/6a**	1,10	20 22	103	MR091 NR091
	28 31 34 40 43 48 56 64 68 81	120 106 99 84 77 70 59 52 49 41	**50,51** **44,60** **41,66** **35,21** **32,25** **29,40** **24,86** **21,96** **20,51** **17,33**	2796 2739 2706 2620 2573 2522 2387 2321 2285 2194	1,2 1,3 1,4 1,7 1,8 2,0 2,2 2,3 2,5 2,7	**MR103-71/4b** **NR103-71/4b**	1,15	17 18	103	MR092 NR092
	88 99	38 34	**15,95** **14,08**	2175 2105	3,0 3,2	**MR102-71/4b** **NR102-71/4b**	1,15	17 18	103	MR093 NR093



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,37 0,50	106	31,7	**13,15**	2066	3,3	**MR102-71/4b** **NR102-71/4b**	1,15	17 18	103	MR093 NR093
	31 35 44 49 58 66 68 73 77 83 95 103	106 94 76 67 57 50 49 46 43 40 35 32	**45,18** **40,04** **32,02** **28,38** **24,13** **21,26** **20,66** **19,17** **18,20** **16,89** **14,67** **13,61**	1312 1448 1721 1786 1879 1888 1936 1955 1931 1943 1910 1913	0,8 0,9 1,1 1,2 1,4 1,6 1,7 1,8 1,9 2,0 2,4 2,5	**MR003-71/4b** **NR003-71/4b**	1,15	13 14	102	MR094 NR094
	126 142 161 166 179 188 203 233 251 307 359 387	27 24 21 20 19 18 17 15 13 11 9 9	**11,14** **9,87** **8,70** **8,45** **7,84** **7,45** **6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	2091 2046 1989 1995 1968 1933 1881 1790 1741 1628 1539 1498	2,4 3,3 3,5 3,6 3,8 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**MR002-71/4b** **NR002-71/4b**	1,15	13 14	102	MR095 NR095
	405 467 503 615 718 774	8 7 7 6 5 4	**6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	1463 1394 1357 1269 1201 1170	4,0 4,0 4,0 4,0 4,0 4,0	**MR002-71/2a** **NR002-71/2a**	1,05	13 14	102	MR096 NR096
0,55 0,75	0,20 0,26 0,31 0,33 0,39 0,49	22315 17510 14657 13857 11799 9341	**6842,29** **5357,43** **4474,67** **4227,50** **3594,81** **2836,64**	60646 97965 113064 116743 125182 134198	0,8 1,0 1,2 1,3 1,5 1,9	**MR976-80/4a** **NR976-80/4a**	1,60	1100 1150	131	MR365 NR365
	0,69 0,77 0,90	6811 6119 5213	**2027,97** **1820,78** **1552,10**	142037 143981 146403	2,6 2,9 3,5	**MR975-80/4a** **NR975-80/4a**	1,60	1098 1148	131	MR366 NR366
	0,28 0,32 0,36 0,41 0,48 0,57 0,66	16089 14419 12665 11213 9451 8050 6909	**4954,95** **4438,59** **3892,30** **3441,02** **2894,28** **2460,65** **2108,33**	49597 63360 74393 81997 89993 95115 99155	0,8 0,9 1,0 1,2 1,4 1,6 1,9	**MR876-80/4a** **NR876-80/4a**	1,60	600 610	128	MR097 NR097
	0,73 0,82 0,92 1,0	6434 5695 5096 4483	**1924,32** **1700,56** **1521,55** **1336,15**	100685 102942 104666 106338	2,0 2,3 2,6 2,9	**MR875-80/4a** **NR875-80/4a**	1,60	596 606	128	MR098 NR098



Motorlu Güç Devir Sayfaları
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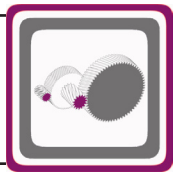
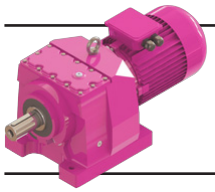


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,55 0,75	1,2 1,3	4064 3517	**1210,51** **1049,18**	107425 108783	3,2 3,7	**MR875-80/4a** **NR875-80/4a**	1,60	596 606	128	MR098 NR098
	0,60 0,69 0,78 0,88 0,99 1,1 1,2 1,4	7741 6776 5978 5307 4735 4191 3751 3300	**2324,10** **2032,66** **1791,91** **1589,68** **1417,41** **1252,60** **1120,74** **984,18**	49968 53310 55778 57798 59325 60677 61703 62695	1,0 1,2 1,3 1,5 1,7 1,9 2,1 2,4	**MR775-80/4a** **NR775-80/4a**	1,60	337 412	125	MR425 NR425
	1,5 1,7 1,9 2,2	3183 2849 2506 2244	**594,92** **532,29** **467,43** **418,17**	62942 63627 64294 64875	2,5 2,8 3,2 3,6	**MR774-80/6b** **NR774-80/6b**	1,50	317 392	124	MR426 NR426
	2,4 2,6	2046 1831	**594,92** **532,29**	65246 65639	3,9 4,0	**MR774-80/4a** **NR774-80/4a**	1,60	312 388	124	MR427 NR427
	0,98 1,1 1,3 1,4 1,6	4781 4206 3723 3332 2932	**1432,74** **1259,54** **1113,08** **995,91** **874,56**	23257 26937 29513 31341 32977	0,9 1,0 1,2 1,3 1,5	**MR675-80/4a** **NR675-80/4a**	1,60	242 252	122	MR428 NR428
	1,8 2,0 2,4	2676 2369 2016	**500,39** **442,20** **376,69**	34028 35159 36257	1,6 1,8 2,1	**MR674-80/6b** **NR674-80/6b**	1,50	222 232	121	MR429 NR429
	2,8 3,2 3,7 4,3 5,0	1721 1523 1296 1116 969	**500,39** **442,20** **376,69** **323,82** **281,02**	37207 37778 38402 38873 39240	2,5 2,8 3,3 3,9 4,0	**MR674-80/4a** **NR674-80/4a**	1,60	217 228	121	MR430 NR430
	1,6 1,9 2,2	3068 2596 2154	**574,90** **485,89** **402,12**	19348 22135 24257	1,0 1,2 1,4	**MR574-80/6b** **NR574-80/6b**	1,50	152 148	118	MR431 NR431
	2,4 2,9 3,5 4,1 4,6 4,8 5,4 6,3 7,2	1972 1669 1385 1185 1041 1004 893 765 672	**574,90** **485,89** **402,12** **343,91** **301,59** **291,25** **258,87** **221,40** **194,15**	25036 26228 27265 27894 28326 28435 28790 29111 29355	1,5 1,8 2,2 2,5 2,9 3,0 3,4 3,9 4,0	**MR574-80/4a** **NR574-80/4a**	1,60	148 143	118	MR432 NR432
	2,6 3,2 3,3 4,0	1820 1522 1439 1193	**529,93** **442,61** **418,16** **346,07**	10653 15915 17031 19787	0,9 1,0 1,1 1,3	**MR474-80/4a** **NR474-80/4a**	1,60	130 134	115	MR106 NR106



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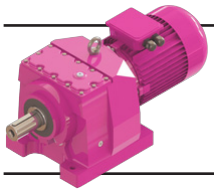
Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,55 0,75	4,1 4,6 5,7	1195 1058 863	**219,00** **194,05** **157,90**	19775 21103 22693	1,3 1,5 1,8	**MR473-80/6b** **NR473-80/6b**	1,50	110 113	114	MR107 NR107
	6,4 7,2 8,9 10 11	769 681 556 491 440	**219,00** **194,05** **157,90** **139,54** **124,85**	23341 23993 24667 23803 23042	2,0 2,3 2,8 3,2 3,5	**MR473-80/4a** **NR473-80/4a**	1,60	108 111	114	MR108 NR108
	5,1	945	**275,08**	9452	0,9	**MR374-80/4a** **NR374-80/4a**	1,60	63 67	112	MR109 NR109
	5,7 6,5 8,1	859 756 609	**157,76** **138,72** **111,67**	11044 12629 13472	1,0 1,1 1,3	**MR373-80/6b** **NR373-80/6b**	1,50	57 60	111	MR110 NR110
	8,9 10 13 14 16 19 23	553 487 392 344 305 257 218	**157,76** **138,72** **111,67** **97,92** **86,57** **72,81** **61,91**	13183 12792 12126 11724 11348 10828 10350	1,5 1,7 2,1 2,4 2,7 3,2 3,8	**MR373-80/4a** **NR373-80/4a**	1,60	63 67	111	MR111 NR111
	6,5 7,9 9,2	751 623 533	**137,91** **114,14** **97,62**	5392 8813 10504	0,8 1,0 1,1	**MR283-80/6b** **NR283-80/6b**	1,50	45 48	108	MR112 NR112
	10 12 14 16 18 22 26	484 401 343 301 267 225 191	**137,91** **114,14** **97,62** **85,60** **75,68** **63,65** **54,12**	10304 9895 9547 9250 8971 8581 8218	1,2 1,5 1,7 2,0 2,3 2,7 3,1	**MR283-80/4a** **NR283-80/4a**	1,60	45 48	108	MR113 NR113
	9,3	527	**96,52**	6120	0,9	**MR273-80/6b** **NR273-80/6b**	1,50	30 33	106	MR114 NR114
	10 12 13 15 17 19 23 28 33 38	486 425 399 339 295 258 214 179 150 129	**138,55** **121,03** **113,52** **96,52** **83,83** **73,35** **60,66** **50,59** **42,41** **36,55**	6466 6929 7109 7479 7737 7927 7999 7483 7018 6651	0,9 1,1 1,1 1,3 1,5 1,7 2,1 2,5 3,0 3,5	**MR273-80/4a** **NR273-80/4a**	1,60	30 33	106	MR115 NR115
	13 15 16	372 325 305	**68,03** **59,43** **55,74**	7330 7500 7408	0,8 0,9 0,9	**MR203-80/6b** **NR203-80/6b**	1,50	33 34	105	MR116 NR116



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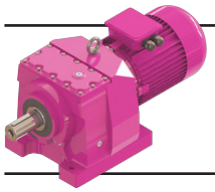
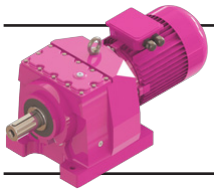
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,55 0,75	21 24 25 30 32 34 39 49 57 60	239 209 197 167 155 145 127 100 87 82	**68,03** **59,43** **55,74** **47,39** **43,94** **41,16** **36,02** **28,35** **24,77** **23,23**	7041 6829 6727 6468 6346 6242 6028 6501 6186 6043	1,2 1,3 1,4 1,7 1,8 1,9 2,2 2,8 3,1 3,3	**MR203-80/4a** **NR203-80/4a**	1,60	31 33	105	MR117 NR117
	20 24 28 31 33 39 46 54	243 203 175 162 151 128 107 92	**69,16** **57,76** **49,81** **45,90** **42,87** **36,24** **30,26** **26,10**	4048 3963 3879 3827 3782 3664 3530 3416	0,8 1,0 1,1 1,2 1,3 1,6 1,9 2,2	**MR173-80/4a** **NR173-80/4a**	1,60	20 22	104	MR118 NR118
	67 77	75 66	**20,92** **18,28**	3576 3428	2,7 3,0	**MR172-80/4a** **NR172-80/4a**	1,60	19 21	104	MR119 NR119
	28 31 34 40 43 48 56 64 68 81	178 157 147 124 114 104 88 78 72 61	**50,51** **44,60** **41,66** **35,21** **32,25** **29,40** **24,86** **21,96** **20,51** **17,33**	2435 2420 2408 2368 2342 2312 2189 2147 2122 2056	0,8 0,9 1,0 1,1 1,2 1,3 1,5 1,5 1,7 1,8	**MR103-80/4a** **NR103-80/4a**	1,60	20 21	103	MR120 NR120
	88 99 106 126 137 151 175 202	57 51 47 40 37 33 29 25	**15,95** **14,08** **13,15** **11,12** **10,18** **9,29** **8,01** **6,93**	2061 2004 1972 1894 1852 1809 1740 1657	2,0 2,2 2,2 2,5 2,7 2,8 3,1 3,6	**MR102-80/4a** **NR102-80/4a**	1,60	19 20	103	MR121 NR121
	44 49 58 66 68 73 77 83 95 103	112 100 85 75 73 68 64 60 52 48	**32,02** **28,38** **24,13** **21,26** **20,66** **19,17** **18,20** **16,89** **14,67** **13,61**	681 853 1085 1169 1257 1324 1315 1372 1392 1433	0,7 0,8 1,0 1,1 1,1 1,2 1,3 1,4 1,6 1,7	**MR003-80/4a** **NR003-80/4a**	1,60	16 17	102	MR122 NR122
	126 142 161 166 179 188	40 35 31 30 28 27	**11,14** **9,87** **8,70** **8,45** **7,84** **7,45**	1789 1774 1741 1762 1753 1724	1,6 2,2 2,4 2,4 2,6 2,7	**MR002-80/4a** **NR002-80/4a**	1,60	14 15	102	MR123 NR123

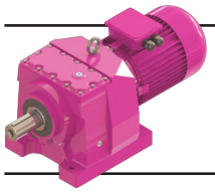


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,55 0,75	203 233 251 307 359 387	25 22 20 16 14 13	**6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	1712 1658 1643 1535 1502 1485	2,8 3,1 3,2 3,5 3,9 4,0	**MR002-80/4a** **NR002-80/4a**	1,60	14 15	102	MR123 NR123
	405 467 503 615 718 774	12 11 10 8 7 6	**6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	1488 1416 1378 1288 1218 1185	4,0 4,0 4,0 4,0 4,0 4,0	**MR002-71/2b** **NR002-71/2b**	1,27	14 15	102	MR124 NR124
0,75 1,0	0,26 0,31 0,33 0,39 0,49	23877 19987 18896 16089 12737	**5357,43** **4474,67** **4227,50** **3594,81** **2836,64**	39308 81469 89168 105912 121560	0,8 0,9 1,0 1,1 1,4	**MR976-80/4b** **NR976-80/4b**	2,00	1090 1140	131	MR367 NR367
	0,69 0,77 0,90 1,0 1,2	9288 8345 7109 6272 5568	**2027,97** **1820,78** **1552,10** **1368,27** **1213,85**	134374 137427 141175 143560 145470	1,9 2,2 2,5 2,9 3,2	**MR975-80/4b** **NR975-80/4b**	2,00	1088 1138	131	MR368 NR368
	0,41 0,48 0,57 0,66	15291 12887 10977 9422	**3441,02** **2894,28** **2460,65** **2108,33**	56525 73120 83131 90089	0,9 1,0 1,2 1,4	**MR876-80/4b** **NR876-80/4b**	2,00	605 610	128	MR125 NR125
	0,73 0,82 0,92 1,0 1,2 1,3 1,5 1,7	8774 7766 6950 6113 5542 4795 4191 3700	**1924,32** **1700,56** **1521,55** **1336,15** **1210,51** **1049,18** **915,85** **807,91**	92488 96088 99023 101682 103390 105498 107102 108336	1,5 1,7 1,9 2,1 2,3 2,7 3,1 3,5	**MR875-80/4b** **NR875-80/4b**	2,00	602 607	128	MR126 NR126
	0,78 0,88 0,99 1,1 1,2 1,4	8152 7237 6456 5715 5115 4500	**1791,91** **1589,68** **1417,41** **1252,60** **1120,74** **984,18**	48294 51743 54336 56638 58321 59919	1,0 1,1 1,2 1,4 1,6 1,8	**MR775-80/4b** **NR775-80/4b**	2,00	257 315	125	MR433 NR433
	1,5 1,7 1,9 2,2	4341 3885 3417 3060	**594,92** **532,29** **467,43** **418,17**	60314 61398 62443 63197	1,8 2,1 2,3 2,6	**MR774-90S/6** **NR774-90S/6**	2,10	237 295	124	MR434 NR434
	2,4 2,6 3,0 3,3	2790 2497 2197 1967	**594,92** **532,29** **467,43** **418,17**	63743 64311 64965 65392	2,9 3,2 3,6 4,0	**MR774-80/4b** **NR774-80/4b**	2,00	227 280	124	MR435 NR435

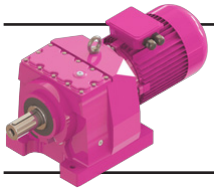


Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,75 1,0	1,4 1,6	4544 3998	**995,91** **874,56**	24906 28088	0,9 1,1	**MR675-80/4b** **NR675-80/4b**	2,00	238 249	122	MR436 NR436
	1,8 2,0 2,4 2,8 3,2 3,7 4,3 5,0 5,7 6,5	3650 3231 2749 2346 2077 1767 1521 1322 1157 1018	**500,39** **442,20** **376,69** **500,39** **442,20** **376,69** **323,82** **281,02** **245,67** **215,97**	29829 31780 33755 35205 36070 37069 37783 38332 38767 39119	1,2 1,3 1,6 1,8 2,1 2,4 2,8 3,3 3,7 4,0	**MR674-90S/6** **NR674-90S/6**	2,10	225 235	121	MR437 NR437
	2,2	2937	**402,12**	20175	1,0	**MR574-90S/6** **NR574-90S/6**	2,10	141 137	118	MR438 NR438
	2,4 2,9 3,5 4,1 4,6 4,8 5,4 6,3 7,2 8,2 9,7	2689 2276 1888 1616 1420 1369 1218 1043 916 811 684	**574,90** **485,89** **402,12** **343,91** **301,59** **291,25** **258,87** **221,40** **194,15** **171,64** **144,37**	21627 23740 25403 26434 27120 27289 27779 28324 28687 28986 29323	1,1 1,3 1,6 1,9 2,1 2,2 2,5 2,9 3,3 3,7 4,0	**MR574-80/4b** **NR574-80/4b**	2,00	135 132	118	MR439 NR439
	3,3 4,0	1962 1627	**418,16** **346,07**	6733 14344	0,8 1,0	**MR474-80/4b** **NR474-80/4b**	2,00	135 139	115	MR134 NR134
	4,1 4,6 5,7	1628 1442 1176	**219,00** **194,05** **157,90**	14337 16984 19975	1,0 1,1 1,3	**MR473-90S/6** **NR473-90S/6**	2,10	94 97	114	MR135 NR135
	6,4 7,2 8,9 10 11 13 15	1050 930 759 671 600 528 442	**219,00** **194,05** **157,90** **139,54** **124,85** **109,64** **91,58**	21139 22135 23453 23247 22545 21737 20645	1,5 1,7 2,0 2,3 2,6 2,9 3,5	**MR473-80/4b** **NR473-80/4b**	2,00	92 95	114	MR136 NR136
	6,5 8,1	1030 830	**138,72** **111,67**	7343 11533	0,8 1,0	**MR373-90S/6** **NR373-90S/6**	2,10	55 57	111	MR137 NR137
	8,9 10 13 14 16 19 23 26 29	755 665 536 470 416 350 298 256 232	**157,76** **138,72** **111,67** **97,92** **86,57** **72,81** **61,91** **53,04** **48,00**	12435 12134 11596 11259 10938 10483 10057 9654 9397	1,1 1,2 1,5 1,7 2,0 2,3 2,7 3,2 3,5	**MR373-80/4b** **NR373-80/4b**	2,00	51 53	111	MR138 NR138



Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,75 1,0	9,2	726	**97,62**	6265	0,8	**MR283-90S/6** **NR283-90S/6**	2,10	42 44	108	MR139 NR139
	10 12 14 16 18 22 26 30 33	661 548 469 411 364 307 261 224 203	**137,91** **114,14** **97,62** **85,60** **75,68** **63,65** **54,12** **46,37** **41,96**	7990 9297 9035 8802 8575 8247 7934 7635 7442	0,9 1,1 1,3 1,5 1,6 2,0 2,3 2,5 2,7	**MR283-80/4b** **NR283-80/4b**	2,00	41 45	108	MR140 NR140
	12 13 15 17 19 23 28 33 38 46	581 545 463 403 353 292 244 205 177 148	**121,03** **113,52** **96,52** **83,83** **73,35** **60,66** **50,59** **42,41** **36,55** **30,48**	5.409 5.715 6.349 6.758 7.043 7.306 7.429 7.128 6.746 6.312	0,8 0,8 1,0 1,1 1,3 1,5 1,8 2,2 2,5 3,1	**MR273-80/4b** **NR273-80/4b**	2,00	32 34	106	MR141 NR141
	21 24 25 30 32 34 39 49 57 60	327 286 268 228 212 199 174 136 119 112	**68,03** **59,43** **55,74** **47,39** **43,94** **41,16** **36,02** **28,35** **24,77** **23,23**	6609 6451 6373 6167 6067 5980 5800 6628 6297 6147	0,9 1,0 1,0 1,2 1,3 1,4 1,6 2,1 2,3 2,4	**MR203-80/4b** **NR203-80/4b**	2,00	30 32	105	MR142 NR142
	61 70 74 87	112 98 92 78	**23,01** **20,10** **18,85** **16,03**	6034 5744 5612 5293	2,5 2,6 2,8 3,1	**MR202-80/4b** **NR202-80/4b**	2,00	30 31	105	MR143 NR143
	28 31 33 39 46 54	240 221 206 174 146 126	**49,81** **45,90** **42,87** **36,24** **30,26** **26,10**	3506 3484 3462 3394 3304 3221	0,8 0,9 1,0 1,1 1,4 1,6	**MR173-80/4b** **NR173-80/4b**	2,00	20 21	104	MR144 NR144
	67 77 82 96 111 126	102 90 84 71 62 54	**20,92** **18,28** **17,14** **14,57** **12,66** **11,08**	3529 3388 3323 3162 3027 2903	2,0 2,2 2,4 2,7 3,1 3,3	**MR172-80/4b** **NR172-80/4b**	2,00	20 22	104	MR145 NR145
	40 43 48 56 64	170 156 142 120 106	**35,21** **32,25** **29,40** **24,86** **21,96**	2088 2086 2078 1969 1952	0,8 0,9 1,0 1,1 1,1	**MR103-80/4b** **NR103-80/4b**	2,00	19 22	103	MR146 NR146



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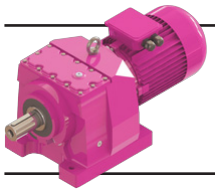
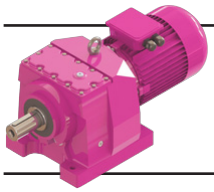
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
0,75 1,0	68 81	99 84	**20,51** **17,33**	1940 1903	1,2 1,3	**MR103-80/4b** **NR103-80/4b**	2,00	19 22	103	MR146 NR146
	88 99 106 126 137 151 175 202 216 256 279 306	78 69 64 55 50 46 39 34 32 27 25 22	**15,95** **14,08** **13,15** **11,12** **10,18** **9,29** **8,01** **6,93** **6,48** **5,47** **5,01** **4,57**	1934 1892 1868 1805 1772 1735 1677 1596 1570 1506 1472 1437	1,5 1,6 1,6 1,8 2,0 2,1 2,3 2,6 2,7 3,0 3,2 3,3	**MR102-80/4b** **NR102-80/4b**	2,00	19 20	103	MR147 NR147
	58 66 68 73 77 83 95 103	116 102 100 92 88 81 71 66	**24,13** **21,26** **20,66** **19,17** **18,20** **16,89** **14,67** **13,61**	203 370 502 624 631 738 817 899	0,7 0,8 0,8 0,9 0,9 1,0 1,2 1,2	**MR003-80/4b** **NR003-80/4b**	2,00	16 17	102	MR148 NR148
	126 142 161 166 179 188 203 233 251 307 359 387	54 48 43 41 38 36 34 29 27 22 19 18	**11,14** **9,87** **8,70** **8,45** **7,84** **7,45** **6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	1453 1471 1466 1503 1512 1488 1493 1458 1458 1361 1353 1346	1,2 1,6 1,7 1,8 1,9 1,9 2,0 2,2 2,3 2,6 2,9 3,0	**MR002-80/4b** **NR002-80/4b**	2,00	16 17	102	MR149 NR149
	405 467 503 615 718 774	17 15 14 11 10 9	**6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	1426 1377 1361 1272 1236 1202	3,2 3,5 3,7 4,0 4,0 4,0	**MR002-80/2a** **NR002-80/2a**	1,80	17 18	102	MR150 NR150
1,1 1,5	0,39 0,49	23598 18682	**3594,81** **2836,64**	43789 90609	0,8 1,0	**MR976-90S/4** **NR976-90S/4**	2,60	1092 1142	131	MR369 NR369
	0,69 0,77 0,90 1,0 1,2 1,3 1,5 1,7	13622 12239 10426 9199 8167 7287 6173 5684	**2027,97** **1820,78** **1552,10** **1368,27** **1213,85** **1082,31** **914,74** **842,80**	117785 123364 130549 134670 137984 140653 143832 145160	1,3 1,5 1,7 2,0 2,2 2,5 2,9 3,2	**MR975-90S/4** **NR975-90S/4**	2,60	1090 1140	131	MR370 NR370
	0,73 0,82	12868 11390	**1924,32** **1700,56**	73232 81134	1,0 1,1	**MR875-90S/4** **NR875-90S/4**	2,60	595 600	128	MR151 NR151

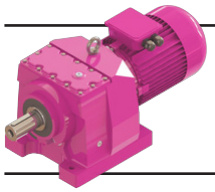


Güç *Power* Leistung **P_g [kW]** P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
1,1 1,5	0,92 1,0 1,2 1,3 1,5 1,7 1,9 2,2 2,6	10193 8966 8129 7033 6146 5427 4832 4332 3627	**1521,55** **1336,15** **1210,51** **1049,18** **915,85** **807,91** **718,74** **643,84** **537,75**	86705 91754 94838 98746 101581 103725 105398 106736 108515	1,3 1,4 1,6 1,8 2,1 2,4 2,7 3,0 3,6	**MR875-90S/4** **NR875-90S/4**	2,60	595 600	128	MR151 NR151
	1,1 1,2 1,4	8382 7502 6601	**1252,60** **1120,74** **984,18**	47349 50776 53879	1,0 1,1 1,2	**MR775-90S/4** **NR775-90S/4**	2,60	333 403	125	MR440 NR440
	1,5 1,7 1,9 2,2	6366 5698 5012 4488	**594,92** **532,29** **467,43** **418,17**	54616 56689 58598 59949	1,3 1,4 1,6 1,8	**MR774-90L/6** **NR774-90L/6**	3,00	306 372	124	MR441 NR441
	2,4 2,6 3,0 3,3 3,9 4,5 5,1	4093 3663 3222 2885 2492 2161 1893	**594,92** **532,29** **467,43** **418,17** **361,62** **313,11** **273,85**	60912 61903 62860 63553 64321 65032 65528	2,0 2,2 2,5 2,8 3,2 3,7 4,0	**MR774-90S/4** **NR774-90S/4**	2,60	300 366	124	MR442 NR442
	2,0 2,4	4738 4031	**442,20** **376,69**	23566 27909	0,9 1,1	**MR674-90L/6** **NR674-90L/6**	3,00	230 240	121	MR443 NR443
	2,8 3,2 3,7 4,3 5,0 5,7 6,5	3441 3046 2591 2231 1939 1697 1493	**500,39** **442,20** **376,69** **323,82** **281,02** **245,67** **215,97**	30857 32534 34344 35584 36545 37277 37861	1,2 1,4 1,7 1,9 2,2 2,5 2,9	**MR674-90S/4** **NR674-90S/4**	2,60	225 235	121	MR444 NR444
	3,5 4,1 4,6 4,8 5,4 6,3 7,2 8,2 9,7	2769 2370 2082 2008 1787 1529 1344 1190 1003	**402,12** **343,91** **301,59** **291,25** **258,87** **221,40** **194,15** **171,64** **144,37**	21171 23264 24576 24890 25783 26748 27372 27871 28436	1,1 1,3 1,4 1,5 1,7 2,0 2,2 2,5 3,0	**MR574-90S/4** **NR574-90S/4**	2,60	146 142	118	MR445 NR445
	5,7	1727	**157,90**	12637	0,9	**MR473-90L/6** **NR473-90L/6**	3,00	94 96	114	MR159 NR159
	6,4 7,2 8,9 10 11	1541 1365 1113 985 881	**219,00** **194,05** **157,90** **139,54** **124,85**	15655 17922 20563 21700 21675	1,0 1,1 1,4 1,6 1,8	**MR473-90S/4** **NR473-90S/4**	2,60	92 94	114	MR160 NR160



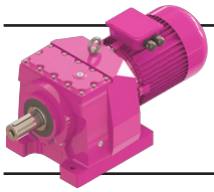
Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
1,1 1,5	13 15 16	775 648 613	**109,64** **91,58** **86,52**	20973 20007 19705	2,0 2,4 2,5	**MR473-90S/4** **NR473-90S/4**	2,60	92 94	114	MR160 NR160
	10 13 14 16 19 23 26 29	976 786 690 611 514 438 376 340	**138,72** **111,67** **97,92** **86,57** **72,81** **61,91** **53,04** **48,00**	8775 10669 10446 10219 9879 9543 9214 8999	0,8 1,0 1,2 1,3 1,6 1,9 2,2 2,4	**MR373-90S/4** **NR373-90S/4**	2,60	53 56	111	MR161 NR161
	39 44	260 230	**23,33** **20,62**	9769 9343	3,1 3,6	**MR372-90L/6** **NR372-90L/6**	3,00	56 60	111	MR162 NR162
	14 16 18 22 26 30 33	688 604 534 450 383 329 298	**97,62** **85,60** **75,68** **63,65** **54,12** **46,37** **41,96**	7332 8018 7882 7664 7439 7210 7057	0,9 1,0 1,1 1,3 1,6 1,7 1,8	**MR283-90S/4** **NR283-90S/4**	2,60	45 49	108	MR163 NR163
	36 42	281 241	**25,23** **21,66**	8599 8127	2,1 2,4	**MR282-90L/6** **NR282-90L/6**	3,00	44 48	108	MR164 NR164
	46 55 65	218 181 156	**30,37** **25,23** **21,66**	7824 7312 6919	2,6 2,9 3,2	**MR282-90S/4** **NR282-90S/4**	2,60	45 48	108	MR165 NR165
	17 19 23 28 33 38 46	591 518 429 358 301 259 216	**83,83** **73,35** **60,66** **50,59** **42,41** **36,55** **30,48**	3.440 4.140 4.905 5.426 5.775 5.969 6.107	0,8 0,9 1,0 1,3 1,5 1,7 2,1	**MR273-90S/4** **NR273-90S/4**	2,60	35 37	106	MR166 NR166
	54 65 76	186 154 132	**25,89** **21,43** **18,33**	6.058 5.648 5.333	2,4 2,9 3,4	**MR272-90S/4** **NR272-90S/4**	2,60	36 38	106	MR167 NR167
	30 32 34 39 49 57 60	335 311 291 255 200 175 164	**47,39** **43,94** **41,16** **36,02** **28,35** **24,77** **23,23**	5640 5579 5523 5400 5528 5715 5781	0,8 0,9 1,0 1,1 1,4 1,6 1,6	**MR203-90S/4** **NR203-90S/4**	2,60	34 37	105	MR168 NR168
	61 70 74 87 94 101	165 144 135 115 107 100	**23,01** **20,10** **18,85** **16,03** **14,86** **13,92**	6170 5863 5724 5389 5240 5116	1,7 1,8 1,9 2,1 2,2 2,3	**MR202-90S/4** **NR202-90S/4**	2,60	36 38	105	MR169 NR169



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
1,1 1,5	115 130 139 167	88 78 73 61	**12,18** **10,81** **10,07** **8,40**	4872 4664 4547 4260	2,6 2,8 2,9 3,3	**MR202-90S/4** **NR202-90S/4**	2,60	36 38	105	MR169 NR169
	39 46 54	256 214 185	**36,24** **30,26** **26,10**	2920 2908 2879	0,8 0,9 1,1	**MR173-90S/4** **NR173-90S/4**	2,60	25 27	104	MR170 NR170
	67 77 82 96 111 126 147 157 184 212 242	150 131 123 105 91 80 69 65 55 48 42	**20,92** **18,28** **17,14** **14,57** **12,66** **11,08** **9,53** **8,94** **7,60** **6,60** **5,78**	3430 3306 3248 3101 2976 2861 2703 2652 2526 2420 2322	1,3 1,5 1,6 1,9 2,1 2,3 2,5 2,6 2,9 3,0 3,2	**MR172-90S/4** **NR172-90S/4**	2,60	24 25	104	MR171 NR171
	56 64 68 81	176 155 145 123	**24,86** **21,96** **20,51** **17,33**	1584 1612 1622 1634	0,7 0,8 0,8 0,9	**MR103-90S/4** **NR103-90S/4**	2,60	24 26	103	MR172 NR172
	88 99 106 126 137 151 175 202 216 256 279 306 355	115 101 95 80 73 67 58 50 47 39 36 33 28	**15,95** **14,08** **13,15** **11,12** **10,18** **9,29** **8,01** **6,93** **6,48** **5,47** **5,01** **4,57** **3,94**	1712 1696 1685 1651 1630 1606 1565 1488 1469 1421 1395 1366 1321	1,0 1,1 1,1 1,2 1,4 1,4 1,6 1,8 1,8 2,0 2,2 2,3 2,5	**MR102-90S/4** **NR102-90S/4**	2,60	25 26	103	MR173 NR173
	404 432 512	25 23 20	**6,93** **6,48** **5,47**	1280 1259 1206	2,8 3,0 3,3	**MR102-80/2b** **NR102-80/2b**	2,40	23 24	103	MR174 NR174
	95 103	104 96	**14,67** **13,61**	- -	0,8 0,8	**MR003-90S/4** **NR003-90S/4**	2,60	19 20	102	MR175 NR175
	126 142 161 166 179 188 203 233 251 307 359 387	80 71 62 61 56 54 50 43 40 33 28 26	**11,14** **9,87** **8,70** **8,45** **7,84** **7,45** **6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	864 941 984 1050 1091 1076 1111 1109 1133 1056 1092 1104	0,8 1,1 1,2 1,2 1,3 1,3 1,4 1,5 1,6 1,8 2,0 2,0	**MR002-90S/4** **NR002-90S/4**	2,60	19 20	102	MR176 NR176



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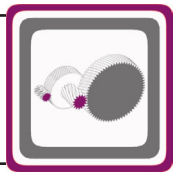
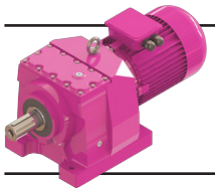
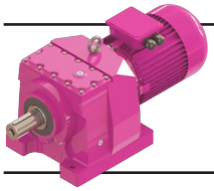


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
1,1 1,5	405 467 503 615 718 774	25 22 20 16 14 13	**6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	1235 1203 1199 1120 1108 1100	2,2 2,4 2,5 2,8 3,1 3,2	**MR002-80/2b** **NR002-80/2b**	2,40	16 18	102	MR177 NR177
1,5 2,0	0,69 0,77 0,90 1,0 1,2 1,3 1,5 1,7 1,9 2,1 2,4	18576 16689 14217 12544 11136 9936 8418 7751 6913 6117 5446	**2027,97** **1820,78** **1552,10** **1368,27** **1213,85** **1082,31** **914,74** **842,80** **750,24** **662,54** **588,87**	91307 102672 115114 122357 127825 132362 137195 139260 141742 143988 145792	1,0 1,1 1,3 1,4 1,6 1,8 2,1 2,3 2,6 2,9 3,3	**MR975-90L/4** **NR975-90L/4**	3,50	1026 1076	131	MR371 NR371
	0,82 0,92 1,0 1,2 1,3 1,5 1,7	15532 13899 12226 11085 9591 8381 7400	**1700,56** **1521,55** **1336,15** **1210,51** **1049,18** **915,85** **807,91**	54554 66871 76816 82618 89262 93938 97508	0,8 0,9 1,1 1,2 1,4 1,6 1,8	**MR875-90L/4** **NR875-90L/4**	3,50	590 595	128	MR178 NR178
	2,0 2,3 2,6 3,1 3,8	6521 5718 5067 4292 3523	**446,42** **390,74** **345,67** **292,15** **239,61**	100411 102874 104749 106840 108766	2,0 2,3 2,6 3,0 3,7	**MR874-100L/6** **NR874-100L/6**	3,50	583 588	127	MR179 NR179
	1,5 1,7 1,9 2,2	8681 7769 6834 6121	**594,92** **532,29** **467,43** **418,17**	46075 49868 53117 55359	0,9 1,0 1,2 1,3	**MR774-100L/6** **NR774-100L/6**	3,50	319 390	124	MR446 NR446
	2,4 2,6 3,0 3,3 3,9 4,5 5,1 5,8 6,5	5581 4995 4394 3935 3398 2947 2581 2278 2023	**594,92** **532,29** **467,43** **418,17** **361,62** **313,11** **273,85** **241,42** **214,17**	57026 58645 60184 61282 62484 63429 64151 64811 65289	1,4 1,6 1,8 2,0 2,4 2,7 3,1 3,5 4,0	**MR774-90L/4** **NR774-90L/4**	3,50	313 380	124	MR447 NR447
	2,8 3,2 3,7 4,3 5,0 5,7 6,5	4692 4154 3534 3042 2644 2314 2036	**500,39** **442,20** **376,69** **323,82** **281,02** **245,67** **215,97**	23872 27234 30429 32549 34150 35313 36194	0,9 1,0 1,2 1,4 1,6 1,9 2,1	**MR674-90L/4** **NR674-90L/4**	3,50	232 243	121	MR448 NR448



Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
1,5 2,0	4,1 4,6	3232 2839	**343,91** **301,59**	18265 20766	0,9 1,1	**MR574-90L/4** **NR574-90L/4**	3,50	148 132	118	MR449 NR449
	5,4 5,9 6,7 7,6 9,0 11 12 14 16 18	2493 2288 2005 1776 1503 1233 1090 970 822 733	**167,32** **153,61** **134,45** **118,95** **100,53** **82,45** **72,81** **64,72** **54,74** **48,74**	22643 23689 24912 25824 26829 27756 28181 28500 28954 29184	1,2 1,3 1,5 1,7 2,0 2,4 2,8 3,1 3,7 4,0	**MR573-100L/6** **NR573-100L/6**	3,50	136 132	117	MR450 NR450
	7,2 8,9 10 11 13 15 16	1864 1520 1344 1203 1058 885 836	**194,05** **157,90** **139,54** **124,85** **109,64** **91,58** **86,52**	9664 15941 18160 19686 20100 19278 19016	0,8 1,0 1,2 1,3 1,5 1,8 1,9	**MR473-90L/4** **NR473-90L/4**	3,50	95 97	114	MR188 NR188
	18 20 22 26	758 671 600 528	**157,90** **139,54** **124,85** **109,64**	18593 18022 17509 16915	2,0 2,3 2,6 2,9	**MR473-90S/2** **NR473-90S/2**	3,30	94 96	114	MR189 NR189
	14 16 19 23 26 29	942 833 702 598 513 464	**97,92** **86,57** **72,81** **61,91** **53,04** **48,00**	9517 9398 9188 8956 8711 8543	0,9 1,0 1,2 1,4 1,6 1,8	**MR373-90L/4** **NR373-90L/4**	3,50	56 59	111	MR190 NR190
	39 44 49 56	355 314 281 247	**23,33** **20,62** **18,45** **16,20**	9919 9476 9097 8676	2,3 2,6 2,9 3,3	**MR372-100L/6** **NR372-100L/6**	3,50	58 60	111	MR191 NR191
	60 68 76	229 203 181	**23,33** **20,62** **18,45**	8437 8069 7753	3,5 3,8 4,0	**MR372-90L/4** **NR372-90L/4**	3,50	55 57	111	MR192 NR192
	18 22 26 30 33	729 614 523 449 406	**75,68** **63,65** **54,12** **46,37** **41,96**	6130 6998 6872 6725 6618	0,8 1,0 1,1 1,3 1,4	**MR283-90L/4** **NR283-90L/4**	3,50	47 49	108	MR193 NR193
	36 42	384 329	**25,23** **21,66**	8499 8280	1,6 1,8	**MR282-100L/6** **NR282-100L/6**	3,50	51 53	108	MR194 NR194
	46 55 65 73 83	297 247 212 187 166	**30,37** **25,23** **21,66** **19,06** **16,91**	7962 7428 7020 6698 6412	1,9 2,1 2,4 2,6 2,8	**MR282-90L/4** **NR282-90L/4**	3,50	46 48	108	MR195 NR195



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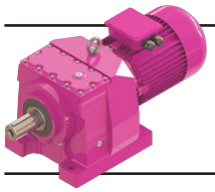
Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
1,5 2,0	98	141	**14,31**	6035	3,1	**MR282-90L/4** **NR282-90L/4**	3,50	46 48	108	MR195 NR195
	23 28 33 38 46	585 489 410 354 295	**60,66** **50,59** **42,41** **36,55** **30,48**	2.161 3.138 3.857 4.316 4.728	0,8 0,9 1,1 1,3 1,5	**MR273-90L/4** **NR273-90L/4**	3,50	38 40	106	MR196 NR196
	54 65 76 87 99 117	254 211 180 158 140 118	**25,89** **21,43** **18,33** **16,07** **14,21** **11,95**	4.983 5.167 5.246 5.165 4.934 4.630	1,8 2,1 2,5 2,7 2,9 3,3	**MR272-90L/4** **NR272-90L/4**	3,50	37 39	106	MR197 NR197
	39 49 57 60	348 273 239 224	**36,02** **28,35** **24,77** **23,23**	4942 3628 4055 4224	0,8 1,0 1,1 1,2	**MR203-90L/4** **NR203-90L/4**	3,50	38 39	105	MR198 NR198
	61 70 74 87 94 101 115 130 139 167 199 241	225 197 185 157 146 137 120 106 99 83 69 57	**23,01** **20,10** **18,85** **16,03** **14,86** **13,92** **12,18** **10,81** **10,07** **8,40** **7,04** **5,80**	5187 5358 5418 5496 5340 5210 4954 4738 4616 4317 4048 3820	1,2 1,3 1,4 1,6 1,6 1,7 1,9 2,0 2,1 2,4 2,7 3,1	**MR202-90L/4** **NR202-90L/4**	3,50	36 38	105	MR199 NR199
	67 77 82 96 111 126 147 157 184 212 242 293 343 414	205 179 168 143 125 109 94 88 75 65 57 47 40 33	**20,92** **18,28** **17,14** **14,57** **12,66** **11,08** **9,53** **8,94** **7,60** **6,60** **5,78** **4,78** **4,09** **3,38**	3291 3192 3143 3018 2908 2804 2642 2596 2481 2382 2290 2164 2049 1934	1,0 1,1 1,2 1,4 1,5 1,7 1,8 1,9 2,1 2,2 2,4 2,8 3,0 3,3	**MR172-90L/4** **NR172-90L/4**	3,50	26 28	104	MR200 NR200
	424 485 586 685 829	32 28 24 20 17	**6,60** **5,78** **4,78** **4,09** **3,38**	1931 1852 1744 1653 1556	3,8 4,0 4,0 4,0 4,0	**MR172-90S/2** **NR172-90S/2**	3,30	26 28	104	MR201 NR201
	99 106 126 137	138 129 109 100	**14,08** **13,15** **11,12** **10,18**	1472 1476 1474 1468	0,8 0,8 0,9 1,0	**MR102-90L/4** **NR102-90L/4**	3,50	25 26	103	MR202 NR202



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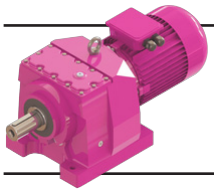
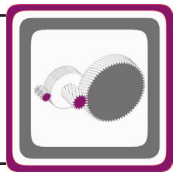
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

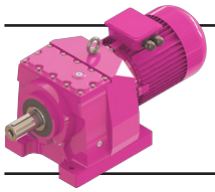
Güç *Power* Leistung P_g [kW] P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
1,5 2,0	151 175 202 216 256 279 306 355	91 79 68 64 54 49 45 39	**9,29** **8,01** **6,93** **6,48** **5,47** **5,01** **4,57** **3,94**	1459 1438 1366 1355 1324 1306 1286 1251	1,0 1,1 1,3 1,3 1,5 1,6 1,7 1,8	**MR102-90L/4** **NR102-90L/4**	3,50	25 26	103	MR202 NR202
	404 432 512 559 613 710	34 32 27 25 22 19	**6,93** **6,48** **5,47** **5,01** **4,57** **3,94**	1219 1202 1158 1134 1109 1070	2,1 2,2 2,4 2,4 2,7 2,8	**MR102-90S/2** **NR102-90S/2**	3,30	24 26	103	MR203 NR203
	142 161 166 179 188 203 233 251 307 359 387	97 85 83 77 73 68 59 55 45 38 36	**9,87** **8,70** **8,45** **7,84** **7,45** **6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	336 433 531 610 604 673 709 763 708 794 828	0,8 0,9 0,9 0,9 1,0 1,0 1,1 1,2 1,3 1,4 1,5	**MR002-90L/4** **NR002-90L/4**	3,50	22 23	102	MR204 NR204
	405 467 503 615 718 774	34 29 27 22 19 18	**6,91** **6,00** **5,57** **4,56** **3,90** **3,62**	1016 1003 1014 945 959 962	1,6 1,8 1,9 2,1 2,3 2,4	**MR002-90S/2** **NR002-90S/2**	3,30	21 23	102	MR205 NR205
2,2 3,0	0,90 1,0 1,2 1,3 1,5 1,7 1,9 2,1 2,4 2,6	20852 18397 16333 14573 12347 11369 10140 8971 7988 7407	**1552,10** **1368,27** **1213,85** **1082,31** **914,74** **842,80** **750,24** **662,54** **588,87** **546,94**	74382 92469 104614 113462 122911 126908 131615 135418 138537 140296	0,9 1,0 1,1 1,2 1,5 1,6 1,8 2,0 2,3 2,4	**MR975-100L/4a** **NR975-100L/4a**	5,10	1110 1160	131	MR372 NR372
	2,7 3,1 3,6	7059 6344 5407	**510,11** **457,99** **390,41**	141319 143358 145895	2,5 2,8 3,3	**MR974-100L/4a** **NR974-100L/4a**	5,10	1125 1175	130	MR373 NR373
	1,2 1,3 1,5 1,7 1,9	16258 14067 12292 10854 9664	**1210,51** **1049,18** **915,85** **807,91** **718,74**	47959 65987 76459 83711 88960	0,8 0,9 1,1 1,2 1,3	**MR875-100L/4a** **NR875-100L/4a**	5,10	615 620	128	MR206 NR206
	2,3 2,6	8386 7431	**390,74** **345,67**	93920 97403	1,6 1,7	**MR874-112M/6** **NR874-112M/6**	5,10	605 610	127	MR207 NR207



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

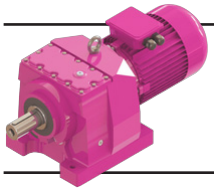


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
2,2 3,0	3,1 3,6 4,1 4,8 5,8	6148 5391 4777 4046 3322	**446,42** **390,74** **345,67** **292,15** **239,61**	101575 103828 105548 107471 109247	2,1 2,4 2,7 3,2 3,9	**MR874-100L/4a** **NR874-100L/4a**	5,10	600 605	127	MR208 NR208
	2,4 2,6 3,0 3,3 3,9 4,5 5,1 5,8 6,5 7,3	8185 7325 6444 5771 4984 4322 3786 3341 2968 2649	**594,92** **532,29** **467,43** **418,17** **361,62** **313,11** **273,85** **241,42** **214,17** **190,96**	48159 51343 54375 56475 58672 60359 61625 62607 63387 64020	1,0 1,1 1,2 1,4 1,6 1,9 2,1 2,4 2,7 3,0	**MR774-100L/4a** **NR774-100L/4a**	5,10	324 397	124	MR451 NR451
	4,6 5,1 6,0 7,3 8,1	4300 3829 3269 2721 2427	**196,61** **174,89** **149,11** **124,07** **110,55**	26433 29022 31639 33858 34930	1,0 1,1 1,3 1,6 1,8	**MR673-112M/6** **NR673-112M/6**	5,10	195 196	120	MR452 NR452
	6,7 7,6	2945 2608	**134,45** **118,95**	20141 22061	1,0 1,2	**MR573-112M/6** **NR573-112M/6**	5,10	143 149	117	MR453 NR453
	8,4 9,1 10 12 14 17 19 22 26 29	2361 2167 1899 1682 1424 1169 1033 919 779 695	**167,32** **153,61** **134,45** **118,95** **100,53** **82,45** **72,81** **64,72** **54,74** **48,74**	23297 24211 25379 26195 24004 27936 28344 27884 26593 25718	1,3 1,4 1,6 1,8 2,1 2,6 2,9 3,3 3,9 4,0	**MR573-100L/4a** **NR573-100L/4a**	5,10	133 139	117	MR454 NR454
	10 11 13 15 16 17 19 22 25 29 33 37 45	1973 1765 1552 1298 1227 1196 1037 905 794 698 609 534 442	**139,54** **124,85** **109,64** **91,58** **86,52** **84,46** **73,09** **63,70** **55,82** **49,05** **42,75** **37,45** **30,93**	6265 11889 15509 18002 17811 17728 17218 16715 16219 15728 15204 14699 13976	0,8 0,9 1,0 1,2 1,3 1,3 1,5 1,7 2,0 2,2 2,5 2,9 3,5	**MR473-100L/4a** **NR473-100L/4a**	5,10	101 104	114	MR218 NR218
	19 23 26 29 34 40 47 55	1030 877 752 681 584 501 420 360	**72,81** **61,91** **53,04** **48,00** **41,16** **35,25** **29,47** **25,27**	7353 7928 7830 7746 7591 7409 7175 6959	0,8 0,9 1,1 1,2 1,4 1,6 1,8 2,0	**MR373-100L/4a** **NR373-100L/4a**	5,10	60 61	111	MR219 NR219

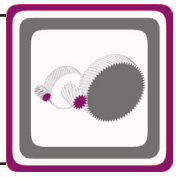


Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

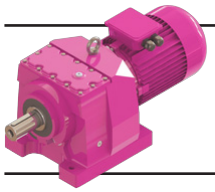
Güç *Power* Leistung **P_g [kW]** P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
2,2 3,0	60 68 76 86 103 112	336 298 266 234 196 180	**23,33** **20,62** **18,45** **16,20** **13,53** **12,48**	8604 8218 7887 7519 7042 6839	2,4 2,6 2,8 3,0 3,4 3,6	**MR372-100L/4a** **NR372-100L/4a**	5,10	59 62	111	MR220 NR220
	26 30 33 39 45	767 658 596 511 438	**54,12** **46,37** **41,96** **35,98** **30,82**	4765 5875 5849 5780 5683	0,8 0,9 0,9 1,0 1,1	**MR283-100L/4a** **NR283-100L/4a**	5,10	53 55	108	MR221 NR221
	55 65 73 83 98 114 132 146 168	363 312 275 244 207 177 153 139 121	**25,23** **21,66** **19,06** **16,91** **14,31** **12,24** **10,57** **9,61** **8,33**	6832 7039 6849 6547 6151 5806 5500 5313 5044	1,5 1,6 1,7 1,9 2,1 2,4 2,7 2,9 3,2	**MR282-100L/4a** **NR282-100L/4a**	5,10	50 54	108	MR222 NR222
	38 46 55	519 434 364	**36,55** **30,48** **25,55**	1423 2315 2976	0,9 1,0 1,2	**MR273-100L/4a** **NR273-100L/4a**	5,10	43 45	106	MR223 NR223
	65 76 87 99 117 138 161 225 265	309 264 232 205 173 147 126 90 77	**21,43** **18,33** **16,07** **14,21** **11,95** **10,16** **8,71** **6,21** **5,28**	3470 3795 3998 4140 4272 4336 4204 3758 3539	1,5 1,7 1,8 2,0 2,3 2,5 2,9 3,7 3,5	**MR272-100L/4a** **NR272-100L/4a**	5,10	41 43	106	MR224 NR224
	57 60	351 329	**24,77** **23,23**	1150 1500	0,8 0,8	**MR203-100L/4a** **NR203-100L/4a**	5,10	41 43	105	MR225 NR225
	70 74 87 94 101 115 130 139 167 199 241 276 311 333 400	289 271 231 214 201 176 156 146 122 102 84 73 65 61 51	**20,10** **18,85** **16,03** **14,86** **13,92** **12,18** **10,81** **10,07** **8,40** **7,04** **5,80** **5,08** **4,50** **4,20** **3,50**	3383 3566 3943 4082 4186 4354 4461 4506 4416 4132 3911 3718 3554 3462 3236	0,9 1,0 1,1 1,1 1,2 1,3 1,4 1,4 1,6 1,8 2,1 2,2 2,3 2,4 2,5	**MR202-100L/4a** **NR202-100L/4a**	5,10	41 43	105	MR226 NR226
	77 82 96	263 247 210	**18,28** **17,14** **14,57**	2933 2909 2834	0,8 0,8 0,9	**MR172-100L/4a** **NR172-100L/4a**	5,10	31 33	104	MR227 NR227



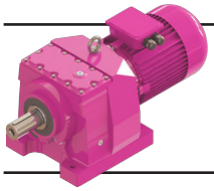
Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren



Güç *Power* Leistung P_g [kW] P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
2,2 3,0	111 126 147 157 184 212 242 293 343 414	183 160 138 129 110 96 84 69 59 49	**12,66** **11,08** **9,53** **8,94** **7,60** **6,60** **5,78** **4,78** **4,09** **3,38**	2759 2680 2514 2479 2387 2305 2226 2113 2000 1895	1,0 1,1 1,2 1,3 1,5 1,5 1,6 1,9 2,0 2,2	**MR172-100L/4a** **NR172-100L/4a**	5,10	31 33	104	MR227 NR227
	424 485 586 685 829	48 42 35 30 25	**6,60** **5,78** **4,78** **4,09** **3,38**	1900 1825 1723 1632 1540	2,6 2,9 3,2 3,4 3,5	**MR172-90L/2** **NR172-90L/2**	4,65	28 30	104	MR228 NR228
3,0 4,0	1,2 1,3 1,5 1,7 1,9 2,1 2,4 2,6	22272 19872 16836 15503 13827 12234 10893 10100	**1213,85** **1082,31** **914,74** **842,80** **750,24** **662,54** **588,87** **546,94**	61087 82275 101851 108936 116879 123385 128620 131761	0,8 0,9 1,1 1,2 1,3 1,5 1,7 1,8	**MR975-100L/4b** **NR975-100L/4b**	6,45	1125 1175	131	MR374 NR374
	2,7 3,1 3,6 4,1 4,6	9627 8651 7374 6508 5780	**510,11** **457,99** **390,41** **344,17** **305,33**	133235 136453 140395 142899 144903	1,9 2,1 2,4 2,8 3,1	**MR974-100L/4b** **NR974-100L/4b**	6,45	1140 1190	130	MR375 NR375
	2,6	10133	**345,67**	86964	1,3	**MR874-132S/6** **NR874-132S/6**	6,90	605 610	127	MR229 NR229
	3,1 3,6 4,1 4,8 5,8 6,6 7,4 8,0 9,5 11 13	8384 7352 6514 5518 4530 4007 3567 3307 2801 2391 2050	**446,42** **390,74** **345,67** **292,15** **239,61** **211,60** **188,08** **174,68** **147,61** **125,70** **107,60**	93930 97675 100430 103462 106213 107571 108661 109282 110614 111557 112313	1,6 1,8 2,0 2,4 2,9 3,2 3,6 3,9 4,0 4,0 4,0	**MR874-100L/4b** **NR874-100L/4b**	6,45	598 603	127	MR230 NR230
	3,3 3,9	7869 6797	**418,17** **361,62**	49511 53242	1,0 1,2	**MR774-100L/4b** **NR774-100L/4b**	6,45	316 385	124	MR455 NR455
	4,3 5,0 6,1 6,8 7,8 9,0 10 12 13	6227 5338 4442 3978 3437 2980 2610 2303 2045	**208,82** **178,78** **148,73** **133,05** **115,06** **99,63** **87,13** **76,81** **68,15**	55042 57711 60064 61182 62400 63361 64096 64763 65248	1,3 1,5 1,8 2,0 2,3 2,7 3,1 3,5 3,9	**MR773-132S/6** **NR773-132S/6**	6,90	300 369	123	MR456 NR456



Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
3,0	6,0	4454	**149,11**	25453	1,0	**MR673-132S/6**	6,90	212	120	MR457
4,0	7,3	3707	**124,07**	29598	1,2	**NR673-132S/6**		214		NR457
	8,1	3306	**110,55**	31505	1,3					
	9,6	2814	**94,17**	33525	1,5					
	11	2423	**80,96**	34947	1,8					
	13	2105	**70,26**	36024	2,0					
	15	1843	**61,42**	36804	2,3					
	17	1622	**53,99**	37216	2,7					
	17	1581	**52,68**	36968	2,7					
	20	1361	**45,29**	35463	3,2					
	23	1183	**39,30**	34080	3,6					
	26	1036	**34,36**	32796	4,0					
	8,4	3221	**167,32**	18287	0,9	**MR573-100L/4b**	6,45	138	117	MR458
	9,1	2957	**153,61**	20056	1,0	**NR573-100L/4b**		132		NR458
	10	2591	**134,45**	22163	1,2					
	12	2295	**118,95**	23633	1,3					
	14	1943	**100,53**	25161	1,5					
	17	1595	**82,45**	26505	1,9					
	19	1410	**72,81**	27143	2,1					
	22	1254	**64,72**	27076	2,4					
	26	1063	**54,74**	25909	2,8					
	29	948	**48,74**	25110	3,2					
	35	778	**39,98**	23769	3,7					
	40	688	**35,31**	22947	4,0					
	45	612	**31,38**	22183	4,0					
	15	1771	**91,58**	11771	0,9	**MR473-100L/4b**	6,45	103	114	MR239
	16	1674	**86,52**	13603	0,9	**NR473-100L/4b**		106		NR239
	17	1632	**84,46**	14272	0,9					
	19	1415	**73,09**	16054	1,1					
	22	1234	**63,70**	15700	1,3					
	25	1083	**55,82**	15331	1,4					
	29	952	**49,05**	14948	1,6					
	33	831	**42,75**	14523	1,9					
	37	729	**37,45**	14103	2,1					
	41	676	**22,15**	13834	2,3	**MR472-132S/6**	6,90	105	114	MR240
	48	572	**18,72**	13286	2,7	**NR472-132S/6**		108		NR240
	52	527	**17,25**	13018	2,8					
	59	469	**15,35**	12638	3,0					
	26	1026	**53,04**	6824	0,8	**MR373-100L/4b**	6,45	63	111	MR241
	29	929	**48,00**	6835	0,9	**NR373-100L/4b**		66		NR241
	34	796	**41,16**	6810	1,0					
	40	683	**35,25**	6740	1,1					
	47	573	**29,47**	6616	1,3					
	55	491	**25,27**	6479	1,4					
	60	459	**23,33**	8211	1,8	**MR372-100L/4b**	6,45	61	111	MR242
	68	406	**20,62**	8382	1,9	**NR372-100L/4b**		63		NR242
	76	363	**18,45**	8035	2,0					
	86	319	**16,20**	7651	2,2					
	103	267	**13,53**	7153	2,5					
	112	246	**12,48**	6942	2,6					
	130	213	**10,80**	6582	2,9					
	149	186	**9,41**	6259	3,2					
	170	163	**8,25**	5965	3,4					



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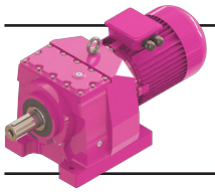
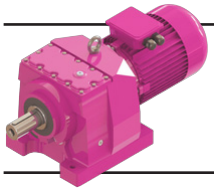
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
3,0 4,0	45	598	**30,82**	5037	0,8	**MR283-100L/4b** **NR283-100L/4b**	6,45	55 57	108	MR243 NR243
	55	496	**25,23**	4672	1,1	**MR282-100L/4b**	6,45	53	108	MR244
	65	425	**21,66**	5186	1,2	**NR282-100L/4b**		55		NR244
	73	375	**19,06**	5514	1,3					
	83	333	**16,91**	5748	1,4					
	98	282	**14,31**	5978	1,6					
	114	242	**12,24**	5916	1,7					
	132	209	**10,57**	5597	2,0					
	146	190	**9,61**	5402	2,1					
	168	165	**8,33**	5121	2,4					
	194	143	**7,21**	4856	2,6					
	224	123	**6,25**	4675	2,9					
	262	106	**5,35**	4412	3,0					
	303	91	**4,62**	4179	3,1					
	333	83	**4,20**	4037	3,1					
	385	72	**3,64**	3831	3,3					
	55	497	**25,55**	664	0,9	**MR273-100L/4b** **NR273-100L/4b**	6,45	45 47	106	MR245 NR245
	65	422	**21,43**	1.532	1,1	**MR272-100L/4b**	6,45	44	106	MR246
	76	361	**18,33**	2.137	1,2	**NR272-100L/4b**		46		NR246
	87	317	**16,07**	2.544	1,3					
	99	280	**14,21**	2.855	1,5					
	117	236	**11,95**	3.190	1,7					
	138	201	**10,16**	3.416	1,9					
	161	172	**8,71**	3.565	2,1					
	225	123	**6,21**	3.439	2,7					
	265	105	**5,28**	3.490	2,5					
	309	90	**4,53**	3.401	2,6					
	87	315	**16,03**	2143	0,8	**MR202-100L/4b**	6,45	44	105	MR247
	94	293	**14,86**	2413	0,8	**NR202-100L/4b**		46		NR247
	101	274	**13,92**	2622	0,9					
	115	240	**12,18**	2986	0,9					
	130	213	**10,81**	3247	1,0					
	139	199	**10,07**	3375	1,1					
	167	166	**8,40**	3632	1,2					
	199	139	**7,04**	3795	1,3					
	241	114	**5,80**	3420	1,5					
	276	100	**5,08**	3509	1,6					
	311	89	**4,50**	3560	1,7					
	333	83	**4,20**	3536	1,7					
	400	69	**3,50**	3299	1,8					
	483	57	**5,80**	3072	2,4	**MR202-100L/2**	6,00	42	105	MR248
	552	50	**5,08**	2923	2,5	**NR202-100L/2**		44		NR248
	622	44	**4,50**	2796	2,7					
	667	41	**4,20**	2724	2,8					
	800	35	**3,50**	2549	2,9					
	111	249	**12,66**	2537	0,8	**MR172-100L/4b**	6,45	34	104	MR249
	126	218	**11,08**	2501	0,8	**NR172-100L/4b**		35		NR249
	147	188	**9,53**	2332	0,9					
	157	176	**8,94**	2313	0,9					
	184	150	**7,60**	2256	1,1					
	212	130	**6,60**	2197	1,1					
	242	114	**5,78**	2137	1,2					



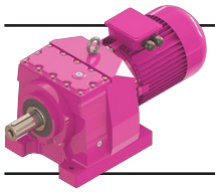
Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
3,0 4,0	293 343 414	95 81 67	**4,78** **4,09** **3,38**	2045 1934 1844	1,4 1,5 1,6	**MR172-100L/4b** **NR172-100L/4b**	6,45	34 35	104	MR249 NR249
	424 485 586 685 829	65 57 47 40 33	**6,60** **5,78** **4,78** **4,09** **3,38**	1858 1790 1696 1605 1518	1,9 2,1 2,3 2,5 2,5	**MR172-100L/2** **NR172-100L/2**	6,00	34 35	104	MR250 NR250
4,0 5,5	1,7 1,9 2,1 2,4 2,6	20671 18436 16311 14524 13467	**842,80** **750,24** **662,54** **588,87** **546,94**	75900 92220 104731 113695 118464	0,9 1,0 1,1 1,2 1,3	**MR975-112M/4** **NR975-112M/4**	8,20	1130 1180	131	MR376 NR376
	2,7 3,1 3,6 4,1 4,6 5,1 6,5	12835 11535 9832 8678 7707 6879 5469	**510,11** **457,99** **390,41** **344,17** **305,33** **272,24** **216,03**	121153 126265 132758 136369 139396 141842 145733	1,4 1,6 1,8 2,1 2,3 2,6 3,3	**MR974-112M/4** **NR974-112M/4**	8,20	1180 1230	130	MR377 NR377
	2,6 3,1	13511 11444	**345,67** **292,15**	69362 80864	1,0 1,1	**MR874-132M/6a** **NR874-132M/6a**	9,00	620 625	127	MR251 NR251
	3,6 4,1 4,8 5,8 7,4 8,0	9802 8686 7357 6040 4756 4410	**390,74** **345,67** **292,15** **239,61** **188,08** **174,68**	88382 92818 97657 101906 105605 106532	1,3 1,5 1,8 2,2 2,7 2,9	**MR874-112M/4** **NR874-112M/4**	8,20	616 621	127	MR252 NR252
	8,2 9,0	4395 3982	**110,17** **99,81**	106569 107634	3,0 3,3	**MR873-132M/6a** **NR873-132M/6a**	9,00	585 590	126	MR253 NR253
	4,3 5,0 6,1 6,8 7,8 9,0 10 12 13	8310 7124 5928 5309 4587 3977 3483 3074 2730	**208,82** **178,78** **148,73** **133,05** **115,06** **99,63** **87,13** **76,81** **68,15**	47650 52136 55922 57792 59702 61183 62300 63169 63862	1,0 1,1 1,3 1,5 1,7 2,0 2,3 2,6 2,9	**MR773-132M/6a** **NR773-132M/6a**	9,00	322 390	123	MR459 NR459
	8,0 9,4 11 13	4493 3837 3194 2849	**174,89** **149,11** **124,07** **110,55**	25196 28963 31960 33310	1,0 1,1 1,3 1,5	**MR673-112M/4** **NR673-112M/4**	8,20	217 226	120	MR460 NR460
	15 17 17 20 23	2459 2164 2110 1817 1579	**61,42** **53,99** **52,68** **45,29** **39,30**	34796 36045 35826 34481 33228	1,7 2,0 2,0 2,4 2,7	**MR673-132M/6a** **NR673-132M/6a**	9,00	217 225	120	MR461 NR461



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
4,0 5,5	26 30	1382 1217	**34,36** **30,20**	32051 30938	3,1 3,5	**MR673-132M/6a** **NR673-132M/6a**	9,00	217 225	120	MR461 NR461
	12 14 17 19 22 26 29 35 40 45	3062 2592 2127 1880 1673 1417 1265 1037 917 816	**118,95** **100,53** **82,45** **72,81** **64,72** **54,74** **48,74** **39,98** **35,31** **31,38**	19365 22146 24375 25391 26066 25055 24349 23145 22396 21693	1,0 1,2 1,4 1,6 1,8 2,1 2,4 2,8 3,0 3,2	**MR573-112M/4** **NR573-112M/4**	8,20	142 136	117	MR462 NR462
	52 61	710 606	**27,00** **23,02**	20811 19894	3,9 4,4	**MR572-112M/4** **NR572-112M/4**	8,20	135 129	117	MR463 NR463
	19 22 25 29 33 37 45 55	1887 1647 1444 1270 1109 972 805 669	**73,09** **63,70** **55,82** **49,05** **42,75** **37,45** **30,93** **25,67**	9049 14037 14220 13971 13672 13358 12867 12363	0,8 0,9 1,1 1,2 1,4 1,6 1,9 2,3	**MR473-112M/4** **NR473-112M/4**	8,20	115 123	114	MR262 NR262
	63 75 81 91	583 493 454 404	**22,15** **18,72** **17,25** **15,35**	11952 11477 11245 10916	2,5 2,9 2,9 3,1	**MR472-112M/4** **NR472-112M/4**	8,20	108 116	114	MR263 NR263
	40 47 55 65	911 765 655 562	**35,25** **29,47** **25,27** **21,65**	5904 5917 5880 5807	0,9 1,0 1,1 1,2	**MR373-112M/4** **NR373-112M/4**	8,20	69 71	111	MR264 NR264
	68 76 86 103 112 130 149 170 205	542 485 426 356 328 285 248 218 181	**20,62** **18,45** **16,20** **13,53** **12,48** **10,80** **9,41** **8,25** **6,84**	6315 6666 6983 7282 7067 6691 6355 6050 5693	1,4 1,5 1,7 1,9 2,0 2,2 2,4 2,6 3,1	**MR372-112M/4** **NR372-112M/4**	8,20	69 72	111	MR265 NR265
	73 83 98 114 132 146 168 194 224 262 303 333 385	500 444 376 322 279 254 220 190 165 141 122 111 96	**19,06** **16,91** **14,31** **12,24** **10,57** **9,61** **8,33** **7,21** **6,25** **5,35** **4,62** **4,20** **3,64**	3474 3939 4447 4796 5032 5144 5215 4938 4769 4493 4249 4101 3887	1,0 1,1 1,2 1,3 1,5 1,6 1,8 1,9 2,2 2,3 2,3 2,3 2,5	**MR282-112M/4** **NR282-112M/4**	8,20	62 64	108	MR266 NR266



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
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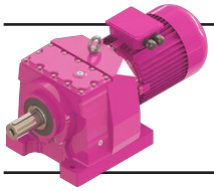
Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
4,0 5,5	444	83	**3,15**	3686	2,6	**MR282-112M/4** **NR282-112M/4**	8,20	62 64	108	MR266 NR266
	524	71	**5,35**	3470	3,7	**MR282-112M/2** **NR282-112M/2**	7,80	62 64	108	MR267 NR267
	74	492	**19,00**	-	0,9	**MR273-112M/4** **NR273-112M/4**	8,20	52 54	106	MR268 NR268
	87 99 117 138 161 225 265 309	423 374 315 268 230 164 140 120	**16,07** **14,21** **11,95** **10,16** **8,71** **6,21** **5,28** **4,53**	727 1.248 1.839 2.267 2.581 2.643 2.813 2.924	1,0 1,1 1,2 1,4 1,6 2,0 1,9 1,9	**MR272-112M/4** **NR272-112M/4**	8,20	52 54	106	MR269 NR269
	451 530 619	82 70 60	**6,21** **5,28** **4,53**	3.007 2.830 2.672	3,4 2,8 3,0	**MR272-112M/2** **NR272-112M/2**	7,80	52 54	106	MR270 NR270
	130 139 167 199 241 276 311 333 400	284 265 221 186 153 134 119 111 92	**10,81** **10,07** **8,40** **7,04** **5,80** **5,08** **4,50** **4,20** **3,50**	1730 1961 2453 2807 2448 2658 2805 2875 3008	0,8 0,8 0,9 1,0 1,1 1,2 1,3 1,3 1,4	**MR202-112M/4** **NR202-112M/4**	8,20	52 54	105	MR271 NR271
	483 552 622 667 800	76 67 59 55 46	**5,80** **5,08** **4,50** **4,20** **3,50**	3085 2979 2846 2771 2588	1,8 1,9 2,0 2,1 2,2	**MR202-112M/2** **NR202-112M/2**	7,80	50 52	105	MR272 NR272
	212 242 293 343 414	174 153 126 108 90	**6,60** **5,78** **4,78** **4,09** **3,38**	2033 2002 1942 1837 1769	0,8 0,9 1,0 1,1 1,2	**MR172-112M/4** **NR172-112M/4**	8,20	42 44	104	MR273 NR273
	424 485 586 685 829	87 76 63 54 45	**6,60** **5,78** **4,78** **4,09** **3,38**	1797 1740 1656 1567 1489	1,4 1,6 1,7 1,9 1,9	**MR172-112M/2** **NR172-112M/2**	7,80	41 43	104	MR274 NR274
5,5 7,5	2,1 2,4 2,6	22428 19970 18517	**662,54** **588,87** **546,94**	59449 81598 91692	0,8 0,9 1,0	**MR975-132S/4** **NR975-132S/4**	11,30	1150 1200	131	MR378 NR378
	2,7	17649	**510,11**	97133	1,0	**MR974-132S/4** **NR974-132S/4**	11,30	1200 1250	130	MR379 NR379



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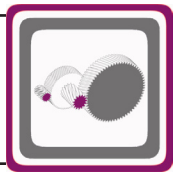
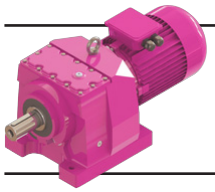


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
5,5 7,5	3,1 3,6 4,1 4,6 5,1 6,5 7,2 8,1	15861 13519 11932 10597 9458 7519 6735 6012	**457,99** **390,41** **344,17** **305,33** **272,24** **216,03** **193,13** **172,08**	107107 118239 124658 129922 133804 139960 142255 144275	1,1 1,3 1,5 1,7 1,9 2,4 2,7 3,0	**MR974-132S/4** **NR974-132S/4**	11,30	1200 1250	130	MR379 NR379
	4,1 4,8 5,8 6,6 7,4 8,0 9,5 11	11943 10116 8305 7346 6540 6063 5136 4383	**345,67** **292,15** **239,61** **211,60** **188,08** **174,68** **147,61** **125,70**	78321 87040 94212 97693 100351 101836 104555 106602	1,1 1,3 1,6 1,8 2,0 2,1 2,5 3,0	**MR874-132S/4** **NR874-132S/4**	11,30	615 620	127	MR275 NR275
	6,1	8157	**148,73**	48271	1,0	**MR773-132M/6b** **NR773-132M/6b**	12,30	322 390	123	MR464 NR464
	6,7 7,8 9,4 11 12 14 16 18 21	7375 6323 5263 4713 4073 3532 3093 2730 2425	**208,82** **178,78** **148,73** **133,05** **115,06** **99,63** **87,13** **76,81** **68,15**	51187 54748 57919 59380 60959 62193 63130 63862 64448	1,1 1,3 1,5 1,7 2,0 2,3 2,6 2,9 3,3	**MR773-132S/4** **NR773-132S/4**	11,30	320 388	123	MR465 NR465
	11 13 15 17 20 23 26 27 31 36 41 46	4392 3917 3335 2871 2495 2184 1922 1875 1614 1403 1228 1081	**124,07** **110,55** **94,17** **80,96** **70,26** **61,42** **53,99** **52,68** **45,29** **39,30** **34,36** **30,20**	25835 28527 31336 33271 32989 31985 31011 30824 29677 28606 27599 26647	1,0 1,1 1,3 1,5 1,7 2,0 2,2 2,3 2,6 2,8 3,1 3,4	**MR673-132S/4** **NR673-132S/4**	11,30	231 241	120	MR466 NR466
	17 19 22 26 29 35 40 45	2925 2586 2301 1949 1739 1426 1261 1122	**82,45** **72,81** **64,72** **54,74** **48,74** **39,98** **35,31** **31,38**	20253 22170 23581 23774 23208 22209 21569 20958	1,0 1,2 1,3 1,5 1,7 2,0 2,2 2,4	**MR573-132S/4** **NR573-132S/4**	11,30	159 153	117	MR467 NR467
	52 61 52 61 73 82	976 834 976 834 694 619	**27,00** **23,02** **27,00** **23,02** **19,15** **17,07**	20179 19355 20179 19355 18419 17842	2,8 3,2 2,8 3,2 3,6 4,0	**MR572-132S/4** **NR572-132S/4**	11,30	150 143	117	MR468 NR468



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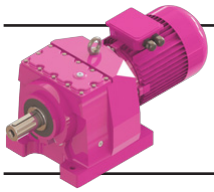
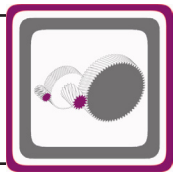
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

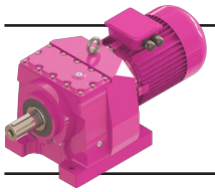
Güç *Power* Leistung **P_g [kW]** P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
5,5 7,5	25 29 33 37 45 55	1986 1747 1524 1337 1106 920	**55,82** **49,05** **42,75** **37,45** **30,93** **25,67**	5759 12507 12396 12239 11944 11596	0,8 0,9 1,0 1,2 1,4 1,7	**MR473-132S/4** **NR473-132S/4**	11,30	126 128	114	MR283 NR283
	63 75 81 91 103 116 130 147	801 678 624 556 492 437 391 346	**22,15** **18,72** **17,25** **15,35** **13,56** **12,05** **10,79** **9,53**	11291 10918 10730 10457 10161 9878 9554 9261	1,8 2,1 2,1 2,2 2,5 2,7 2,8 3,0	**MR472-132S/4** **NR472-132S/4**	11,30	121 124	114	MR284 NR284
	55 65 68 75	901 773 737 668	**25,27** **21,65** **20,64** **18,68**	4981 5037 4872 4891	0,8 0,8 0,9 1,0	**MR373-132S/4** **NR373-132S/4**	11,30	80 82	111	MR285 NR285
	86 103 112 130 149 170 205 235 268 282 326 374	586 490 452 391 341 299 248 217 190 180 156 136	**16,20** **13,53** **12,48** **10,80** **9,41** **8,25** **6,84** **5,97** **5,23** **4,96** **4,29** **3,74**	4498 5207 5457 5815 6062 6174 5812 5516 5247 5214 4935 4685	1,2 1,4 1,4 1,6 1,7 1,9 2,3 2,4 2,7 2,6 2,8 3,0	**MR372-132S/4** **NR372-132S/4**	11,30	80 82	111	MR286 NR286
	298 340 409 469 536 565 653 749	170 149 124 108 95 90 78 68	**9,41** **8,25** **6,84** **5,97** **5,23** **4,96** **4,29** **3,74**	5003 4766 4484 4264 4064 4022 3816 3630	2,7 2,9 3,5 3,9 4,0 4,0 4,0 4,0	**MR372-132S/2a** **NR372-132S/2a**	11,00	78 80	111	MR287 NR287
	98 114 132 146 168 194 224 262 303 333 385 444	517 443 383 349 302 262 227 194 168 153 132 115	**14,31** **12,24** **10,57** **9,61** **8,33** **7,21** **6,25** **5,35** **4,62** **4,20** **3,64** **3,15**	2151 2830 3336 3601 3924 4168 3730 3944 4082 4143 3970 3758	0,9 0,9 1,1 1,1 1,3 1,4 1,6 1,6 1,7 1,7 1,8 1,9	**MR282-132S/4** **NR282-132S/4**	11,30	73 75	108	MR288 NR288
	524 607 667 769	97 84 76 66	**5,35** **4,62** **4,20** **3,64**	3532 3343 3228 3062	2,7 2,7 2,8 2,9	**MR282-132S/2a** **NR282-132S/2a**	11,00	72 74	108	MR289 NR289



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

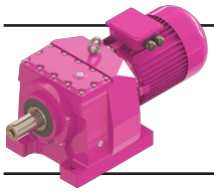


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
5,5 7,5	889	57	**3,15**	2905	3,0	**MR282-132S/2a** **NR282-132S/2a**	11,00	72 74	108	MR289 NR289
7,5 10	3,1 3,6 4,1 4,6	21629 18434 16271 14450	**457,99** **390,41** **344,17** **305,33**	67448 92230 104950 114036	0,8 1,0 1,1 1,2	**MR974-132M/4** **NR974-132M/4**	15,30	1155 1205	130	MR380 NR380
	4,8 5,4 6,0 6,8 7,7 8,8 9,8 11	14013 12512 11270 9969 8732 7729 6899 6200	**186,95** **166,73** **150,02** **132,83** **116,17** **102,69** **91,56** **82,20**	116163 122481 127342 132036 136178 139314 141978 143851	1,3 1,4 1,6 1,8 2,1 2,3 2,6 2,9	**MR973-160M/6** **NR973-160M/6**	15,20	1090 1140	129	MR381 NR381
	4,8 5,8 6,6 7,4 8,0	13794 11325 10018 8918 8268	**292,15** **239,61** **211,60** **188,08** **174,68**	67557 81452 87464 91940 94346	0,9 1,1 1,3 1,5 1,6	**MR874-132M/4** **NR874-132M/4**	15,30	615 620	127	MR290 NR290
	8,2 9,0 10 12 14 16	8241 7466 6471 5649 4846 4230	**110,17** **99,81** **86,51** **75,51** **64,77** **56,54**	94440 97282 100567 103078 105361 107001	1,6 1,7 2,0 2,3 2,7 3,1	**MR873-160M/6** **NR873-160M/6**	15,20	610 615	126	MR291 NR291
	7,8 9,4 11 12 14 16 18 21	8625 7179 6429 5555 4818 4219 3724 3307	**178,78** **148,73** **133,05** **115,06** **99,63** **87,13** **76,81** **68,15**	46319 51946 54421 57099 59111 60609 61765 62679	0,9 1,1 1,2 1,4 1,7 1,9 2,1 2,4	**MR773-132M/4** **NR773-132M/4**	15,30	344 430	123	MR469 NR469
	15 17 20 23 26 27 31 36 41 46	4549 3916 3403 2979 2622 2557 2202 1914 1676 1475	**94,17** **80,96** **70,26** **61,42** **53,99** **52,68** **45,29** **39,30** **34,36** **30,20**	24784 28529 30966 30273 29506 29356 28415 27511 26642 25805	0,9 1,1 1,3 1,4 1,6 1,7 1,9 2,1 2,3 2,5	**MR673-132M/4** **NR673-132M/4**	15,30	233 244	120	MR470 NR470
	60 68	1144 1025	**23,18** **20,74**	24094 23382	3,2 3,5	**MR672-132M/4** **NR672-132M/4**	15,30	228 238	120	MR471 NR471
	22 26 29 35 40 45	3138 2659 2372 1946 1721 1531	**64,72** **54,74** **48,74** **39,98** **35,31** **31,38**	18872 21782 21687 20961 20467 19979	1,0 1,1 1,3 1,5 1,6 1,7	**MR573-132M/4** **NR573-132M/4**	15,30	167 160	117	MR472 NR472

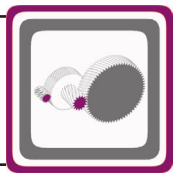


Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

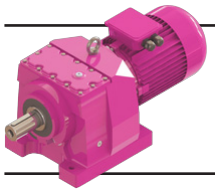
Güç *Power* Leistung P_g [kW] P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
7,5 10	52 61 73 82 96 112	1332 1137 946 844 718 619	**27,00** **23,02** **19,15** **17,07** **14,54** **12,50**	19336 18637 17822 17309 16600 15939	2,1 2,3 2,7 2,9 3,3 3,8	**MR572-132M/4** **NR572-132M/4**	15,30	160 153	117	MR473 NR473
	37 45 55	1824 1509 1255	**37,45** **30,93** **25,67**	10749 10713 10574	0,8 1,0 1,2	**MR473-132M/4** **NR473-132M/4**	15,30	133 136	114	MR298 NR298
	63 75 81 91 103 116 130 147 165 178 211	1093 925 852 759 671 597 534 472 420 389 329	**22,15** **18,72** **17,25** **15,35** **13,56** **12,05** **10,79** **9,53** **8,47** **7,87** **6,65**	10409 10173 10044 9846 9622 9398 9104 8863 8630 8482 8143	1,3 1,6 1,5 1,6 1,8 2,0 2,1 2,2 2,4 2,6 3,0	**MR472-132M/4** **NR472-132M/4**	15,30	130 133	114	MR299 NR299
	86 103 112 130 149 170 205 235 268	799 668 616 534 466 409 339 296 259	**16,20** **13,53** **12,48** **10,80** **9,41** **8,25** **6,84** **5,97** **5,23**	1186 2440 2905 3606 4138 4542 4534 4806 4998	0,9 1,0 1,1 1,2 1,3 1,4 1,7 1,8 2,0	**MR372-132M/4** **NR372-132M/4**	15,30	91 93	111	MR301 NR301
	298 340 409 469 536 565 653 749 855	233 204 170 148 130 123 107 93 81	**9,41** **8,25** **6,84** **5,97** **5,23** **4,96** **4,29** **3,74** **3,28**	5098 4850 4565 4335 4127 4095 3878 3685 3510	2,0 2,2 2,5 2,8 3,1 3,1 3,3 3,5 3,7	**MR372-132S/2b** **NR372-132S/2b**	14,60	81 83	111	MR302 NR302
	132 146 168 194 224 262 303 333 385 444	523 476 412 357 309 265 229 208 180 156	**10,57** **9,61** **8,33** **7,21** **6,25** **5,35** **4,62** **4,20** **3,64** **3,15**	1074 1543 2141 2624 2169 2607 2929 3094 3291 3434	0,8 0,8 0,9 1,0 1,2 1,2 1,2 1,2 1,3 1,4	**MR282-132M/4** **NR282-132M/4**	15,30	83 85	108	MR303 NR303
	524 607 667 769 889	132 114 104 90 78	**5,35** **4,62** **4,20** **3,64** **3,15**	3541 3412 3291 3117 2953	2,0 2,0 2,0 2,1 2,2	**MR282-132S/2b** **NR282-132S/2b**	14,60	83 85	108	MR304 NR304



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

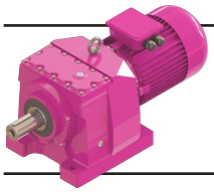


Güç *Power* Leistung P_g [kW] P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
11 15	4,8 5,4 6,8	20564 18361 14630	**186,95** **166,73** **132,83**	76718 92705 113278	0,9 1,0 1,2	**MR973-160L/6** **NR973-160L/6**	22,00	1131 1181	129	MR382 NR382
	7,5 8,4 9,3 11 12 14 15 17	13265 11845 10670 9439 8269 7319 6533 5872	**186,95** **166,73** **150,02** **132,83** **116,17** **102,69** **91,56** **82,20**	119565 125147 129764 133986 137718 140569 142817 144822	1,4 1,5 1,7 1,9 2,2 2,5 2,8 3,1	**MR973-160M/4** **NR973-160M/4**	21,50	1108 1158	129	MR383 NR383
	8,2 9,0 10 12 14	12087 10951 9491 8285 7107	**110,17** **99,81** **86,51** **75,51** **64,77**	77560 83256 89670 94284 98501	1,1 1,2 1,4 1,6 1,8	**MR873-160L/6** **NR873-160L/6**	22,00	650 655	126	MR305 NR305
	13 14 16 19 22 25 26	7770 7040 6102 5326 4569 3988 3728	**110,17** **99,81** **86,51** **75,51** **64,77** **56,54** **52,86**	96072 98725 101718 104015 106110 107619 108779	1,7 1,8 2,1 2,4 2,8 3,3 3,5	**MR873-160M/4** **NR873-160M/4**	21,50	645 650	126	MR306 NR306
	11 12 14 16 18 21 23 24 28 32 36 40 45 47	9431 8150 7067 6190 5463 4852 4331 4173 3619 3154 2816 2501 2233 2151	**133,05** **115,06** **99,63** **87,13** **76,81** **68,15** **60,76** **58,59** **50,75** **44,17** **39,33** **34,89** **31,11** **30,00**	42683 48302 52331 55154 57361 59020 60618 60735 62020 63029 63719 64337 64843 64993	0,8 1,0 1,1 1,3 1,5 1,6 1,8 1,9 2,2 2,5 2,8 3,2 3,6 3,7	**MR773-160M/4** **NR773-160M/4**	21,50	413 505	123	MR474 NR474
	23 26 27 31 36 41 46 53	4370 3847 3752 3231 2808 2458 2164 1913	**61,42** **53,99** **52,68** **45,29** **39,30** **34,36** **30,20** **26,66**	25961 26872 26786 26206 25594 24966 24332 23696	1,0 1,1 1,1 1,3 1,4 1,6 1,7 1,8	**MR673-160M/4** **NR673-160M/4**	21,50	282 295	120	MR475 NR475
	60 68 78 90 103 117	1679 1504 1299 1126 986 870	**23,18** **20,74** **17,93** **15,53** **13,58** **11,97**	22963 22371 21593 20821 20106 19439	2,2 2,4 2,7 3,0 3,3 3,6	**MR672-160M/4** **NR672-160M/4**	21,50	280 290	120	MR476 NR476



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung P_g [kW] P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
11 15	35 40 45 53	2854 2524 2246 1903	**39,98** **35,31** **31,38** **26,54**	18777 18539 18265 17812	1,0 1,1 1,2 1,3	**MR573-160M/4** **NR573-160M/4**	21,50	213 205	117	MR477 NR477
	61 73 82 96 112 129 148 168 189	1668 1389 1239 1054 908 789 690 607 540	**23,02** **19,15** **17,07** **14,54** **12,50** **10,85** **9,48** **8,34** **7,41**	17380 16775 16377 15806 15257 14737 14244 13773 13252	1,6 1,8 2,0 2,3 2,6 2,9 3,2 3,6 4,0	**MR572-160M/4** **NR572-160M/4**	21,50	210 202	117	MR478 NR478
	64 78	1557 1294	**21,74** **18,04**	8645 8672	1,0 1,2	**MR473-160M/4** **NR473-160M/4**	21,50	182 184	114	MR313 NR313
	81 91 103 116 130 147 165 178 211 247 287 309 365 429	1249 1114 984 876 783 692 616 571 483 412 356 330 280 238	**17,25** **15,35** **13,56** **12,05** **10,79** **9,53** **8,47** **7,87** **6,65** **5,66** **4,89** **4,54** **3,83** **3,27**	8842 8777 8677 8559 8317 8168 8012 7909 7658 7405 7041 6928 6666 6404	1,0 1,1 1,2 1,3 1,4 1,5 1,7 1,8 2,0 2,2 2,2 2,1 2,3 2,5	**MR472-160M/4** **NR472-160M/4**	21,50	180 182	114	MR314 NR314
15 20	6,8	19953	**132,83**	81953	0,9	**MR973-180L/6** **NR973-180L/6**	29,00	1187 1237	129	MR384 NR384
	7,5 8,4 9,3 11 12 14 15 17 20 23 26	18091 16155 14552 12874 11277 9982 8911 8009 6830 6029 5355	**186,95** **166,73** **150,02** **132,83** **116,17** **102,69** **91,56** **82,20** **70,07** **61,77** **54,80**	94405 105558 113609 121059 127373 132035 135622 138467 142012 144077 146026	1,0 1,1 1,2 1,4 1,6 1,8 2,0 2,2 2,6 3,0 3,4	**MR973-160L/4** **NR973-160L/4**	29,00	1140 1190	129	MR385 NR385
	8,2 9,0 10 12	16483 14933 12943 11298	**110,17** **99,81** **86,51** **75,51**	46009 59313 72798 81586	0,8 0,9 1,0 1,2	**MR873-180L/6** **NR873-180L/6**	29,00	655 660	126	MR315 NR315
	13 14 16 19 22 25	10596 9600 8320 7263 6230 5438	**110,17** **99,81** **86,51** **75,51** **64,77** **56,54**	84902 89226 94158 97976 101322 103692	1,2 1,4 1,6 1,8 2,1 2,4	**MR873-160L/4** **NR873-160L/4**	29,00	615 620	126	MR316 NR316



Motorlu Güç Devir Sayfaları
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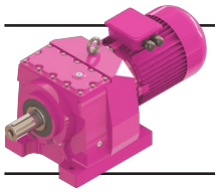
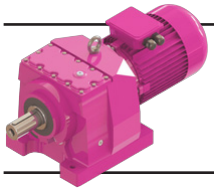
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
15 20	26 30 35	5084 4436 3900	**52,86** **46,12** **40,55**	105493 106902 108032	2,6 2,9 3,3	**MR873-160L/4** **NR873-160L/4**	29,00	615 620	126	MR316 NR316
	14 16 18 21 23 24 28 32 36 40 45 47 54 62	9639 8442 7451 6618 5907 5691 4937 4302 3840 3411 3045 2934 2545 2218	**99,63** **87,13** **76,81** **68,15** **60,76** **58,59** **50,75** **44,17** **39,33** **34,89** **31,11** **30,00** **25,99** **22,62**	41586 47100 50943 53824 56400 56702 58795 60399 61480 62435 63208 63432 64276 64903	0,8 0,9 1,1 1,2 1,4 1,4 1,6 1,9 2,1 2,3 2,6 2,7 3,1 3,6	**MR773-160L/4** **NR773-160L/4**	29,00	406 490	123	MR479 NR479
	65	2115	**21,40**	65074	3,8	**MR772-160L/4** **NR772-160L/4**	29,00	376 460	123	MR480 NR480
	31 36 41 46 53	4406 3830 3353 2951 2609	**45,29** **39,30** **34,36** **30,20** **26,66**	23681 23403 23050 22648 22209	0,9 1,0 1,1 1,2 1,4	**MR673-160L/4** **NR673-160L/4**	29,00	305 317	120	MR481 NR481
	60 68 78 90 103 117 132 148 153 177	2290 2051 1772 1536 1345 1187 1054 941 906 786	**23,18** **20,74** **17,93** **15,53** **13,58** **11,97** **10,62** **9,47** **9,13** **7,91**	21671 21215 20593 19955 19349 18772 18222 17696 17529 16876	1,6 1,7 2,0 2,2 2,4 2,7 2,9 3,2 3,3 3,7	**MR672-160L/4** **NR672-160L/4**	29,00	300 312	120	MR482 NR482
	45 53	3064 2596	**31,38** **26,54**	16306 16155	0,9 1,0	**MR573-160L/4** **NR573-160L/4**	29,00	251 242	117	MR483 NR483
	61 73 82 96 112 129 148 168 189 218 249 283 321	2275 1894 1689 1438 1238 1076 941 828 736 640 560 493 435	**23,02** **19,15** **17,07** **14,54** **12,50** **10,85** **9,48** **8,34** **7,41** **6,43** **5,63** **4,95** **4,37**	15943 15580 15311 14899 14476 14060 13652 13253 12754 12326 11919 11529 11156	1,2 1,3 1,5 1,7 1,9 2,1 2,3 2,6 3,0 3,3 3,5 3,9 4,0	**MR572-160L/4** **NR572-160L/4**	29,00	245 237	117	MR484 NR484
	78	1765	**18,04**	7168	0,9	**MR473-160L/4** **NR473-160L/4**	29,00	202 205	114	MR323 NR323

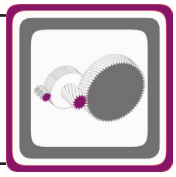


Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

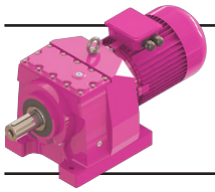
Güç *Power* Leistung **P_g [kW]** P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
15	81	1704	**17,25**	7469	0,8	**MR472-160L/4**	29,00	200	114	MR324
20	91	1519	**15,35**	7555	0,8	**NR472-160L/4**		203		NR324
	103	1343	**13,56**	7598	0,9					
	116	1195	**12,05**	7599	1,0					
	130	1068	**10,79**	7418	1,0					
	147	944	**9,53**	7374	1,1					
	165	840	**8,47**	7306	1,2					
	178	779	**7,87**	7253	1,3					
	211	659	**6,65**	7104	1,5					
	247	562	**5,66**	6933	1,6					
	287	486	**4,89**	6588	1,6					
	309	451	**4,54**	6507	1,6					
	365	382	**3,83**	6310	1,7					
	429	325	**3,27**	6110	1,8					
18,5	8,4	19925	**166,73**	81754	0,9	**MR973-180M/4**	36,00	1160	129	MR386
25	9,3	17949	**150,02**	95286	1,0	**NR973-180M/4**		1210		NR386
	11	15879	**132,83**	107016	1,1					
	12	13910	**116,17**	116530	1,3					
	14	12312	**102,69**	123314	1,5					
	15	10991	**91,56**	128406	1,6					
	17	9879	**82,20**	132373	1,8					
	20	8424	**70,07**	137243	2,1					
	23	7436	**61,77**	140202	2,4					
	26	6605	**54,80**	142613	2,7					
	29	5896	**48,86**	144582	3,1					
	33	5109	**42,30**	146652	3,5					
	12	13934	**75,51**	66643	0,9	**MR873-200L/6a**	36,00	705	126	MR325
	14	11952	**64,77**	78272	1,1	**NR873-200L/6a**		710		NR325
	16	10262	**86,51**	86402	1,3	**MR873-180M/4**	36,00	660	126	MR326
	19	8958	**75,51**	91786	1,5	**NR873-180M/4**		665		NR326
	22	7684	**64,77**	96363	1,7					
	25	6707	**56,54**	99813	1,9					
	26	6270	**52,86**	102280	2,1					
	30	5471	**46,12**	104193	2,4					
	35	4810	**40,55**	105716	2,7					
	18	9190	**76,81**	43763	0,9	**MR773-180M/4**	36,00	423	123	MR485
	21	8162	**68,15**	48251	1,0	**NR773-180M/4**		515		NR485
	23	7286	**60,76**	51573	1,1					
	24	7020	**58,59**	52505	1,1					
	28	6089	**50,75**	55514	1,3					
	32	5306	**44,17**	57777	1,5					
	36	4737	**39,33**	59279	1,7					
	40	4207	**34,89**	60587	1,9					
	45	3756	**31,11**	61632	2,1					
	47	3619	**30,00**	61939	2,2					
	54	3139	**25,99**	63056	2,5					
	62	2736	**22,62**	63888	2,9					
	65	2609	**21,40**	64116	3,1	**MR772-180M/4**	36,00	418	123	MR486
	75	2274	**18,63**	64753	3,5	**NR772-180M/4**		510		NR486
	36	4724	**39,30**	21486	0,8	**MR673-180M/4**	36,00	314	120	MR487
	41	4135	**34,36**	21375	0,9	**NR673-180M/4**		328		NR487
	46	3640	**30,20**	21174	1,0					
	53	3218	**26,66**	20909	1,1					



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

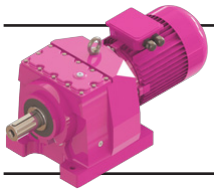


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
18,5 25	60 68 78 90 103 117 132 148 153 177 203 244	2825 2530 2185 1895 1660 1465 1301 1161 1118 970 845 704	**23,18** **20,74** **17,93** **15,53** **13,58** **11,97** **10,62** **9,47** **9,13** **7,91** **6,88** **5,73**	20540 20204 19719 19198 18686 18188 17704 17234 17084 16490 15916 14984	1,3 1,4 1,6 1,8 2,0 2,2 2,4 2,6 2,7 3,0 3,4 4,0	**MR672-180M/4** **NR672-180M/4**	36,00	311 325	120	MR488 NR488
	73 82 96 112 129 148 168 189 218 249 283 321	2336 2084 1773 1527 1327 1161 1022 908 789 691 608 537	**19,15** **17,07** **14,54** **12,50** **10,85** **9,48** **8,34** **7,41** **6,43** **5,63** **4,95** **4,37**	14534 14379 14104 13794 13468 13134 12798 12318 11948 11588 11239 10899	1,1 1,2 1,3 1,5 1,7 1,9 2,1 2,4 2,6 2,9 3,1 3,4	**MR572-180M/4** **NR572-180M/4**	36,00	262 250	117	MR489 NR489
	103 116 130 147 165 178 211 247 287 309 365 429	1656 1474 1318 1165 1036 961 813 693 600 556 471 401	**13,56** **12,05** **10,79** **9,53** **8,47** **7,87** **6,65** **5,66** **4,89** **4,54** **3,83** **3,27**	6653 6760 6630 6679 6688 6679 6619 6520 6191 6139 5999 5845	0,7 0,8 0,8 0,9 1,0 1,1 1,2 1,3 1,3 1,3 1,4 1,5	**MR472-180M/4** **NR472-180M/4**	36,00	242 245	114	MR333 NR333
22 30	11 12 14 15 17 20 23 26 29 33 38	18884 16542 14643 13071 11749 10018 8844 7855 7012 6076 5364	**132,83** **116,17** **102,69** **91,56** **82,20** **70,07** **61,77** **54,80** **48,86** **42,30** **37,29**	89201 103474 113137 120169 125527 131991 135846 139151 141455 144081 146088	1,0 1,1 1,2 1,4 1,5 1,8 2,0 2,3 2,6 3,0 3,4	**MR973-180L/4** **NR973-180L/4**	42,00	1185 1235	129	MR387 NR387
	12 14	16570 14214	**75,51** **64,77**	44950 64907	0,8 0,9	**MR873-200L/6b** **NR873-200L/6b**	43,00	720 725	126	MR334 NR334
	16 19 22 25 26 30 35	12203 10652 9137 7976 7457 6505 5720	**86,51** **75,51** **64,77** **56,54** **52,86** **46,12** **40,55**	76942 84645 91003 95370 98737 101231 103200	1,1 1,2 1,4 1,6 1,7 2,0 2,3	**MR873-180L/4** **NR873-180L/4**	42,00	660 665	126	MR335 NR335

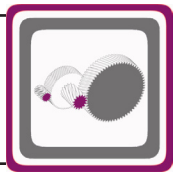


Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

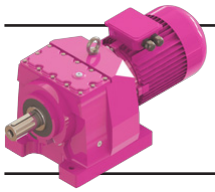
Güç *Power* Leistung P_g [kW] P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen n_2 [r.p.m]	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente M_2 [Nm]	Çevrim Oranı *Ratio* Übersetzung i	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) F_{qam} [N]	Servis Faktörü *Service Factors* Betriebsfaktor f_s	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom [A]	Ağırlık *Weight* Gewicht ~ [kg]	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
22 30	23 24 28 32 36 40 45 47 54 62	8665 8348 7242 6310 5633 5004 4467 4304 3734 3254	**60,76** **58,59** **50,75** **44,17** **39,33** **34,89** **31,11** **30,00** **25,99** **22,62**	46142 47488 51720 54810 56824 58553 60014 60418 61744 62806	0,9 1,0 1,1 1,3 1,4 1,6 1,8 1,9 2,1 2,5	**MR773-180L/4** **NR773-180L/4**	42,00	462 560	123	MR490 NR490
	65 75 85 96	3103 2705 2382 2115	**21,40** **18,63** **16,39** **14,54**	63096 63897 65101 66117	2,6 3,0 3,2 3,5	**MR772-180L/4** **NR772-180L/4**	42,00	430 530	123	MR491 NR491
	46 53	4329 3827	**30,20** **26,66**	19701 19608	0,8 0,9	**MR673-180L/4** **NR673-180L/4**	42,00	343 357	120	MR492 NR492
	60 68 78 90 103 117 132 148 153 177 203 244 275 309 320 370	3359 3008 2599 2254 1974 1742 1547 1380 1330 1153 1005 837 743 663 639 554	**23,18** **20,74** **17,93** **15,53** **13,58** **11,97** **10,62** **9,47** **9,13** **7,91** **6,88** **5,73** **5,08** **4,53** **4,37** **3,79**	19410 19192 18844 18441 18024 17604 17186 16772 16639 16105 15580 14671 14242 13831 13702 13192	1,1 1,2 1,3 1,5 1,6 1,8 2,0 2,2 2,2 2,5 2,9 3,8 3,9 4,0 4,0 4,0	**MR672-180L/4** **NR672-180L/4**	42,00	318 322	120	MR493 NR493
	73 82 96 112 129 148 168 189 218 249 283 321	2778 2478 2109 1816 1578 1381 1215 1080 939 822 723 639	**19,15** **17,07** **14,54** **12,50** **10,85** **9,48** **8,34** **7,41** **6,43** **5,63** **4,95** **4,37**	13488 13447 13310 13111 12875 12616 12342 11882 11569 11257 10948 10642	0,9 1,0 1,1 1,3 1,4 1,6 1,8 2,0 2,2 2,4 2,6 2,9	**MR572-180L/4** **NR572-180L/4**	42,00	284 271	117	MR494 NR494
	147 165 178 211 247 287 309 365 429	1385 1233 1143 967 825 714 662 560 477	**9,53** **8,47** **7,87** **6,65** **5,66** **4,89** **4,54** **3,83** **3,27**	5984 6071 6105 6134 6107 5794 5770 5688 5580	0,8 0,8 0,9 1,0 1,1 1,1 1,1 1,2 1,2	**MR472-180L/4** **NR472-180L/4**	42,00	242 244	114	MR341 NR341



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

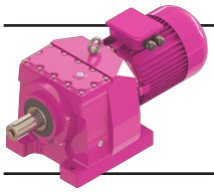


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
30 40	14 15 17 20 23 26 29 33 38 42 47	19969 17825 16022 13662 12060 10712 9563 8287 7316 6498 5801	**102,69** **91,56** **82,20** **70,07** **61,77** **54,80** **48,86** **42,30** **37,29** **33,08** **29,49**	81478 96243 106261 117776 124360 129423 133453 137606 140677 142940 144827	0,9 1,0 1,1 1,3 1,5 1,7 1,9 2,2 2,5 2,8 3,1	**MR973-200L/4** **NR973-200L/4**	54,00	1240 1290	129	MR388 NR388
	19 22 25 26 30 35 41 46 51 59 69 79 87 100	14526 12460 10877 10168 8871 7800 6642 5840 5270 4592 3900 3429 3094 2696	**75,51** **64,77** **56,54** **52,86** **46,12** **40,55** **34,53** **30,36** **27,39** **23,87** **20,28** **17,83** **16,09** **14,02**	62750 75541 83605 86813 92157 96044 100037 102452 104225 106099 107929 106358 104176 101201	0,9 1,0 1,2 1,3 1,5 1,7 2,0 2,2 2,5 2,8 3,3 3,8 4,0 4,0	**MR873-200L/4** **NR873-200L/4**	54,00	746 751	126	MR342 NR342
	36 40 45 47 54 62	7682 6824 6092 5869 5092 4437	**39,33** **34,89** **31,11** **30,00** **25,99** **22,62**	50060 53080 55518 56189 58392 60091	1,0 1,2 1,3 1,4 1,6 1,8	**MR773-200L/4** **NR773-200L/4**	54,00	497 600	123	MR495 NR495
	65 75 85 96 108 120 127 146	4232 3689 3249 2885 2579 2317 2186 1913	**21,40** **18,63** **16,39** **14,54** **12,98** **11,65** **11,00** **9,62**	60516 61869 63380 64703 65799 66674 67105 67999	1,9 2,2 2,4 2,6 2,8 3,0 3,1 3,4	**MR772-200L/4** **NR772-200L/4**	54,00	465 570	123	MR496 NR496
	78 90 103 117 132 148 153 177 203 244 275 309 320 370 425	3545 3074 2692 2376 2110 1883 1814 1573 1370 1142 1014 905 872 756 658	**17,93** **15,53** **13,58** **11,97** **10,62** **9,47** **9,13** **7,91** **6,88** **5,73** **5,08** **4,53** **4,37** **3,79** **3,29**	16845 16710 16510 16270 16002 15716 15621 15223 14813 13954 13606 13265 13155 12719 12293	1,0 1,1 1,2 1,3 1,5 1,6 1,6 1,9 2,1 2,8 2,9 3,0 3,1 3,2 3,3	**MR672-200L/4** **NR672-200L/4**	54,00	386 380	120	MR497 NR497
	96	2876	**14,54**	11495	0,8	**MR572-200L/4** **NR572-200L/4**	54,00	304 291	117	MR498 NR498

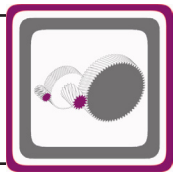


Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

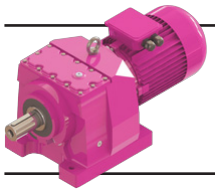
Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
30	112	2476	**12,50**	11551	0,9	**MR572-200L/4**	54,00	304	117	MR498
40	129	2152	**10,85**	11521	1,0	**NR572-200L/4**		291		NR498
	148	1883	**9,48**	11432	1,2					
	168	1657	**8,34**	11302	1,3					
	189	1473	**7,41**	10885	1,5					
	218	1280	**6,43**	10704	1,6					
	249	1120	**5,63**	10501	1,8					
	283	986	**4,95**	10283	1,9					
	321	871	**4,37**	10055	2,1					
37	17	19762	**82,20**	82795	0,9	**MR973-225S/4**	66,00	1210	129	MR389
50	20	16851	**70,07**	101879	1,1	**NR973-225S/4**		1260		NR389
	23	14875	**61,77**	112106	1,2					
	26	13213	**54,80**	119585	1,4					
	29	11794	**48,86**	125123	1,5					
	33	10221	**42,30**	131180	1,8					
	38	9023	**37,29**	135390	2,0					
	42	8015	**33,08**	138490	2,2					
	47	7155	**29,49**	141031	2,5					
	54	6311	**26,03**	143463	2,9					
	61	5571	**22,95**	145274	3,2					
	30	10941	**46,12**	83317	1,2	**MR873-225S/4**	66,00	770	126	MR347
	35	9620	**40,55**	89134	1,4	**NR873-225S/4**		775		NR347
	41	8192	**34,53**	94707	1,6					
	46	7203	**30,36**	98202	1,8					
	51	6499	**27,39**	100495	2,0					
	59	5664	**23,87**	102985	2,3					
	69	4810	**20,28**	104887	2,7					
	79	4229	**17,83**	102724	3,1					
	87	3816	**16,09**	100898	3,4					
	100	3326	**14,02**	98344	3,9					
	105	3155	**13,30**	103377	4,0					
	40	8417	**34,89**	47122	1,0	**MR773-225S/4**	66,00	534	123	MR499
	45	7513	**31,11**	50750	1,1	**NR773-225S/4**		645		NR499
	47	7239	**30,00**	51741	1,1					
	54	6280	**25,99**	54937	1,3					
	62	5473	**22,62**	57341	1,5					
	71	4779	**19,76**	59231	1,7					
	80	4245	**17,53**	61028	1,8					
	90	3790	**15,63**	62719	2,0					
	96	3558	**14,54**	63347	2,1	**MR772-225S/4**	66,00	525	123	MR500
	108	3181	**12,98**	64680	2,2	**NR772-225S/4**		635		NR500
	120	2858	**11,65**	65733	2,4					
	127	2696	**11,00**	66253	2,5					
	146	2360	**9,62**	67312	2,7					
	166	2077	**8,46**	68175	3,0					
	192	1795	**7,30**	70020	2,8					
	215	1605	**6,52**	70589	3,0					
	117	2930	**11,97**	15102	1,1	**MR672-225S/4**	66,00	410	120	MR501
	132	2602	**10,62**	14966	1,2	**NR672-225S/4**		426		NR501
	148	2322	**9,47**	14793	1,3					
	153	2237	**9,13**	14730	1,3					
	177	1940	**7,91**	14451	1,5					
	203	1690	**6,88**	14142	1,7					
	244	1408	**5,73**	13327	2,3					
	275	1251	**5,08**	13050	2,3					
	309	1116	**4,53**	12769	2,4					



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

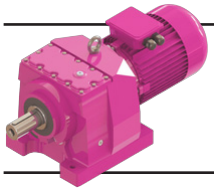


Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
37 50	320 370 425	1075 932 812	**4,37** **3,79** **3,29**	12677 12304 11933	2,5 2,6 2,6	**MR672-225S/4** **NR672-225S/4**	66,00	410 426	120	MR501 NR501
45 60	23 26 29 33 38 42 47 54 61 69 77	18092 16070 14345 12432 10975 9749 8703 7676 6776 6020 5374	**61,77** **54,80** **48,86** **42,30** **37,29** **33,08** **29,49** **26,03** **22,95** **20,36** **18,15**	94418 106045 114532 122976 128625 132877 136296 139517 141913 144229 141977	1,0 1,1 1,3 1,4 1,6 1,8 2,1 2,3 2,7 3,0 3,3	**MR973-225M/4** **NR973-225M/4**	80,00	1173 1223	129	MR390 NR390
	30 35 41 46 51 59 69 79 87 100 105 121	13307 11700 9964 8760 7905 6888 5850 5144 4641 4045 3837 3344	**46,12** **40,55** **34,53** **30,36** **27,39** **23,87** **20,28** **17,83** **16,09** **14,02** **13,30** **11,59**	70637 79584 87496 92580 95583 99211 100164 98572 97151 95079 101584 98365	1,0 1,1 1,3 1,5 1,6 1,9 2,2 2,5 2,8 3,2 3,4 3,8	**MR873-225M/4** **NR873-225M/4**	80,00	784 788	126	MR352 NR352
	139 158 185 211 234 268 283 324	2973 2614 2226 1957 1766 1539 1460 1272	**10,09** **8,87** **7,55** **6,64** **5,99** **5,22** **4,95** **4,32**	96488 93356 84341 81967 80064 77518 78695 75895	3,9 4,0 4,0 4,0 4,0 4,0 4,0 4,0	**MR872-225M/4** **NR872-225M/4**	80,00	780 784	126	MR353 NR353
	54 62 71 80 90	7639 6657 5812 5164 4610	**25,99** **22,62** **19,76** **17,53** **15,63**	50279 53732 56338 58719 60849	1,0 1,2 1,4 1,5 1,6	**MR773-225M/4** **NR773-225M/4**	80,00	540 650	123	MR502 NR502
	96 108 120 127 146 166 192 215 239	4328 3869 3477 3280 2870 2526 2184 1952 1754	**14,54** **12,98** **11,65** **11,00** **9,62** **8,46** **7,30** **6,52** **5,86**	61653 63292 64577 65202 66474 67417 65370 62988 60814	1,7 1,8 2,0 2,1 2,3 2,5 2,3 2,4 2,6	**MR772-225M/4** **NR772-225M/4**	80,00	530 640	123	MR503 NR503
	117 132 148 153 177 203	3564 3165 2824 2721 2360 2056	**11,97** **10,62** **9,47** **9,13** **7,91** **6,88**	13767 13782 13737 13712 13569 13374	0,9 1,0 1,1 1,1 1,2 1,4	**MR672-225M/4** **NR672-225M/4**	80,00	420 435	120	MR504 NR504



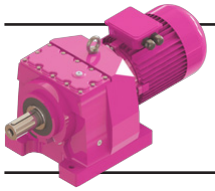
Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
45 60	244 275 309 320 370 425	1713 1521 1357 1308 1134 988	**5,73** **5,08** **4,53** **4,37** **3,79** **3,29**	12611 12415 12202 12131 11831 11521	1,9 1,9 2,0 2,0 2,1 2,2	**MR672-225M/4** **NR672-225M/4**	80,00	420 435	120	MR504 NR504
55 75	26 29 33 38 42 47 54 61 69 77	19642 17534 15194 13414 11916 10637 9382 8283 7358 6569	**54,80** **48,86** **42,30** **37,29** **33,08** **29,49** **26,03** **22,95** **20,36** **18,15**	83858 97827 110470 118877 124955 129714 134009 137623 140412 139669	0,9 1,0 1,2 1,3 1,5 1,7 1,9 2,2 2,4 2,7	**MR973-250M/4** **NR973-250M/4**	97,00	1400 1450	129	MR391 NR391
	86 97	5922 5260	**16,23** **14,40**	136969 132890	3,0 3,4	**MR972-250M/4** **NR972-250M/4**	97,00	1360 1410	129	MR392 NR392
	41 46 51 59 69 79 87 100 105 121	12178 10707 9661 8419 7150 6287 5673 4944 4690 4087	**34,53** **30,36** **27,39** **23,87** **20,28** **17,83** **16,09** **14,02** **13,30** **11,59**	76957 84377 88876 93915 94261 93382 92468 90998 99344 96412	1,1 1,2 1,3 1,5 1,8 2,1 2,3 2,6 2,8 3,1	**MR873-250M/4** **NR873-250M/4**	97,00	865 870	126	MR358 NR358
	139 158 185 211 234 268 283 324	3633 3195 2721 2392 2158 1881 1784 1555	**10,09** **8,87** **7,55** **6,64** **5,99** **5,22** **4,95** **4,32**	95090 92126 82142 80033 78319 75997 77730 75054	3,2 3,5 3,9 4,0 4,0 4,0 4,0 4,0	**MR872-250M/4** **NR872-250M/4**	97,00	860 865	126	MR359 NR359
	62 71 80 90	8137 7104 6311 5634	**22,62** **19,76** **17,53** **15,63**	48314 52116 55428 58140	1,0 1,1 1,2 1,3	**MR773-250M/4** **NR773-250M/4**	97,00	582 710	123	MR505 NR505
	96 108 120 127 146 166 192 215 239	5290 4729 4249 4009 3508 3087 2669 2386 2144	**14,54** **12,98** **11,65** **11,00** **9,62** **8,46** **7,30** **6,52** **5,86**	59396 61384 63000 63779 65344 66568 65358 63466 61244	1,4 1,5 1,6 1,7 1,8 2,0 1,9 2,0 2,1	**MR772-250M/4** **NR772-250M/4**	97,00	552 680	123	MR506 NR506
75 97	38 42 47	18293 16250 14506	**37,29** **33,08** **29,49**	93140 105016 113816	1,0 1,1 1,2	**MR973-280S/4** **NR973-280S/4**	133,00	1530 1580	129	MR393 NR393



Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	**Çıkış Devri** *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	**Çıkış Momenti** *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	**Çevrim Oranı** *Ratio* Übersetzung **i**	**Güv. Rad. Yük Çıkış** *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	**Servis Faktörü** *Service Factors* Betriebsfaktor **f_s**	**Tipi** *Type* Typ	**Anma Akımı** *Rated Current* Nennstrom **[A]**	**Ağırlık** *Weight* Gewicht ~ **[kg]**	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
75 97	54 61 69 77	12794 11295 10034 8958	**26,03** **22,95** **20,36** **18,15**	121329 127274 131735 135053	1,4 1,6 1,8 2,0	**MR973-280S/4** **NR973-280S/4**	133,00	1530 1580	129	MR393 NR393
	86 97 109 121 140 158 177 197	8076 7173 6414 5767 4987 4430 3961 3561	**16,23** **14,40** **12,86** **11,56** **9,99** **8,86** **7,92** **7,11**	133222 129566 126123 122866 117608 114158 110940 107918	2,2 2,5 2,8 3,1 2,5 2,6 2,7 2,8	**MR972-280S/4** **NR972-280S/4**	133,00	1490 1540	129	MR394 NR394
	51 59 69 79 87 100 105 121	13174 11481 9751 8573 7736 6741 6395 5573	**27,39** **23,87** **20,28** **17,83** **16,09** **14,02** **13,30** **11,59**	71425 80962 82454 83001 83101 82835 94863 92507	1,0 1,1 1,3 1,5 1,7 1,9 2,0 2,3	**MR873-280S/4** **NR873-280S/4**	133,00	910 915	126	MR362 NR362
	139 158 185 211 234 268 283 324	4955 4356 3710 3262 2943 2565 2433 2120	**10,09** **8,87** **7,55** **6,64** **5,99** **5,22** **4,95** **4,32**	92292 89666 77743 76166 74829 72956 75799 73372	2,3 2,6 2,9 3,1 3,4 3,7 3,7 4,0	**MR872-280S/4** **NR872-280S/4**	133,00	905 910	126	MR363 NR363
90 117	47 54 61 69 77	17408 15353 13555 12042 10750	**29,49** **26,03** **22,95** **20,36** **18,15**	98535 109691 117935 124168 129274	1,0 1,2 1,3 1,5 1,7	**MR973-280M/4** **NR973-280M/4**	158,00	1530 1580	129	MR395 NR395
	86 97 109 121 140 158 177 197	9691 8609 7698 6921 5985 5316 4754 4274	**16,23** **14,40** **12,86** **11,56** **9,99** **8,86** **7,92** **7,11**	130412 127072 123895 120865 115703 112468 109430 106562	1,9 2,1 2,3 2,6 2,1 2,2 2,3 2,3	**MR972-280M/4** **NR972-280M/4**	158,00	1490 1540	129	MR396 NR396
	69 79 87 100 105 121	11701 10288 9283 8089 7674 6688	**20,28** **17,83** **16,09** **14,02** **13,30** **11,59**	73599 75215 76076 76713 91502 89579	1,1 1,3 1,4 1,6 1,7 1,9	**MR873-280M/4** **NR873-280M/4**	158,00	930 935	126	MR364 NR364
	139 158 185 211 234	5946 5227 4452 3914 3532	**10,09** **8,87** **7,55** **6,64** **5,99**	90193 87821 74444 73265 72212	1,9 2,1 2,4 2,6 2,8	**MR872-280M/4** **NR872-280M/4**	158,00	925 930	126	MR365 NR365

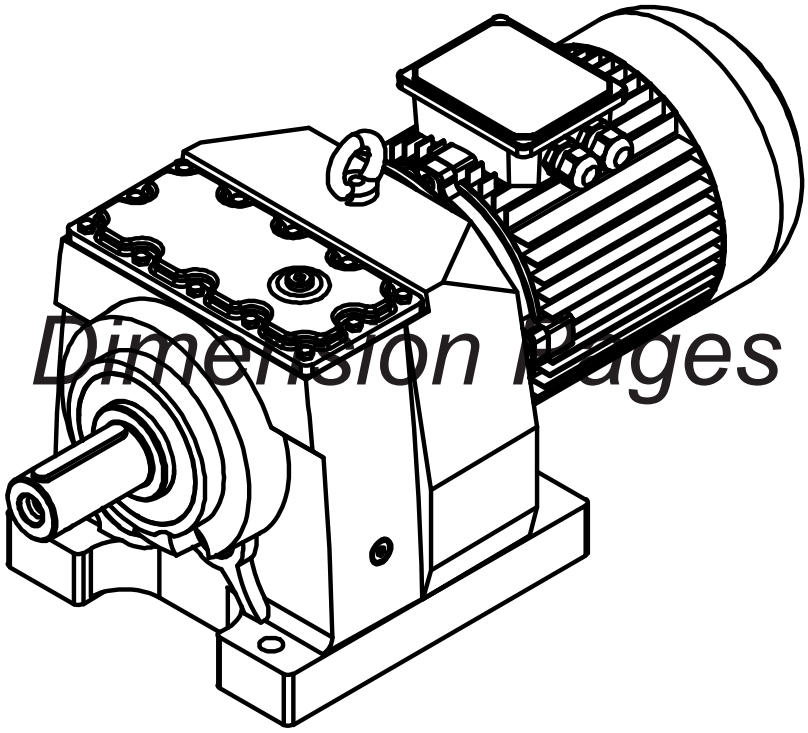


Motorlu Güç Devir Sayfaları
Geared Motors Performance Tables
Leistung und Drehzahlübersicht von Getriebemotoren

Güç *Power* Leistung **P_g [kW]** P_g [HP]	Çıkış Devri *Output Speeds* Abtriebswelle Drehzahlen **n_2 [r.p.m]**	Çıkış Momenti *Output Torque* Abtriebswelle Drehmomente **M_2 [Nm]**	Çevrim Oranı *Ratio* Übersetzung **i**	Güv. Rad. Yük Çıkış *Per.O. Loads (Output)* Zul.Querkräfte (Abtrieb) **F_{qam} [N]**	Servis Faktörü *Service Factors* Betriebsfaktor **f_s**	Tipi *Type* Typ	Anma Akımı *Rated Current* Nennstrom **[A]**	Ağırlık *Weight* Gewicht ~ **[kg]**	Ölçü Sayfası *Dim. Page* Maße Seite	Fiyat Kodu *Price Ref.* Preis No.
90	268	3078	**5,22**	70675	3,1	**MR872-280M/4**	158,00	925	126	MR365
117	283	2920	**4,95**	74351	3,1	**NR872-280M/4**		930		NR365
	324	2545	**4,32**	72110	3,4					
110	61	16568	**22,95**	103339	1,1	**MR973-315S/4**	195,00	1740	129	MR397
150	69	14718	**20,36**	112723	1,2	**NR973-315S/4**		1790		NR397
	77	13139	**18,15**	119791	1,4					
	86	11845	**16,23**	125147	1,5	**MR972-315S/4**	195,00	1700	129	MR398
	97	10522	**14,40**	123748	1,7	**NR972-315S/4**		1750		NR398
	109	9409	**12,86**	120925	1,9					
	121	8459	**11,56**	118197	2,1					
	140	7316	**9,99**	113163	1,7					
	158	6498	**8,86**	110214	1,8					
	177	5810	**7,92**	107416	1,8					
	197	5224	**7,11**	104753	1,9					
132	69	17662	**20,36**	96909	1,0	**MR973-315M/4a**	235,00	1845	129	MR399
180	77	15768	**18,15**	107572	1,1	**NR973-315M/4a**		1895		NR399
	86	14215	**16,23**	115049	1,3	**MR972-315M/4a**	235,00	1805	129	MR400
	97	12627	**14,40**	120091	1,4	**NR972-315M/4a**		1855		NR400
	109	11291	**12,86**	117659	1,6					
	121	10151	**11,56**	115262	1,8					
	140	8779	**9,99**	110369	1,4					
	158	7798	**8,86**	107735	1,5					
	177	6973	**7,92**	105202	1,5					
	197	6269	**7,11**	102764	1,6					
160	97	15306	**14,40**	109891	1,2	**MR972-315M/4b**	280,00	1885	129	MR401
218	109	13686	**12,86**	113501	1,3	**NR972-315M/4b**		1935		NR401
	121	12305	**11,56**	111527	1,5					
	140	10642	**9,99**	106813	1,2					
	158	9453	**8,86**	104580	1,2					
	177	8452	**7,92**	102383	1,3					
	197	7599	**7,11**	100232	1,3					

Notlar / *Notes* / Notizen

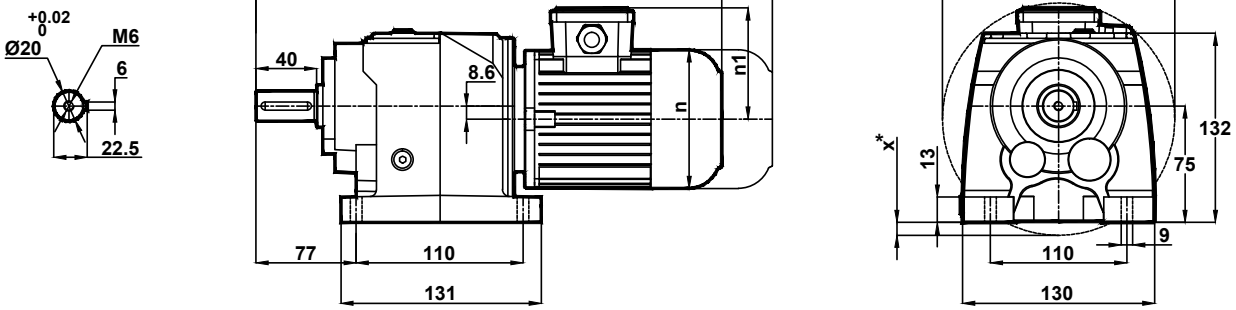
Ölçü Sayfaları



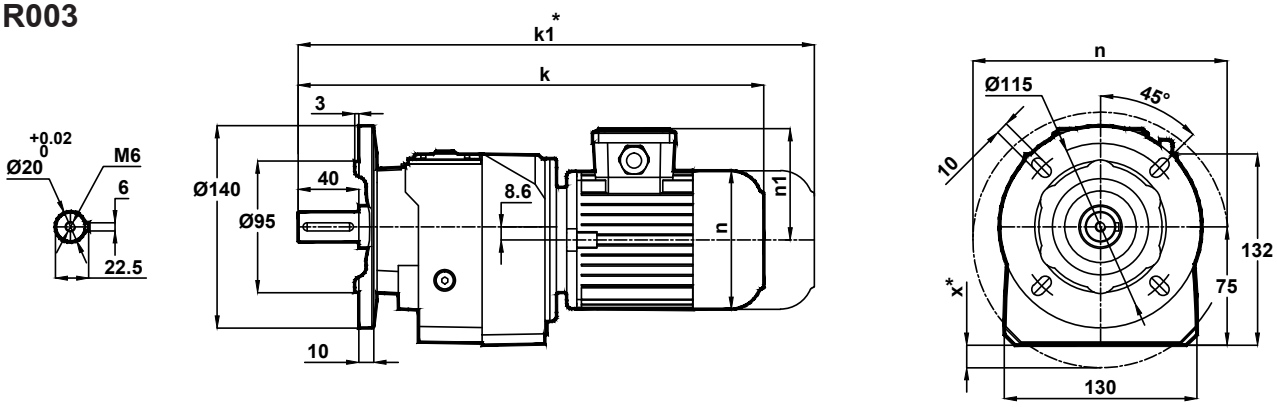
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR002
MR003

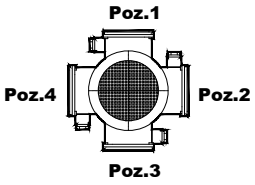


NR002
NR003



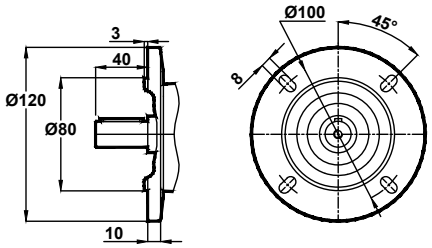
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
	63	**71**	**80**	**90S**	**90L**
k	368	387	415	443	483
k1	421	507	535	568	608
n	121	138	156	176	176
n1	97	111	118	126	126
x	-	5	14	24	24

Klemens Kutusu / *Terminal Box* / Klemmenkasten

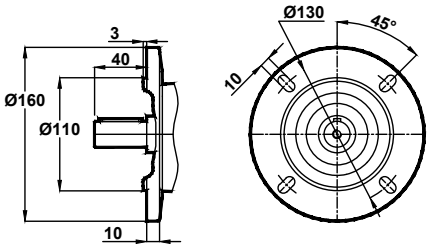


63-71-80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

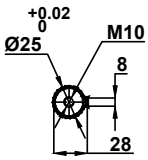


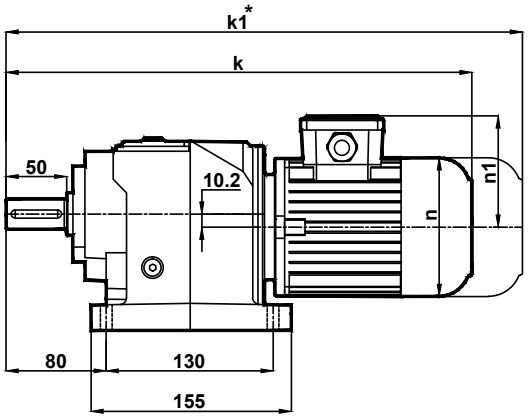
Opt. 2

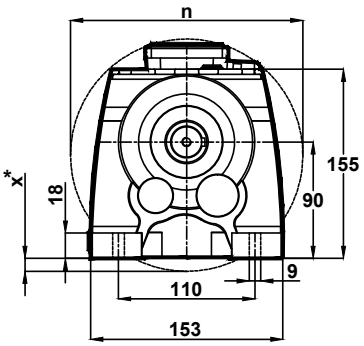
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

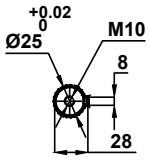
MR102
MR103

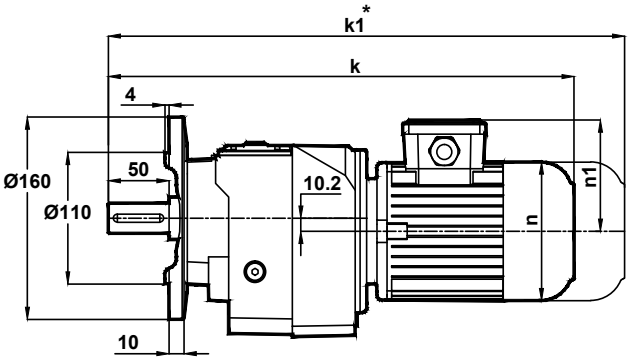


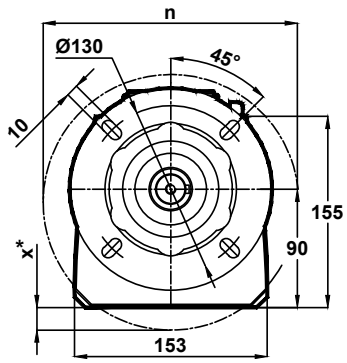




NR102
NR103

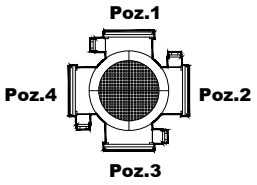






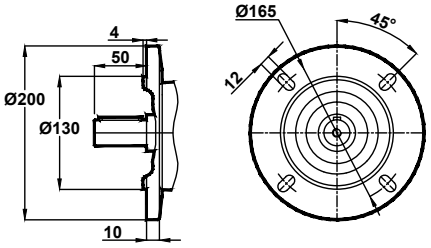
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
	63	71	80	90S	90L
k	394	413	442	471	596
k1	447	533	562	596	633
n	121	138	156	176	176
n1	97	111	118	126	126
x	-	-	-	10	10

Klemens Kutusu /*Terminal Box* / Klemmenkasten

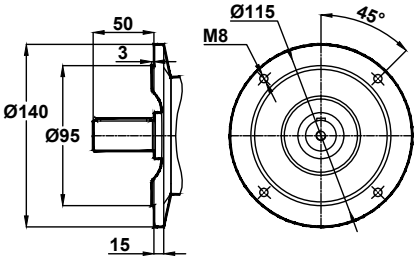


63-71-80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

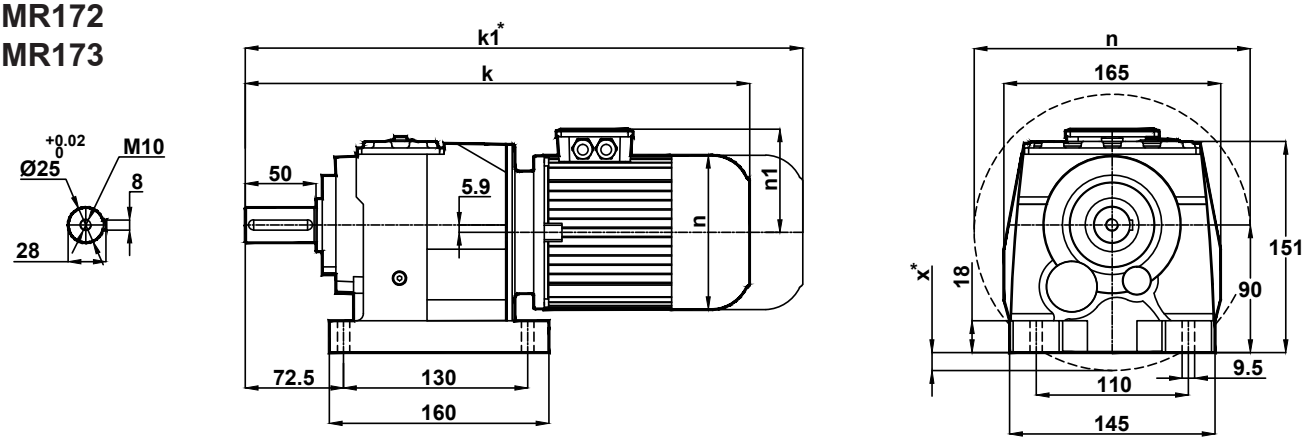


Opt. 2

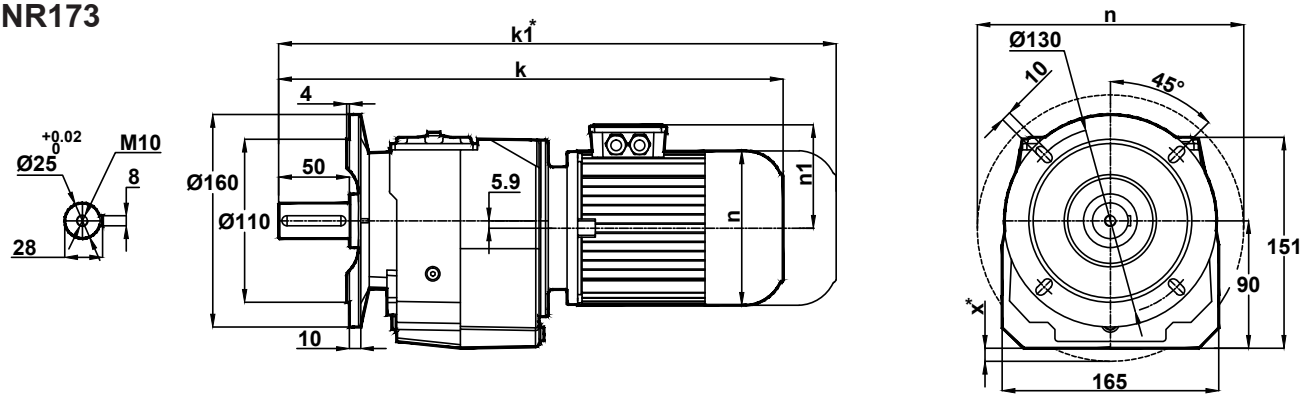
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR172
MR173

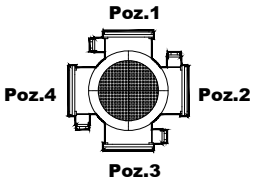


NR172
NR173



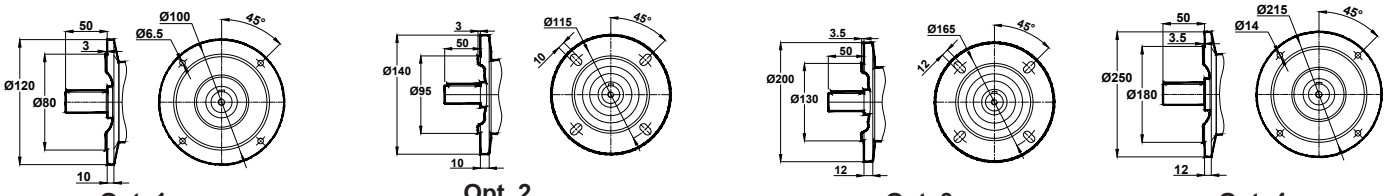
Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
	63	**71**	**80**	**90S**	**90L**	**100L**	**112M**
k	395	414	442	470	510	536	559
k1	448	534	562	595	635	671	694
n	121	138	156	176	176	194	218
n1	97	111	118	126	126	135	146
x	-	-	-	6	6	16	28

Klemens Kutusu / *Terminal Box* / Klemmenkasten



63-71-80-90-100-112

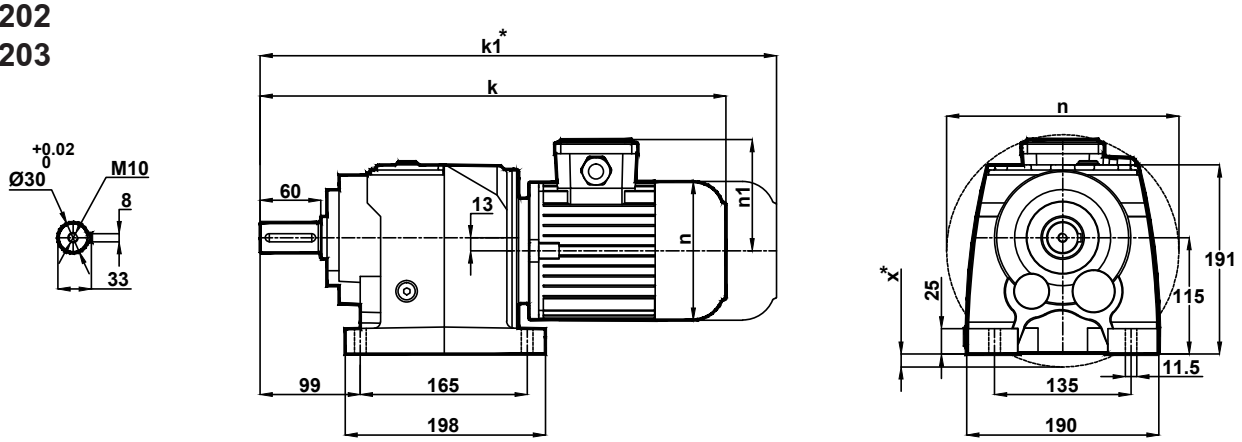
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



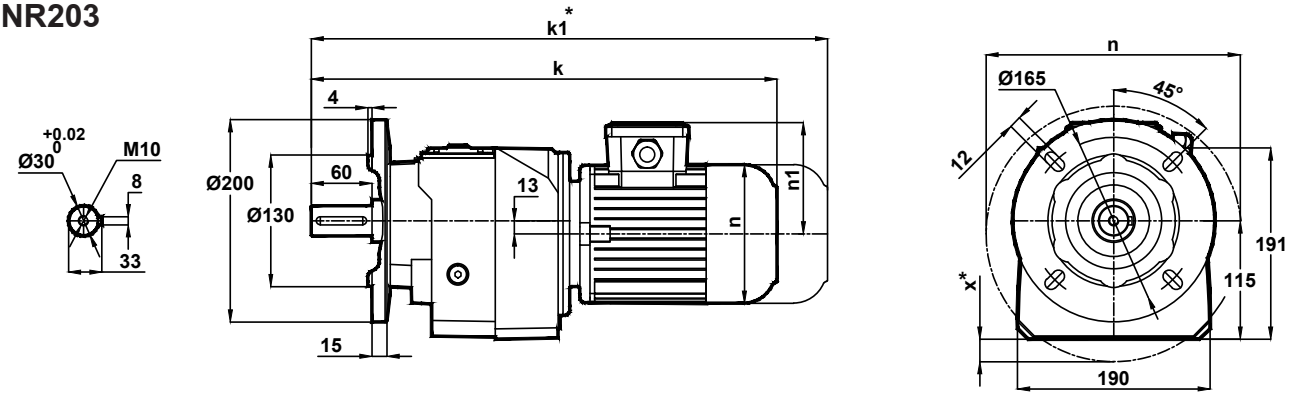
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR202
MR203

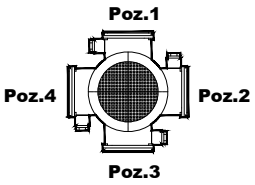


NR202
NR203

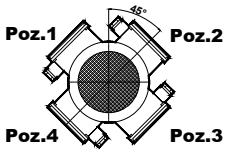


Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	442	461	489	517	542	583	606
k1	495	581	609	642	667	718	741
n	121	138	156	176	176	194	218
n1	97	111	118	126	126	135	146
x	-	-	-	-	-	-	10

Klemens Kutusu /*Terminal Box* / Klemmenkasten

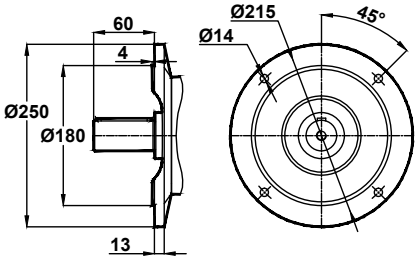


63-80-90-100-112

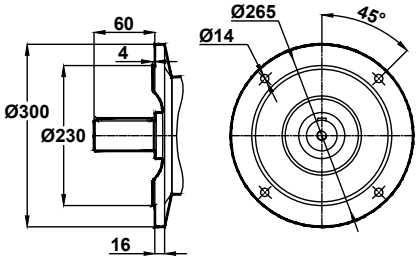


71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

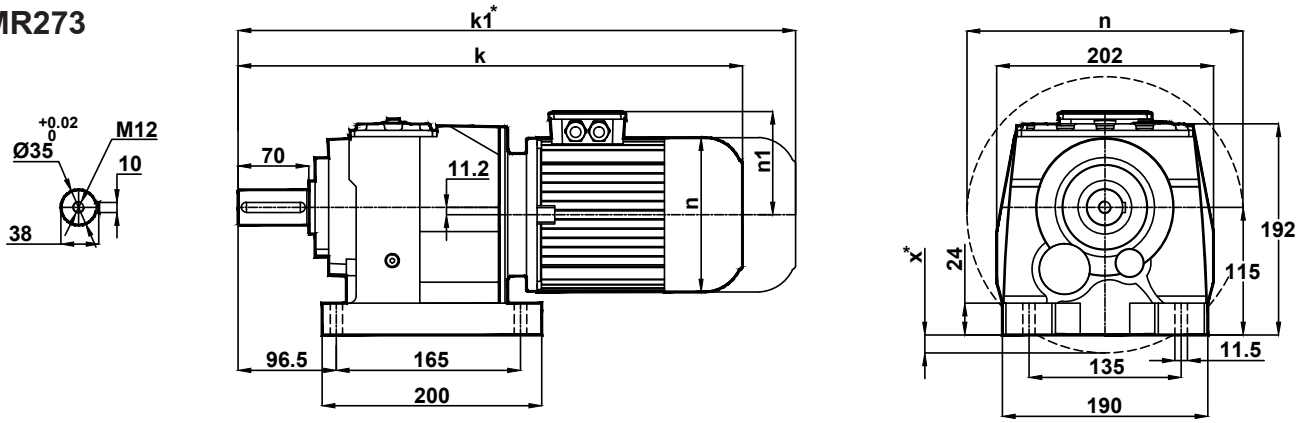


Opt. 2

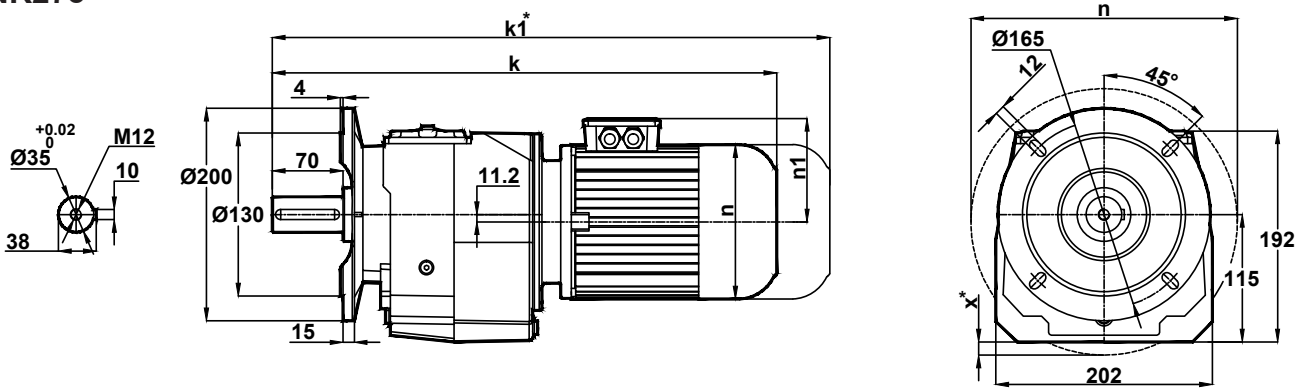
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR272
MR273

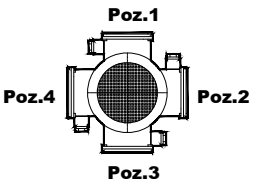


NR272
NR273

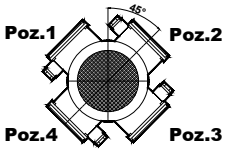


Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	443	462	490	518	543	584	607
k1	496	582	610	643	668	719	742
n	121	138	156	176	176	194	218
n1	97	111	118	126	126	135	146
x	-	-	-	-	-	-	9

Klemens Kutusu / *Terminal Box* / Klemmenkasten

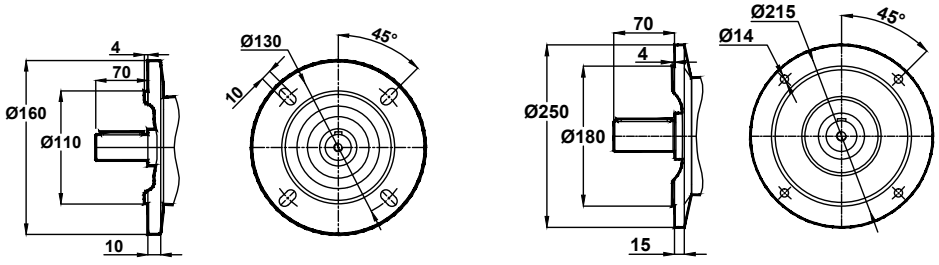


63-80-90-100-112



71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*

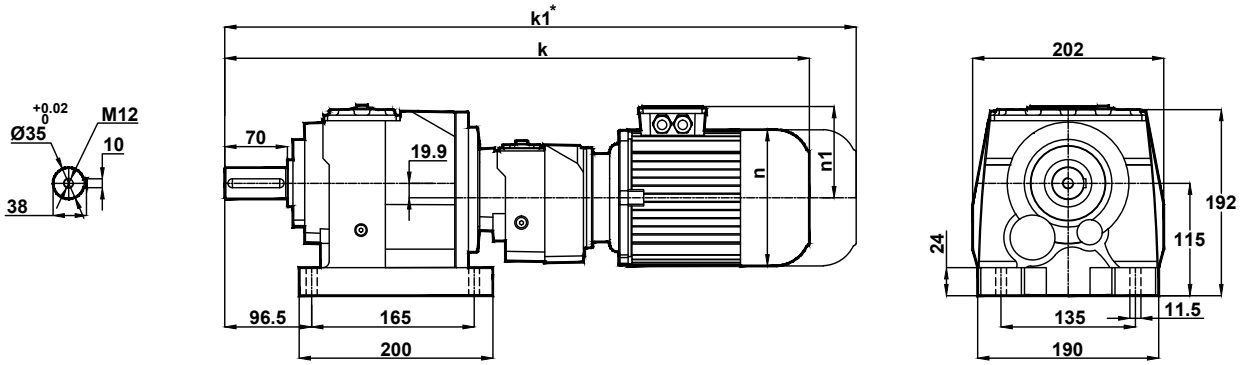


Opt. 1 **Opt. 2**

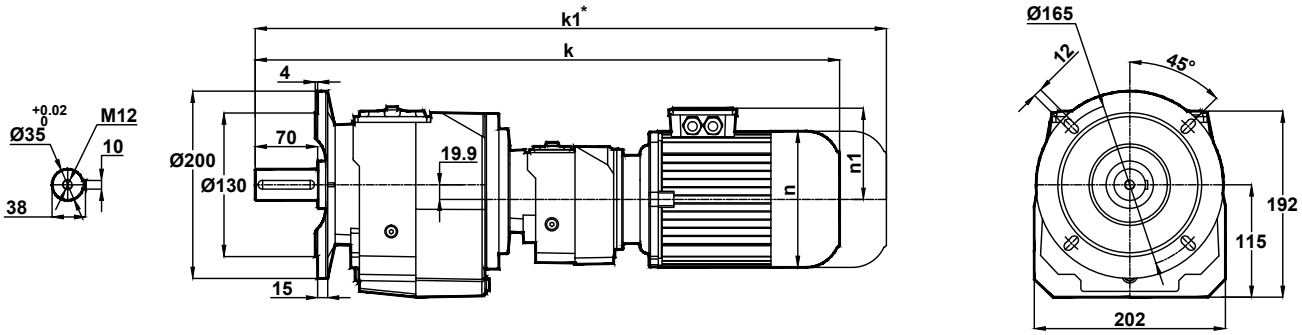
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR275
MR276

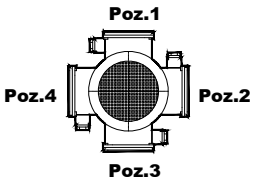


NR275
NR276



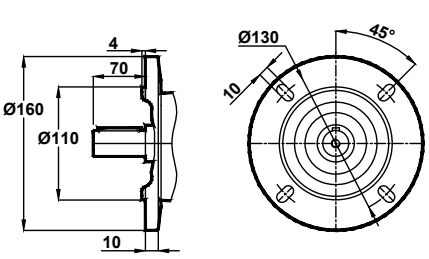
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	593	614
k1	646	734
n	121	138
n1	97	111

Klemens Kutusu /*Terminal Box* / Klemmenkasten

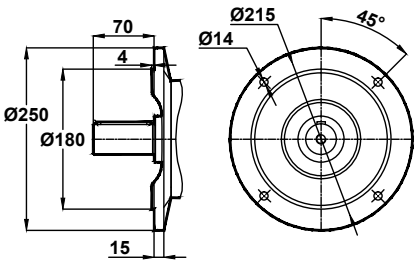


63-71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

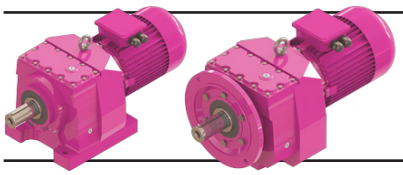


Opt. 1



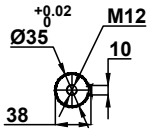
Opt. 2

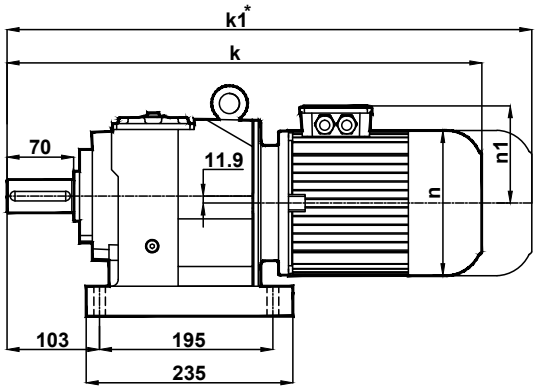
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

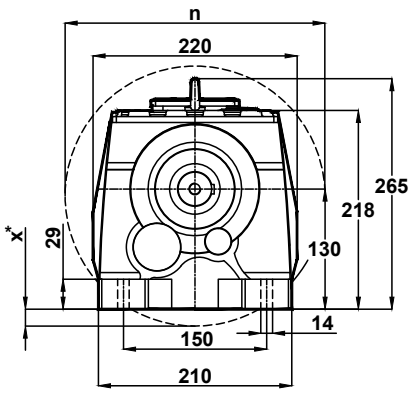


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

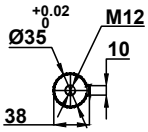
MR282
MR283

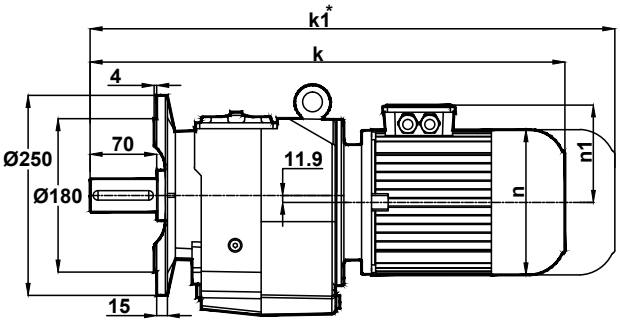


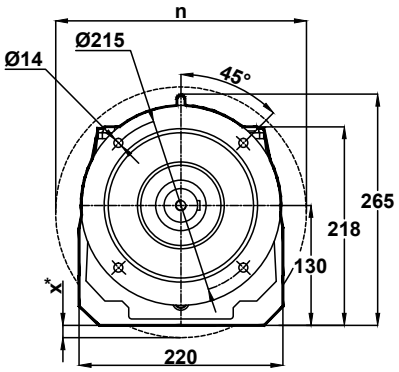




NR282
NR283

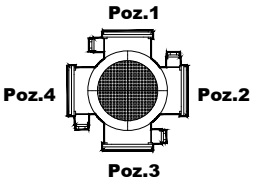




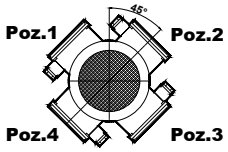


Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	479	507	537	562	602	625	679	717
k1	599	627	662	687	737	760	824	862
n	138	156	176	176	194	218	257	257
n1	111	118	126	126	135	146	168	168
x	-	-	-	-	-	-	-	14

Klemens Kutusu / *Terminal Box* / Klemmenkasten

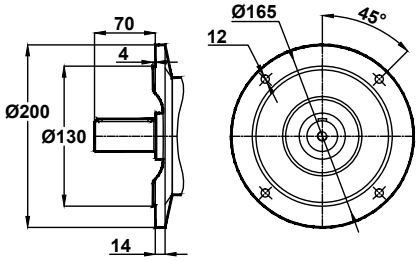


71-100-112-132

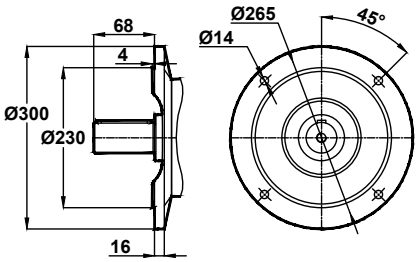


80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



Opt. 1

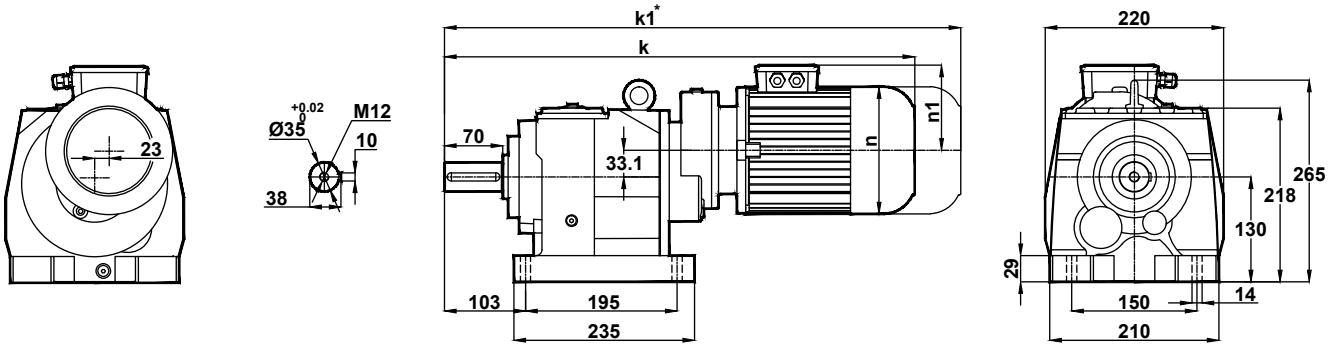


Opt. 2

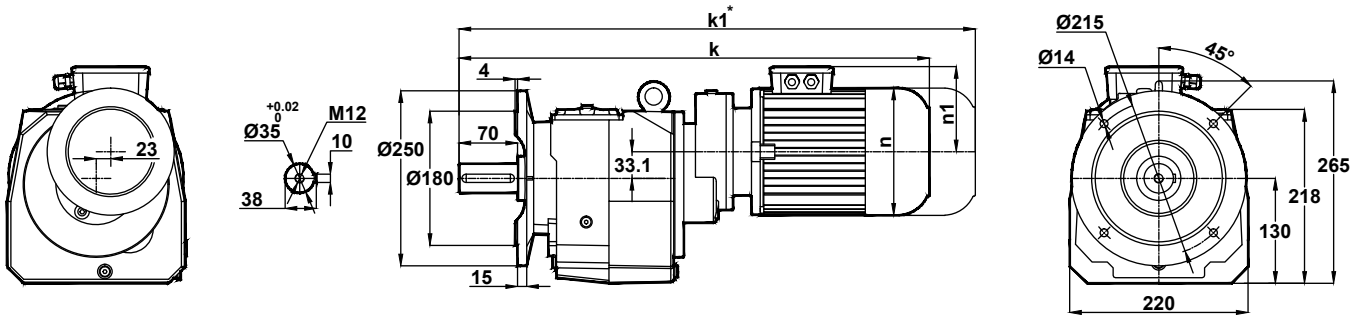
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR284

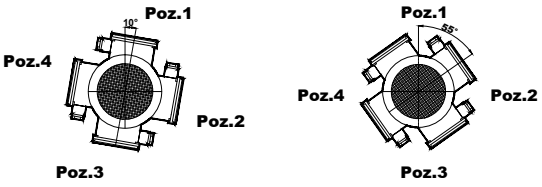


NR284



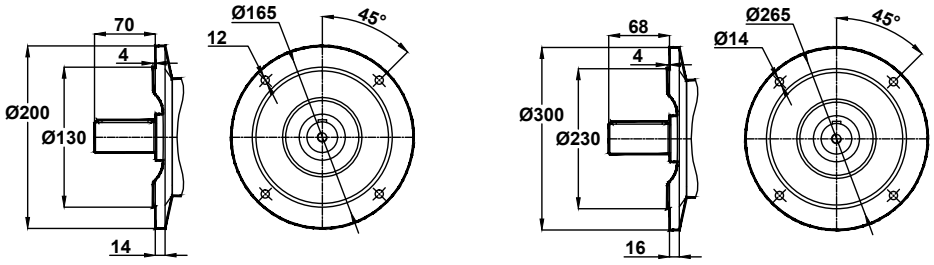
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	540	558
k1	593	678
n	121	138
n1	97	111

Klemens Kutusu / *Terminal Box* / Klemmenkasten



63 71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

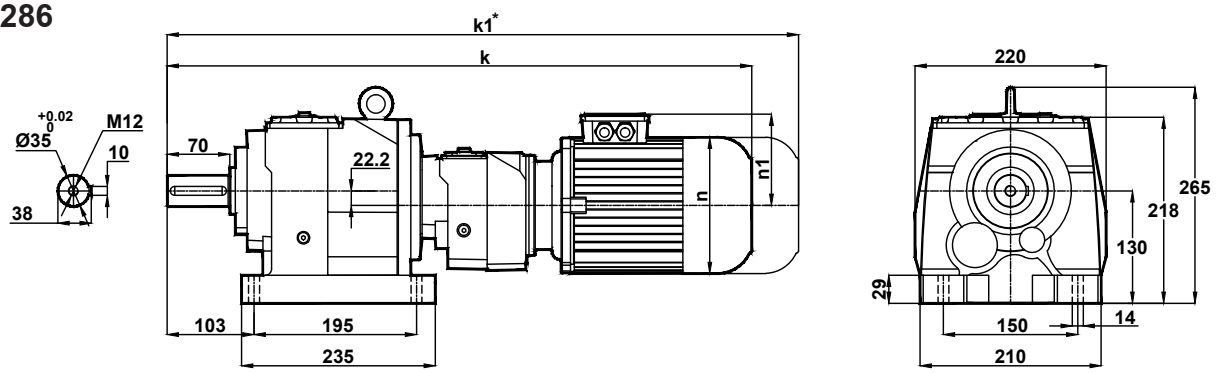


Opt. 1 **Opt. 2**

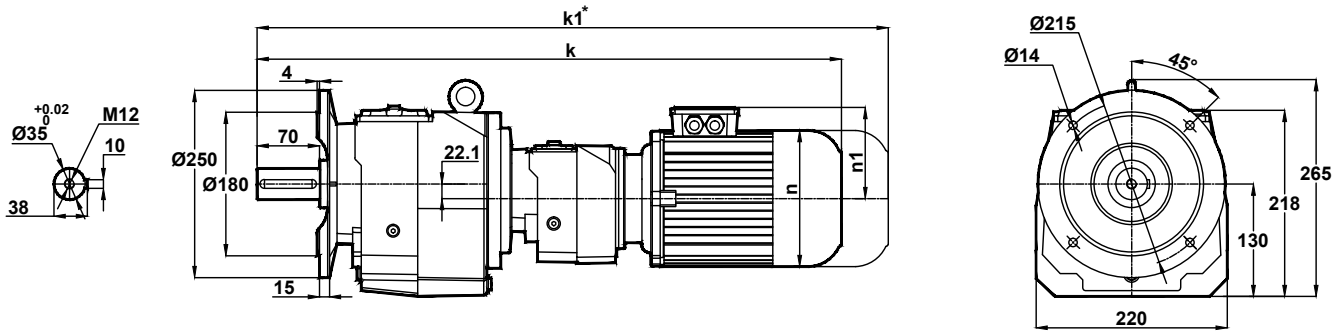
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR285
MR286

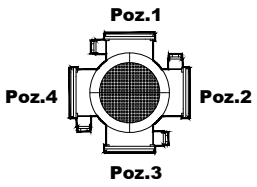


NR285
NR286



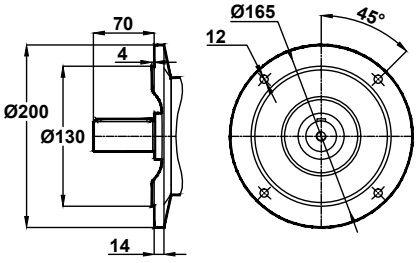
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
	63
k	641
k1	694
n	121
n1	97

Klemens Kutusu /*Terminal Box* / Klemmenkasten

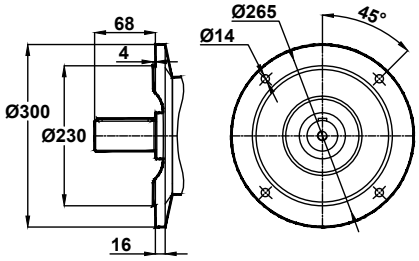


63

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

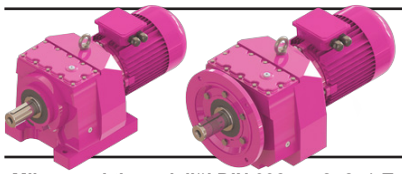


Opt. 1



Opt. 2

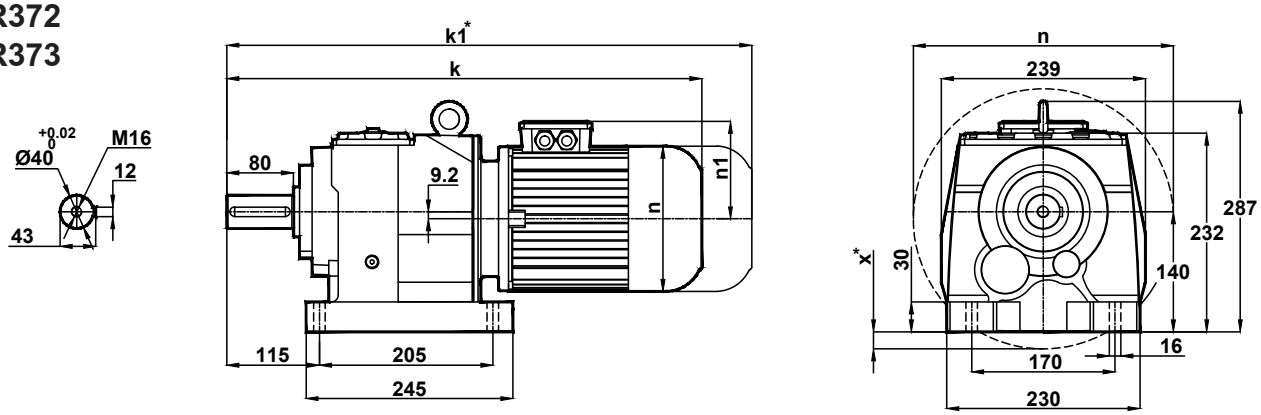
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



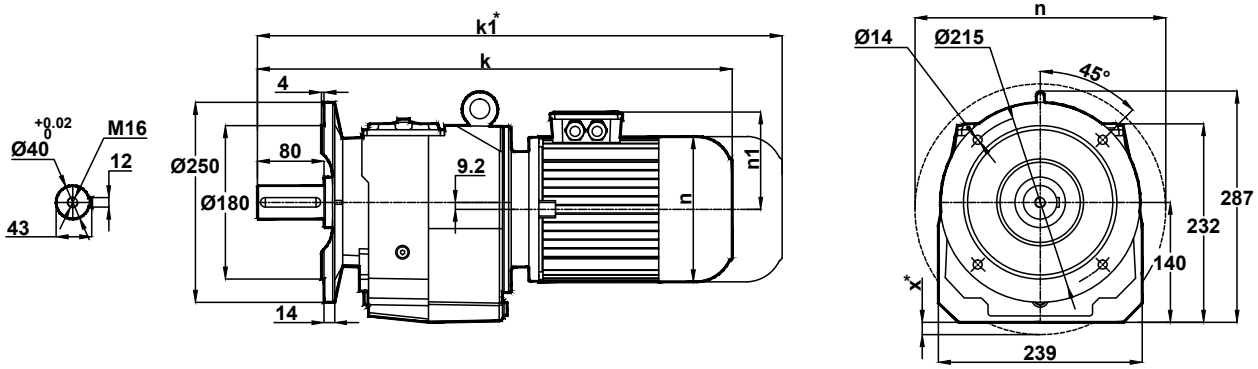
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR372
MR373

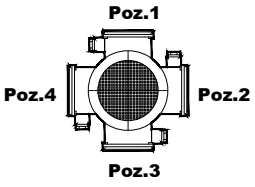


NR372
NR373

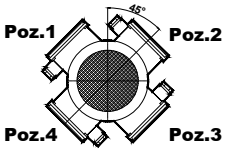


Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	500	528	558	583	623	646	700	738
k1	620	648	683	708	758	781	845	883
n	138	156	176	176	194	218	257	257
n1	111	118	126	126	135	146	168	168
x	-	-	-	-	-	-	2	30

Klemens Kutusu /*Terminal Box* / Klemmenkasten

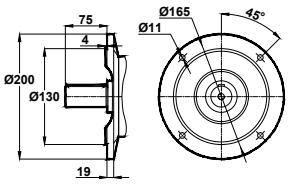


71-100-112-132

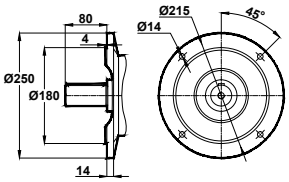


80-90

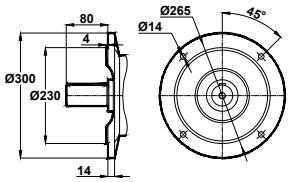
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



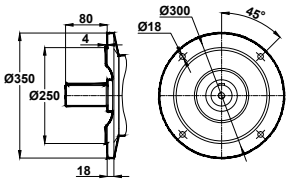
Opt. 1



Opt. 2

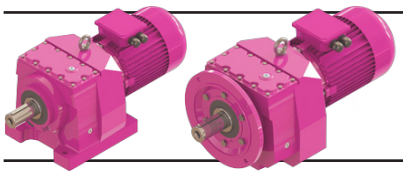


Opt. 3



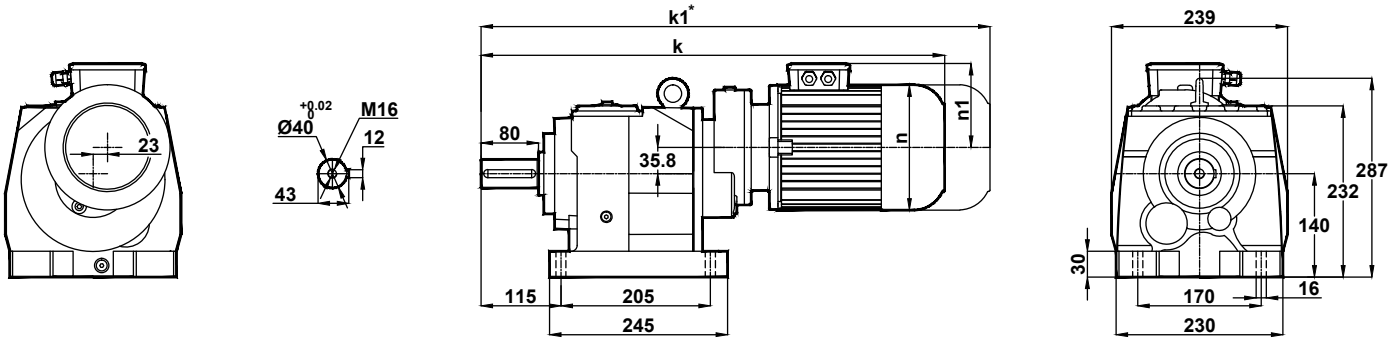
Opt. 4

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

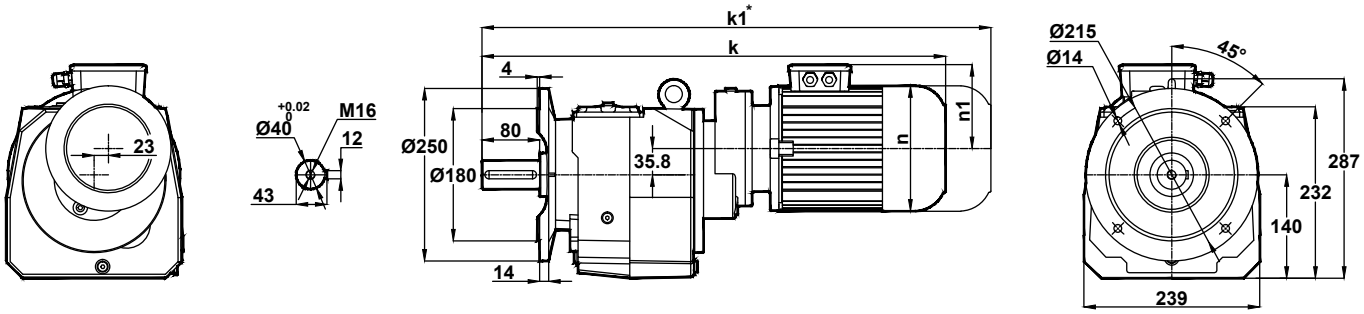


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR374

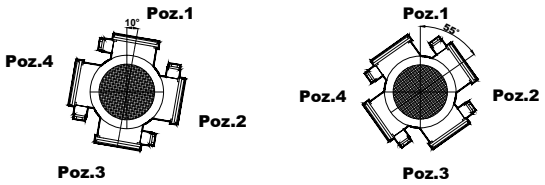


NR374

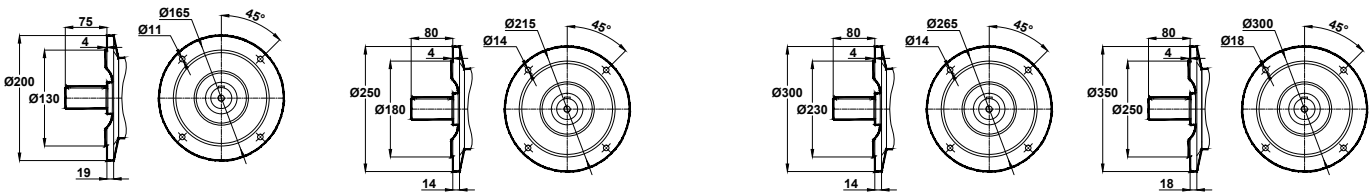


Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
	63	71	80
k	561	579	608
k1	614	699	728
n	121	138	156
n1	97	111	118

Klemens Kutusu /*Terminal Box* / Klemmenkasten



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

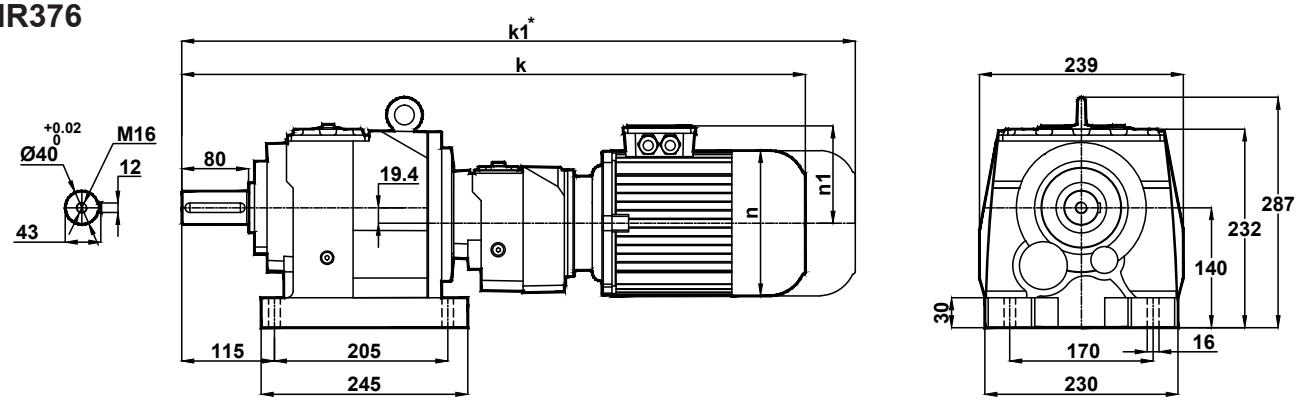


Opt. 1 **Opt. 2** **Opt. 3** **Opt. 4**

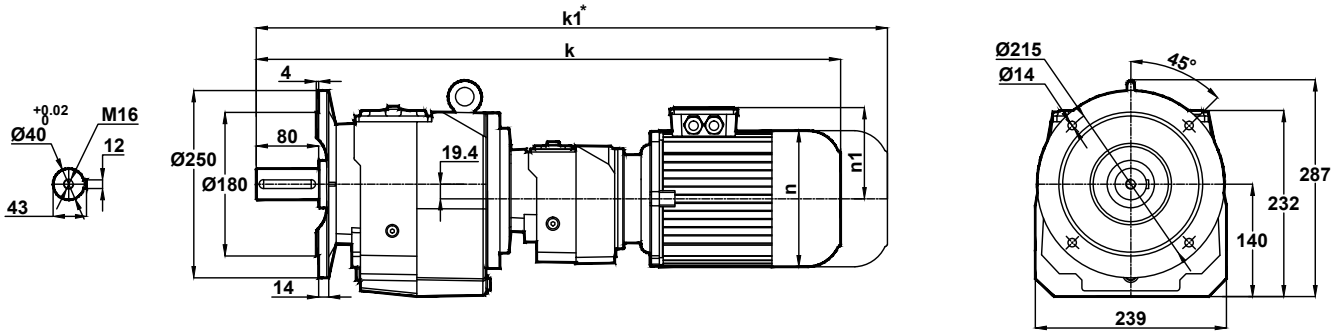
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR375
MR376

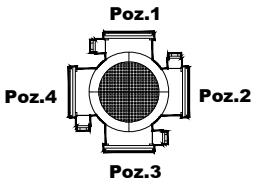


NR375
NR376



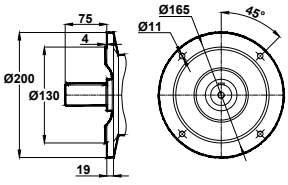
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
	63
k	662
k1	715
n	121
n1	97

Klemens Kutusu / *Terminal Box* / Klemmenkasten

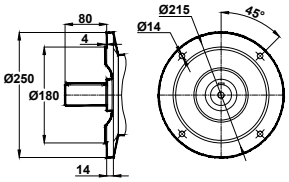


63

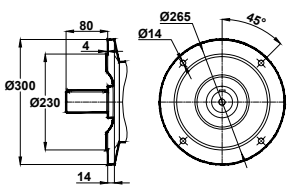
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



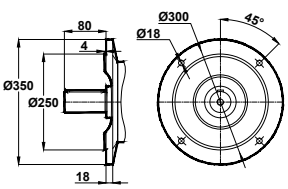
Opt. 1



Opt. 2

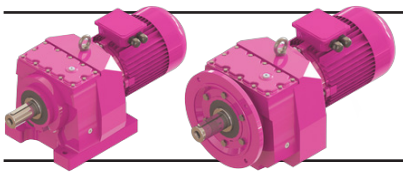


Opt. 3



Opt. 4

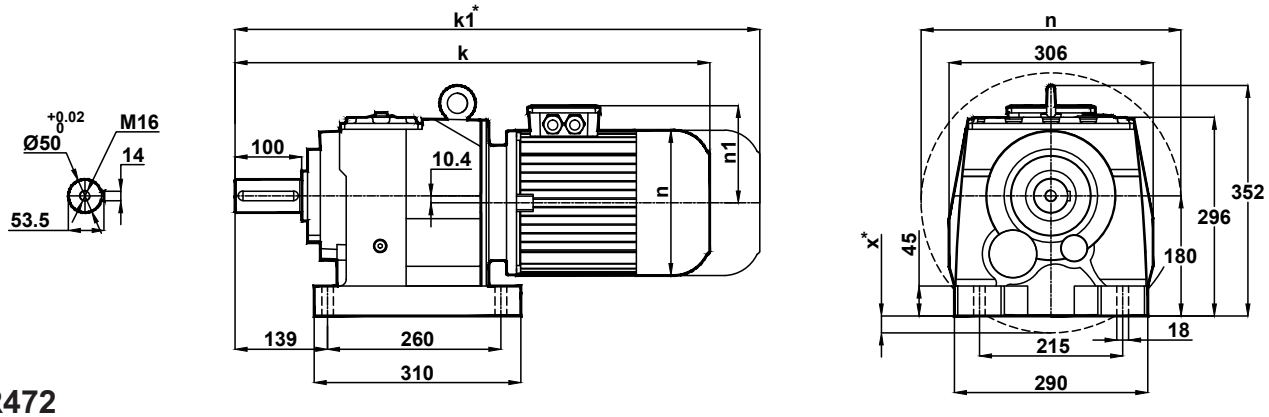
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



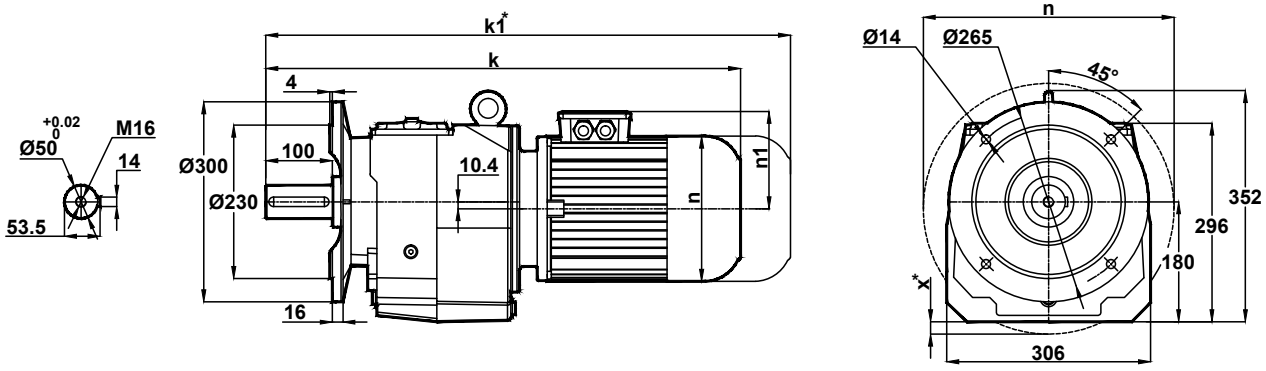
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR472
MR473

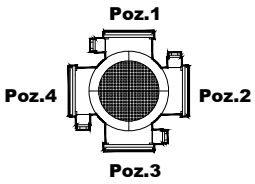


NR472
NR473



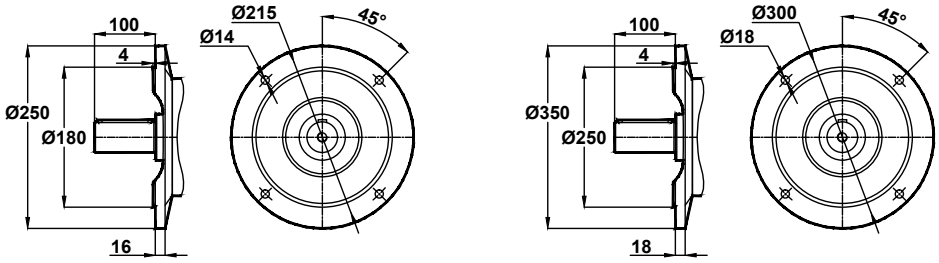
Motor Büyüklüğü / *Motor Size* / Motorbaugroße											
	80	**90S**	**90L**	**100L**	**112M**	**132S**	**132M**	**160M**	**160L**	**180M**	**180L**
k	596	624	649	688	713	762	800	875	919	936	974
k1	716	749	774	823	848	907	945	1045	1089	1106	1144
n	156	176	176	194	218	257	257	310	310	348	348
n1	118	126	126	135	146	168	168	225	225	241	241
x	-	-	-	-	-	-	-	-	-	11	11

Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90-100-112-132-160-180

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
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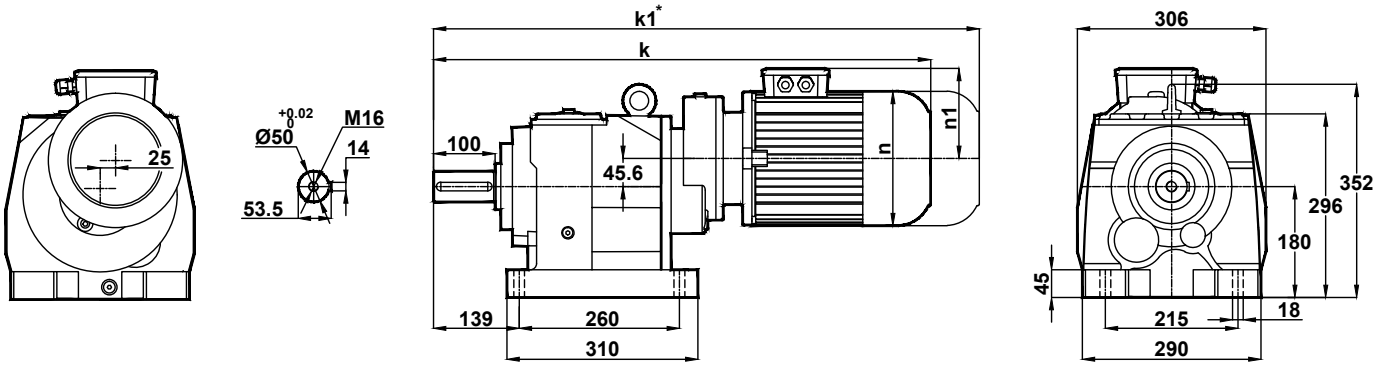
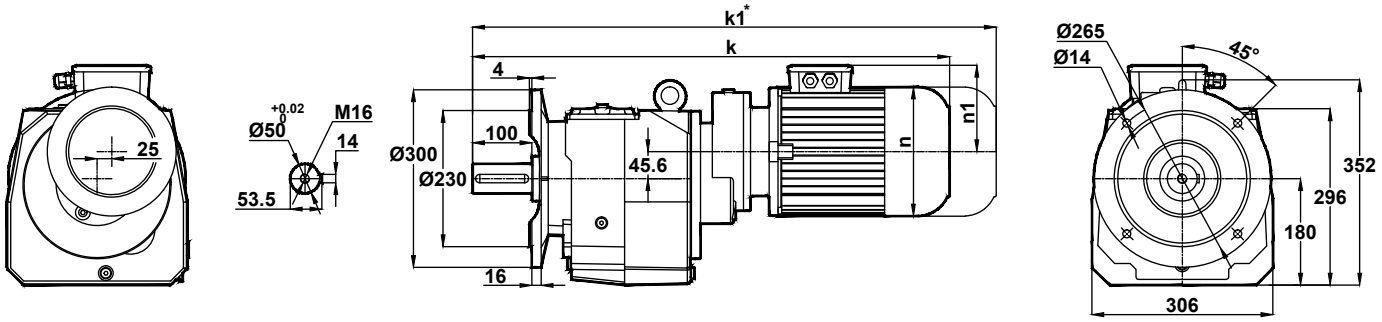
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR474

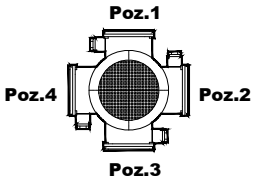


NR474

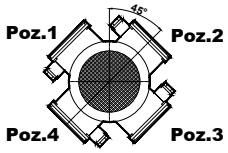


Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	71	80
k	661	689
k1	781	809
n	138	156
n1	111	118

Klemens Kutusu /*Terminal Box* / Klemmenkasten

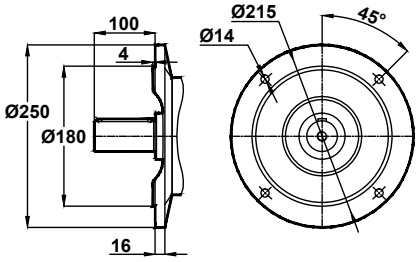


71

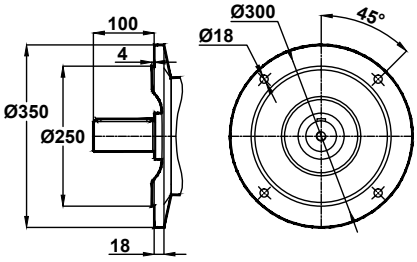


80

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

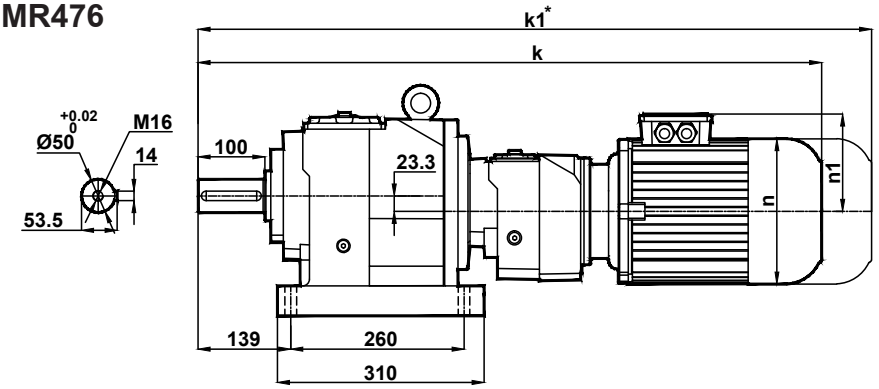


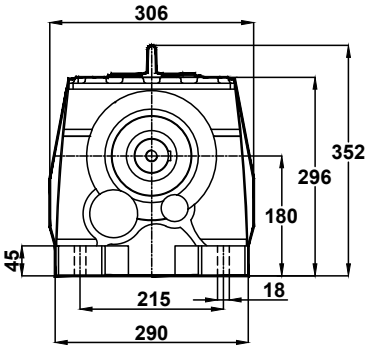
Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

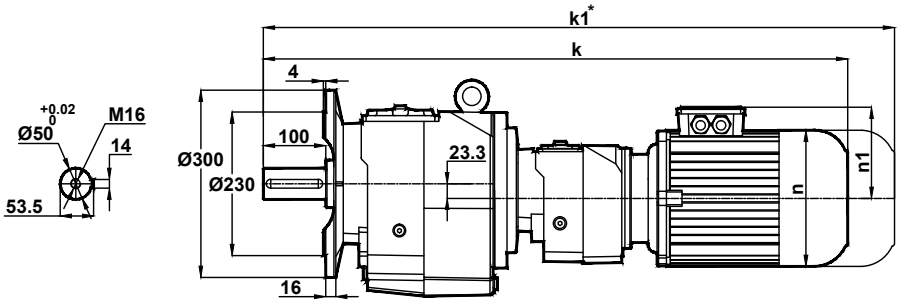
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

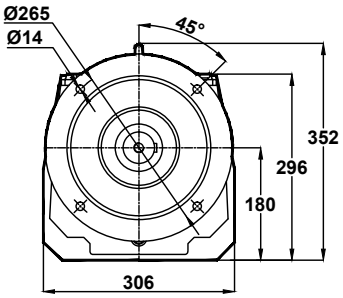
MR475
MR476





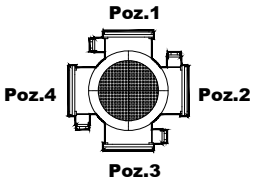
NR475
NR476



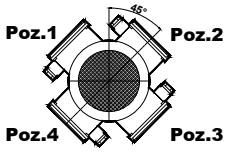


Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	772	791
k1	825	911
n	121	138
n1	97	111

Klemens Kutusu / *Terminal Box* / Klemmenkasten

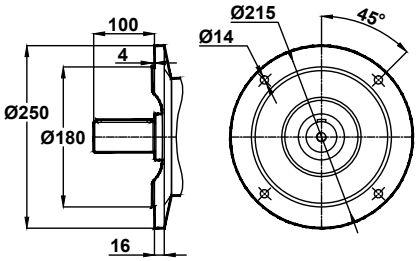


63

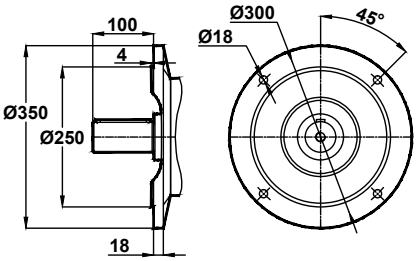


71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

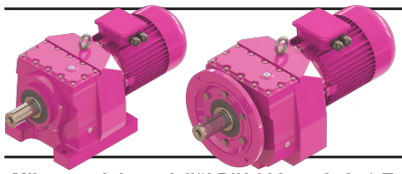


Opt. 1



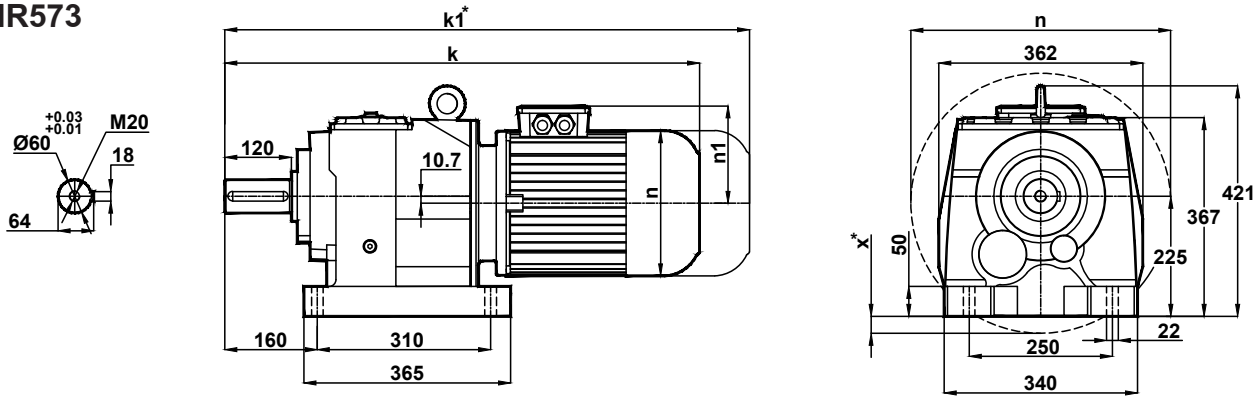
Opt. 2

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

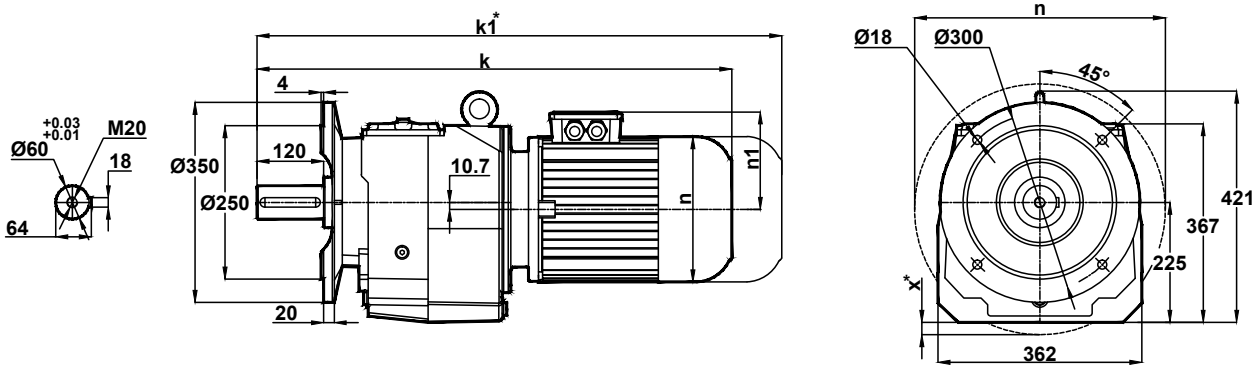


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR572
MR573

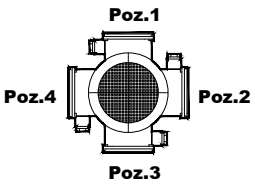


NR572
NR573



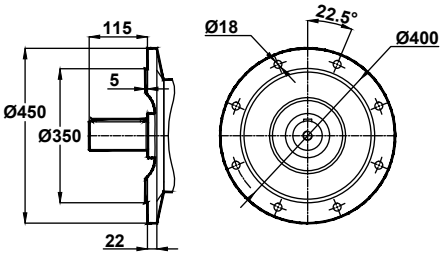
Motor Büyüklüğü / *Motor Size* / Motorbaugroße									
	100L	112M	132S	132M	160M	160L	180M	180L	200L
k	745	768	822	860	935	979	995	1033	1072
k1	880	903	967	1005	1105	1149	1165	1203	1272
n	194	218	257	257	310	310	348	348	390
n1	135	146	168	168	225	225	241	241	275
x	-	-	-	-	-	-	-	-	-

Klemens Kutusu /*Terminal Box* / Klemmenkasten

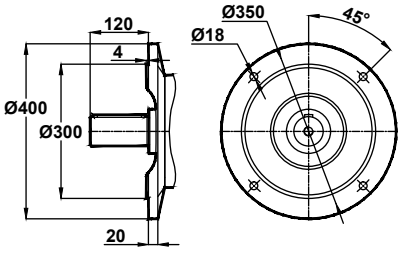


100-112-132-160-180-200

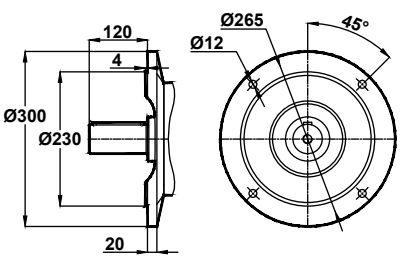
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

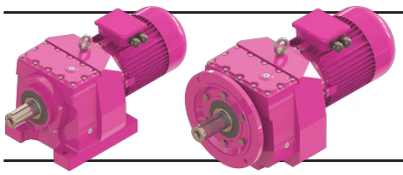


Opt. 2



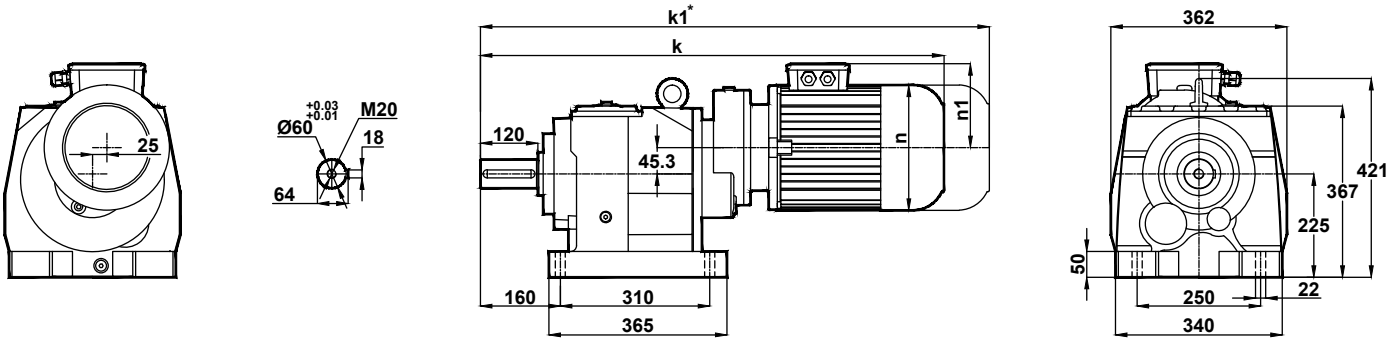
Opt. 3

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

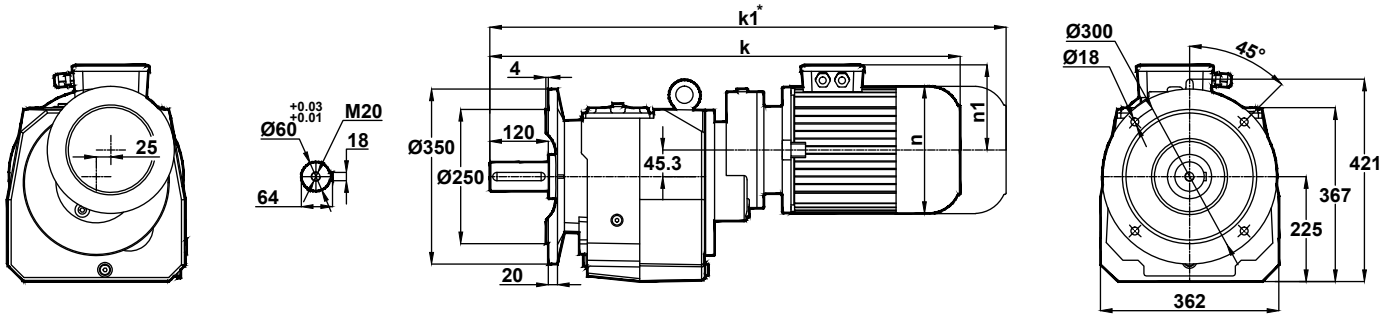


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR574

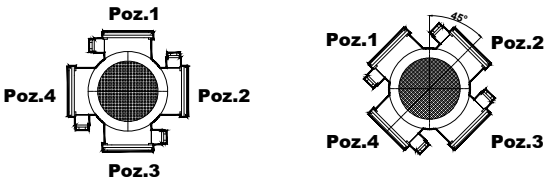


NR574



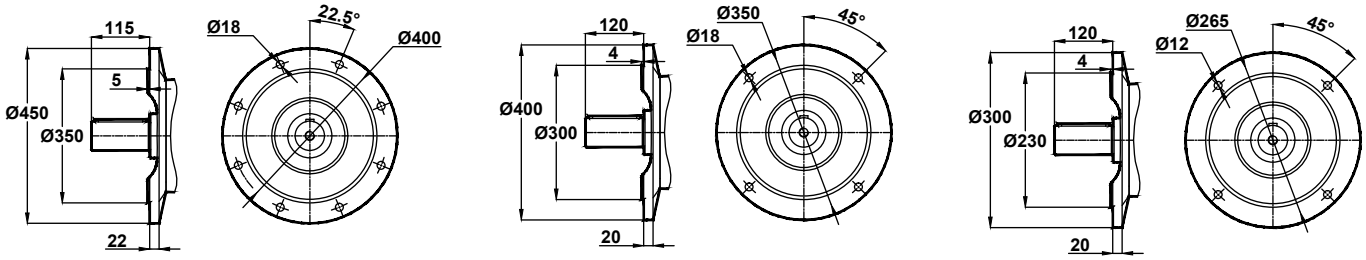
Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	71	80	90S	90L
k	723	751	780	805
k1	843	871	905	930
n	138	156	176	176
n1	111	118	126	126

Klemens Kutusu / *Terminal Box* / Klemmenkasten



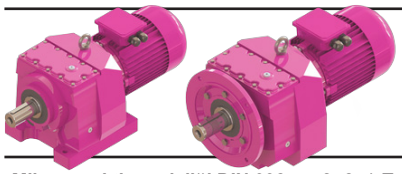
71 80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



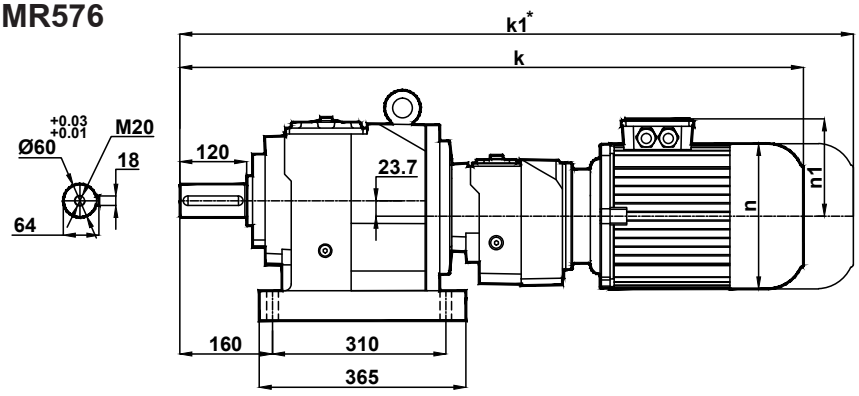
Opt. 1 Opt. 2 Opt. 3

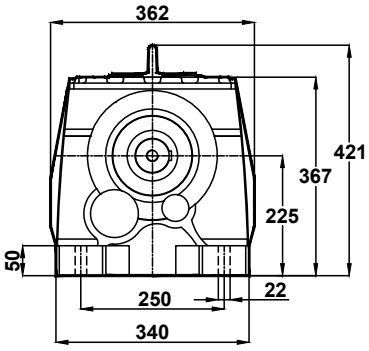
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



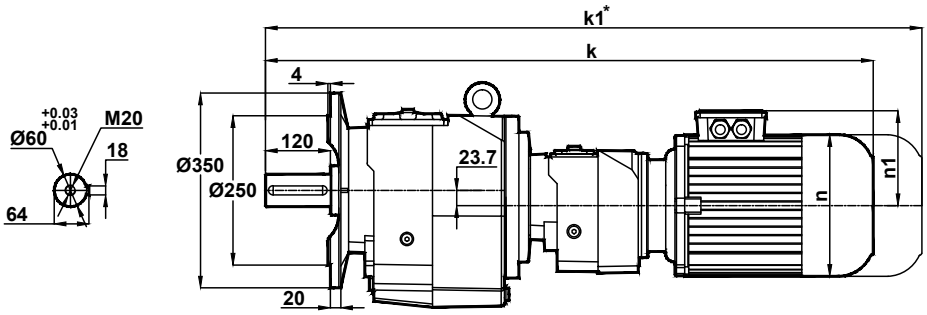
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

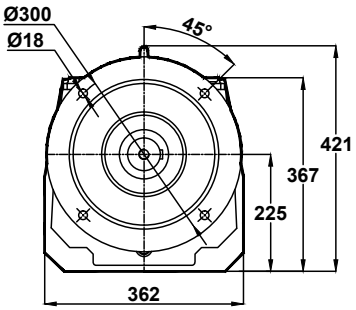
MR575
MR576





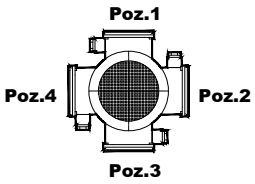
NR575
NR576



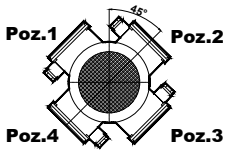


Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	836	855
k1	889	975
n	121	138
n1	97	111

Klemens Kutusu /*Terminal Box* / Klemmenkasten

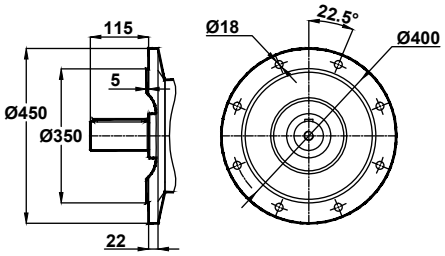


63

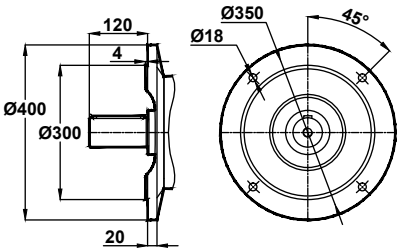


71

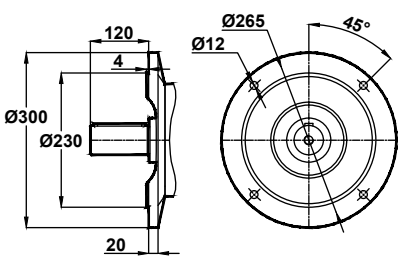
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

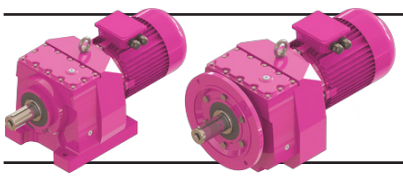


Opt. 2



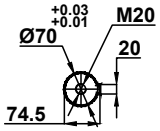
Opt. 3

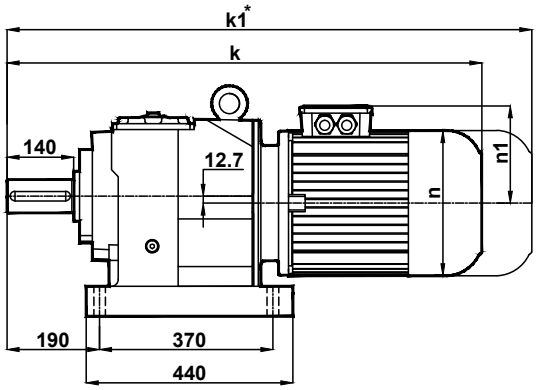
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

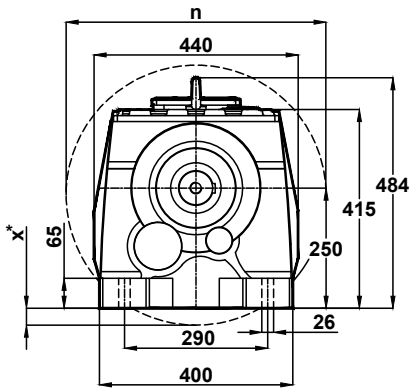


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

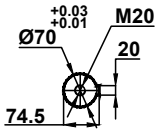
MR672
MR673

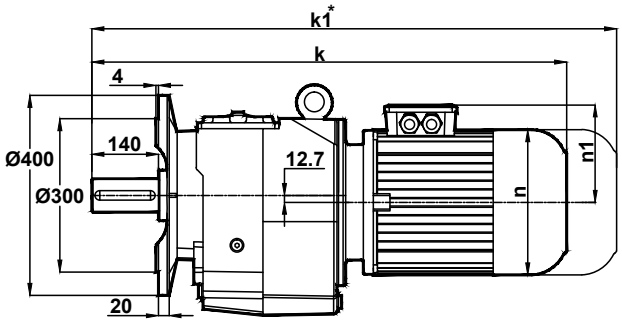


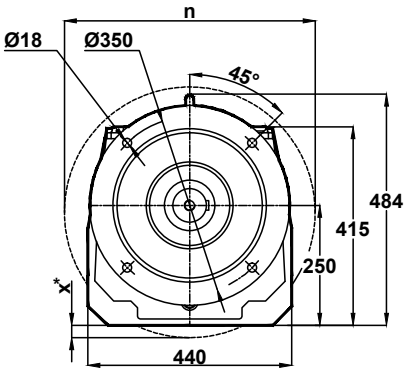




NR672
NR673

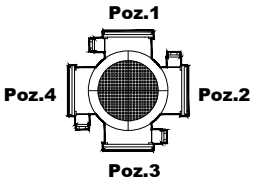






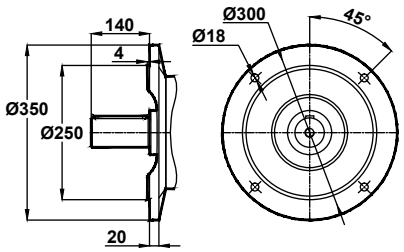
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	825	879	917	991	1035	1049	1087	1129	1155	1180
k1	960	1024	1062	1161	1205	1219	1257	1329	1345	1370
n	218	257	257	310	310	348	348	390	434	434
n1	146	168	168	225	225	241	241	275	285	285
x	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu /*Terminal Box* / Klemmenkasten

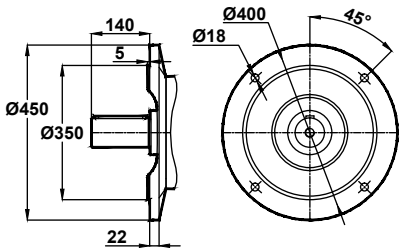


112-132-160-180-200-225

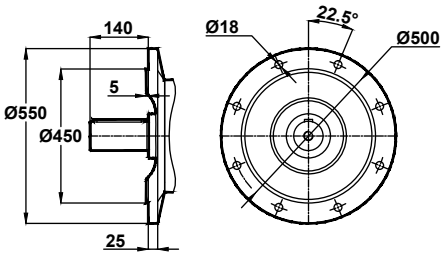
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



Opt. 2

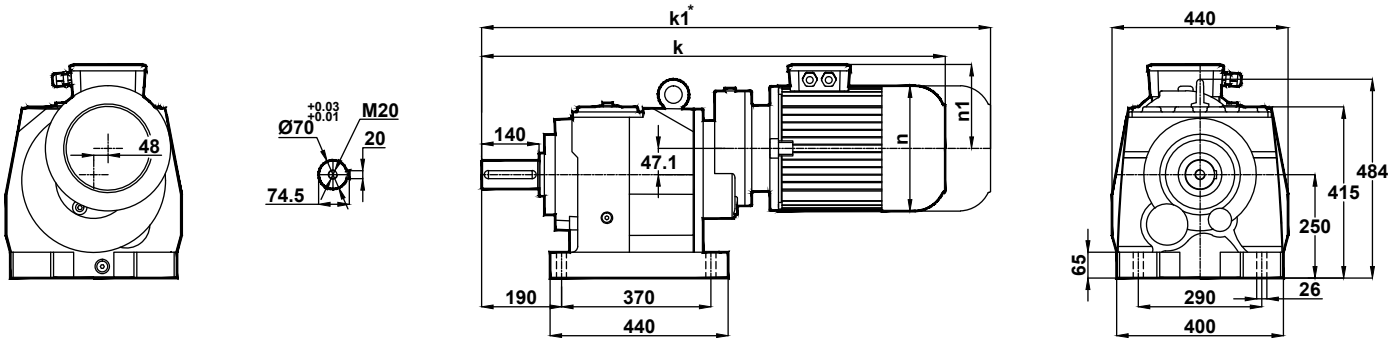


Opt. 3

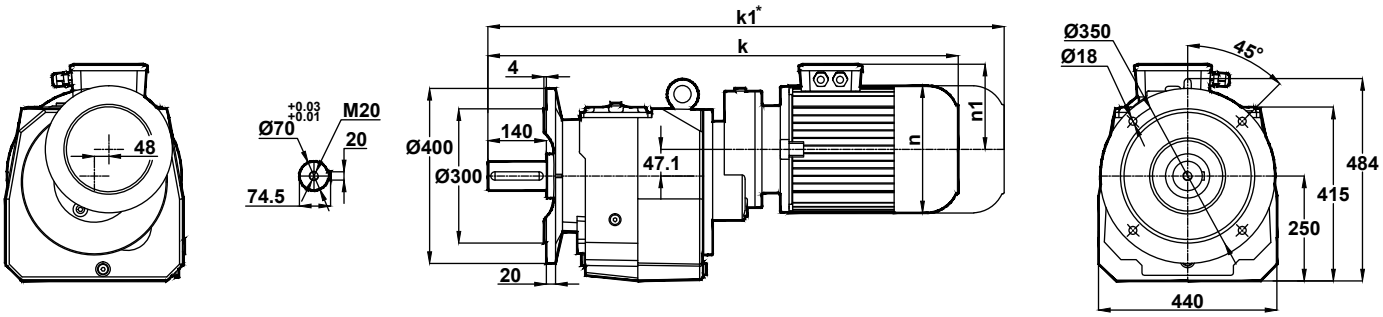
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR674

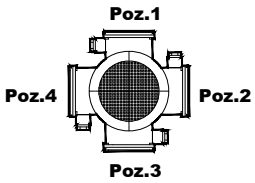


NR674



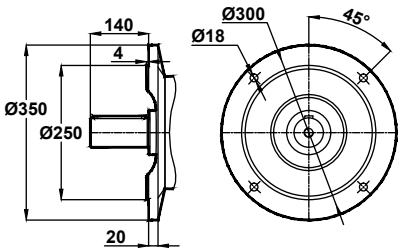
Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
	80	90S	90L
k	827	855	880
k1	947	980	1005
n	156	176	176
n1	118	126	126

Klemens Kutusu /*Terminal Box* / Klemmenkasten

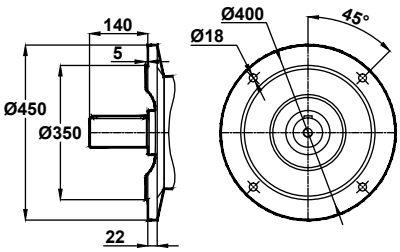


80-90

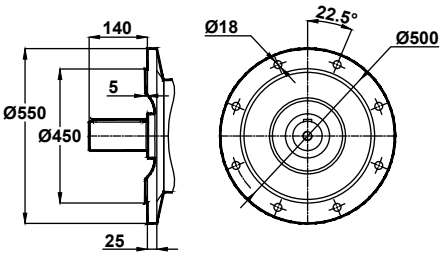
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



Opt. 2

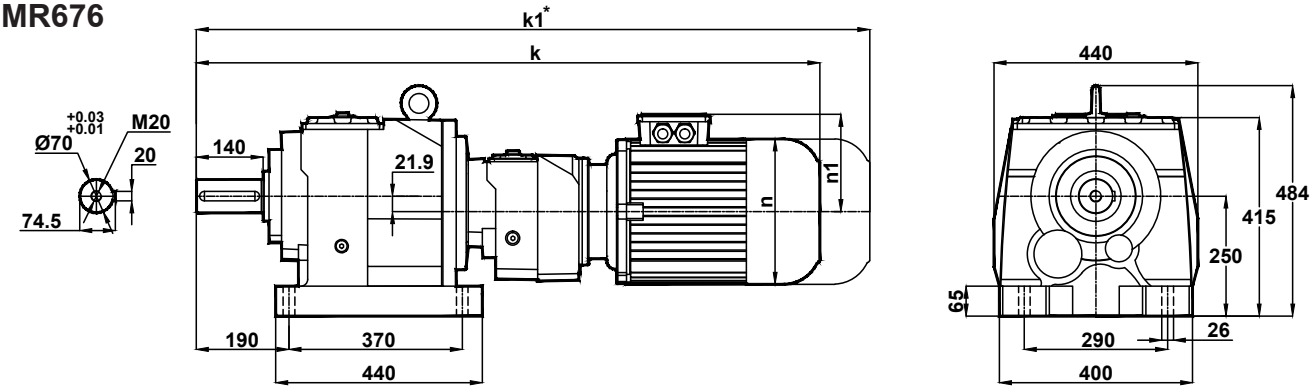


Opt. 3

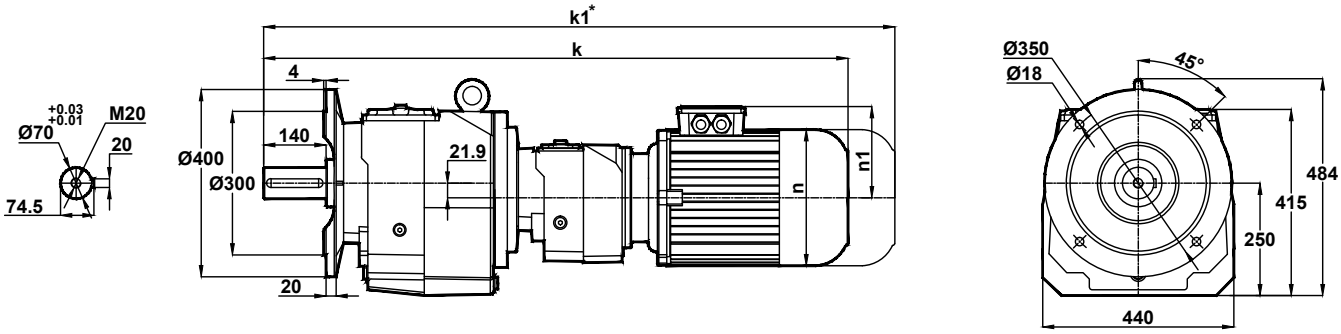
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR675
MR676

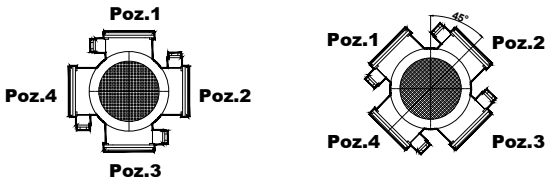


NR675
NR676



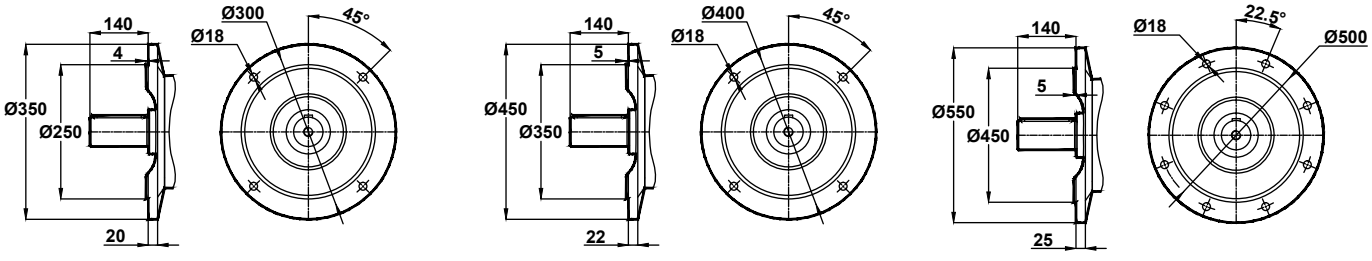
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	71	80
k	944	972
k1	1064	1092
n	138	156
n1	111	118

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71 80

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1 Opt. 2 Opt. 3

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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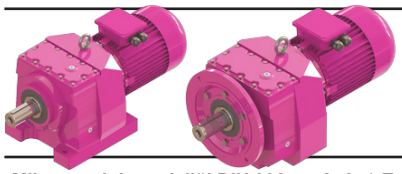
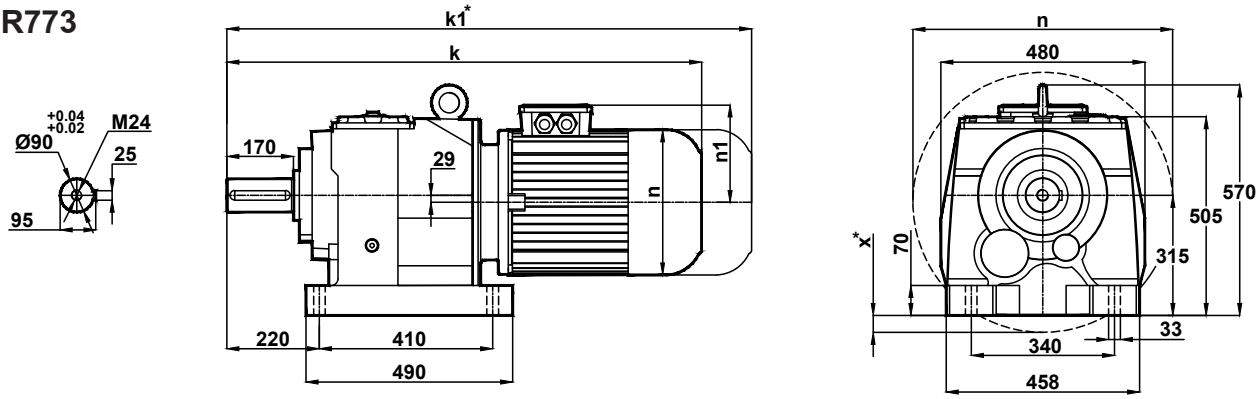


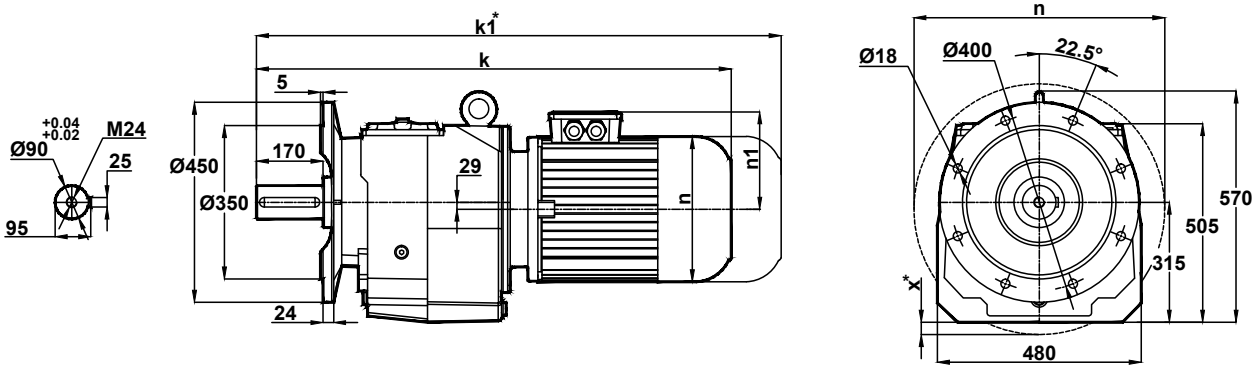
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR772
MR773

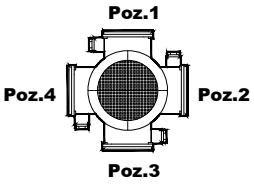


NR772
NR773



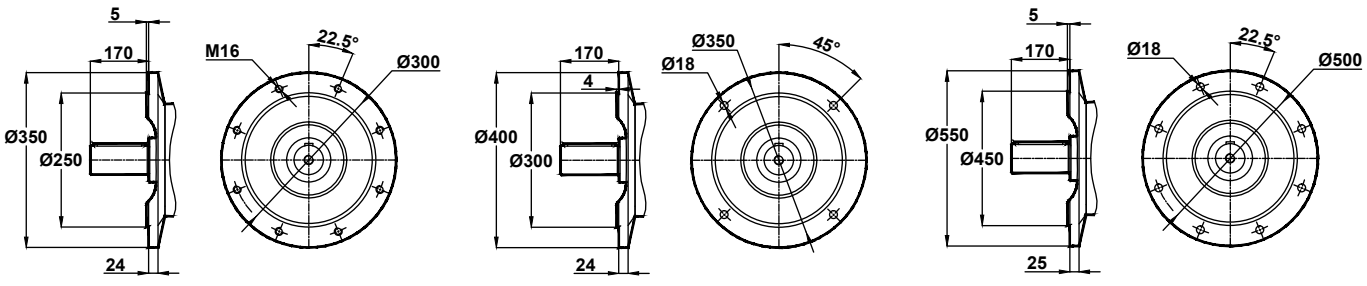
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M
k	958	996	1072	1116	1133	1171	1210	1237	1262	1366
k1	1103	1141	1242	1286	1303	1341	1410	1427	1452	-
n	257	257	310	310	348	348	390	434	434	480
n1	168	168	225	225	241	241	275	285	285	322
x	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu /*Terminal Box* / Klemmenkasten



132-160-180-200-225-250

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1 **Opt. 2** **Opt. 3**

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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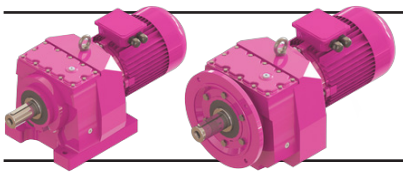
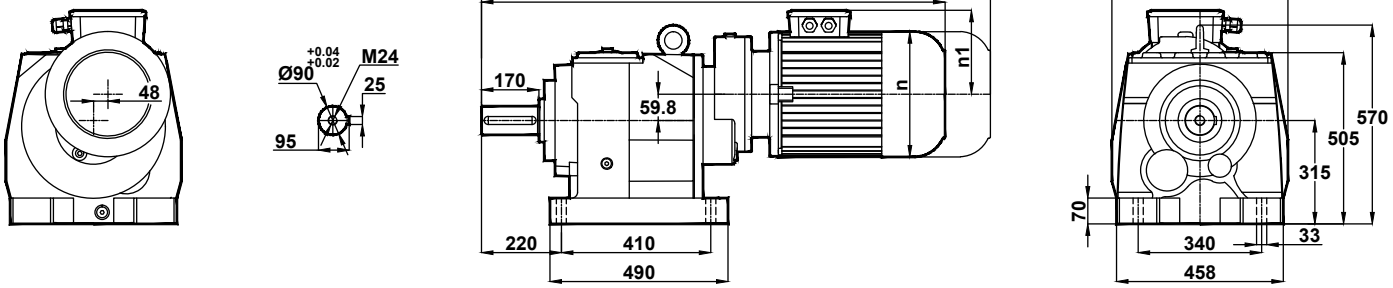
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

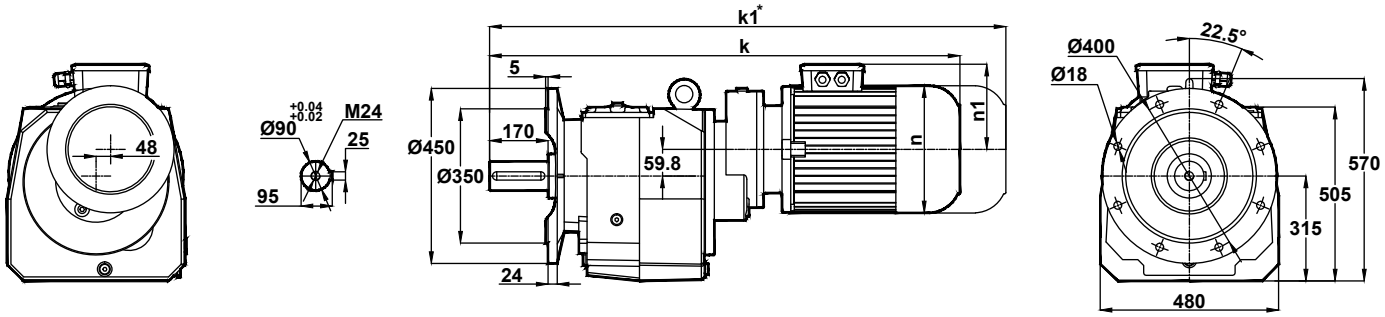


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR774

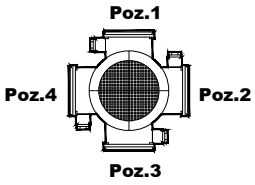


NR774



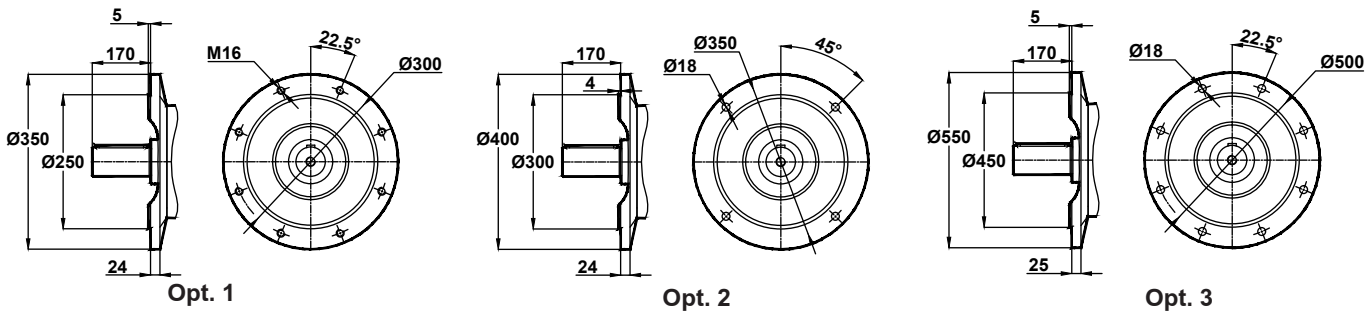
Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	80	**90S**	**90L**	**100L**
k	912	940	965	1003
k1	1032	1065	1090	1138
n	156	176	176	194
n1	118	126	126	135

Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90-100

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
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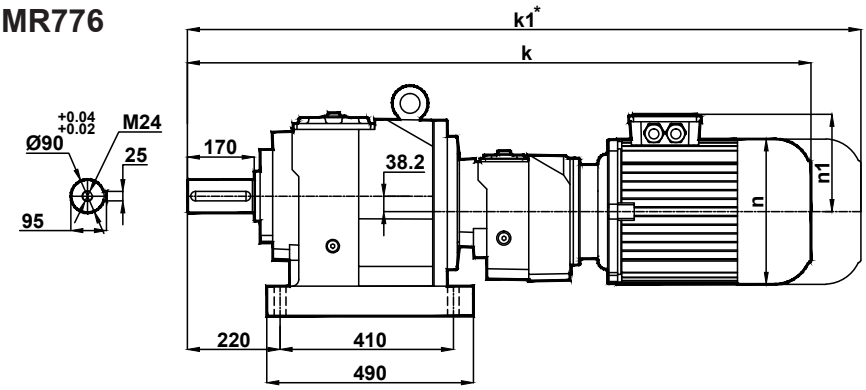
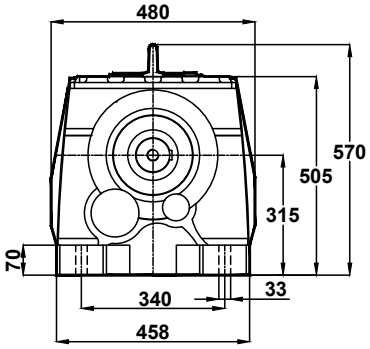
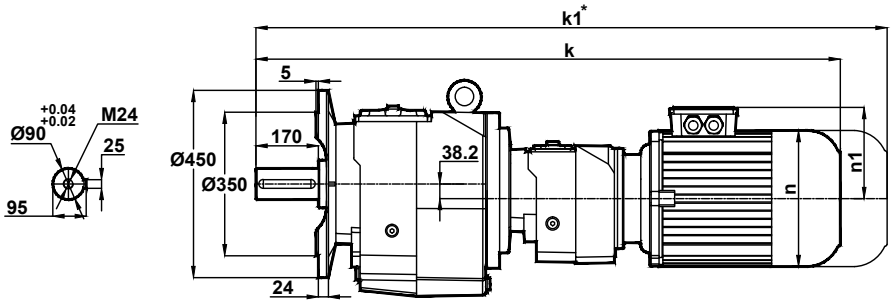
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

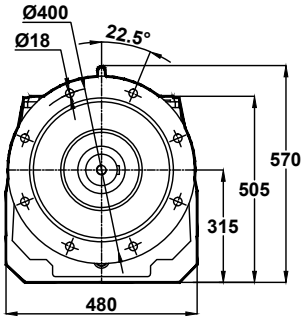
MR775
MR776





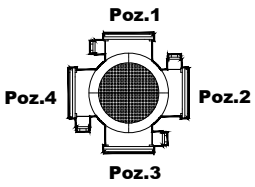
NR775
NR776



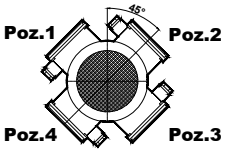


Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	71	**80**	**90S**	**90L**
k	1032	1060	1090	1115
k1	1152	1180	1215	1240
n	138	156	176	176
n1	111	118	126	126

Klemens Kutusu / *Terminal Box* / Klemmenkasten

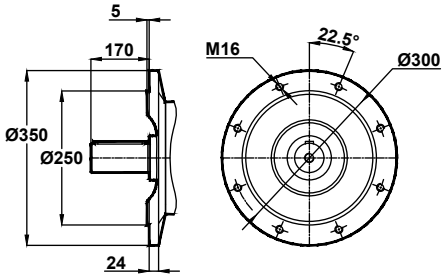


71

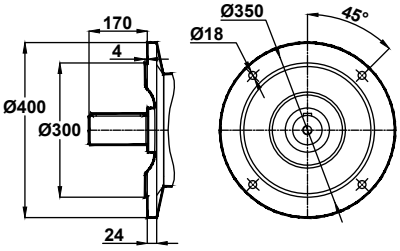


80-90

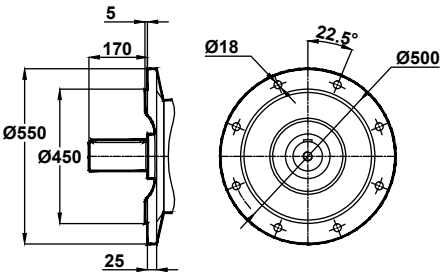
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



Opt. 2



Opt. 3

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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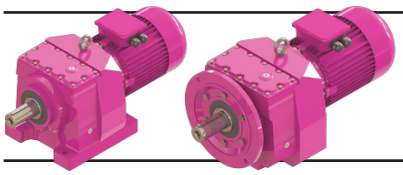
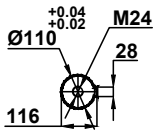
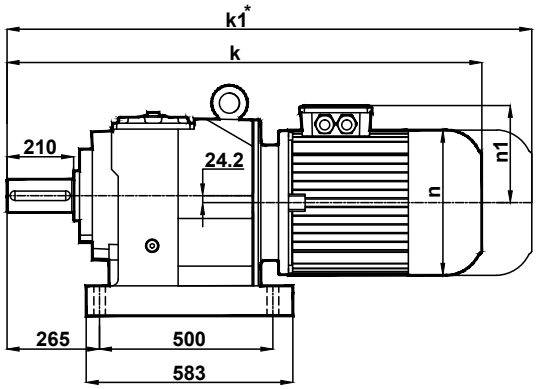


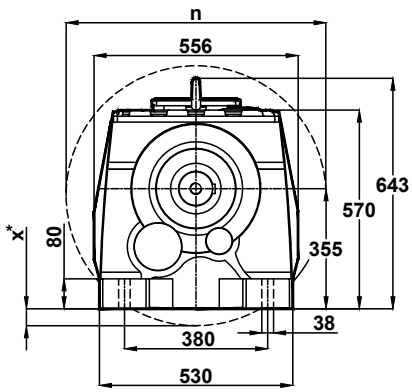
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

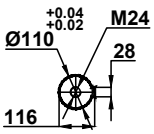
MR872
MR873

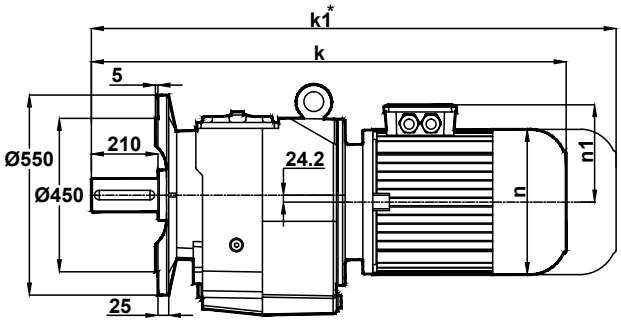


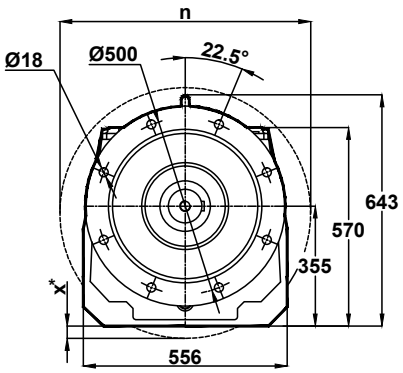




NR872
NR873

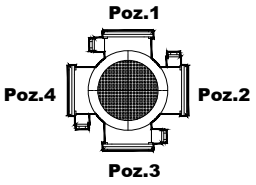






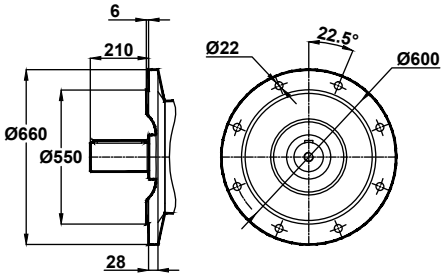
Motor Büyüklüğü / *Motor Size* / Motorbaugroße											
	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
k	1106	1181	1225	1242	1280	1319	1348	1373	1476	1537	1537
k1	1251	1351	1395	1412	1450	1519	1538	1563	-	-	-
n	257	310	310	348	348	390	434	434	480	544	544
n1	168	225	225	241	241	275	285	285	322	350	350
x	-	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu /*Terminal Box* / Klemmenkasten



132-160-180-200-225-250-280

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

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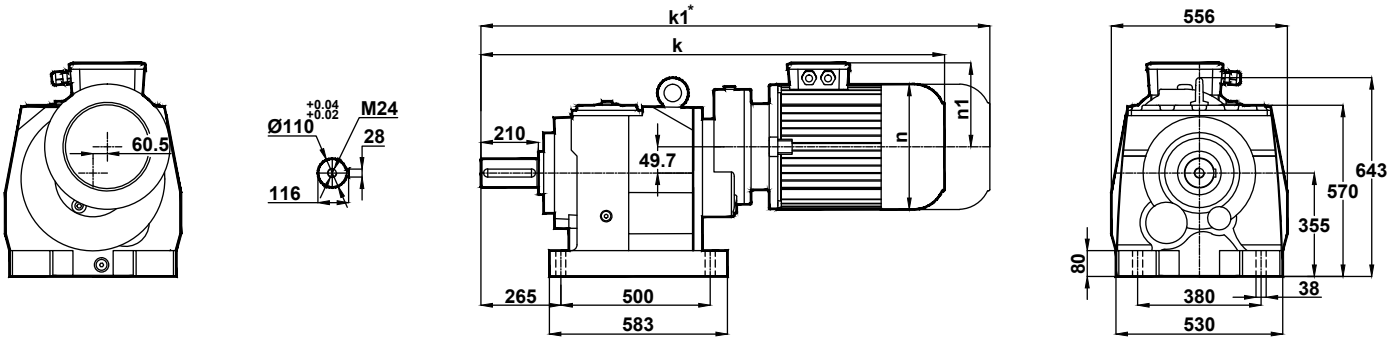
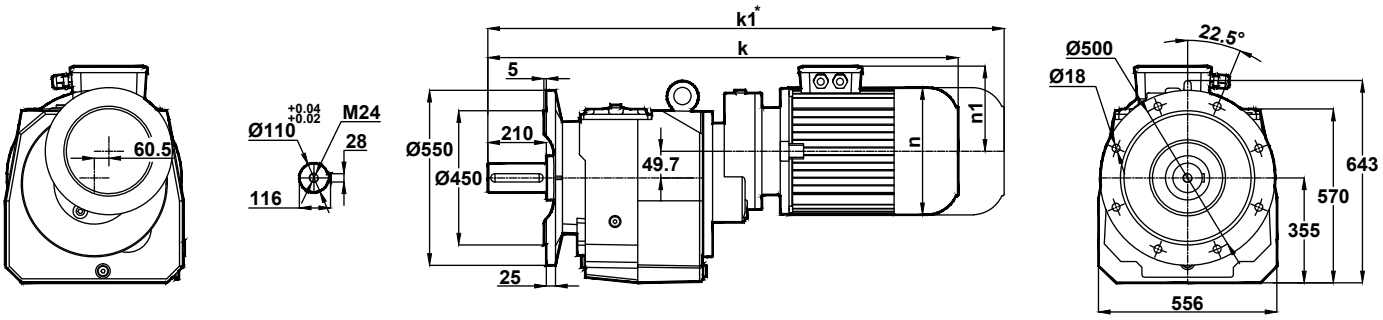
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR874

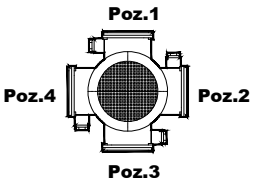


NR874



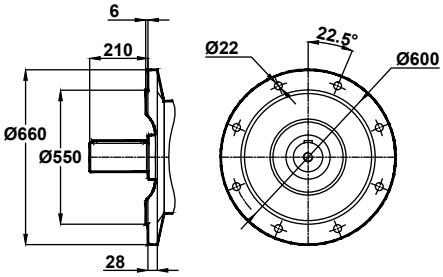
Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	100L	**112M**	**132S**	**132M**
k	1134	1157	1211	1249
k1	1269	1292	1356	1394
n	194	218	257	257
n1	135	146	168	168

Klemens Kutusu /*Terminal Box* / Klemmenkasten



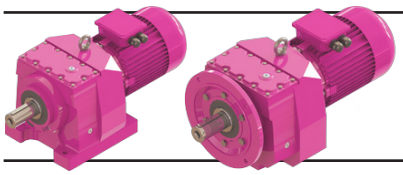
100-112-132

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



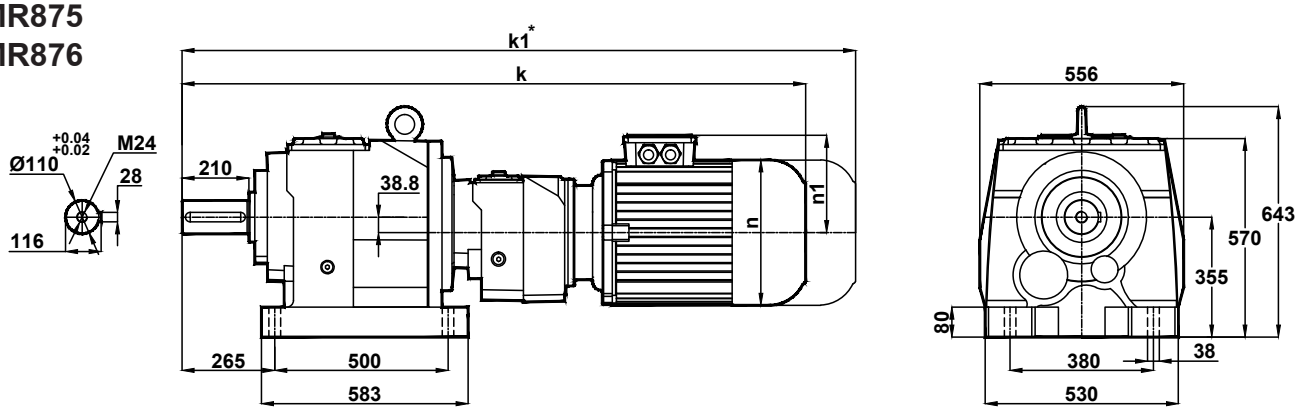
Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

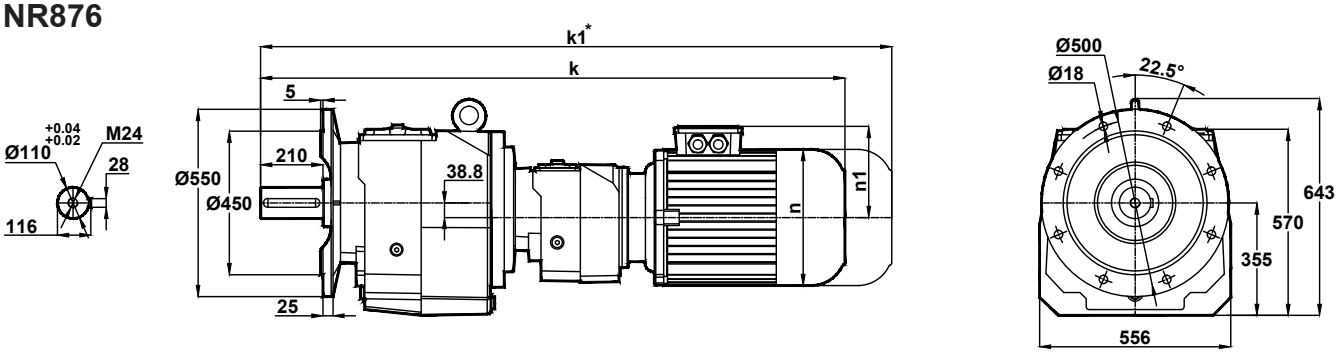


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR875
MR876

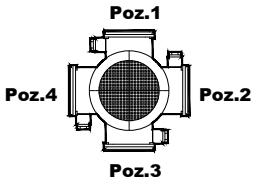


NR875
NR876

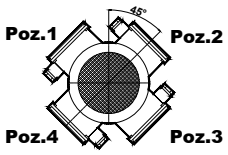


Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
	71	80	90S	90L	100L
k	1149	1177	1207	1232	1272
k1	1269	1297	1332	1357	1407
n	138	156	176	176	194
n1	111	118	126	126	135

Klemens Kutusu / *Terminal Box* / Klemmenkasten

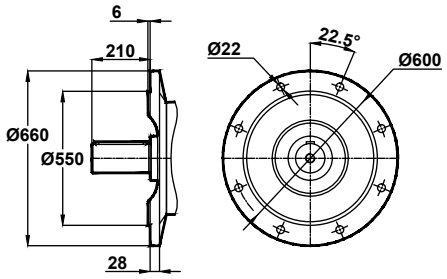


71-100



80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

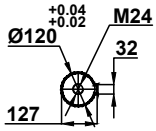


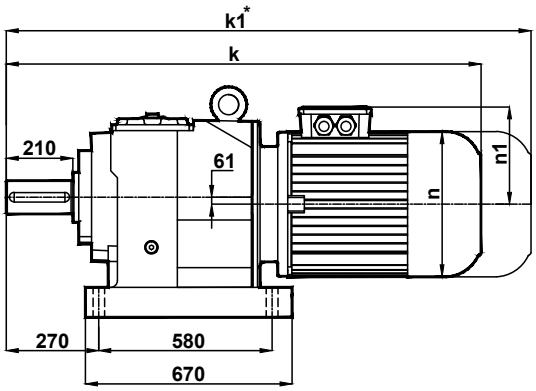
Opt. 1

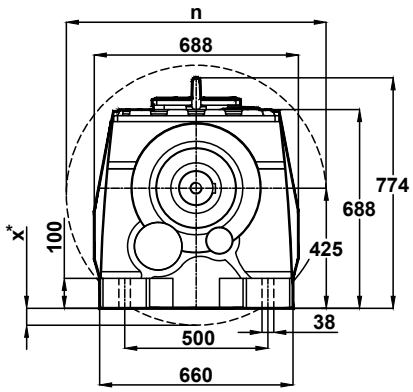
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

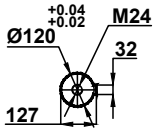
MR972
MR973

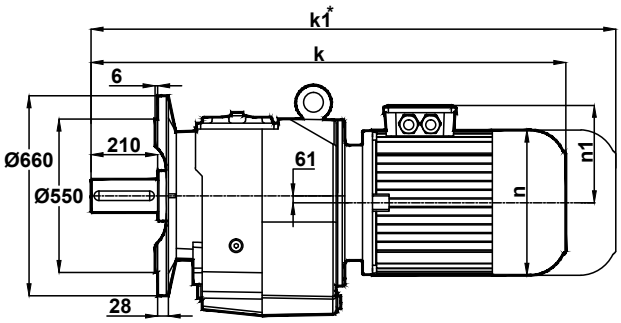


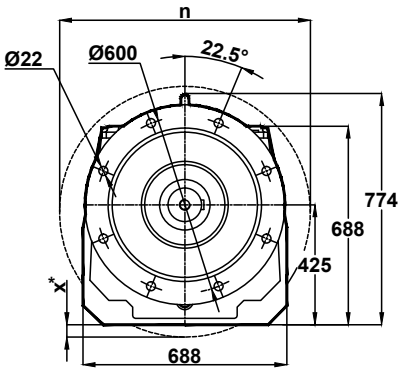




NR972
NR973

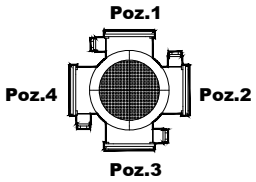






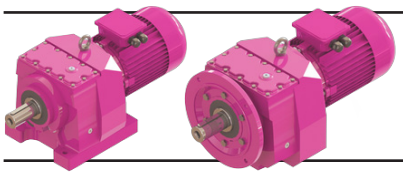
Motor Büyüklüğü / *Motor Size* / Motorbaugroße												
	160M	**160L**	**180M**	**180L**	**200L**	**225S**	**225M**	**250M**	**280S**	**280M**	**315S**	**315M**
k	1248	1292	1308	1346	1385	1403	1426	1529	1590	1590	1702	1754
k1	1418	1462	1478	1516	1585	1593	1616	-	-	-	-	-
n	310	310	348	348	390	434	434	480	544	544	614	614
n1	225	225	241	241	275	285	285	322	350	350	510	510
x	-	-	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu /*Terminal Box* / Klemmenkasten



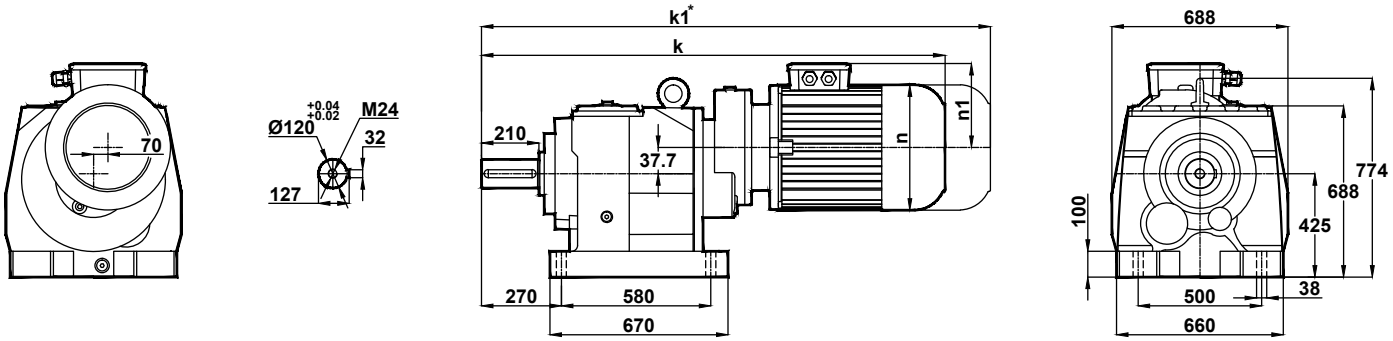
160-180-200-225-250-280-315

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

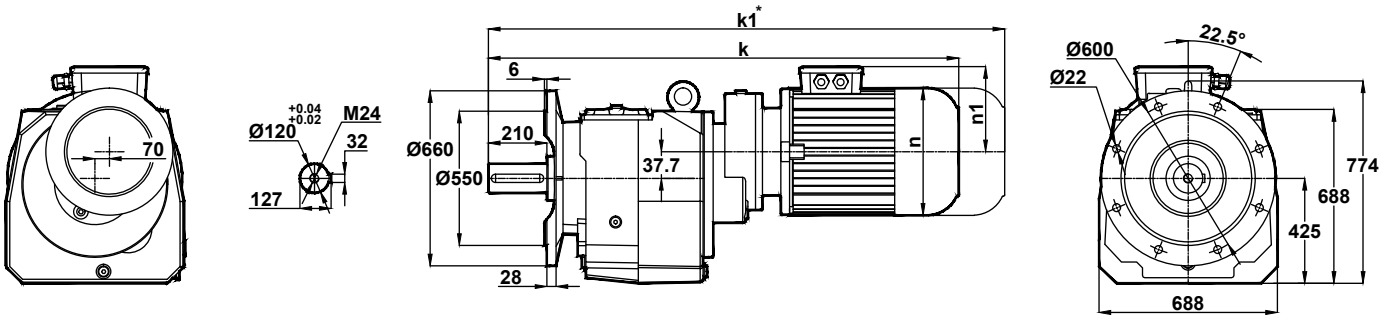


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR974

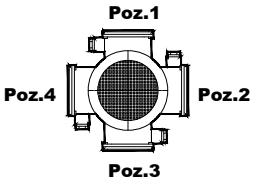


NR974



Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	100L	**112M**	**132S**	**132M**
k	1234	1257	1311	1349
k1	1369	1392	1456	1494
n	194	218	257	257
n1	135	146	168	168

Klemens Kutusu /*Terminal Box* / Klemmenkasten

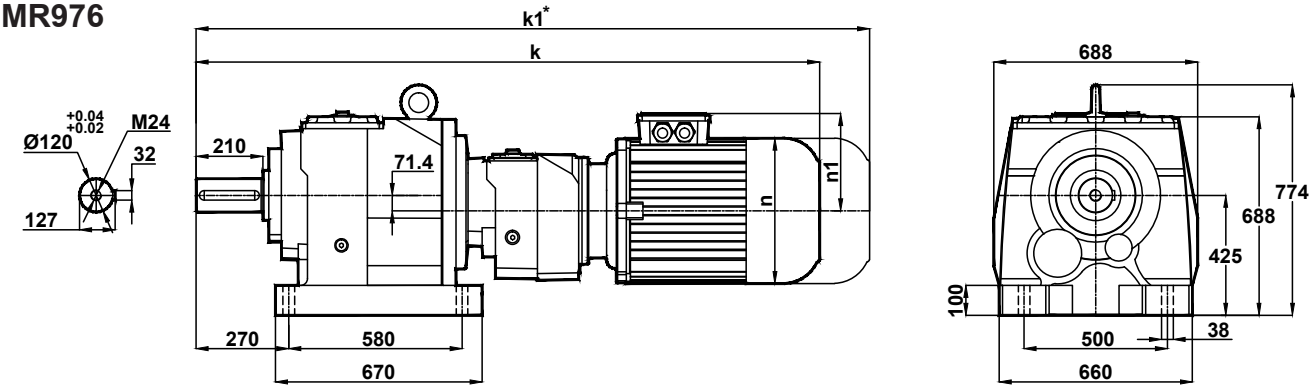


100-112-132

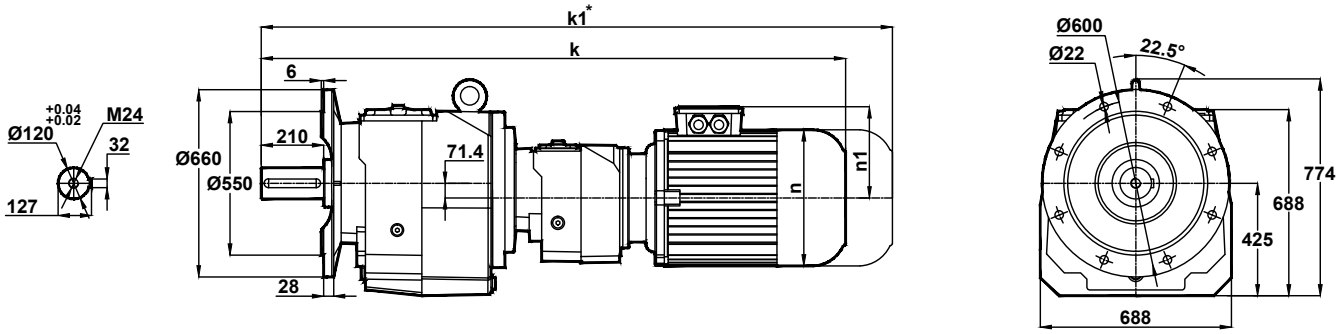
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MR975
MR976

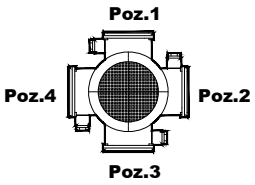


NR975
NR976



Motor Büyüklüğü / *Motor Size* / Motorbaugroße						
	80	90S	90L	100L	112M	132S
k	1305	1333	1358	1393	1416	1470
k1	1425	1458	1483	1528	1551	1615
n	156	176	176	194	218	257
n1	118	126	126	135	146	168

Klemens Kutusu /*Terminal Box* / Klemmenkasten

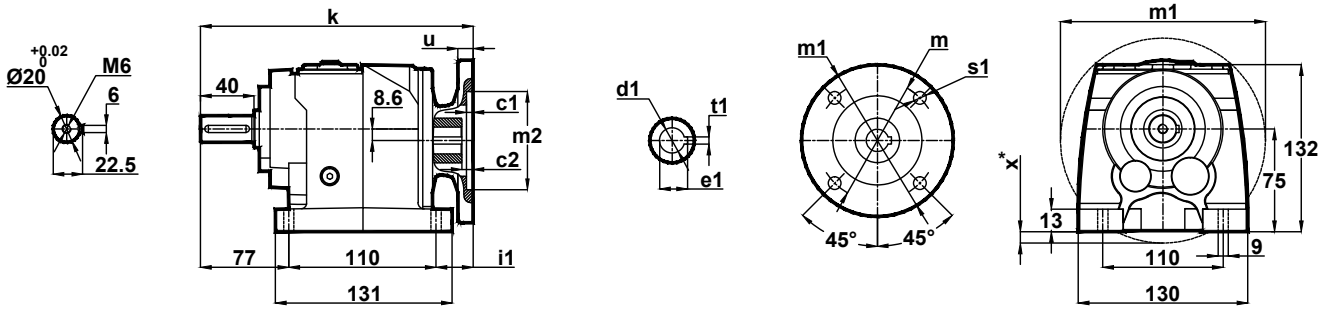


80-90-100-112-132

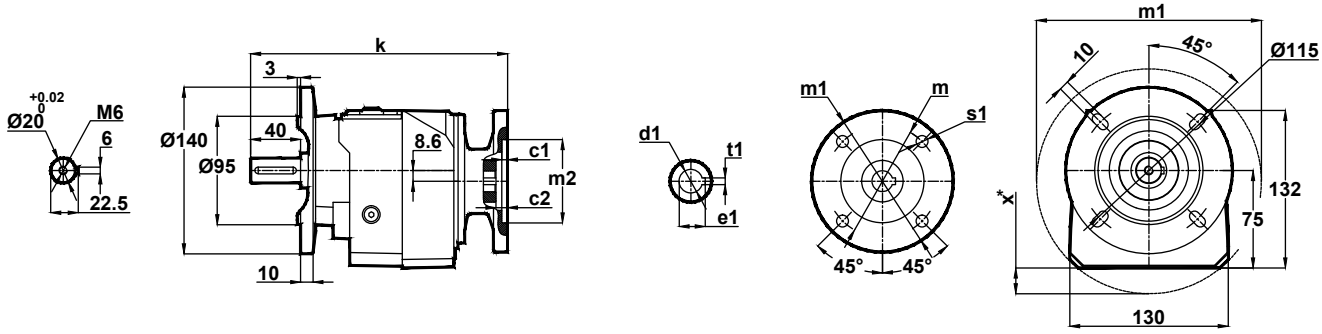
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN002-A..
MN003-A..

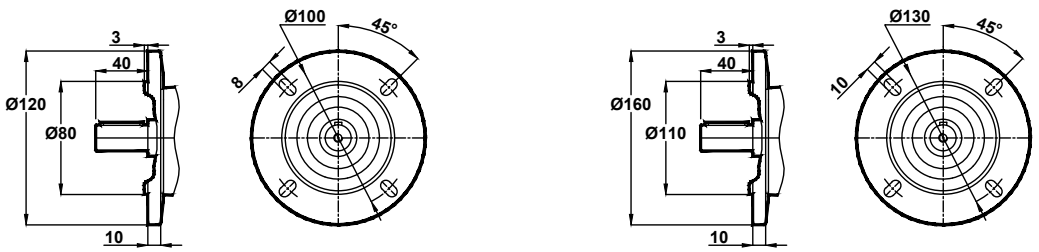


NN002-A..
NN003-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28	10	214	11	4	12.8	4
71/B5	4	4.5	11	130	160	110	29.5	12	216	14	5	16.3	14
80/B5	4	5	13	165	200	130	44.5	12	231	19	6	21.8	34
90/B5	4	5	13	165	200	130	44.5	12	231	24	8	27.3	34

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

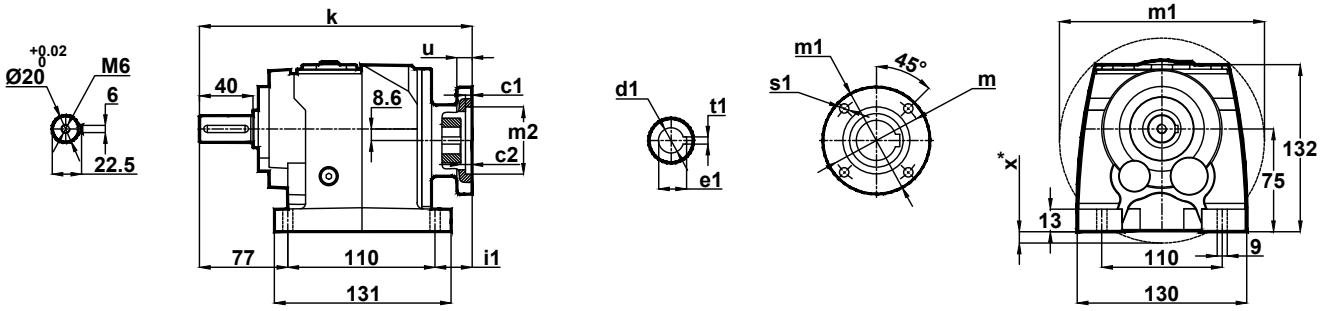


Opt. 1 **Opt. 2**

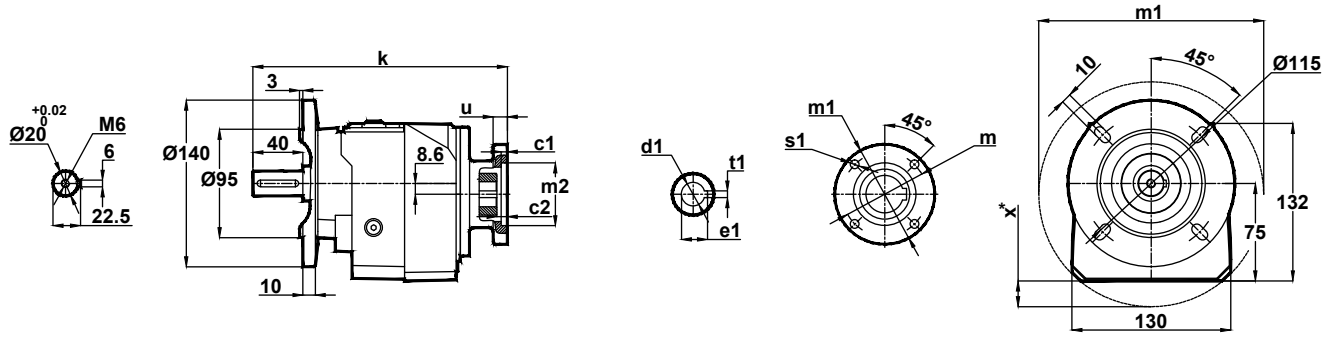
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN002-B..
MN003-B..

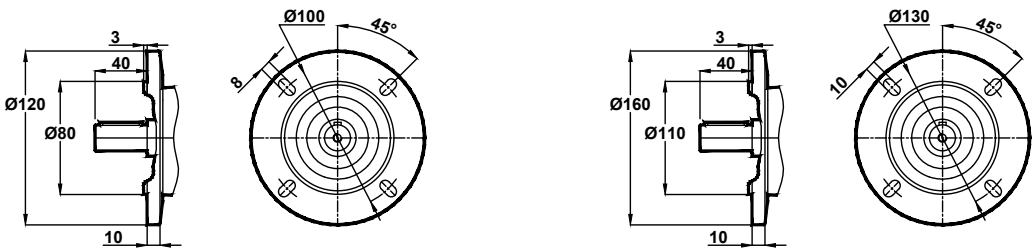


NN002-B..
NN003-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28	10	214	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	29.5	10	216	14	5	16.3	-
80/B14	4	5	7	100	120	80	44.5	12	231	19	6	21.8	-
90/B14	4	5	9	115	140	95	44.5	12	231	24	8	27.3	4

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*

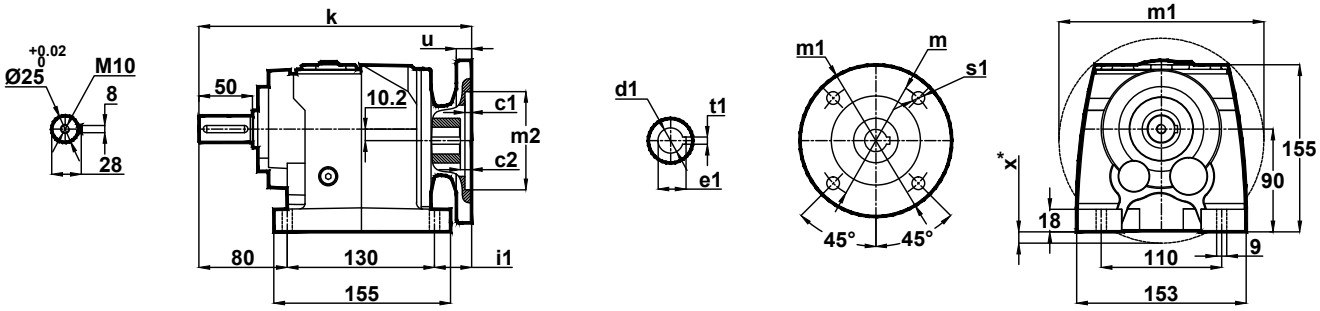


Opt. 1 **Opt. 2**

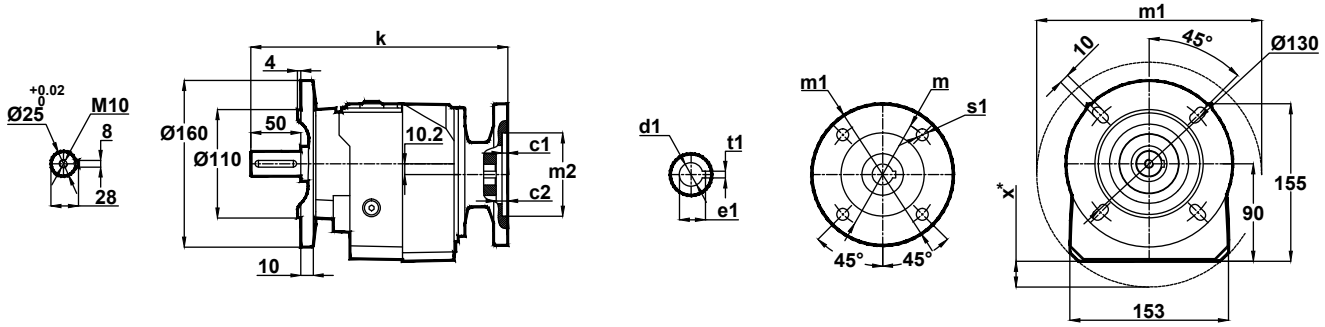
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN102-A..
MN103-A..

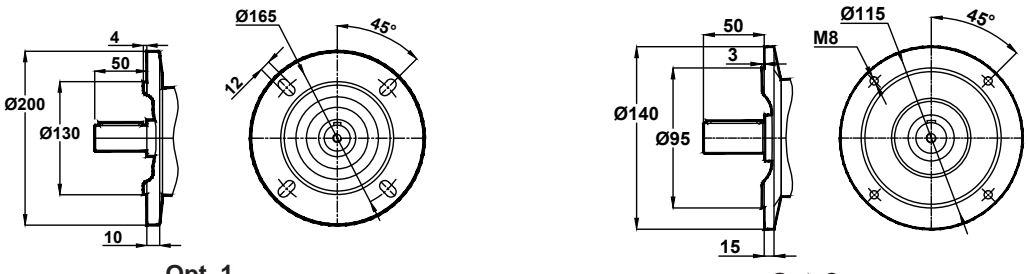


NN102-A..
NN103-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	7	10	115	140	95	28.5	12	240	11	4	12.8	-
71/B5	4	4.5	12	130	160	110	28.5	12	240	14	5	16.3	0.5
80/B5	4	5	12	165	200	130	43.5	12	255	19	6	21.8	20
90/B5	4	5	12	165	200	130	43.5	12	255	24	8	27.3	20

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

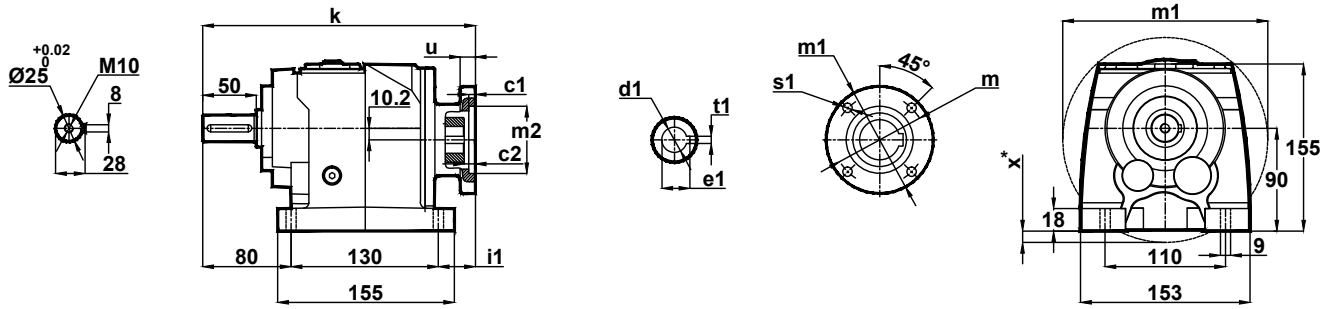


Opt. 1 **Opt. 2**

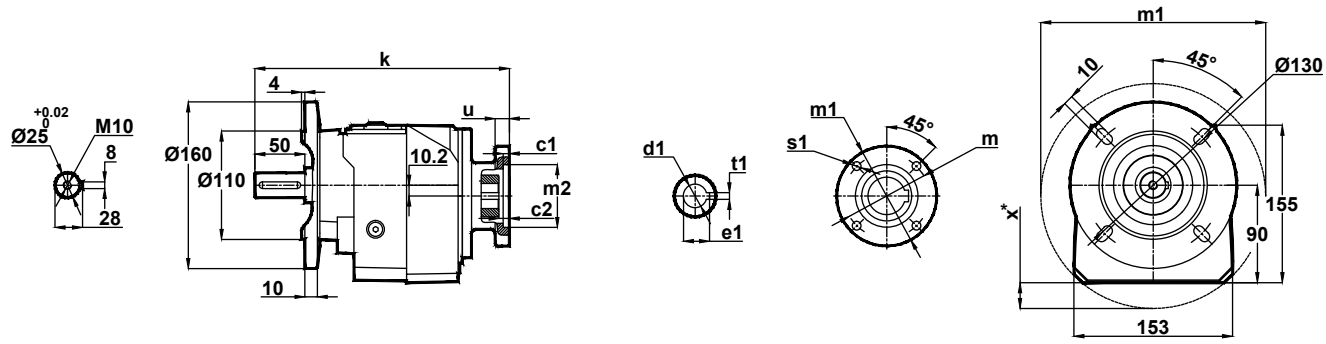
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN102-B..
MN103-B..

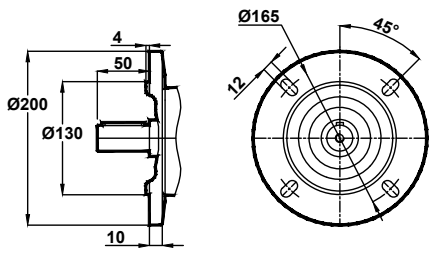


NN102-B..
NN103-B..

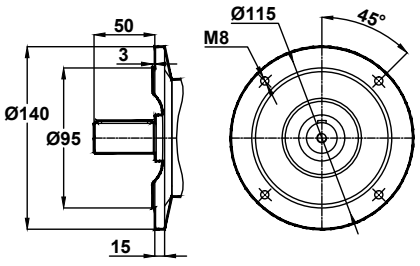


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28.5	10	240	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	28.5	10	240	14	5	16.3	-
80/B14	4	4.7	7	100	120	80	43.5	12	255	19	6	21.8	-
90/B14	4	4.7	9	115	140	95	43.5	12	255	24	8	27.3	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



Opt. 1

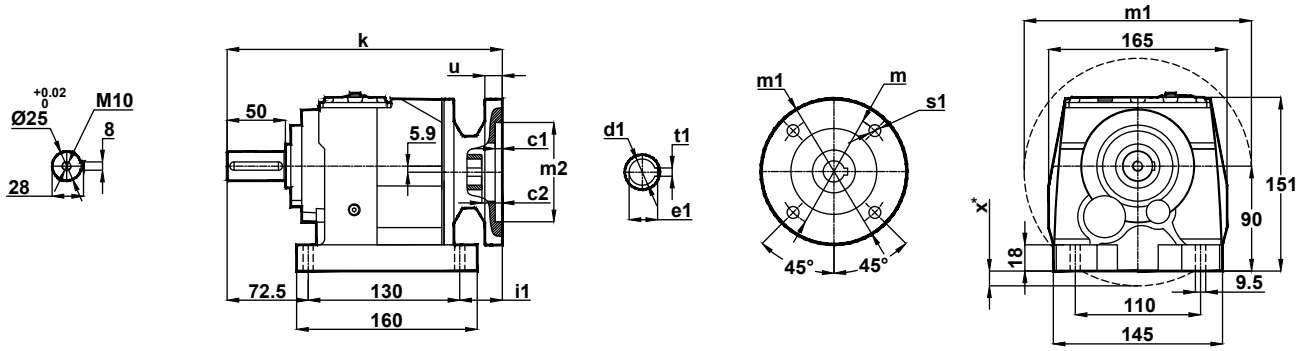


Opt. 2

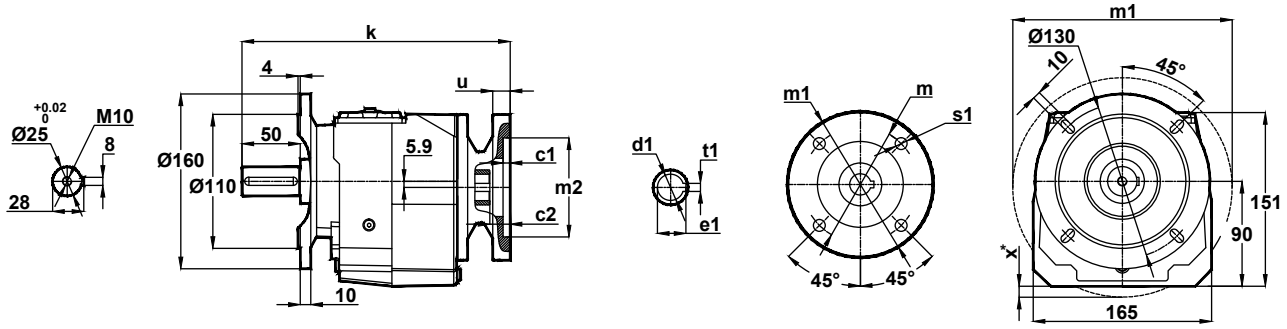
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN172-A..
MN173-A..

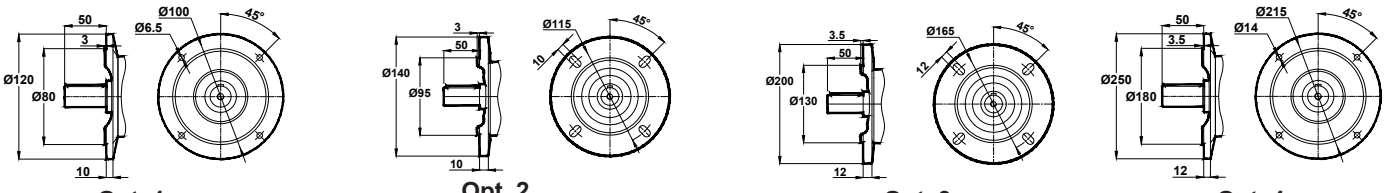


NN172-A..
NN173-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	38.5	10	241	11	4	12.8	-
71/B5	4	4.5	11	130	160	110	40	12	243	14	5	16.3	-
80/B5	4	5	13	165	200	130	55	12	258	19	6	21.8	16
90/B5	4	5	13	165	200	130	55	12	258	24	8	27.3	16
100/B5	4	5	15	215	250	180	66	12	269	28	8	31.3	41
112/B5	4	5	15	215	250	180	66	12	269	28	8	31.3	41

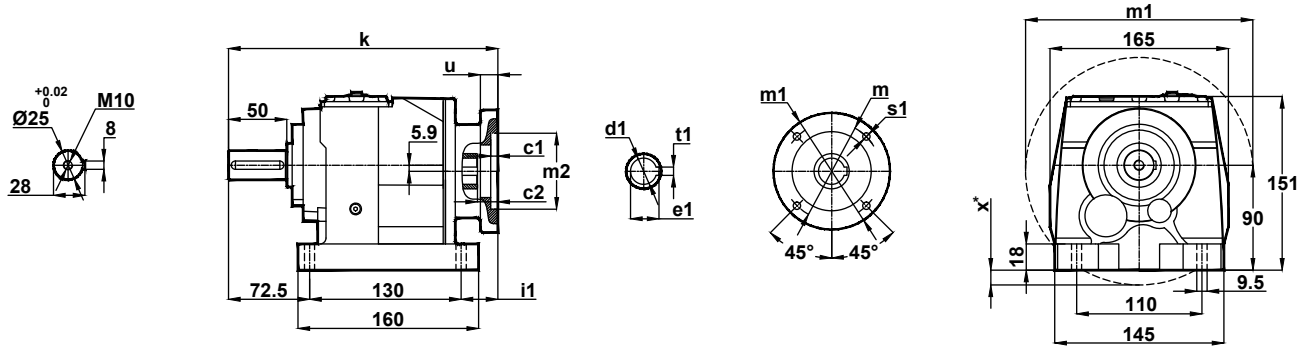
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



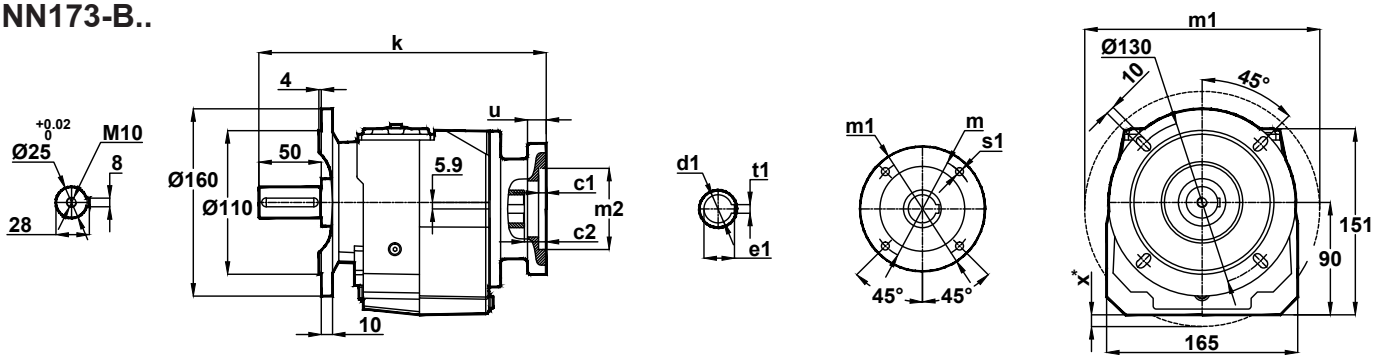
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN172-B..
MN173-B..

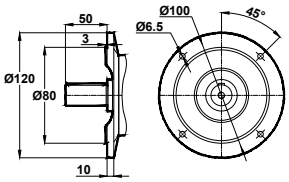


NN172-B..
NN173-B..

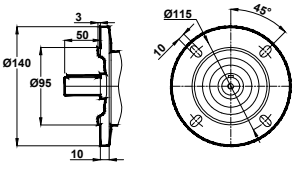


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	4.5	7	85	105	70	40	10	243	14	5	16.3	-
80/B14	4	5	7	100	120	80	55	120	258	19	6	21.8	-
90/B14	4	5	9	115	140	95	55	12	258	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	66	12	269	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	66	12	269	28	8	31.3	-

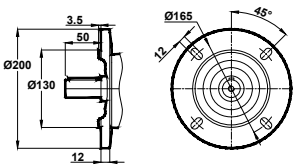
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



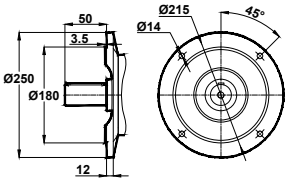
Opt. 1



Opt. 2



Opt. 3

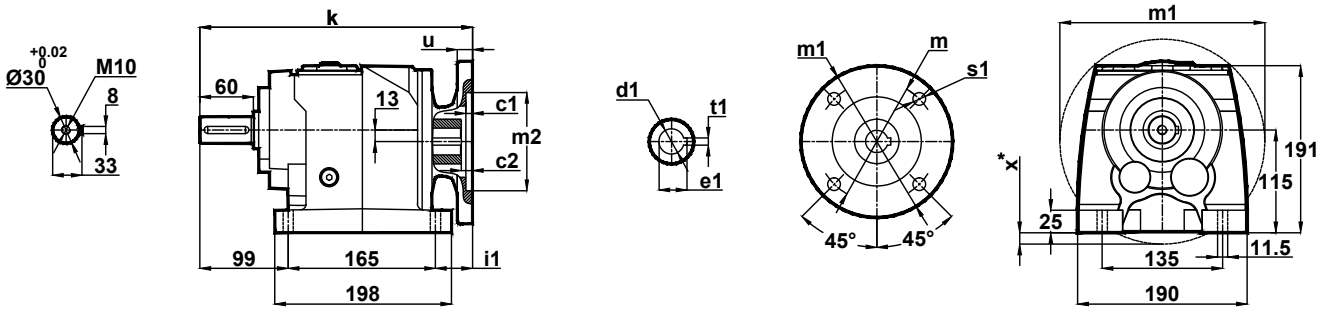


Opt. 4

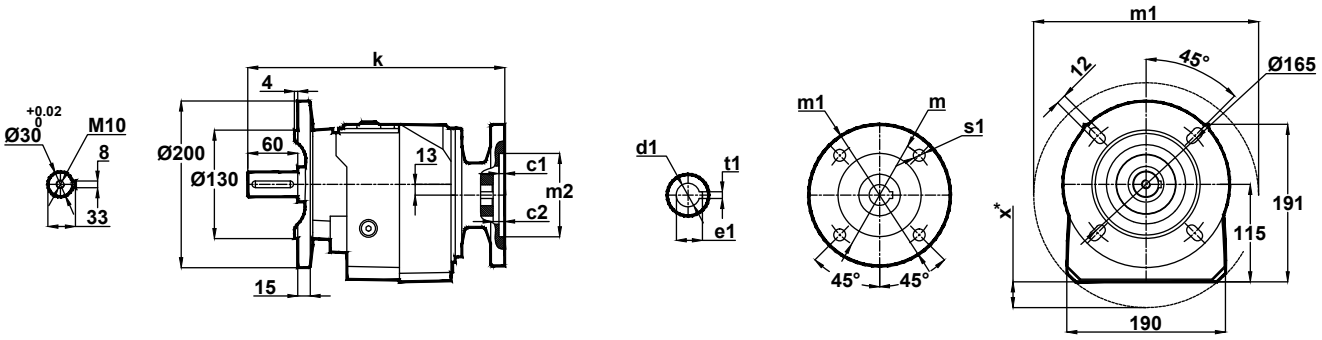
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN202-A..
MN203-A..

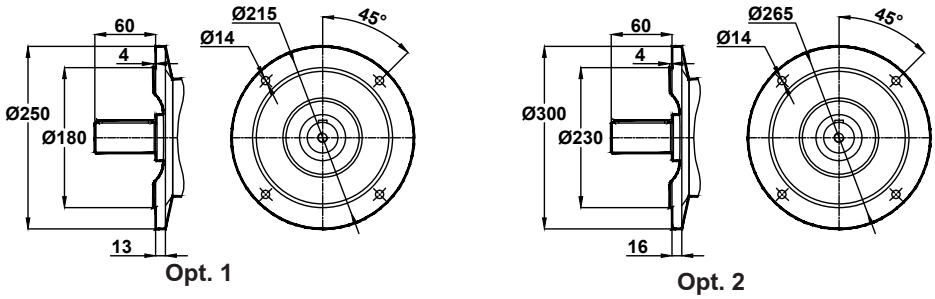


NN202-A..
NN203-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	58.5	12	323	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	29.5	12	294	14	5	163	-
80/B5	4	5	13	165	200	130	58.5	12	323	19	6	21.8	-
90/B5	4	5	13	165	200	130	58.5	12	323	24	8	27.3	-
100/B5	4	5.5	15	215	250	180	51.5	12	316	28	8	31.3	23
112/B5	4	5.5	15	215	250	180	51.5	12	316	28	8	31.3	23

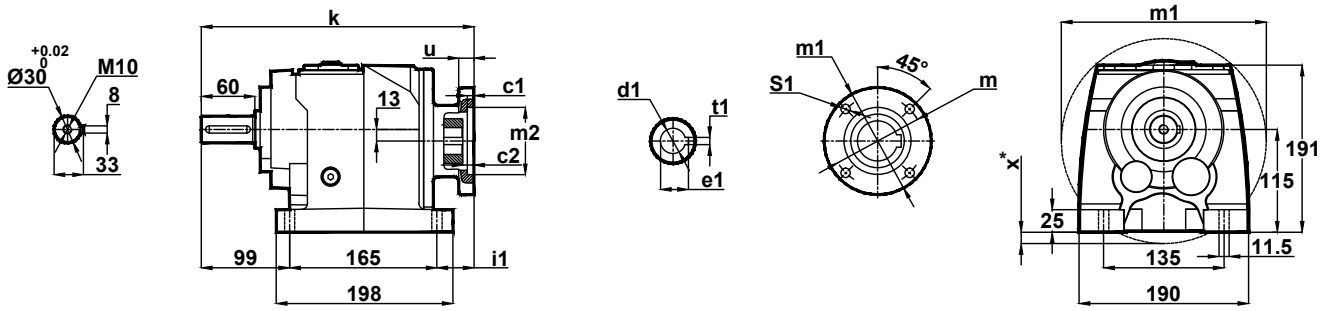
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



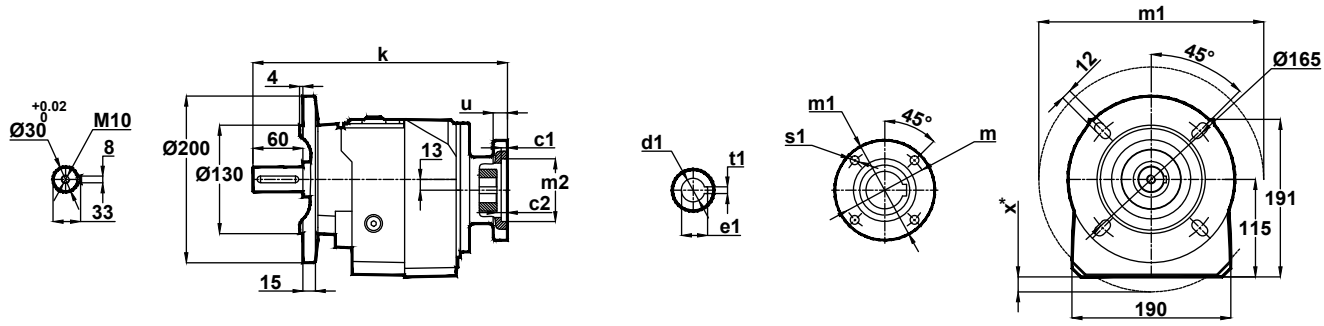
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN202-B..
MN203-B..

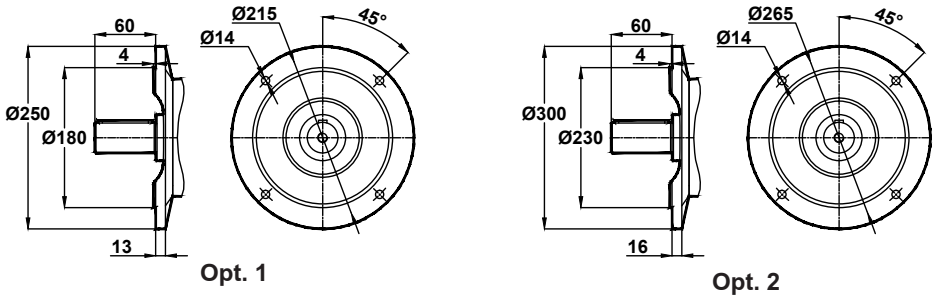


NN202-B..
NN203-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	29.5	10	294	14	5	16.3	-
80/B14	4	5	7	100	120	80	58.5	12	323	19	6	21.8	-
90/B14	4	5	9	115	140	95	58.5	12	323	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	51.5	12	316	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	51.5	12	316	28	8	31.3	-

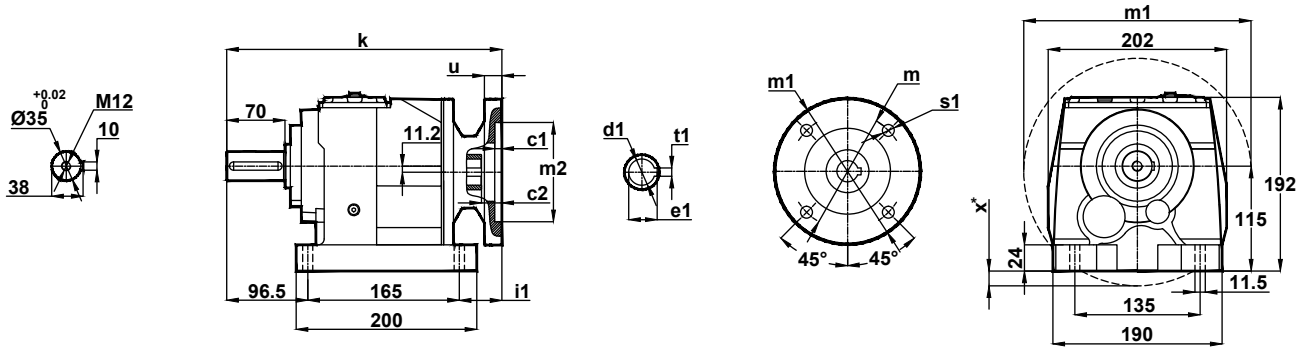
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



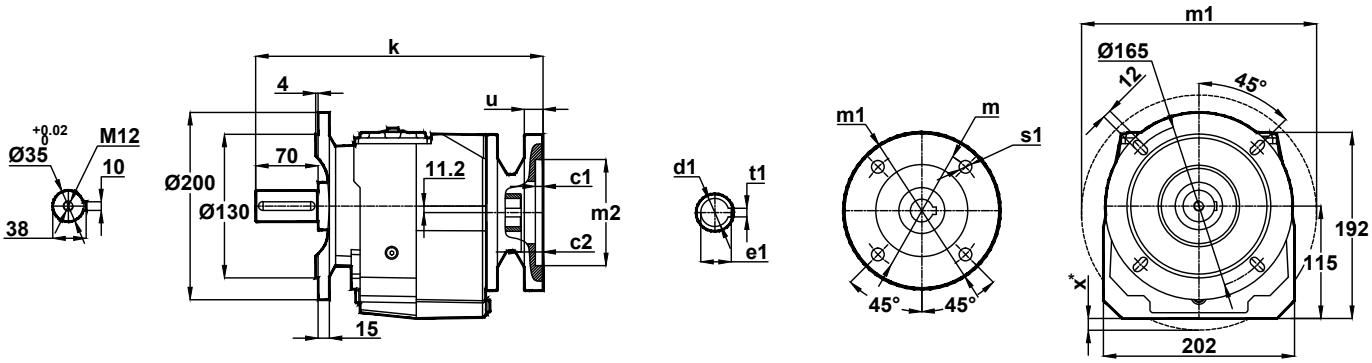
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN272-A..
MN273-A..

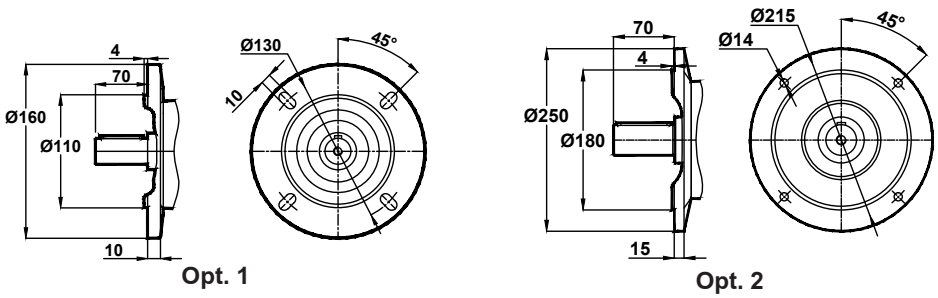


NN272-A..
NN273-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	62	12	324	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	33	12	295	14	5	16.3	-
80/B5	4	5	13	165	200	130	62	12	324	19	6	21.8	-
90/B5	4	5	13	165	200	130	62	12	324	24	8	27.3	-
100/B5	4	5.5	15	215	250	180	55	12	317	28	8	31.3	22
112/B5	4	5.5	15	215	250	180	55	12	317	28	8	31.3	22

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*

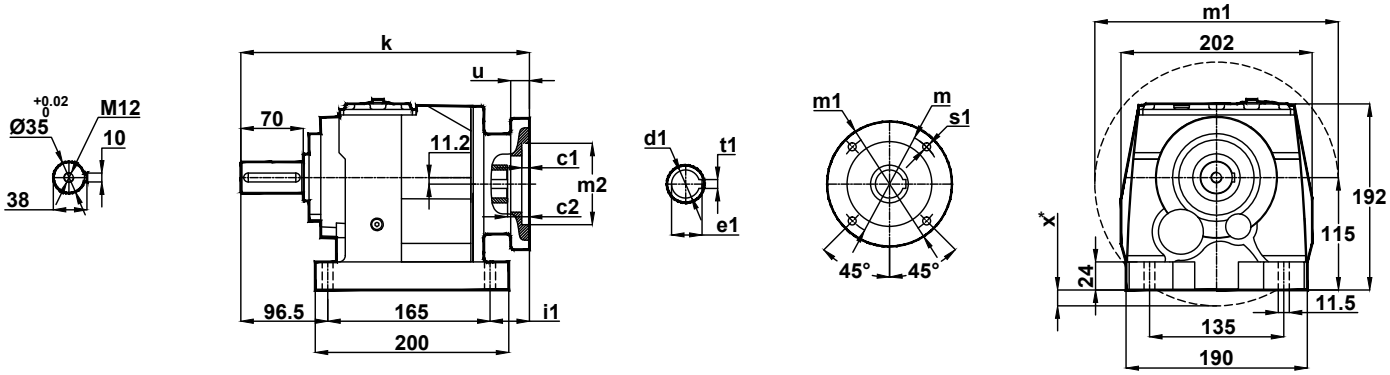


Opt. 1 **Opt. 2**

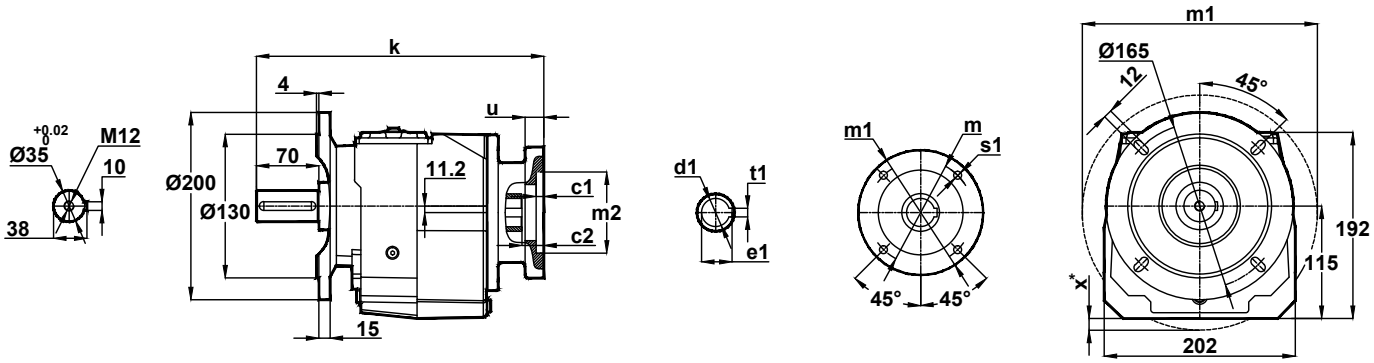
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN272-B..
MN273-B..

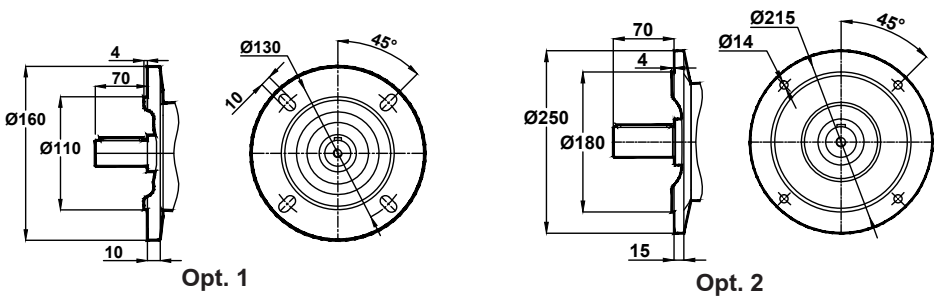


NN272-B..
NN273-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	33	10	295	14	5	16.3	-
80/B14	4	5	7	100	120	80	62	12	324	19	6	21.8	-
90/B14	4	5	9	115	140	95	62	12	324	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	55	12	317	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	55	12	317	28	8	31.3	-

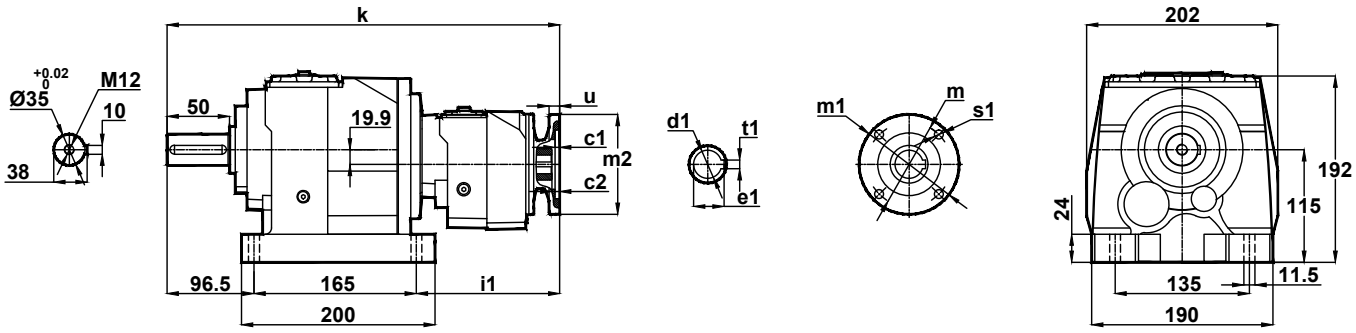
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



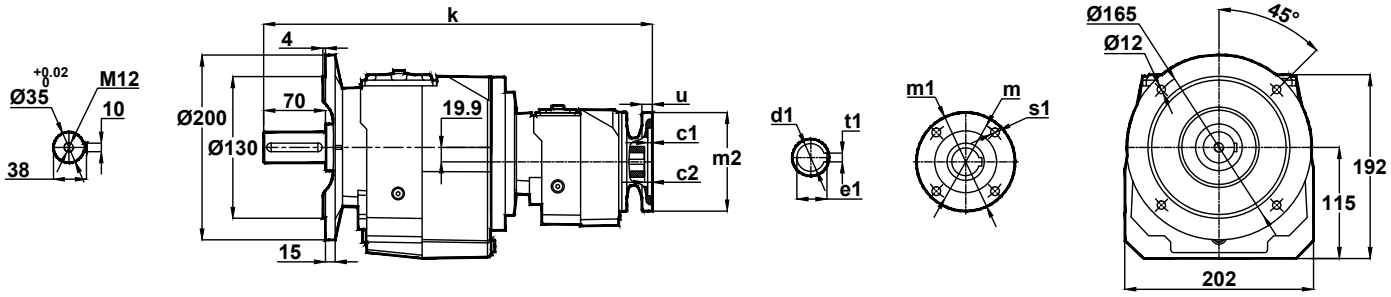
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN275-A..
MN276-A..

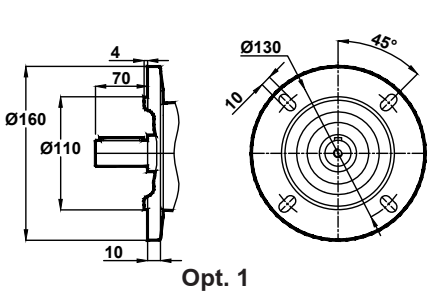


NN275-A..
NN276-A..

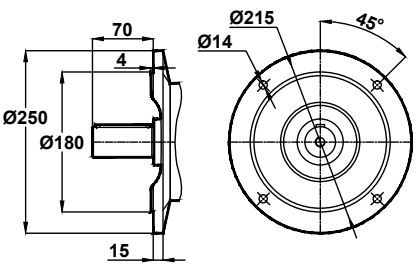


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	177.5	10	439	11	4	12.8
71/B5	4	4.5	11	130	160	110	179	12	441	14	5	16.3

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



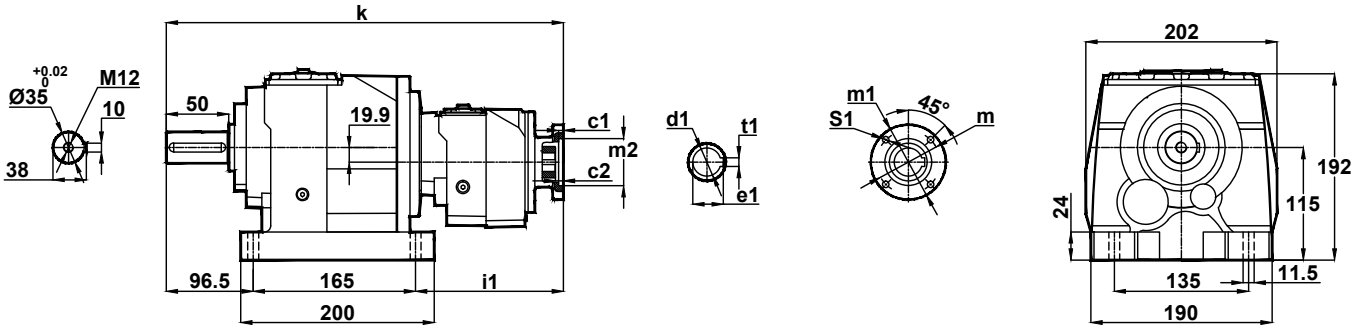
Opt. 1



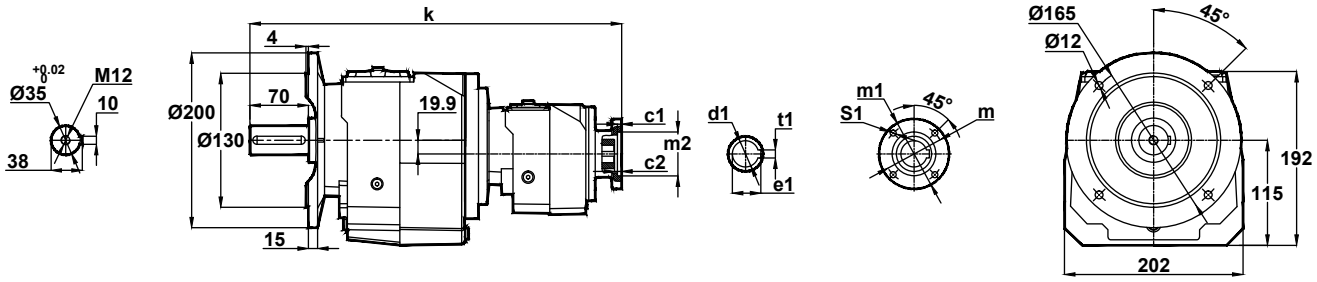
Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN275-B..
MN276-B..

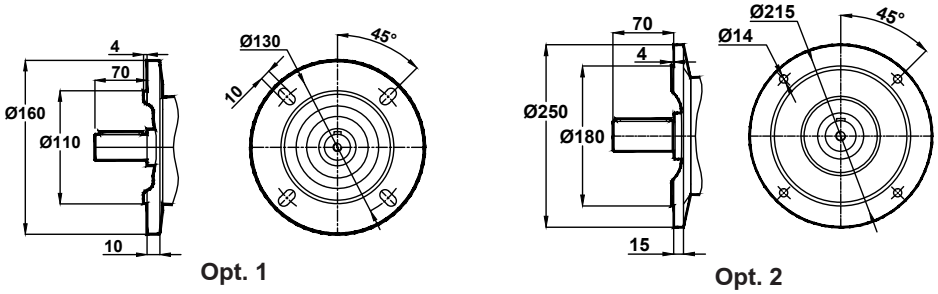


NN275-B..
NN276-B..



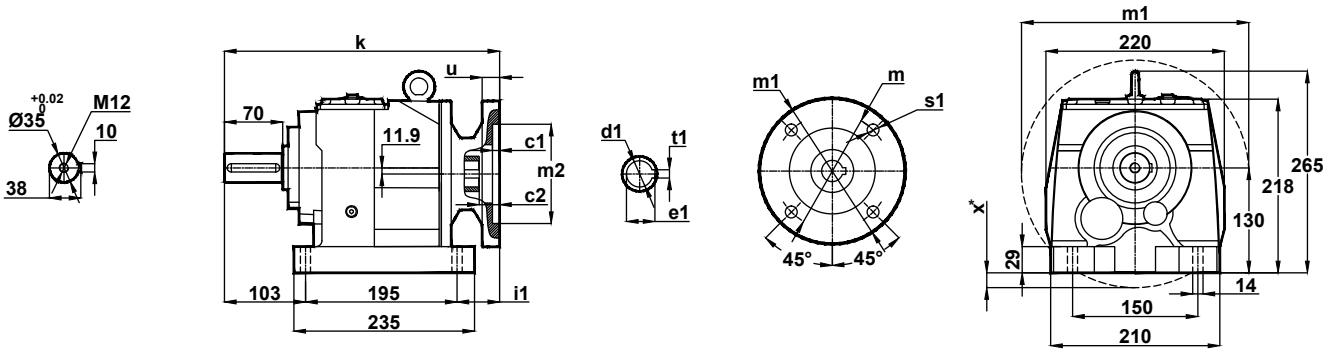
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B14	2.5	5	5.5	75	90	60	177.5	10	439	11	4	12.8
71/B14	3	4.5	7	85	105	70	179	10	441	14	5	16.3

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

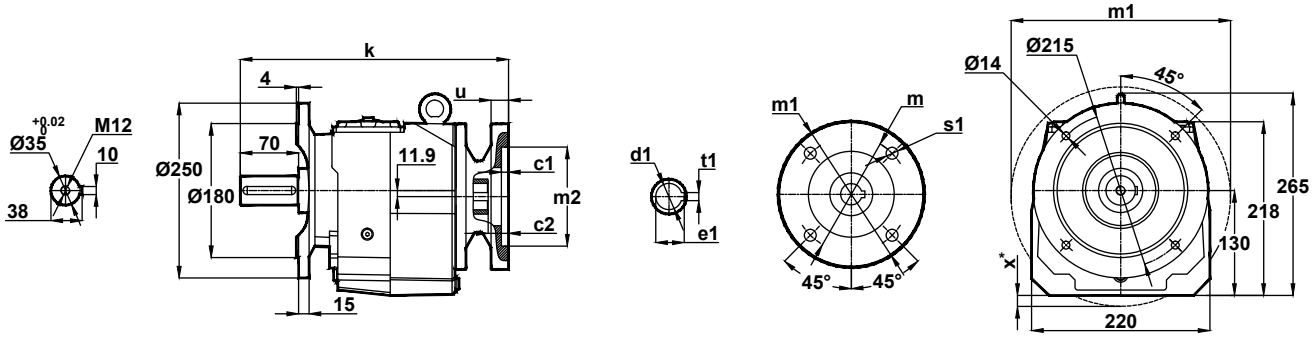


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN282-A..
MN283-A..

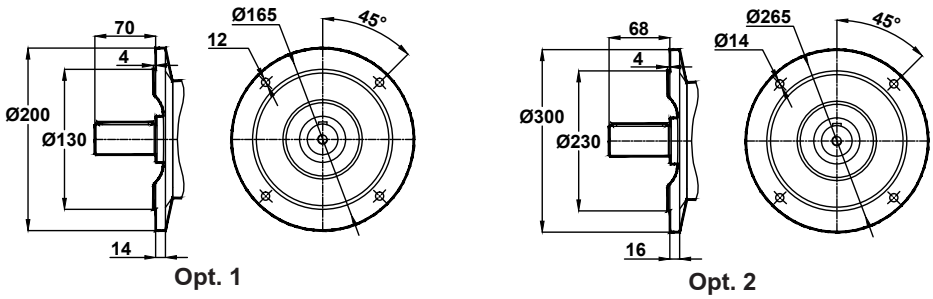


NN282-A..
NN283-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	45	12	343	14	5	16.3	-
80/B5	4	9	13	165	200	130	45	12	343	19	6	21.8	-
90/B5	4	9	13	165	200	130	45	12	343	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	52	15	350	28	8	31.3	7
112/B5	4.5	9	15	215	250	180	52	15	350	28	8	31.3	7
132/B5	4.5	7	15	265	300	230	82	15	380	38	10	41.3	32

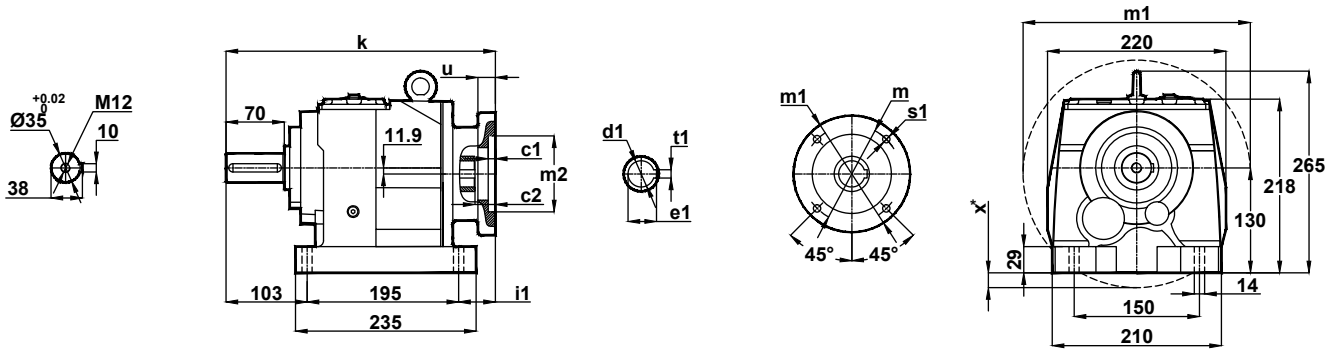
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



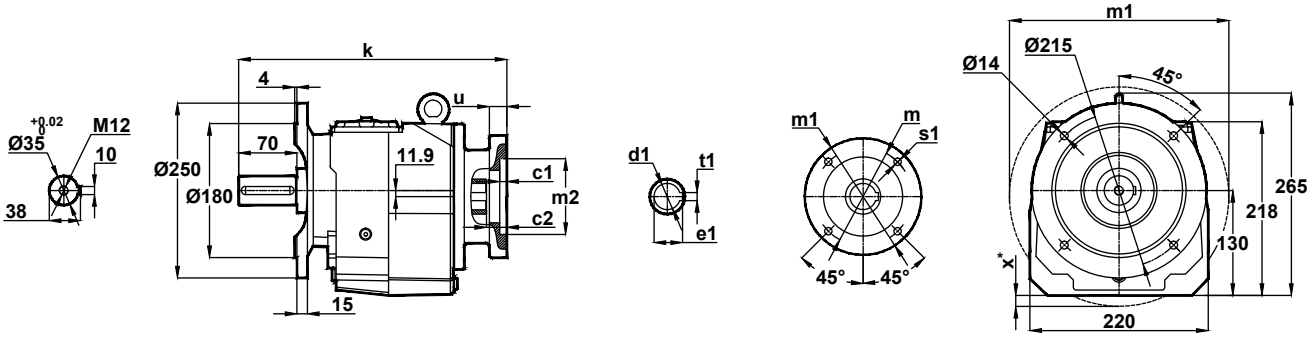
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN282-B..
MN283-B..

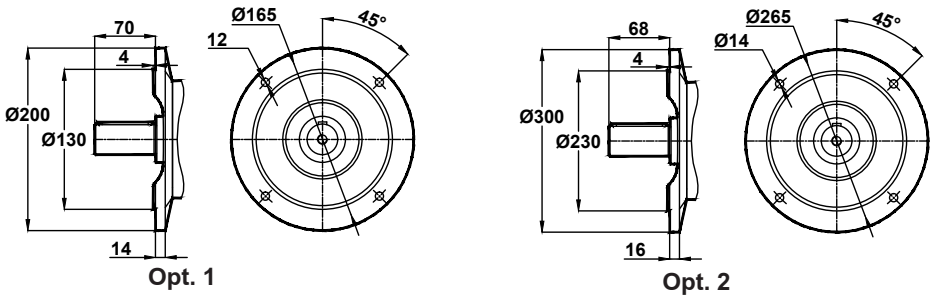


NN282-B..
NN283-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	45	12	343	19	6	21.8	-
90/B14	4	9	9	115	140	95	45	12	343	24	8	26.3	-
100/B14	4	9	9	130	160	110	52	15	350	28	8	31.3	-
112/B14	4	9	9	130	160	110	52	15	350	28	8	31.3	-
132/B14	4.5	7	11	165	200	130	82	15	380	38	10	41.3	-

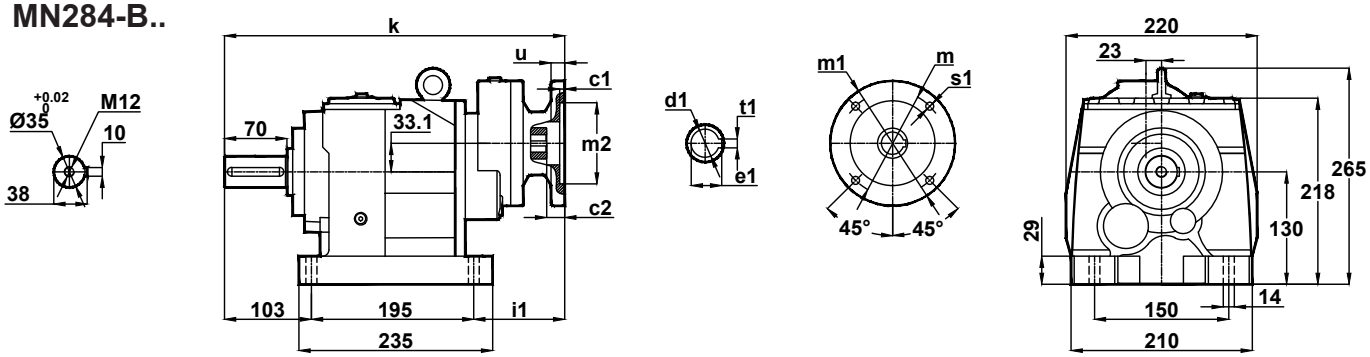
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



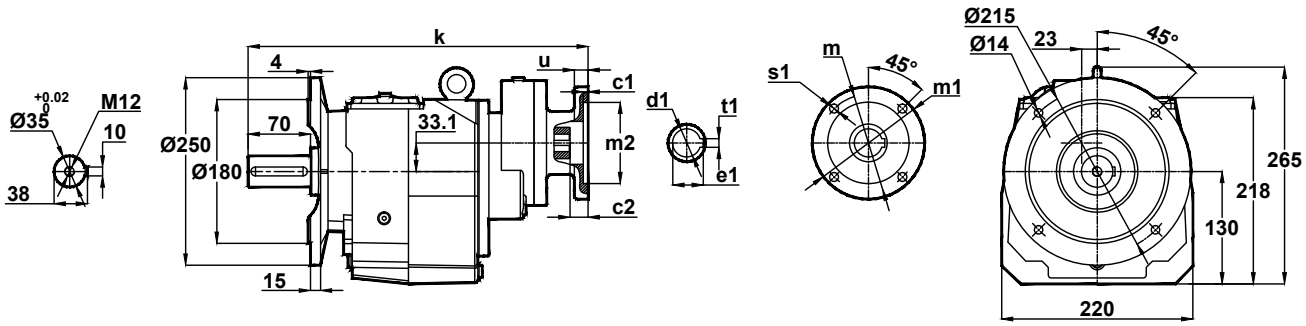
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN284-A..
MN284-B..

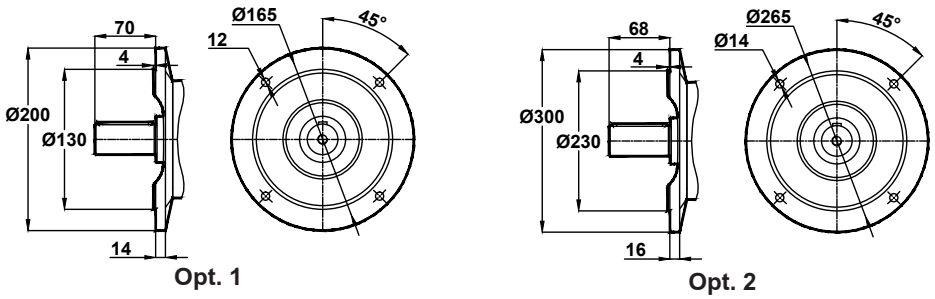


NN284-A..
NN284-B..



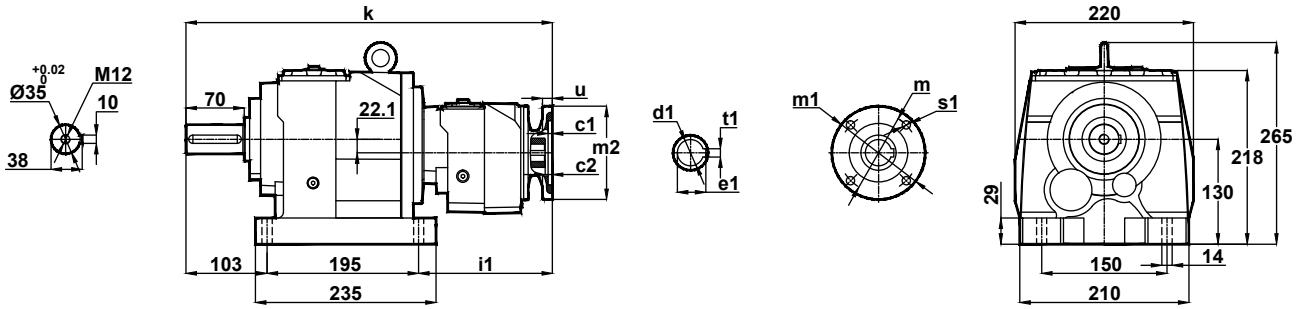
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	122	10	420	11	4	12.8
71/B5	4	4.5	11	130	160	110	93	12	391	14	5	16.3
71/B14	3	4.5	7	85	105	70	93	10	391	14	5	16.3

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*

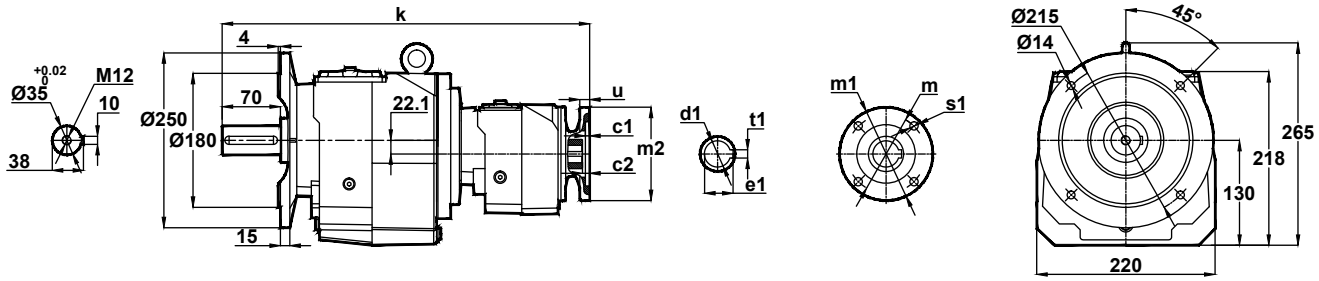


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN285-A.. / B..
MN286-A.. / B..

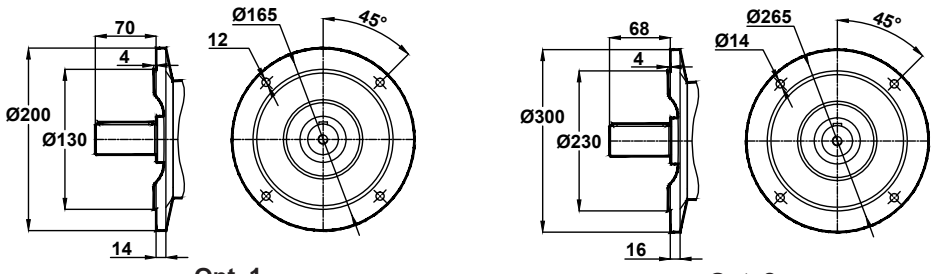


NN285-A.. / B..
NN286-A.. / B..



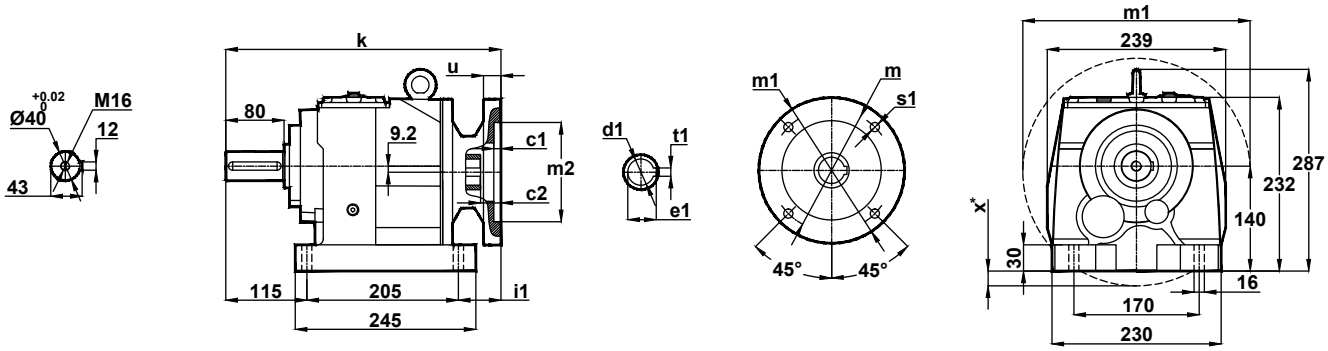
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	7	10	115	140	95	188	12	486	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	188	10	486	11	4	12.8

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

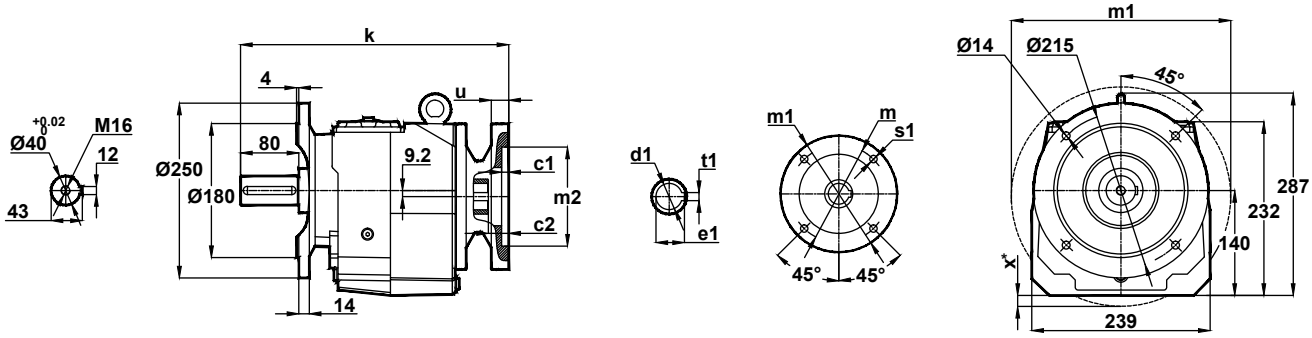


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN372-A..
MN373-A..

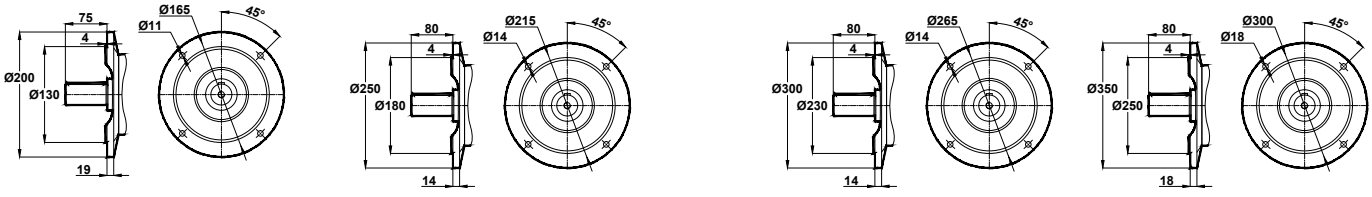


NN372-A..
NN373-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	43.5	12	364	14	5	16.3	-
80/B5	4	9	13	165	200	130	43.5	12	364	19	6	21.8	-
90/B5	4	9	13	165	200	130	43.5	12	364	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
132/B5	4.5	7	15	265	300	230	80.5	15	401	38	10	41.3	20

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

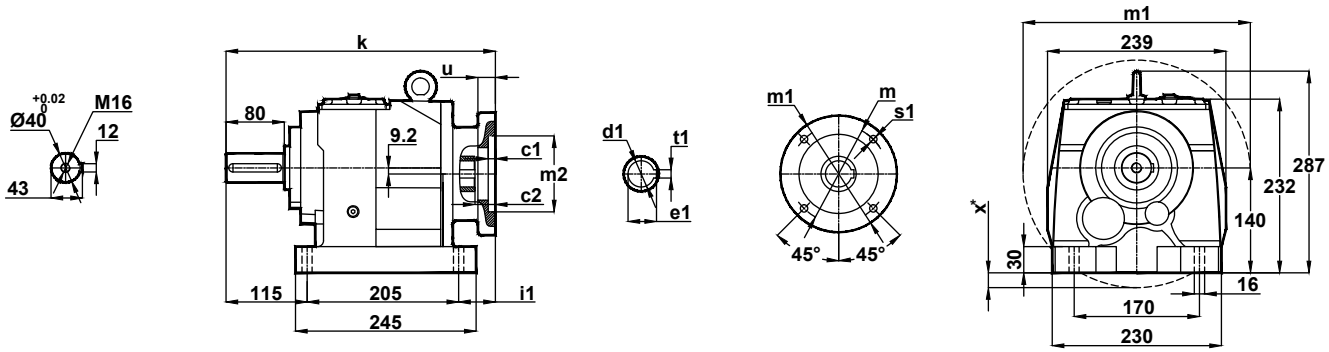


Opt. 1 **Opt. 2** **Opt. 3** **Opt. 4**

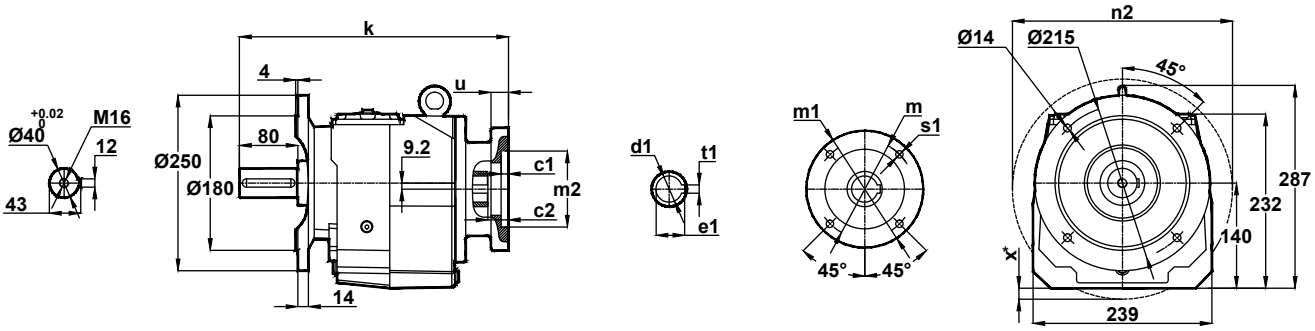
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN372-B..
MN373-B..

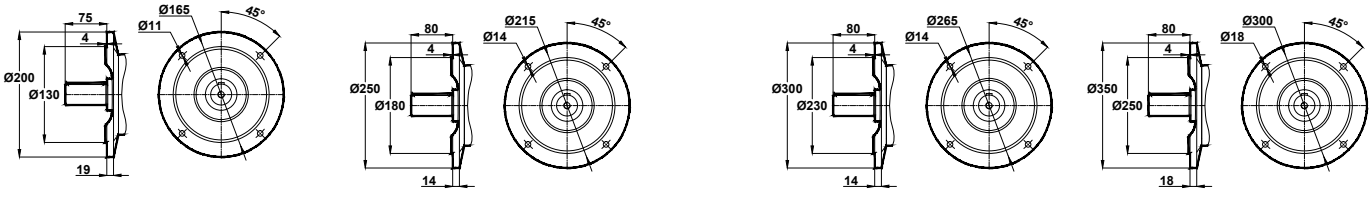


NN372-B..
NN373-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	43.5	12	364	19	6	21.8	-
90/B14	4	9	9	115	140	95	43.5	12	364	24	8	26.3	-
100/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
112/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
132/B14	4.5	9	11	165	200	130	80.5	15	401	38	10	41.3	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

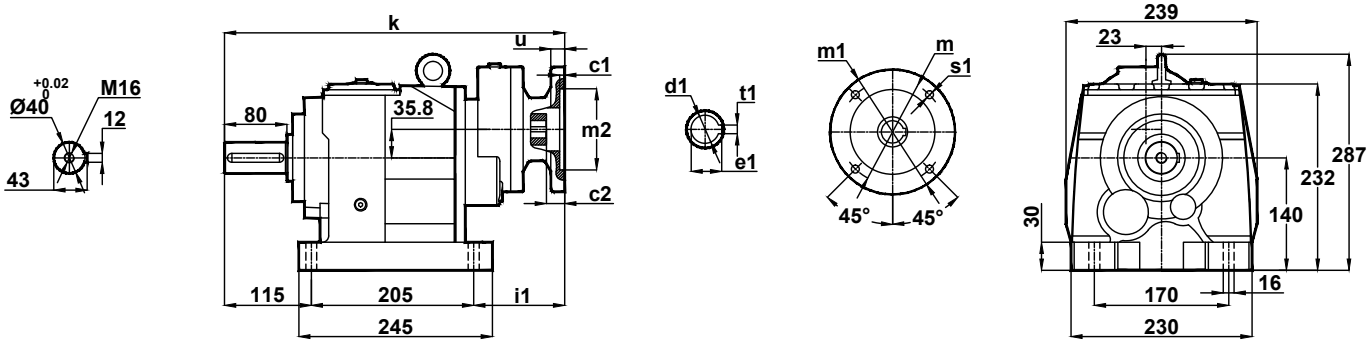


Opt. 1 **Opt. 2** **Opt. 3** **Opt. 4**

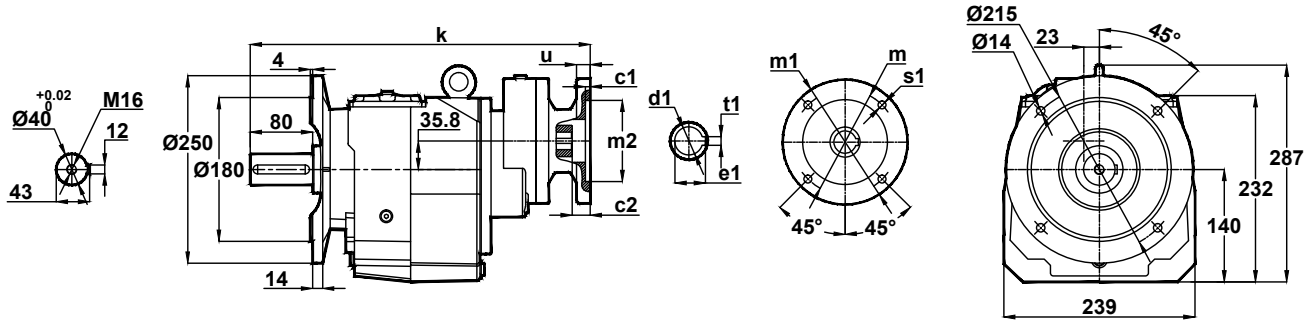
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN374-A..
MN374-B..

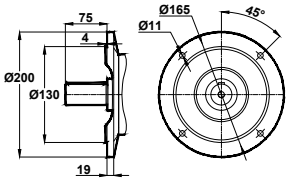


NN374-A..
NN374-B..

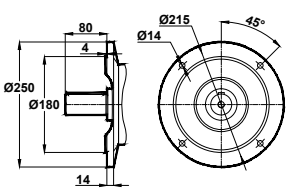


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	120.5	12	441	11	4	12.8
71/B5	4	8.5	11	130	160	110	91.5	12	412	14	5	16.3
80/B5	4	5	13	165	200	130	120.5	12	441	19	6	21.8
71/B14	3	8.5	7	85	105	70	91.5	10	412	14	5	16.3
80/B14	4	5	7	100	120	80	120.5	12	441	19	6	21.8

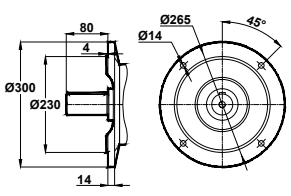
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



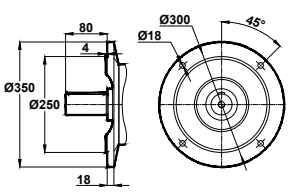
Opt. 1



Opt. 2



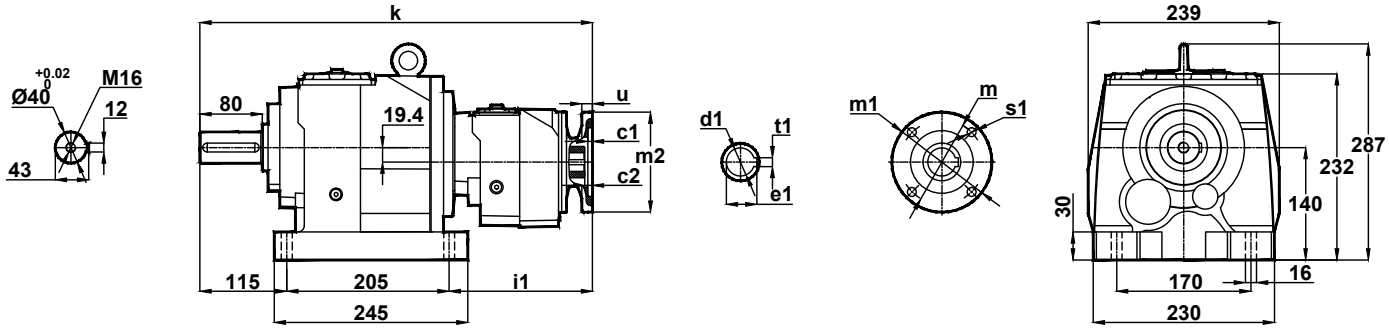
Opt. 3



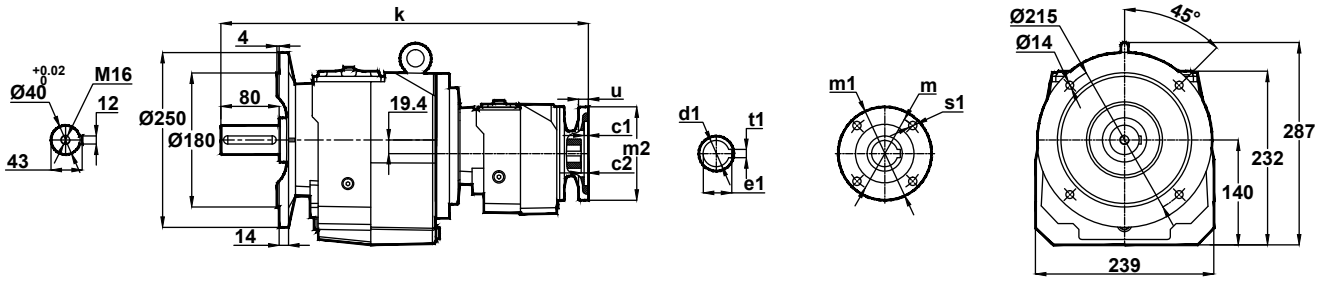
Opt. 4

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN375-A.. / B..
MN376-A.. / B..

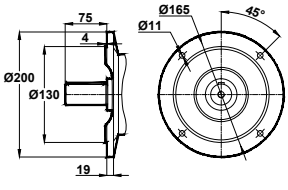


NN375-A.. / B..
NN376-A.. / B..

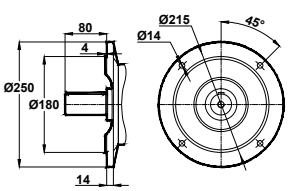


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	186.5	10	507	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	186.5	10	507	11	4	12.8

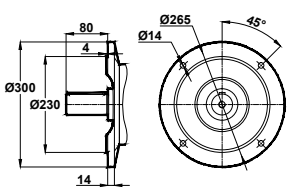
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



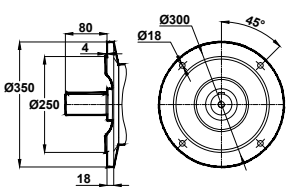
Opt. 1



Opt. 2



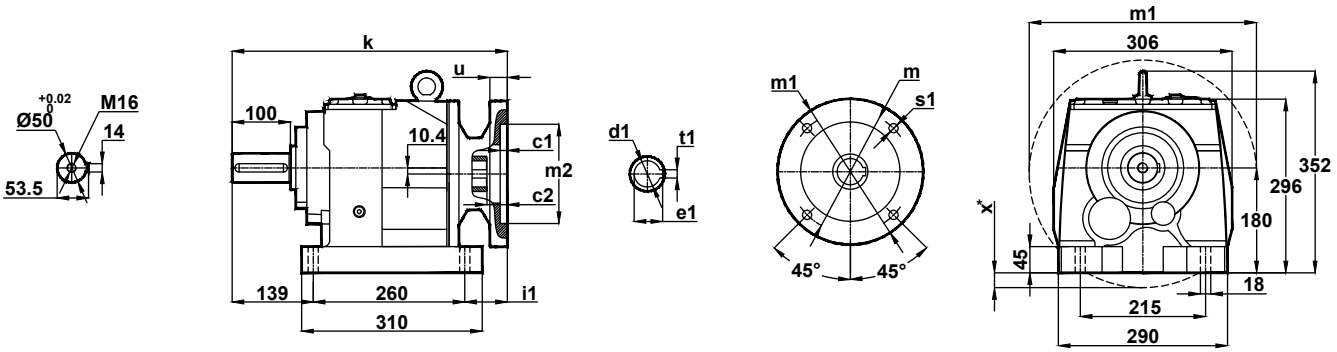
Opt. 3



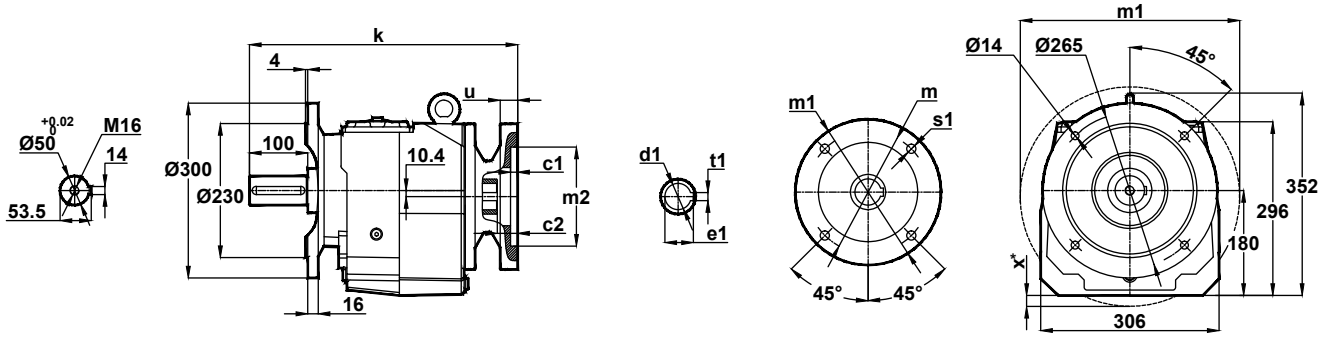
Opt. 4

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN472-A..
MN473-A..

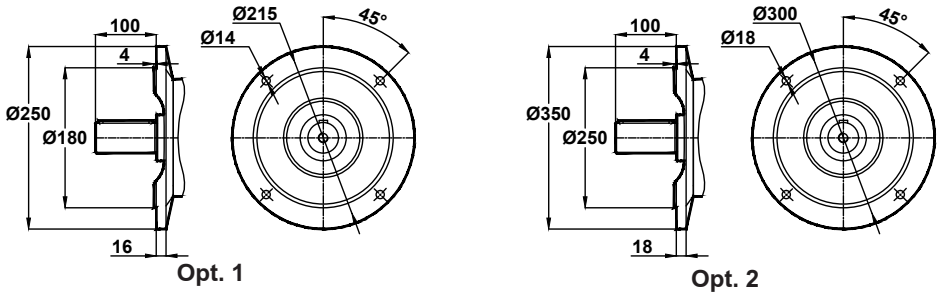


NN472-A..
NN473-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B5	4	5	12	165	200	130	27.5	12	427	19	6	21.8	-
90/B5	4	5	13	165	200	130	27.5	12	427	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	46	15	445	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	46	15	445	28	8	31.3	-
132/B5	4.5	6	15	265	300	230	64.5	15	464	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	144	20	543	42	12	45.3	6
180/B5	5.5	10	19	300	350	250	144	20	543	48	14	51.8	6

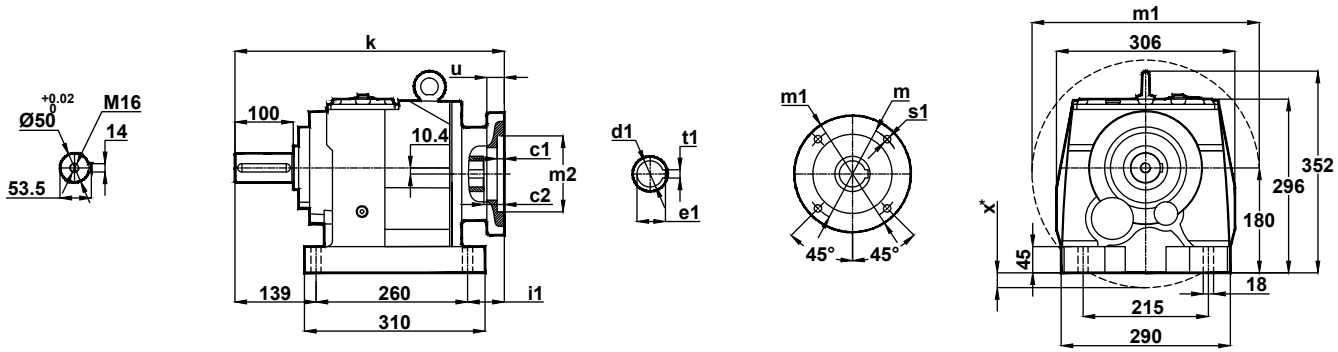
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



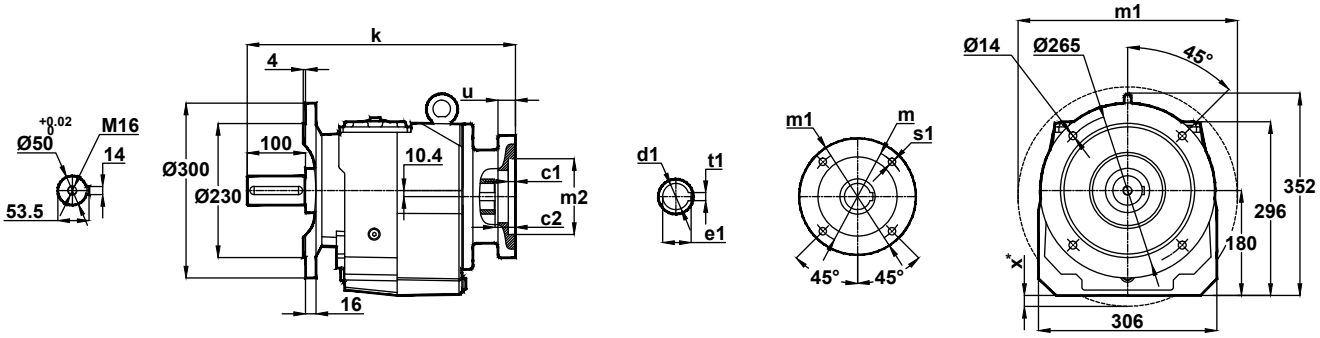
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN472-B..
MN473-B..

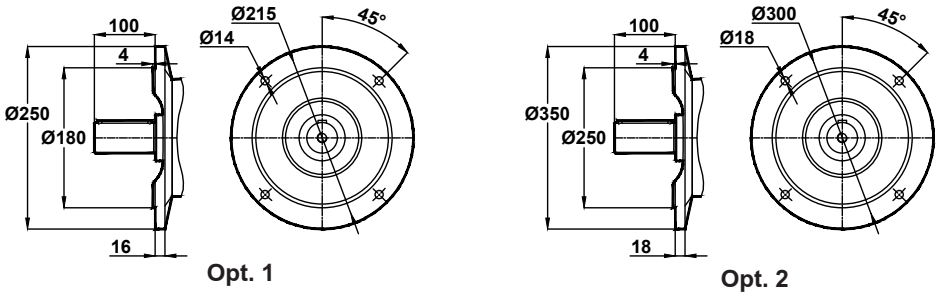


NN472-B..
NN473-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
90/B14	4	5	9	115	140	95	27.5	12	427	24	8	27.3	-
100/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
112/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
132/B14	4.4	6	11	165	200	130	64.5	15	464	38	10	41.3	-

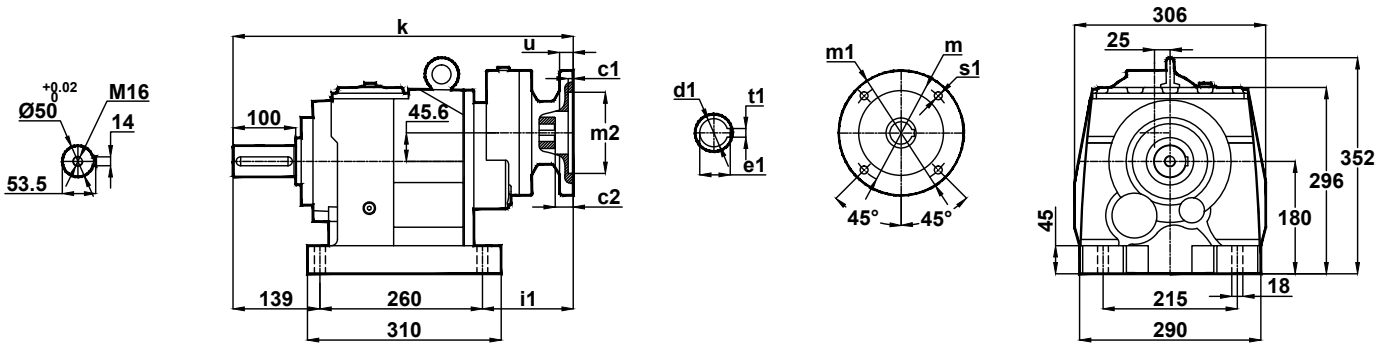
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



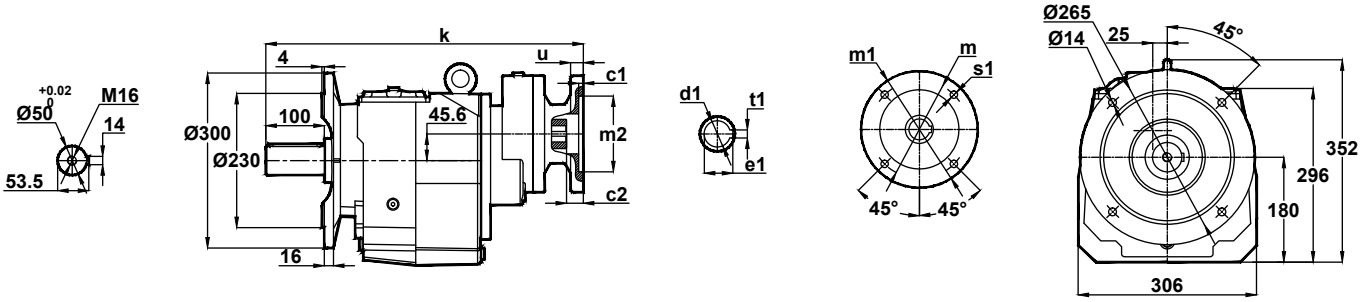
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN474-A..
MN474-B..

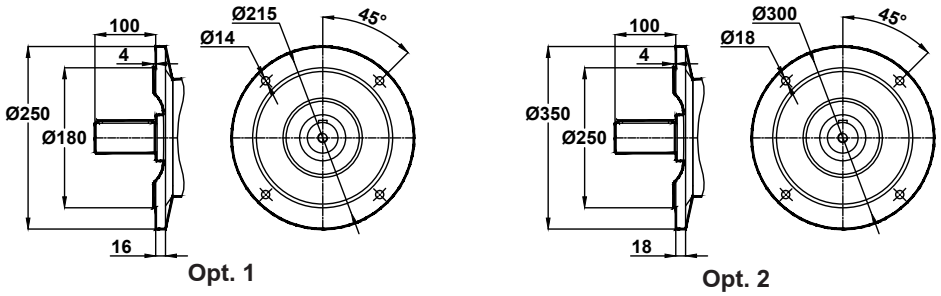


NN474-A..
NN474-B..



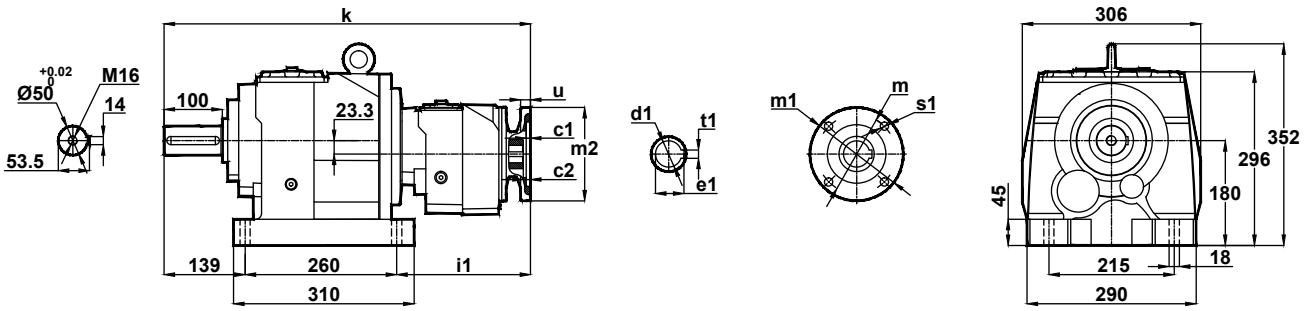
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	125.5	12	525	14	5	16.3
80/B5	4	9	13	165	200	130	125.5	12	525	19	6	21.8
80/B14	4	9	7	100	120	80	125.5	12	525	19	6	21.8

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*

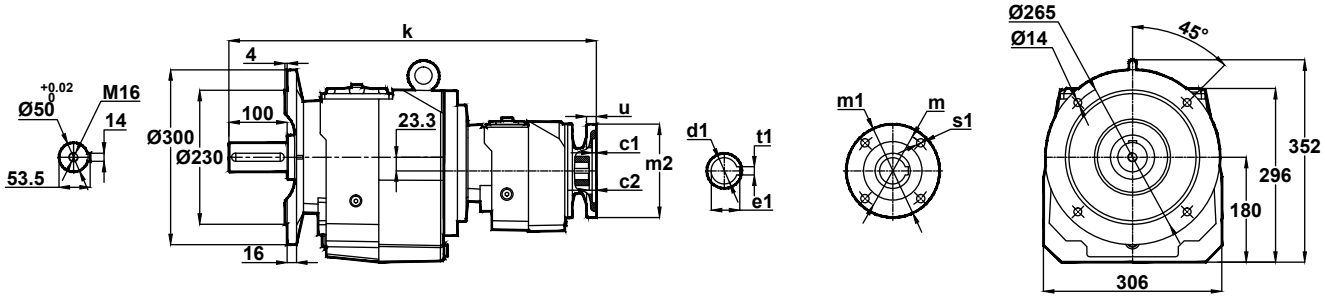


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN475-A.. / B..
MN476-A.. / B..

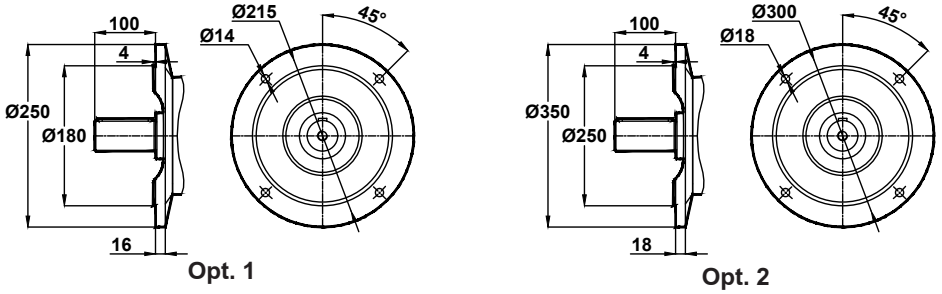


NN475-A.. / B..
NN476-A.. / B..



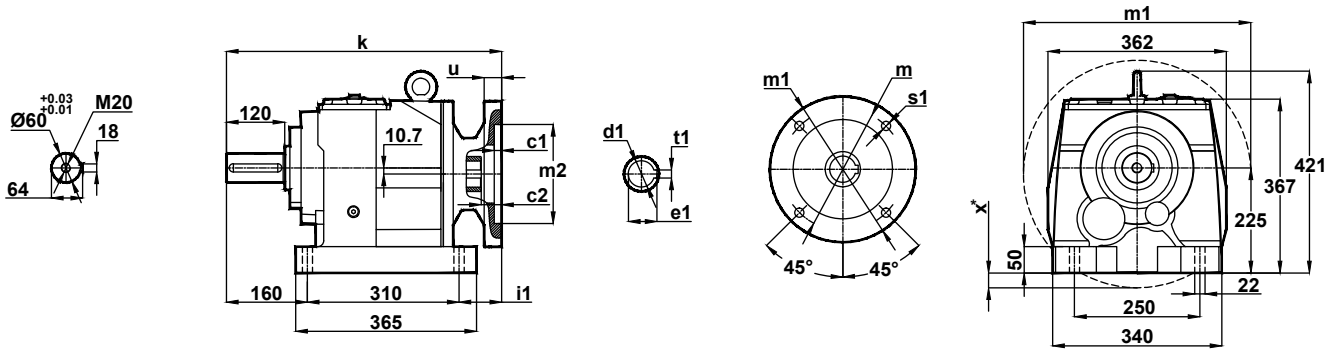
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	253.5	12	653	11	4	12.8
71/B5	4	8.5	11	130	160	110	224.5	12	624	14	5	16.3
71/B14	3	8.5	7	85	105	70	224.5	10	624	14	5	16.3

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

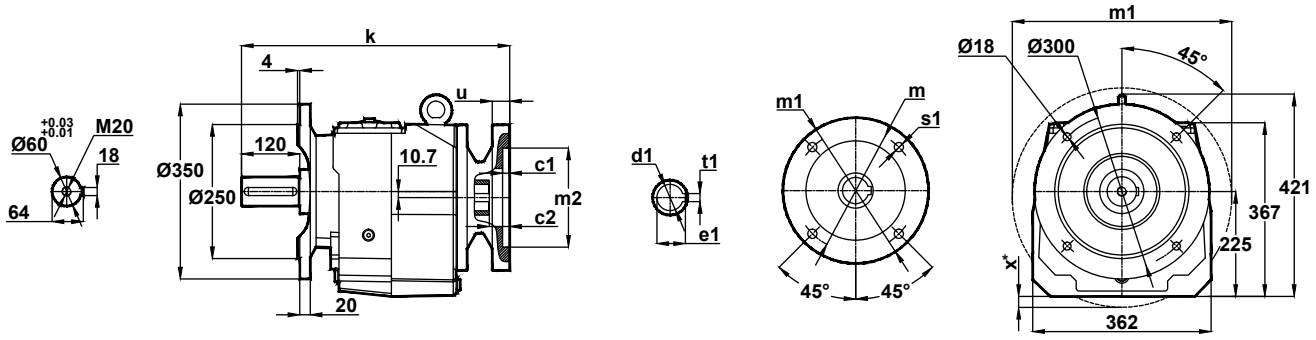


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN572-A.. / B..
MN573-A.. / B..

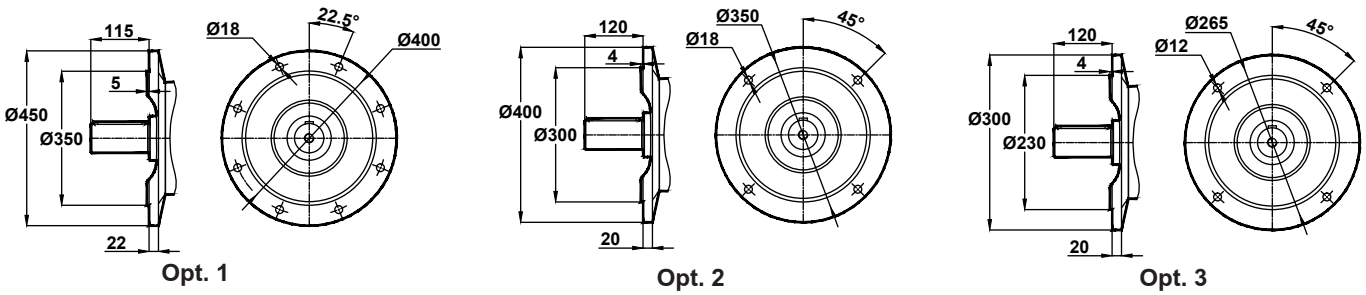


NN572-A.. / B..
NN573-A.. / B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
100/B5	4.5	20	15	215	250	180	33.5	15	507	28	8	31.3	-
112/B5	4.5	20	15	215	250	180	33.5	15	507	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	54.5	15	528	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	130	18	603	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	130	18	603	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	150	22	623	55	16	59.3	-
132/B14	4.5	9	11	165	200	130	54.5	15	528	38	10	41.3	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

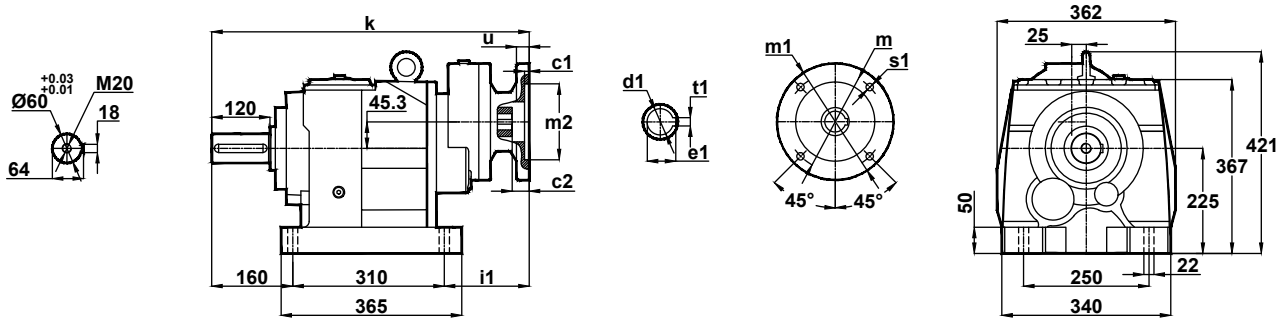


Opt. 1 **Opt. 2** **Opt. 3**

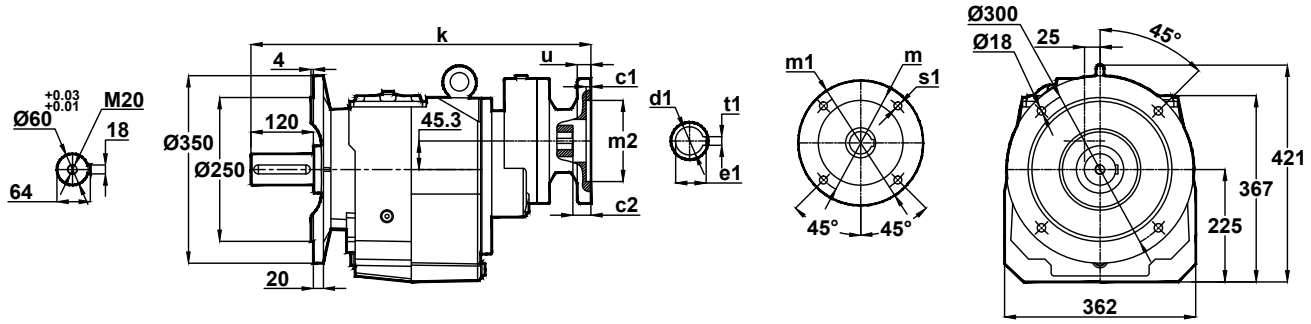
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN574-A..
MN574-B..

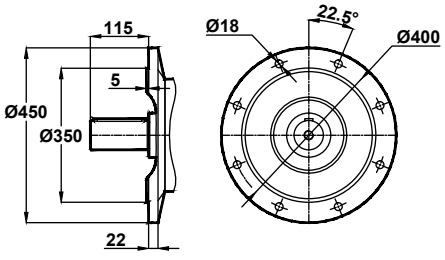


NN574-A..
NN574-B..

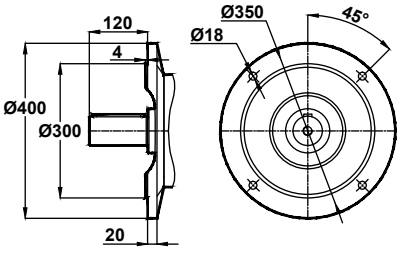


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	116.5	12	587	14	5	16.3
80/B5	4	9	13	165	200	130	116.5	12	587	14	6	21.8
90/B5	4	9	13	165	200	130	116.5	12	587	19	8	27.3
80/B14	4	9	7	100	120	80	116.5	12	587	19	6	21.8
90/B14	4	9	9	115	140	95	116.5	12	587	24	8	26.3

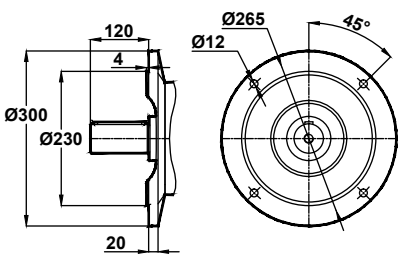
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



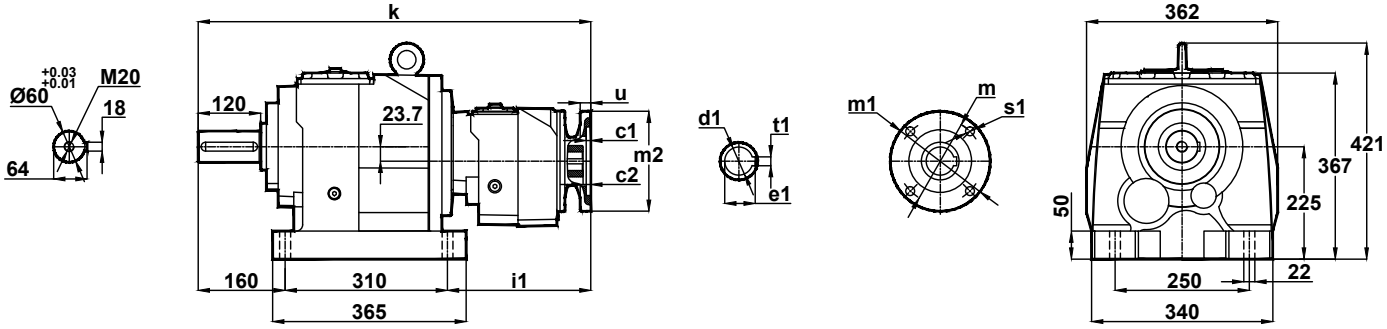
Opt. 2



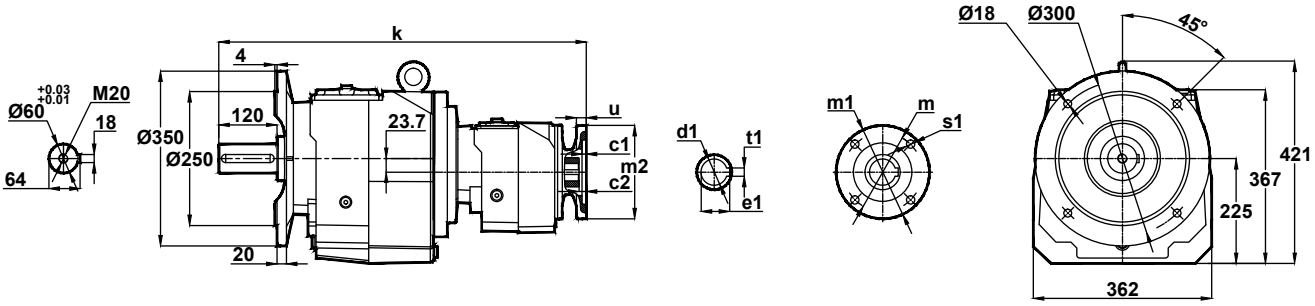
Opt. 3

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN575-A.. / B..
MN576-A.. / B..

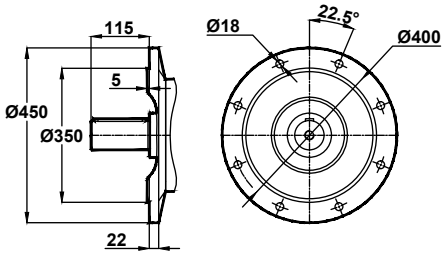


NN575-A.. / B..
NN576-A.. / B..

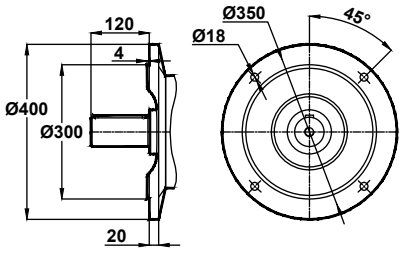


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	246.5	12	717	11	4	12.8
71/B5	4	8.5	11	130	160	110	217.5	12	688	14	5	16.3
71/B14	3	8.5	7	85	105	70	217.5	10	688	14	5	16.3

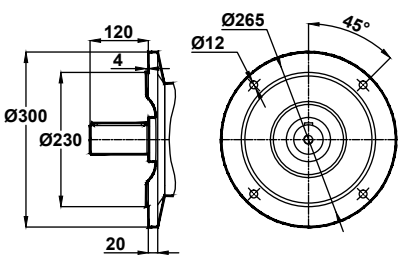
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



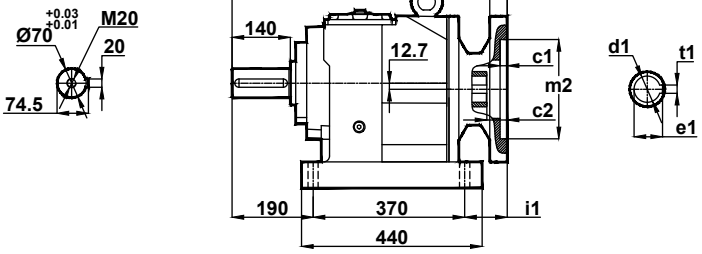
Opt. 2

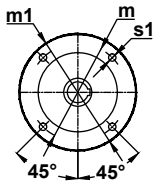


Opt. 3

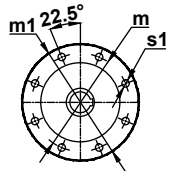
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN672-A.. / B..
MN673-A.. / B..

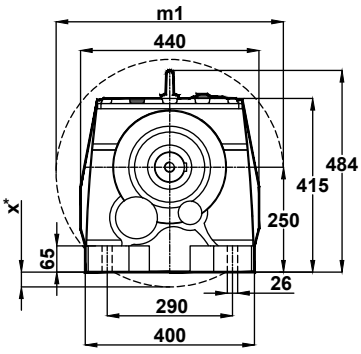




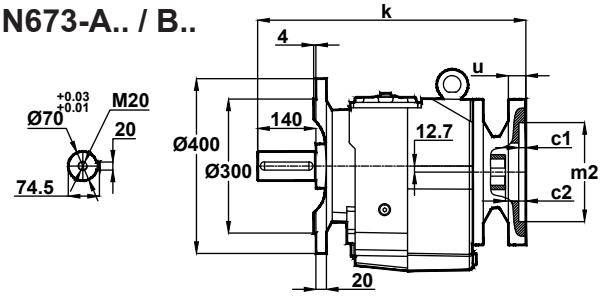
112 - 200 Tip / *Type* / Typ

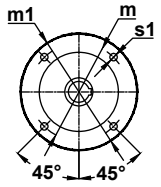


225 Tip / *Type* / Typ

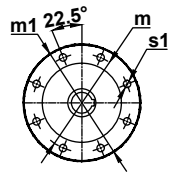


NN672-A.. / B..
NN673-A.. / B..

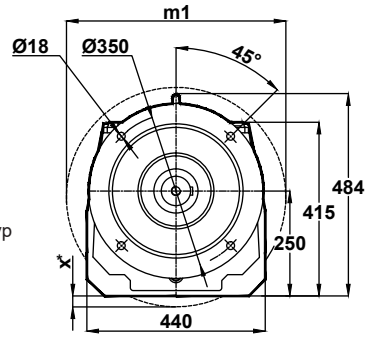




112 - 200 Tip / *Type* / Typ

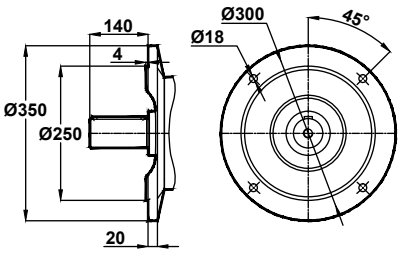


225 Tip / *Type* / Typ

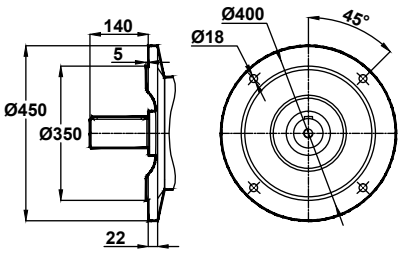


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
112/B5	4.5	14.5	15	215	250	180	7.5	15	568	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	22.5	15	583	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	97.5	20	658	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	97.5	20	658	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	118	22	678	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	171	24	731	60	18	64.4	-
132/B14	4.5	9	15	165	200	130	22.5	15	583	38	10	41.3	-

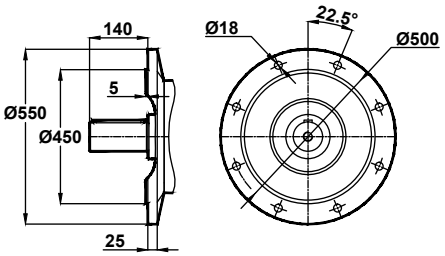
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



Opt. 1



Opt. 2

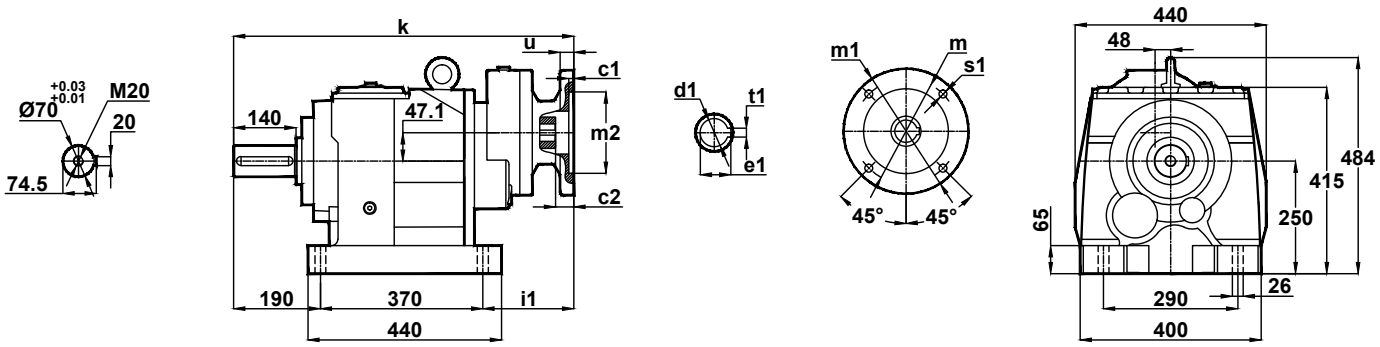


Opt. 3

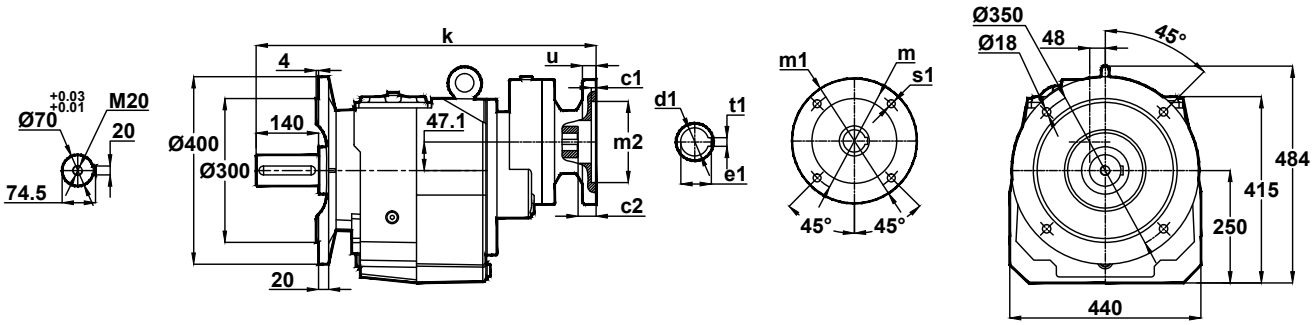
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN674-A..
MN674-B..

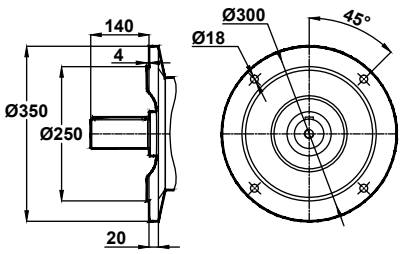


NN674-A..
NN674-B..

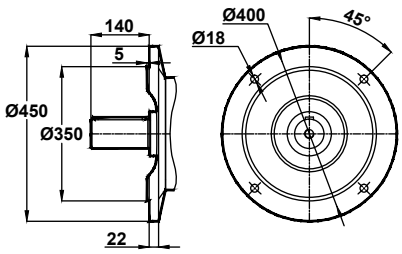


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	97.5	12	658	19	6	21.8
90/B5	4	5	13	165	200	130	97.5	12	658	24	8	27.3
90/B14	4	5	9	115	140	95	97.5	12	658	24	8	27.3

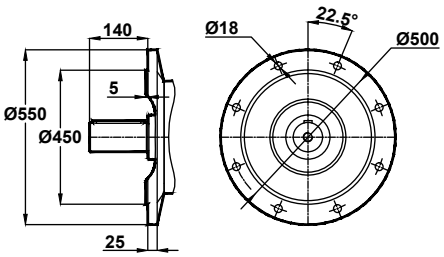
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



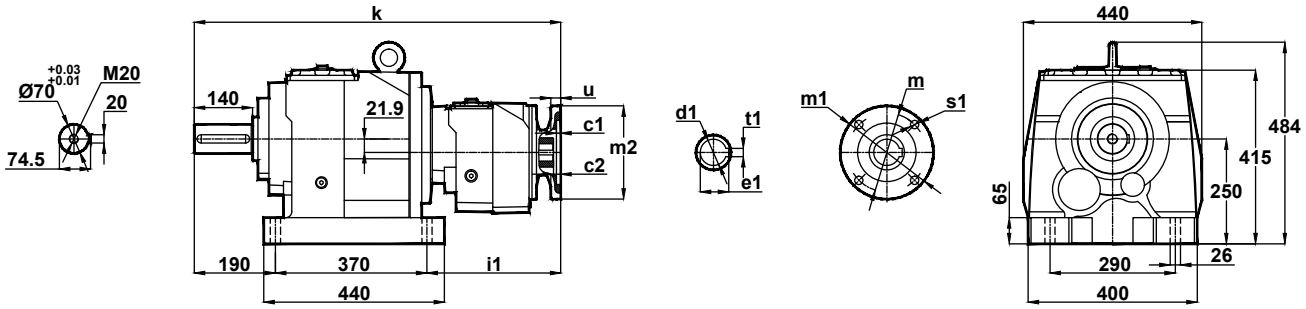
Opt. 2



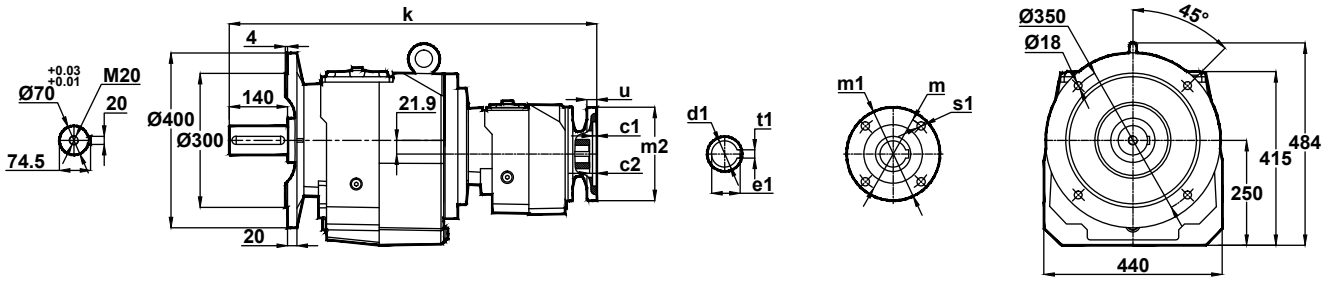
Opt. 3

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN675-A.. / B..
MN676-A.. / B..

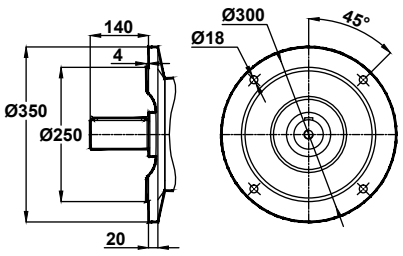


NN675-A.. / B..
NN676-A.. / B..

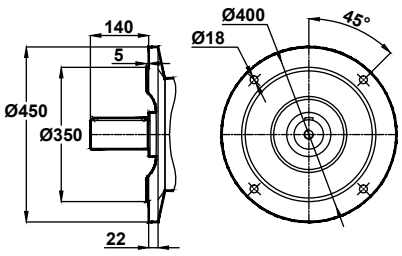


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	248	12	808	14	5	16.3
80/B5	4	9	13	165	200	130	248	12	808	19	6	21.8
80/B14	4	9	7	100	120	80	248	12	808	19	6	21.8

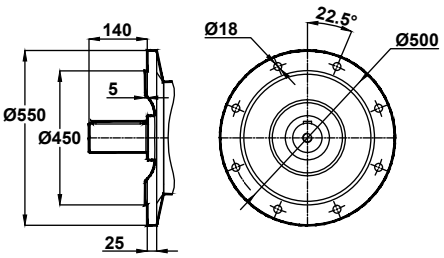
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



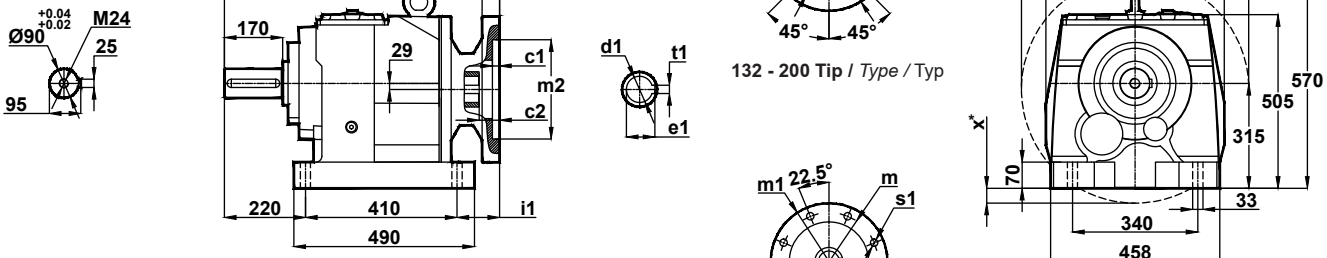
Opt. 2



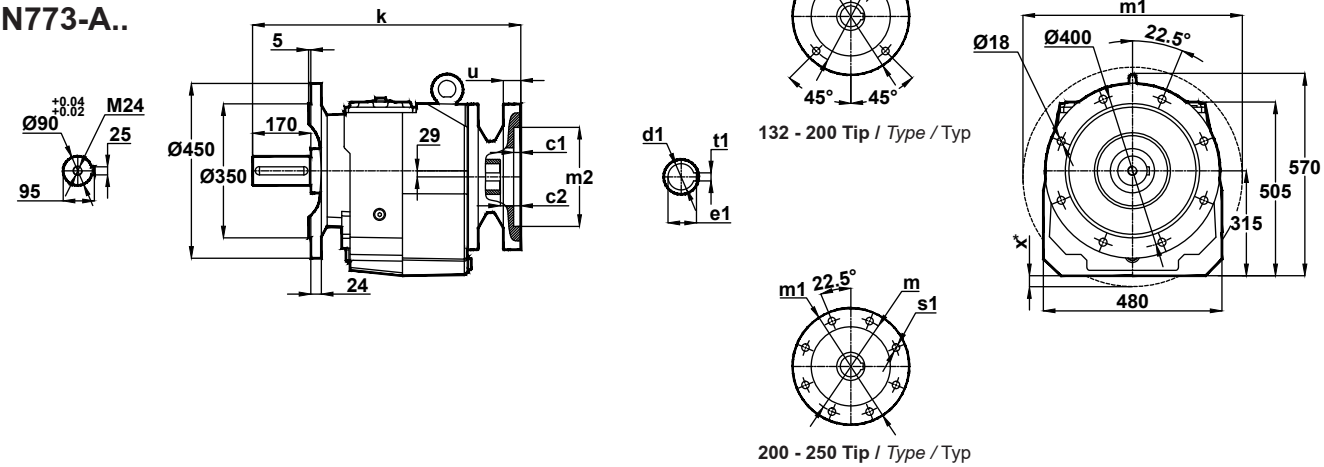
Opt. 3

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN772-A..
MN773-A..

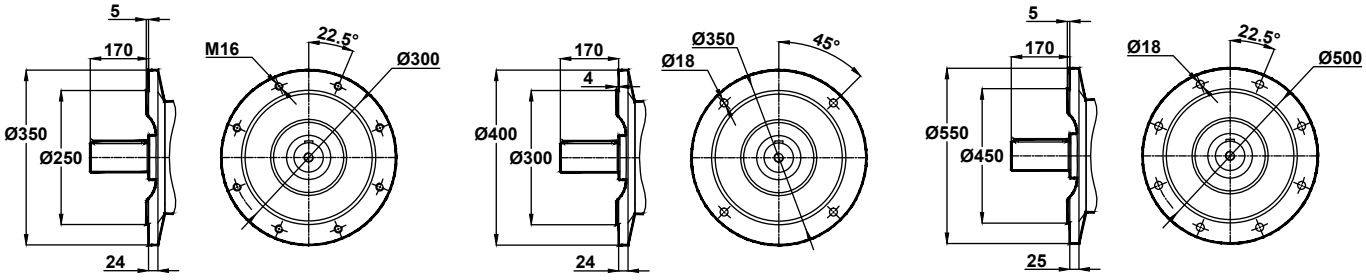


NN772-A..
NN773-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
132/B5	4.5	15	15	265	300	230	37.5	15	668	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	107	20	737	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	107	20	737	43	14	51.8	-
200/B5	5.5	10	19	350	400	300	129	20	759	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	182	24	812	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	182	24	812	65	18	69.4	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

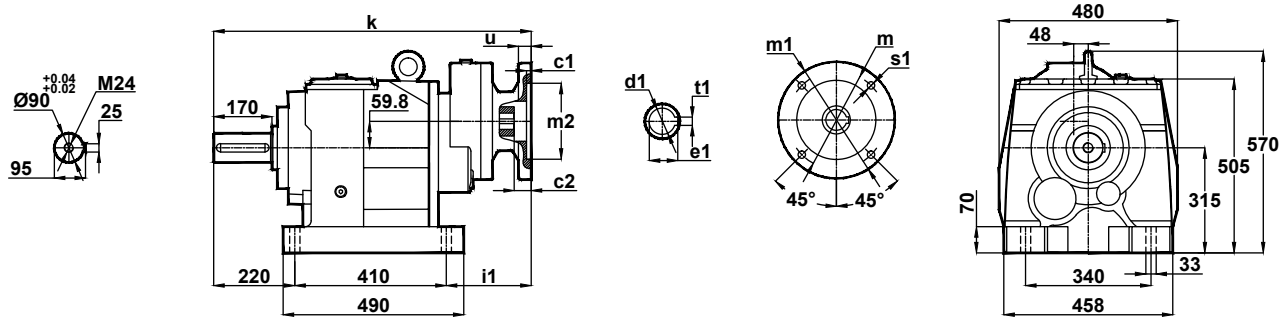


Opt. 1 **Opt. 2** **Opt. 3**

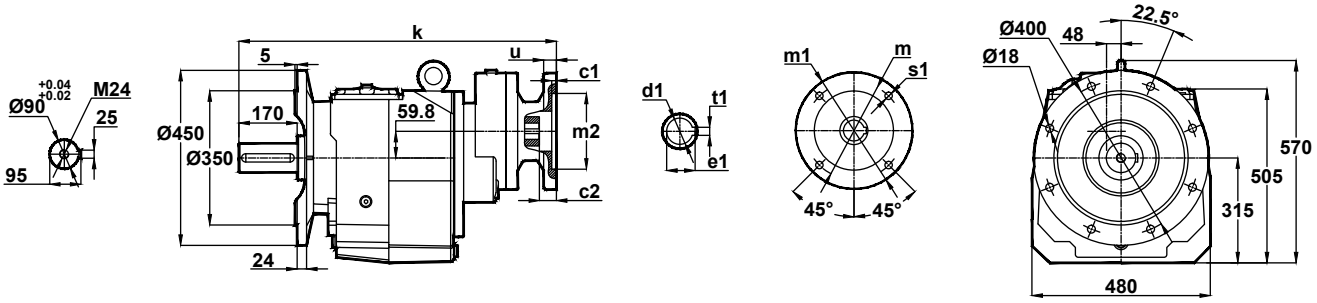
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN774-A..
MN774-B..

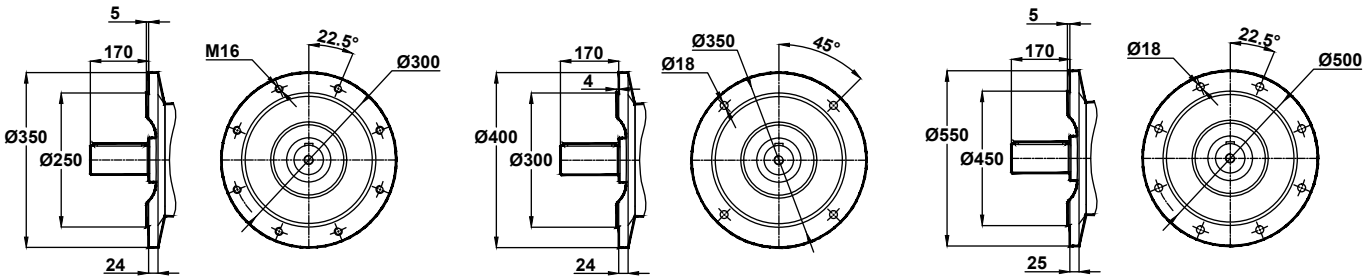


NN774-A..
NN774-B..



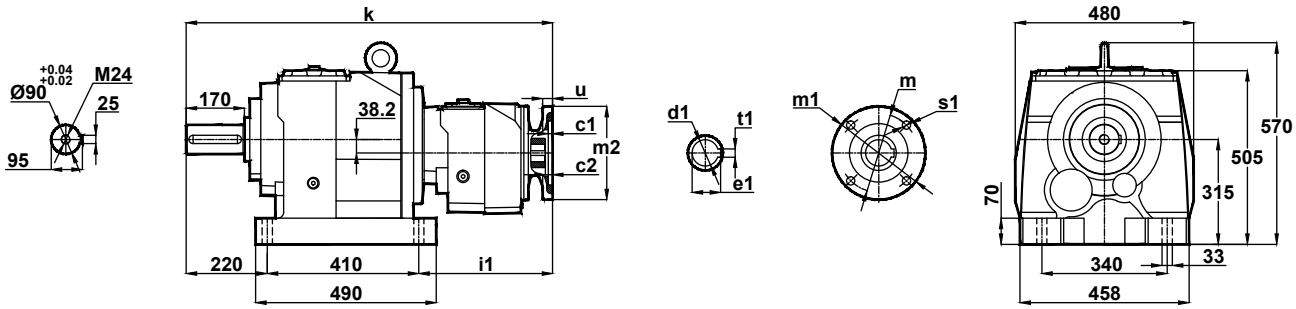
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	112.5	12	743	19	6	21.8
90/B5	4	5	13	165	200	130	112.5	12	743	24	8	27.3
100/B5	4.5	9	15	215	250	180	131	15	761	28	8	31.3
90/B14	4	5	9	115	140	95	112.5	12	743	24	8	27.3
100/B14	4	9	9	130	160	110	131	15	761	28	8	31.3

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

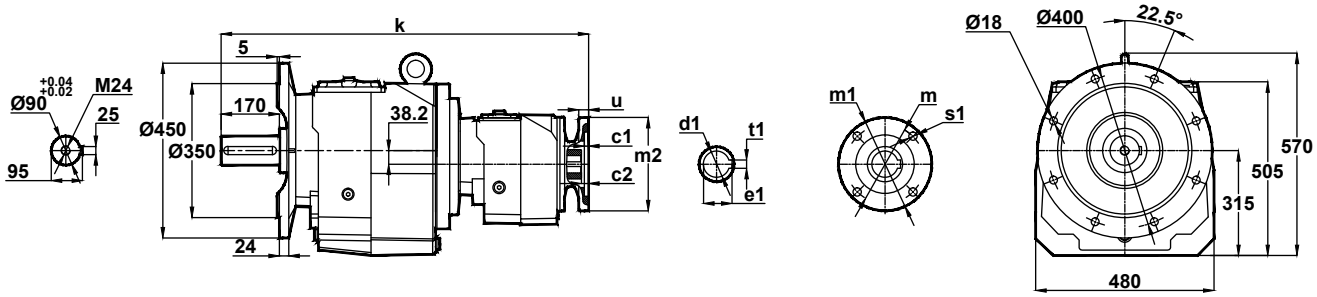


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN775-A.. / B..
MN776-A.. / B..

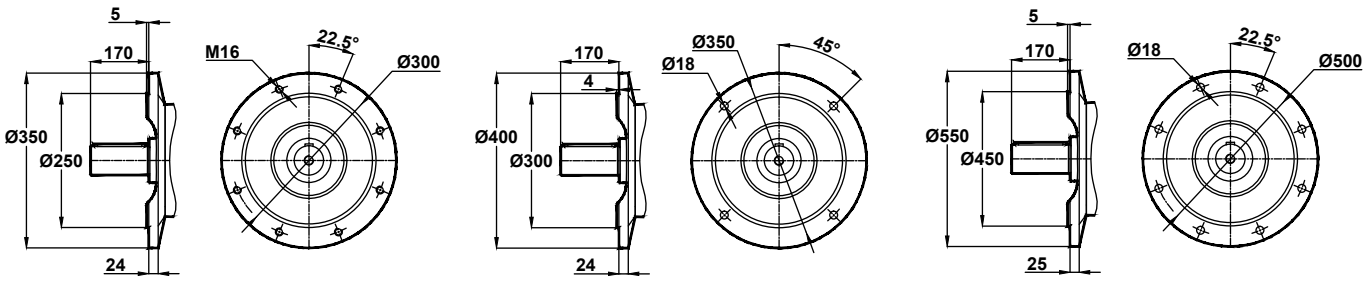


NN775-A.. / B..
NN776-A.. / B..



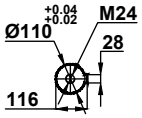
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	266	12	896	14	5	16.3
80/B5	4	9	13	165	200	130	266	12	869	19	6	21.8
90/B5	4	9	13	165	200	130	266	12	896	24	8	27.3
80/B14	4	9	7	100	120	80	266	12	896	19	6	21.8
90/B14	4	9	9	115	140	95	266	12	896	24	8	26.3

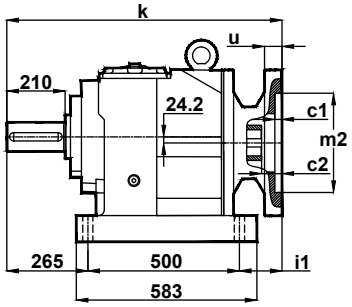
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

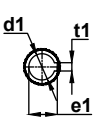


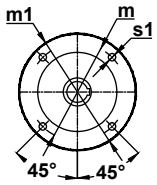
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN872-A..
MN873-A..

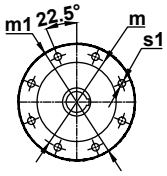




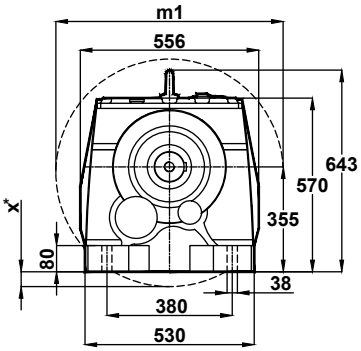




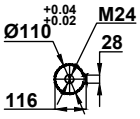
160 - 200 Tip / *Type* / Typ

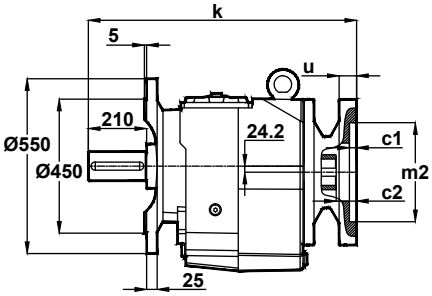


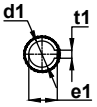
225 - 280 Tip / *Type* / Typ

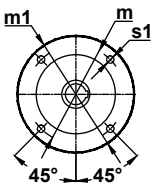


NN872-A..
NN873-A..

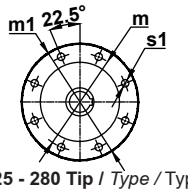




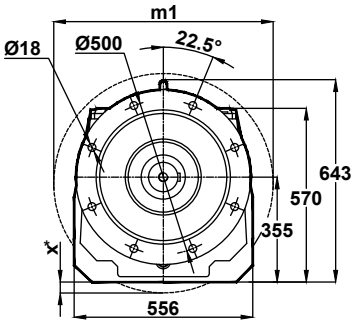




160 - 200 Tip / *Type* / Typ

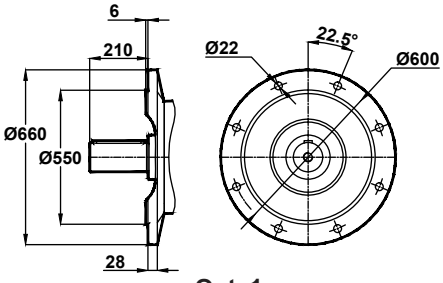


225 - 280 Tip / *Type* / Typ



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
160/B5	5.5	10	19	300	350	250	158	20	923	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	158	20	923	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	158	22	923	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	158	24	923	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	158	24	923	65	18	69.4	-
280/B5	5.5	10	19	500	550	450	158	24	923	75	20	79.9	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

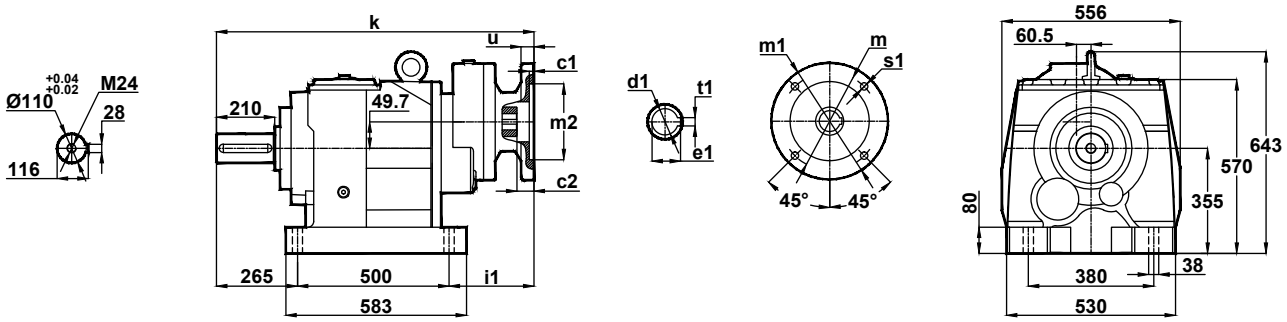


Opt. 1

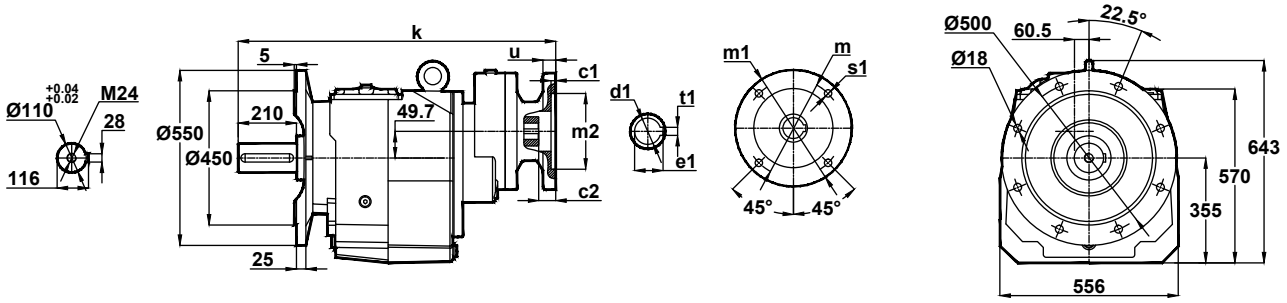
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN874-A..
MN874-B..

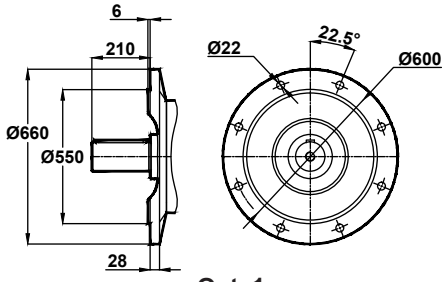


NN874-A..
NN874-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
100/B5	4.5	20	15	215	250	180	130.5	15	896	28	8	31.3
112/B5	4.5	20	15	215	250	180	130.5	15	896	28	8	31.3
132/B5	4.5	9	15	265	300	230	151.5	15	917	38	10	41.3
132/B14	4.5	9	11	165	200	130	151.5	15	917	38	10	41.3

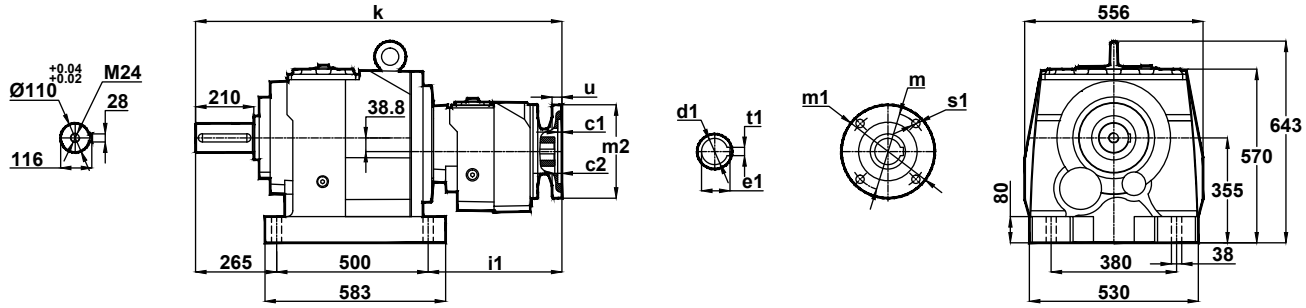
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



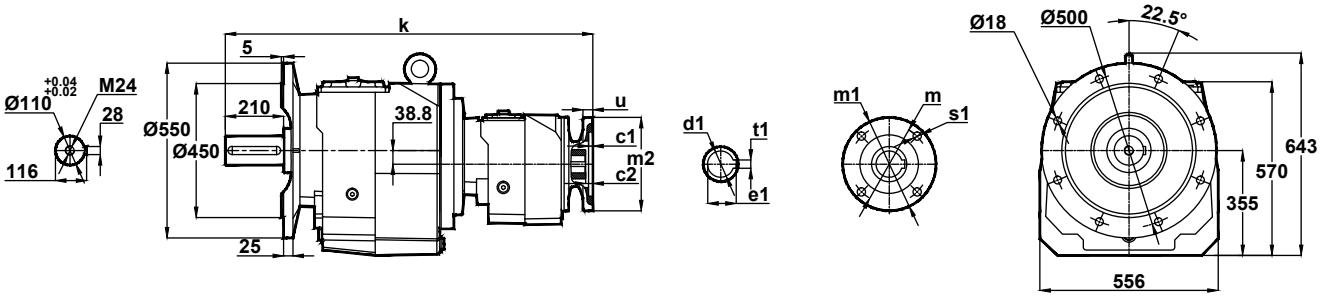
Opt. 1

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN875-A.. / B..
MN876-A.. / B..

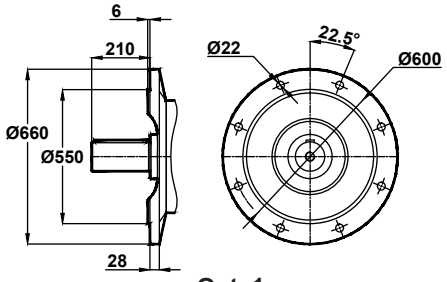


NN875-A.. / B..
NN876-A.. / B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	248	12	1013	14	5	16.3
80/B5	4	9	13	165	200	130	248	12	1013	19	6	21.8
90/B5	4	9	13	165	200	130	248	12	1013	24	8	27.3
100/B5	4.5	9	15	215	250	180	265	15	1030	28	8	31.3
80/B14	4	9	7	100	120	80	248	12	1013	19	8	21.8
90/B14	4	9	9	115	140	95	248	12	1013	24	8	26.3
100/B14	4	9	9	130	160	110	265	15	1030	28	8	31.3

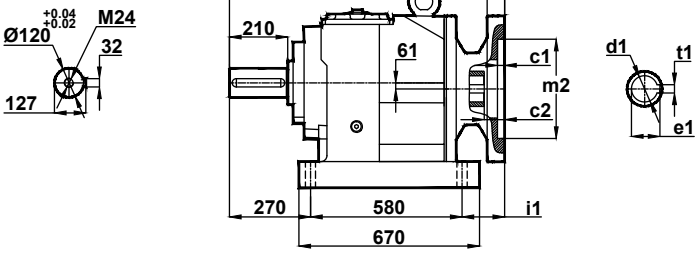
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

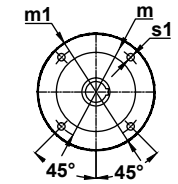


Opt. 1

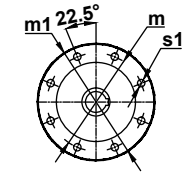
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN972-A..
MN973-A..

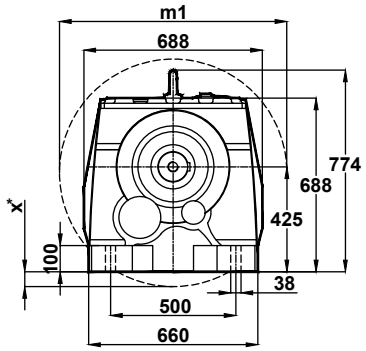




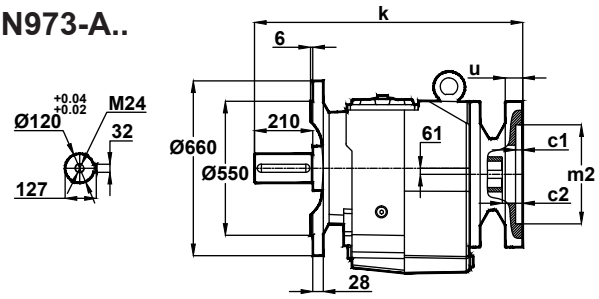
160 - 200 Tip / *Type* / Typ

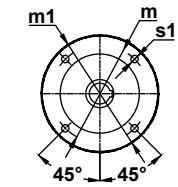


225 - 315 Tip / *Type* / Typ

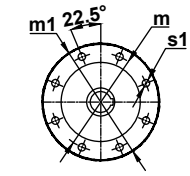


NN972-A..
NN973-A..

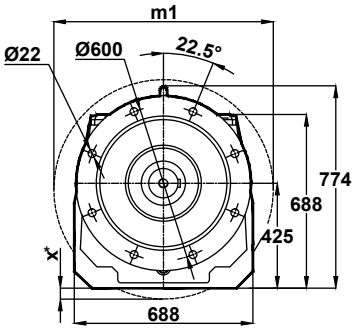




160 - 200 Tip / *Type* / Typ



225 - 315 Tip / *Type* / Typ

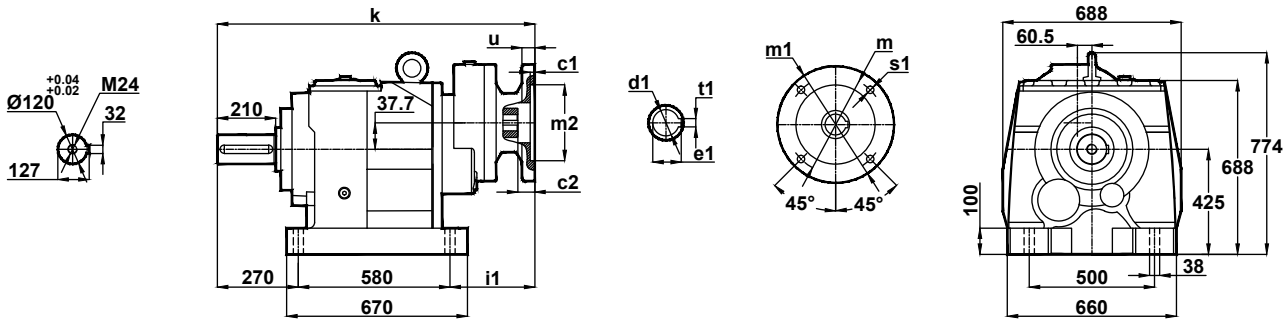


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
160/B5	5.5	10	19	300	350	250	60.5	20	911	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	60.5	20	911	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	84.5	22	935	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	126.5	24	977	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	178.5	24	1029	65	18	69.4	-
280/B5	5.5	10	19	500	550	450	178.5	24	1029	75	20	79.9	-
315/B5	6.5	15	24	660	600	550	228.5	24	1079	85	22	90.4	-

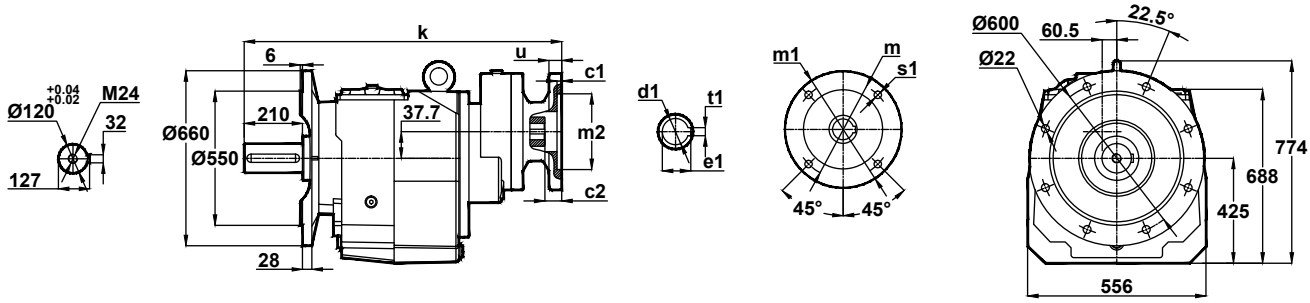
x: Motor flanşı, ayak bağlantı yüzeyinin altında ise / *x: If Motor flange is lower then foot mounting plane* / x: Wen motorflansch ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MN974-A..
MN974-B..

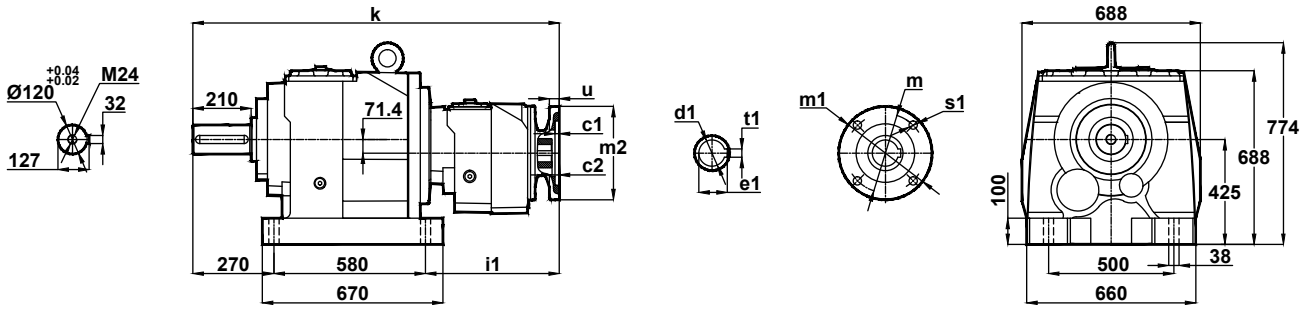


NN974-A..
NN974-B..

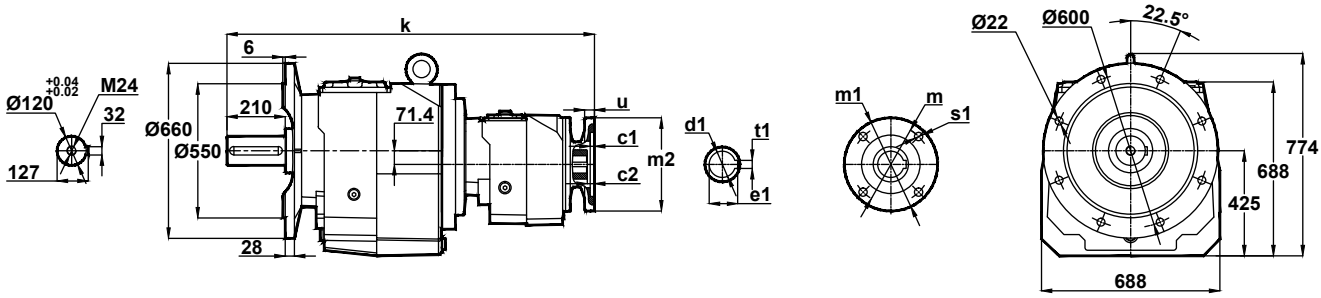


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
100/B5	4.5	14.5	15	215	250	180	149	15	1000	28	8	31.3
112/B5	4.5	14.5	15	215	250	180	149	15	1000	28	8	31.3
132/B5	4.5	9	15	265	300	230	164	15	1015	38	10	41.3
132/B14	4.5	9	15	165	200	130	164	15	1015	38	10	41.3

MN975-A.. / B..
MN976-A.. / B..



NN975-A.. / B..
NN976-A.. / B..

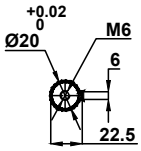


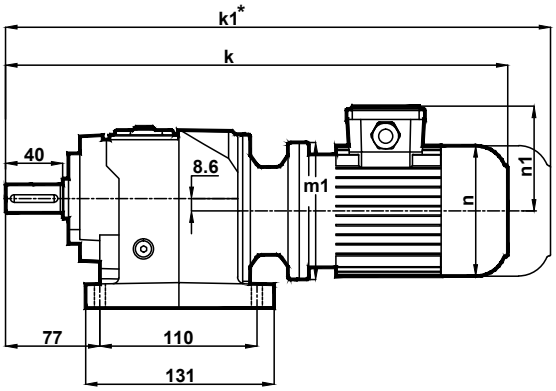
IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	285	12	1136	19	6	12.8
90/B5	4	5	13	165	200	130	285	12	1136	24	8	27.3
100/B5	4.5	9	15	215	250	180	303.5	15	1154	28	8	31.3
112/B5	4.5	9	15	215	250	180	303.5	15	1154	28	8	31.3
132/B5	4.5	6	15	265	300	230	322	15	1173	38	10	41.3
90/B14	4	5	9	115	140	95	285	12	1136	24	8	27.3
100/B14	4	9	9	130	160	110	303.5	15	1154	28	8	31.3
112/B14	4	9	9	130	160	110	303.5	15	1154	28	8	31.3
132/B14	4.4	6	11	165	200	130	322	15	1173	38	10	41.3

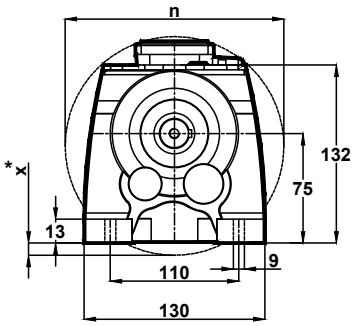
Notlar / *Notes* / Notizen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

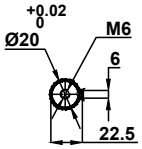
MV002
MV003

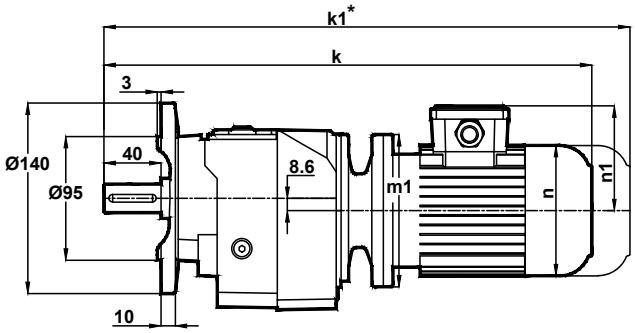


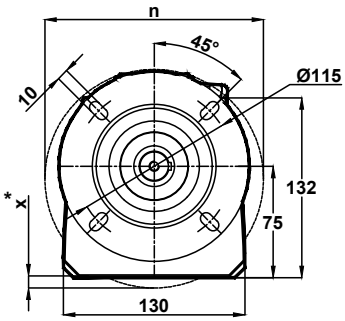




NV002
NV003

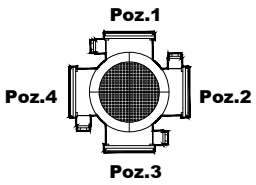






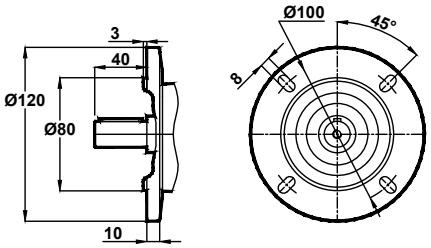
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	407	435	470	490	515
k1	460	555	590	615	640
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	4	14	34	34	34

Klemens Kutusu /*Terminal Box* / Klemmenkasten

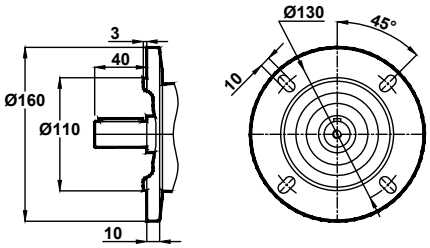


63-71-80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

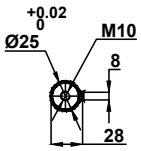


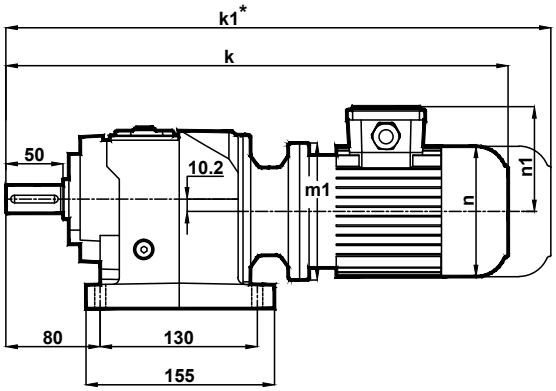
Opt. 2

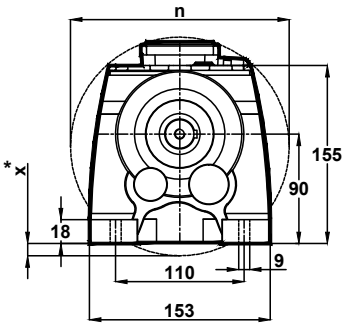
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

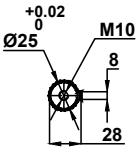
MV102
MV103

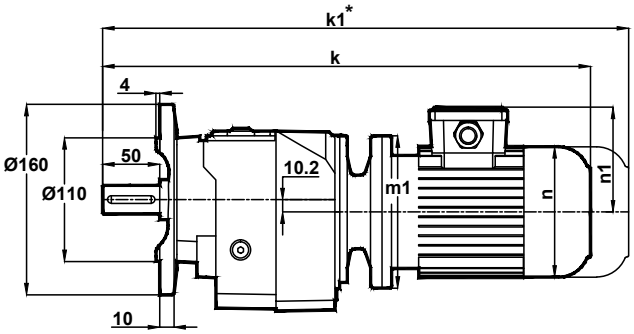


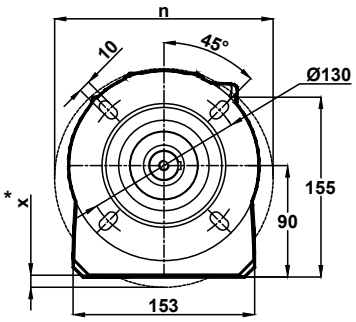




NV102
NV103

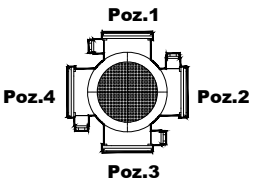






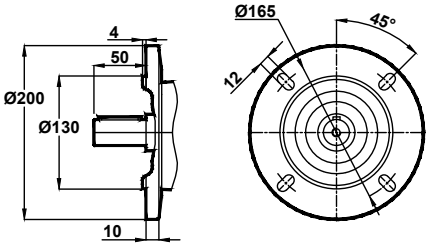
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
IEC	63/B5 63/B14	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	433	459	494	514	539
k1	486	579	614	639	664
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	-	1	21	21	21

Klemens Kutusu / *Terminal Box* / Klemmenkasten

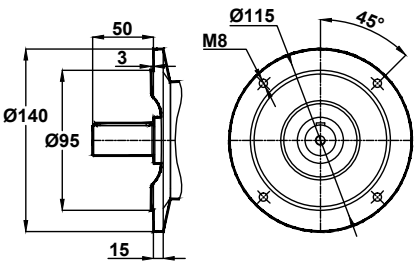


63-71-80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

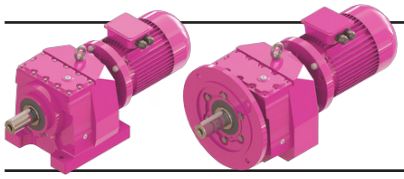


Opt. 1



Opt. 2

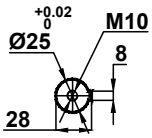
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

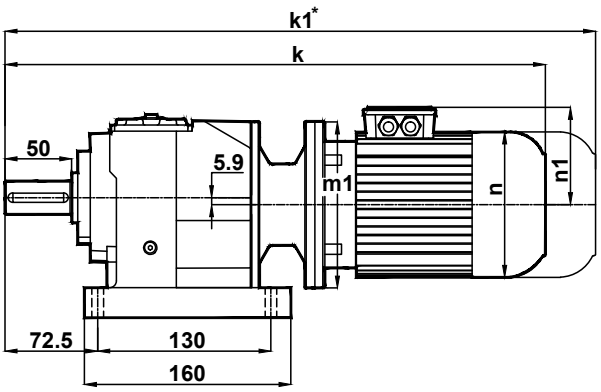


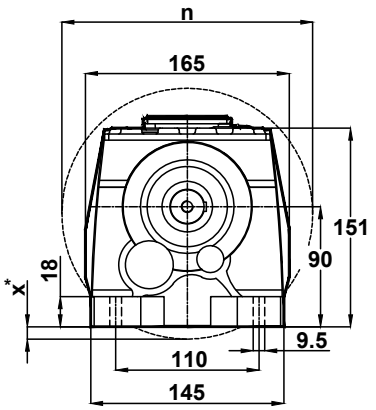
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

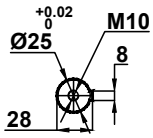
MV172
MV173

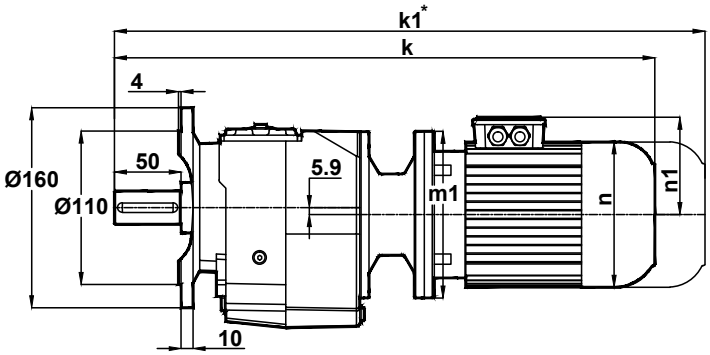


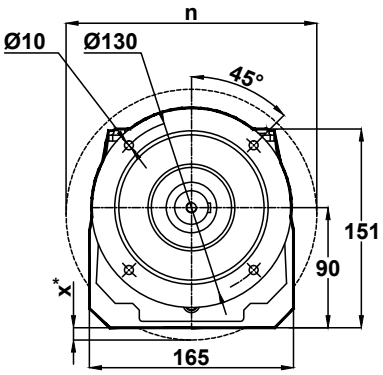




NV172
NV173

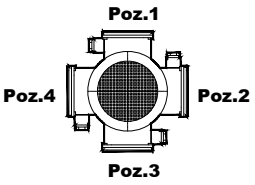






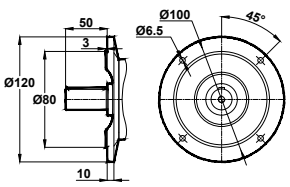
Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
IEC	**63/B5**	**71/B5 71/B14**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**
k	434	462	497	517	542	585	605
k1	487	582	617	642	667	720	740
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146
m1 (B5)	140	160	200	200	200	250	250
m1 (B14)	-	105	120	140	140	160	160
x (B5)	-	-	16	16	16	41	41

Klemens Kutusu /*Terminal Box* / Klemmenkasten

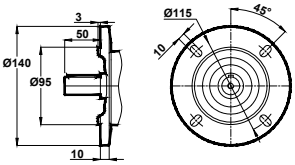


63-71-80-90-100-112

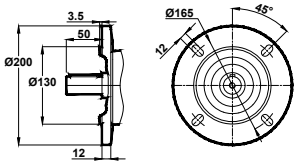
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



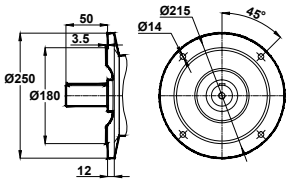
Opt. 1



Opt. 2



Opt. 3

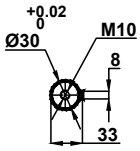


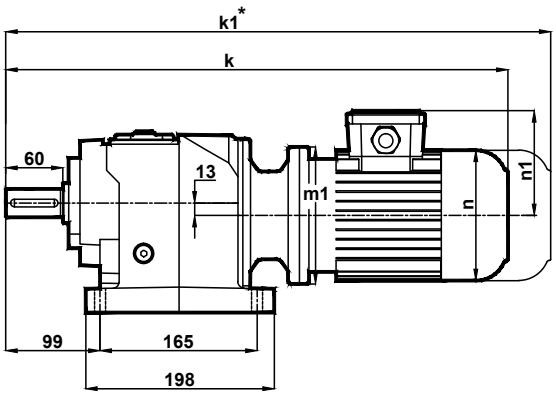
Opt. 4

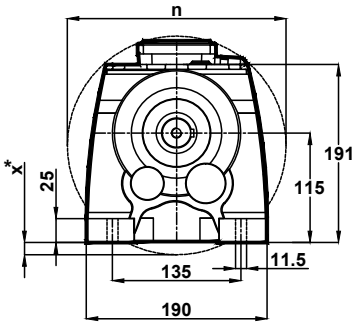
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

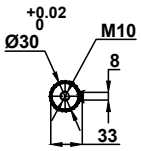
MV202
MV203

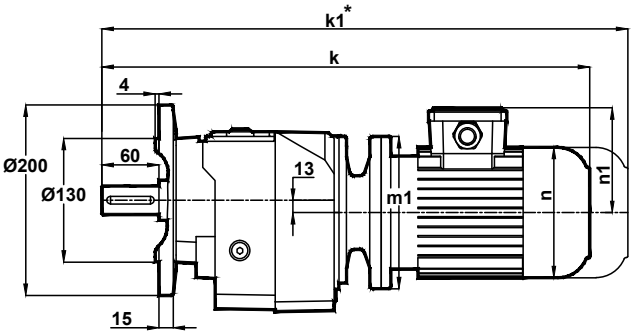


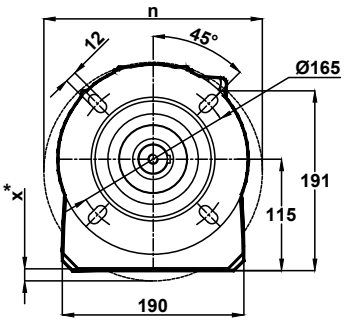




NV202
NV203

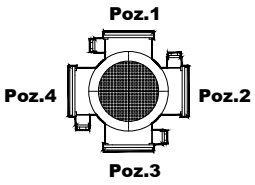






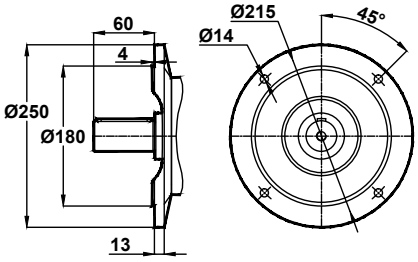
Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	516	513	562	582	607	632	652
k1	569	633	682	707	732	767	787
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146
m1 (B5)	140	160	200	200	200	250	250
m1 (B14)	-	105	120	140	140	160	160
x (B5)	-	-	-	-	-	23	23

Klemens Kutusu /*Terminal Box* / Klemmenkasten

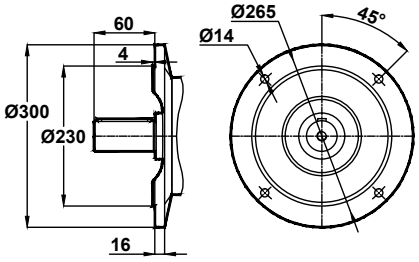


63-71-80-90-100-112

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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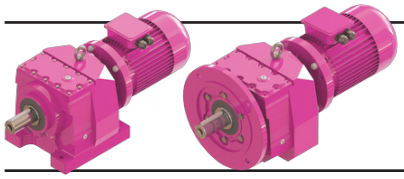
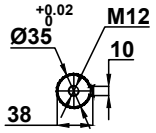
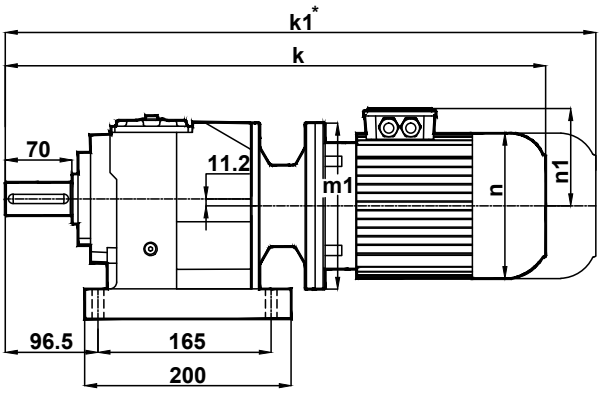
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane /* x: Wen motor ist nidriger den die Anschlußplatte

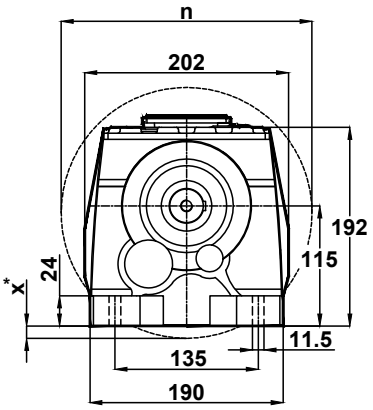


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

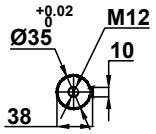
MV272
MV273

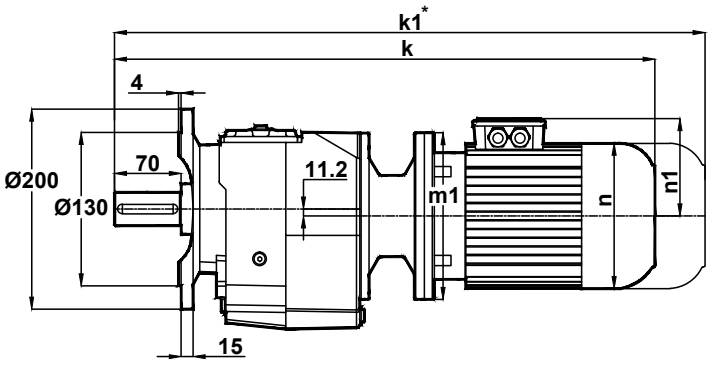


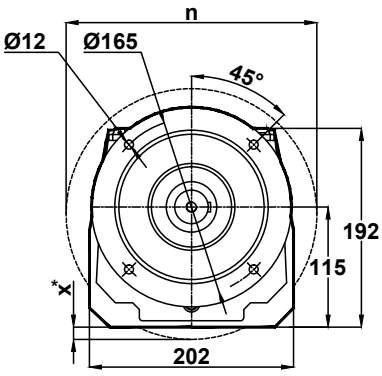




NV272
NV273

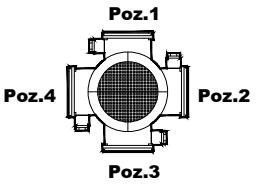






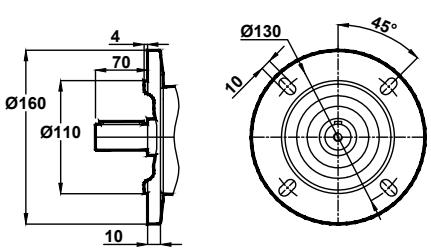
Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	517	514	563	583	608	633	653
k1	570	634	683	708	733	768	788
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146
m1 (B5)	140	160	200	200	200	250	250
m1 (B14)	-	105	120	140	140	160	160
x (B5)	-	-	-	-	-	22	22

Klemens Kutusu /*Terminal Box* / Klemmenkasten

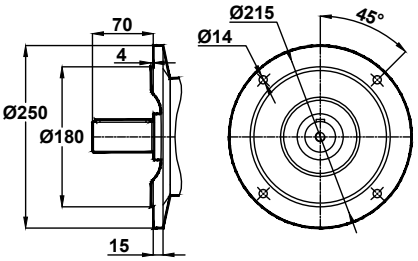


63-71-80-90-100-112

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



Opt. 1

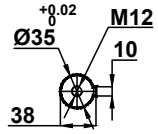


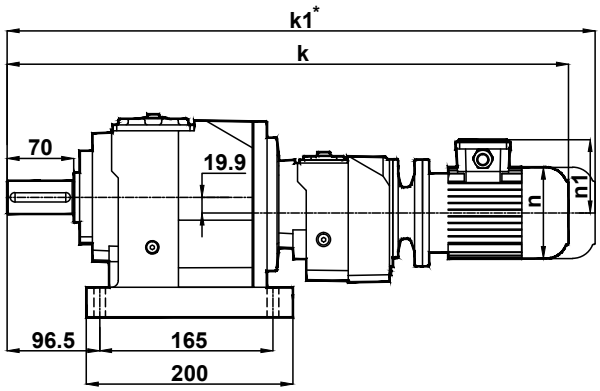
Opt. 2

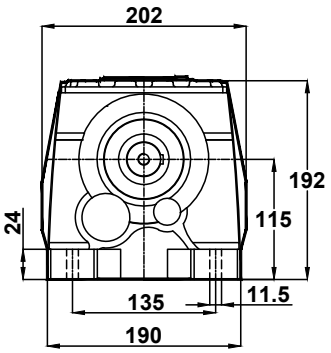
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

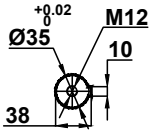
MV275
MV276

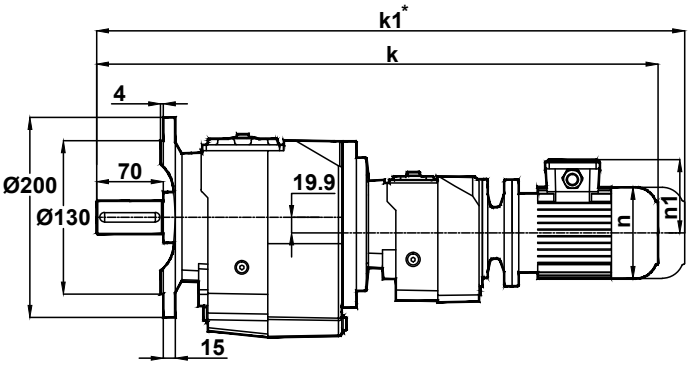


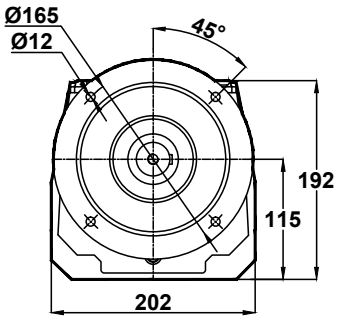




NV275
NV276

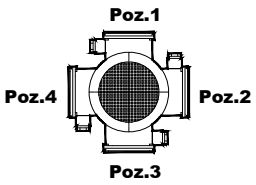






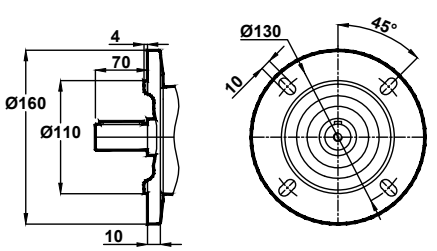
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	63/B5 63/B14	71/B5 71/B14
k	632	660
k1	685	780
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	90	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten

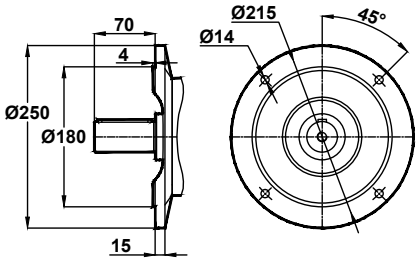


63-71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

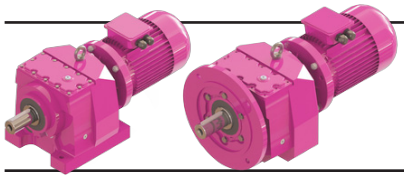


Opt. 1



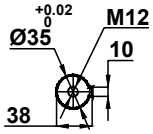
Opt. 2

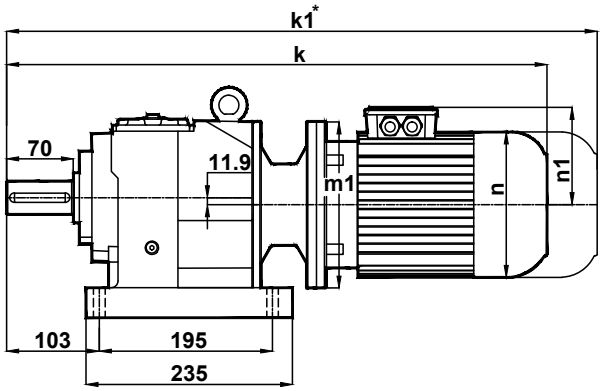
***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

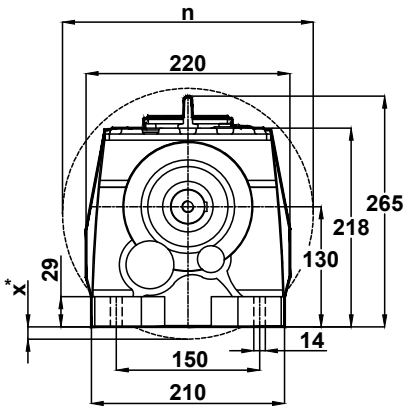


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

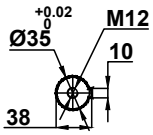
MV282
MV283

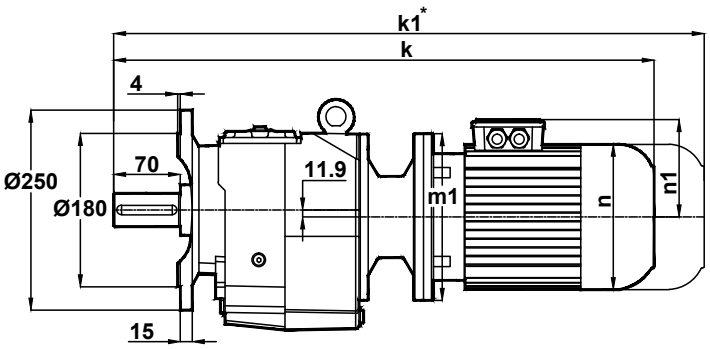


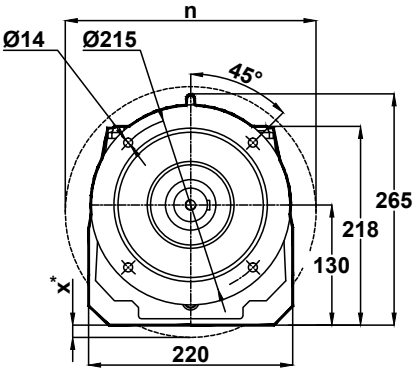




NV282
NV283

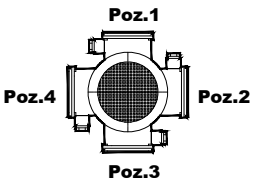






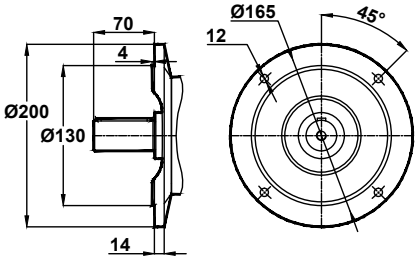
Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
IEC	**71/B5**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**	**132M/B5 132M/B14**
k	562	582	602	627	666	686	760	798
k1	682	702	727	752	801	821	905	943
n / n1	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	-	120	140	140	160	160	200	200
x (B5)	-	-	-	-	7	7	32	32

Klemens Kutusu /*Terminal Box* / Klemmenkasten

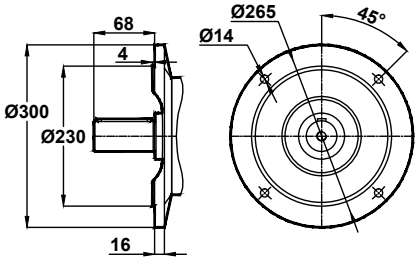


71-80-90-100-112-132

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



Opt. 1

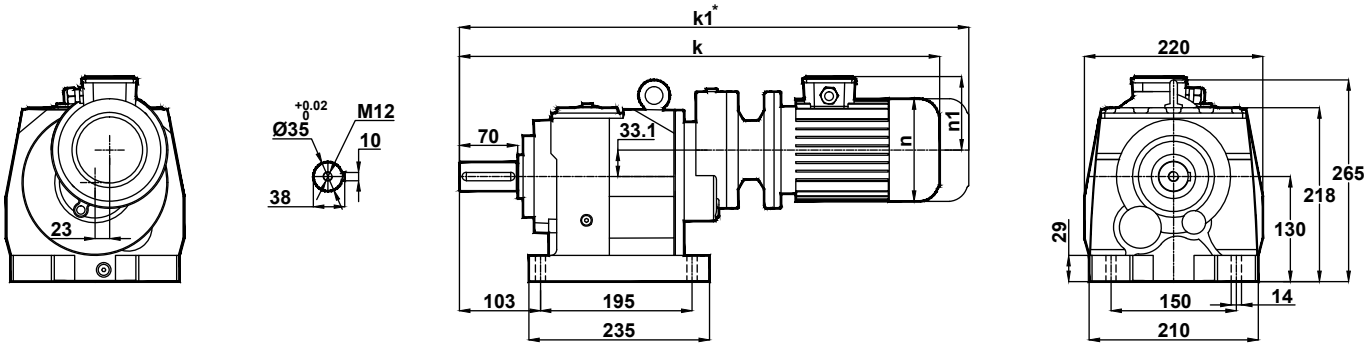


Opt. 2

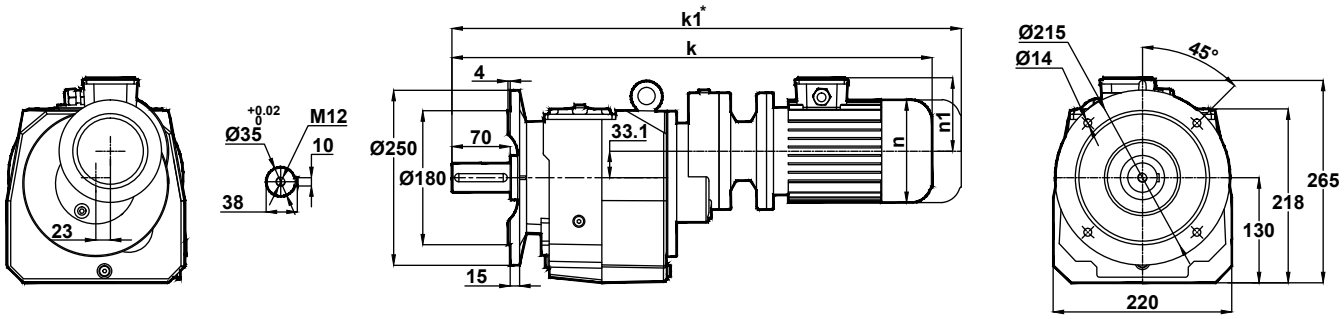
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV284

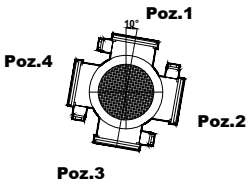


NV284



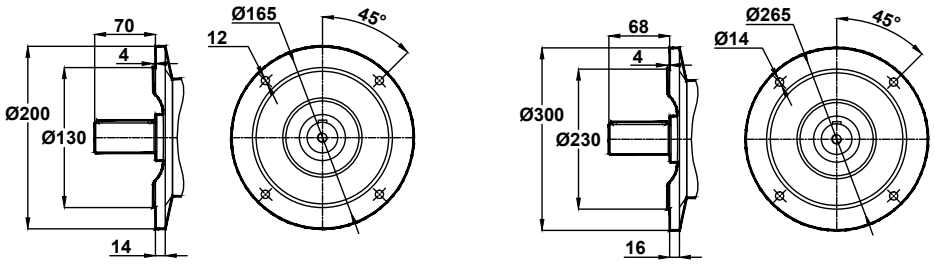
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**63/B5**	**71/B5 71/B14**
k	613	610
k1	666	730
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

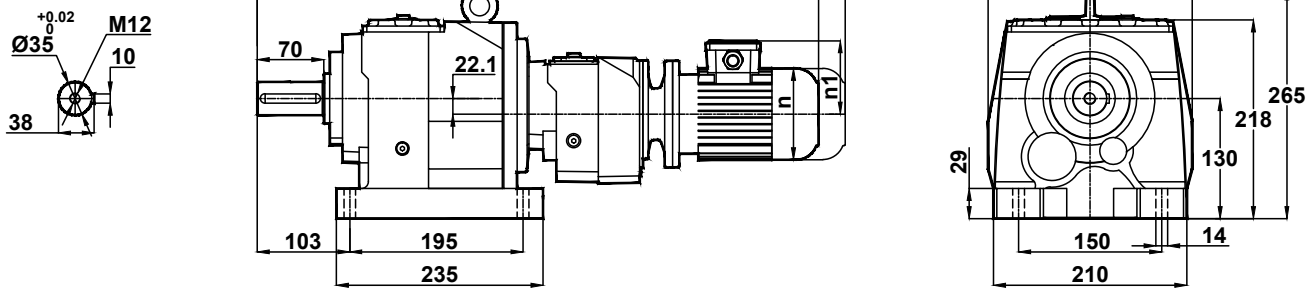


Opt. 1 **Opt. 2**

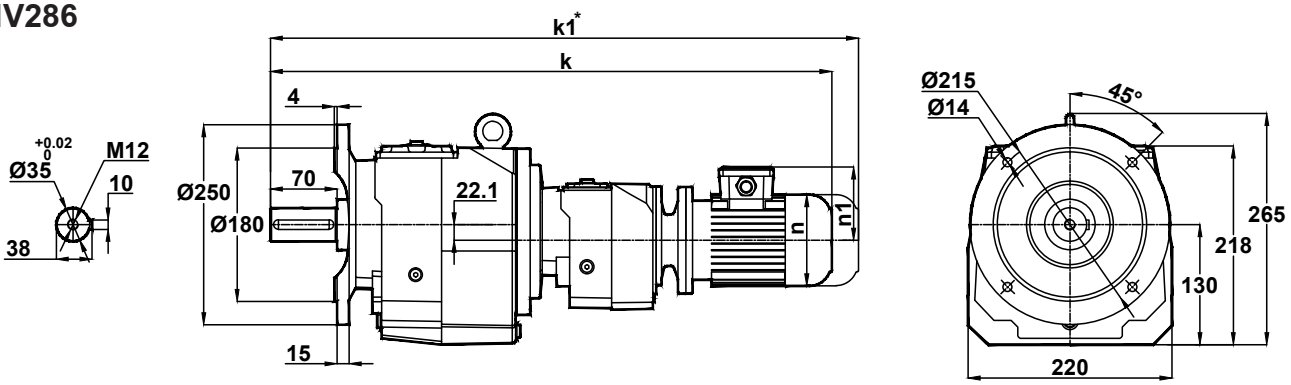
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV285
MV286

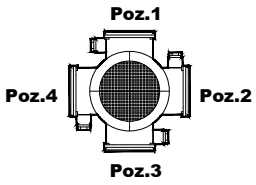


NV285
NV286



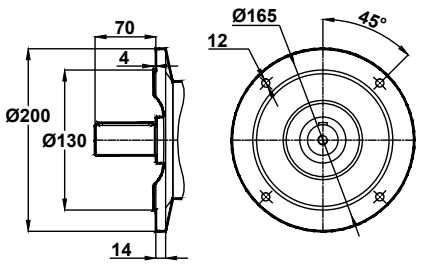
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
IEC	63/B5 63/B14
k	679
k1	732
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu /*Terminal Box* / Klemmenkasten

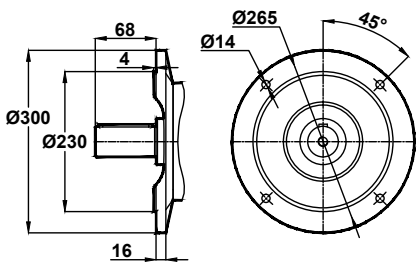


63

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

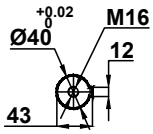


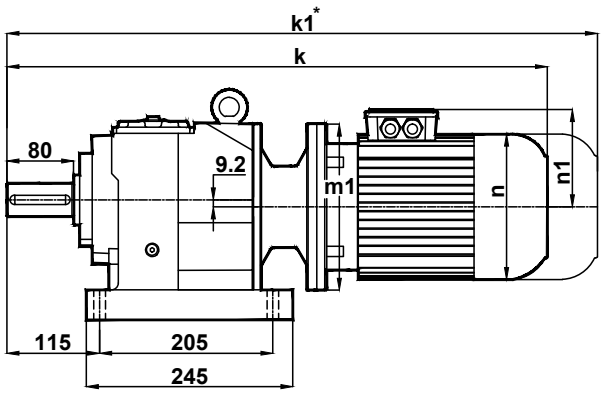
Opt. 2

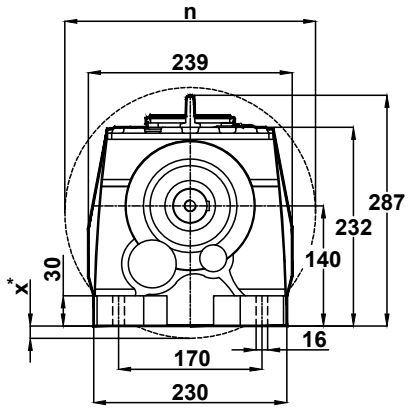
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

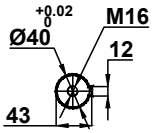
MV372
MV373

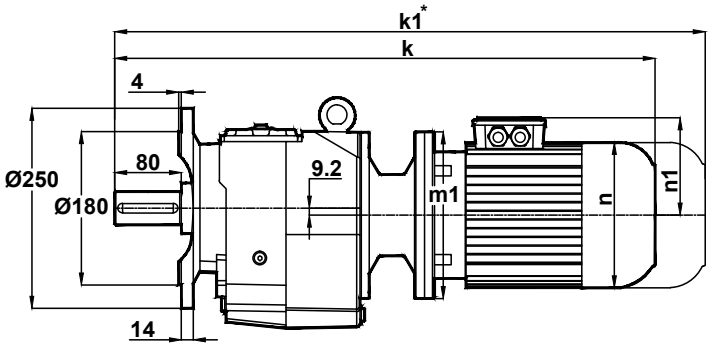


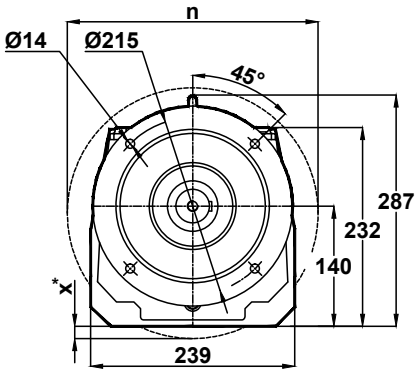




NV372
NV373

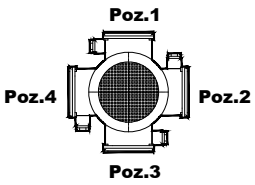






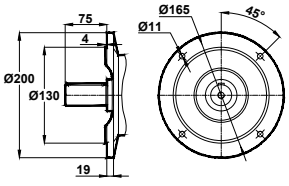
Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14	132S/B5 132S/B14	132M/B5 132M/B14
k	583	603	623	648	697	717	781	819
k1	703	723	748	773	832	852	926	964
n / n1	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	-	120	140	140	160	160	200	200
x (B5)	-	-	-	-	-	-	20	20

Klemens Kutusu /*Terminal Box* / Klemmenkasten

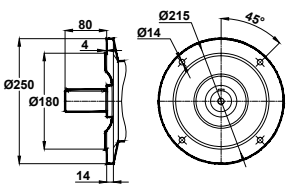


71-80-90-100-112-132

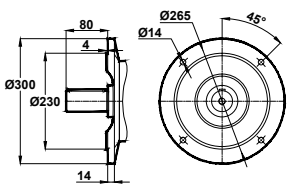
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



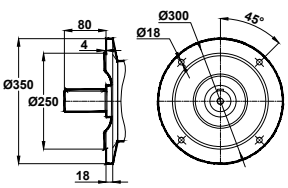
Opt. 1



Opt. 2

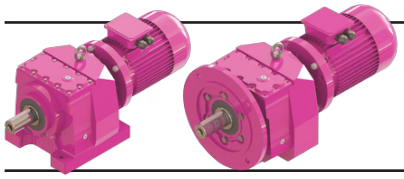


Opt. 3



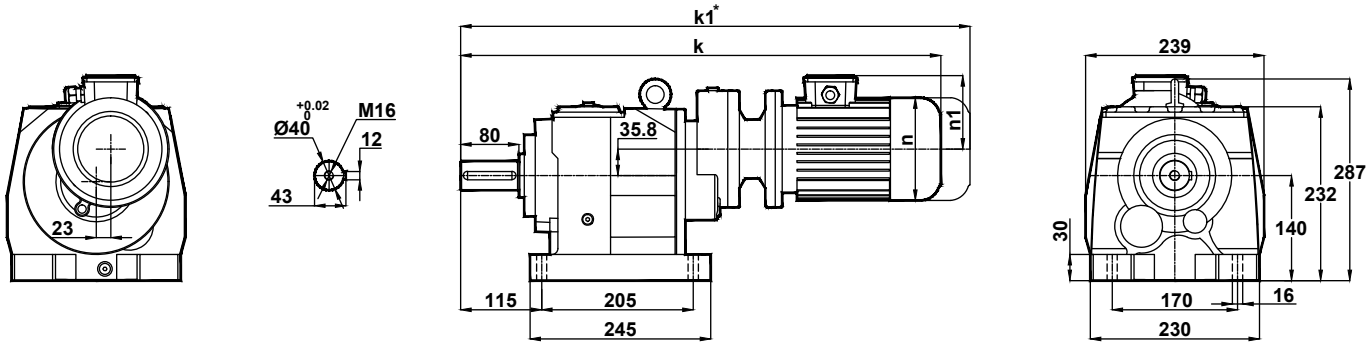
Opt. 4

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane /* x: Wen motor ist nidriger den die Anschlußplatte

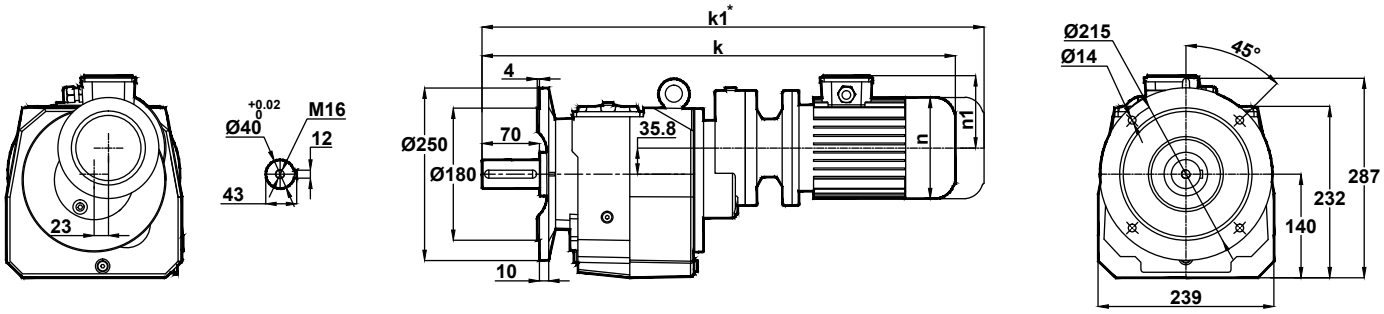


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV374

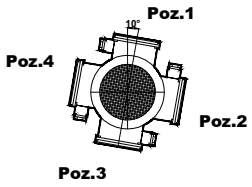


NV374



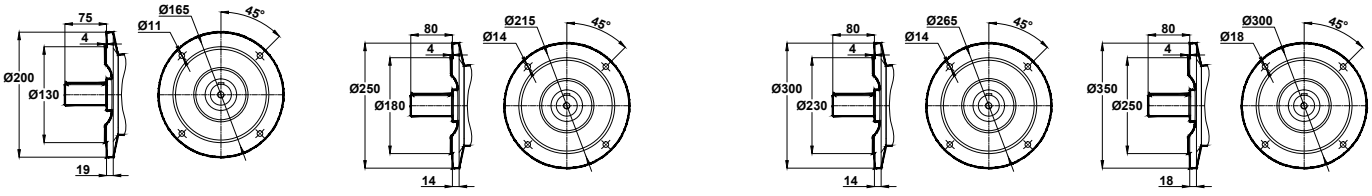
Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
IEC	**63/B5**	**71/B5 71/B14**	**80/B5 80/B14**
k	634	631	680
k1	687	751	800
n / n1	121 / 97	138 / 111	156 / 118
m1 (B5)	140	160	200
m1 (B14)	-	105	120

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71-80

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

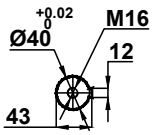


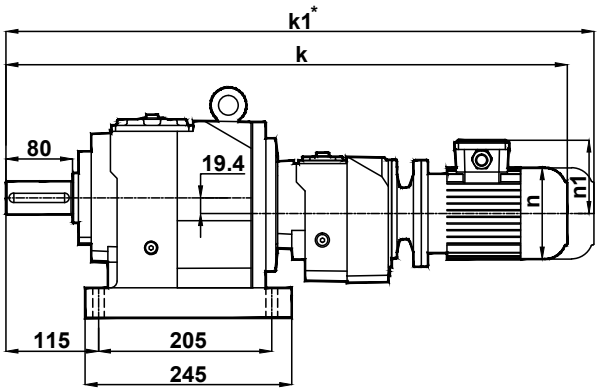
Opt. 1 **Opt. 2** **Opt. 3** **Opt. 4**

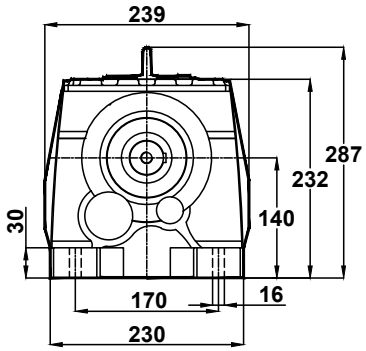
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

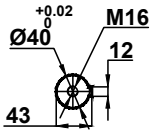
MV375
MV376

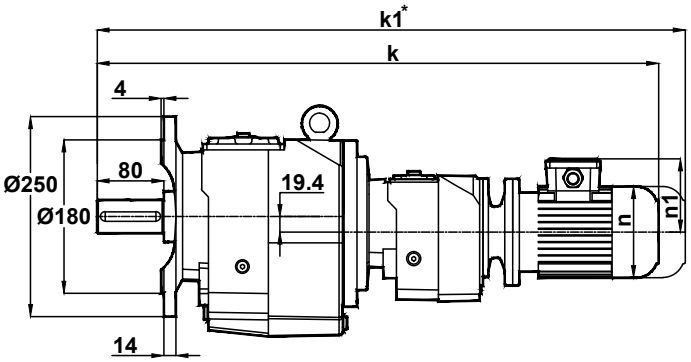


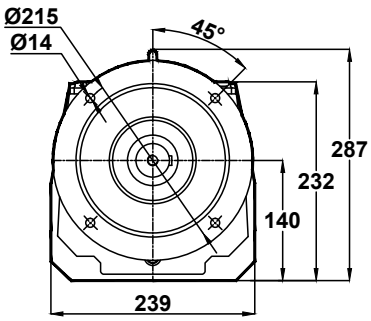




NV375
NV376

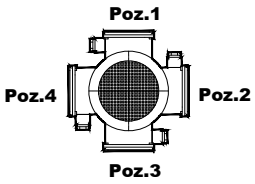






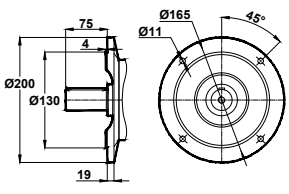
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
IEC	**63/B5 63/B14**
k	700
k1	753
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu /*Terminal Box* / Klemmenkasten

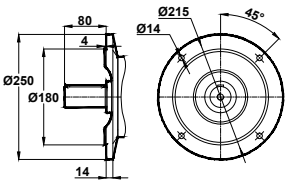


63

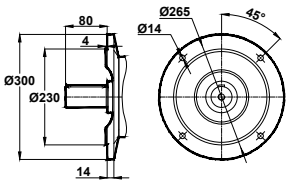
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



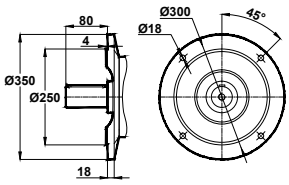
Opt. 1



Opt. 2

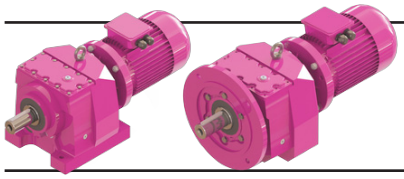


Opt. 3



Opt. 4

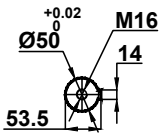
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

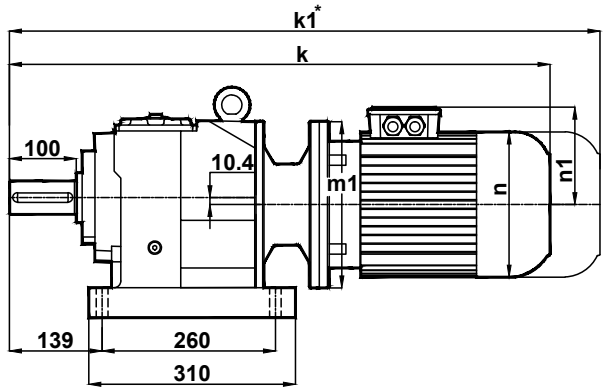


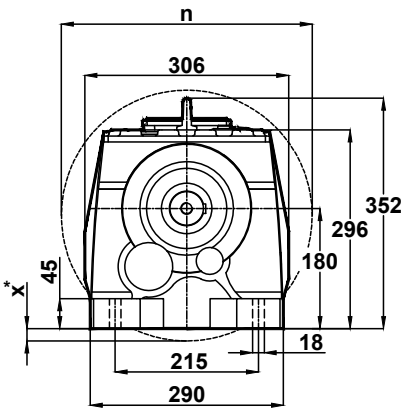
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

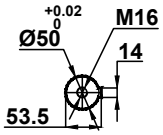
MV472
MV473

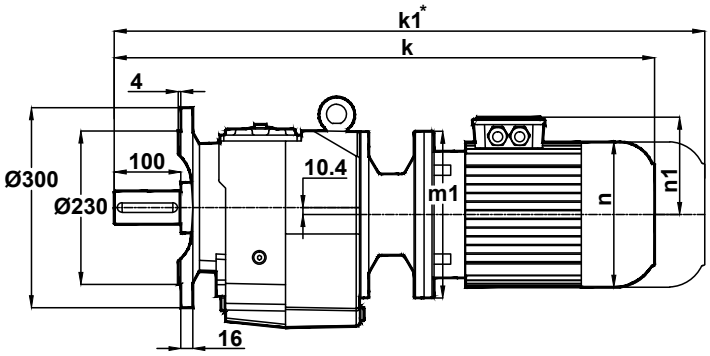


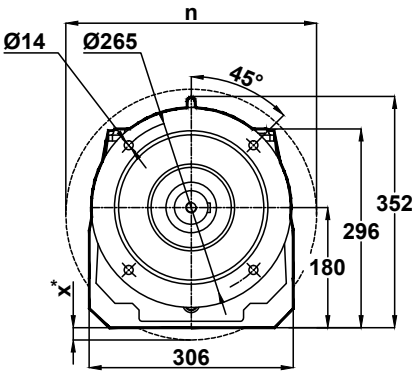




NV472
NV473

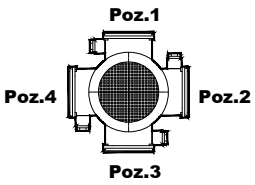






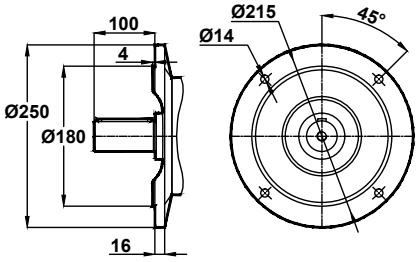
Motor Büyüklüğü / *Motor Size* / Motorbaugroße											
IEC	**80/B5**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**	**132M/B5 132M/B14**	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**
k	666	686	711	761	781	844	882	1033	1077	1090	1128
k1	786	811	836	896	916	989	1027	1203	1247	1260	1298
n / n1	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	257 / 168	257 / 168	310 / 225	310 / 225	348 / 241	348 / 241
m1 (B5)	200	200	200	250	250	300	300	350	350	350	350
m1 (B14)	-	140	140	160	160	200	200	-	-	-	-
x (B5)	-	-	-	-	-	-	-	6	6	6	6

Klemens Kutusu / *Terminal Box* / Klemmenkasten

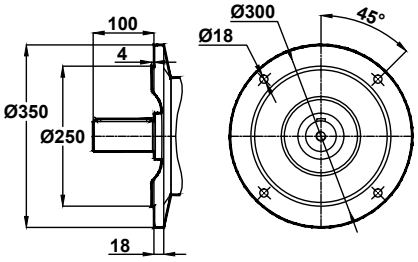


80-90-100-112-132-160-180

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

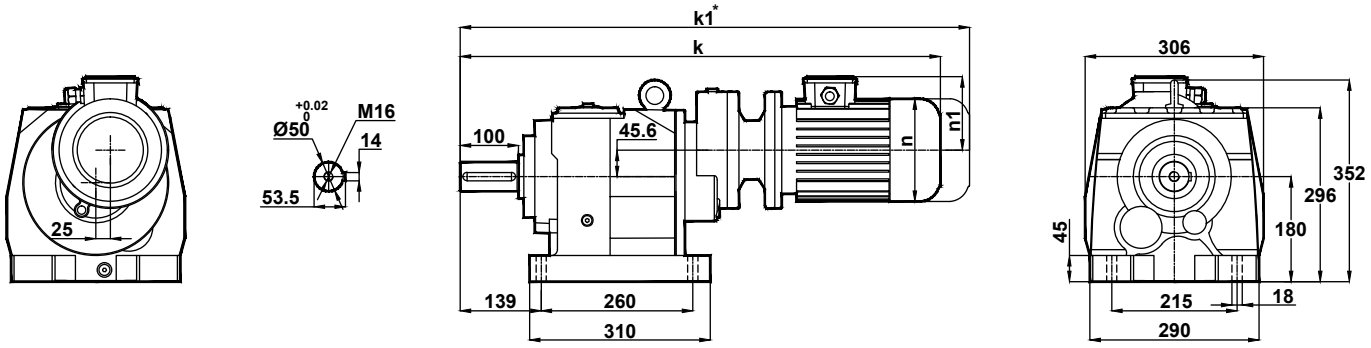


Opt. 2

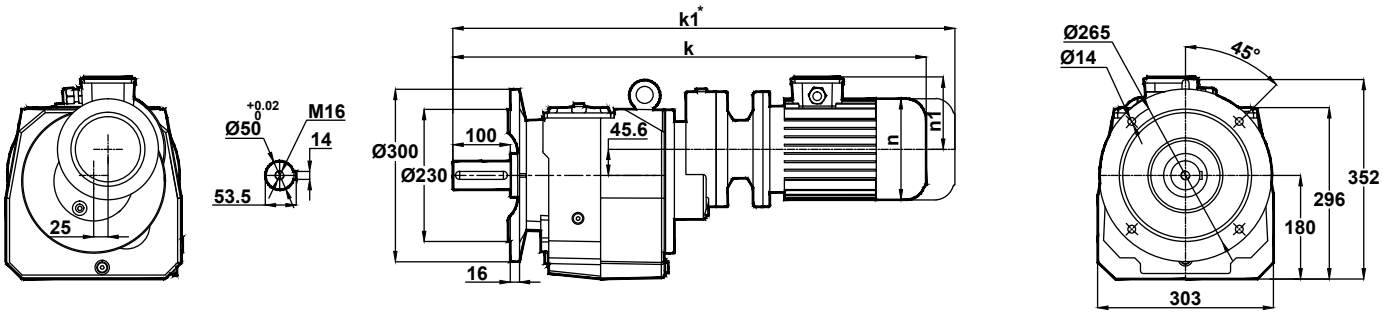
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV474

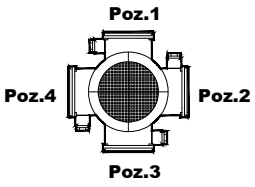


NV474



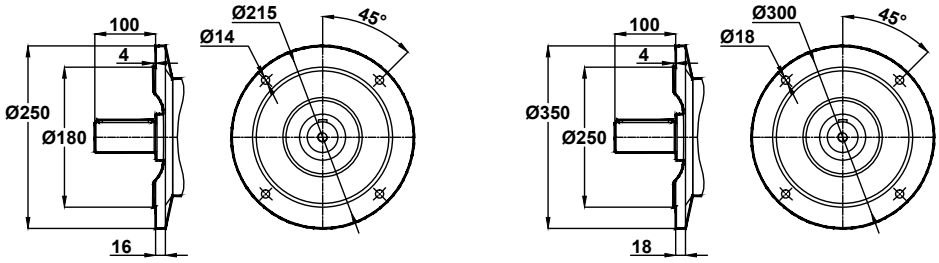
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	71/B5	80/B5 80/B14
k	744	764
k1	864	884
n / n1	138 / 111	156 / 118
m1 (B5)	160	200
m1 (B14)	-	120

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71-80

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

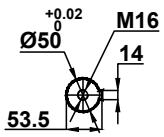


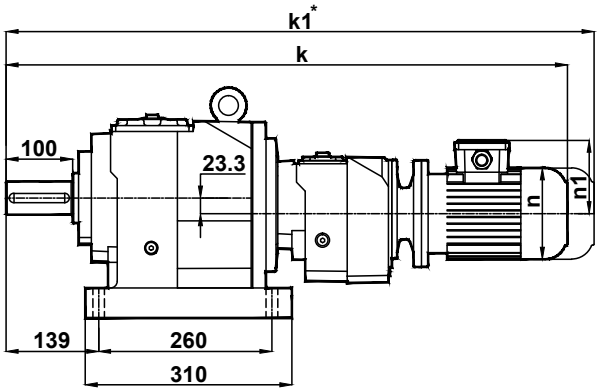
Opt. 1 **Opt. 2**

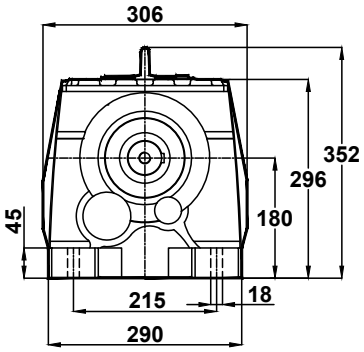
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

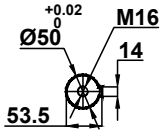
MV475
MV476

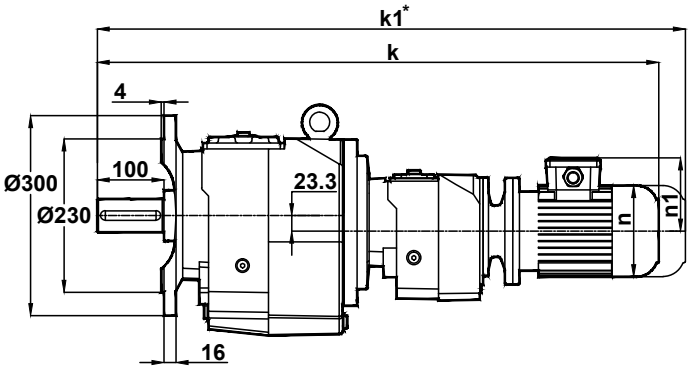


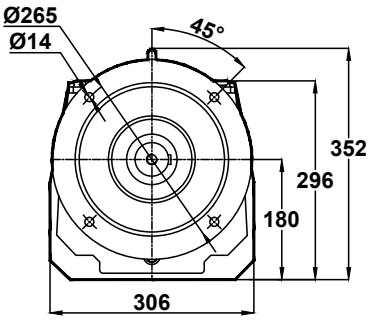




NV475
NV476

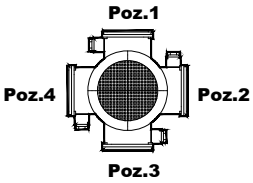






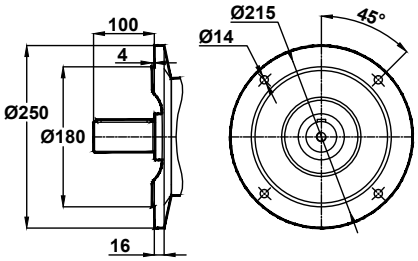
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**63/B5**	**71/B5 71/B14**
k	846	843
k1	899	963
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten

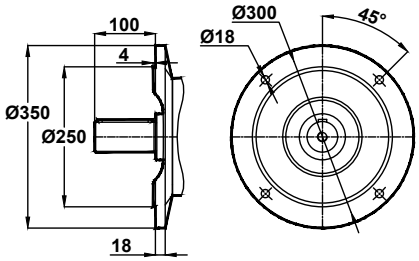


63-71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*

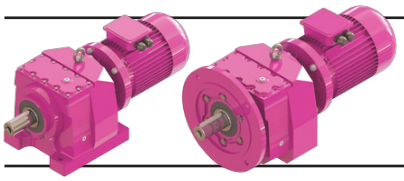


Opt. 1



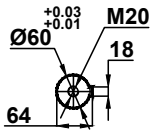
Opt. 2

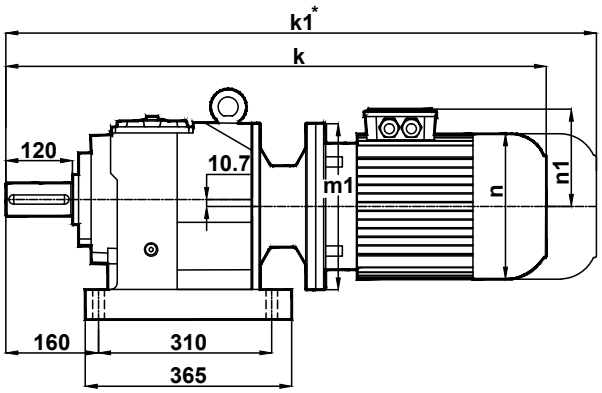
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

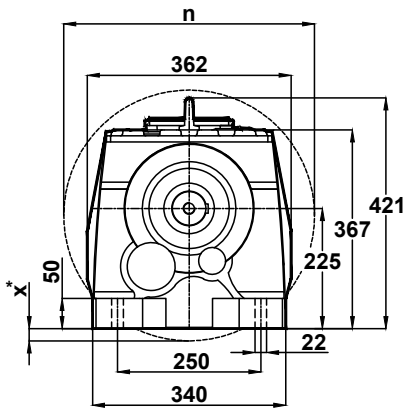


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

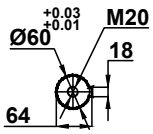
MV572
MV573

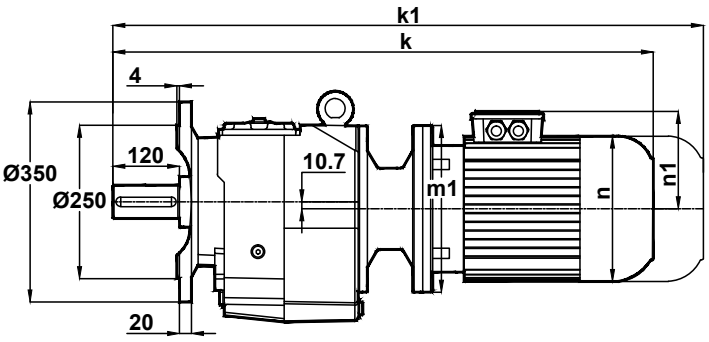


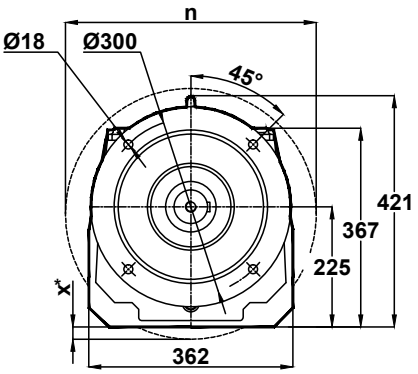




NV572
NV573

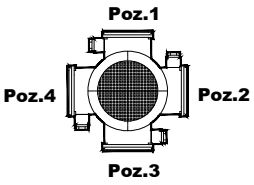






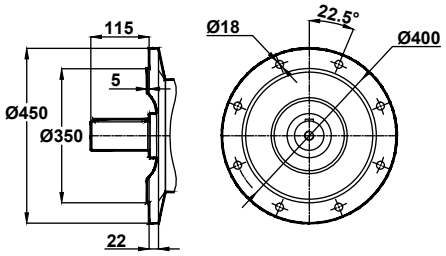
Motor Büyüklüğü / *Motor Size* / Motorbaugroße									
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5
k	823	843	908	946	1093	1137	1150	1188	1260
k1	958	978	1053	1091	1263	1307	1320	1358	1460
n / n1	194 / 135	218 / 146	257 / 168	257 / 168	310 / 225	310 / 225	348 / 241	348 / 241	390 / 275
m1 (B5)	250	250	300	300	350	350	350	350	400
m1 (B14)	-	-	200	200	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-

Klemens Kutusu /*Terminal Box* / Klemmenkasten

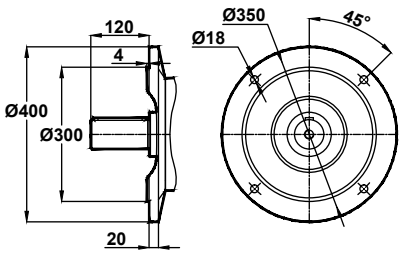


100-112-132-160-180-200

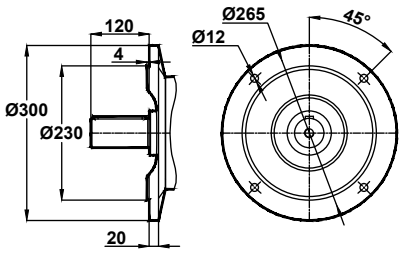
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

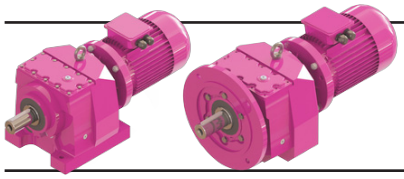


Opt. 2



Opt. 3

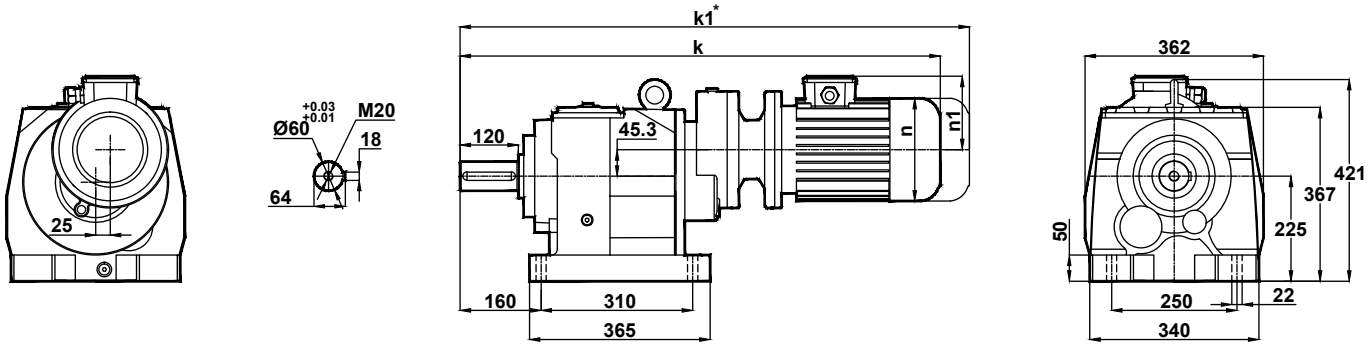
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



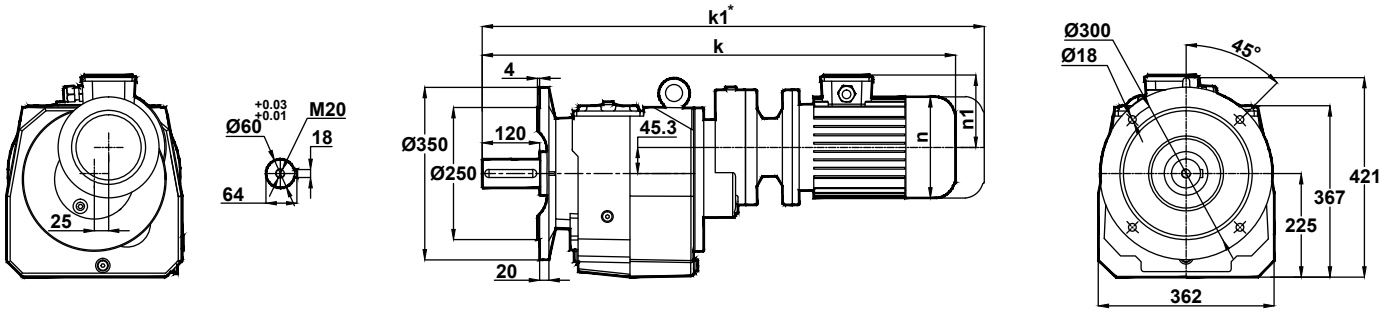
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV574

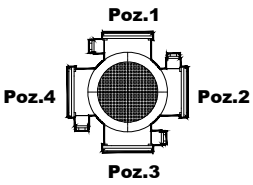


NV574



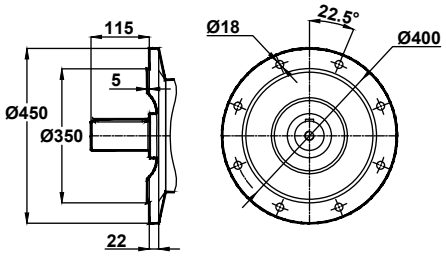
Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	**71/B5**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**
k	806	826	846	871
k1	926	946	971	996
n / n1	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

Klemens Kutusu /*Terminal Box* / Klemmenkasten

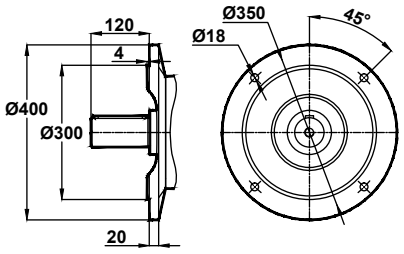


71-80-90

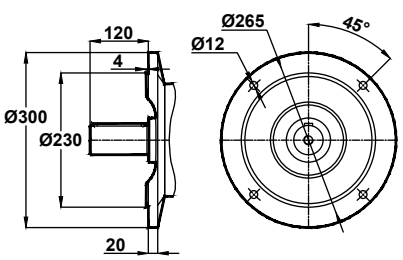
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

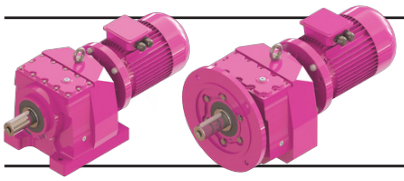


Opt. 2



Opt. 3

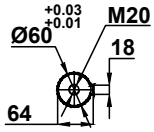
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

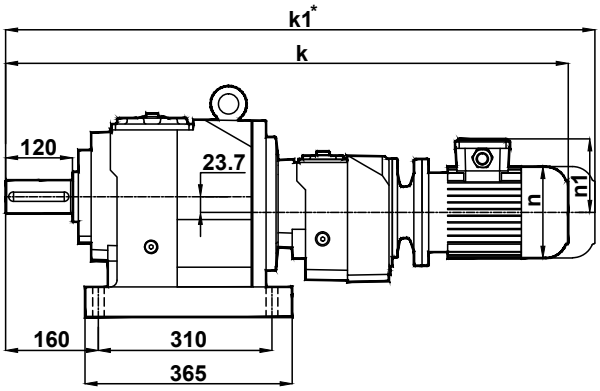


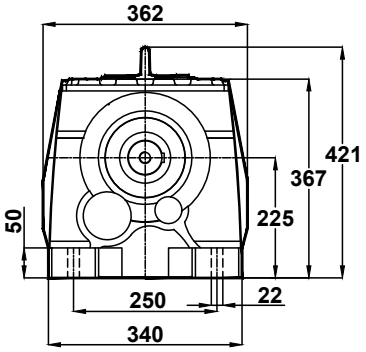
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

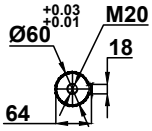
MV575
MV576

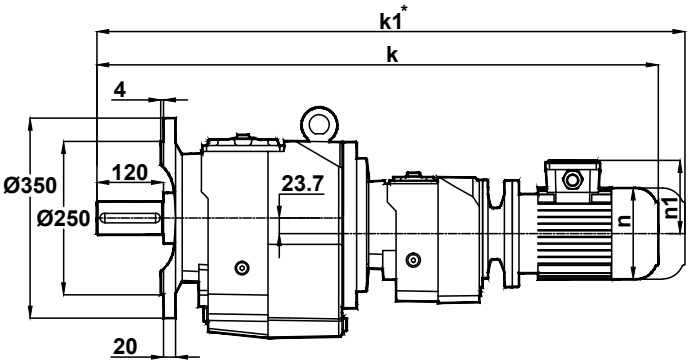


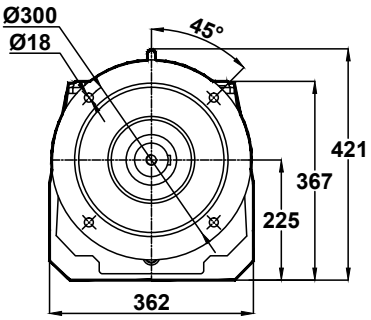




NV575
NV576

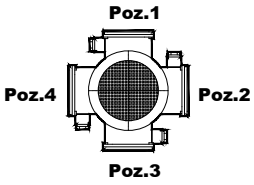






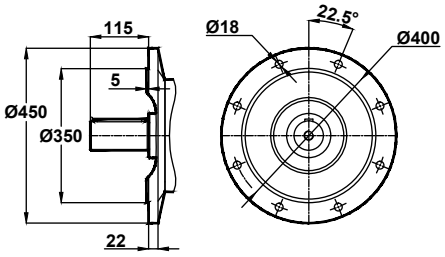
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	63/B5	71/B5 71/B14
k	910	907
k1	963	1027
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten

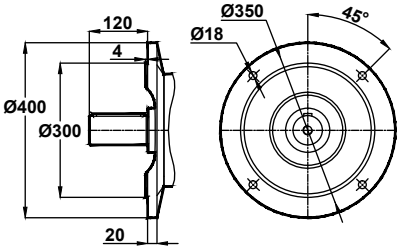


63-71

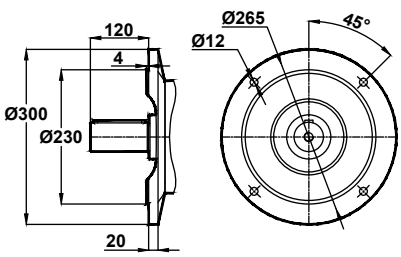
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

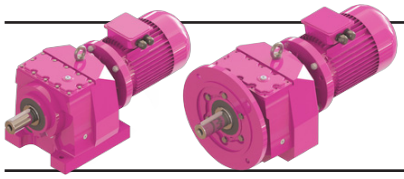


Opt. 2



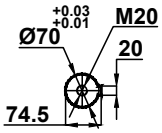
Opt. 3

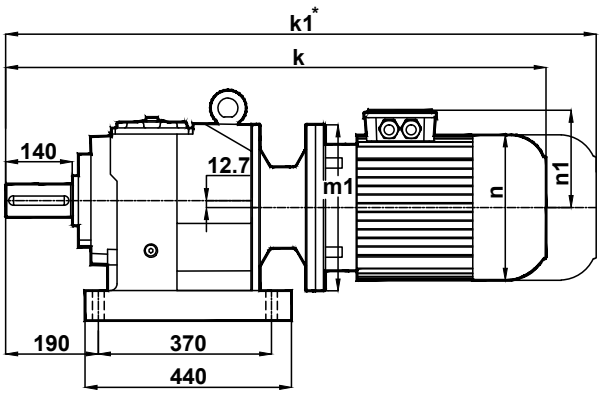
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

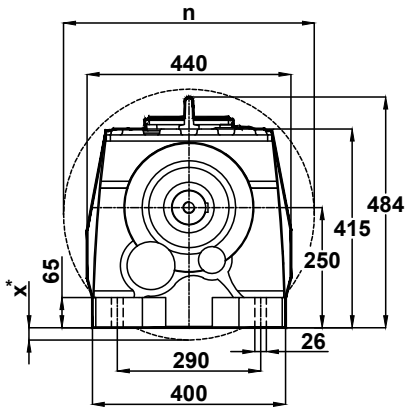


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

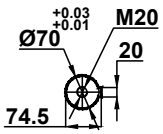
MV672
MV673

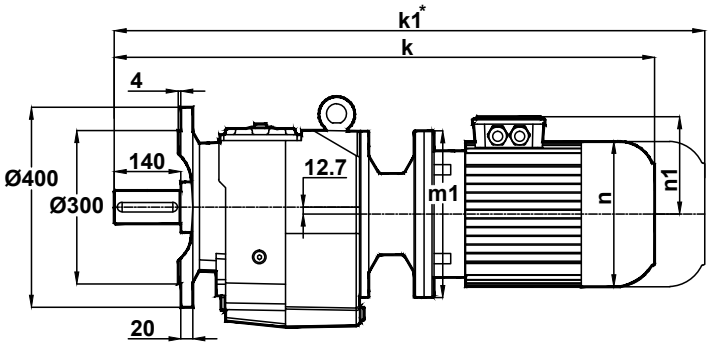


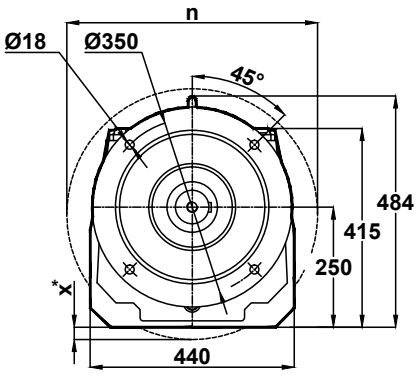




NV672
NV673

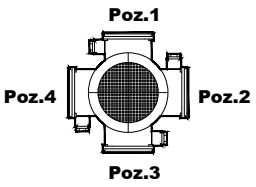






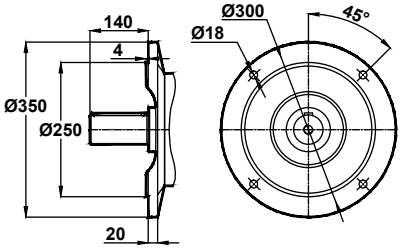
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
IEC	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5
k	904	963	1001	1148	1192	1205	1243	1315	1386	1411
k1	1039	1108	1146	1318	1362	1375	1413	1515	1576	-
n / n1	218 / 146	257 / 168	257 / 168	310 / 225	310 / 225	348 / 241	348 / 241	390 / 275	434 / 285	434 / 285
m1 (B5)	250	300	300	350	350	350	350	400	450	450
m1 (B14)	-	200	200	-	-	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu /*Terminal Box* / Klemmenkasten

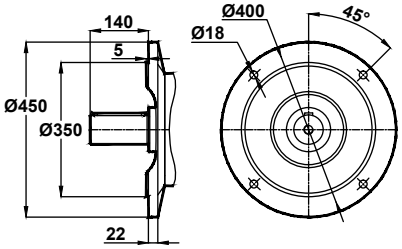


112-132-160-180-200-225

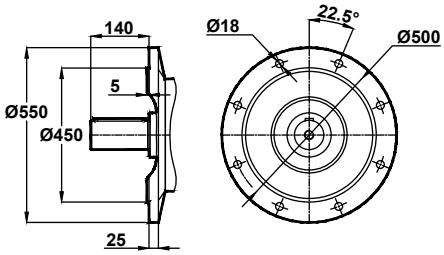
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



Opt. 2

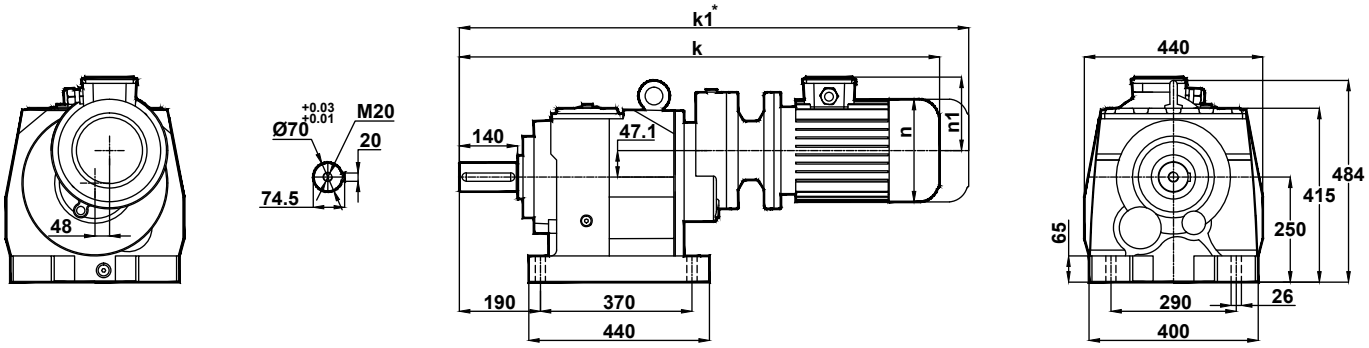


Opt. 3

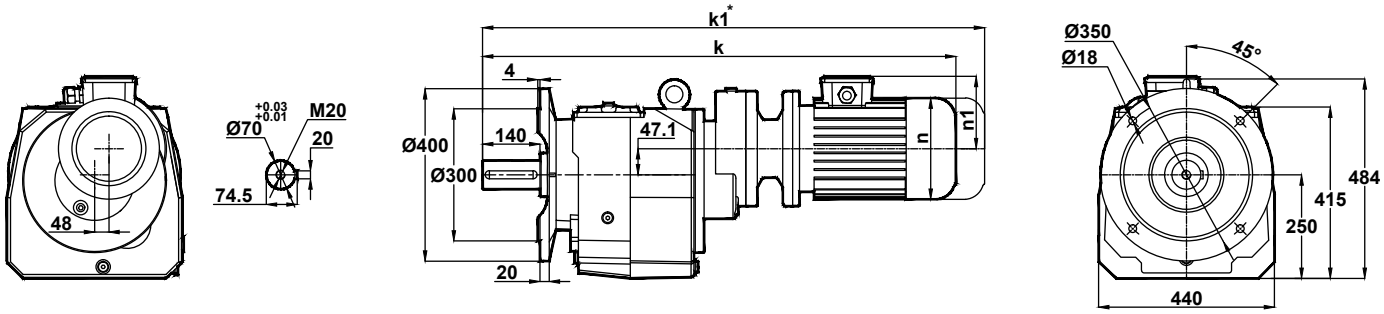
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV674

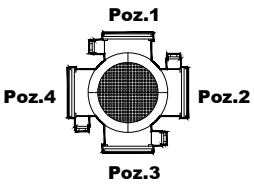


NV674



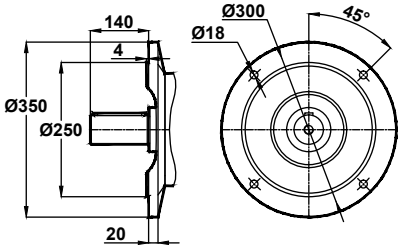
Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
IEC	**80/B5**	**90S/B5 90S/B14**	**90L/B5 90L/B14**
k	897	917	942
k1	1017	1042	1067
n / n1	156 / 118	176 / 126	176 / 126
m1 (B5)	200	200	200
m1 (B14)	-	140	140

Klemens Kutusu /*Terminal Box* / Klemmenkasten

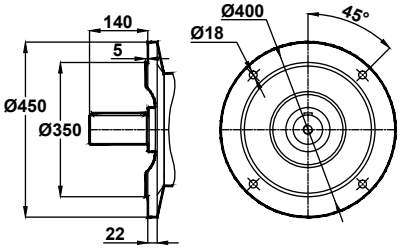


80-90

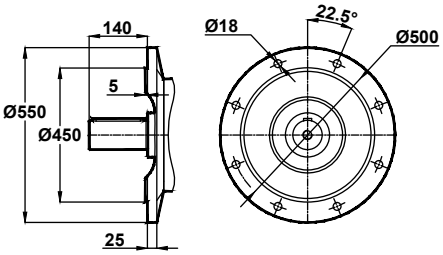
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



Opt. 2

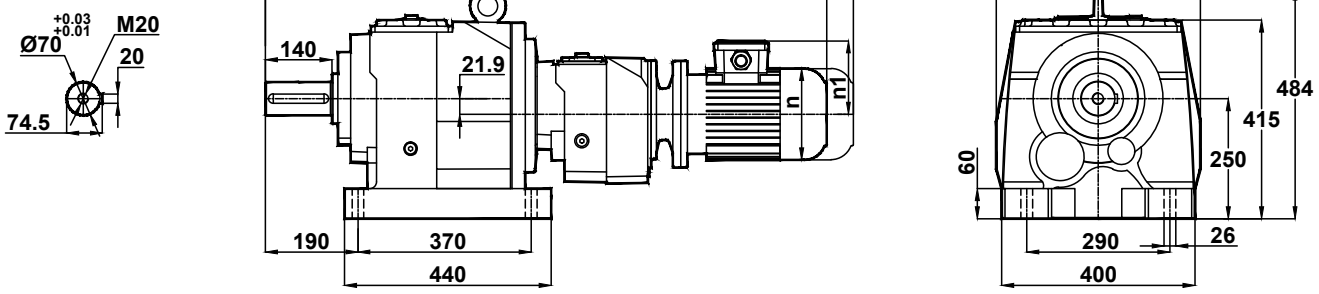


Opt. 3

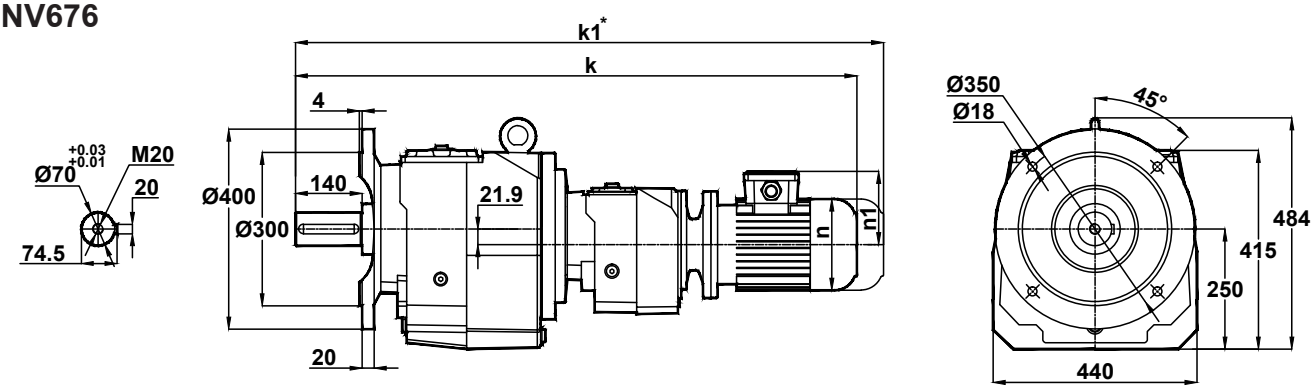
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV675
MV676

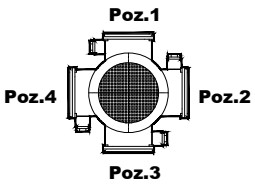


NV675
NV676



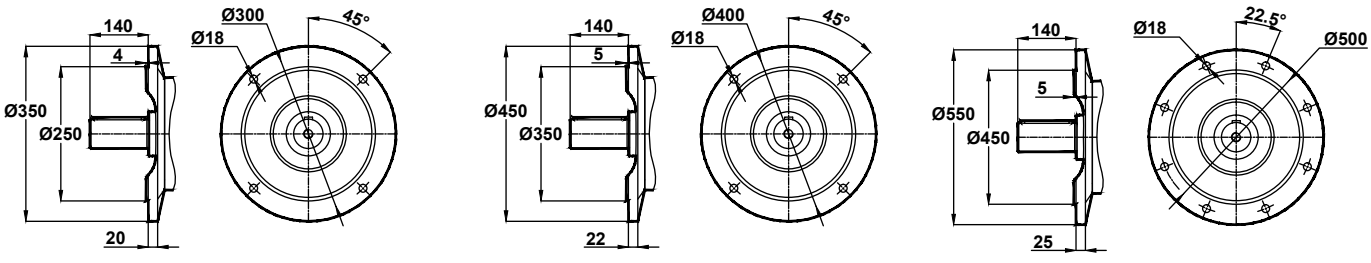
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	71/B5	80/B5 80/B14
k	1027	1047
k1	1147	1167
n / n1	138 / 111	156 / 118
m1 (B5)	160	200
m1 (B14)	-	120

Klemens Kutusu /*Terminal Box* / Klemmenkasten

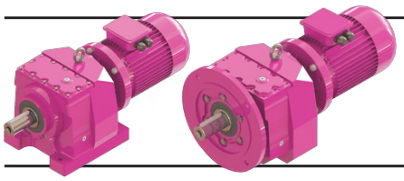


71-80

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

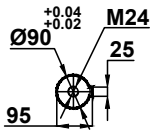


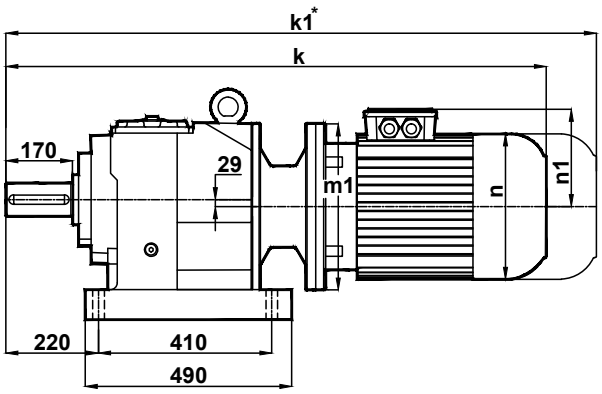
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

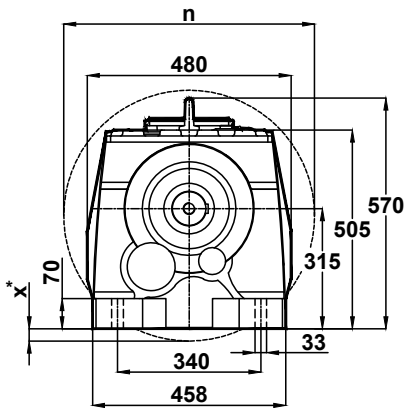


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

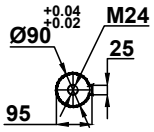
MV772
MV773

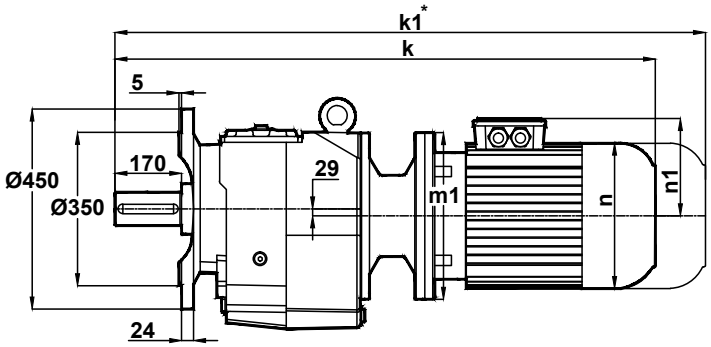


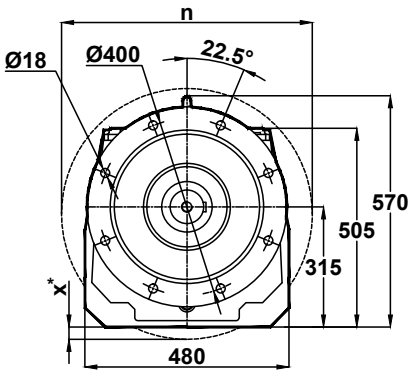




NV772
NV773

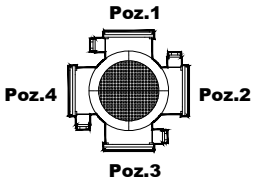






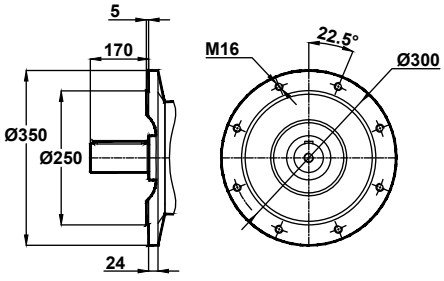
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
IEC	**132S/B5**	**132M/B5**	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**	**200L/B5**	**225S/B5**	**225M/B5**	**250M/B5**
k	1048	1086	1227	1271	1284	1322	1396	1467	1492	1568
k1	1193	1231	1397	1441	1454	1492	1596	1657	-	-
n / n1	257 / 168	257 / 168	310 / 225	310 / 225	348 / 241	348 / 241	434 / 285	434 / 285	434 / 285	480 / 322
m1 (B5)	300	300	350	350	350	350	400	450	450	550
m1 (B14)	-	-	-	-	-	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu / *Terminal Box* / Klemmenkasten

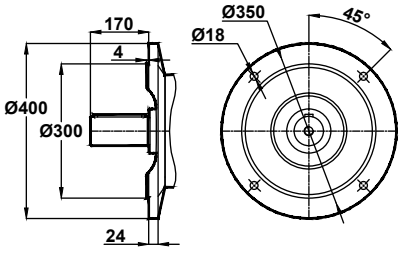


132-160-180-200-225-250

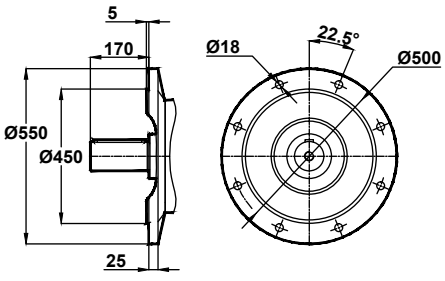
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

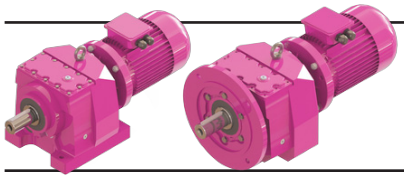


Opt. 2



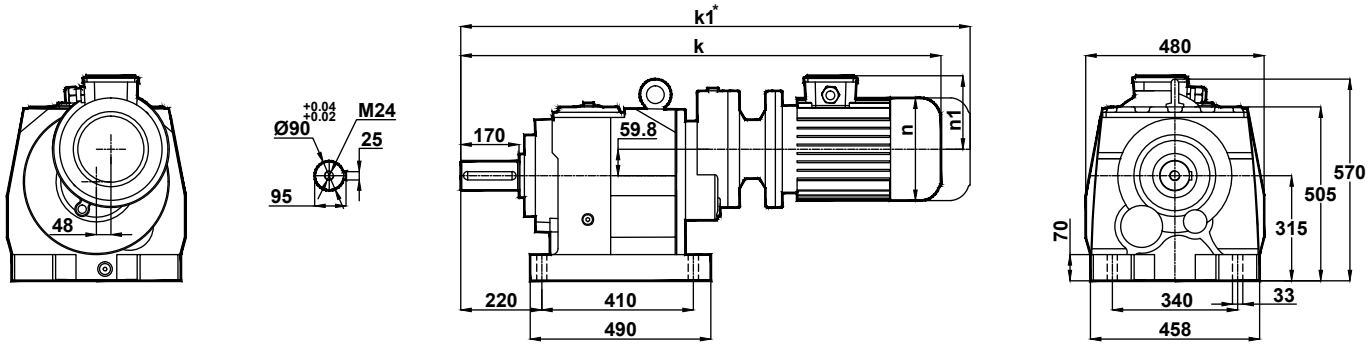
Opt. 3

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

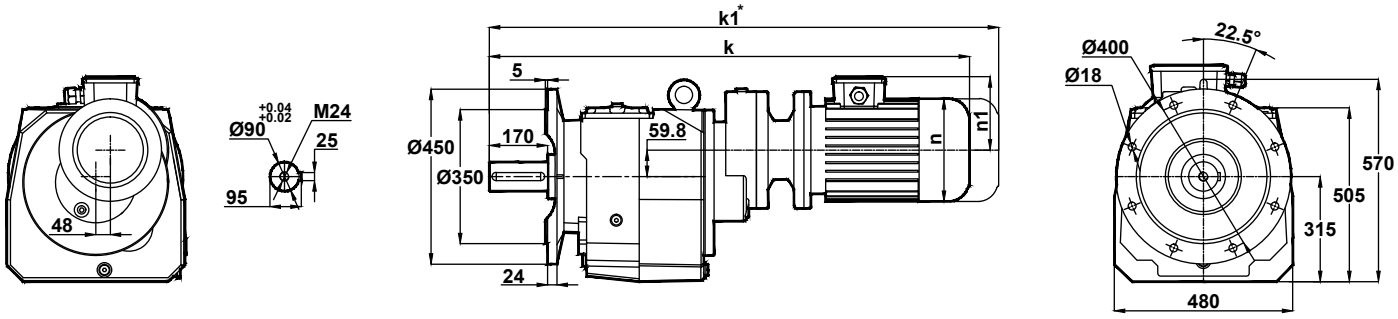


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV774

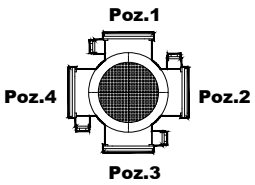


NV774



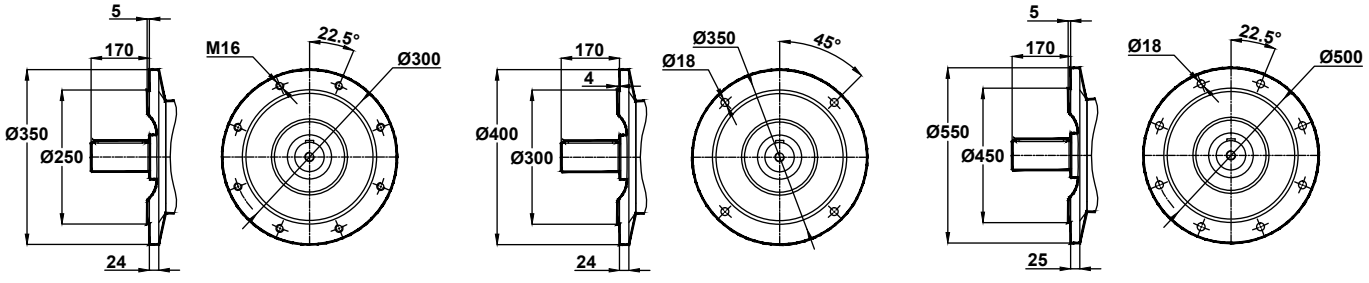
Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	**80/B5**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**
k	982	1002	1027	1077
k1	1102	1127	1152	1212
n / n1	156 / 118	176 / 126	176 / 126	194 / 135
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160

Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90-100

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1 **Opt. 2** **Opt. 3**

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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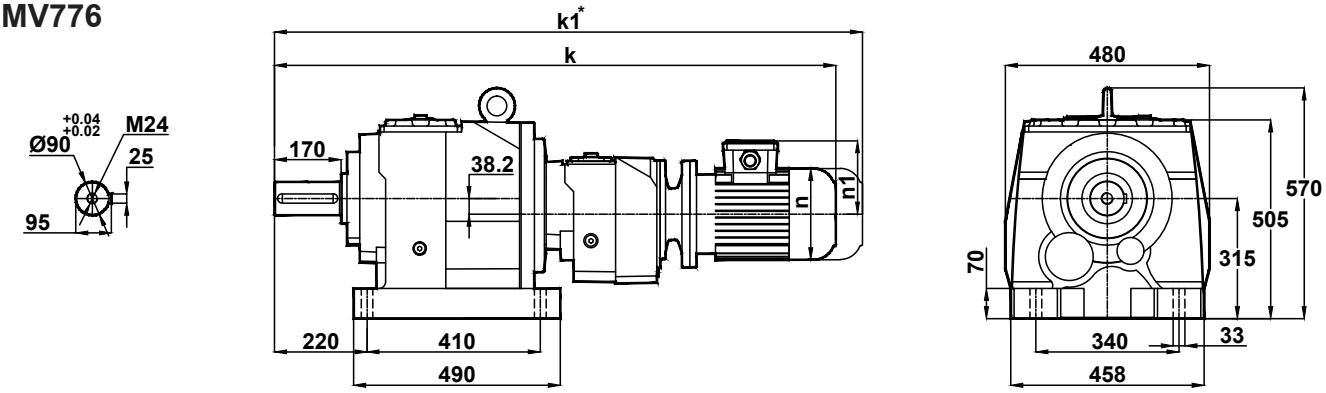
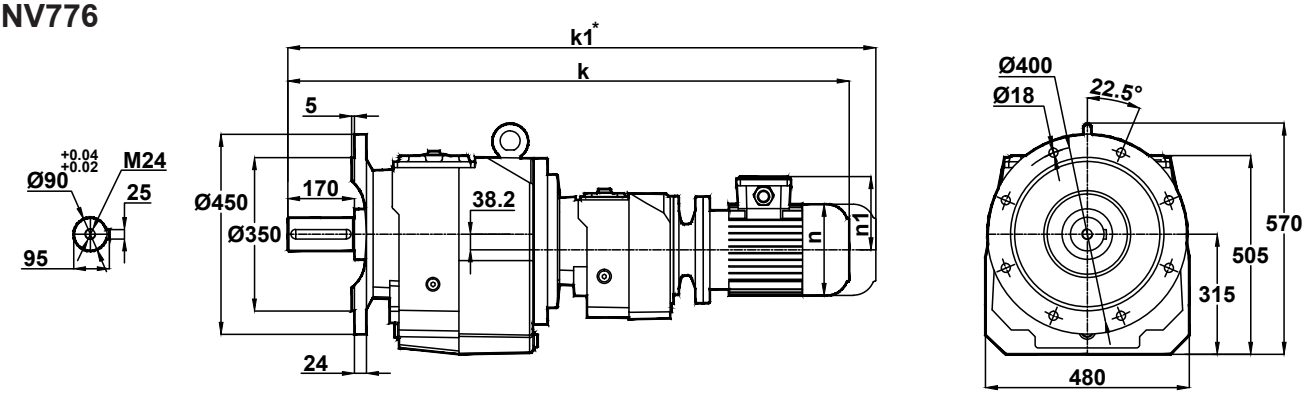
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV775
MV776

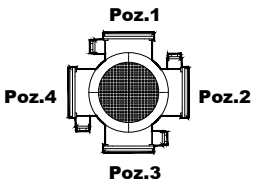


NV775
NV776



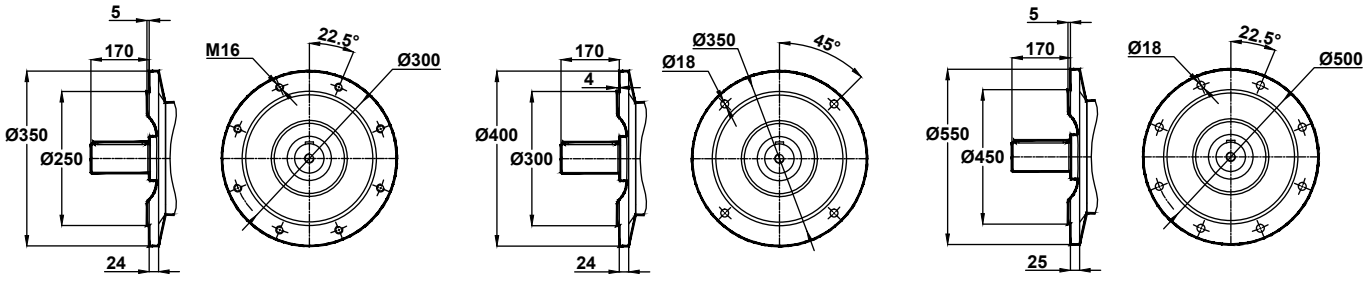
Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14
k	1115	1135	1155	1180
k1	1235	1255	1280	1305
n / n1	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71-80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1 **Opt. 2** **Opt. 3**

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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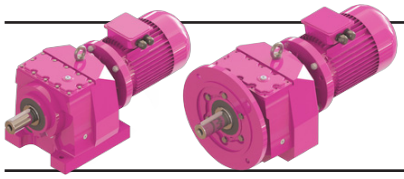
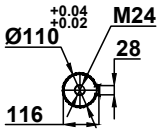
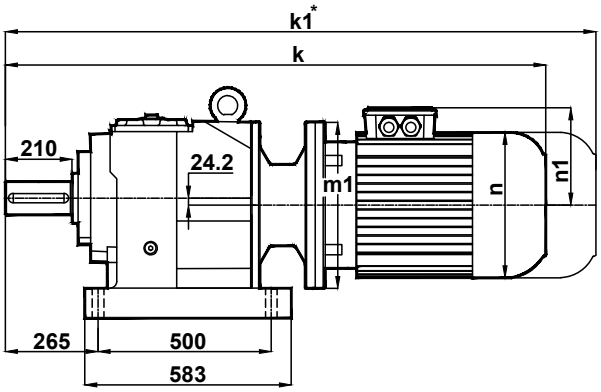
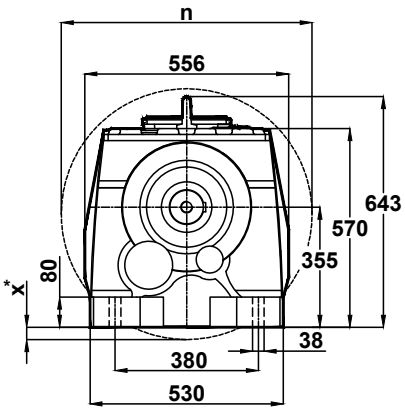


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

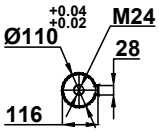
MV872
MV873

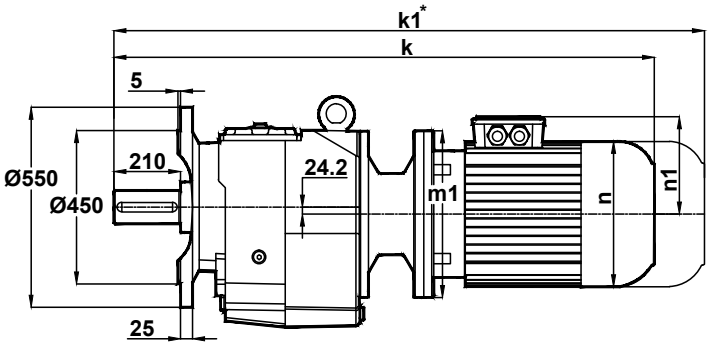


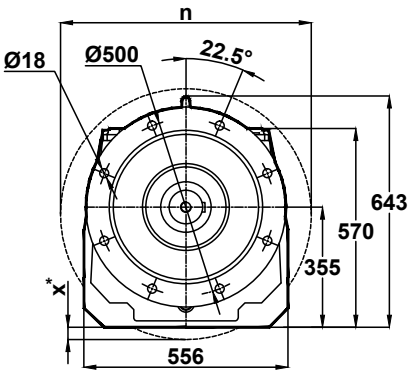




NV872
NV873

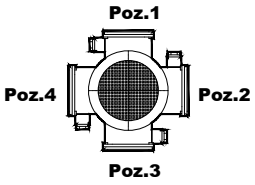






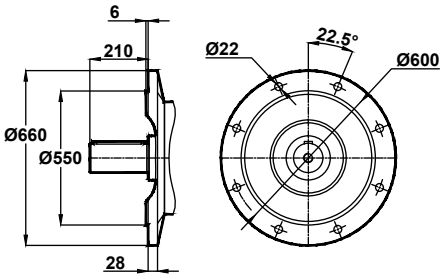
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
IEC	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**	**200L/B5**	**225S/B5**	**225M/B5**	**250M/B5**	**280S/B5**	**280M/B5**
k	1413	1457	1470	1508	1560	1578	1603	1679	1741	1740
k1	1583	1627	1640	1678	1760	1768	-	-	-	-
n / n1	310 / 225	310 / 225	348 / 241	348 / 241	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350
m1 (B5)	350	350	350	350	400	450	450	550	550	550
m1 (B14)	-	-	-	-	-	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu /*Terminal Box* / Klemmenkasten



160-180-200-225-250-280

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

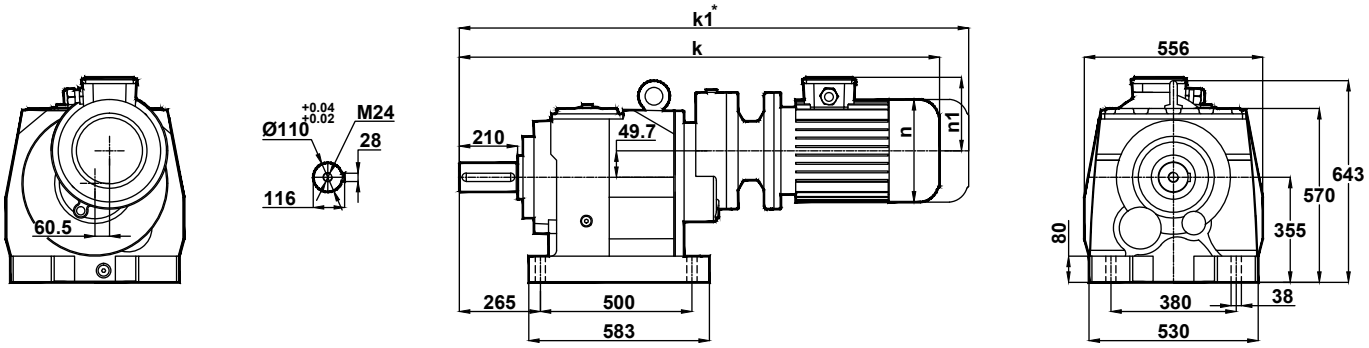


Opt. 1

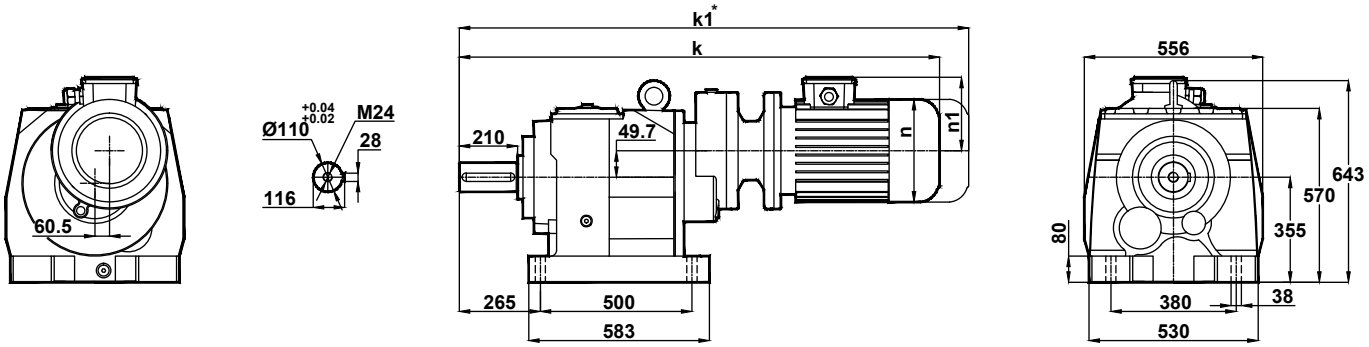
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane /* x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV874

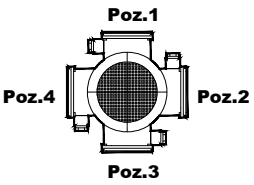


NV874



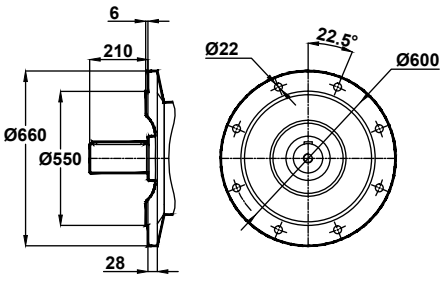
Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	100L/B5	112M/B5	132S/B5 132S/B14	132M/B5 132M/B14
k	1212	1232	1297	1335
k1	1347	1367	1442	1480
n / n1	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

Klemens Kutusu /*Terminal Box* / Klemmenkasten



100-112-132

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

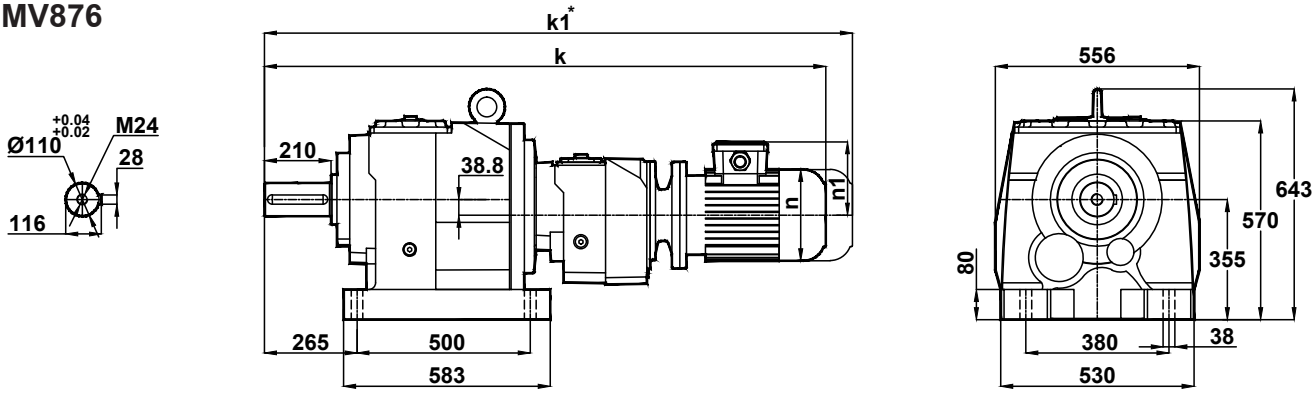


Opt. 1

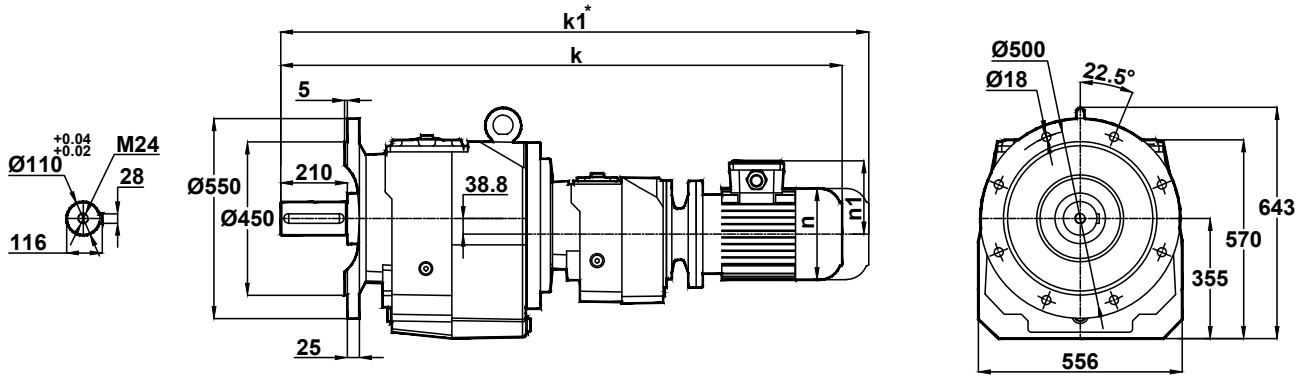
***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV875
MV876

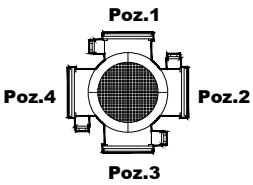


NV875
NV876



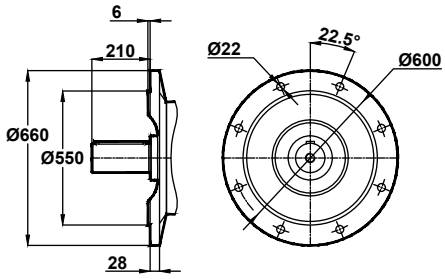
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
IEC	71/B5	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14
k	1232	1252	1272	1297	1346
k1	1352	1372	1397	1422	1481
n / n1	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71-80-90-100

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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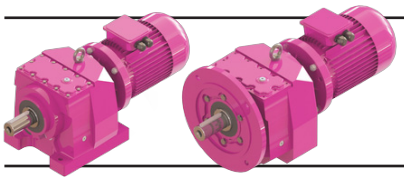
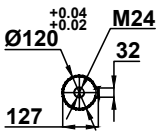
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

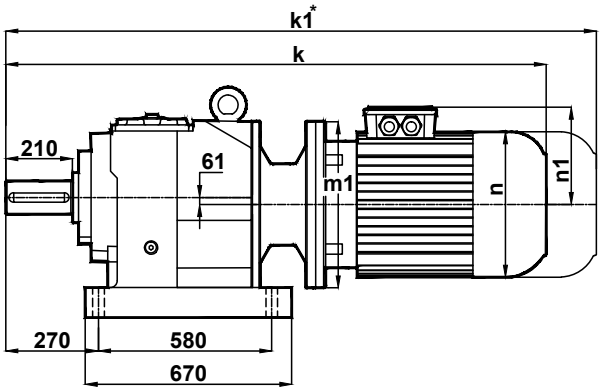


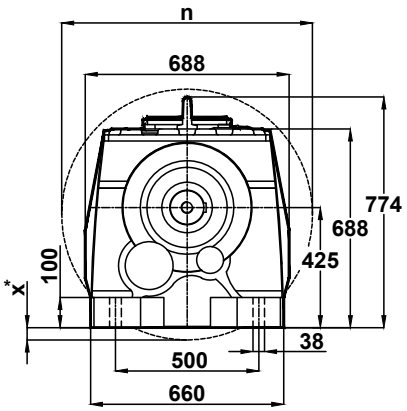
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

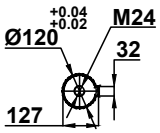
MV972
MV973

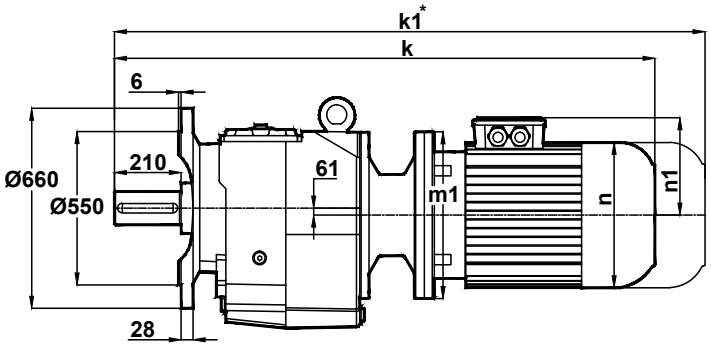


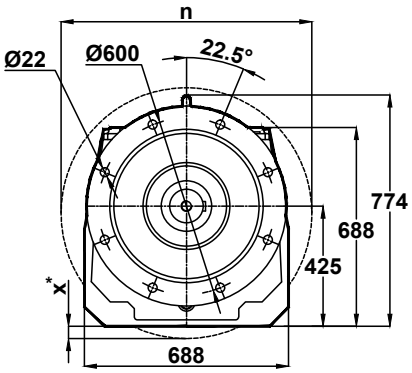




NV972
NV973

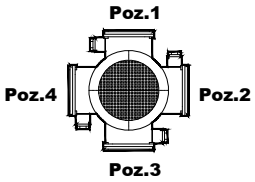






Motor Büyüklüğü / *Motor Size* / Motorbaugroße												
IEC	160M/B5	160L/B5	180M/B5	180L/B5	200L/B5	225S/B5	225M/B5	250M/B5	280S/B5	280M/B5	315S/4	315M/4
k	1401	1445	1458	1496	1572	1632	1657	1785	1847	1847	2059	2059
k1	1571	1615	1628	1666	1772	1822	1842	-	-	-	-	-
n / n1	310 / 225	310 / 225	348 / 241	348 / 241	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350	614 / 510	614 / 510
m1 (B5)	350	350	350	350	400	450	450	550	550	550	660	660
m1 (B14)	-	-	-	-	-	-	-	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-	-	-	-

Klemens Kutusu /*Terminal Box* / Klemmenkasten



160-180-200-225-250-280-315

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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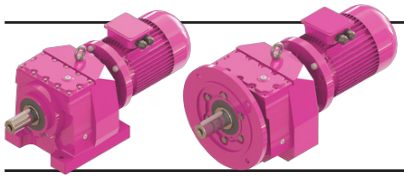
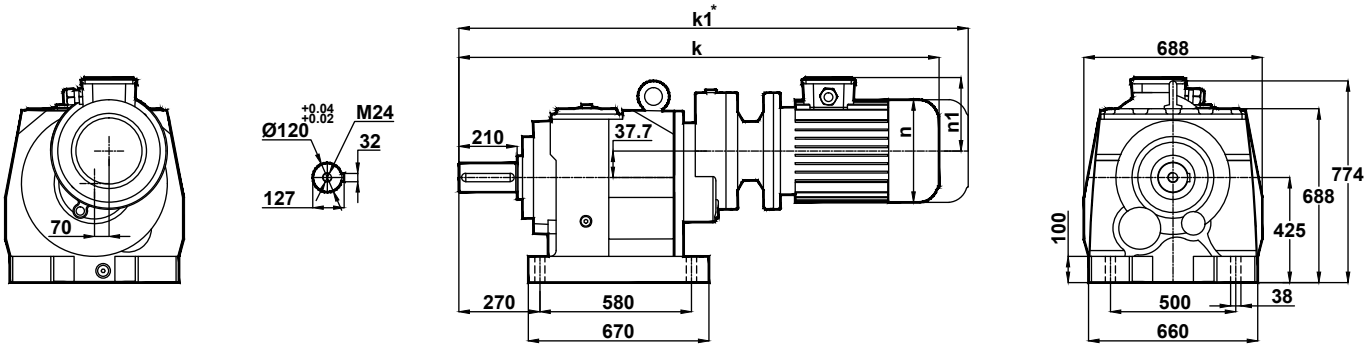
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



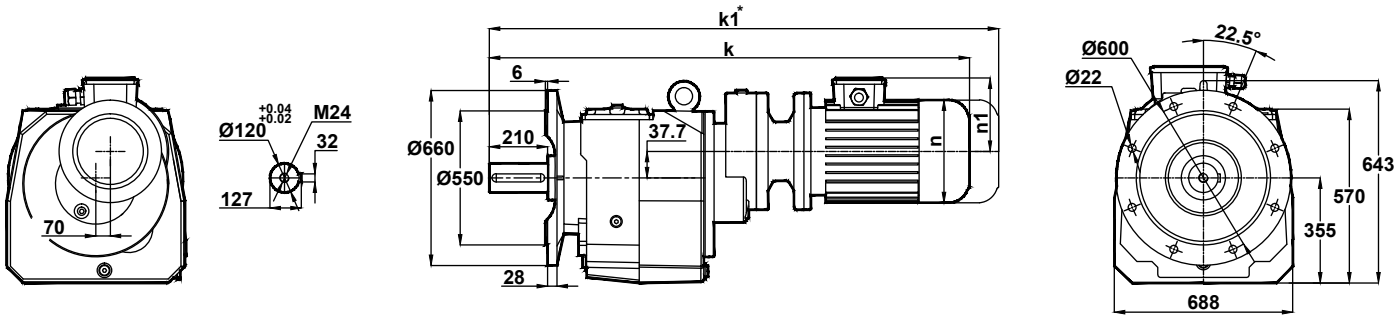
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MV974

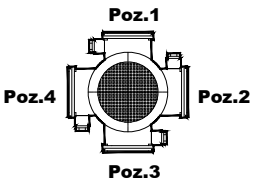


NV974



Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	**100L/B5**	**112M/B5**	**132S/B5 132S/B14**	**132M/B5 132M/B14**
k	1316	1336	1395	1433
k1	1451	1471	1540	1578
n / n1	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

Klemens Kutusu /*Terminal Box* / Klemmenkasten



100-112-132

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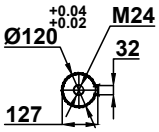
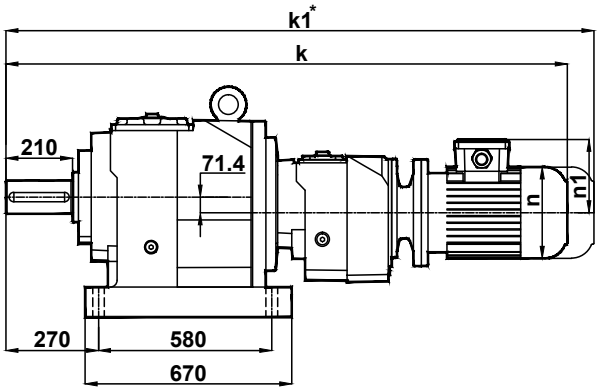
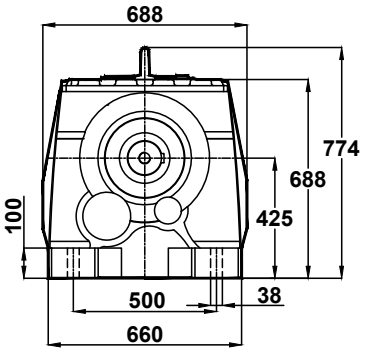
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

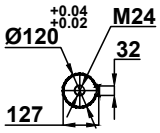
MV975
MV976

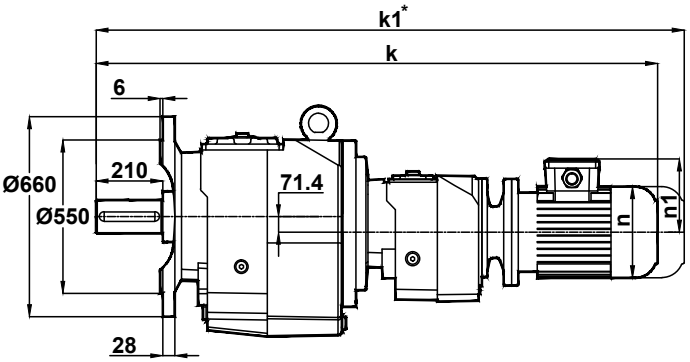


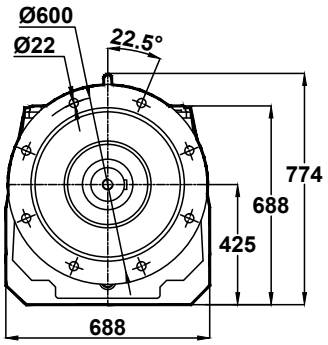




NV975
NV976

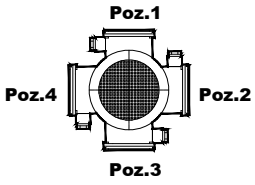






Motor Büyüklüğü / *Motor Size* / Motorbaugroße						
IEC	**80/B5**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**
k	1375	1395	1420	1470	1490	1553
k1	1495	1520	1545	1605	1625	1698
n / n1	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	218 / 146
m1 (B5)	200	200	200	250	250	300
m1 (B14)	-	140	140	160	160	200

Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90-100-112-132

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
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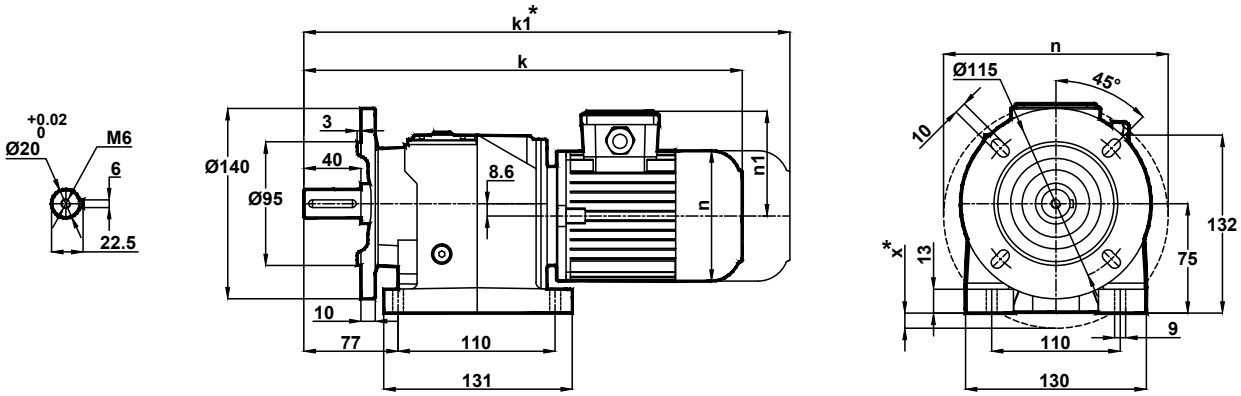
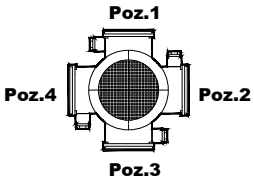
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF002
MRF003



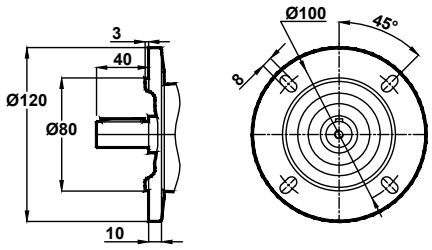
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
	63	**71**	**80**	**90S**	**90L**
k	368	387	415	443	483
k1	421	507	535	568	608
n	121	138	156	176	176
n1	97	111	118	126	126
x	-	5	14	24	24

Klemens Kutusu /*Terminal Box* / Klemmenkasten

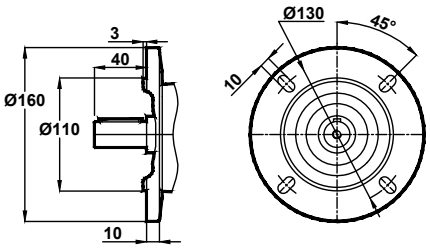


63-71-80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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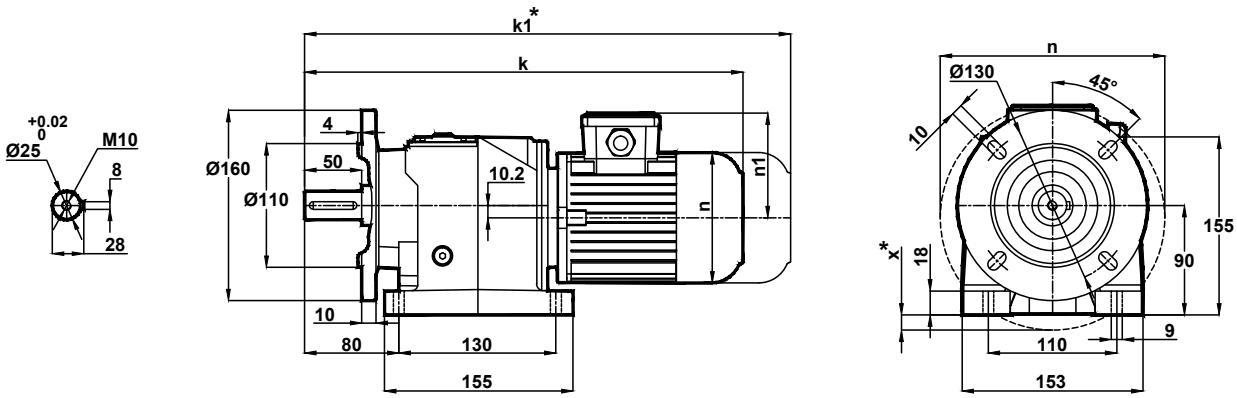
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

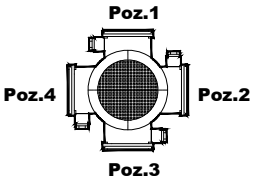
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF102
MRF103



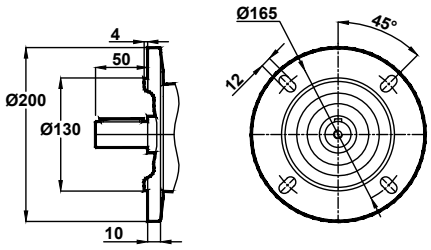
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
	63	**71**	**80**	**90S**	**90L**
k	394	413	442	471	596
k1	447	533	562	596	633
n	121	138	156	176	176
n1	97	111	118	126	126
x	-	-	-	10	10

Klemens Kutusu /*Terminal Box* / Klemmenkasten

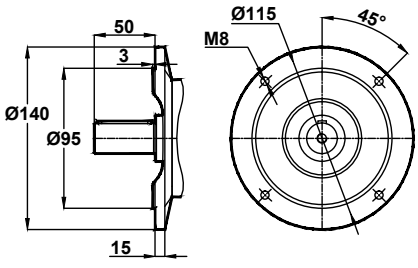


63-71-80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

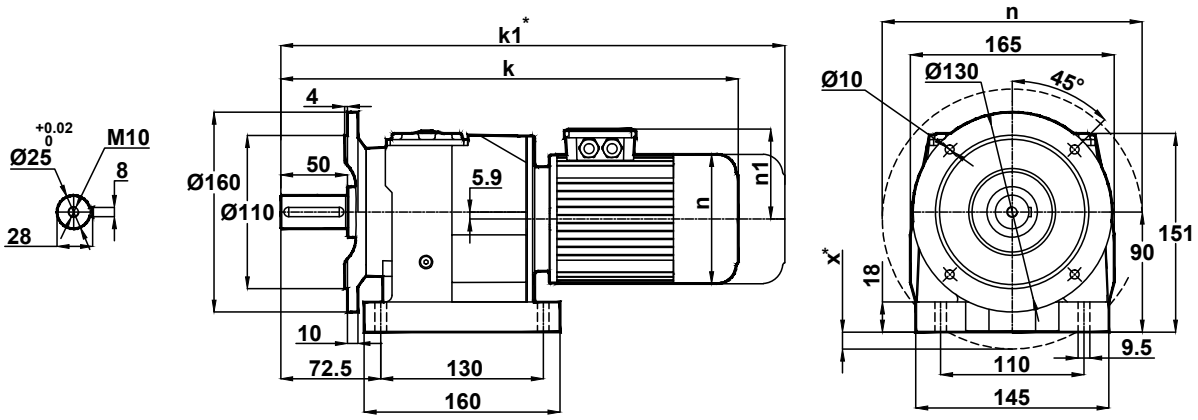


Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

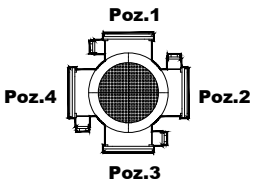
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF172
MRF173



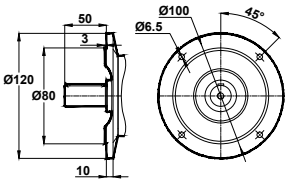
Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	395	414	442	470	510	536	559
k1	448	534	562	595	635	671	694
n	121	138	156	176	176	194	218
n1	97	111	118	126	126	135	146
x	-	-	-	6	6	16	28

Klemens Kutusu / *Terminal Box* / Klemmenkasten

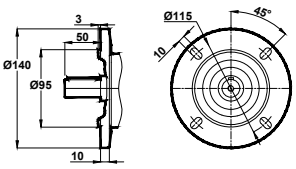


63-71-80-90-100-112

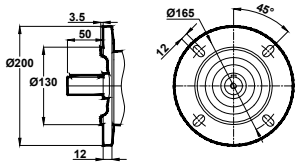
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



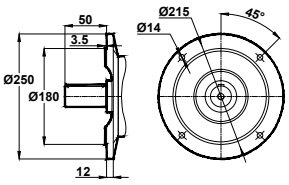
Opt. 1



Opt. 2



Opt. 3

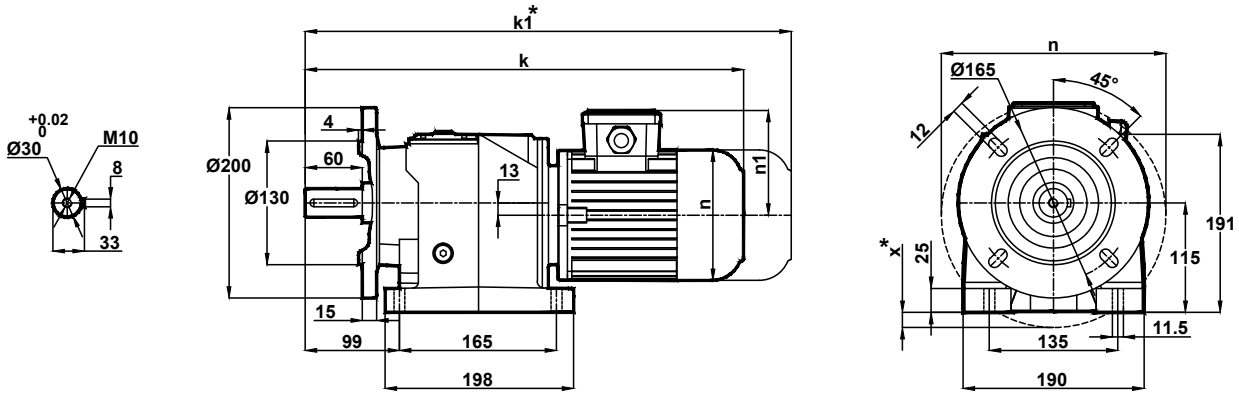


Opt. 4

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

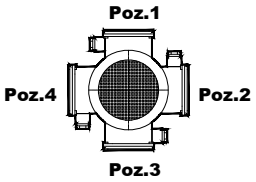
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF202
MRF203

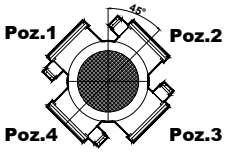


Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	442	461	489	517	542	583	606
k1	495	581	609	642	667	718	741
n	121	138	156	176	176	194	218
n1	97	111	118	126	126	135	146
x	-	-	-	-	-	-	10

Klemens Kutusu /*Terminal Box* / Klemmenkasten

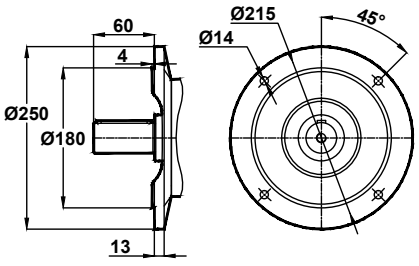


63-80-90-100-112

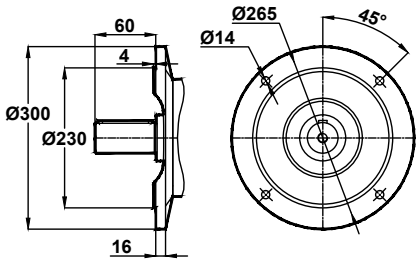


71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

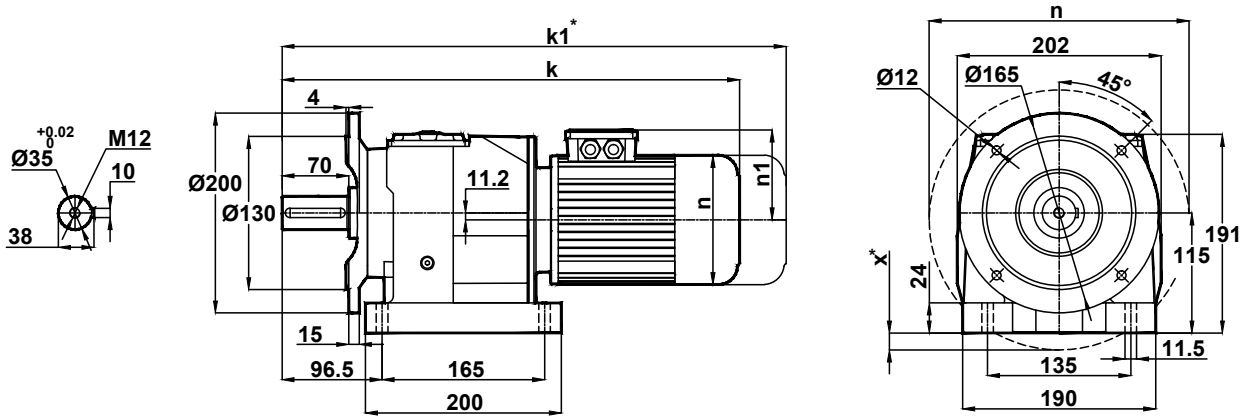


Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

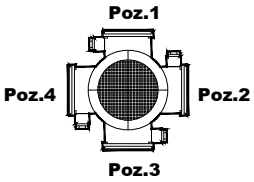
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF272
MRF273

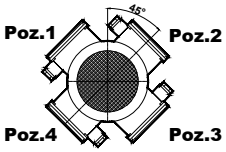


Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	443	462	490	518	543	584	607
k1	496	582	610	643	668	719	742
n	121	138	156	176	176	194	218
n1	97	111	118	126	126	135	146
x	-	-	-	-	-	-	9

Klemens Kutusu / *Terminal Box* / Klemmenkasten

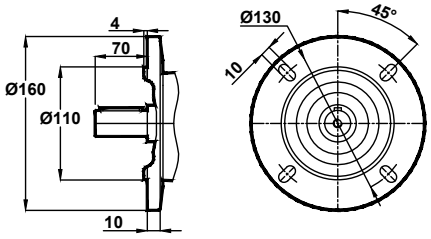


63-80-90-100-112



71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

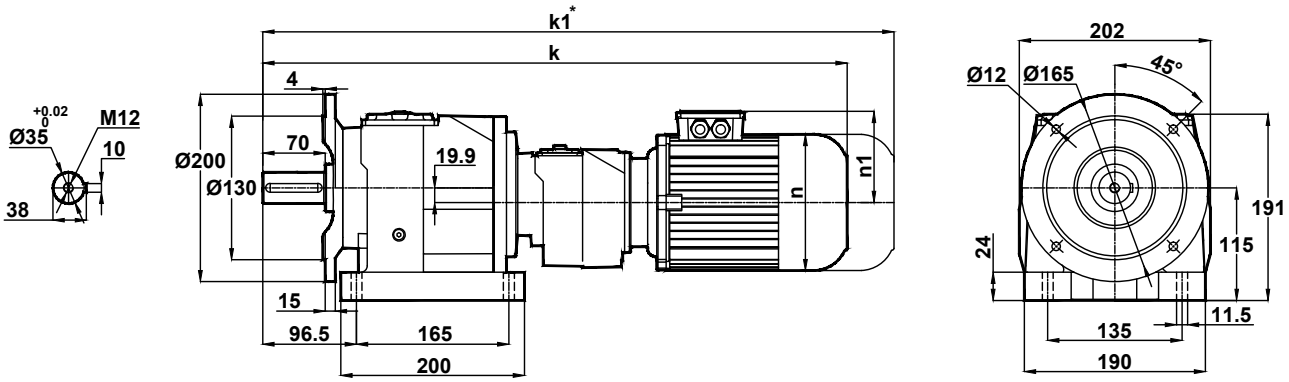


Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

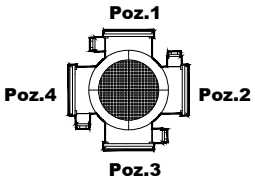
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF275
MRF276



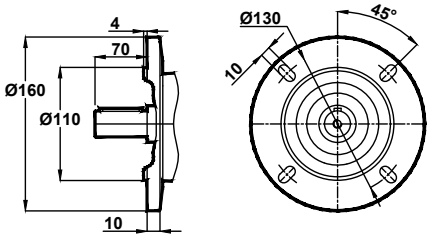
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	593	614
k1	646	734
n	121	138
n1	97	111

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

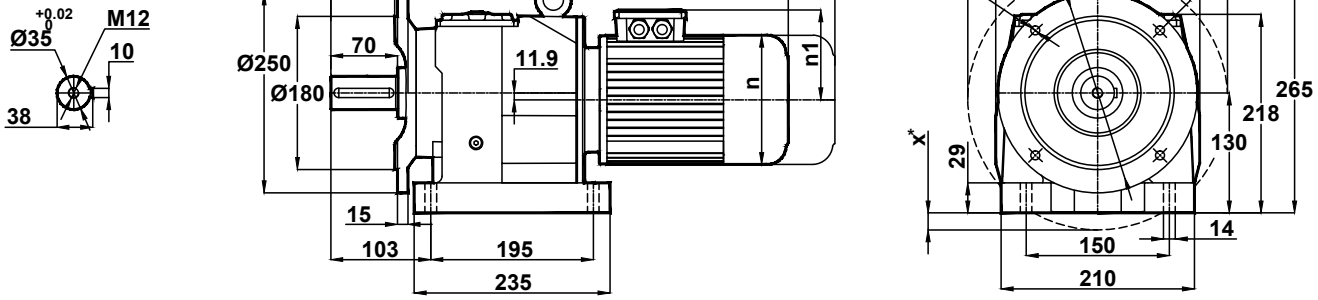


Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

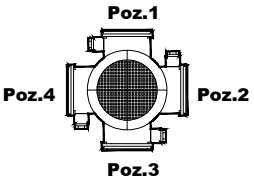
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF282
MRF283

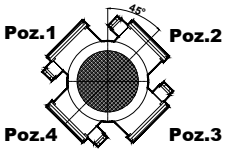


Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	479	507	537	562	602	625	679	717
k1	599	627	662	687	737	760	824	862
n	138	156	176	176	194	218	257	257
n1	111	118	126	126	135	146	168	168
x	-	-	-	-	-	-	-	14

Klemens Kutusu /*Terminal Box* / Klemmenkasten

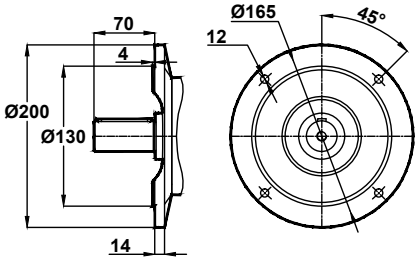


71-100-112-132



80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

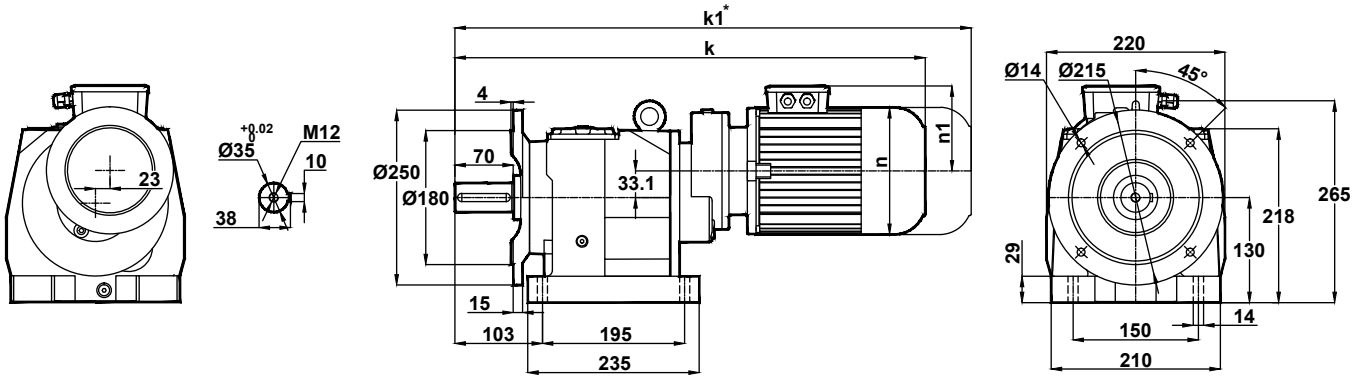


Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

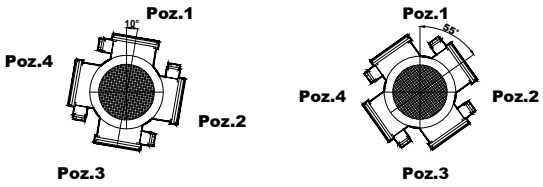
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF284



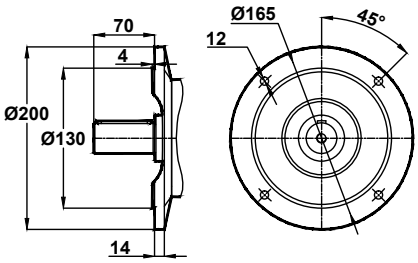
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	540	558
k1	593	678
n	121	138
n1	97	111

Klemens Kutusu / *Terminal Box* / Klemmenkasten



63 71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

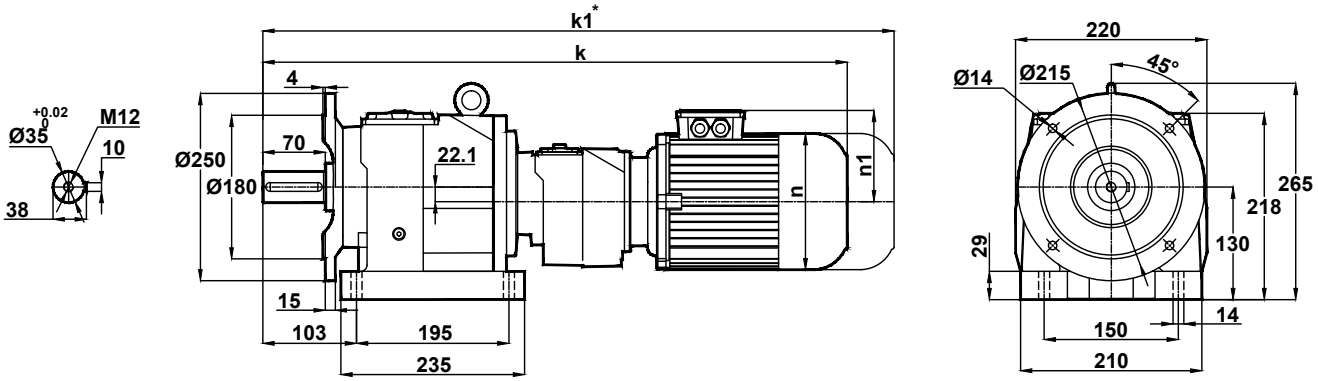


Opt. 1

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

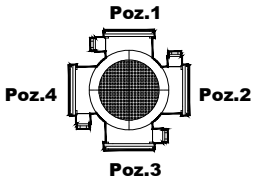
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF285
MRF286



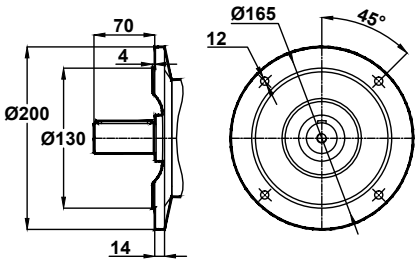
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
	63
k	641
k1	694
n	121
n1	97

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

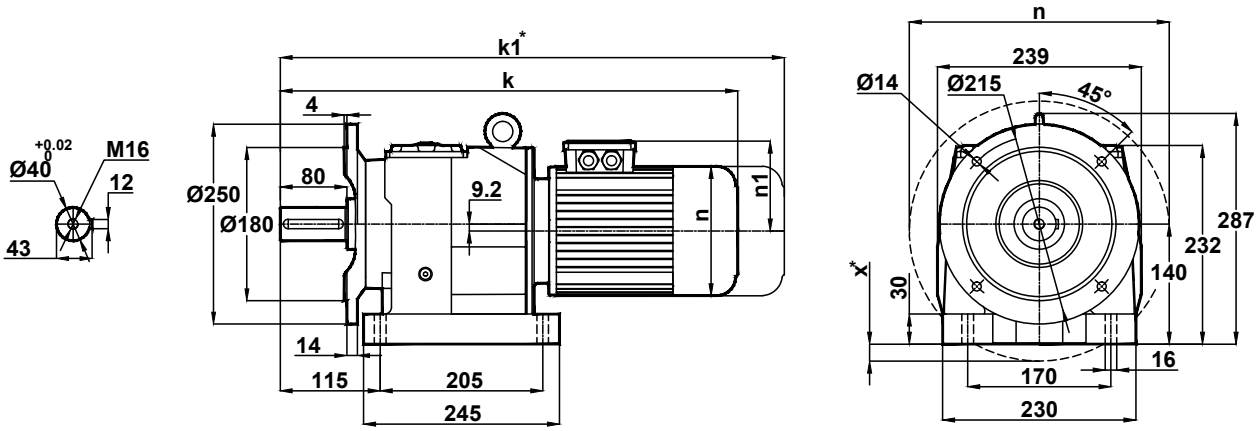


Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

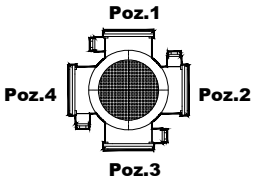
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF372
MRF373

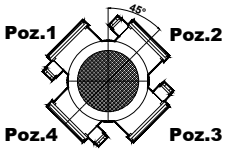


Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	500	528	558	583	623	646	700	738
k1	620	648	683	708	758	781	845	883
n	138	156	176	176	194	218	257	257
n1	111	118	126	126	135	146	168	168
x	-	-	-	-	-	-	2	30

Klemens Kutusu /*Terminal Box* / Klemmenkasten

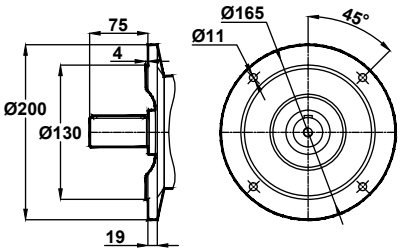


71-100-112-132

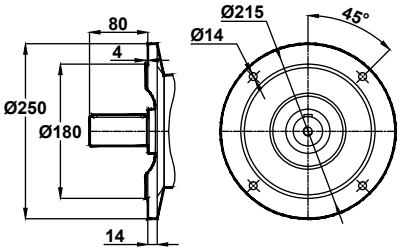


80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

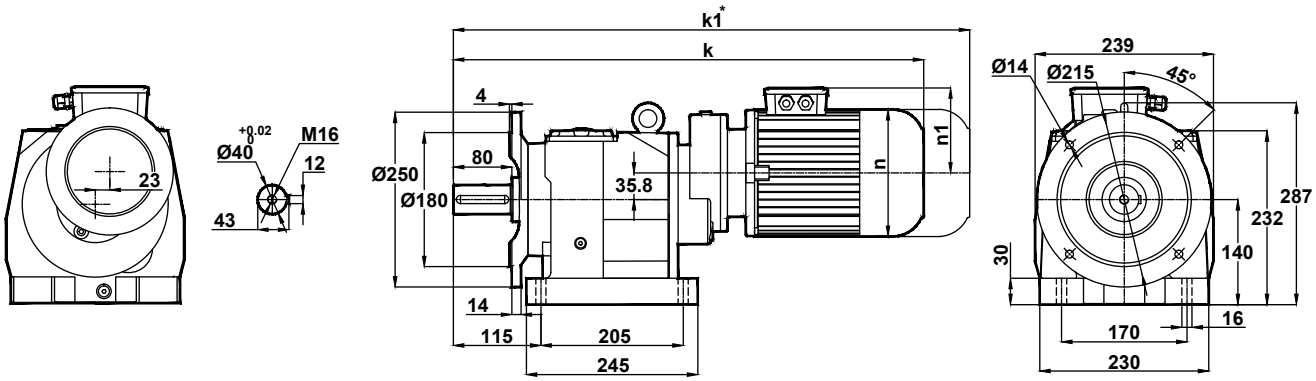


Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

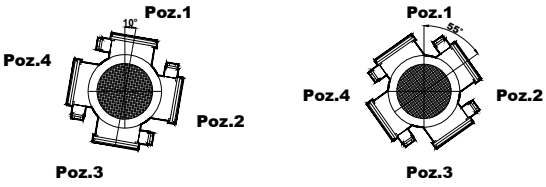
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF374



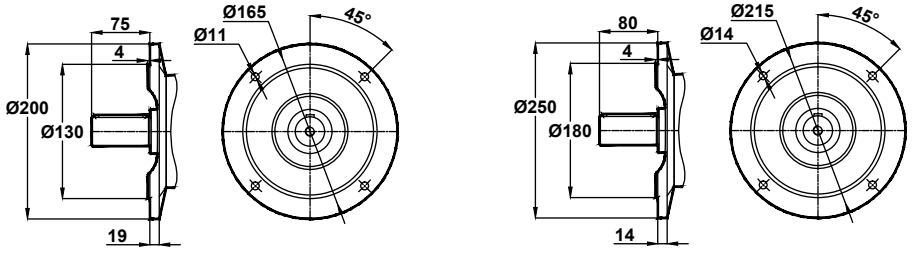
Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
	63	71	80
k	561	579	608
k1	614	699	728
n	121	138	156
n1	97	111	118

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-80 **71**

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

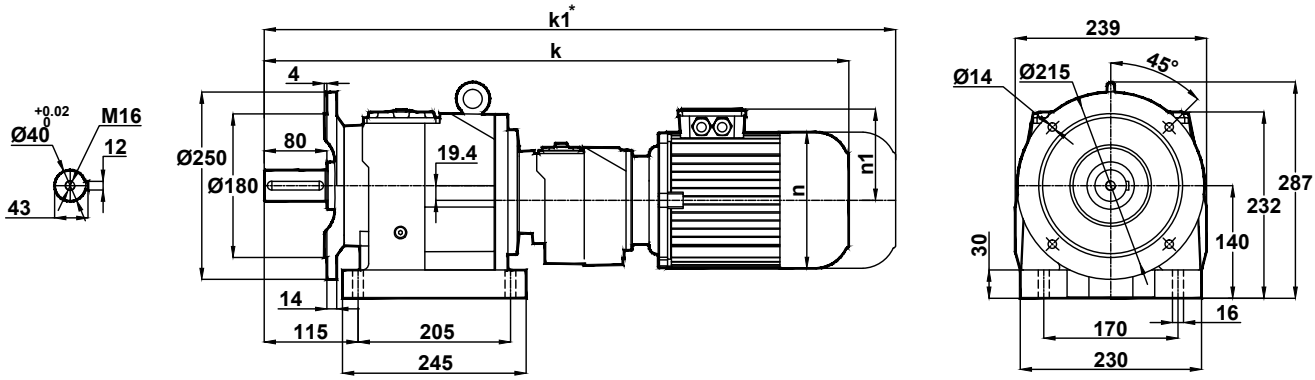


Opt. 1 **Opt. 2**

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

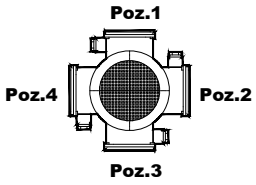
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF375
MRF376



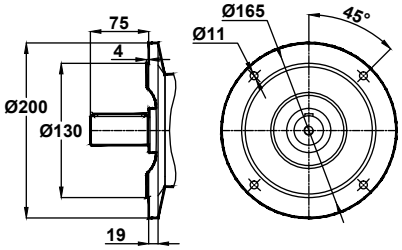
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
	63
k	662
k1	715
n	121
n1	97

Klemens Kutusu /*Terminal Box* / Klemmenkasten

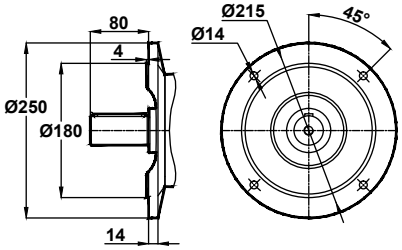


63

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

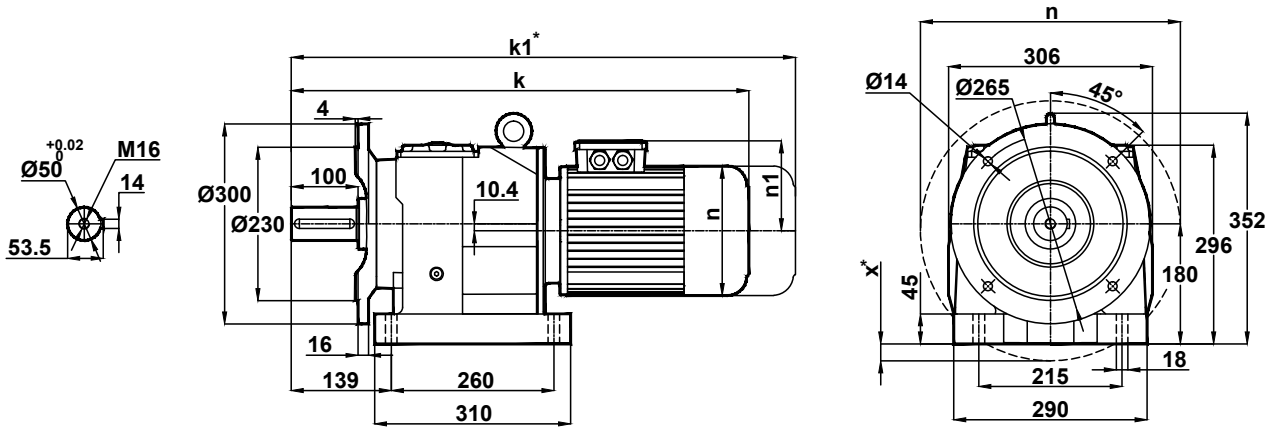


Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

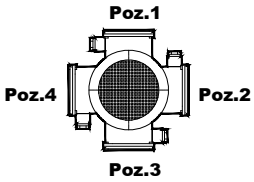
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF472
MRF473



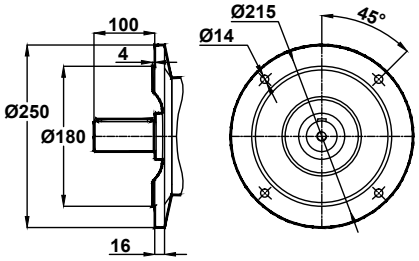
Motor Büyüklüğü / *Motor Size* / Motorbaugroße											
	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	596	624	649	688	713	762	800	875	919	936	974
k1	716	749	774	823	848	907	945	1045	1089	1106	1144
n	156	176	176	194	218	257	257	310	310	348	348
n1	118	126	126	135	146	168	168	225	225	241	241
x	-	-	-	-	-	-	-	-	-	11	11

Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90-100-112-132-160-180

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

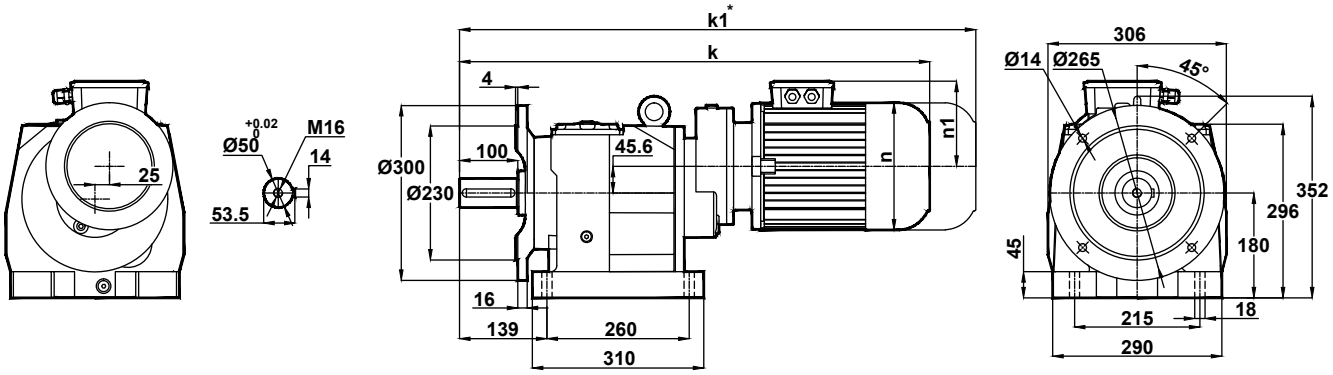


Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

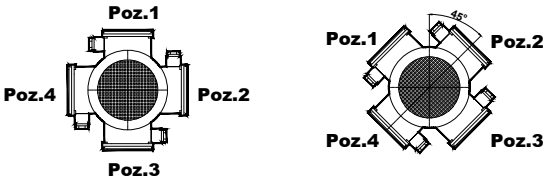
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF474



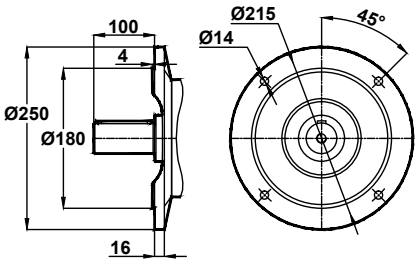
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	71	80
k	661	689
k1	781	809
n	138	156
n1	111	118

Klemens Kutusu / *Terminal Box* / Klemmenkasten



71 80

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

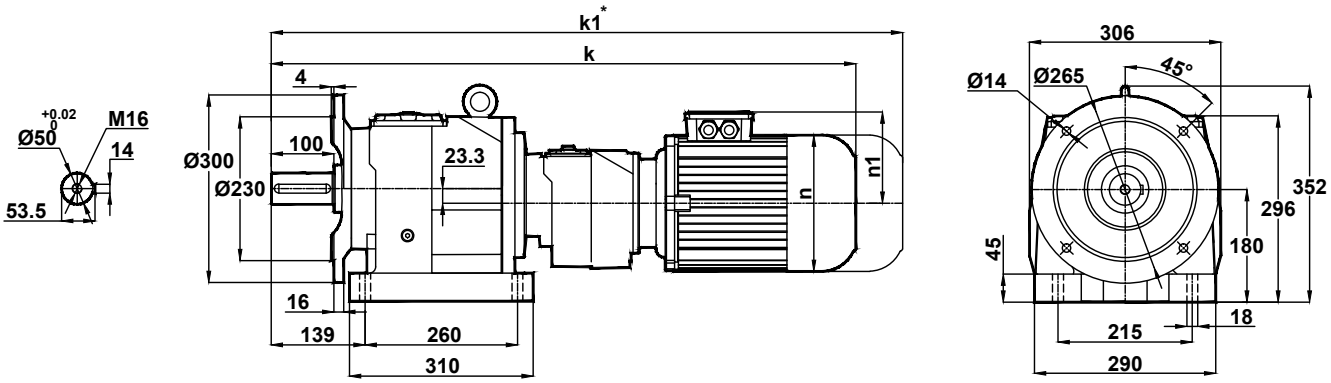


Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

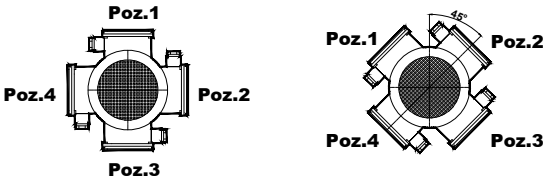
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MRF475
MRF476



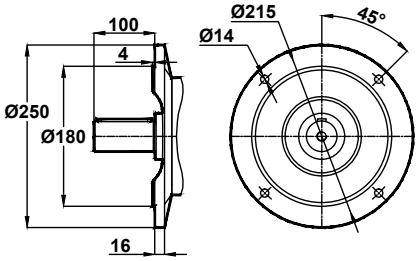
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	772	791
k1	825	911
n	121	138
n1	97	111

Klemens Kutusu / *Terminal Box* / Klemmenkasten



63 71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



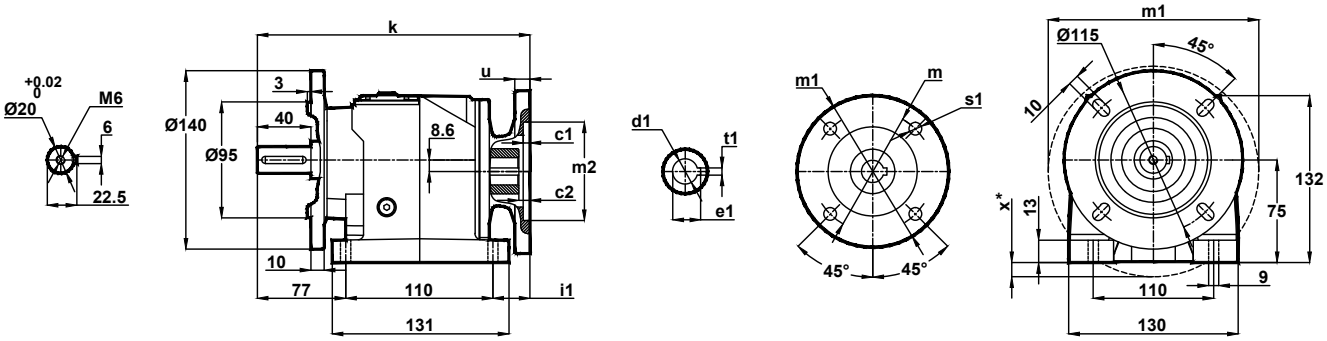
Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

Notlar / *Notes* / Notizen

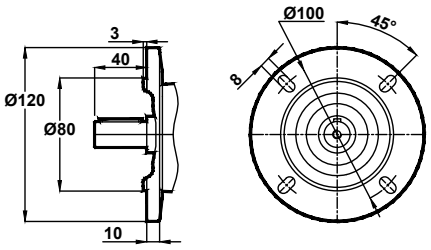
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF002-A..
MNF003-A..

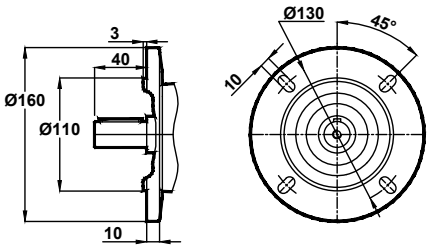


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	28	10	214	11	4	12.8	4
71/B5	4	4.5	11	130	160	110	29.5	12	216	14	5	16.3	14
80/B5	4	5	13	165	200	130	44.5	12	231	19	6	21.8	34
90/B5	4	5	13	165	200	130	44.5	12	231	24	8	27.3	34

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

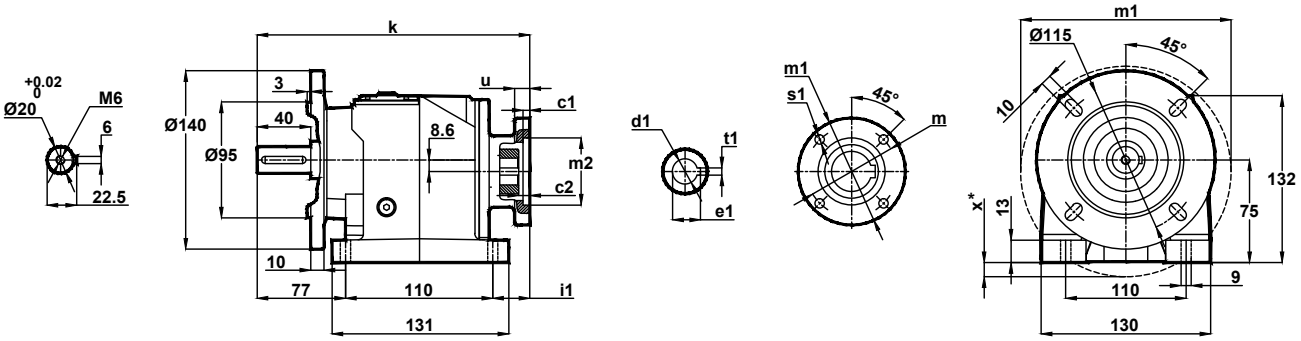


Opt. 2

x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane /* x: Wen motor ist nidriger den die Anschlußplatte

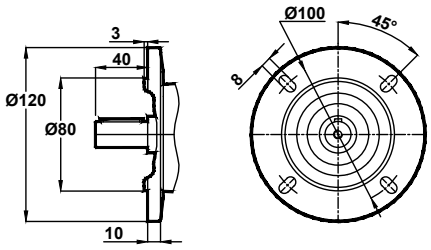
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF002-B..
MNF003-B..

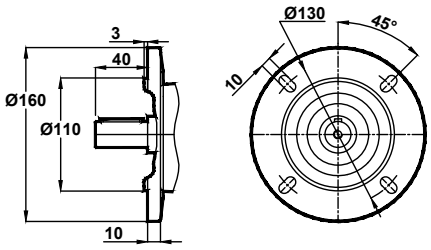


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28	10	214	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	29.5	10	216	14	5	16.3	-
80/B14	4	5	7	100	120	80	44.5	12	231	19	6	21.8	-
90/B14	4	5	9	115	140	95	44.5	12	231	24	8	27.3	4

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

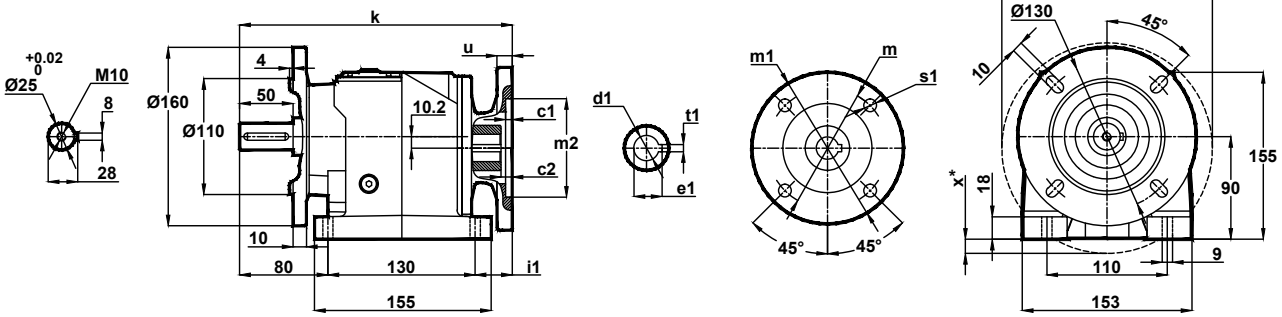


Opt. 2

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane /* x: Wen motor ist nidriger den die Anschlußplatte

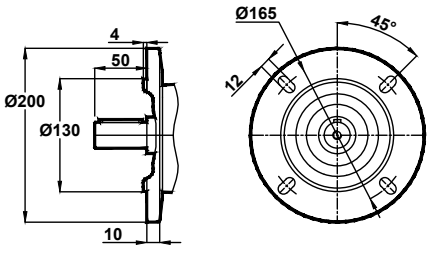
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF102-A..
MNF103-A..

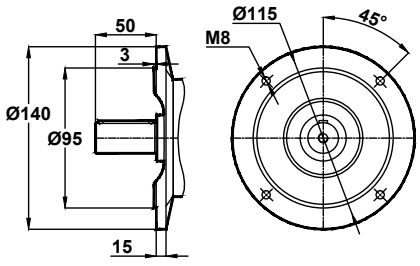


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	7	10	115	140	95	28.5	12	240	11	4	12.8	-
71/B5	4	4.5	12	130	160	110	28.5	12	240	14	5	16.3	0.5
80/B5	4	5	12	165	200	130	43.5	12	255	19	6	21.8	20
90/B5	4	5	12	165	200	130	43.5	12	255	24	8	27.3	20

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

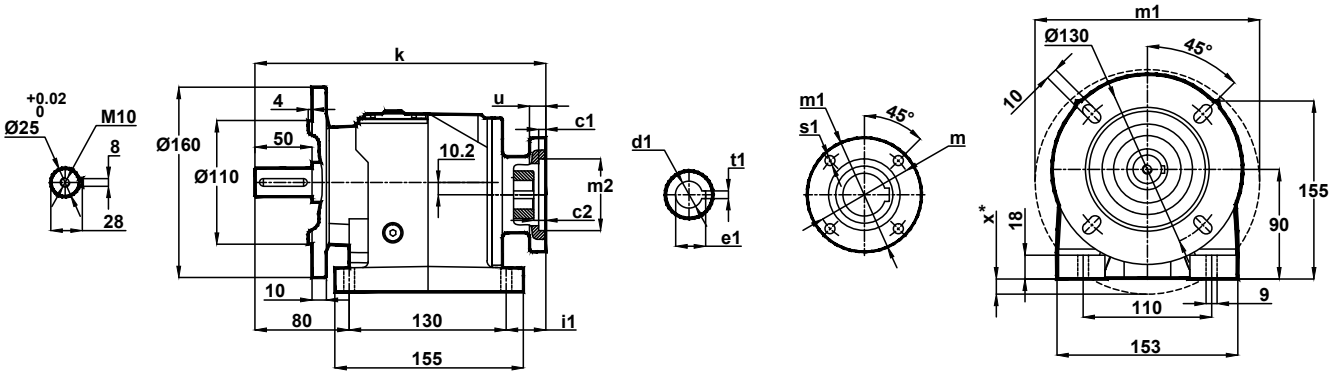


Opt. 2

x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

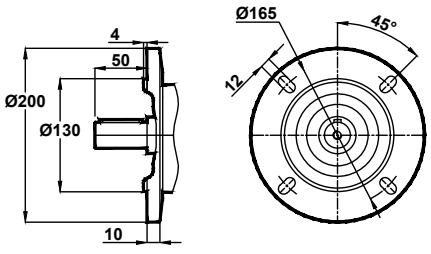
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF102-B..
MNF103-B..

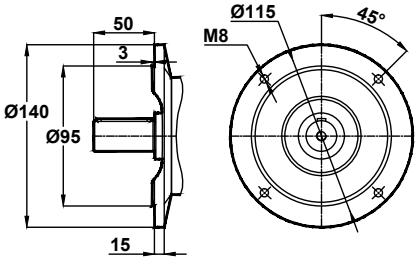


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B14	2.5	5	5.5	75	90	60	28.5	10	240	11	4	12.8	-
71/B14	3	4.5	7	85	105	70	28.5	10	240	14	5	16.3	-
80/B14	4	4.7	7	100	120	80	43.5	12	255	19	6	21.8	-
90/B14	4	4.7	9	115	140	95	43.5	12	255	24	8	27.3	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

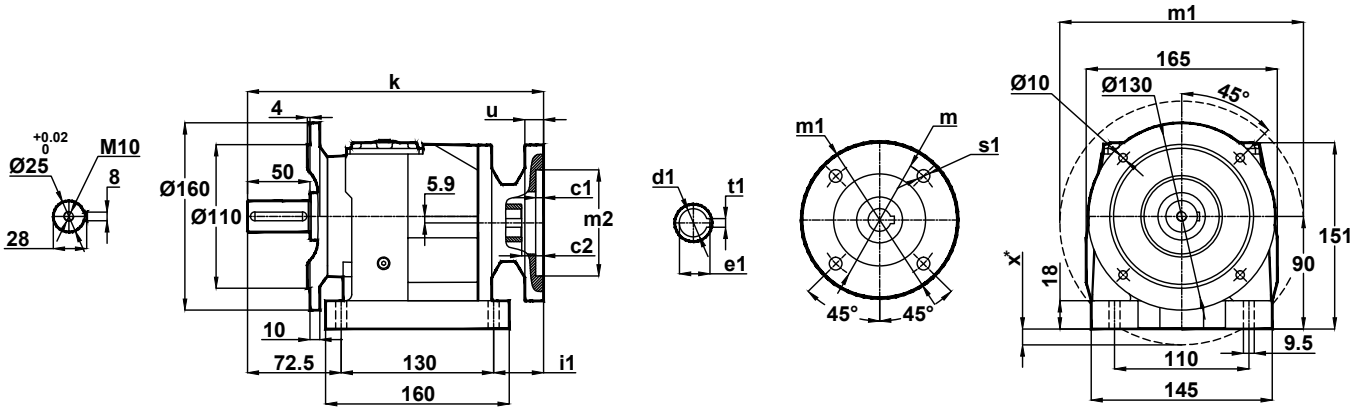


Opt. 2

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane /* x: Wen motor ist nidriger den die Anschlußplatte

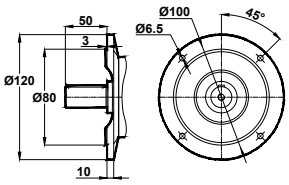
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF172-A..
MNF173-A..

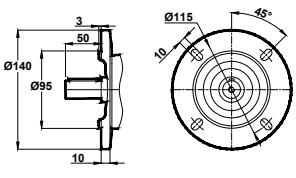


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	3.5	5	10	115	140	95	38.5	10	241	11	4	12.8	-
71/B5	4	4.5	11	130	160	110	40	12	243	14	5	16.3	-
80/B5	4	5	13	165	200	130	55	12	258	19	6	21.8	16
90/B5	4	5	13	165	200	130	55	12	258	24	8	27.3	16
100/B5	4	5	15	215	250	180	66	12	269	28	8	31.3	41
112/B5	4	5	15	215	250	180	66	12	269	28	8	31.3	41

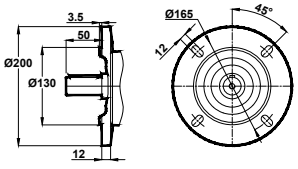
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



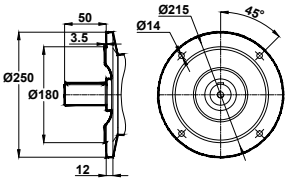
Opt. 1



Opt. 2



Opt. 3

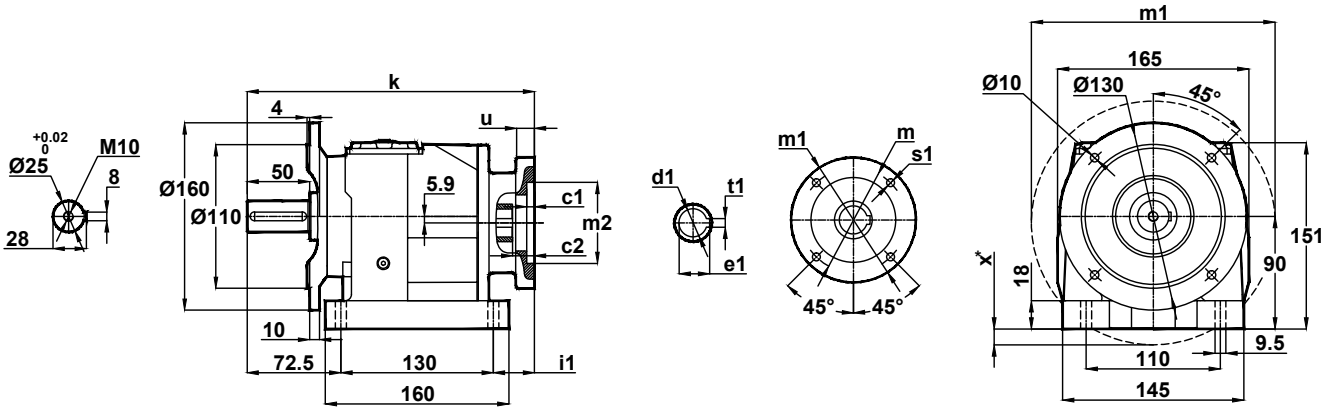


Opt. 4

x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

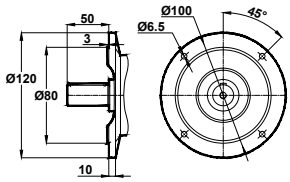
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF172-B..
MNF173-B..

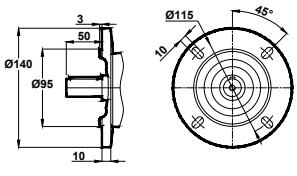


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	4.5	7	85	105	70	40	10	243	14	5	16.3	-
80/B14	4	5	7	100	120	80	55	120	258	19	6	21.8	-
90/B14	4	5	9	115	140	95	55	12	258	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	66	12	269	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	66	12	269	28	8	31.3	-

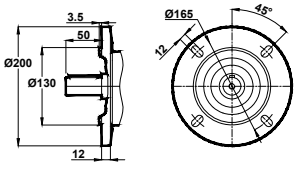
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



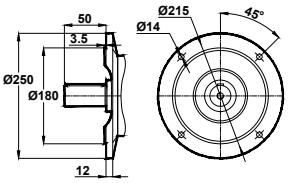
Opt. 1



Opt. 2



Opt. 3

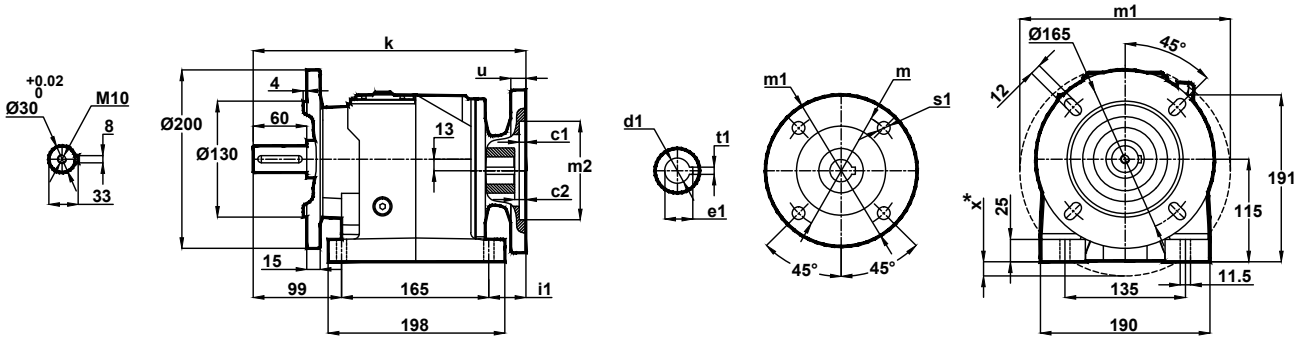


Opt. 4

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

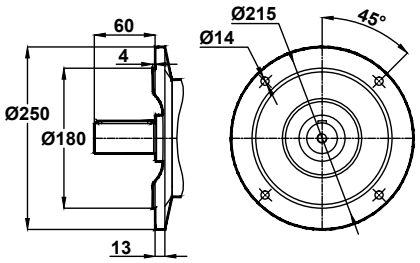
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF202-A..
MNF203-A..

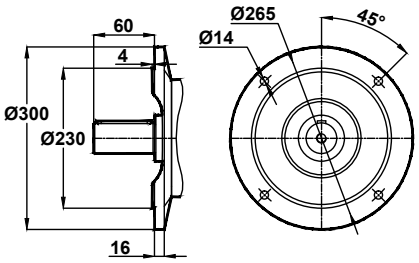


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	58.5	12	323	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	29.5	12	294	14	5	163	-
80/B5	4	5	13	165	200	130	58.5	12	323	19	6	21.8	-
90/B5	4	5	13	165	200	130	58.5	12	323	24	8	27.3	-
100/B5	4	5.5	15	215	250	180	51.5	12	316	28	8	31.3	23
112/B5	4	5.5	15	215	250	180	51.5	12	316	28	8	31.3	23

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

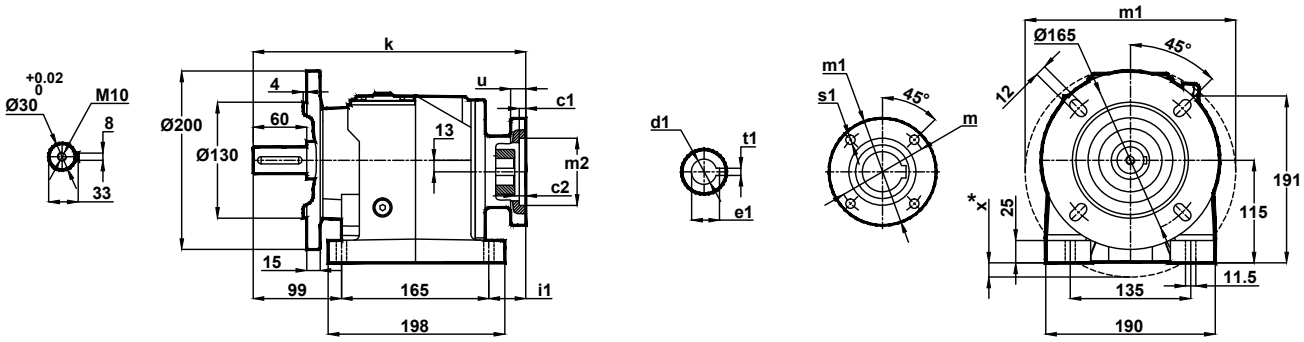


Opt. 2

x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

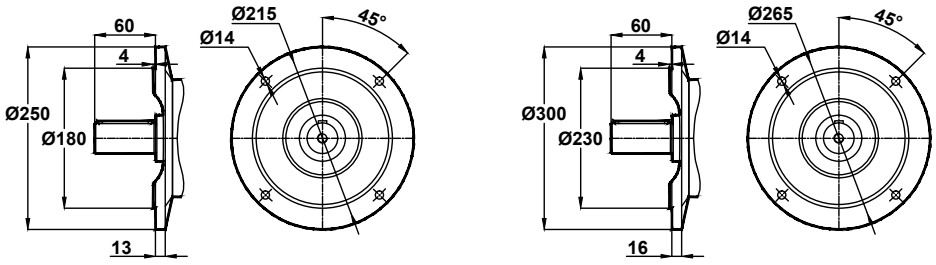
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF202-B..
MNF203-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	29.5	10	294	14	5	16.3	-
80/B14	4	5	7	100	120	80	58.5	12	323	19	6	21.8	-
90/B14	4	5	9	115	140	95	58.5	12	323	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	51.5	12	316	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	51.5	12	316	28	8	31.3	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



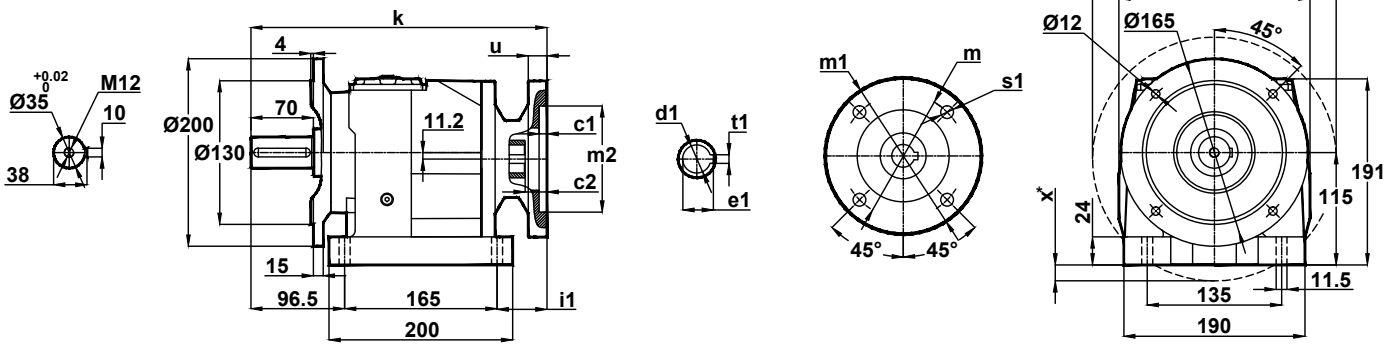
Opt. 1

Opt. 2

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane /* x: Wen motor ist nidriger den die Anschlußplatte

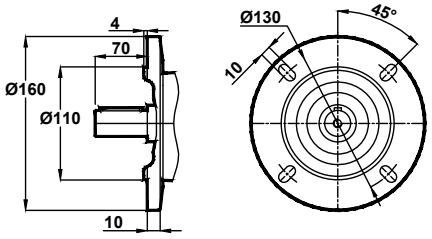
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF272-A..
MNF273-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	62	12	324	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	33	12	295	14	5	16.3	-
80/B5	4	5	13	165	200	130	62	12	324	19	6	21.8	-
90/B5	4	5	13	165	200	130	62	12	324	24	8	27.3	-
100/B5	4	5.5	15	215	250	180	55	12	317	28	8	31.3	22
112/B5	4	5.5	15	215	250	180	55	12	317	28	8	31.3	22

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

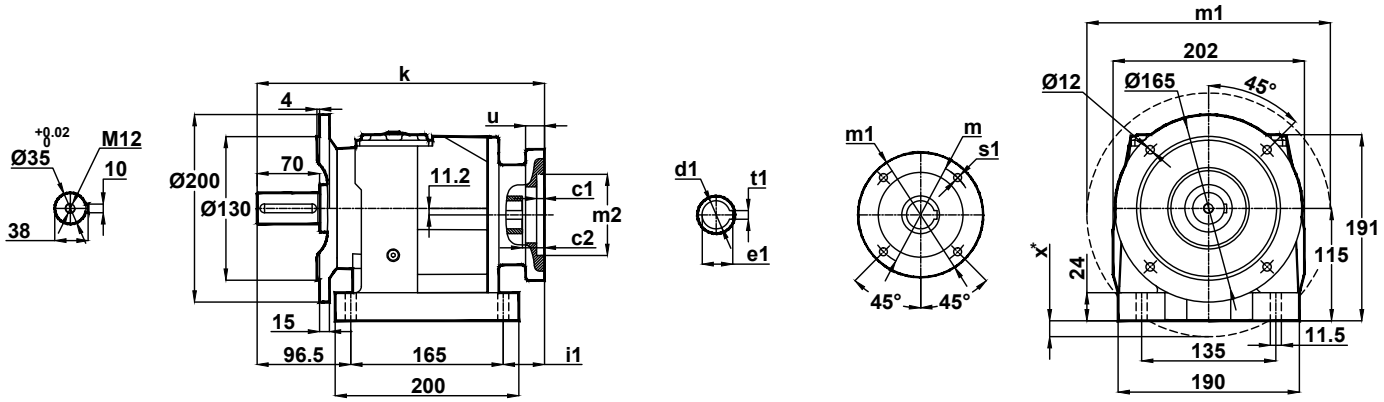


Opt. 1

x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

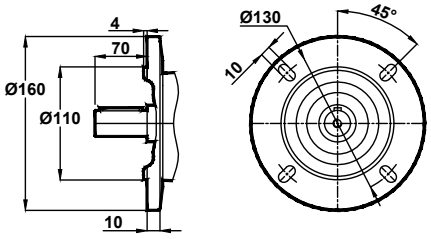
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF272-B..
MNF273-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	33	10	295	14	5	16.3	-
80/B14	4	5	7	100	120	80	62	12	324	19	6	21.8	-
90/B14	4	5	9	115	140	95	62	12	324	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	55	12	317	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	55	12	317	28	8	31.3	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

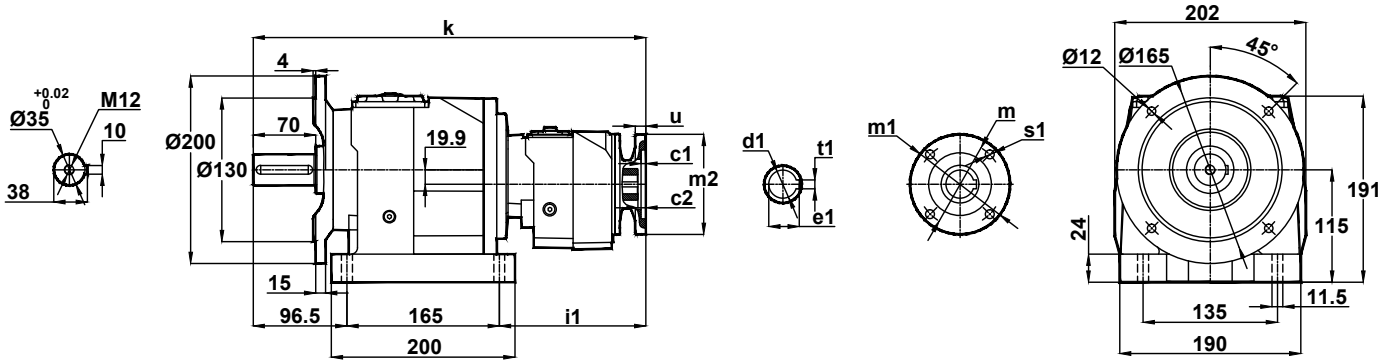


Opt. 1

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

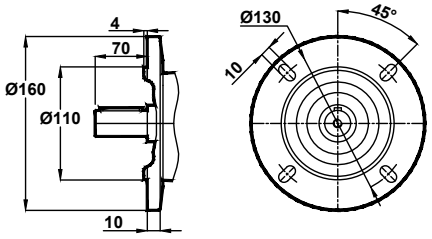
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF275-A..
MNF276-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	177.5	10	439	11	4	12.8
71/B5	4	4.5	11	130	160	110	179	12	441	14	5	16.3

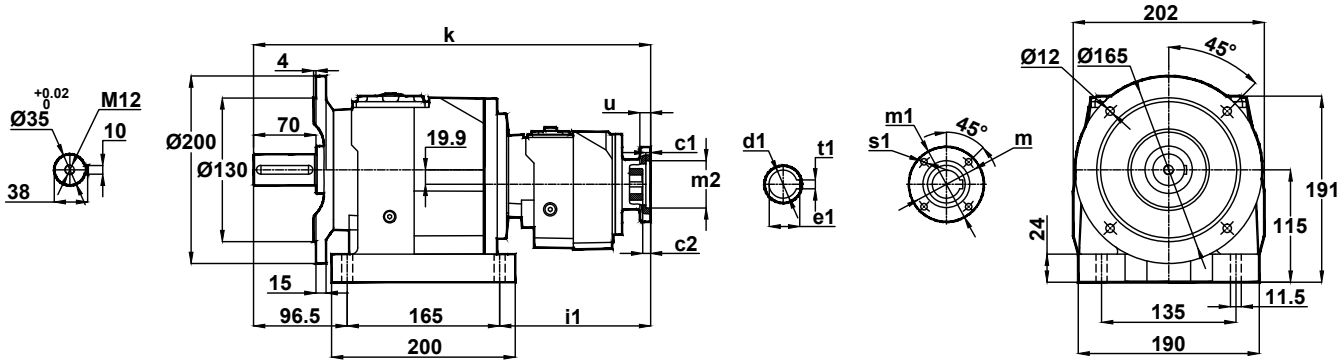
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

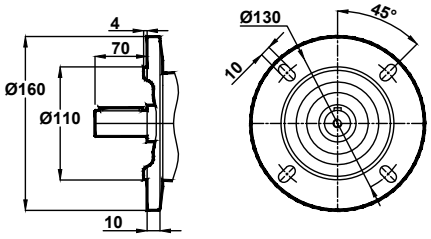
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF275-B..
MNF276-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B14	2.5	5	5.5	75	90	60	177.5	10	439	11	4	12.8
71/B14	3	4.5	7	85	105	70	179	10	441	14	5	16.3

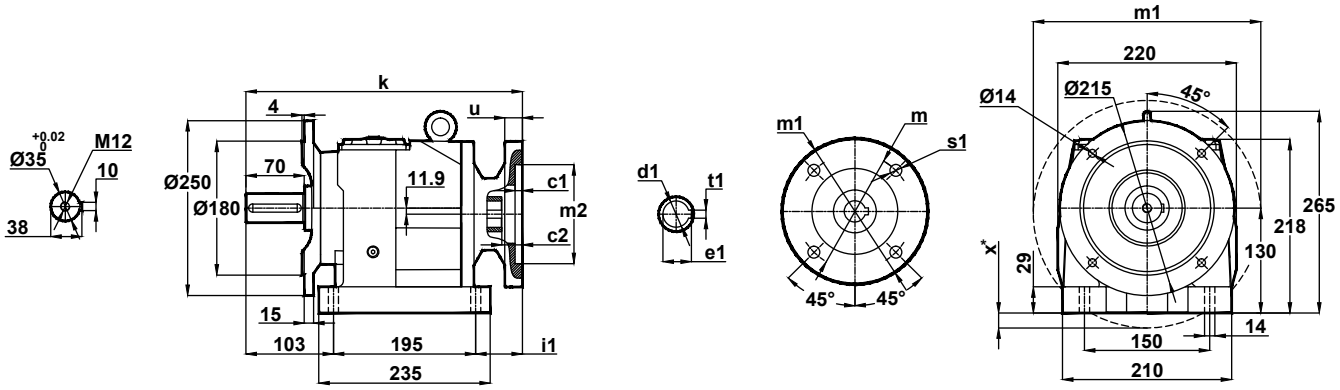
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

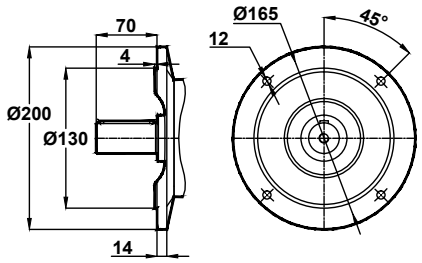
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF282-A..
MNF283-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	45	12	343	14	5	16.3	-
80/B5	4	9	13	165	200	130	45	12	343	19	6	21.8	-
90/B5	4	9	13	165	200	130	45	12	343	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	52	15	350	28	8	31.3	7
112/B5	4.5	9	15	215	250	180	52	15	350	28	8	31.3	7
132/B5	4.5	7	15	265	300	230	82	15	380	38	10	41.3	32

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

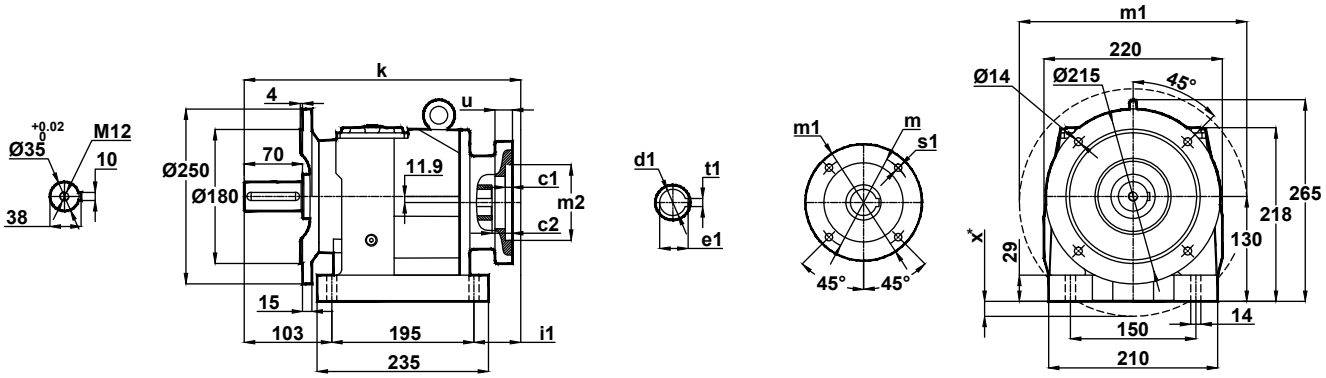


Opt. 1

x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

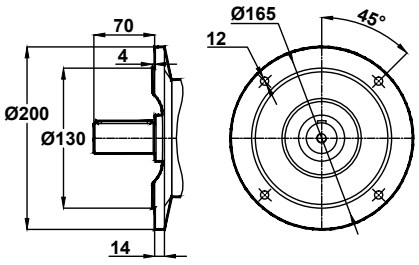
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF282-B..
MNF283-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	45	12	343	19	6	21.8	-
90/B14	4	9	9	115	140	95	45	12	343	24	8	26.3	-
100/B14	4	9	9	130	160	110	52	15	350	28	8	31.3	-
112/B14	4	9	9	130	160	110	52	15	350	28	8	31.3	-
132/B14	4.5	7	11	165	200	130	82	15	380	38	10	41.3	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

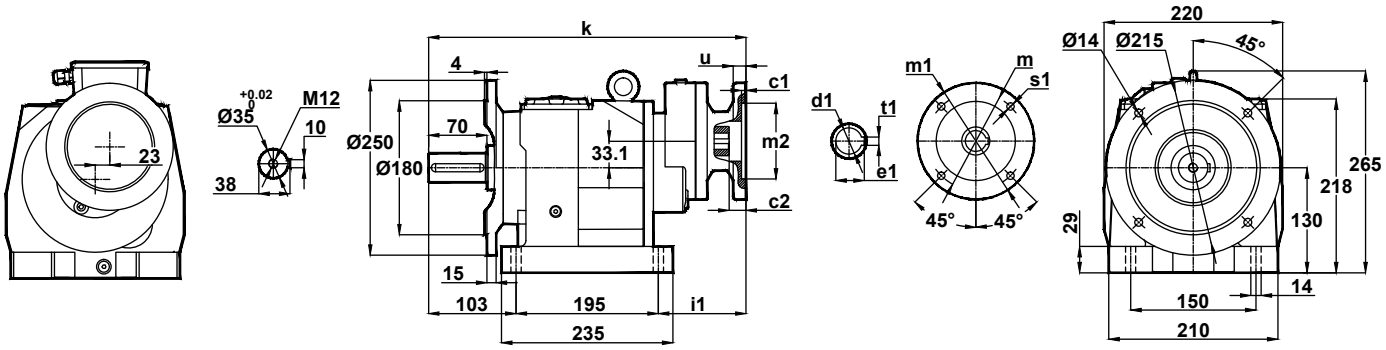


Opt. 1

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

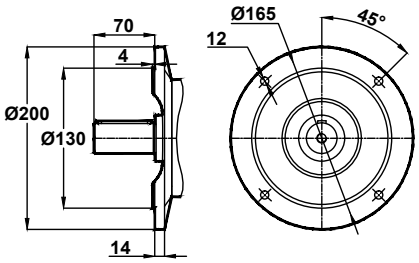
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF284-A..
MNF284-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	122	10	420	11	4	12.8
71/B5	4	4.5	11	130	160	110	93	12	391	14	5	16.3
71/B14	3	4.5	7	85	105	70	93	10	391	14	5	16.3

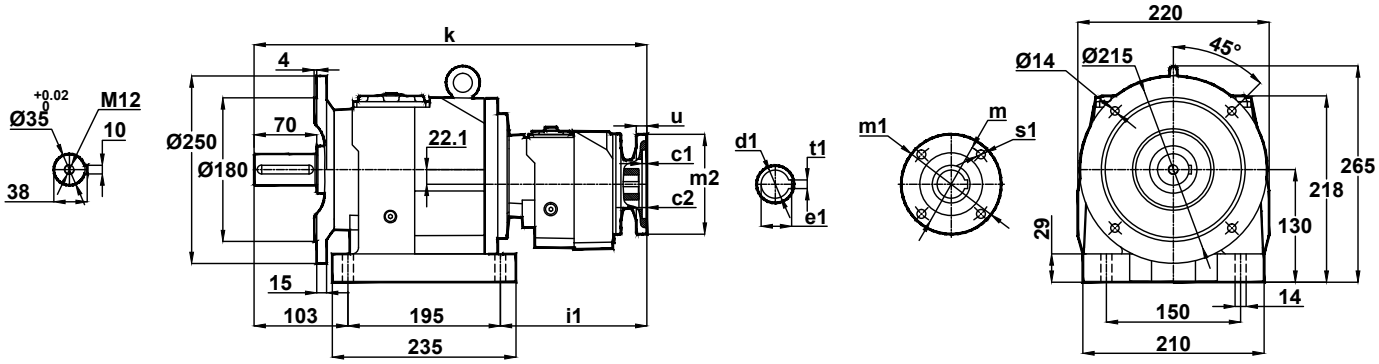
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

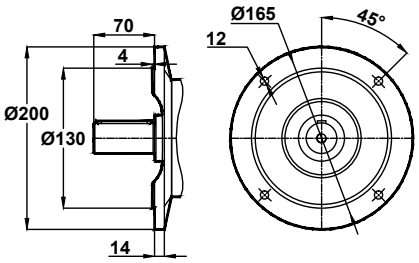
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF285-A.. / B..
MNF286-A.. / B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	7	10	115	140	95	188	12	486	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	188	10	486	11	4	12.8

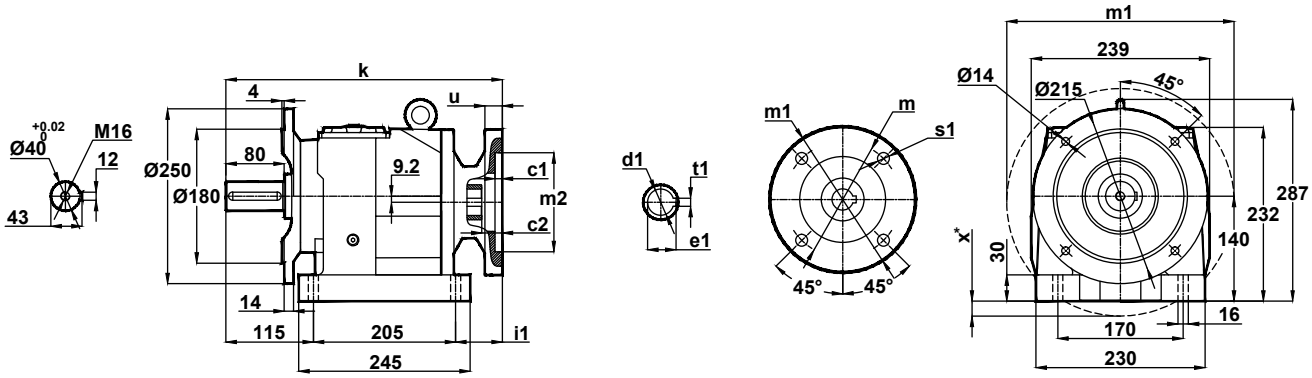
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

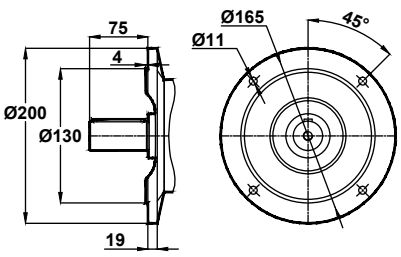
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF372-A..
MNF373-A..

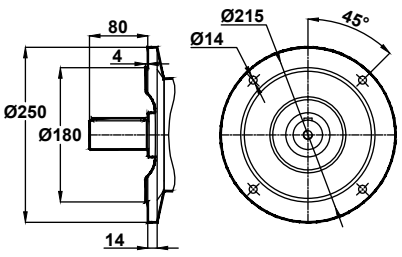


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	43.5	12	364	14	5	16.3	-
80/B5	4	9	13	165	200	130	43.5	12	364	19	6	21.8	-
90/B5	4	9	13	165	200	130	43.5	12	364	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	60.5	15	381	28	8	31.3	-
132/B5	4.5	7	15	265	300	230	80.5	15	401	38	10	41.3	20

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

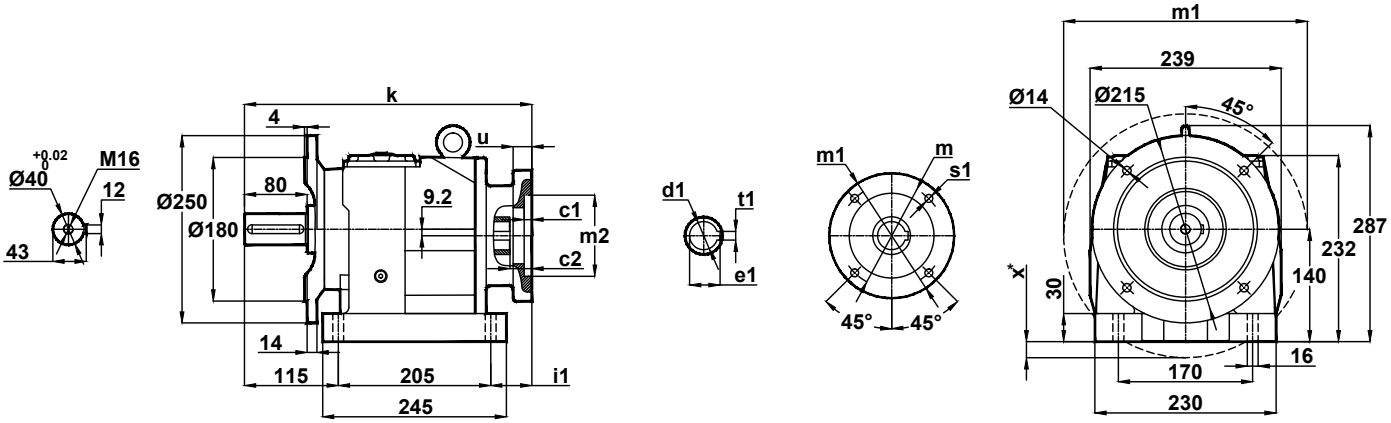


Opt. 2

x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

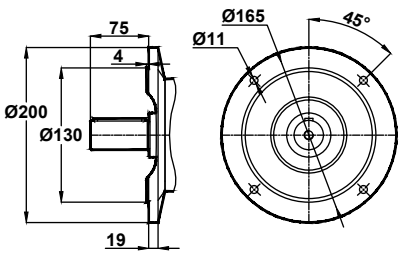
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF372-B..
MNF373-B..

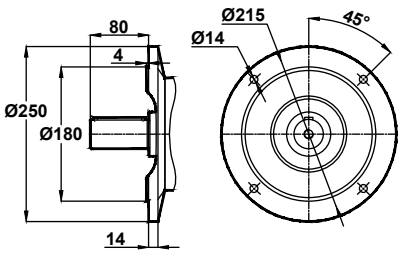


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	43.5	12	364	19	6	21.8	-
90/B14	4	9	9	115	140	95	43.5	12	364	24	8	26.3	-
100/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
112/B14	4	9	9	130	160	110	60.5	15	381	28	8	31.3	-
132/B14	4.5	9	11	165	200	130	80.5	15	401	38	10	41.3	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

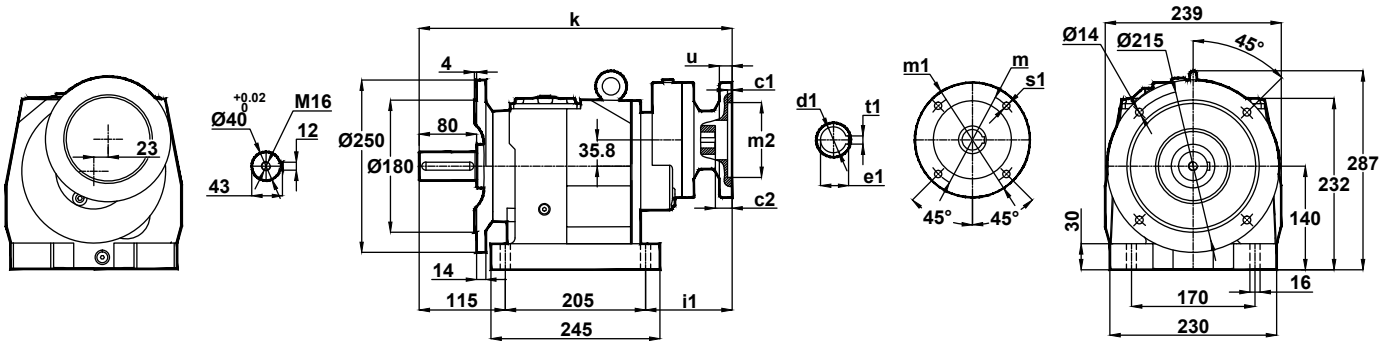


Opt. 2

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane /* x: Wen motor ist nidriger den die Anschlußplatte

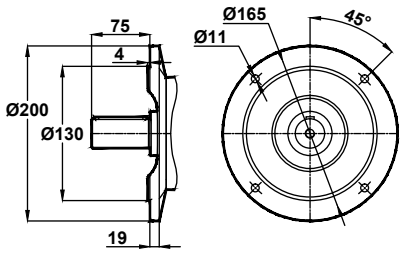
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF374-A..
MNF374-B..

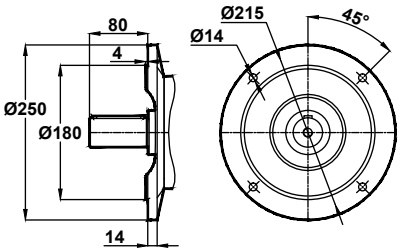


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	120.5	12	441	11	4	12.8
71/B5	4	8.5	11	130	160	110	91.5	12	412	14	5	16.3
80/B5	4	5	13	165	200	130	120.5	12	441	19	6	21.8
71/B14	3	8.5	7	85	105	70	91.5	10	412	14	5	16.3
80/B14	4	5	7	100	120	80	120.5	12	441	19	6	21.8

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



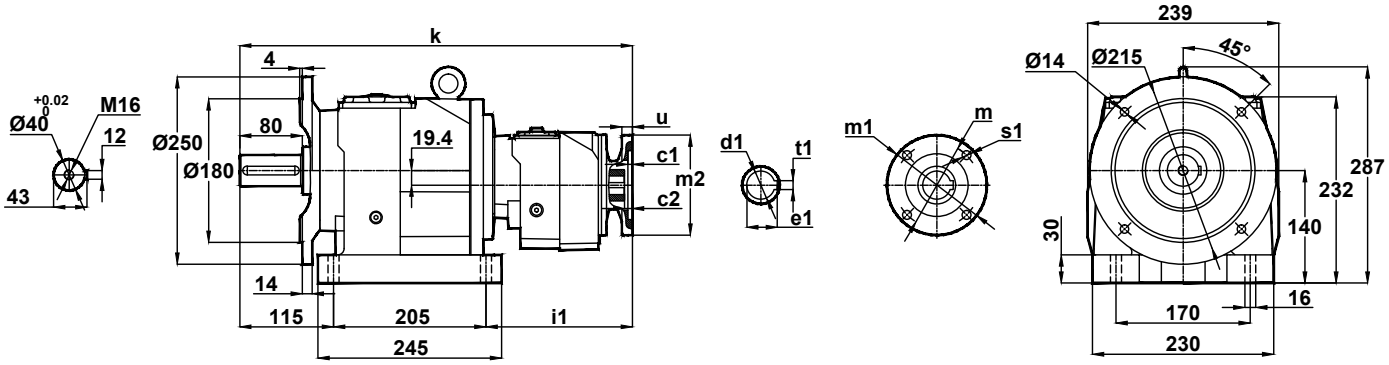
Opt. 1



Opt. 2

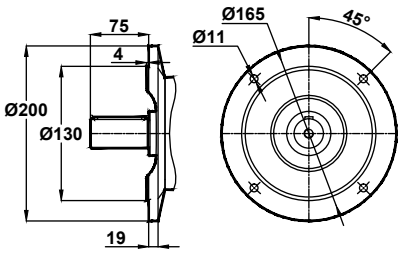
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF375-A.. / B..
MNF376-A.. / B..

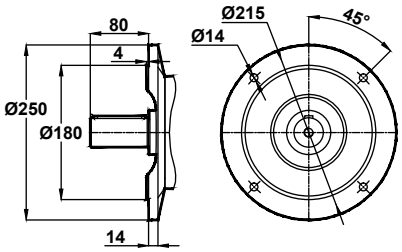


IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	186.5	10	507	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	186.5	10	507	11	4	12.8

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



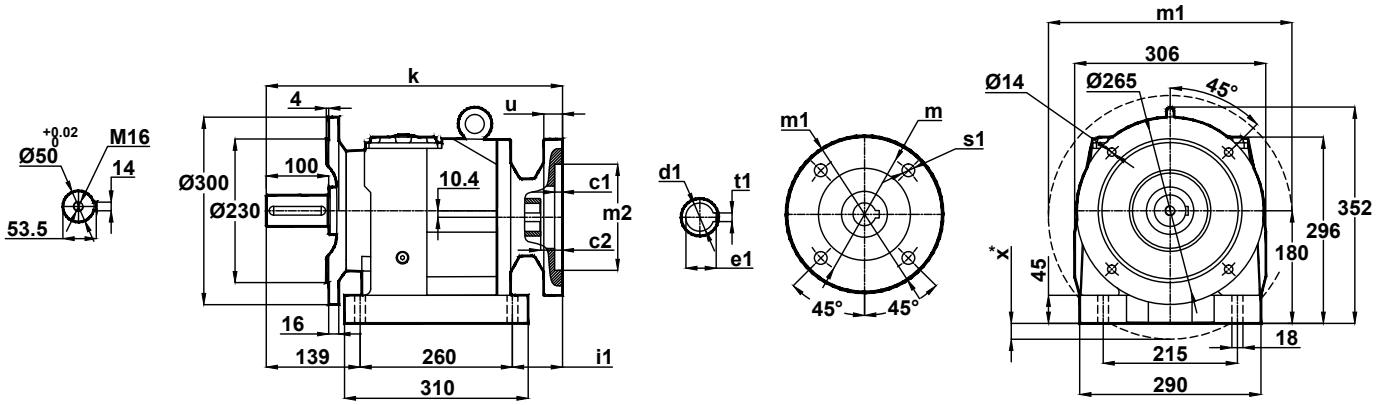
Opt. 1



Opt. 2

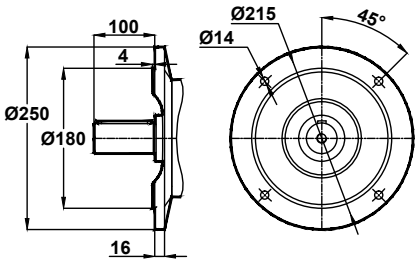
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF472-A..
MNF473-A..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
80/B5	4	5	12	165	200	130	27.5	12	427	19	6	21.8	-
90/B5	4	5	13	165	200	130	27.5	12	427	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	46	15	445	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	46	15	445	28	8	31.3	-
132/B5	4.5	6	15	265	300	230	64.5	15	464	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	144	20	543	42	12	45.3	6
180/B5	5.5	10	19	300	350	250	144	20	543	48	14	51.8	6

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

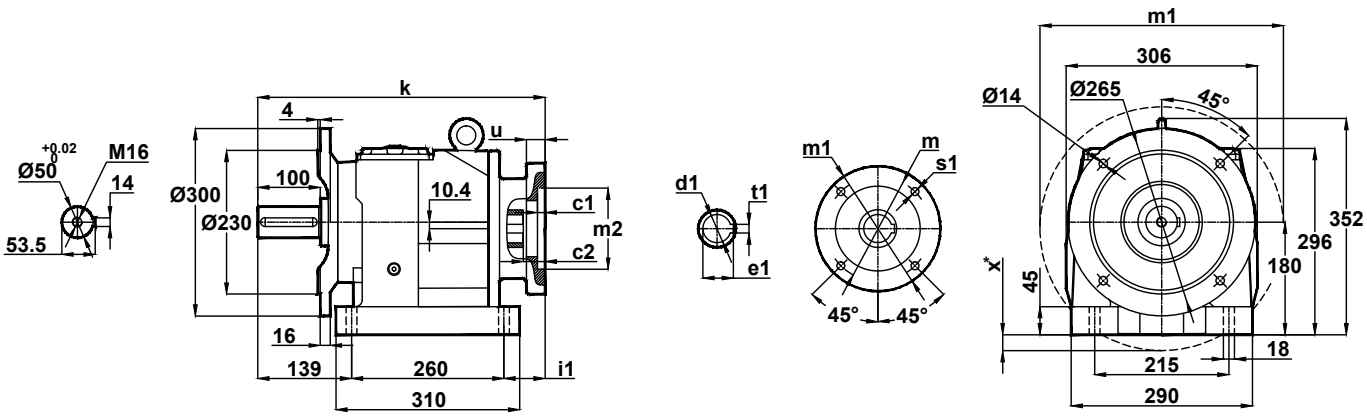


Opt. 1

x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

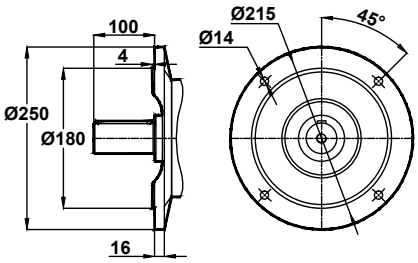
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF472-B..
MNF473-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1	x
90/B14	4	5	9	115	140	95	27.5	12	427	24	8	27.3	-
100/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
112/B14	4	9	9	130	160	110	46	15	445	28	8	31.3	-
132/B14	4.4	6	11	165	200	130	64.5	15	464	38	10	41.3	-

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

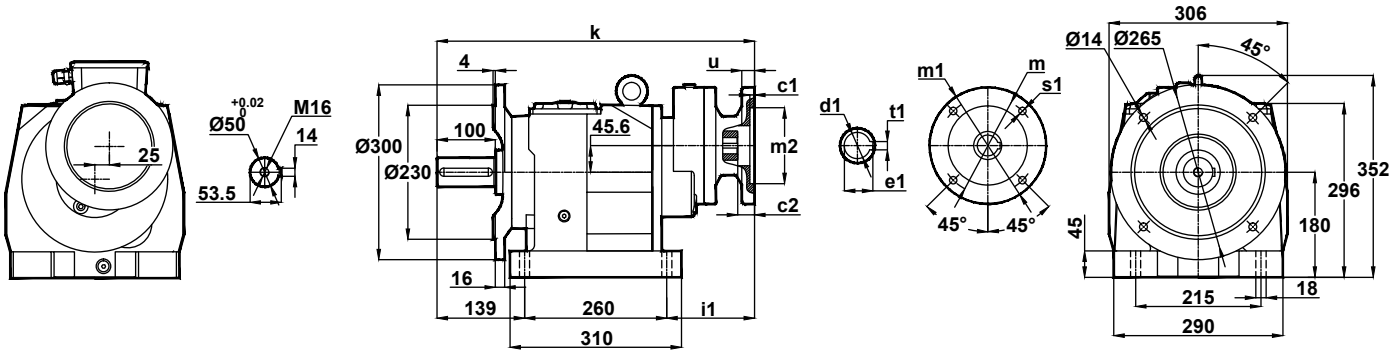


Opt. 1

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

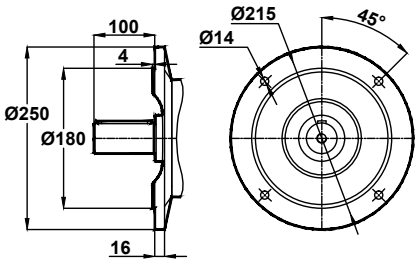
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF474-A..
MNF474-B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	125.5	12	525	14	5	16.3
80/B5	4	9	13	165	200	130	125.5	12	525	19	6	21.8
80/B14	4	9	7	100	120	80	125.5	12	525	19	6	21.8

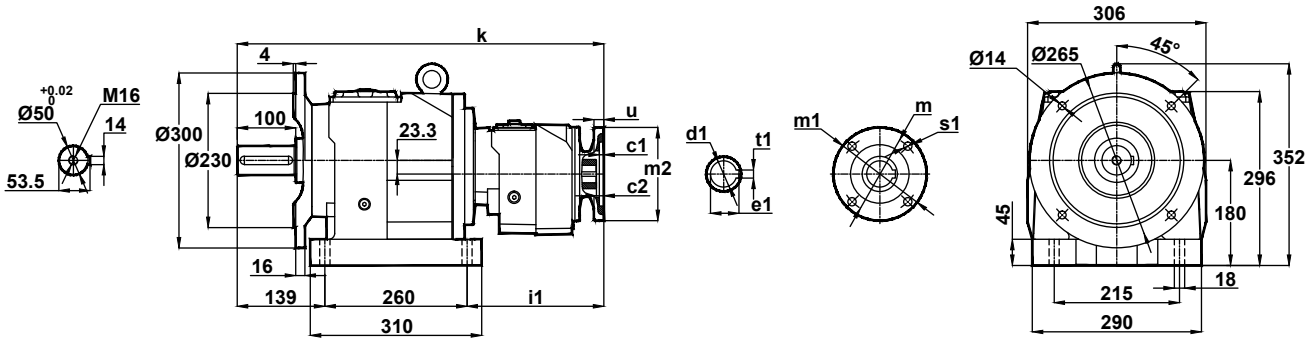
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

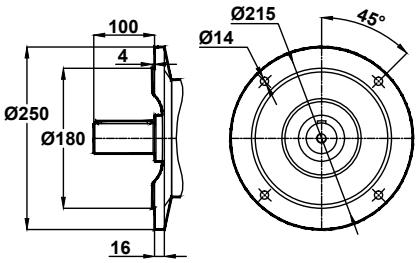
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MNF475-A.. / B..
MNF476-A.. / B..



IEC	c1	c2	s1	m	m1	m2	i1	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	253.5	12	653	11	4	12.8
71/B5	4	8.5	11	130	160	110	224.5	12	624	14	5	16.3
71/B14	3	8.5	7	85	105	70	224.5	10	624	14	5	16.3

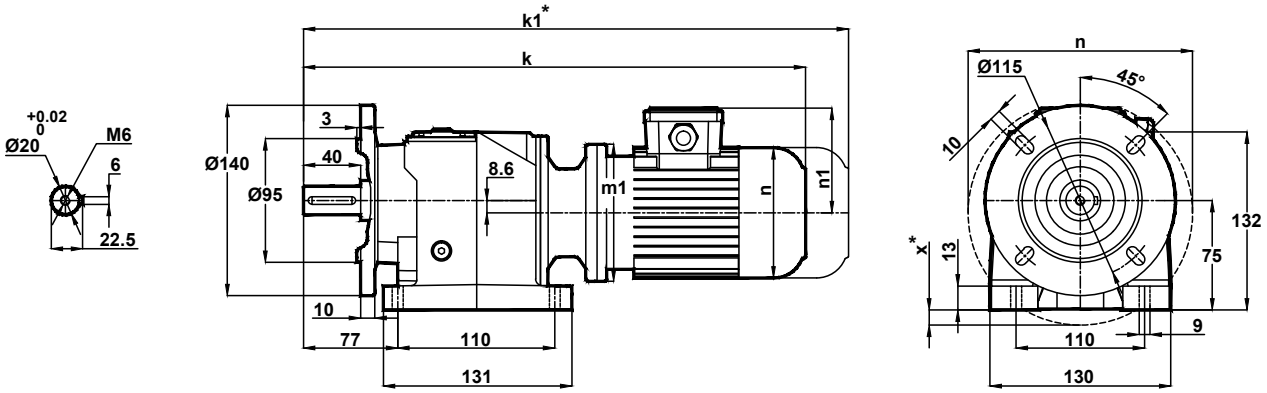
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

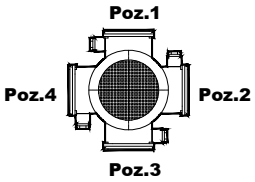
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF002
MVF003



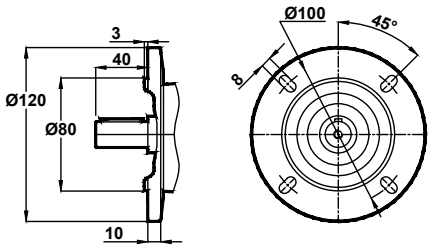
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
IEC	**63/B5 63/B14**	**71/B5 71/B14**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**
k	407	435	470	490	515
k1	460	555	590	615	640
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	4	14	34	34	34

Klemens Kutusu /*Terminal Box* / Klemmenkasten

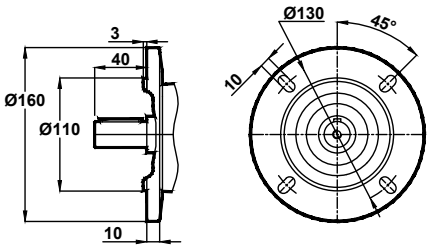


63-71-80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

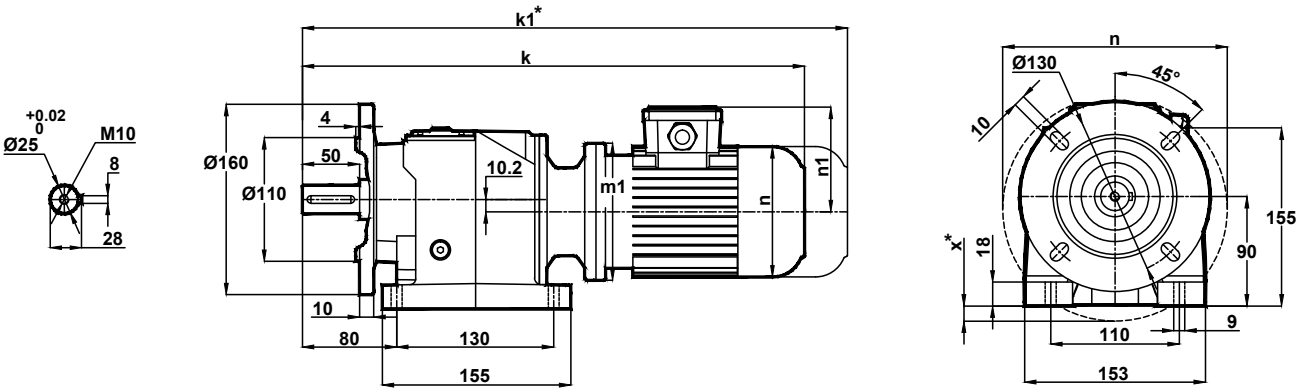


Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

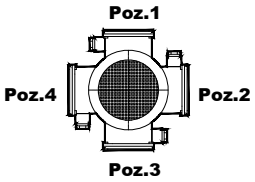
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF102
MVF103



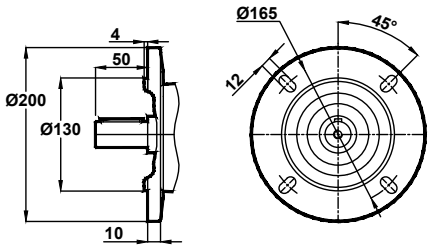
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
IEC	**63/B5 63/B14**	**71/B5 71/B14**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**
k	433	459	494	514	539
k1	486	579	614	639	664
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	-	1	21	21	21

Klemens Kutusu / *Terminal Box* / Klemmenkasten

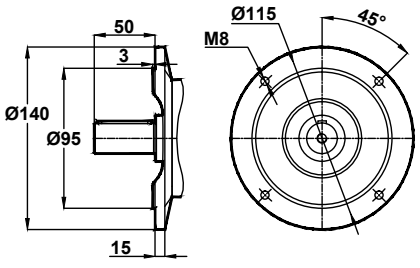


63-71-80-90

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

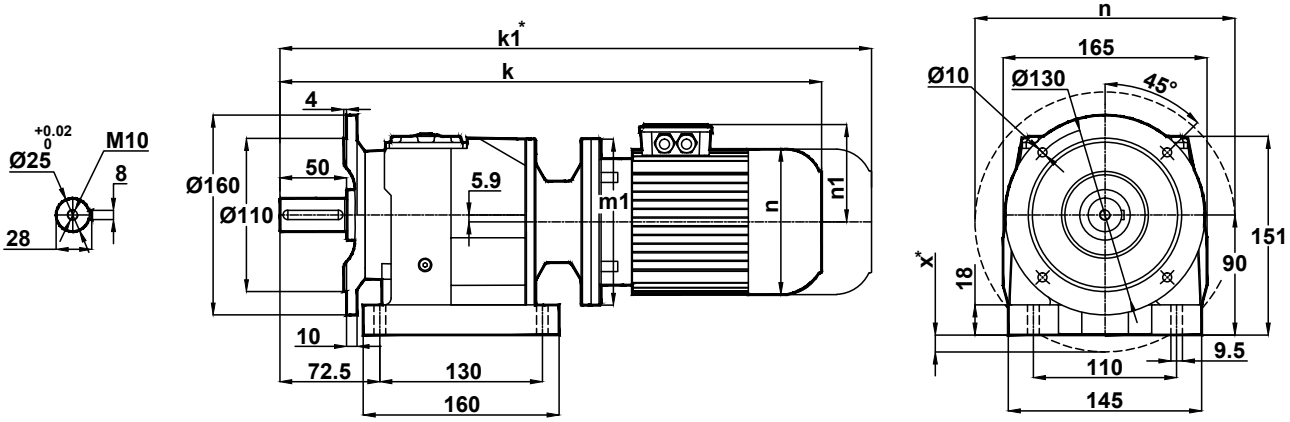


Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

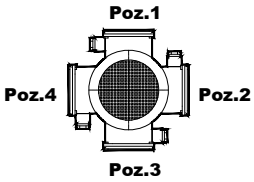
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF172
MVF173



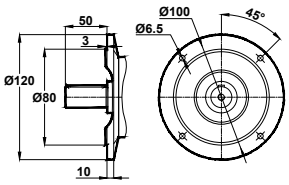
Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	434	462	497	517	542	585	605
k1	487	582	617	642	667	720	740
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146
m1 (B5)	140	160	200	200	200	250	250
m1 (B14)	-	105	120	140	140	160	160
x (B5)	-	-	16	16	16	41	41

Klemens Kutusu / *Terminal Box* / Klemmenkasten

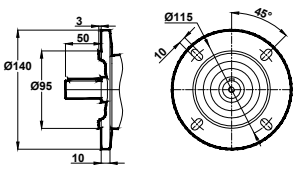


63-71-80-90-100-112

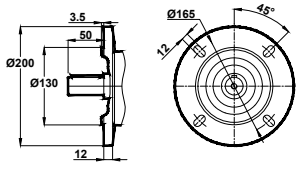
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions* / *Auswählbare Flanschabmessungen*



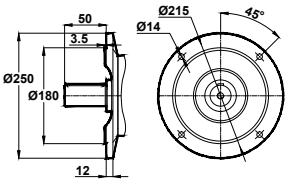
Opt. 1



Opt. 2

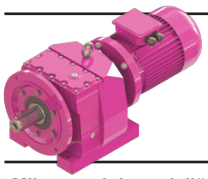


Opt. 3



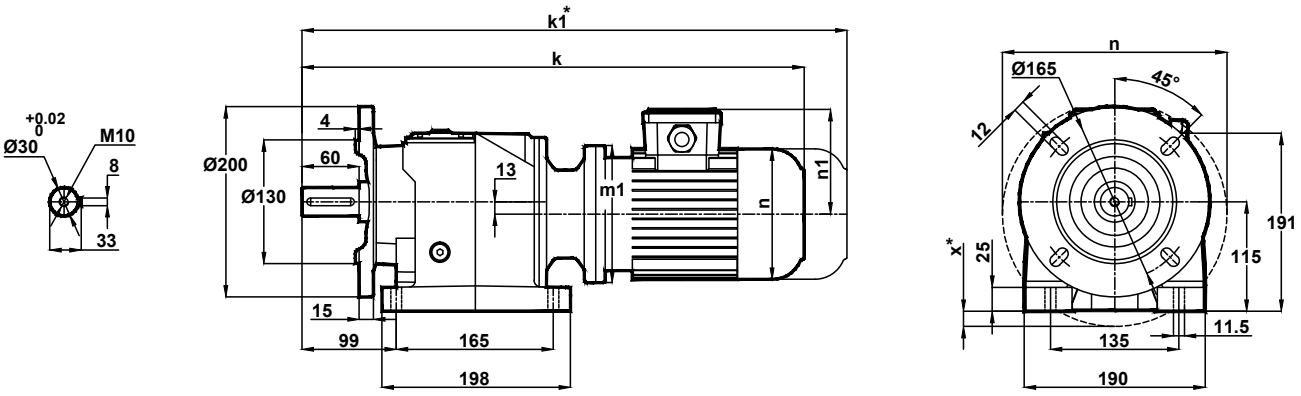
Opt. 4

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



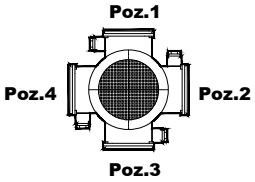
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF202
MVF203



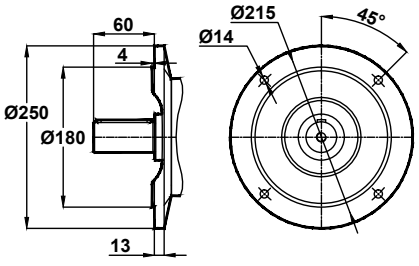
Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
IEC	**63/B5**	**71/B5 71/B14**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**
k	516	513	562	582	607	632	652
k1	569	633	682	707	732	767	787
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146
m1 (B5)	140	160	200	200	200	250	250
m1 (B14)	-	105	120	140	140	160	160
x (B5)	-	-	-	-	-	23	23

Klemens Kutusu / *Terminal Box* / Klemmenkasten

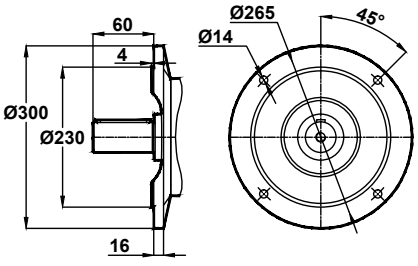


63-71-80-90-100-112

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

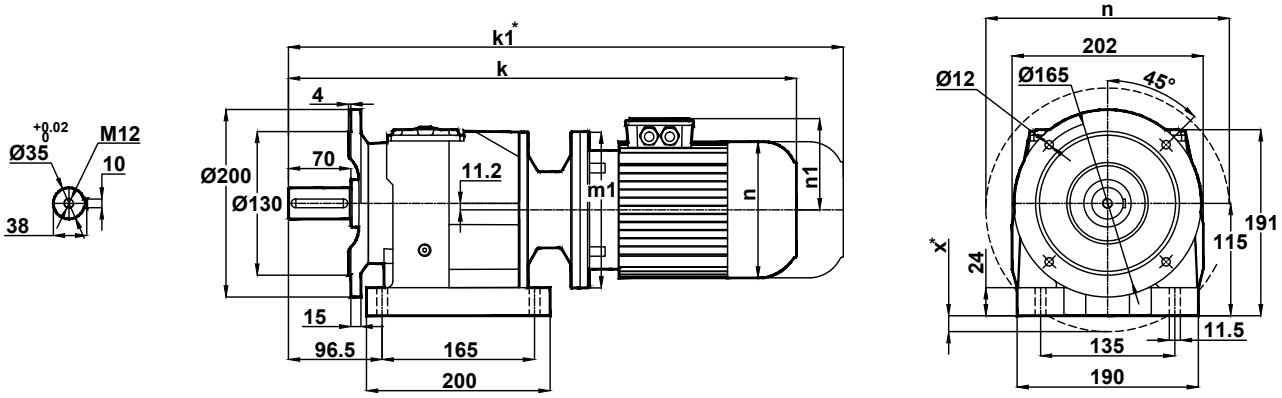


Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

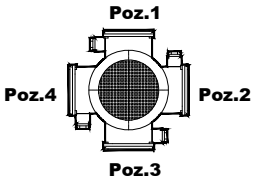
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF272
MVF273



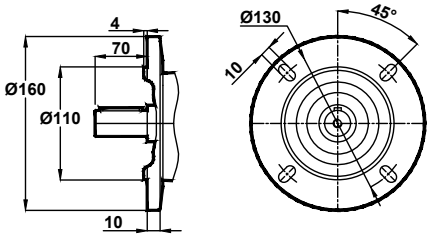
Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
IEC	63/B5	71/B5 71/B14	80/B5 80/B14	90S/B5 90S/B14	90L/B5 90L/B14	100L/B5 100L/B14	112M/B5 112M/B14
k	517	514	563	583	608	633	653
k1	570	634	683	708	733	768	788
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146
m1 (B5)	140	160	200	200	200	250	250
m1 (B14)	-	105	120	140	140	160	160
x (B5)	-	-	-	-	-	22	22

Klemens Kutusu / *Terminal Box* / Klemmenkasten



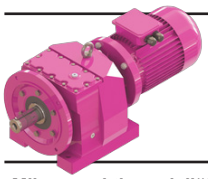
63-71-80-90-100-112

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



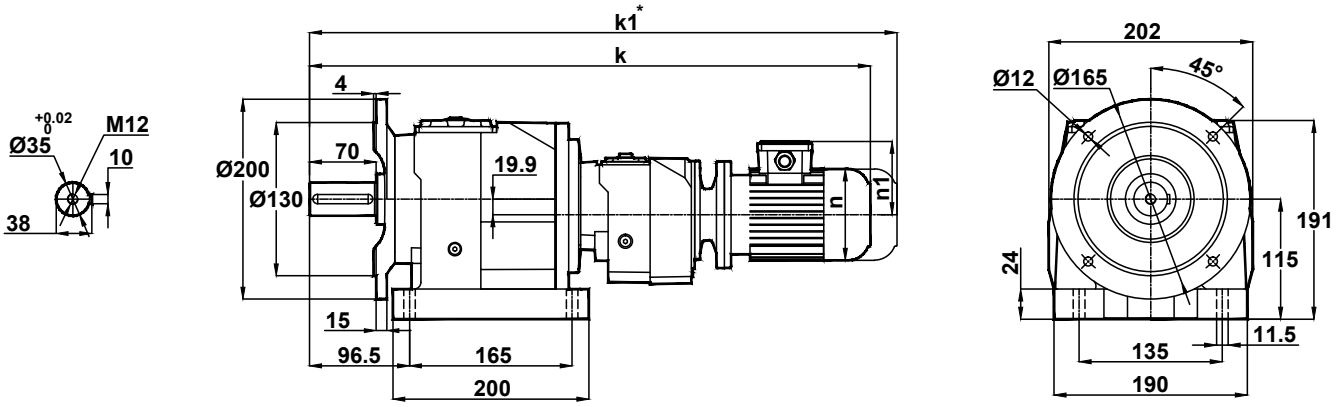
Opt. 1

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



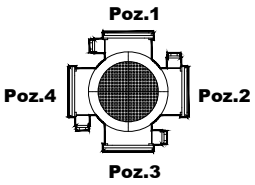
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF275
MVF276



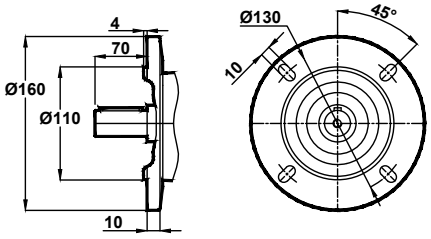
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**63/B5 63/B14**	**71/B5 71/B14**
k	632	660
k1	685	780
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	90	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

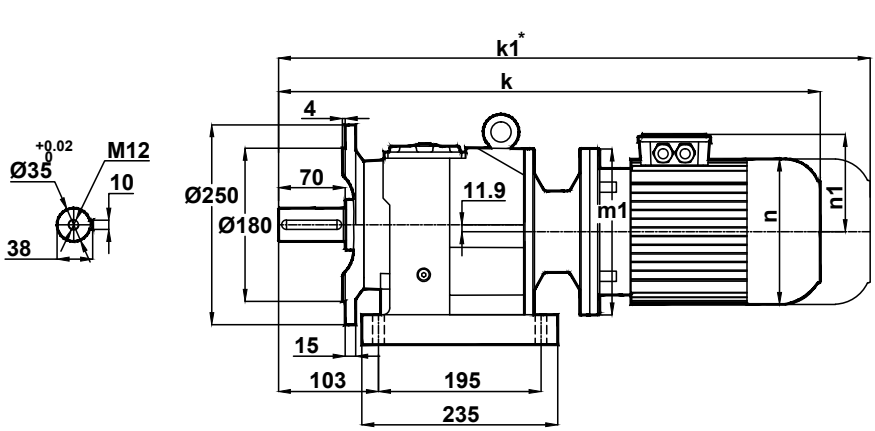


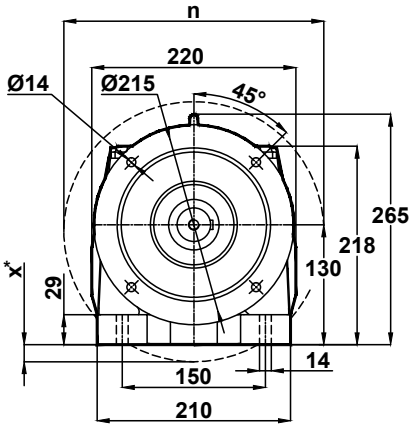
Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

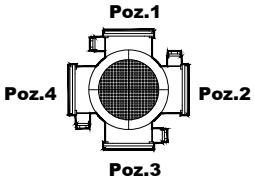
MVF282
MVF283





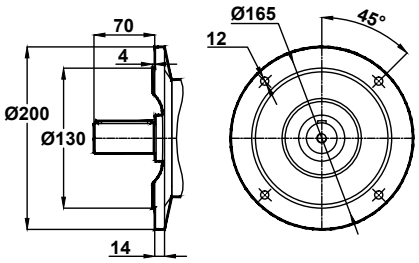
Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
IEC	**71/B5**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**	**132M/B5 132M/B14**
k	562	582	602	627	666	686	760	798
k1	682	702	727	752	801	821	905	943
n / n1	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	-	120	140	140	160	160	200	200
x (B5)	-	-	-	-	7	7	32	32

Klemens Kutusu / *Terminal Box* / Klemmenkasten



71-80-90-100-112-132

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

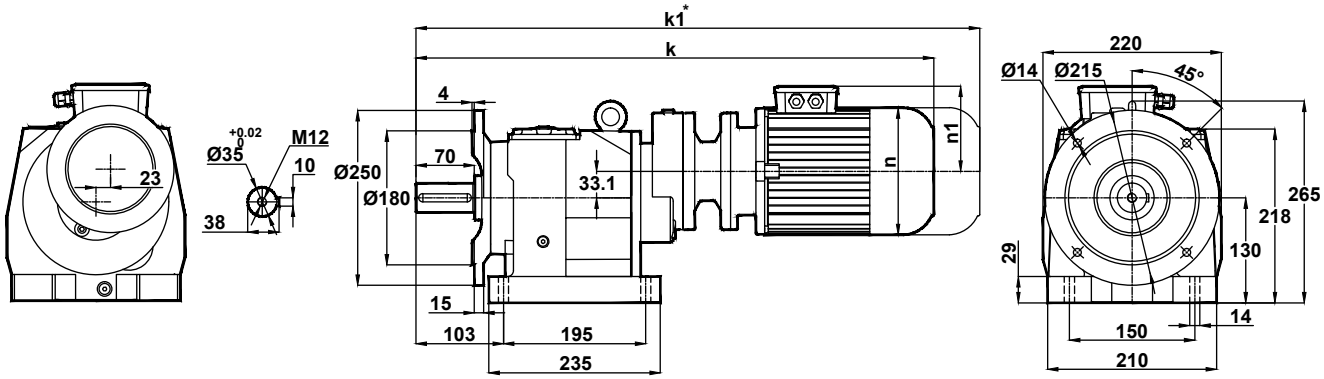


Opt. 1

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

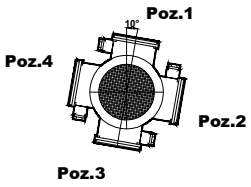
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF284



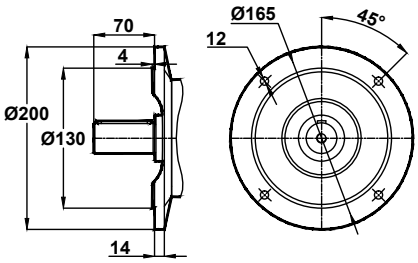
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**63/B5**	**71/B5 71/B14**
k	613	610
k1	666	730
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

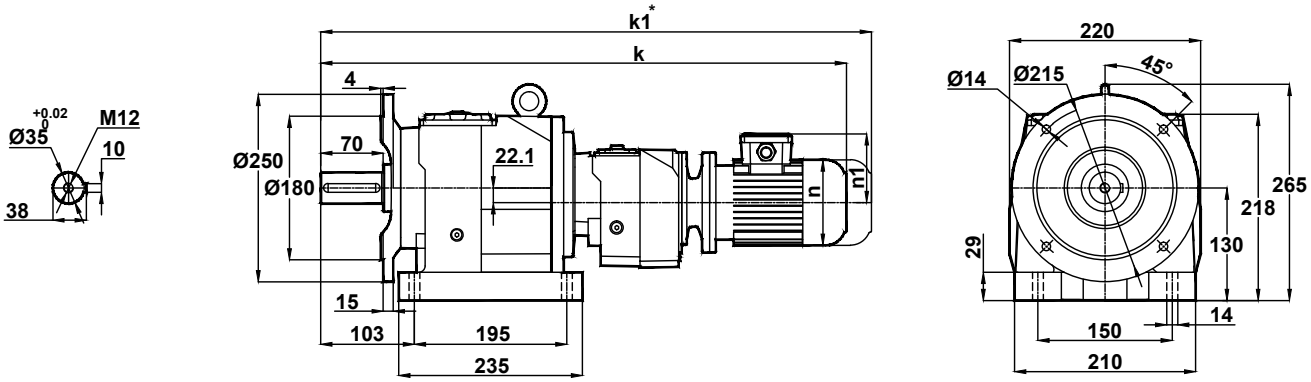


Opt. 1

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

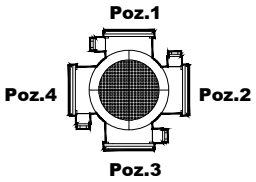
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF285
MVF286



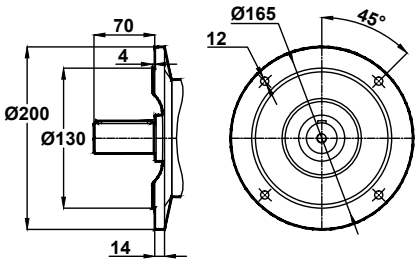
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
IEC	**63/B5 63/B14**
k	679
k1	732
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu /*Terminal Box* / Klemmenkasten



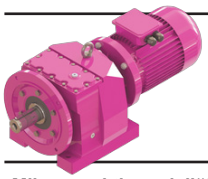
63

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



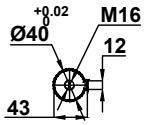
Opt. 1

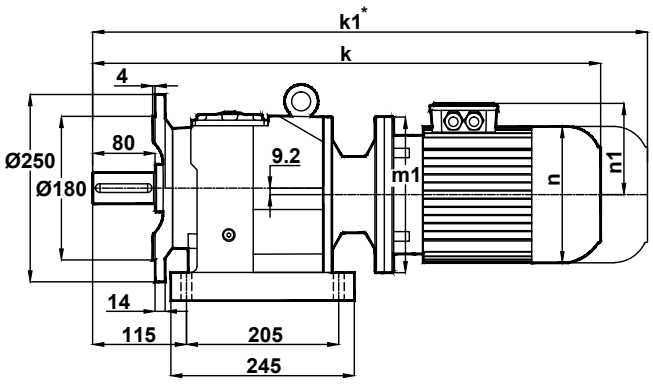
***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

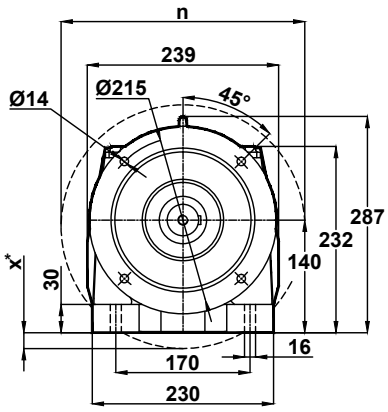


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF372
MVF373

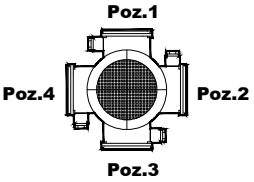






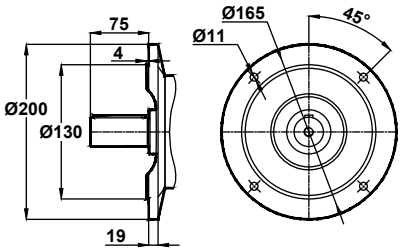
Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
IEC	**71/B5**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**	**132M/B5 132M/B14**
k	583	603	623	648	697	717	781	819
k1	703	723	748	773	832	852	926	964
n / n1	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	-	120	140	140	160	160	200	200
x (B5)	-	-	-	-	-	-	20	20

Klemens Kutusu /*Terminal Box* / Klemmenkasten

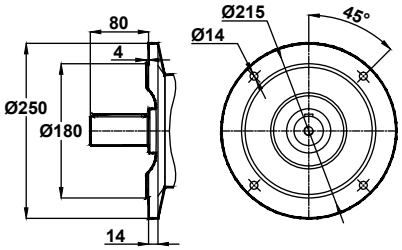


71-80-90-100-112-132

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

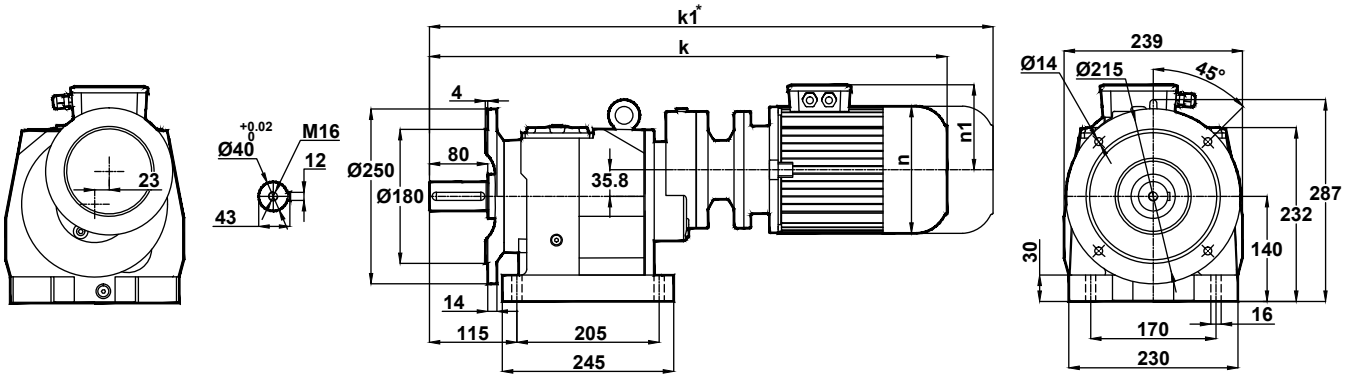


Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

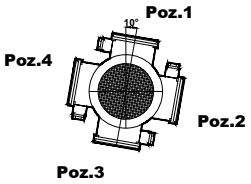
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF374



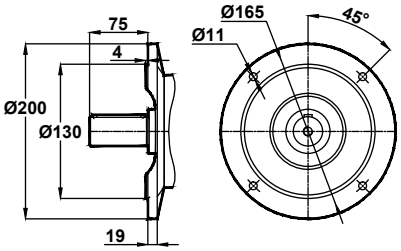
Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
IEC	**63/B5**	**71/B5 71/B14**	**80/B5 80/B14**
k	634	631	680
k1	687	751	800
n / n1	121 / 97	138 / 111	156 / 118
m1 (B5)	140	160	200
m1 (B14)	-	105	120

Klemens Kutusu / *Terminal Box* / Klemmenkasten

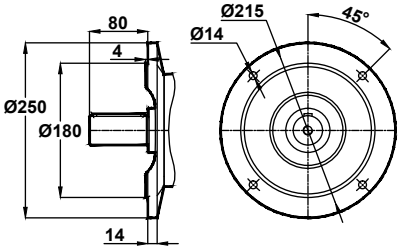


63-71-80

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

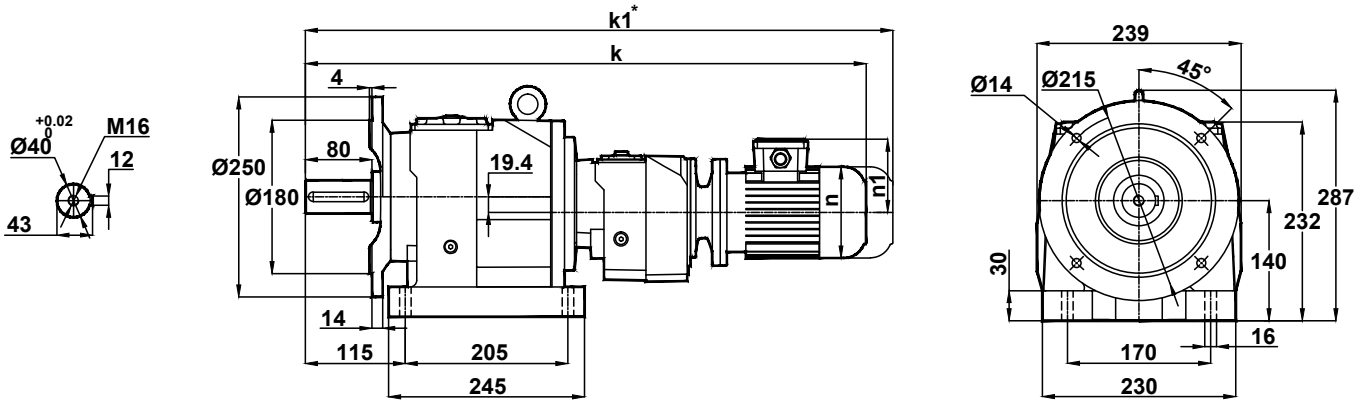


Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

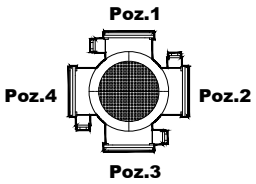
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF375
MVF376



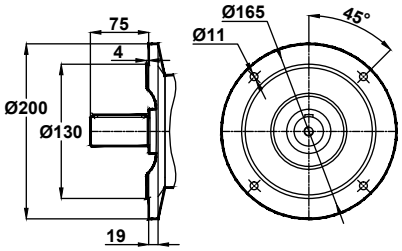
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
IEC	63/B5 63/B14
k	700
k1	753
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu /*Terminal Box* / Klemmenkasten

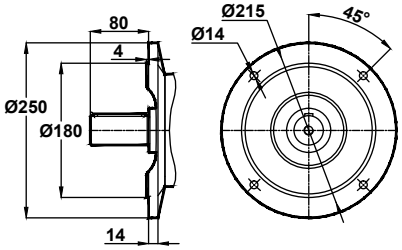


63

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



Opt. 2

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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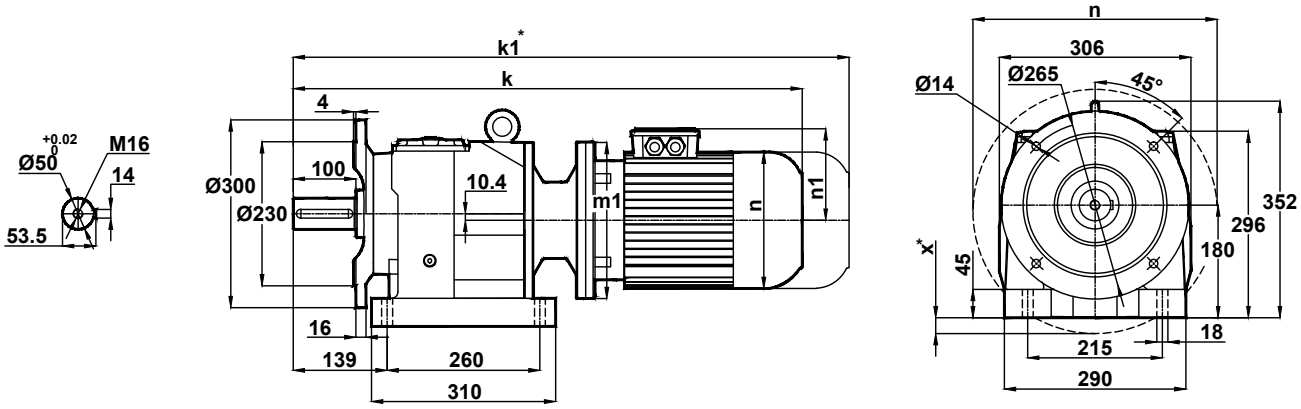
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

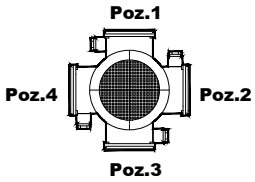
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF472
MVF473



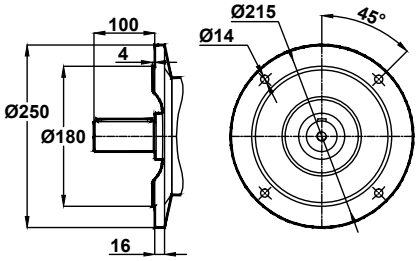
Motor Büyüklüğü / *Motor Size* / Motorbaugroße											
IEC	**80/B5**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**	**132M/B5 132M/B14**	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**
k	666	686	711	761	781	844	882	1033	1077	1090	1128
k1	786	811	836	896	916	989	1027	1203	1247	1260	1298
n / n1	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	257 / 168	257 / 168	310 / 225	310 / 225	348 / 241	348 / 241
m1 (B5)	200	200	200	250	250	300	300	350	350	350	350
m1 (B14)	-	140	140	160	160	200	200	-	-	-	-
x (B5)	-	-	-	-	-	-	-	6	6	6	6

Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90-100-112-132-160-180

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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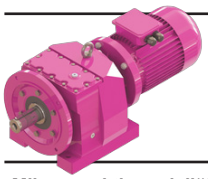
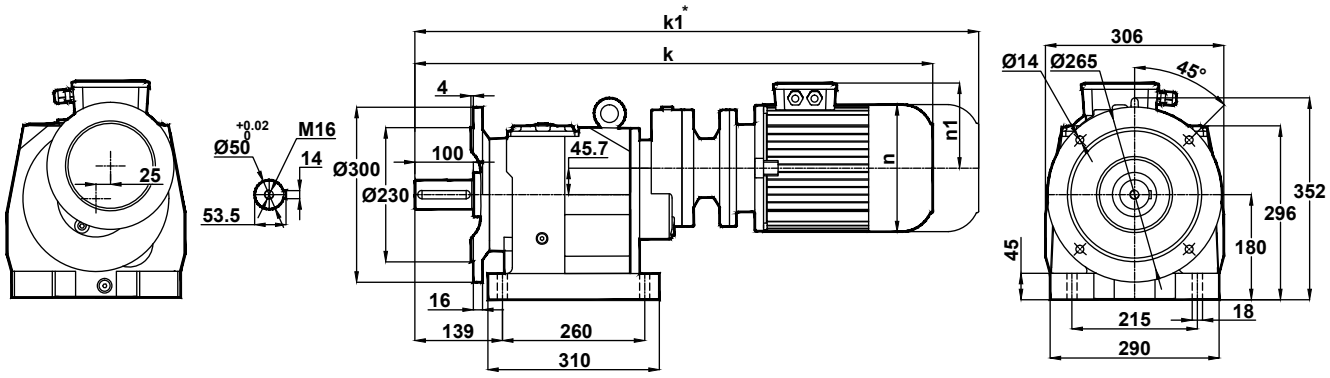
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane /* x: Wen motor ist nidriger den die Anschlußplatte



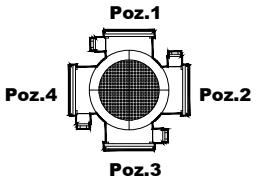
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF474



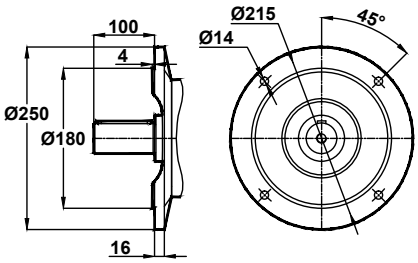
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**71/B5**	**80/B5 80/B14**
k	744	764
k1	864	884
n / n1	138 / 111	156 / 118
m1 (B5)	160	200
m1 (B14)	-	120

Klemens Kutusu / *Terminal Box* / Klemmenkasten



71-80

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

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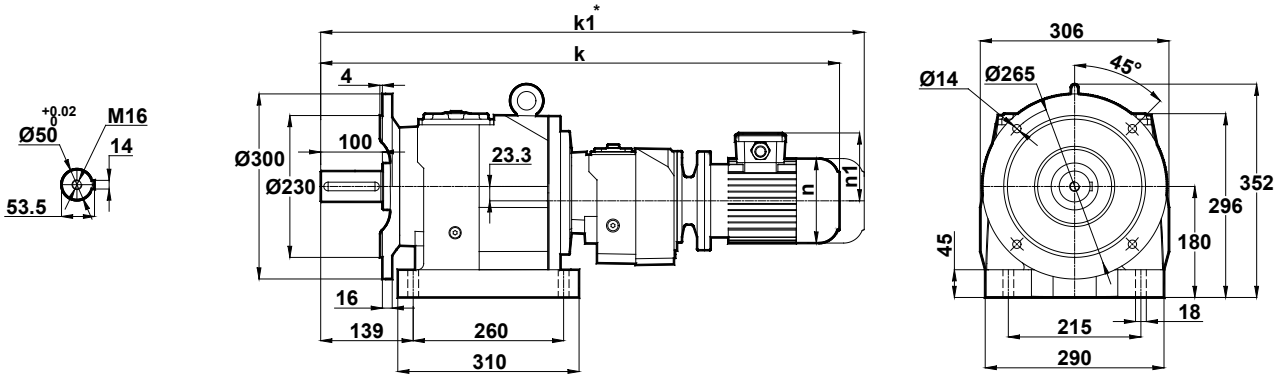
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.

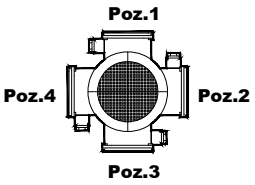
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MVF475
MVF476



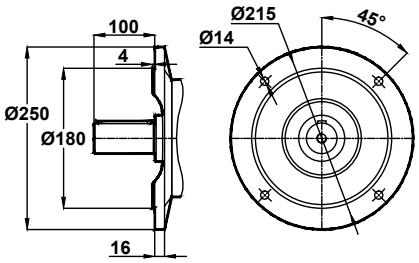
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**63/B5**	**71/B5 71/B14**
k	846	843
k1	899	963
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71

Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1

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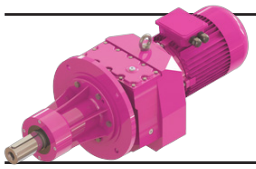
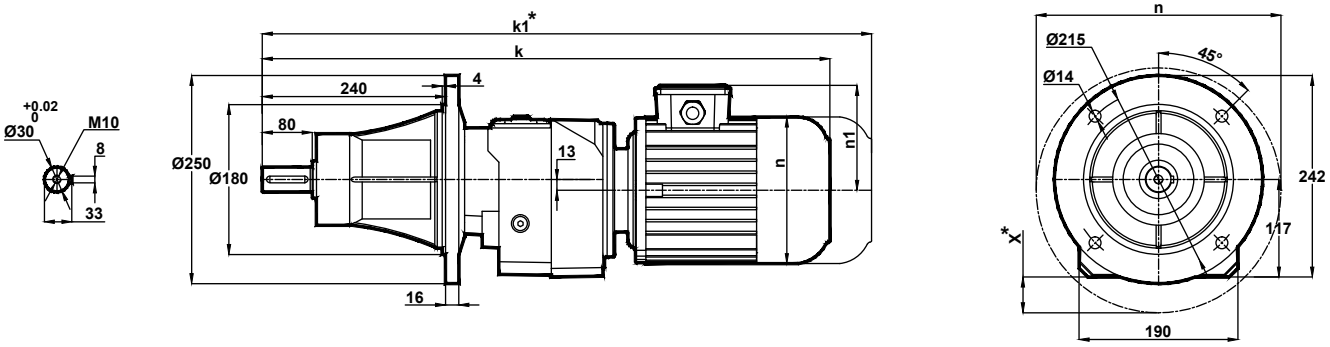
Notlar / *Notes* / Notizen



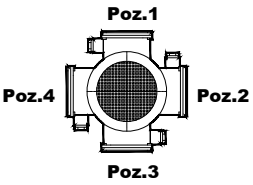
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB202
NRB203

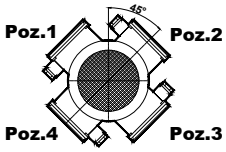


Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
	63	**71**	**80**	**90S**	**90L**	**100L**	**112M**
k	622	640	668	696	721	762	785
k1	675	760	788	821	846	897	920
n	121	138	156	176	176	194	218
n1	97	111	118	126	126	135	146
x	-	-	-	-	-	-	10

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-80-90-100-112



71

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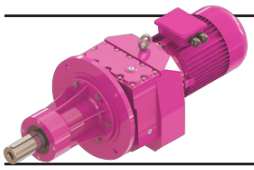
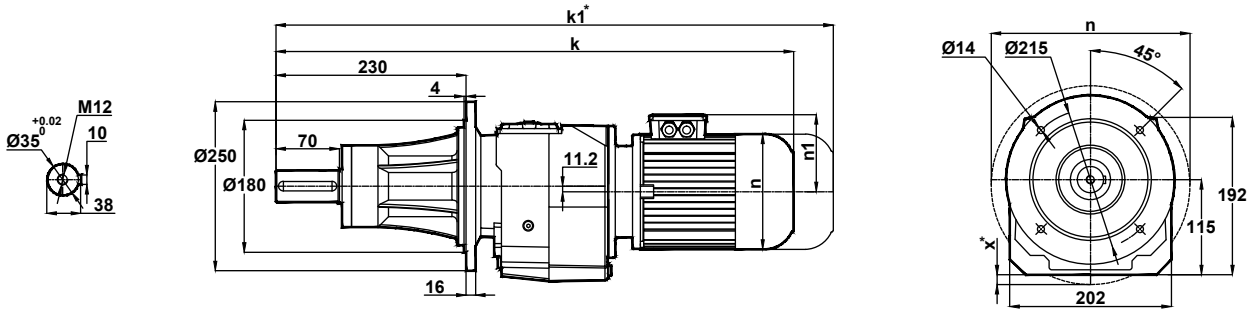
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



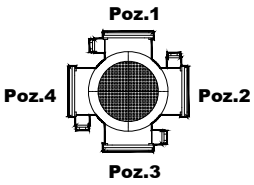
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB272
NRB273

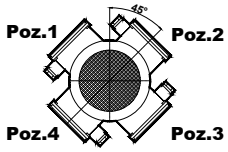


Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
	63	71	80	90S	90L	100L	112M
k	603	622	650	678	703	744	767
k1	656	742	770	803	828	879	902
n	121	138	156	176	176	194	218
n1	97	111	118	126	126	135	146
x	-	-	-	-	-	-	9

Klemens Kutusu /*Terminal Box* / Klemmenkasten

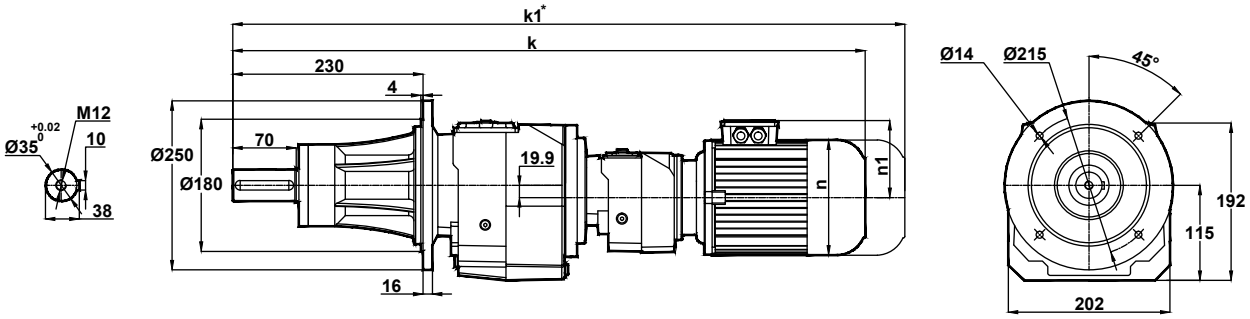


63-80-90-100-112



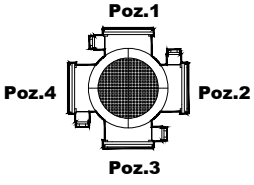
71

NRB275
NRB276



Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	753	774
k1	806	894
n	121	138
n1	97	111

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71

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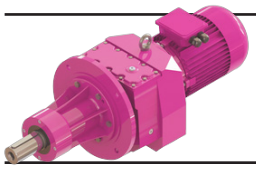
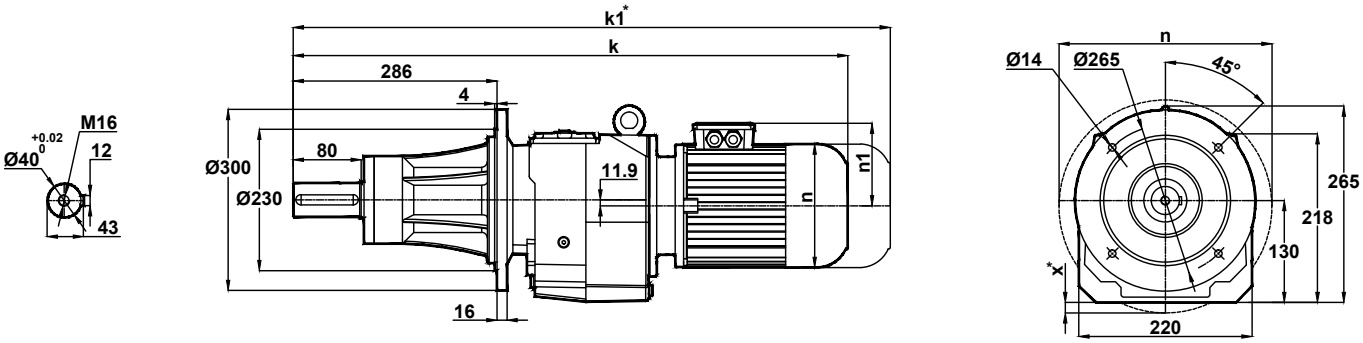
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



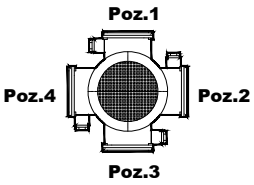
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB282
NRB283

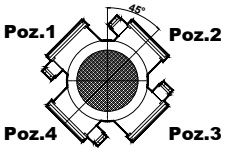


Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	695	723	753	778	818	841	895	933
k1	815	843	878	903	953	976	1040	1078
n	138	156	176	176	194	218	257	257
n1	111	118	126	126	135	146	168	168
x	-	-	-	-	-	-	-	14

Klemens Kutusu /*Terminal Box* / Klemmenkasten

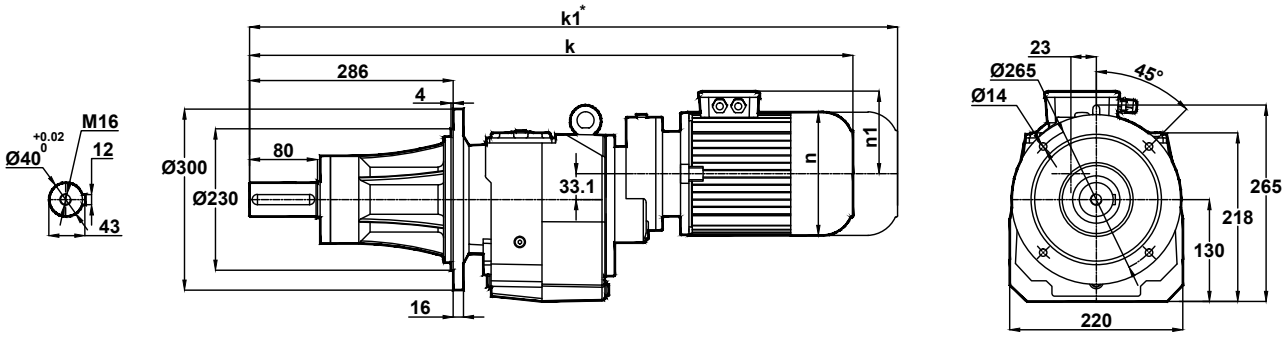


71-100-112-132



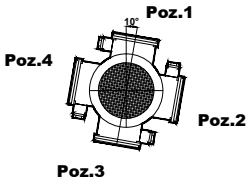
80-90

NRB284

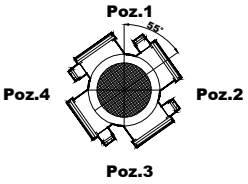


Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	756	774
k1	809	894
n	121	138
n1	97	111

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63

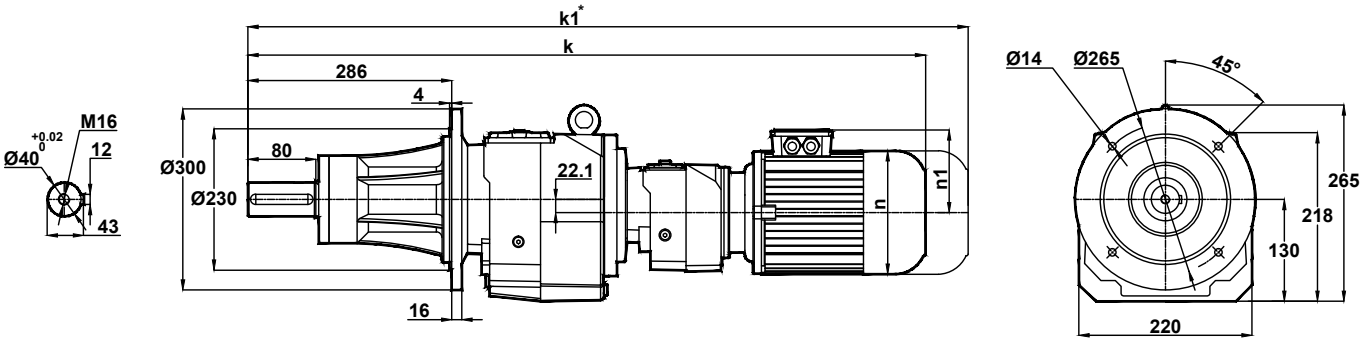


71

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

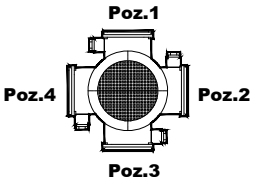
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB285
NRB286



Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
	63
k	857
k1	910
n	121
n1	97

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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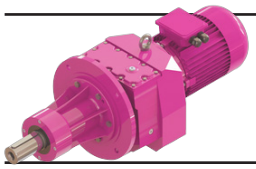
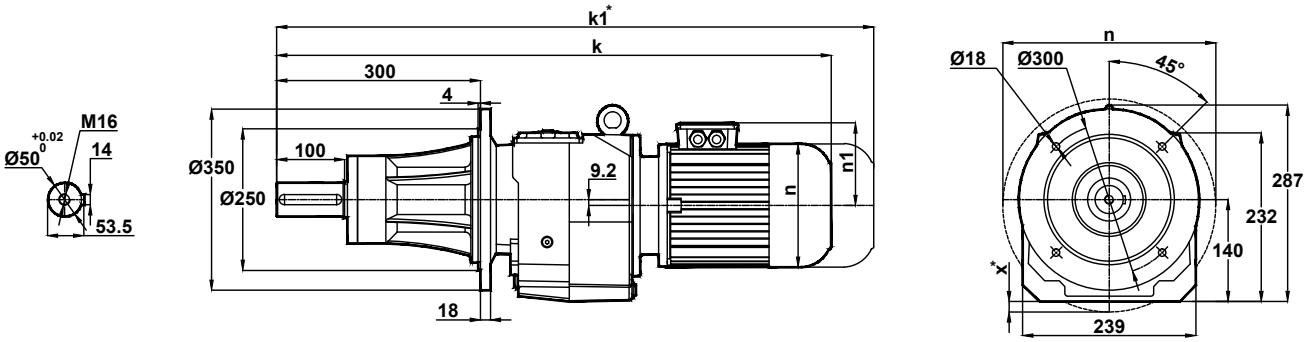


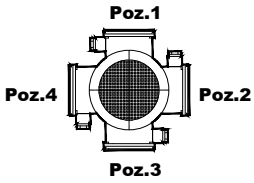
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB372
NRB373

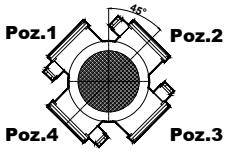


Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
	71	80	90S	90L	100L	112M	132S	132M
k	720	748	778	803	843	866	920	958
k1	840	868	903	928	978	1001	1065	1103
n	138	156	176	176	194	218	257	257
n1	111	118	126	126	135	146	168	168
x	-	-	-	-	-	-	2	30

Klemens Kutusu /*Terminal Box* / Klemmenkasten

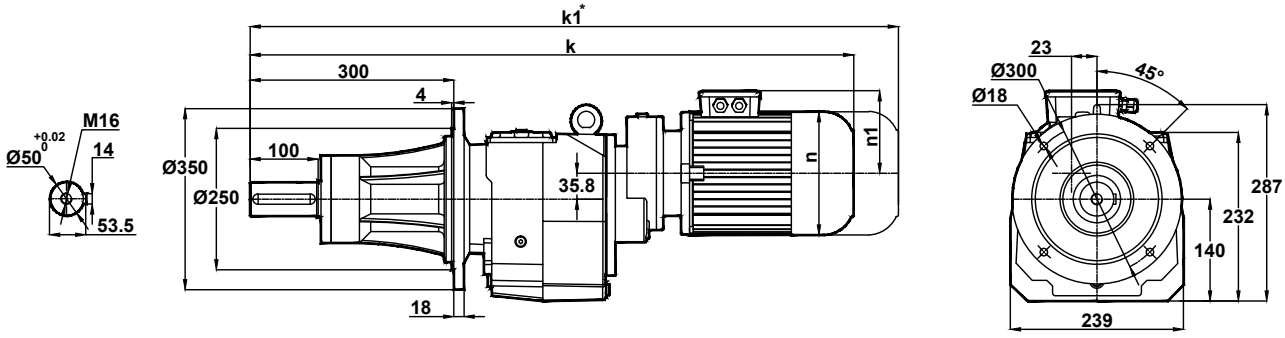


71-100-112-132



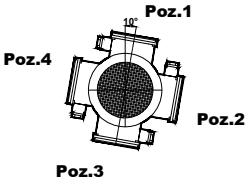
80-90

NRB374

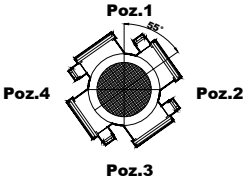


Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
	63	71	80
k	781	799	828
k1	834	919	948
n	121	138	156
n1	97	111	118

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-80



71

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
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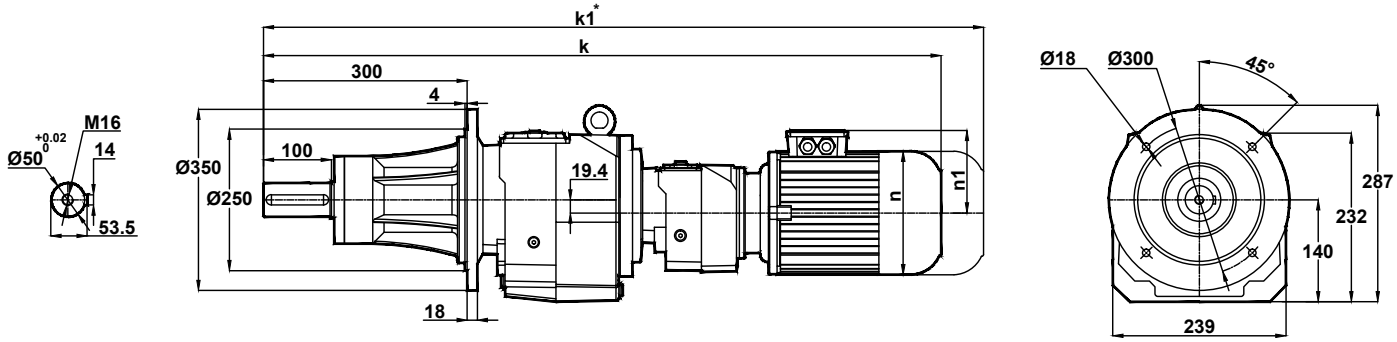
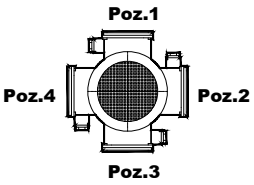
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB375
NRB376



Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
	63
k	882
k1	935
n	121
n1	97

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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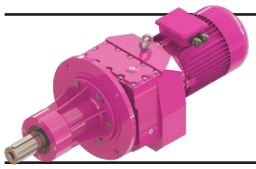
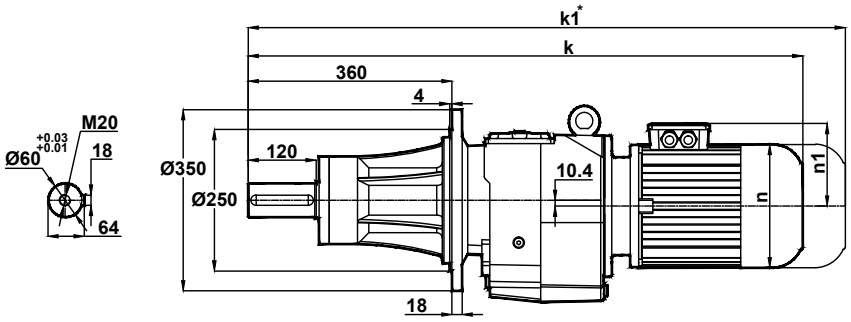
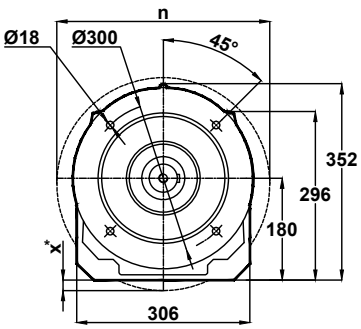


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

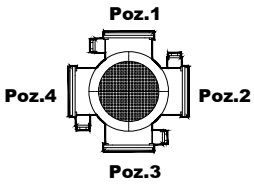
NRB472
NRB473





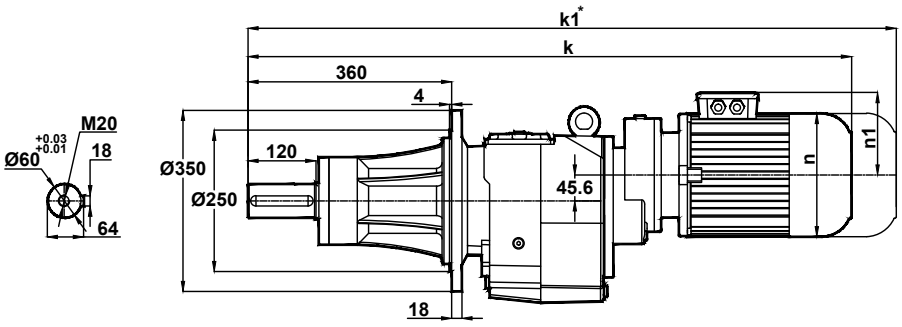
Motor Büyüklüğü / *Motor Size* / Motorbaugroße											
	80	90S	90L	100L	112M	132S	132M	160M	160L	180M	180L
k	856	884	909	947	973	1022	1060	1135	1179	1196	1234
k1	976	1009	1034	1082	1108	1167	1205	1305	1349	1366	1404
n	156	176	176	194	218	257	257	310	310	348	348
n1	118	126	126	135	146	168	168	225	225	241	241
x	-	-	-	-	-	-	-	-	-	11	11

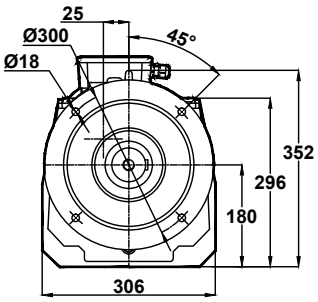
Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90-100-112-132-160-180

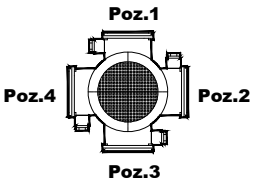
NRB474



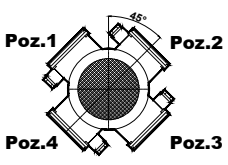


Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	71	80
k	921	949
k1	1041	1069
n	138	156
n1	111	118

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71



80

***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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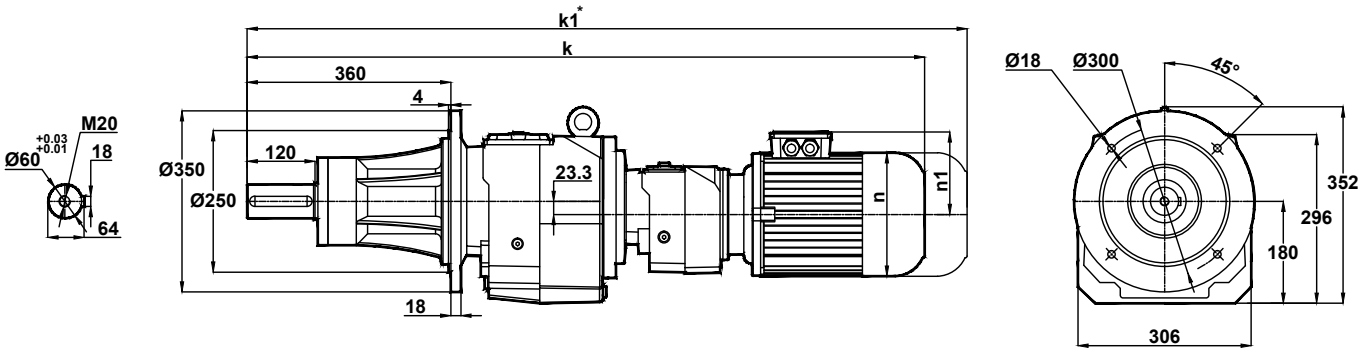
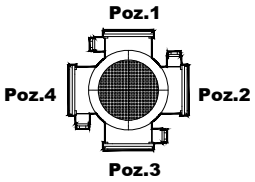
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB475
NRB476

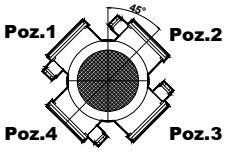


Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	**71**
k	1032	1051
k1	1085	1171
n	121	138
n1	97	111

Klemens Kutusu / *Terminal Box* / Klemmenkasten



63



71

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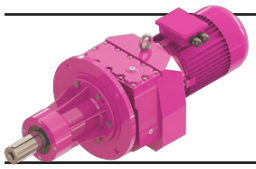
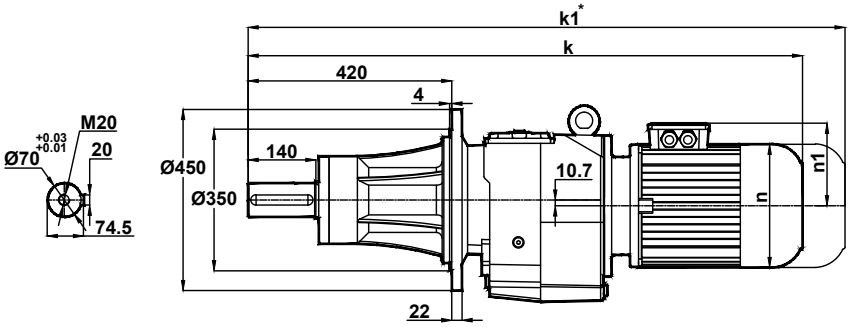
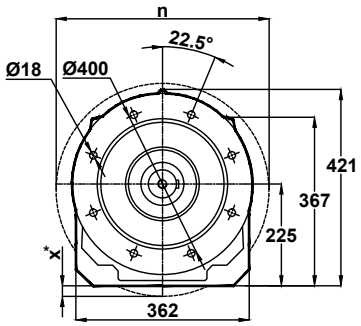


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

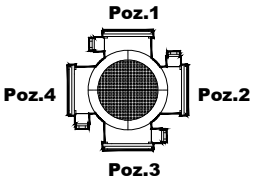
NRB572
NRB573





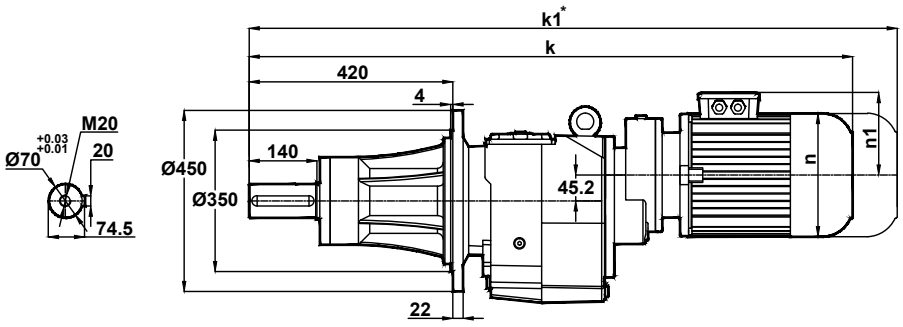
Motor Büyüklüğü / *Motor Size* / Motorbaugroße									
	100L	112M	132S	132M	160M	160L	180M	180L	200L
k	1065	1088	1142	1180	1255	1299	1315	1353	1392
k1	1200	1223	1287	1325	1425	1469	1485	1523	1592
n	194	218	257	257	310	310	348	348	390
n1	135	146	168	168	225	225	241	241	275
x	-	-	-	-	-	-	-	-	-

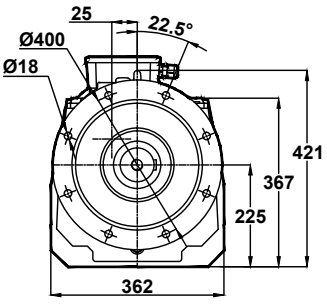
Klemens Kutusu /*Terminal Box* / Klemmenkasten



100-112-132-160-180-200

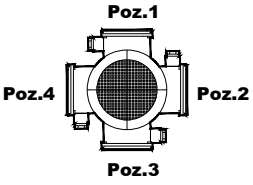
NRB574



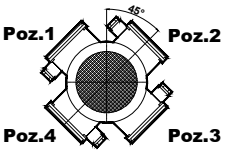


Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	71	80	90S	90L
k	1043	1071	1100	1125
k1	1163	1191	1225	1250
n	138	156	176	176
n1	111	118	126	126

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71



80-90

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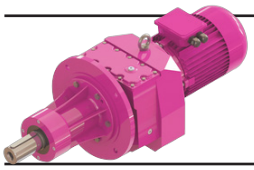
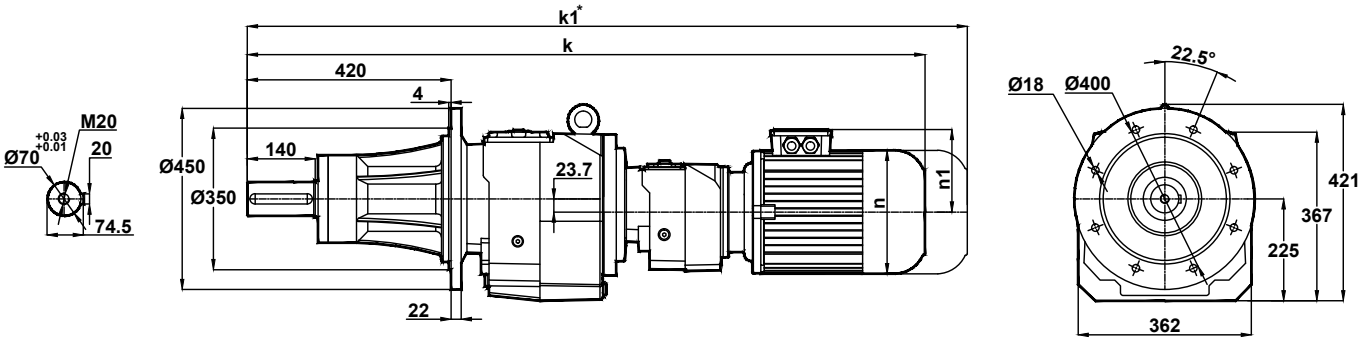


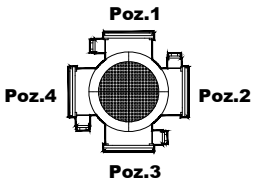
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB575
NRB576

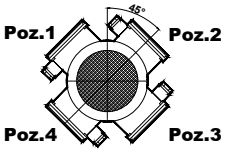


Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	63	71
k	1156	1175
k1	1209	1295
n	121	138
n1	97	111

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63



71

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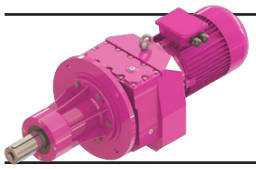
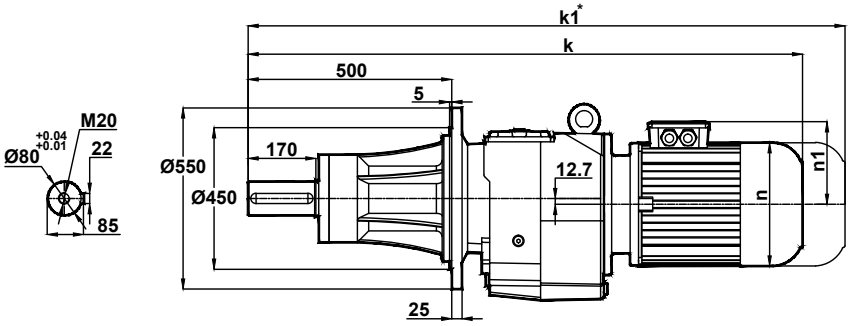
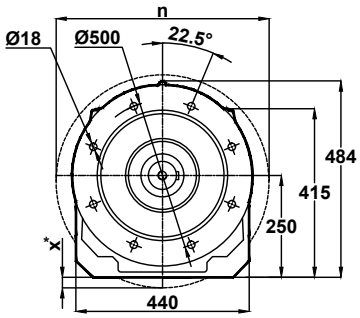


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

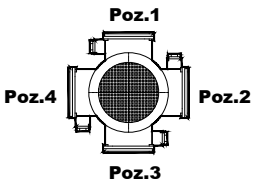
NRB672
NRB673





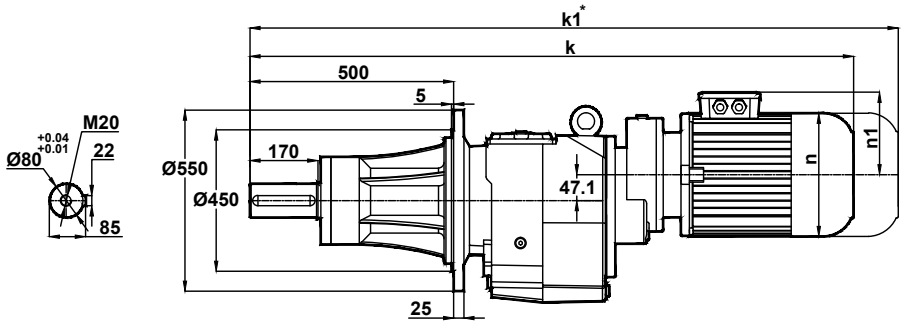
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
	112M	132S	132M	160M	160L	180M	180L	200L	225S	225M
k	1185	1239	1277	1351	1395	1409	1447	1489	1515	1540
k1	1320	1384	1422	1521	1565	1579	1617	1689	1705	1730
n	218	257	257	310	310	348	348	390	434	434
n1	146	168	168	225	225	241	241	275	285	285
x	-	-	-	-	-	-	-	-	-	-

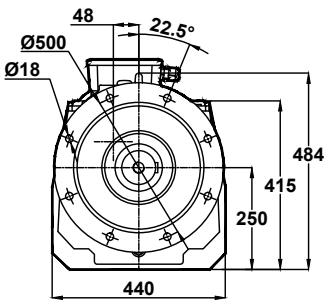
Klemens Kutusu /*Terminal Box* / Klemmenkasten



112-132-160-180-200-225

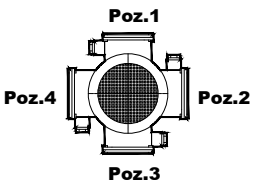
NRB674





Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
	80	90S	90L
k	1187	1215	1240
k1	1307	1340	1365
n	156	176	176
n1	118	126	126

Klemens Kutusu /*Terminal Box* / Klemmenkasten

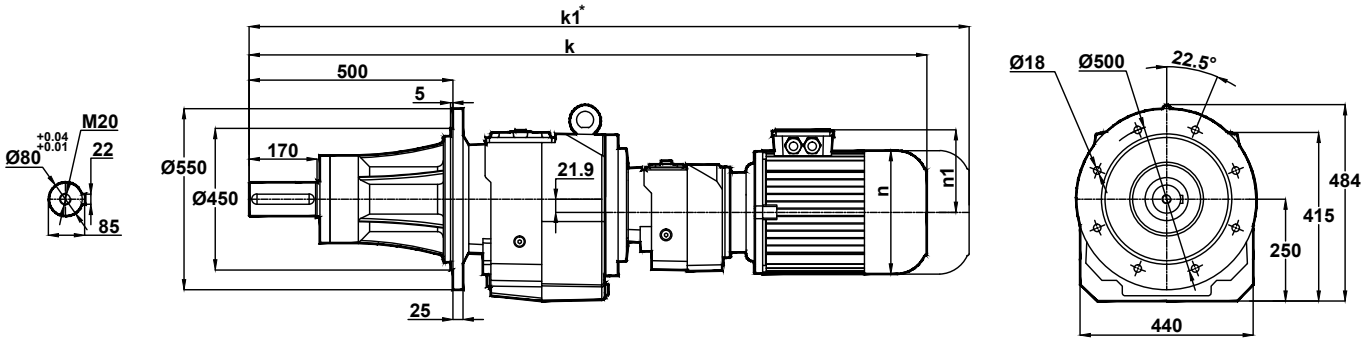


80-90

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

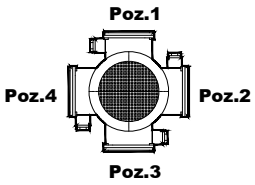
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB675
NRB676

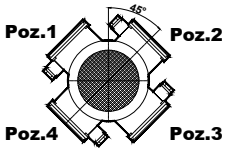


Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
	71	80
k	1304	1332
k1	1424	1452
n	138	156
n1	111	118

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71



80

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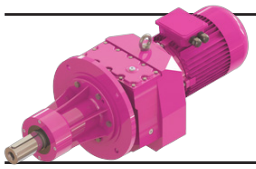
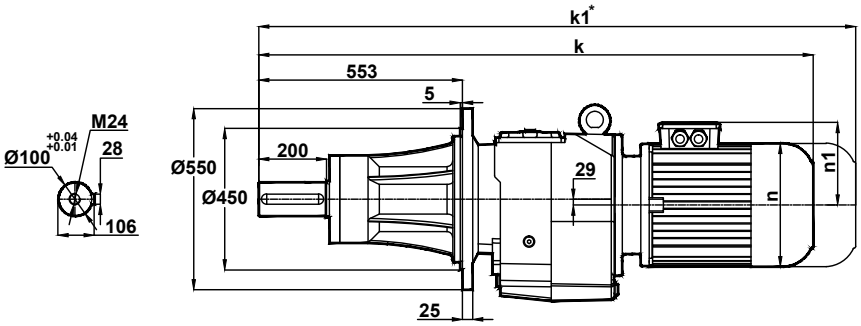
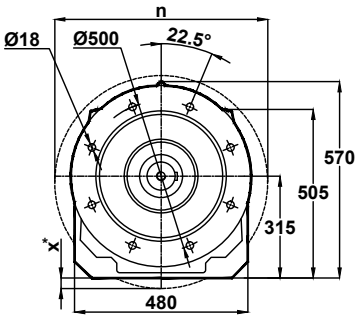


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

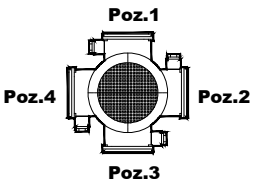
NRB772
NRB773





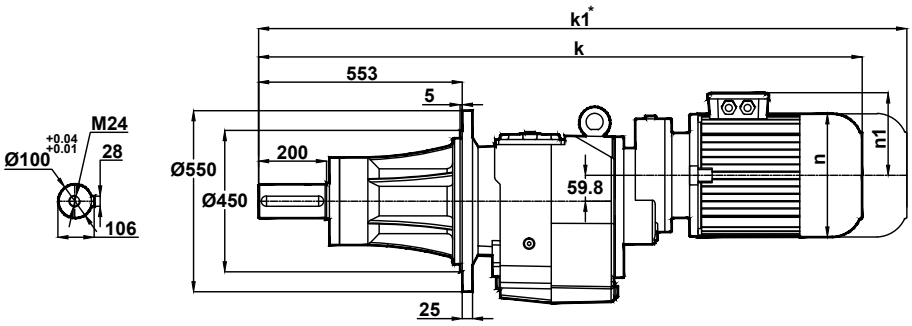
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
	132S	132M	160M	160L	180M	180L	200L	225S	225M	250M
k	1341	1379	1455	1499	1516	1554	1593	1620	1645	1749
k1	1486	1524	1625	1669	1686	1724	1793	1810	1835	-
n	257	257	310	310	348	348	390	434	434	480
n1	168	168	225	225	241	241	275	285	285	322
x	-	-	-	-	-	-	-	-	-	-

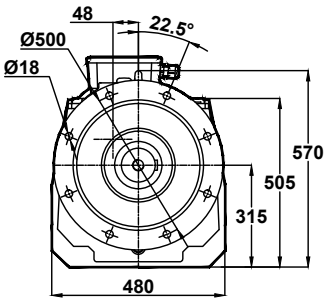
Klemens Kutusu /*Terminal Box* / Klemmenkasten



132-160-180-200-225-250

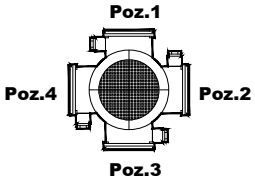
NRB774





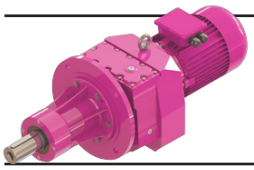
Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	80	90S	90L	100L
k	1295	1323	1348	1386
k1	1415	1448	1473	1521
n	156	176	176	194
n1	118	126	126	135

Klemens Kutusu /*Terminal Box* / Klemmenkasten



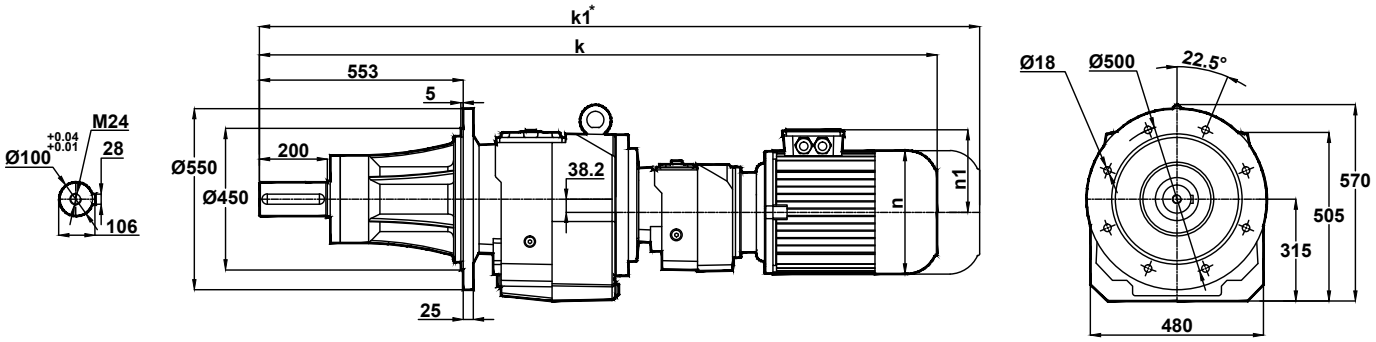
80-90-100

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



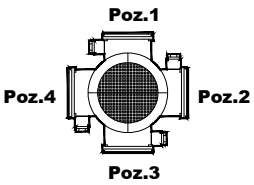
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB775
NRB776

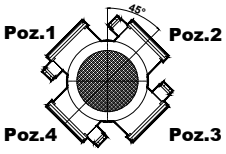


Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	71	**80**	**90S**	**90L**
k	1415	1443	1473	1498
k1	1535	1563	1598	1623
n	138	156	176	176
n1	111	118	126	126

Klemens Kutusu / *Terminal Box* / Klemmenkasten



71



80-90

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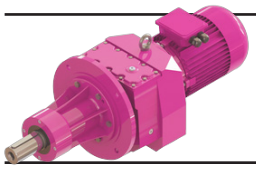
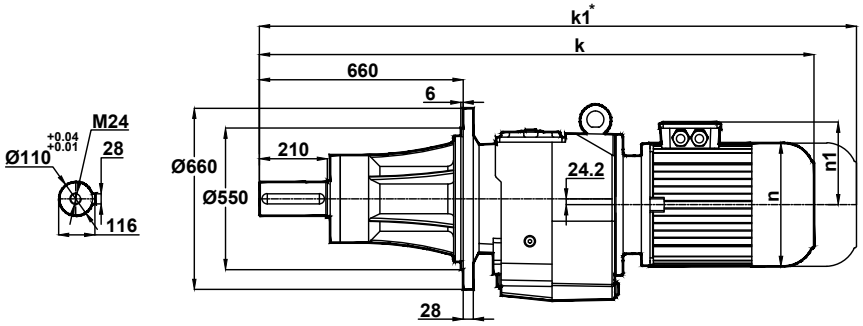
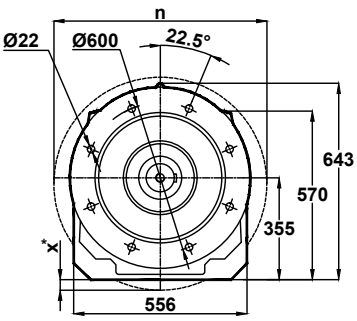


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

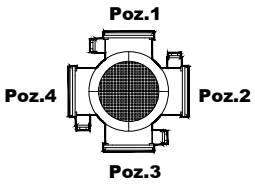
NRB872
NRB873





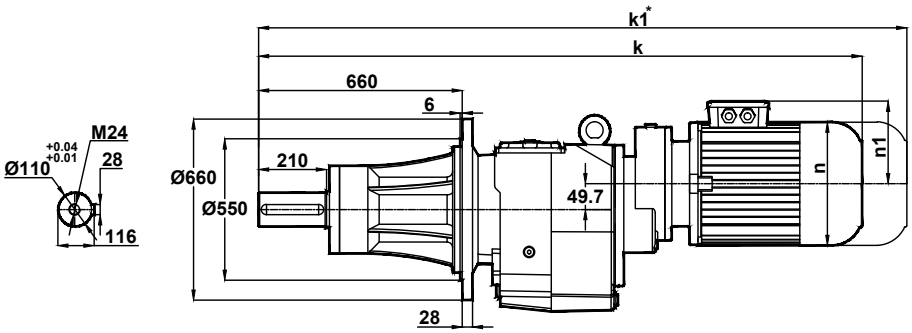
Motor Büyüklüğü / *Motor Size* / Motorbaugroße											
	132M	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M
k	1556	1631	1675	1692	1730	1769	1798	1823	1926	1987	1987
k1	1701	1801	1845	1862	1900	1969	1988	2013	-	-	-
n	257	310	310	348	348	390	434	434	480	544	544
n1	168	225	225	241	241	275	285	285	322	350	350
x	-	-	-	-	-	-	-	-	-	-	-

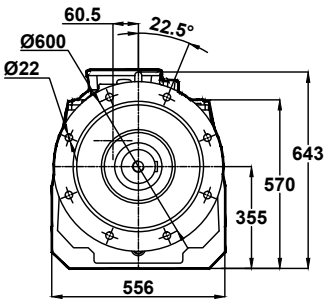
Klemens Kutusu /*Terminal Box* / Klemmenkasten



132-160-180-200-225-250-280

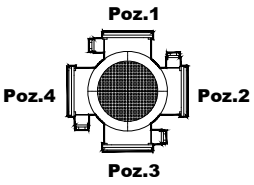
NRB874





Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	100L	112M	132S	132M
k	1584	1607	1661	1699
k1	1719	1742	1806	1844
n	194	218	257	257
n1	135	146	168	168

Klemens Kutusu /*Terminal Box* / Klemmenkasten



100-112-132

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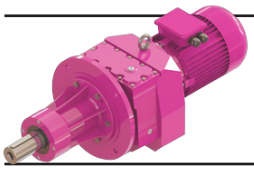
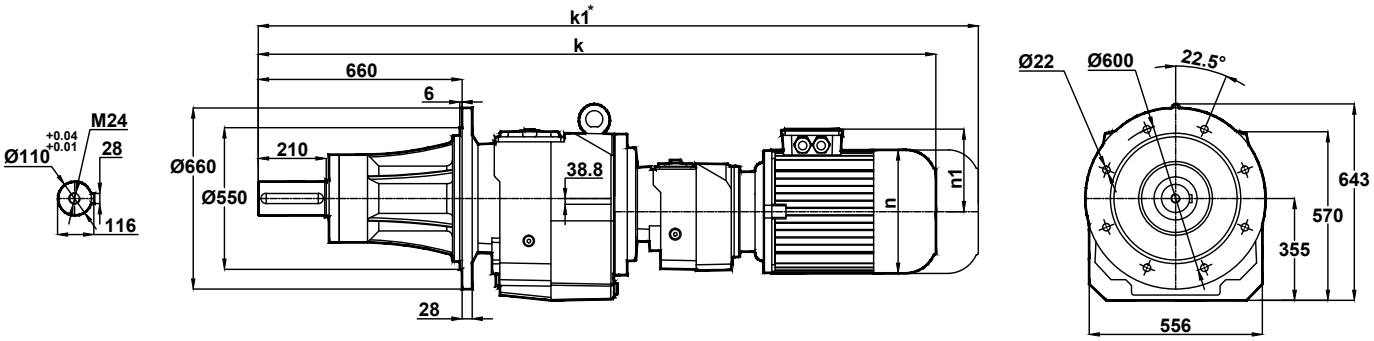
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



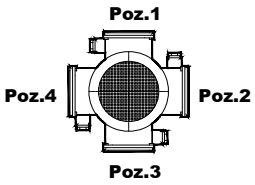
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB875
NRB876

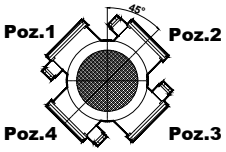


Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
	71	80	90S	90L	100L
k	1599	1627	1657	1682	1722
k1	1719	1747	1782	1807	1857
n	138	156	176	176	194
n1	111	118	126	126	135

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71-100



80-90

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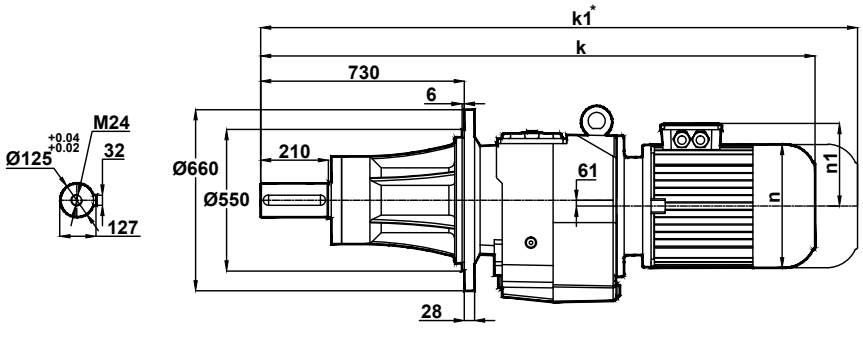
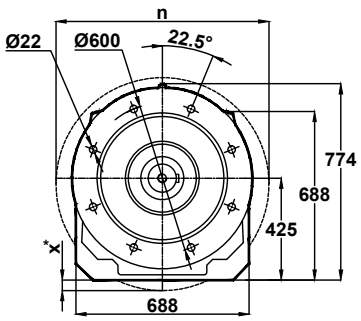
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

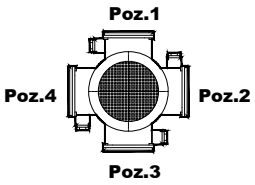
NRB972
NRB973





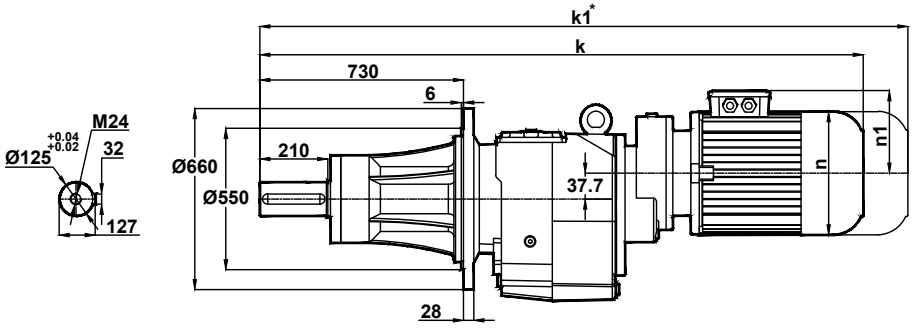
Motor Büyüklüğü / *Motor Size* / Motorbaugroße												
	160M	160L	180M	180L	200L	225S	225M	250M	280S	280M	315S	315M
k	1768	1812	1828	1866	1905	1923	1946	2049	2110	2110	2222	2274
k1	1938	1982	1998	2036	2105	2113	2136	-	-	-	-	
n	310	310	348	348	390	434	434	480	544	544	614	614
n1	225	225	241	241	275	285	285	322	350	350	510	510
x	-	-	-	-	-	-	-	-	-	-	-	-

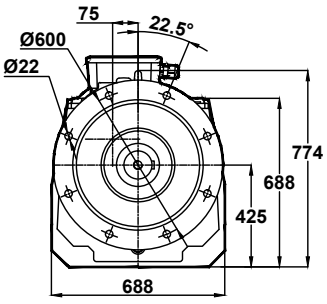
Klemens Kutusu / *Terminal Box* / Klemmenkasten



160-180-200-225-250-280-315

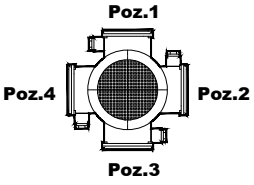
NRB974





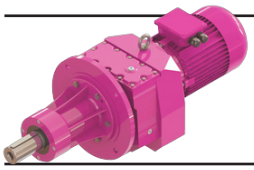
Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
	100L	112M	132S	132M
k	1754	1777	1831	1869
k1	1889	1912	1976	2014
n	194	218	257	257
n1	135	146	168	168

Klemens Kutusu / *Terminal Box* / Klemmenkasten



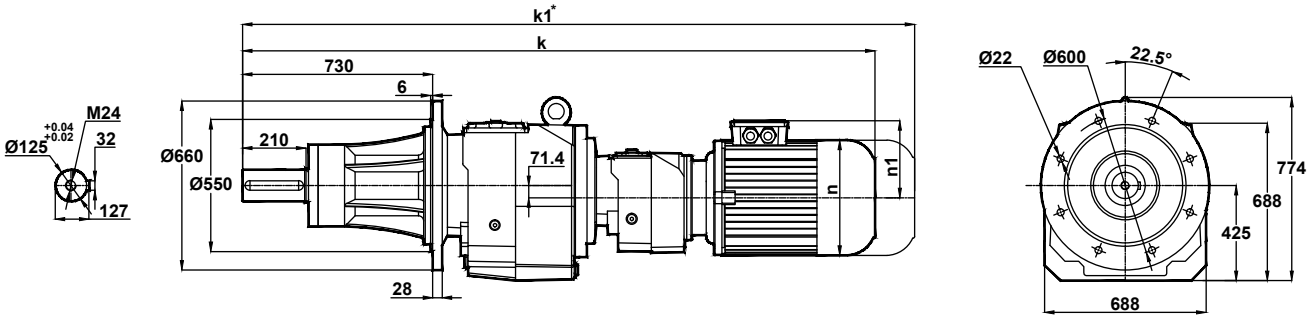
100-112-132

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



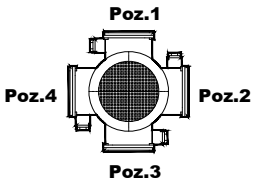
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NRB975
NRB976



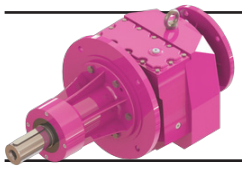
Motor Büyüklüğü / *Motor Size* / Motorbaugroße						
	80	**90S**	**90L**	**100L**	**112M**	**132S**
k	1824	1852	1877	1913	1936	1990
k1	1944	1977	2002	2048	2071	2135
n	156	176	176	194	218	257
n1	118	126	126	135	146	168

Klemens Kutusu /*Terminal Box* / Klemmenkasten



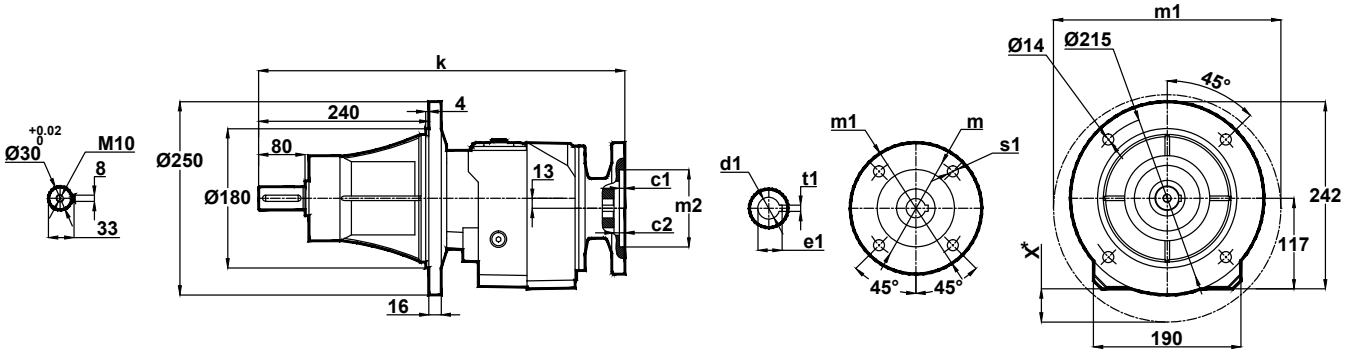
80-90-100-112-132

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



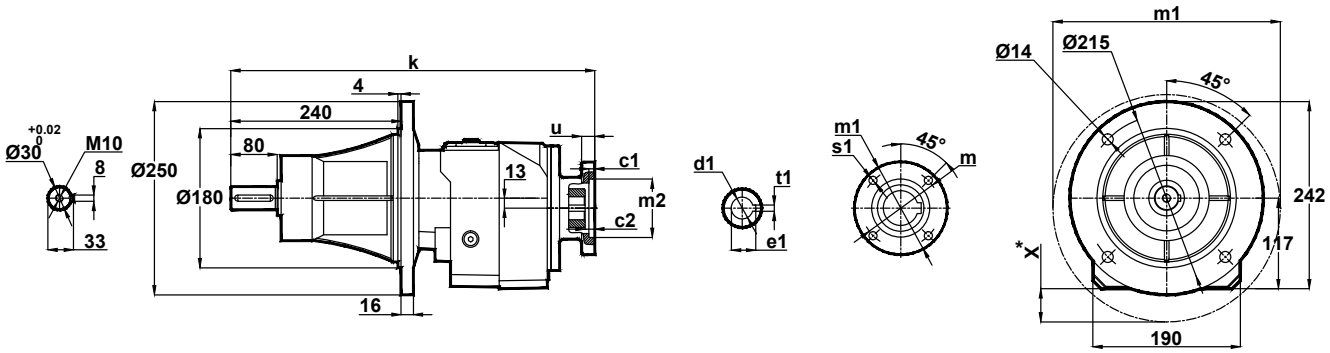
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB202-A..
NNB203-A..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	12	503	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	12	474	14	5	163	-
80/B5	4	5	13	165	200	130	12	503	19	6	21.8	-
90/B5	4	5	13	165	200	130	12	503	24	8	27.3	-
100/B5	4	5.5	15	215	250	180	12	496	28	8	31.3	23
112/B5	4	5.5	15	215	250	180	12	496	28	8	31.3	23

NNB202-B..
NNB203-B..

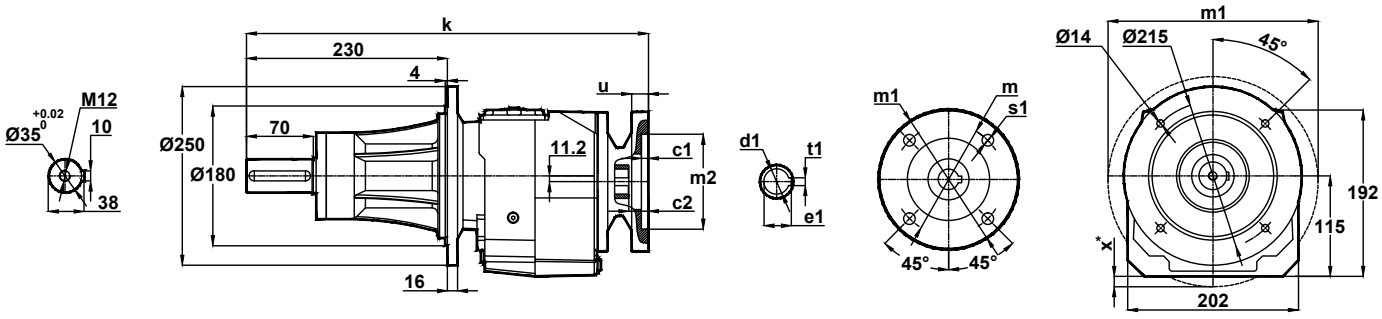


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	10	474	14	5	16.3	-
80/B14	4	5	7	100	120	80	12	503	19	6	21.8	-
90/B14	4	5	9	115	140	95	12	503	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	12	496	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	12	496	28	8	31.3	-

x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

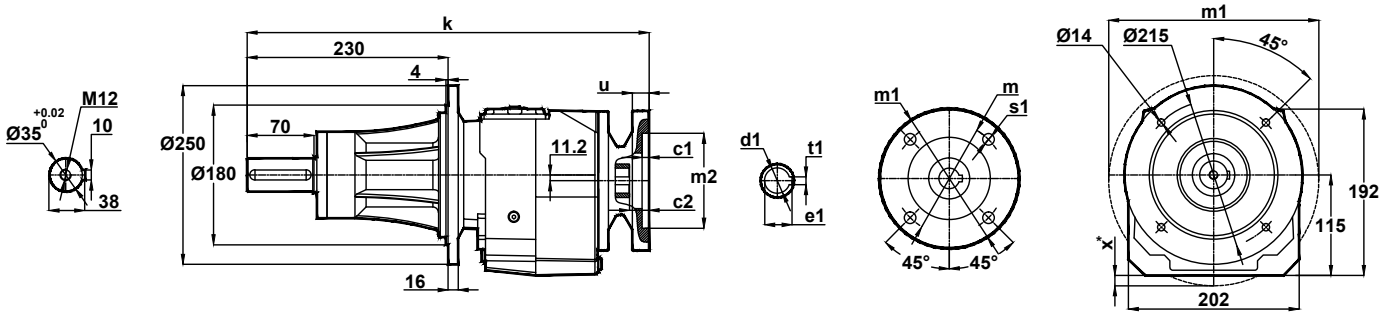
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB272-A..
NNB273-A..



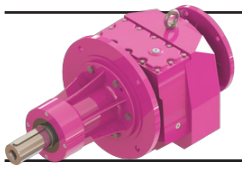
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
63/B5	4	5	9	115	140	95	12	484	11	4	12.8	-
71/B5	4	8.5	11	130	160	110	12	455	14	5	16.3	-
80/B5	4	5	13	165	200	130	12	484	19	6	21.8	-
90/B5	4	5	13	165	200	130	12	484	24	8	27.3	-
100/B5	4	5.5	15	215	250	180	12	477	28	8	31.3	22
112/B5	4	5.5	15	215	250	180	12	477	28	8	31.3	22

NNB272-B..
NNB273-B..



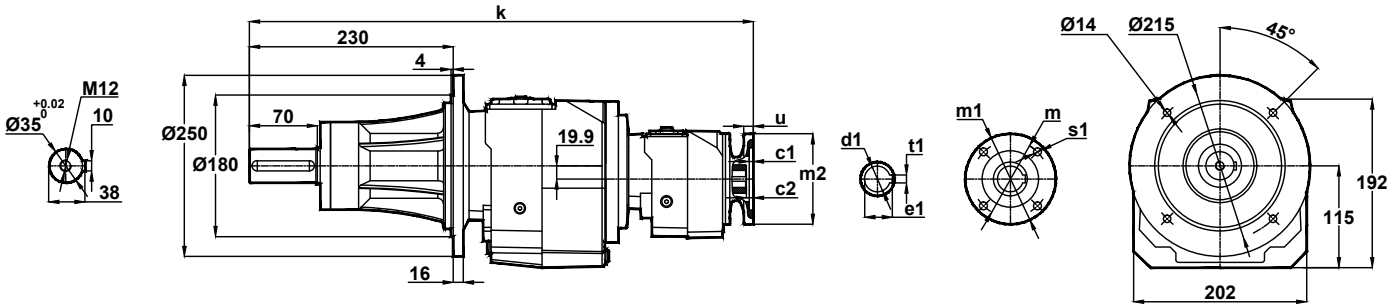
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
71/B14	3	8.5	7	85	105	70	10	455	14	5	16.3	-
80/B14	4	5	7	100	120	80	12	484	19	6	21.8	-
90/B14	4	5	9	115	140	95	12	484	24	8	27.3	-
100/B14	4	5.5	9	130	160	110	12	477	28	8	31.3	-
112/B14	4	5.5	9	130	160	110	12	477	28	8	31.3	-

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



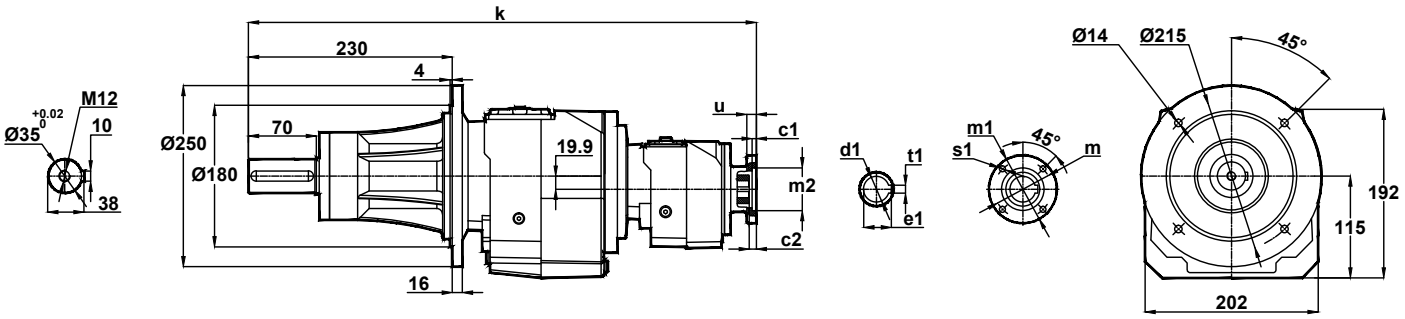
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB275-A..
NNB276-A..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	10	599	11	4	12.8
71/B5	4	4.5	11	130	160	110	12	601	14	5	16.3

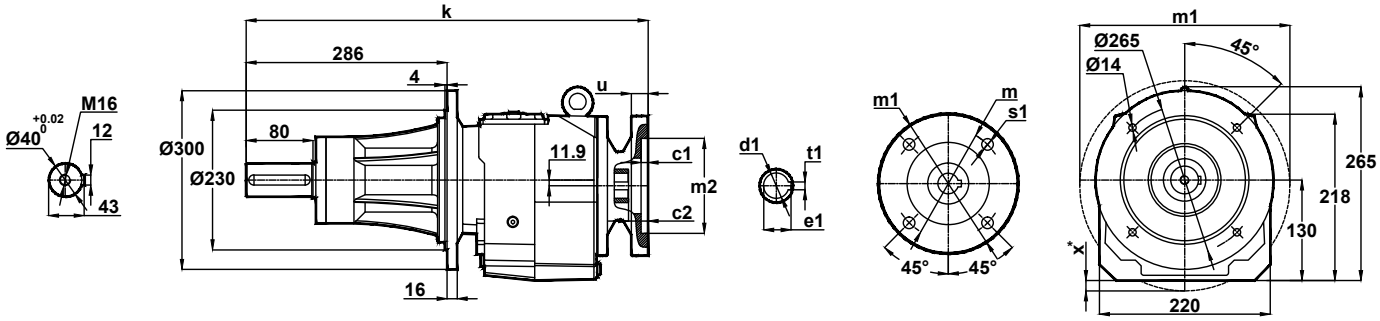
NNB275-B..
NNB276-B..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B14	2.5	5	5.5	75	90	60	10	599	11	4	12.8
71/B14	3	4.5	7	85	105	70	10	601	14	5	16.3

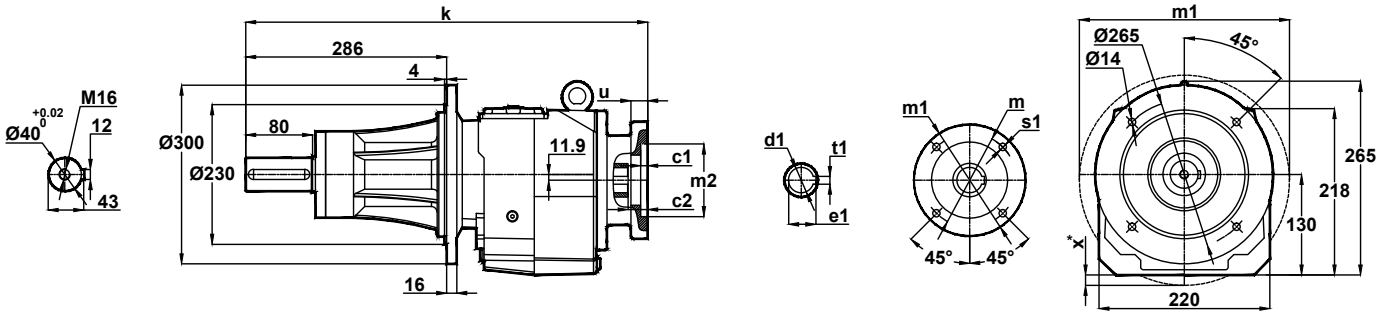
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB282-A..
NNB283-A..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	12	559	14	5	16.3	-
80/B5	4	9	13	165	200	130	12	559	19	6	21.8	-
90/B5	4	9	13	165	200	130	12	559	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	15	566	28	8	31.3	7
112/B5	4.5	9	15	215	250	180	15	566	28	8	31.3	7
132/B5	4.5	7	15	265	300	230	15	596	38	10	41.3	32

NNB282-B..
NNB283-B..

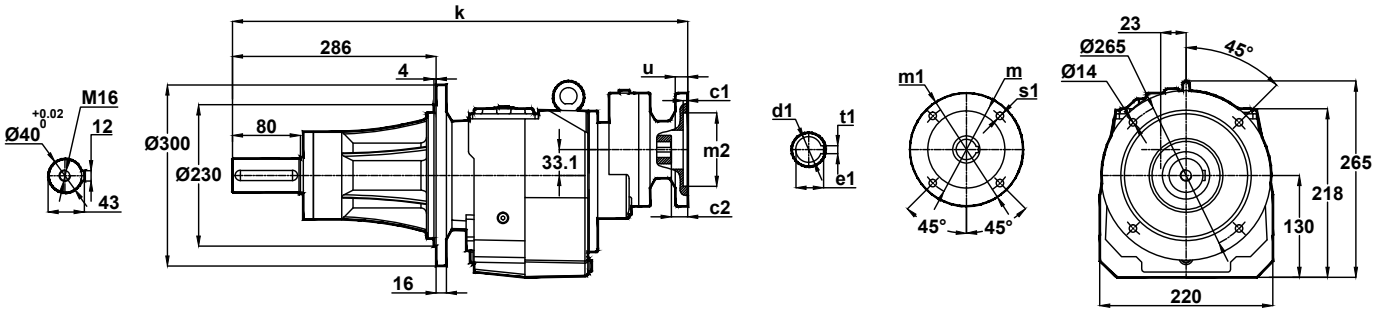


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	12	559	19	6	21.8	-
90/B14	4	9	9	115	140	95	12	559	24	8	26.3	-
100/B14	4	9	9	130	160	110	15	566	28	8	31.3	-
112/B14	4	9	9	130	160	110	15	566	28	8	31.3	-
132/B14	4.5	7	11	165	200	130	15	596	38	10	41.3	-

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

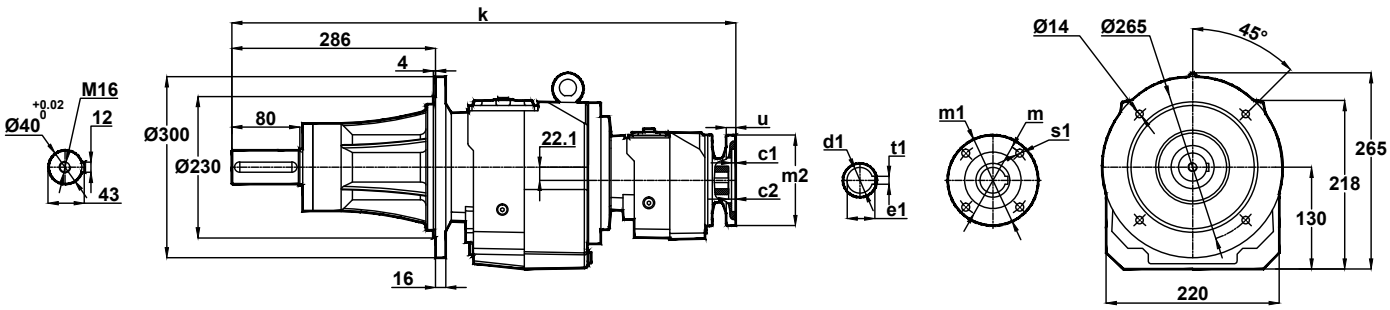
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB284-A..
NNB284-B..

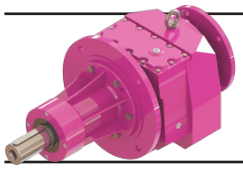


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	10	636	11	4	12.8
71/B5	4	4.5	11	130	160	110	12	607	14	5	16.3
71/B14	3	4.5	7	85	105	70	10	607	14	5	16.3

NNB285-A.. / B..
NNB286-A.. / B..

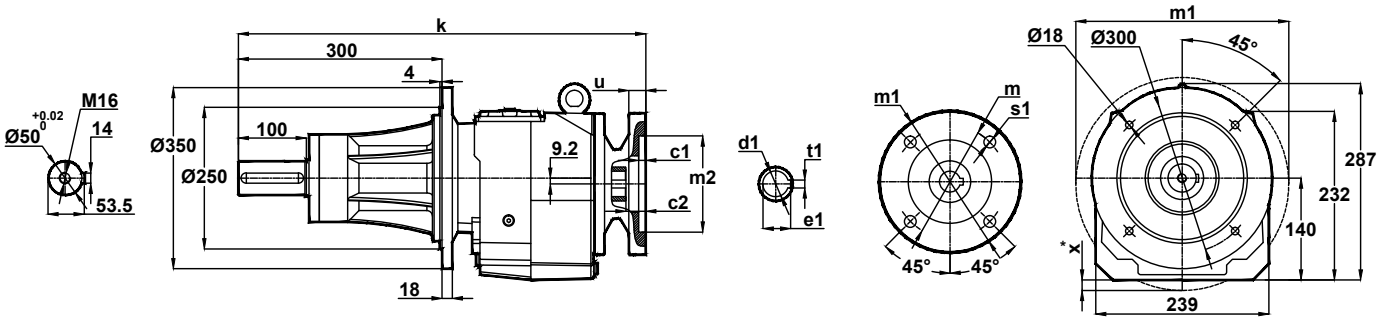


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	4	7	10	115	140	95	12	702	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	10	702	11	4	12.8



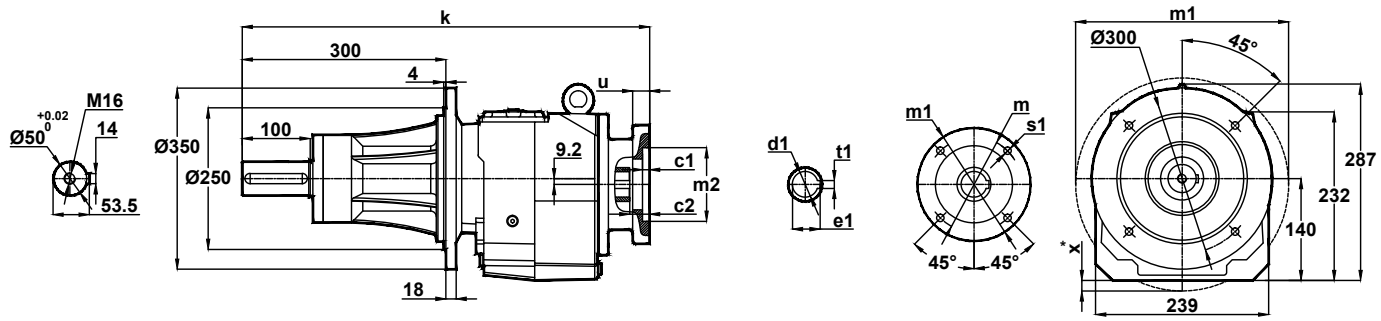
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB372-A..
NNB373-A..



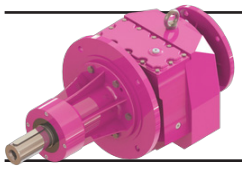
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
71/B5	4	9	11	130	160	110	12	584	14	5	16.3	-
80/B5	4	9	13	165	200	130	12	584	19	6	21.8	-
90/B5	4	9	13	165	200	130	12	584	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	15	601	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	15	601	28	8	31.3	-
132/B5	4.5	7	15	265	300	230	15	621	38	10	41.3	20

NNB372-B..
NNB373-B..



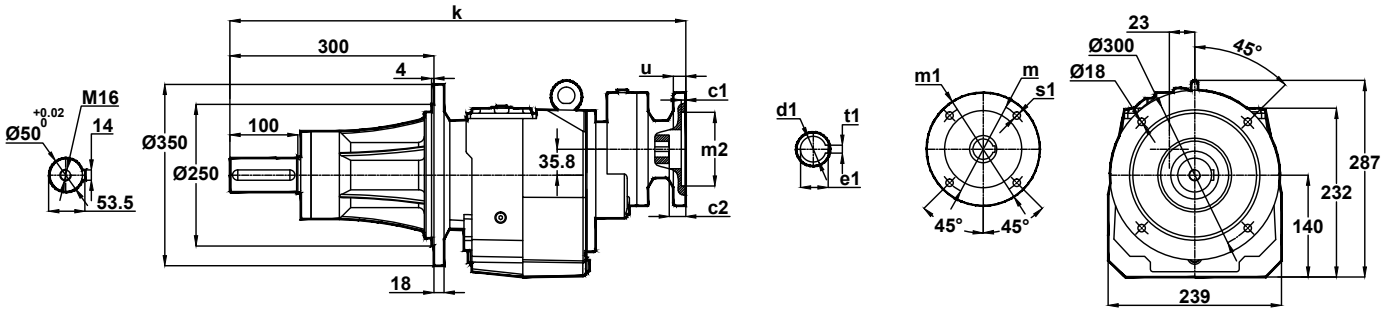
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
80/B14	4	9	7	100	120	80	12	584	19	6	21.8	-
90/B14	4	9	9	115	140	95	12	584	24	8	26.3	-
100/B14	4	9	9	130	160	110	15	601	28	8	31.3	-
112/B14	4	9	9	130	160	110	15	601	28	8	31.3	-
132/B14	4.5	9	11	165	200	130	15	621	38	10	41.3	-

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



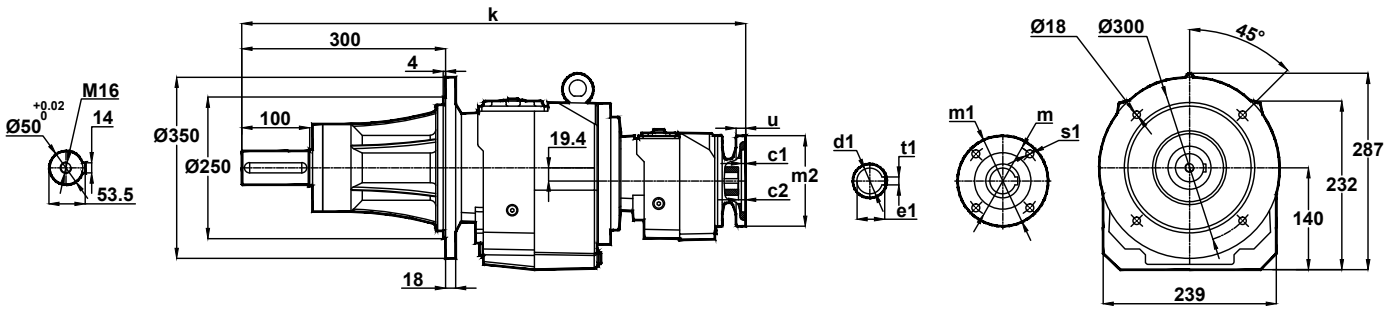
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB374-A..
NNB374-B..

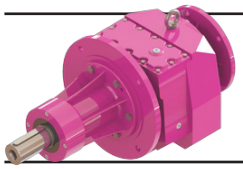


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	12	661	11	4	12.8
71/B5	4	8.5	11	130	160	110	12	632	14	5	16.3
80/B5	4	5	13	165	200	130	12	661	19	6	21.8
71/B14	3	8.5	7	85	105	70	10	632	14	5	16.3
80/B14	4	5	7	100	120	80	12	661	19	6	21.8

NNB375-A.. / B..
NNB376-A.. / B..

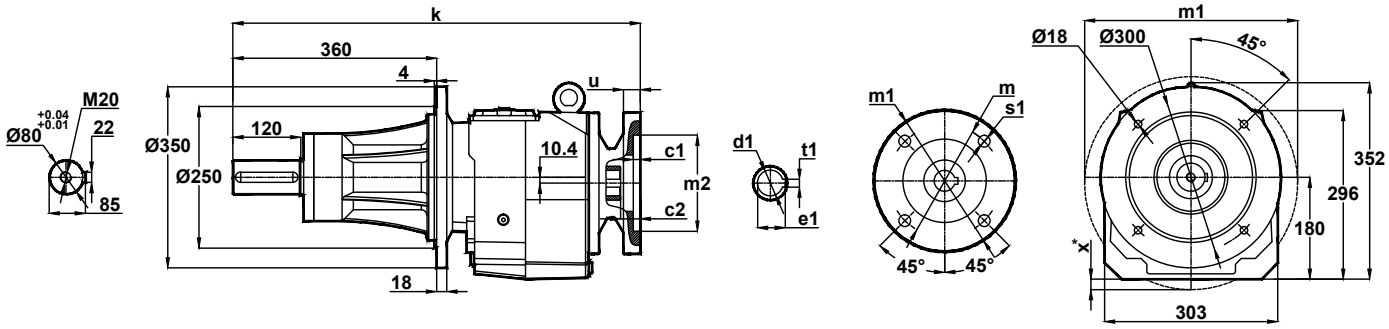


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	3.5	5	10	115	140	95	10	727	11	4	12.8
63/B14	2.5	5	5.5	75	90	60	10	727	11	4	12.8



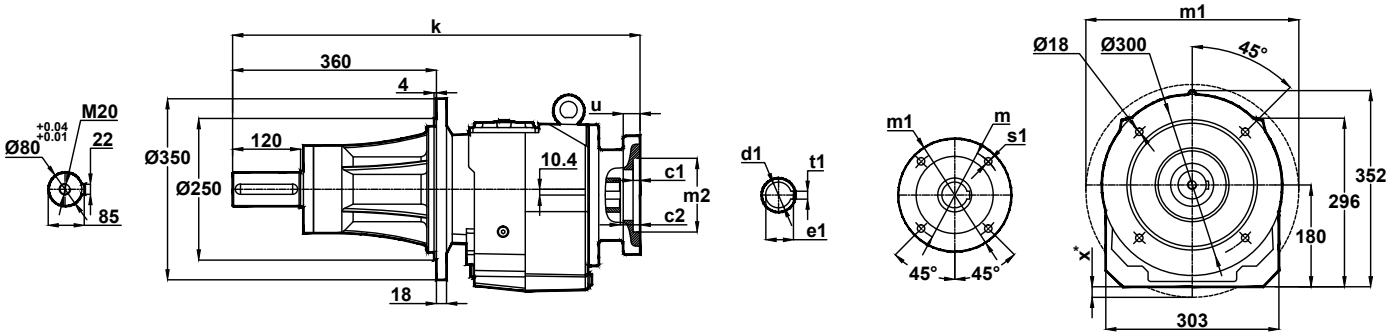
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB472-A..
NNB473-A..



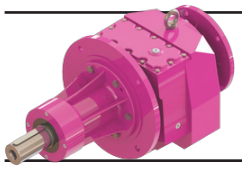
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
80/B5	4	5	12	165	200	130	12	687	19	6	21.8	-
90/B5	4	5	13	165	200	130	12	687	24	8	27.3	-
100/B5	4.5	9	15	215	250	180	15	705	28	8	31.3	-
112/B5	4.5	9	15	215	250	180	15	705	28	8	31.3	-
132/B5	4.5	6	15	265	300	230	15	724	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	20	803	42	12	45.3	6
180/B5	5.5	10	19	300	350	250	20	803	48	14	51.8	6

NNB472-B..
NNB473-B..



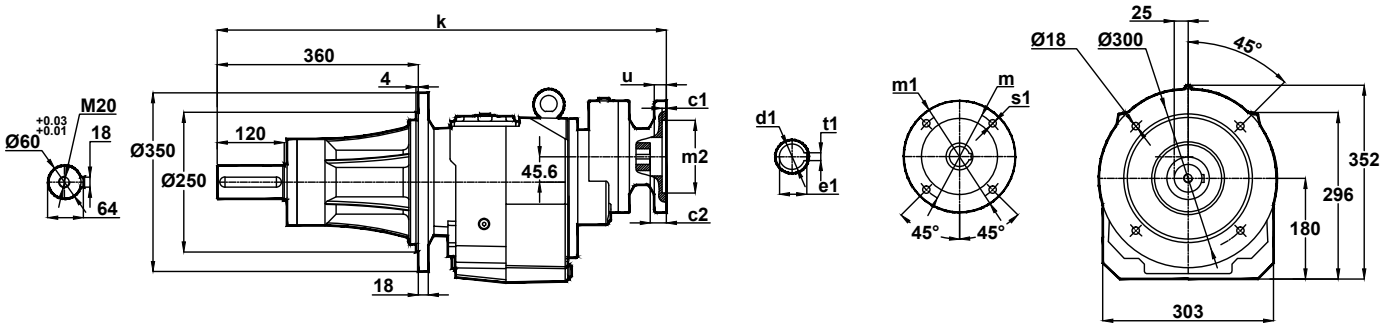
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
90/B14	4	5	9	115	140	95	12	687	24	8	27.3	-
100/B14	4	9	9	130	160	110	15	705	28	8	31.3	-
112/B14	4	9	9	130	160	110	15	705	28	8	31.3	-
132/B14	4.4	6	11	165	200	130	15	724	38	10	41.3	-

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



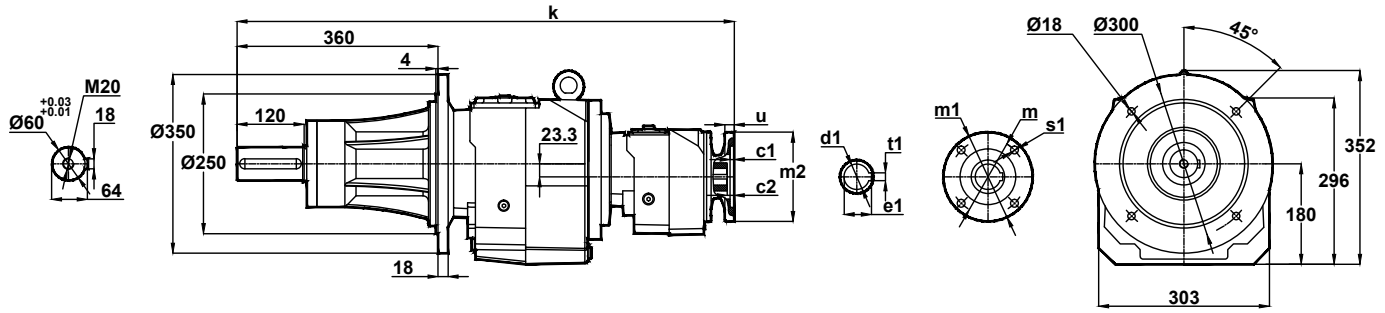
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB474-A..
NNB474-B..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	785	14	5	16.3
80/B5	4	9	13	165	200	130	12	785	19	6	21.8
80/B14	4	9	7	100	120	80	12	785	19	6	21.8

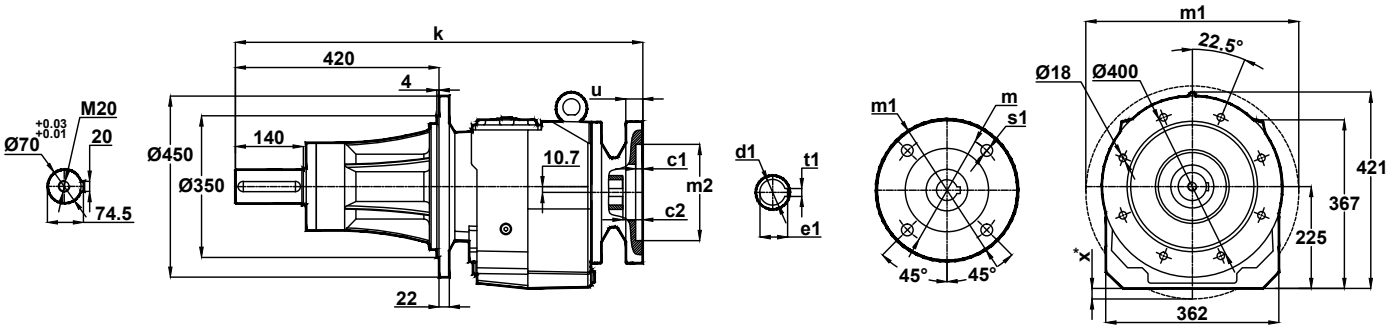
NNB475-A.. / B..
NNB476-A.. / B..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	12	913	11	4	12.8
71/B5	4	8.5	11	130	160	110	12	884	14	5	16.3
71/B14	3	8.5	7	85	105	70	10	884	14	5	16.3

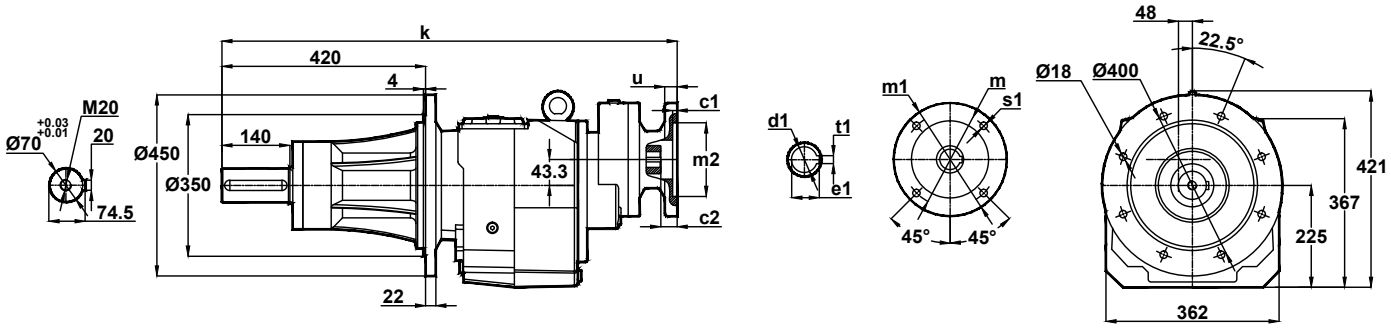
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB572-A.. / B..
NNB573-A.. / B..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
100/B5	4.5	20	15	215	250	180	15	827	28	8	31.3	-
112/B5	4.5	20	15	215	250	180	15	827	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	15	848	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	18	923	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	18	923	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	22	843	55	16	59.3	-
132/B14	4.5	9	11	165	200	130	15	848	38	10	41.3	-

NNB574-A..
NNB574-B..

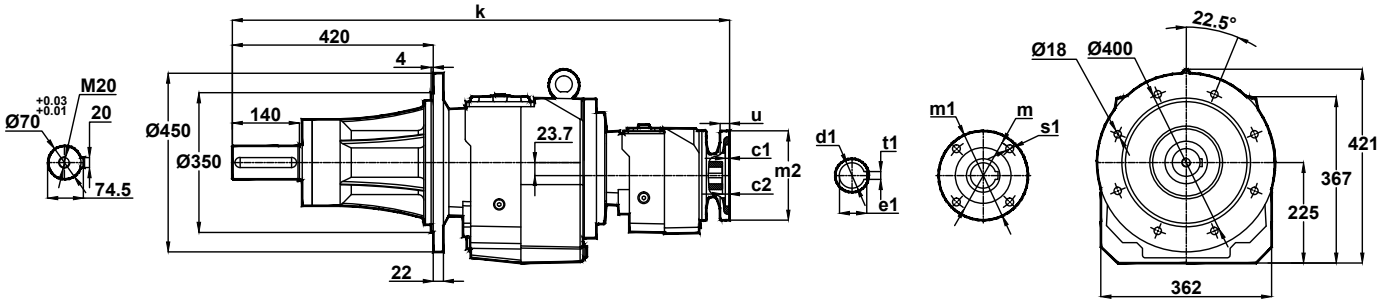


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	670	14	5	16.3
80/B5	4	9	13	165	200	130	12	670	14	6	21.8
90/B5	4	9	13	165	200	130	12	670	19	8	27.3
80/B14	4	9	7	100	120	80	12	670	19	6	21.8
90/B14	4	9	9	115	140	95	12	670	24	8	26.3

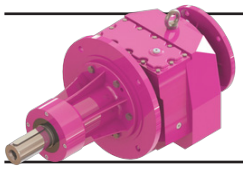
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB575-A.. / B..
NNB576-B.. / B..

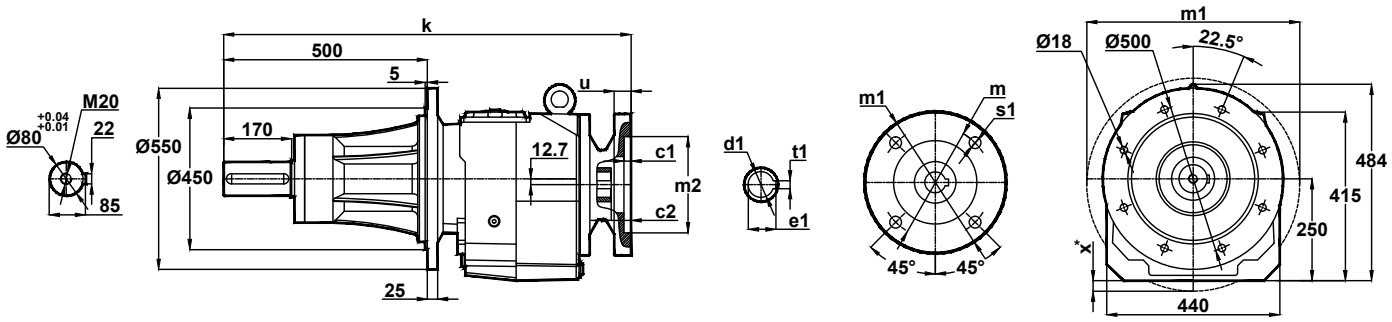


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
63/B5	4	5	9	115	140	95	12	800	11	4	12.8
71/B5	4	8.5	11	130	160	110	12	771	14	5	16.3
71/B14	3	8.5	7	85	105	70	10	771	14	5	16.3



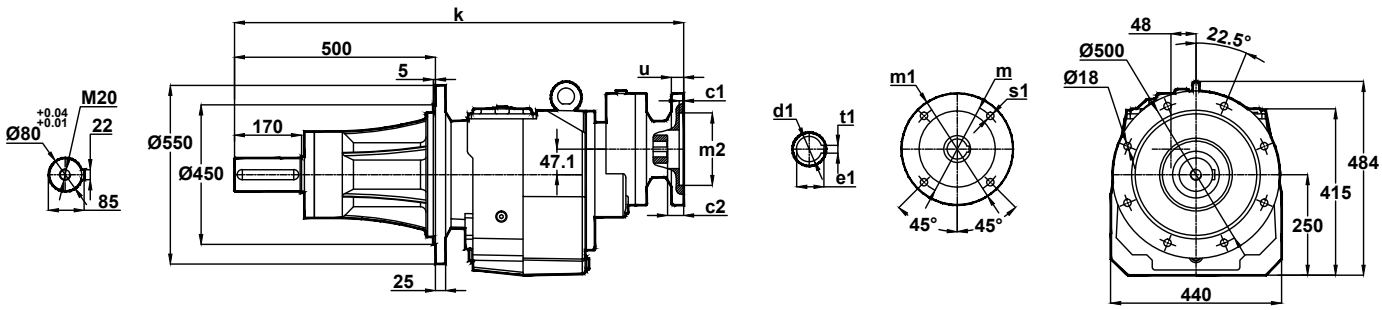
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB672-A.. / B..
NNB673-A.. / B..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
112/B5	4.5	14.5	15	215	250	180	15	928	28	8	31.3	-
132/B5	4.5	9	15	265	300	230	15	943	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	20	1018	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	20	1018	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	22	1038	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	24	1091	60	18	64.4	-
132/B14	4.5	9	15	165	200	130	15	943	38	10	41.3	-

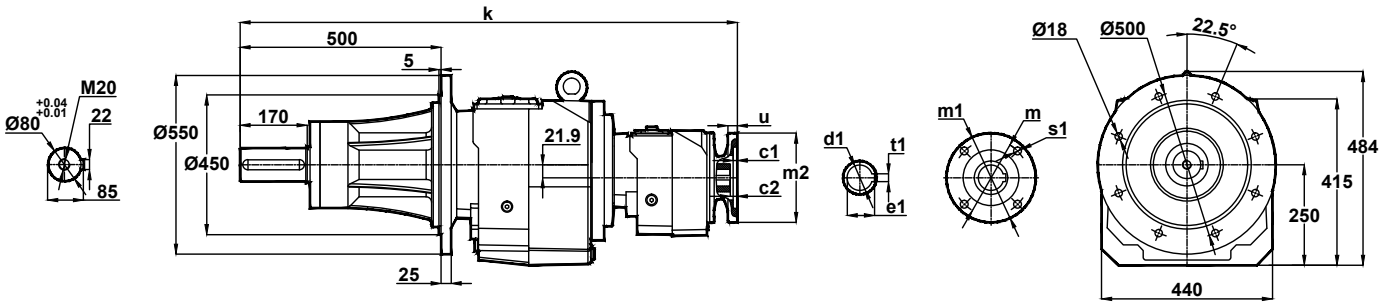
NNB674-A..
NNB674-B..



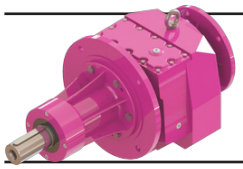
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	12	1018	19	6	21.8
90/B5	4	5	13	165	200	130	12	1018	24	8	27.3
90/B14	4	5	9	115	140	95	12	1018	24	8	27.3

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

NNB675-A.. / B..
NNB676-B.. / B..

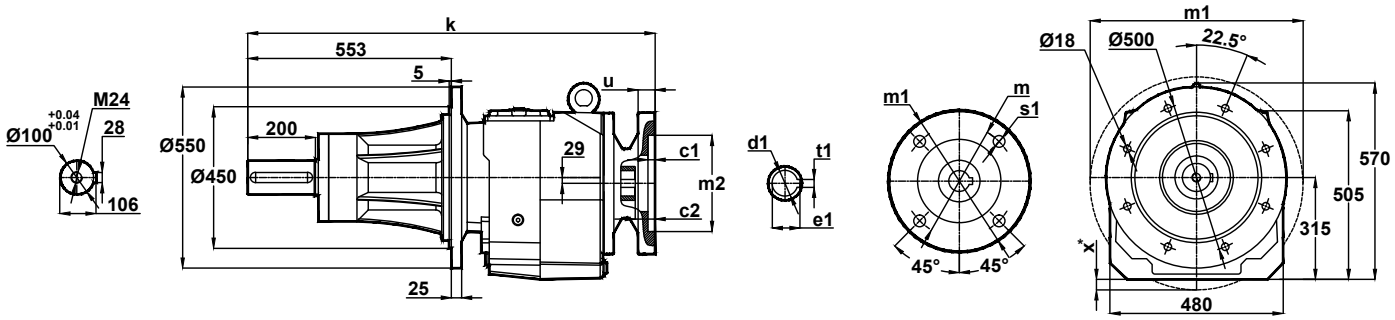


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	1168	14	5	16.3
80/B5	4	9	13	165	200	130	12	1168	19	6	21.8
80/B14	4	9	7	100	120	80	12	1168	19	6	21.8



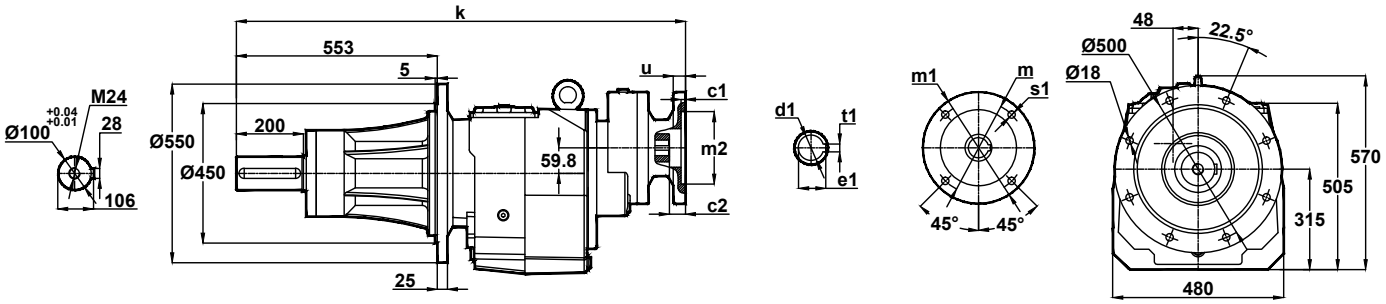
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB772-A..
NNB773-A..



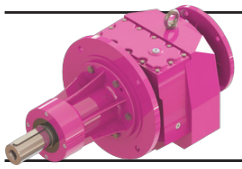
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
132/B5	4.5	15	15	265	300	230	15	1051	38	10	41.3	-
160/B5	5.5	10	19	300	350	250	20	1120	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	20	1120	43	14	51.8	-
200/B5	5.5	10	19	350	400	300	20	1142	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	24	1195	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	24	1195	65	18	69.4	-

NNB774-A..
NNB774-B..



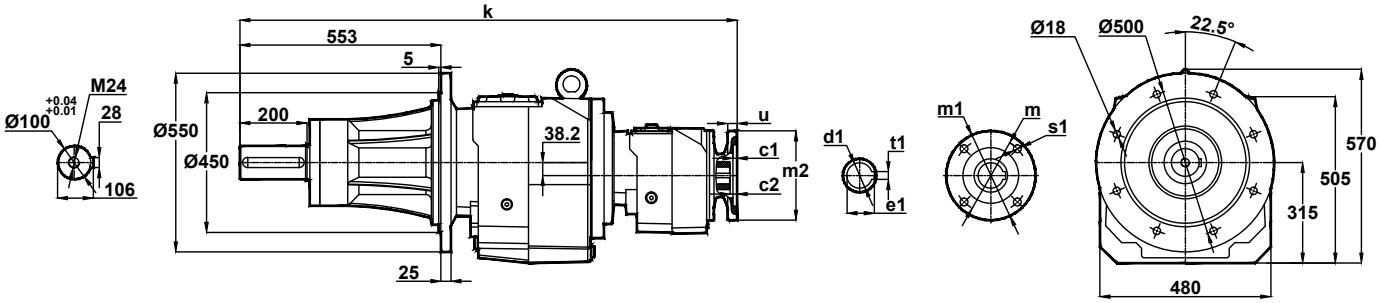
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	12	1126	19	6	21.8
90/B5	4	5	13	165	200	130	12	1126	24	8	27.3
100/B5	4.5	9	15	215	250	180	15	1144	28	8	31.3
90/B14	4	5	9	115	140	95	12	1126	24	8	27.3
100/B14	4	9	9	130	160	110	15	1144	28	8	31.3

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

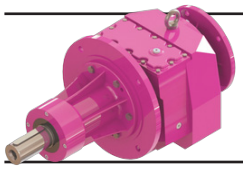


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB775-A.. / B..
NNB776-B.. / B..

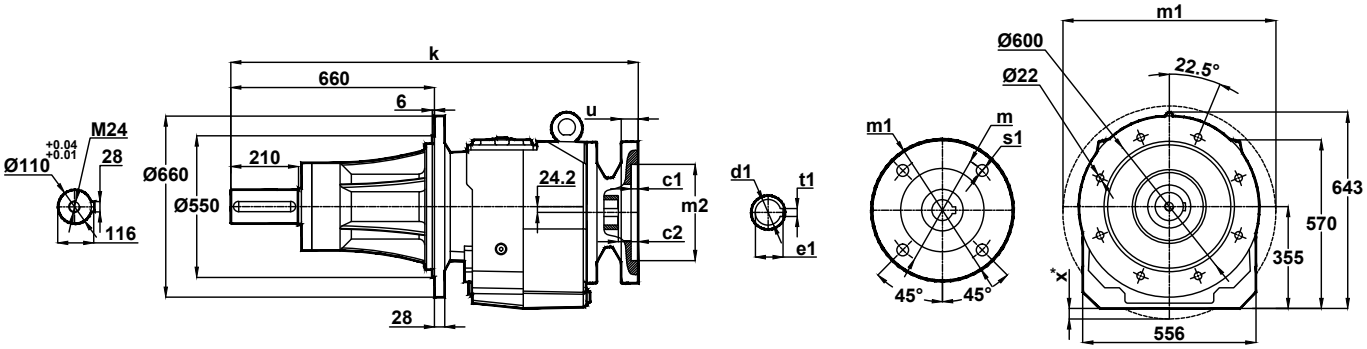


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	1279	14	5	16.3
80/B5	4	9	13	165	200	130	12	1279	19	6	21.8
90/B5	4	9	13	165	200	130	12	1279	24	8	27.3
80/B14	4	9	7	100	120	80	12	1279	19	6	21.8
90/B14	4	9	9	115	140	95	12	1279	24	8	26.3



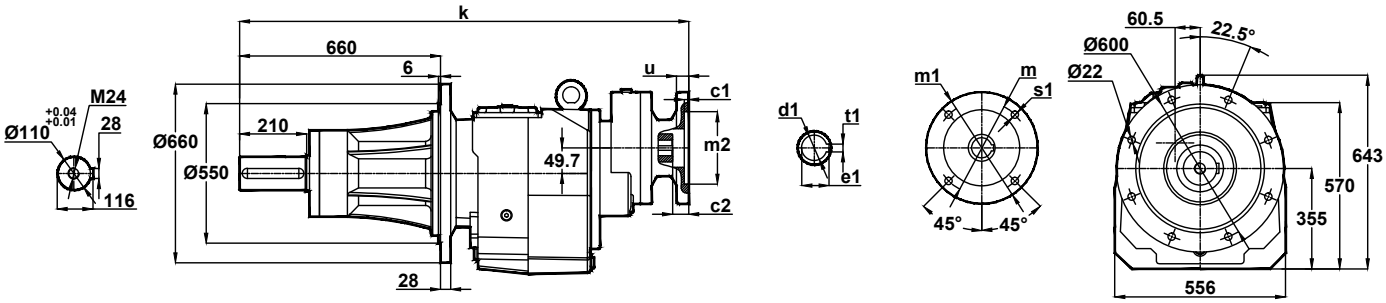
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB872-A..
NNB873-A..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
160/B5	5.5	10	19	300	350	250	20	1373	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	20	1373	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	22	1373	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	24	1373	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	24	1373	65	18	69.4	-
280/B5	5.5	10	19	500	550	450	24	1373	75	20	79.9	-

NNB874-A..
NNB874-B..

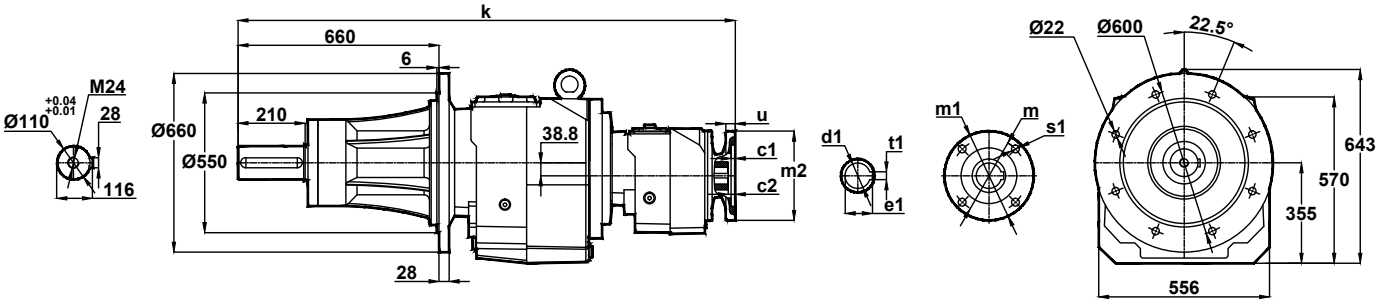


IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
100/B5	4.5	20	15	215	250	180	15	1346	28	8	31.3
112/B5	4.5	20	15	215	250	180	15	1346	28	8	31.3
132/B5	4.5	9	15	265	300	230	15	1367	38	10	41.3
132/B14	4.5	9	11	165	200	130	15	1367	38	10	41.3

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

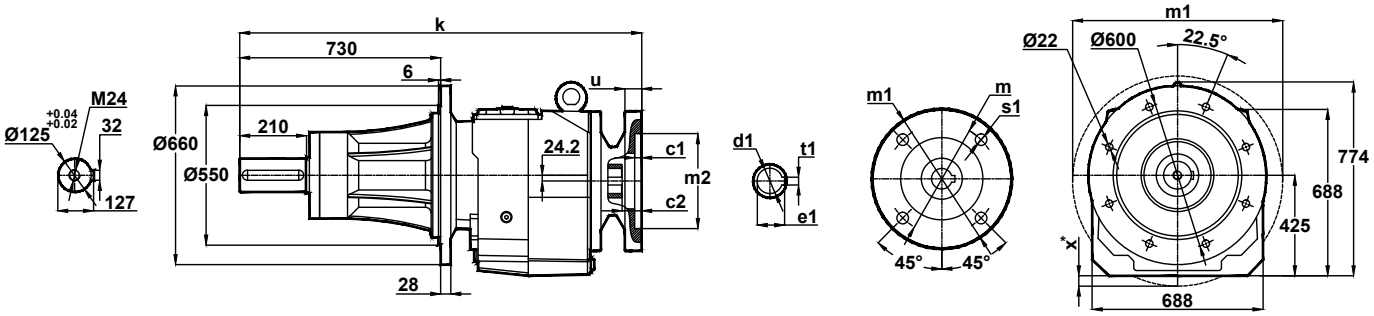
NNB875-A.. / B..
NNB876-B.. / B..



IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
71/B5	4	9	11	130	160	110	12	1463	14	5	16.3
80/B5	4	9	13	165	200	130	12	1463	19	6	21.8
90/B5	4	9	13	165	200	130	12	1463	24	8	27.3
100/B5	4.5	9	15	215	250	180	15	1480	28	8	31.3
80/B14	4	9	7	100	120	80	12	1463	19	8	21.8
90/B14	4	9	9	115	140	95	12	1463	24	8	26.3
100/B14	4	9	9	130	160	110	15	1480	28	8	31.3

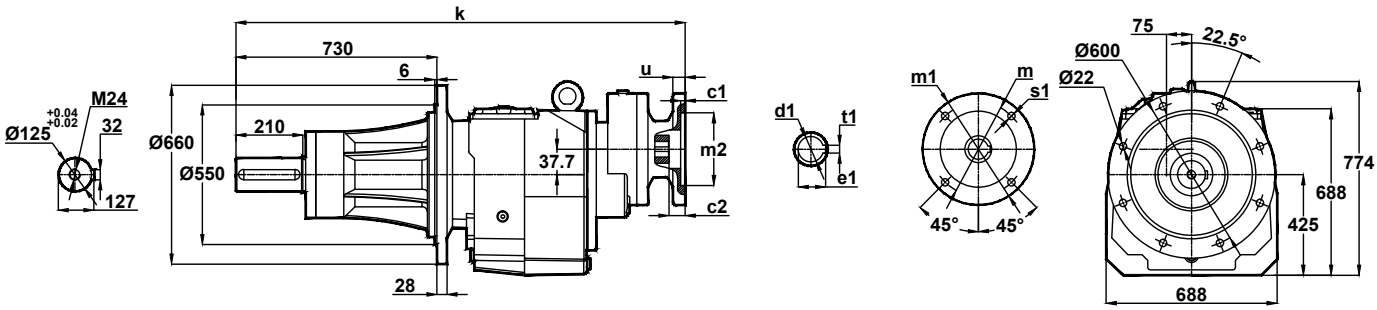
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB972-A..
NNB973-A..



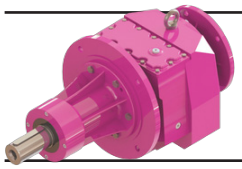
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1	x
160/B5	5.5	10	19	300	350	250	20	1431	42	12	45.3	-
180/B5	5.5	10	19	300	350	250	20	1431	48	14	51.8	-
200/B5	5.5	10	19	350	400	300	22	1455	55	16	59.3	-
225/B5	5.5	10	19	400	450	350	24	1497	60	18	64.4	-
250/B5	5.5	10	19	500	550	450	24	1549	65	18	69.4	-
280/B5	5.5	10	19	500	550	450	24	1549	75	20	79.9	-
315/B5	6.5	15	24	660	600	550	24	1599	85	22	90.4	-

NNB974-A..
NNB974-B..



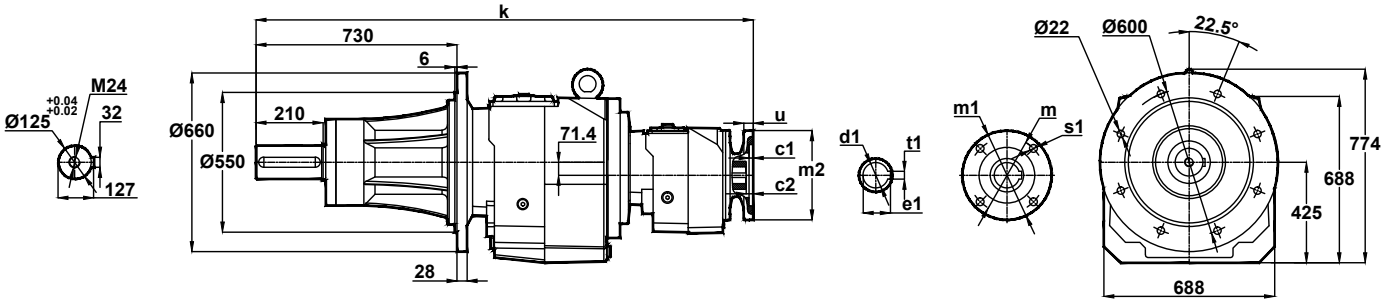
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
100/B5	4.5	14.5	15	215	250	180	15	1519	28	8	31.3
112/B5	4.5	14.5	15	215	250	180	15	1519	28	8	31.3
132/B5	4.5	9	15	265	300	230	15	1534	38	10	41.3
132/B14	4.5	9	15	165	200	130	15	1534	38	10	41.3

x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NNB975-A.. / B..
NNB976-B.. / B..

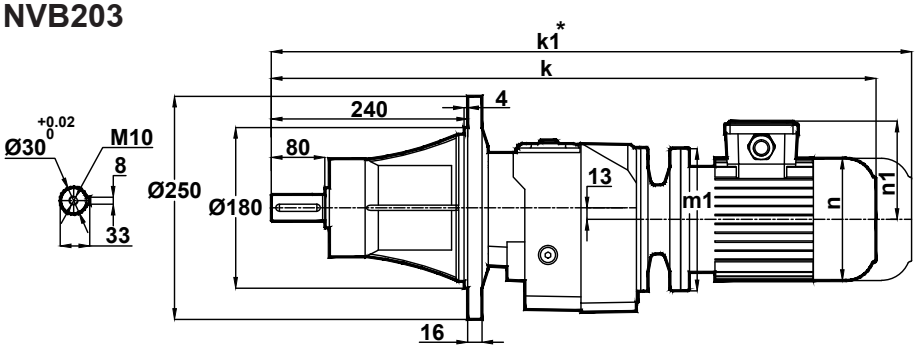


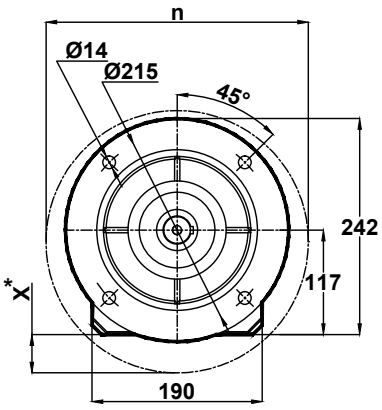
IEC	c1	c2	s1	m	m1	m2	u	k	d1	t1	e1
80/B5	4	5	12	165	200	130	12	1655	19	6	12.8
90/B5	4	5	13	165	200	130	12	1655	24	8	27.3
100/B5	4.5	9	15	215	250	180	15	1674	28	8	31.3
112/B5	4.5	9	15	215	250	180	15	1674	28	8	31.3
132/B5	4.5	6	15	265	300	230	15	1692	38	10	41.3
90/B14	4	5	9	115	140	95	12	1655	24	8	27.3
100/B14	4	9	9	130	160	110	15	1674	28	8	31.3
112/B14	4	9	9	130	160	110	15	1674	28	8	31.3
132/B14	4.4	6	11	165	200	130	15	1692	38	10	41.3

Notlar / *Notes* / Notizen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

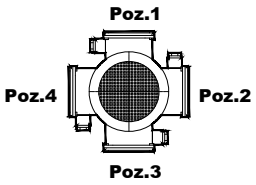
NVB202
NVB203





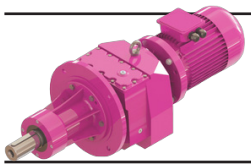
Motor Büyüklüğü / *Motor Size* / Motorbaugroße							
IEC	**63/B5**	**71/B5 71/B14**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**
k	696	693	742	962	787	812	832
k1	749	813	862	887	912	947	967
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146
m1 (B5)	140	160	200	200	200	250	250
m1 (B14)	-	105	120	140	140	160	160
x (B5)	-	-	-	-	-	23	23

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71-80-90-100-112

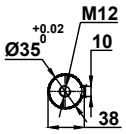
***** **" k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

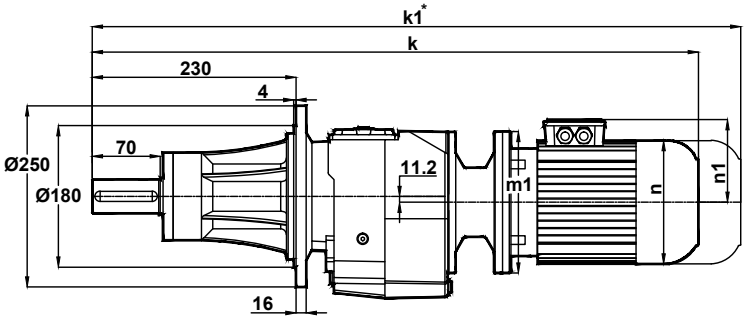


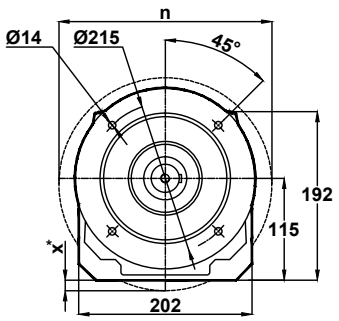
Ölçü Sayfaları
Dimension Pages
Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB272
NVB273

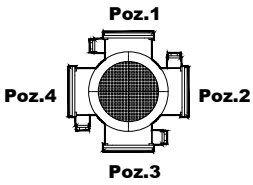






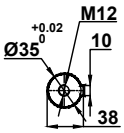
Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
IEC	**63/B5 63/B14**	**71/B5 71/B14**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**
k	677	674	723	743	768
k1	730	794	843	868	893
n / n1	121 / 97	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	140	160	200	200	200
m1 (B14)	90	105	120	140	140
x (B5)	-	1	21	21	21

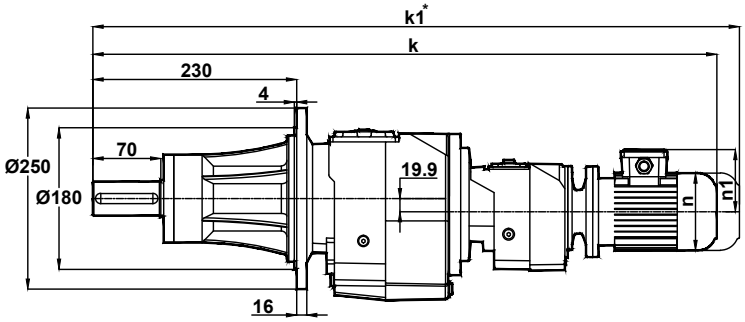
Klemens Kutusu /*Terminal Box* / Klemmenkasten

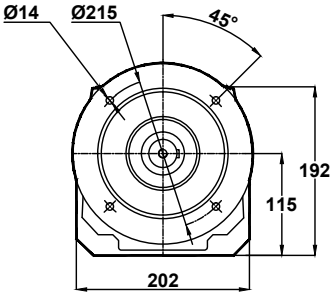


63-71-80-90

NVB275
NVB276

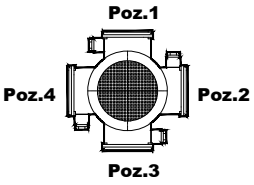






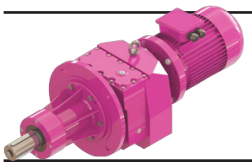
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**63/B5 63/B14**	**71/B5 71/B14**
k	792	820
k1	845	940
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	90	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten



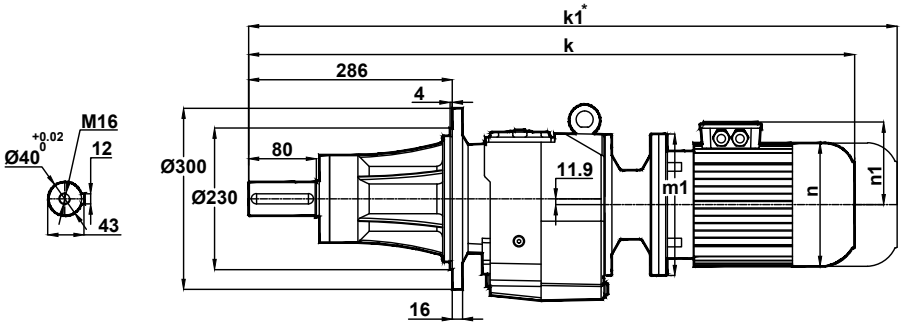
63-71

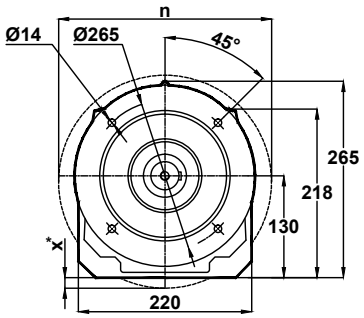
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor Ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

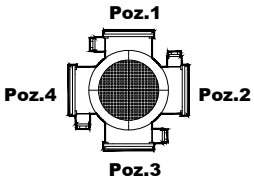
NVB282
NVB283





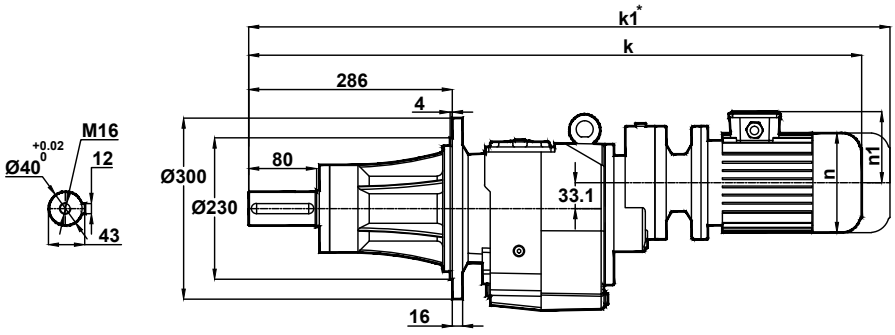
Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
IEC	**71/B5**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**	**132M/B5 132M/B14**
k	778	798	818	843	882	902	976	1014
k1	898	918	943	968	1017	1037	1121	1159
n / n1	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	-	120	140	140	160	160	200	200
x (B5)	-	-	-	-	7	7	32	32

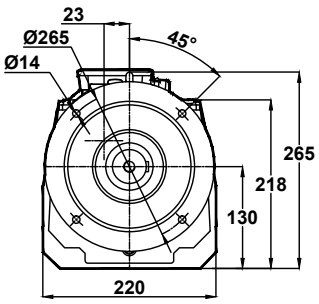
Klemens Kutusu /*Terminal Box* / Klemmenkasten



71-80-90-100-112-132

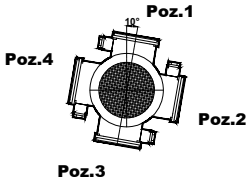
NVB284





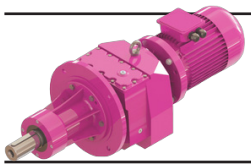
Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**63/B5**	**71/B5 71/B14**
k	829	826
k1	882	946
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten



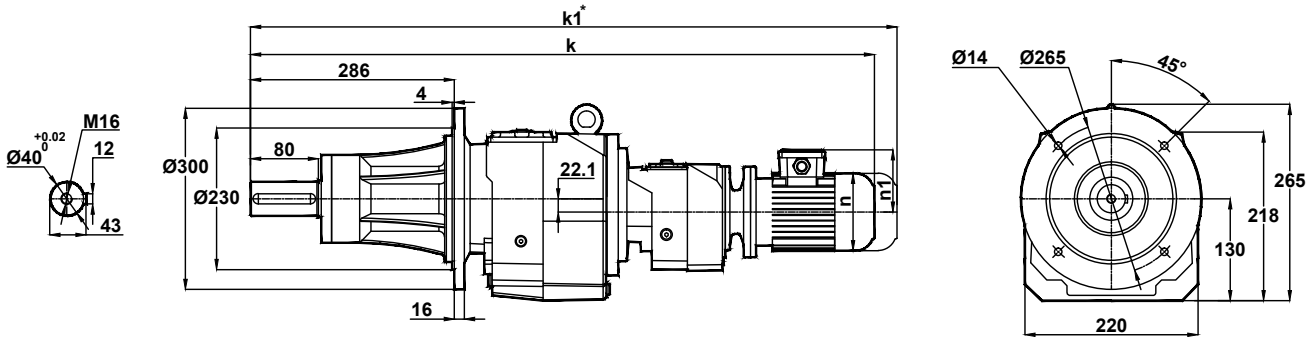
63-71

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



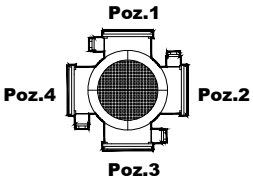
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB285
NVB286



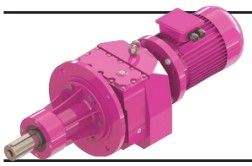
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
IEC	**63/B5 63/B14**
k	895
k1	948
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu / *Terminal Box* / Klemmenkasten



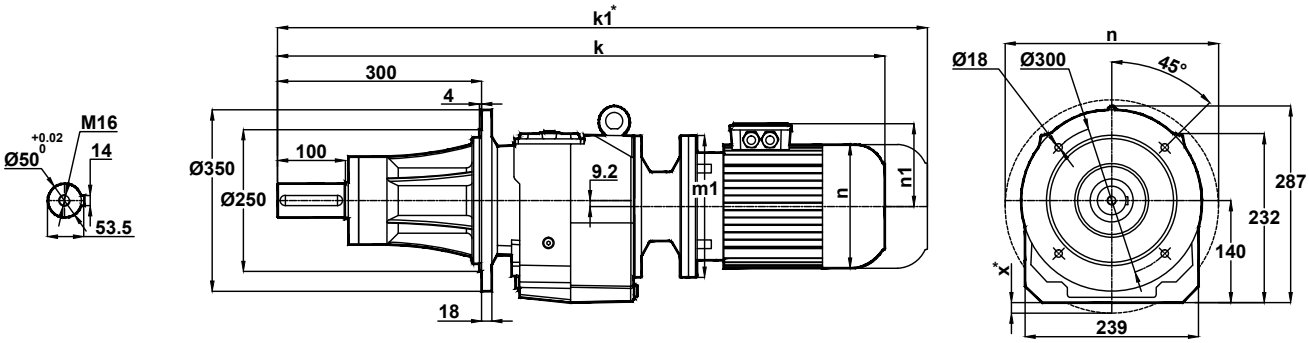
63

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



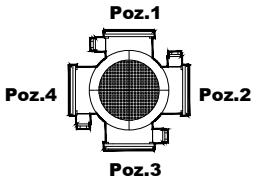
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB372
NVB373



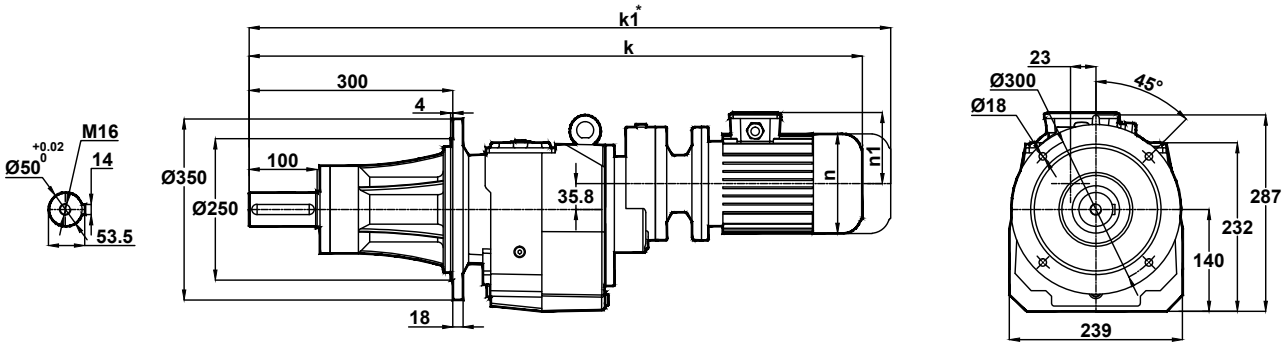
Motor Büyüklüğü / *Motor Size* / Motorbaugroße								
IEC	**71/B5**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**	**132M/B5 132M/B14**
k	803	823	843	868	917	937	1001	1039
k1	923	943	968	993	1052	1072	1146	1184
n / n1	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	160	200	200	200	250	250	300	300
m1 (B14)	-	120	140	140	160	160	200	200
x (B5)	-	-	-	-	-	-	20	20

Klemens Kutusu / *Terminal Box* / Klemmenkasten



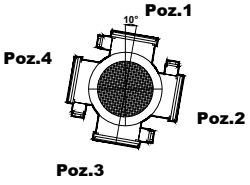
71-80-90-100-112-132

NVB374



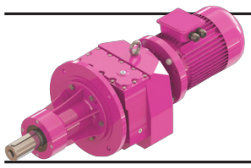
Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
IEC	**63/B5**	**71/B5 71/B14**	**80/B5 80/B14**
k	854	851	900
k1	907	971	1020
n / n1	121 / 97	138 / 111	156 / 118
m1 (B5)	140	160	200
m1 (B14)	-	105	120

Klemens Kutusu / *Terminal Box* / Klemmenkasten



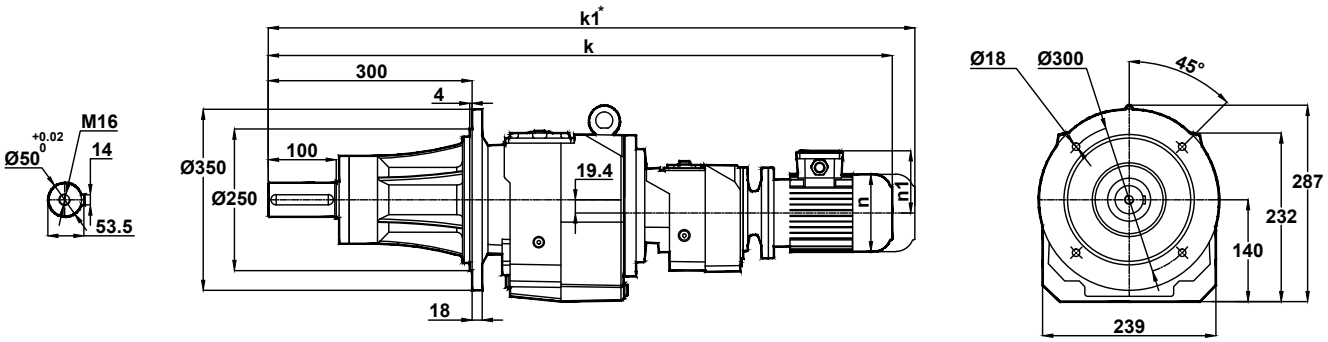
63-71-80

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



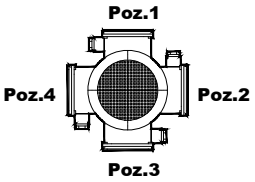
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB375
NVB376



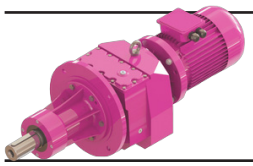
Motor Büyüklüğü / *Motor Size* / Motorbaugroße	
IEC	**63/B5 63/B14**
k	1033
k1	1086
n / n1	121 / 97
m1 (B5)	140
m1 (B14)	90

Klemens Kutusu /*Terminal Box* / Klemmenkasten



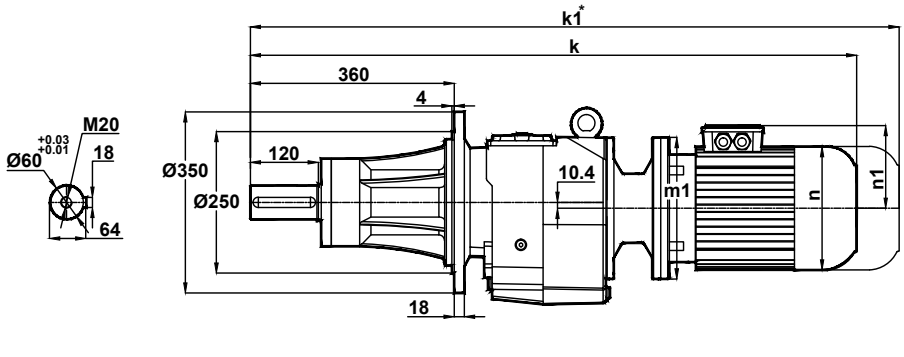
63

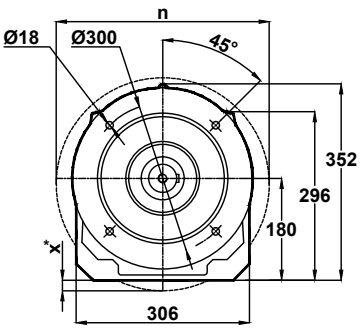
*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.



-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

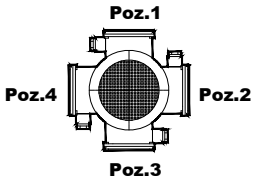
NVB472
NVB473





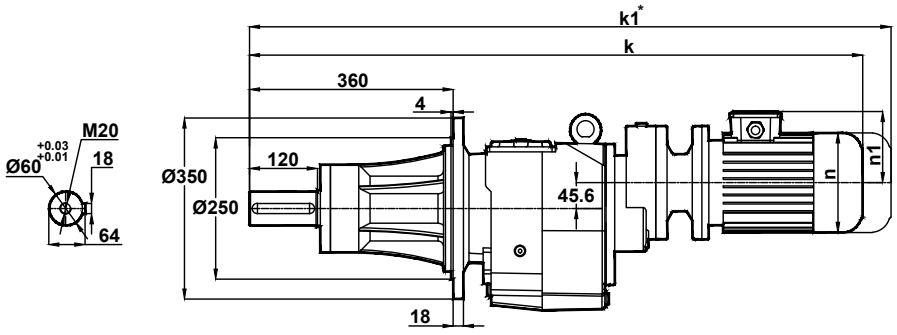
Motor Büyüklüğü / *Motor Size* / Motorbaugroße											
IEC	**80/B5**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**	**132M/B5 132M/B14**	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**
k	926	946	971	1021	1041	1104	1142	1293	1337	1350	1388
k1	1046	1071	1096	1156	1176	1249	1287	1463	1507	1520	1558
n / n1	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	257 / 168	257 / 168	310 / 225	310 / 225	348 / 241	348 / 241
m1 (B5)	200	200	200	250	250	300	300	350	350	350	350
m1 (B14)	-	140	140	160	160	200	200	-	-	-	-
x (B5)	-	-	-	-	-	-	-	6	6	6	6

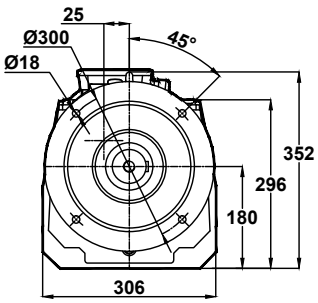
Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90-100-112-132-160-180

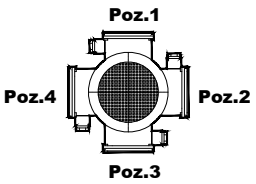
NVB474





Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**71/B5**	**80/B5 80/B14**
k	1004	1024
k1	1124	1144
n / n1	138 / 111	156 / 118
m1 (B5)	160	200
m1 (B14)	-	120

Klemens Kutusu /*Terminal Box* / Klemmenkasten

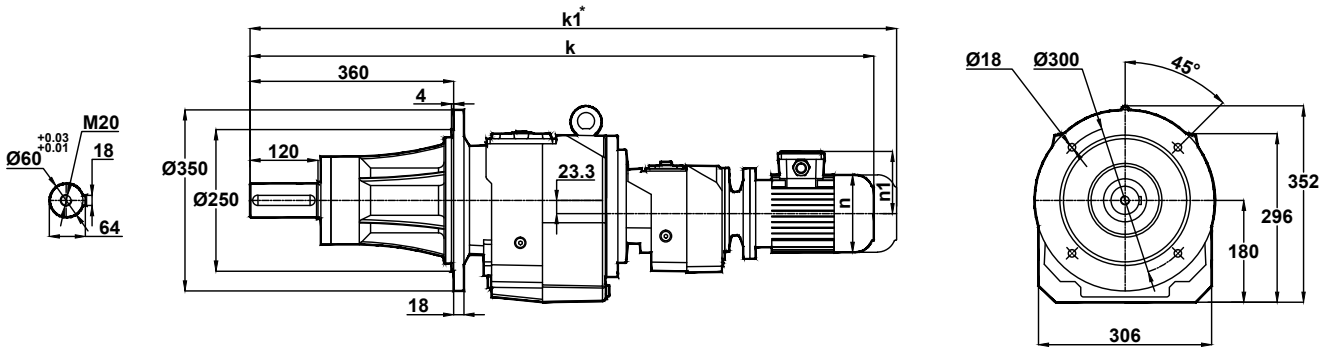


71-80

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

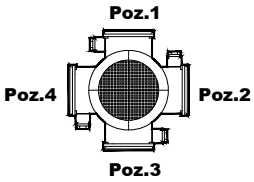
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB475
NVB476



Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**63/B5**	**71/B5 71/B14**
k	1106	1103
k1	1159	1223
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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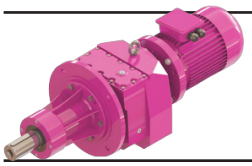
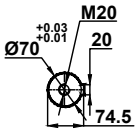
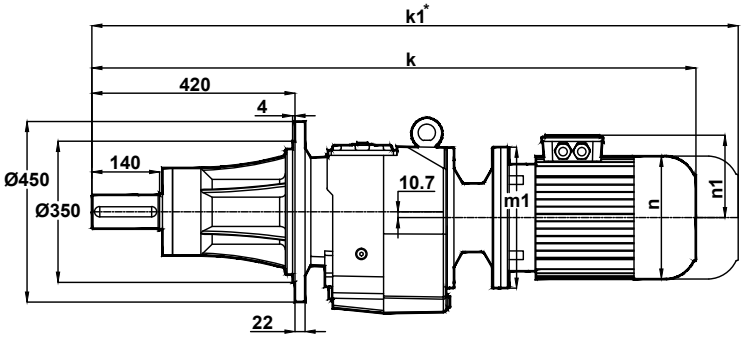
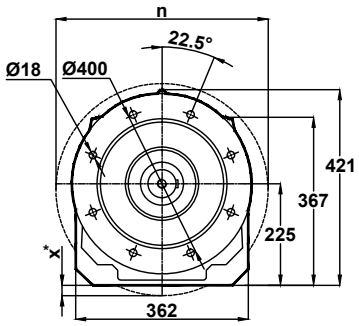


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB572
NVB573

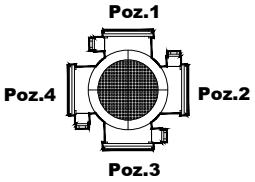






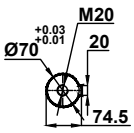
Motor Büyüklüğü / *Motor Size* / Motorbaugroße									
IEC	**100L/B5**	**112M/B5**	**132S/B5 132S/B14**	**132M/B5 132M/B14**	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**	**200L/B5**
k	1143	1163	1228	1266	1413	1457	1470	1508	1580
k1	1278	1298	1373	1411	1583	1627	1640	1678	1780
n / n1	194 / 135	218 / 146	257 / 168	257 / 168	310 / 225	310 / 225	348 / 241	348 / 241	390 / 275
m1 (B5)	250	250	300	300	350	350	350	350	400
m1 (B14)	-	-	200	200	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-

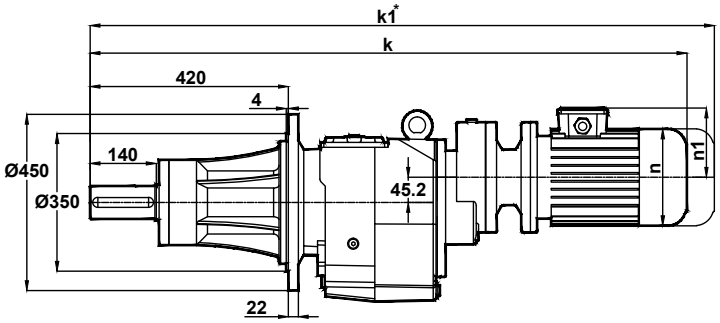
Klemens Kutusu /*Terminal Box* / Klemmenkasten

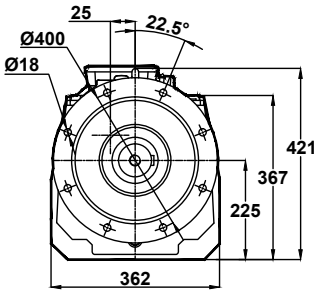


100-112-132-160-180-200

NVB574

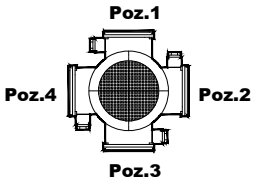






Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	**71/B5**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**
k	1126	1146	1166	1191
k1	1246	1266	1291	1316
n / n1	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

Klemens Kutusu /*Terminal Box* / Klemmenkasten

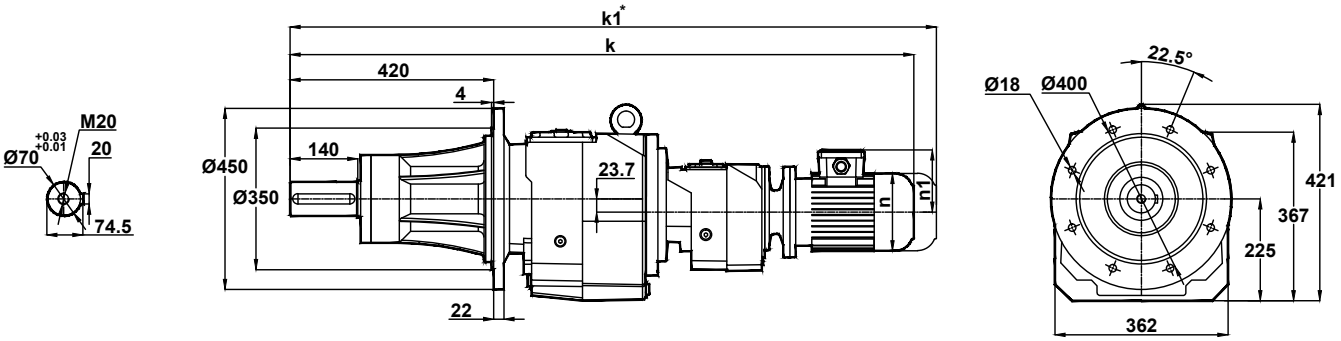


71-80-90

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
Dimension " k1" is for motors with brake. Gearboxes with 63 and 71 type electrical motors are not fan cooloed, other types are fan cooled.
Maße " k1 " ist für Bremsenmotoren. Getrieben mit 63 und 71 typ Motoren sind ohne Kühlung, andere Typen zind mit Ventilator gekühlt.
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte

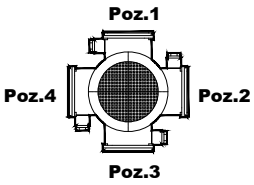
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB575
NVB576



Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**63/B5**	**71/B5 71/B14**
k	1230	1227
k1	1283	1347
n / n1	121 / 97	138 / 111
m1 (B5)	140	160
m1 (B14)	-	105

Klemens Kutusu /*Terminal Box* / Klemmenkasten



63-71

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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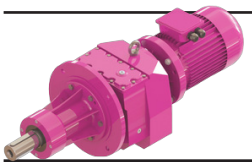
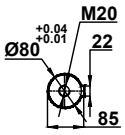
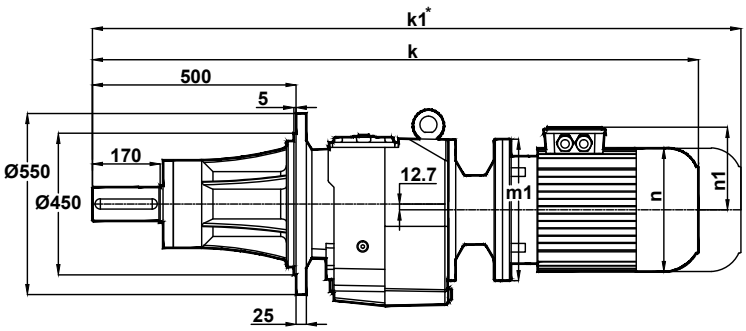
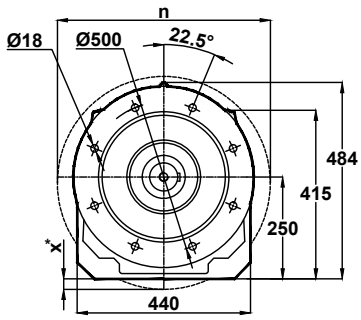


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB672
NVB673

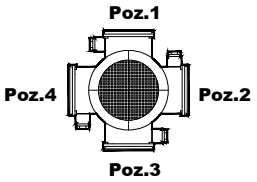






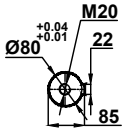
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
IEC	**112M/B5**	**132S/B5 132S/B14**	**132M/B5 132M/B14**	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**	**200L/B5**	**225S/B5**	**225M/B5**
k	1264	1323	1361	1508	1552	1565	1705	1779	1850	1875
k1	1399	1468	1506	1678	1722	1735	1875	1979	2040	2065
n / n1	218 / 146	257 / 168	257 / 168	310 / 225	310 / 225	348 / 241	348 / 241	390 / 275	434 / 285	434 / 285
m1 (B5)	250	300	300	350	350	350	350	400	450	450
m1 (B14)	-	200	200	-	-	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-	-

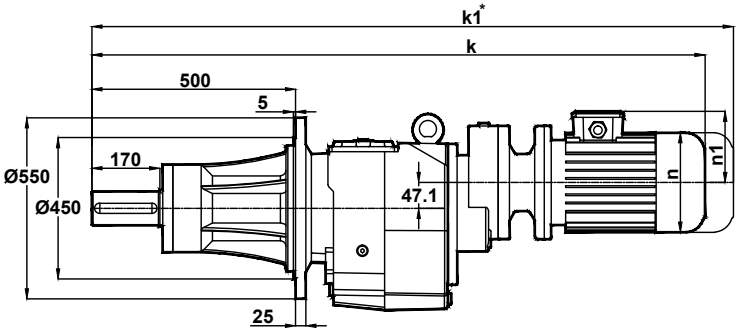
Klemens Kutusu /*Terminal Box* / Klemmenkasten

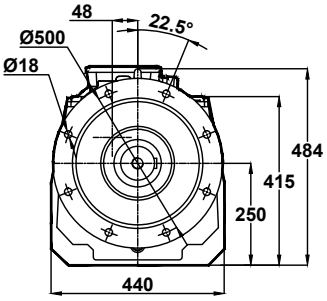


112-132-160-180-200-225

NVB674

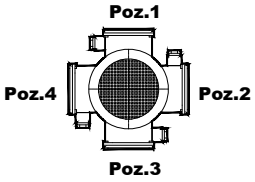






Motor Büyüklüğü / *Motor Size* / Motorbaugroße			
IEC	**80/B5**	**90S/B5 90S/B14**	**90L/B5 90L/B14**
k	1257	1277	1302
k1	1377	1402	1427
n / n1	156 / 118	176 / 126	176 / 126
m1 (B5)	200	200	200
m1 (B14)	-	140	140

Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90

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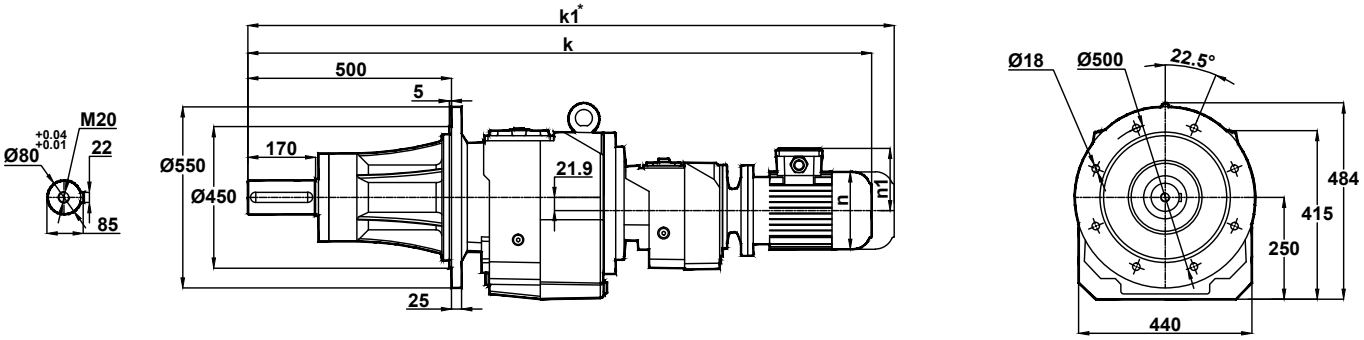
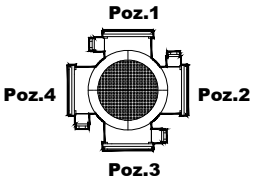
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB675
NVB676



Motor Büyüklüğü / *Motor Size* / Motorbaugroße		
IEC	**71/B5**	**80/B5 80/B14**
k	1387	1407
k1	1507	1527
n / n1	138 / 111	156 / 118
m1 (B5)	160	200
m1 (B14)	-	120

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71-80

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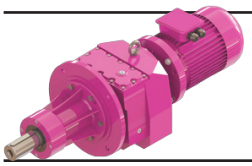
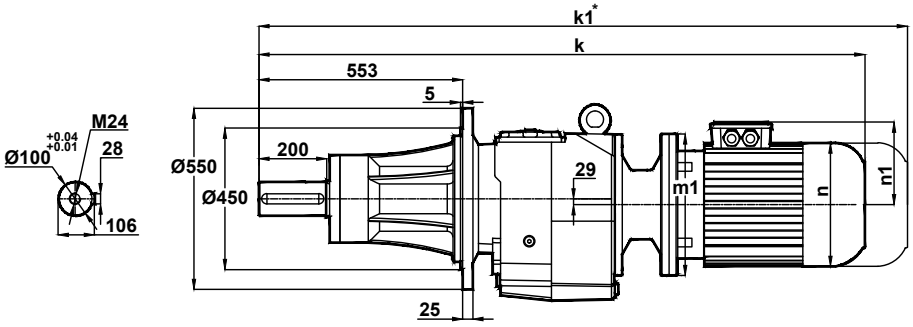
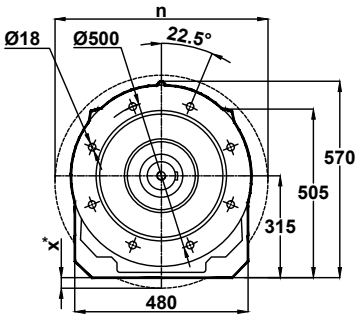


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

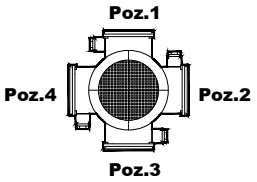
NVB772
NVB773





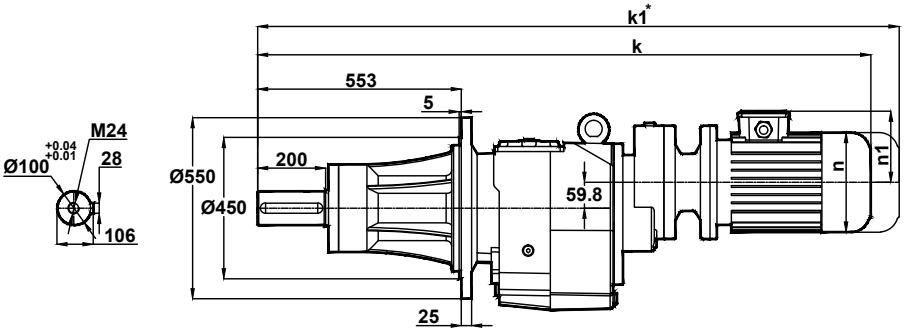
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
IEC	**132S/B5**	**132M/B5**	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**	**200L/B5**	**225S/B5**	**225M/B5**	**250M/B5**
k	1431	1469	1610	1654	1667	1705	1779	1850	1875	1951
k1	1576	1614	1780	1824	1837	1875	1979	2040	2065	-
n / n1	257 / 168	257 / 168	310 / 225	310 / 225	348 / 241	348 / 241	434 / 285	434 / 285	434 / 285	480 / 322
m1 (B5)	300	300	350	350	350	350	400	450	450	550
m1 (B14)	-	-	-	-	-	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-	-

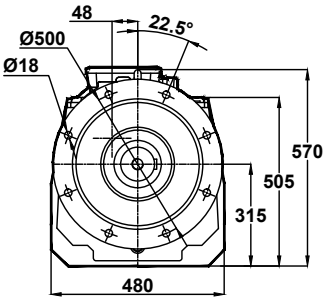
Klemens Kutusu /*Terminal Box* / Klemmenkasten



132-160-180-200-225-250

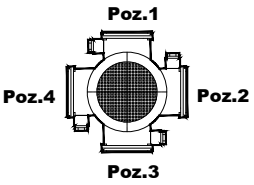
NVB774





Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	**80/B5**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**
k	1365	1385	1410	1460
k1	1485	1510	1535	1595
n / n1	156 / 118	176 / 126	176 / 126	194 / 135
m1 (B5)	200	200	200	250
m1 (B14)	-	140	140	160

Klemens Kutusu /*Terminal Box* / Klemmenkasten



80-90-100

*** " k1 " Ölçüsü frenli redüktörlere aittir. 63, 71 tip elektrik motorlu redüktörler soğutmasız, diğerleri soğutmalıdır.**
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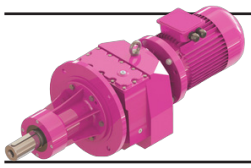
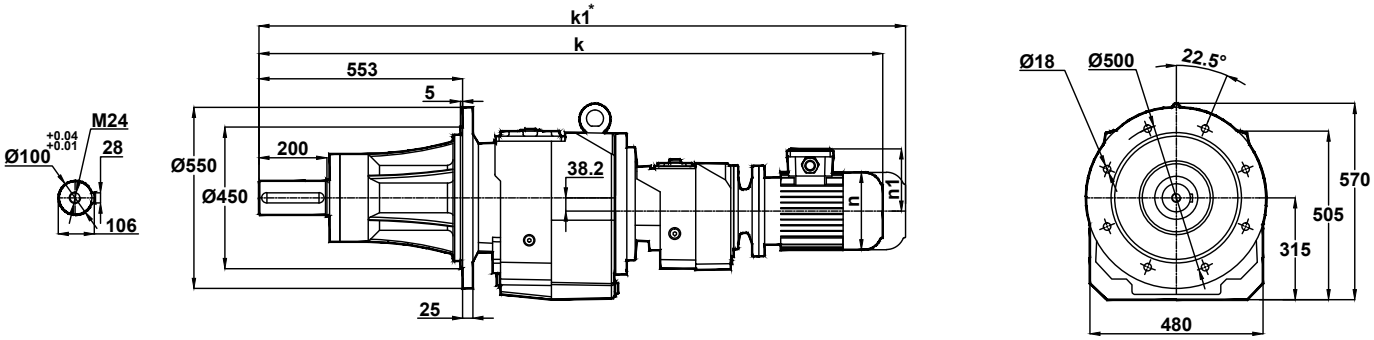
x: Motor, ayak bağlantı yüzeyinin altında ise / *x: If Motor is lower then foot mounting plane* / x: Wen motor ist nidriger den die Anschlußplatte



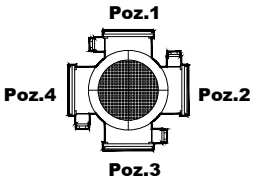
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB775
NVB776



Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	**71/B5**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**
k	1498	1518	1538	1563
k1	1618	1638	1663	1688
n / n1	138 / 111	156 / 118	176 / 126	176 / 126
m1 (B5)	160	200	200	200
m1 (B14)	-	120	140	140

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71-80-90

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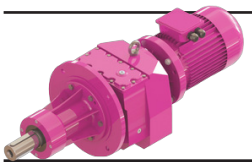
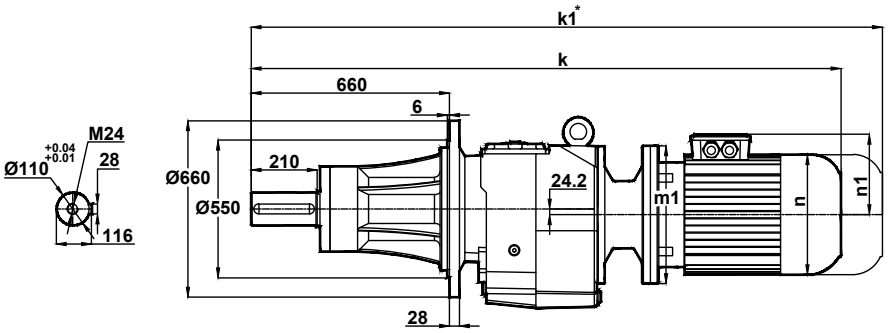
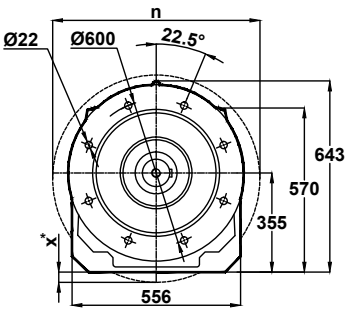


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

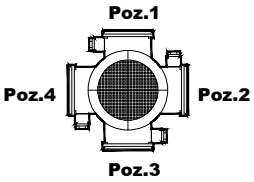
NVB872
NVB873





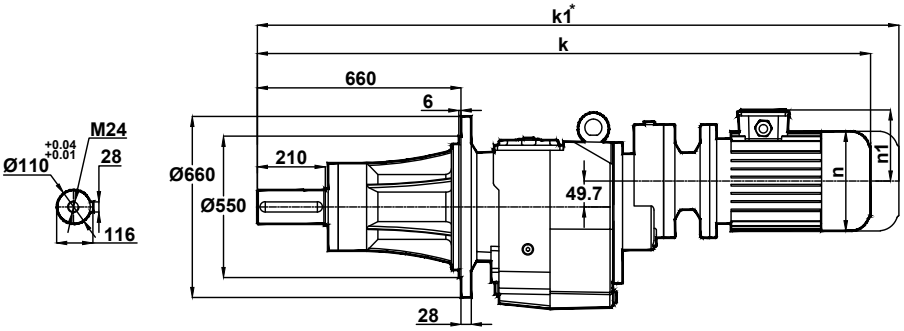
Motor Büyüklüğü / *Motor Size* / Motorbaugroße										
IEC	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**	**200L/B5**	**225S/B5**	**225M/B5**	**250M/B5**	**280S/B5**	**280M/B5**
k	1863	1907	1920	1958	2010	2028	2053	2129	2191	2191
k1	2033	2077	2090	2128	2210	2218	2243	-	-	-
n / n1	310 / 225	310 / 225	348 / 241	348 / 241	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350
m1 (B5)	350	350	350	350	400	450	450	550	550	550
m1 (B14)	-	-	-	-	-	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-	-

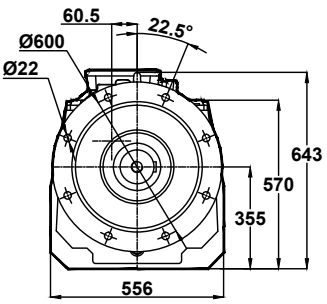
Klemens Kutusu / *Terminal Box* / Klemmenkasten



160-180-200-225-250-280

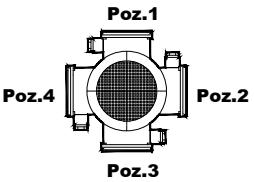
NVB874





Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	**100L/B5**	**112M/B5**	**132S/B5 132S/B14**	**132M/B5 132M/B14**
k	1662	1682	1747	1785
k1	1797	1817	1892	1930
n / n1	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

Klemens Kutusu / *Terminal Box* / Klemmenkasten



100-112-132

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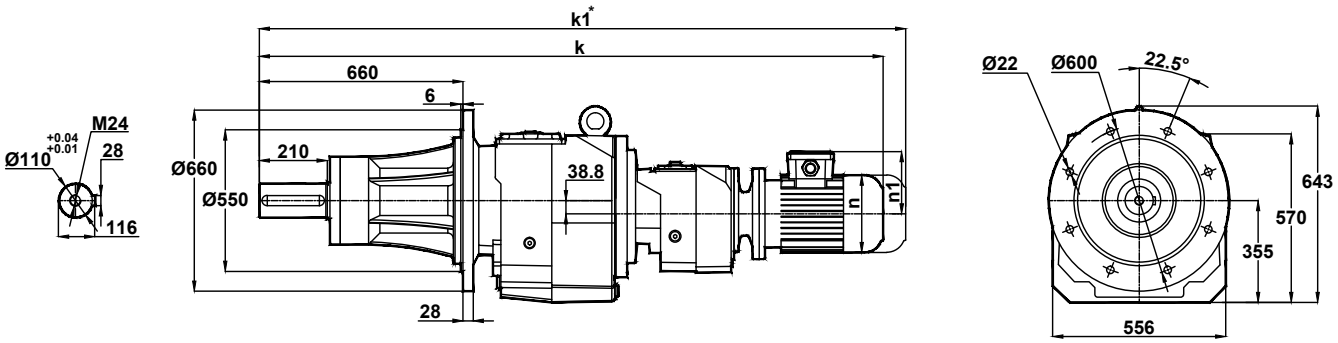
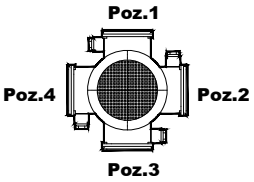
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB875
NVB876



Motor Büyüklüğü / *Motor Size* / Motorbaugroße					
IEC	**71/B5**	**80/B5 80/B14**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**
k	1682	1702	1722	1747	1796
k1	1802	1822	1847	1872	1931
n / n1	138 / 111	156 / 118	176 / 126	176 / 126	194 / 135
m1 (B5)	160	200	200	200	250
m1 (B14)	-	120	140	140	160

Klemens Kutusu /*Terminal Box* / Klemmenkasten



71-80-90-100

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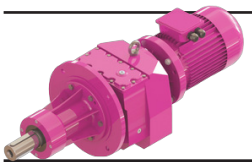
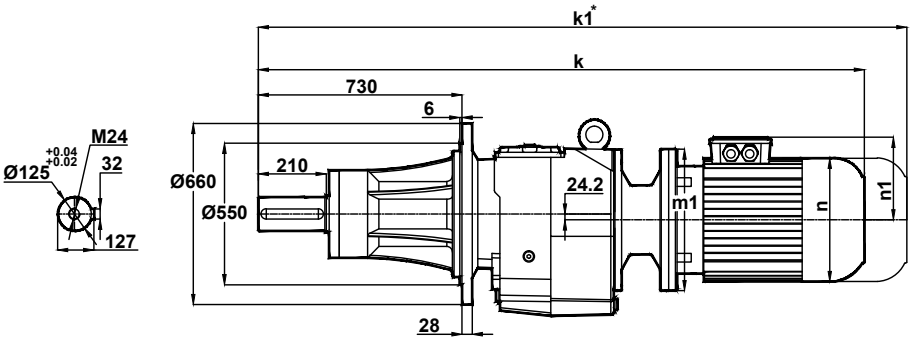
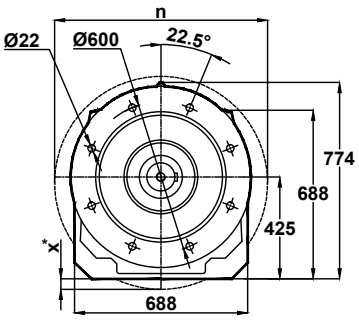


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

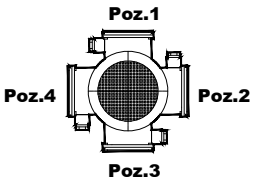
NVB972
NVB973





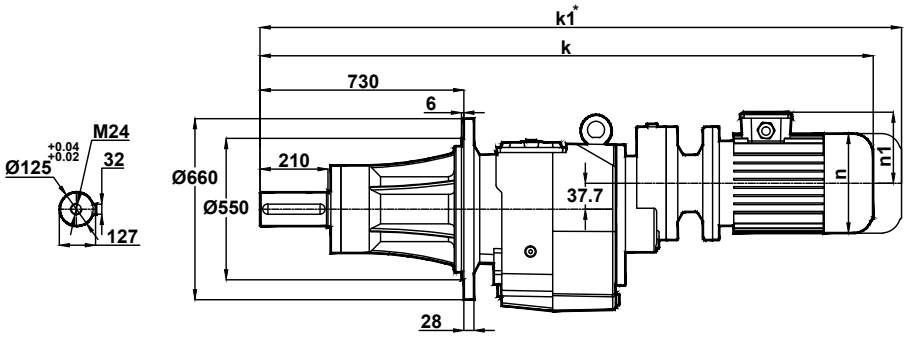
Motor Büyüklüğü / *Motor Size* / Motorbaugroße												
IEC	**160M/B5**	**160L/B5**	**180M/B5**	**180L/B5**	**200L/B5**	**225S/B5**	**225M/B5**	**250M/B5**	**280S/B5**	**280M/B5**	**315S/4**	**315M/4**
k	1921	1965	1978	2016	2092	2152	2177	2305	2367	2367	2579	2579
k1	2091	2135	2148	2186	2292	2342	2367	-	-	-	-	-
n / n1	310 / 225	310 / 225	348 / 241	348 / 241	390 / 275	434 / 285	434 / 285	480 / 322	544 / 350	544 / 350	614 / 510	614 / 510
m1 (B5)	350	350	350	350	400	450	450	550	550	550	660	660
m1 (B14)	-	-	-	-	-	-	-	-	-	-	-	-
x (B5)	-	-	-	-	-	-	-	-	-	-	-	-

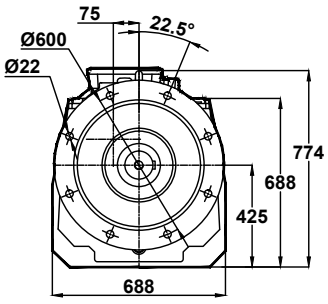
Klemens Kutusu /*Terminal Box* / Klemmenkasten



160-180-200-225-250-280-315

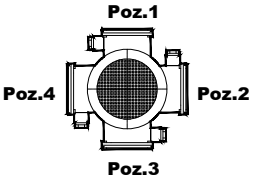
NVB974





Motor Büyüklüğü / *Motor Size* / Motorbaugroße				
IEC	**100L/B5**	**112M/B5**	**132S/B5 132S/B14**	**132M/B5 132M/B14**
k	1835	1855	1914	1952
k1	1970	1990	2059	2097
n / n1	194 / 135	218 / 146	257 / 168	257 / 168
m1 (B5)	250	250	300	300
m1 (B14)	-	-	200	200

Klemens Kutusu /*Terminal Box* / Klemmenkasten



100-112-132

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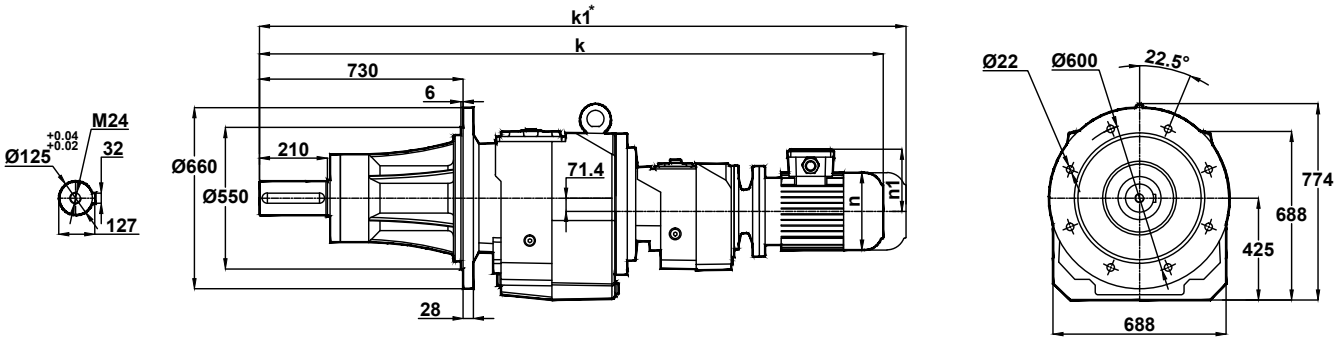
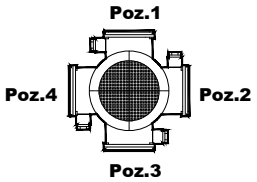
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NVB975
NVB976



Motor Büyüklüğü / *Motor Size* / Motorbaugroße						
IEC	**80/B5**	**90S/B5 90S/B14**	**90L/B5 90L/B14**	**100L/B5 100L/B14**	**112M/B5 112M/B14**	**132S/B5 132S/B14**
k	1894	1914	1939	1990	2010	2072
k1	2014	2039	2064	2125	2145	2217
n / n1	156 / 118	176 / 126	176 / 126	194 / 135	218 / 146	218 / 146
m1 (B5)	200	200	200	250	250	300
m1 (B14)	-	140	140	160	160	200

Klemens Kutusu / *Terminal Box* / Klemmenkasten



80-90-100-112-132

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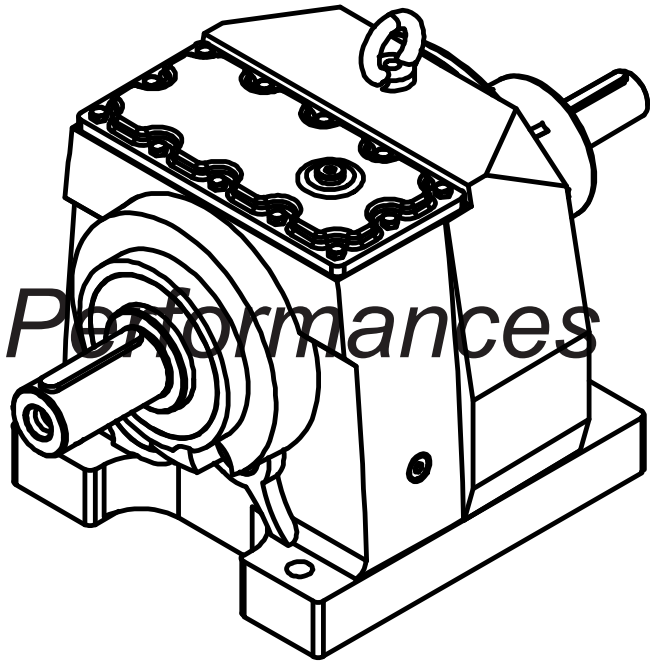
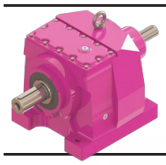
Notlar / *Notes* / Notizen

Güç ve Devir Tabloları

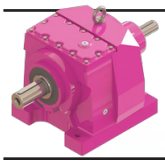


Leistung und Drehzahlübersicht



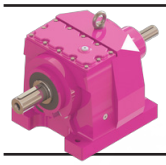
Motorsuz Güç Devir Sayfaları
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
53	3,62	387	**MT002**	3,52	**2,23**	1,68	1,49	1,06	0,87	380	-	11	330	MT001
55	3,90	359	**NT002**	3,42	**2,15**	1,61	1,43	1,02	0,81	371	-	12		NT001
58	4,56	307		3,07	**1,94**	1,45	1,30	0,89	0,69	389	-			
64	5,57	251		2,78	**1,75**	1,31	1,16	0,73	0,57	591	-			
66	6,00	233		2,63	**1,68**	1,25	1,11	0,68	0,53	597	-			
69	6,91	203		2,38	**1,53**	1,14	0,98	0,59	0,46	712	-			
71	7,45	188		2,29	**1,46**	1,09	0,91	0,55	0,42	724	-			
72	7,84	179		2,21	**1,40**	1,03	0,86	0,52	0,40	795	-			
74	8,45	166		2,09	**1,34**	0,96	0,80	0,48	0,37	811	-			
74	8,70	161		2,07	**1,31**	0,93	0,78	0,47	0,36	781	-			
78	9,87	142		1,89	**1,21**	0,82	0,68	0,41	0,32	853	-			
65	11,14	126		1,46	**0,90**	0,70	0,61	0,37	0,29	1275	-			
80	13,61	103	**MT003**	1,39	**0,92**	0,61	0,51	0,30	0,24	601	435	12	330	MT002
82	14,67	95	**NT003**	1,33	**0,87**	0,56	0,47	0,28	0,22	617	438	13		NT002
82	16,89	83		1,38	**0,76**	0,49	0,41	0,25	0,19	859	562			
82	18,20	77		1,33	**0,70**	0,45	0,38	0,23	0,18	937	571			
82	19,17	73		1,29	**0,67**	0,43	0,36	0,22	0,17	1054	599			
82	20,66	68		1,23	**0,62**	0,39	0,33	0,20	0,16	1136	607			
82	21,26	66		1,20	**0,61**	0,38	0,33	0,20	0,15	1107	587			
82	24,13	58		1,06	**0,53**	0,34	0,29	0,17	0,13	1313	621			
82	28,38	49		0,90	**0,45**	0,29	0,24	0,15	0,11	1508	660			
82	32,02	44		0,74	**0,40**	0,26	0,22	0,13	0,10	1689	684			
82	40,04	35		0,65	**0,32**	0,21	0,17	0,11	0,08	1959	680			
82	45,18	31		0,58	**0,29**	0,19	0,16	0,09	0,07	2159	702			
70	3,94	355	**MT102**	4,22	**2,70**	1,99	1,76	1,25	1,07	1058	-	13	331	MT003
75	4,57	306	**NT102**	3,98	**2,50**	1,83	1,70	1,19	1,01	1103	-	14		NT003
80	5,01	279		3,62	**2,43**	1,76	1,55	1,13	0,96	1120	-			
80	5,47	256		3,60	**2,23**	1,71	1,50	1,08	0,91	1168	-			
85	6,48	216		3,28	**2,00**	1,52	1,33	0,95	0,77	1233	-			
90	6,93	202		3,07	**1,98**	1,42	1,30	0,93	0,72	1242	-			
90	8,01	175		2,66	**1,72**	1,29	1,13	0,80	0,67	1391	553			
95	9,29	151		2,46	**1,57**	1,17	1,06	0,75	0,58	1459	564			
100	10,18	137		2,24	**1,50**	1,11	0,97	0,68	0,53	1492	550			
100	11,12	126		2,20	**1,38**	1,07	0,93	0,62	0,49	1554	633			
105	13,15	106		1,97	**1,23**	0,94	0,85	0,53	0,41	1648	631			
110	14,08	99		1,85	**1,20**	0,91	0,79	0,49	0,38	1671	569			
115	15,95	88		1,73	**1,11**	0,84	0,73	0,44	0,34	1740	509			
110	17,33	81	**MT103**	1,52	**0,99**	0,76	0,68	0,41	0,32	1764	830	14	331	MT004
120	20,51	68	**NT103**	1,36	**0,91**	0,69	0,57	0,35	0,27	1842	817	15		NT004
120	21,96	64		1,34	**0,85**	0,64	0,54	0,32	0,25	1903	825			
130	24,86	56		1,25	**0,82**	0,57	0,48	0,29	0,22	1951	804			
140	29,40	48		1,16	**0,75**	0,48	0,40	0,24	0,19	2139	937			
140	32,25	43		1,06	**0,68**	0,44	0,37	0,22	0,17	2231	948			
140	35,21	40		1,02	**0,62**	0,40	0,34	0,20	0,16	2322	956			
140	41,66	34		0,90	**0,53**	0,34	0,29	0,17	0,13	2503	966			
140	44,60	31		0,88	**0,50**	0,32	0,27	0,16	0,12	2579	970			
140	50,51	28		0,81	**0,44**	0,28	0,24	0,14	0,11	2723	974			
110	3,38	414	**MT172**	7,57	**4,92**	3,90	3,37	2,46	2,03	609	-	15	332	MT005
120	4,09	343	**NT172**	7,38	**4,45**	3,59	3,19	2,28	1,87	591	-	16		NT005
130	4,78	293		6,94	**4,12**	3,48	3,07	2,05	1,60	772	-			
135	5,78	242		6,28	**3,55**	3,22	2,83	1,70	1,33	888	-			
145	6,60	212		5,73	**3,34**	2,97	2,48	1,49	1,16	856	-			
160	7,60	184		5,38	**3,21**	2,58	2,15	1,30	1,01	746	-			
165	8,94	157		4,75	**2,81**	2,20	1,83	1,10	0,86	861	-			
170	9,53	147		4,62	**2,72**	2,06	1,72	1,03	0,81	852	-			
180	11,08	126		3,98	**2,48**	1,78	1,48	0,89	0,69	1257	-			
190	12,66	111		3,60	**2,29**	1,56	1,30	0,78	0,61	1284	-			



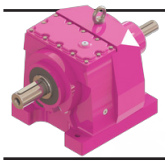
Motorsuz Güç Devir Sayfaları
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
195	14,57	96	**MT172**	3,24	**2,05**	1,35	1,13	0,68	0,53	1415	-	15	332	MT005
200	17,14	82	**NT172**	2,85	**1,79**	1,15	0,96	0,58	0,45	1591	-	16		NT005
200	18,28	77		2,76	**1,68**	1,08	0,90	0,54	0,42	1698	-			
200	20,92	67		2,48	**1,47**	0,95	0,79	0,47	0,37	1930	-			
200	26,10	54	**MT173**	1,48	**1,19**	0,77	0,64	0,39	0,30	2857	827	16	332	MT006
200	30,26	46	**NT173**	1,33	**1,03**	0,67	0,56	0,33	0,26	3057	847	17		NT006
200	36,24	39		1,24	**0,86**	0,56	0,42	0,28	0,22	3314	873			
200	42,87	33		1,13	**0,73**	0,47	0,39	0,24	0,18	3568	888			
200	45,90	31		1,16	**0,69**	0,44	0,37	0,22	0,17	3675	894			
200	49,81	28		1,10	**0,63**	0,41	0,34	0,20	0,16	3807	989			
200	57,76	24		0,98	**0,55**	0,35	0,29	0,18	0,14	4055	999			
200	69,16	20		0,91	**0,46**	0,30	0,25	0,15	0,12	4373	1013			
200	81,82	17		0,77	**0,39**	0,25	0,21	0,13	0,10	4689	1021			
200	87,60	16		0,72	**0,36**	0,23	0,20	0,12	0,09	4822	1024			
200	99,21	14		0,64	**0,32**	0,21	0,17	0,10	0,08	5072	1027			
125	3,50	400	**MT202**	8,62	**5,41**	4,19	3,61	2,59	2,24	2285	-	20	333	MT007
145	4,20	333	**NT202**	8,27	**5,24**	3,85	3,40	2,46	2,10	2128	-	22		NT007
150	4,50	311		8,05	**5,05**	3,80	3,35	2,40	2,04	2140	-			
160	5,08	276		7,45	**4,79**	3,57	3,22	2,28	1,93	2131	-			
175	5,80	241		7,05	**4,59**	3,38	3,04	2,17	1,82	2039	-			
185	7,04	199		6,23	**3,99**	2,99	2,67	1,92	1,52	2954	657			
200	8,40	167		5,59	**3,62**	2,69	2,39	1,64	1,28	3055	670			
210	10,07	139		4,97	**3,18**	2,39	2,12	1,37	1,07	3297	770			
215	10,81	130		4,77	**3,03**	2,27	2,01	1,28	0,99	3374	776			
225	12,18	115		4,49	**2,82**	2,10	1,85	1,14	0,88	3486	775			
235	13,92	101		4,05	**2,58**	1,95	1,65	0,99	0,77	3650	778			
240	14,86	94		3,89	**2,47**	1,86	1,55	0,93	0,72	3734	768			
245	16,03	87		3,71	**2,34**	1,72	1,44	0,87	0,67	3852	780			
260	18,85	74		3,32	**2,11**	1,47	1,22	0,74	0,57	4038	714			
260	20,10	70		3,19	**1,98**	1,38	1,15	0,69	0,54	4240	773			
280	23,01	61		2,92	**1,87**	1,20	1,00	0,60	0,47	4271	608			
270	23,23	60	**MT203**	2,79	**1,81**	1,21	1,01	0,61	0,47	3431	1163	21	333	MT008
275	24,77	57	**NT203**	2,68	**1,73**	1,14	0,95	0,57	0,44	3525	1162	23		NT008
280	28,35	49		2,46	**1,54**	0,99	0,83	0,50	0,39	3876	1172			
280	36,02	39		1,93	**1,21**	0,78	0,65	0,39	0,31	5354	1504			
280	41,16	34		1,77	**1,06**	0,69	0,57	0,34	0,27	5657	1519			
280	43,94	32		1,69	**0,99**	0,64	0,54	0,32	0,25	5810	1526			
280	47,39	30		1,61	**0,92**	0,60	0,50	0,30	0,26	5992	1533			
280	55,74	25		1,43	**0,79**	0,51	0,42	0,26	0,22	6397	1547			
280	59,43	24		1,37	**0,74**	0,48	0,40	0,27	0,21	6563	1552			
280	68,03	21		1,27	**0,65**	0,42	0,35	0,23	0,18	6926	1561			
195	3,16	443	**MT272**	14,73	**9,31**	6,93	6,17	4,41	3,74	620	-	25	334	MT009
205	3,69	380	**NT272**	13,45	**8,40**	6,34	5,62	3,98	3,41	659	-	27		NT009
230	4,53	309		11,97	**7,69**	5,60	5,04	3,57	3,04	924	-			
265	5,28	265		11,13	**7,60**	5,55	5,01	3,34	2,82	543	-			
330	6,21	225		13,60	**8,05**	5,90	5,38	3,56	2,77	-	-			
360	8,71	161		9,88	**6,27**	4,49	4,17	2,54	1,98	550	-			
375	10,16	138		8,77	**5,60**	4,14	3,62	2,18	1,69	646	-			
390	11,95	117		7,85	**4,96**	3,69	3,08	1,85	1,44	779	-			
410	14,21	99		6,93	**4,39**	3,11	2,59	1,56	1,21	878	-			
425	16,07	87		6,42	**4,03**	2,75	2,30	1,38	1,07	951	-			
445	18,33	76		5,80	**3,71**	2,42	2,02	1,21	0,94	977	-			
450	21,43	65		5,18	**3,21**	2,07	1,72	1,04	0,81	1341	-			
450	25,89	54		4,59	**2,66**	1,71	1,43	0,86	0,67	1914	-			
435	19,00	74	**MT273**	5,41	**3,54**	2,36	1,97	1,19	0,93	288	326	26	334	MT010
435	25,55	55	**NT273**	4,02	**2,63**	1,76	1,47	0,88	0,69	2121	1297	28		NT010



Motorsuz Güç Devir Sayfaları
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
450	30,48	46	**MT273**	3,58	**2,28**	1,47	1,23	0,74	0,58	2438	1325	26	334	MT010
450	36,55	38	**NT273**	3,16	**1,91**	1,23	1,03	0,62	0,48	3055	1364	28		NT010
450	42,41	33		2,90	**1,65**	1,06	0,89	0,53	0,42	3590	1501			
450	50,59	28		2,59	**1,38**	0,89	0,75	0,45	0,35	4259	1529			
450	60,66	23		2,30	**1,16**	0,75	0,62	0,38	0,29	4990	1553			
450	73,35	19		1,91	**0,96**	0,62	0,52	0,31	0,27	5804	1574			
450	83,83	17		1,67	**0,84**	0,54	0,45	0,27	0,24	6408	1586			
450	96,52	15		1,46	**0,73**	0,47	0,39	0,26	0,21	6700	1597			
450	113,52	12		1,24	**0,62**	0,40	0,34	0,22	0,17	6700	1608			
450	121,03	12		1,17	**0,59**	0,38	0,32	0,21	0,16	6700	1612			
450	138,55	10		1,02	**0,51**	0,33	0,28	0,18	0,14	6700	1619			
450	149,02	9,4	**MT275**	0,99	**0,49**	0,32	0,27	0,18	0,14	6700	694	39	335	MT011
450	180,21	7,8	**NT275**	0,82	**0,41**	0,26	0,24	0,15	0,11	6700	727	41		NT011
450	205,95	6,8		0,72	**0,36**	0,26	0,21	0,13	0,10	6700	746			
450	215,91	6,5		0,68	**0,34**	0,24	0,20	0,12	0,09	6700	753			
450	252,20	5,6		0,59	**0,29**	0,21	0,17	0,10	0,08	6700	797			
450	332,52	4,2		0,49	**0,25**	0,18	0,15	0,09	0,07	6700	799			
450	358,33	3,9		0,46	**0,23**	0,16	0,14	0,08	0,06	6700	804			
450	418,57	3,3		0,39	**0,20**	0,14	0,12	0,07	0,05	6700	816			
450	499,32	2,8		0,33	**0,16**	0,12	0,10	0,06	0,05	6700	826			
450	598,70	2,3		0,28	**0,14**	0,10	0,08	0,05	0,04	6700	836			
450	724,01	1,9		0,25	**0,11**	0,08	0,07	0,04	0,03	6700	841			
450	827,44	1,7		0,22	**0,10**	0,07	0,06	0,04	0,03	6700	846			
450	952,64	1,5		0,19	**0,09**	0,06	0,05	0,03	0,02	6700	851			
450	1120,49	1,2		0,16	**0,07**	0,05	0,04	0,03	0,02	6700	853			
450	1194,61	1,2		0,15	**0,07**	0,05	0,04	0,02	0,02	6700	853			
450	1463,49	0,96	**MT276**	0,13	**0,06**	0,04	0,03	0,02	0,02	6700	869	40	335	MT012
450	1769,80	0,79	**NT276**	0,11	**0,05**	0,03	0,03	0,02	0,01	6700	858	42		NT012
450	2022,63	0,69		0,09	**0,04**	0,03	0,02	0,01	0,01	6700	862			
450	2328,68	0,60		0,08	**0,04**	0,03	0,02	0,01	0,01	6700	864			
450	2738,97	0,51		0,07	**0,03**	0,02	0,02	0,01	0,01	6700	858			
450	2920,17	0,48		0,06	**0,03**	0,02	0,02	0,01	0,01	6700	864			
220	3,15	444	**MT282**	16,25	**10,56**	7,74	6,72	4,98	4,24	2357	-	37	336	MT013
240	3,64	385	**NT282**	15,74	**9,99**	7,51	6,72	4,58	3,99	2305	-	39		NT013
260	4,20	333		15,06	**9,37**	7,44	6,40	4,55	3,82	2266	-			
280	4,62	303		15,02	**9,18**	7,40	6,35	4,36	3,64	2125	-			
320	5,35	262		14,67	**9,07**	7,31	6,25	4,32	3,72	1757	-			
360	6,25	224		14,02	**8,74**	6,58	5,88	4,17	3,55	1430	-			
370	7,21	194		12,15	**7,79**	5,83	5,21	3,75	3,13	2610	-			
390	8,33	168		10,90	**7,11**	5,29	4,71	3,31	2,76	2710	-			
400	9,61	146		9,75	**6,32**	4,69	4,16	2,97	2,39	2985	160			
410	10,57	132		9,16	**5,90**	4,36	3,87	2,79	2,18	3124	215			
420	12,24	114		8,42	**5,22**	3,93	3,48	2,41	1,88	3448	347			
440	14,31	98		7,43	**4,69**	3,57	3,15	2,07	1,61	3669	359			
470	16,91	83		6,65	**4,25**	3,14	2,77	1,75	1,36	3804	267			
480	19,06	73		6,07	**3,85**	2,90	2,59	1,56	1,21	4101	310			
500	21,66	65		5,63	**3,54**	2,64	2,28	1,37	1,07	4294	252			
530	25,23	55		5,08	**3,22**	2,35	1,96	1,18	0,92	4457	122			
560	30,37	46		4,43	**2,83**	1,95	1,63	0,98	0,76	4802	-			
270	18,33	76	**MT283**	3,52	**2,28**	1,80	1,64	1,18	1,03	6936	1848	38	336	MT014
290	20,25	69	**NT283**	3,34	**2,22**	1,73	1,57	1,14	0,97	7197	1837	40		NT014
320	23,63	59		3,13	**2,10**	1,57	1,41	1,04	0,88	7612	1822			
340	27,80	50		2,78	**1,90**	1,44	1,30	0,94	0,81	5730	1821			
480	30,82	45		3,69	**2,41**	1,85	1,63	0,98	0,76	5615	1883			
515	35,98	39		3,34	**2,22**	1,67	1,39	0,84	0,66	5876	1886			
550	41,96	33		3,16	**2,03**	1,43	1,20	0,72	0,56	6155	1893			
570	46,37	30		2,93	**1,91**	1,30	1,08	0,65	0,51	6358	1896			



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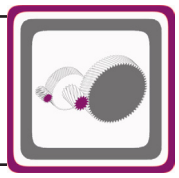
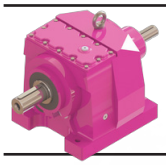
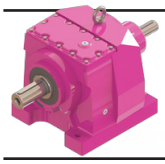


Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
600	54,12	26	**MT283**	2,63	**1,73**	1,11	0,93	0,56	0,44	6694	1900	38	336	MT014
600	63,65	22	**NT283**	2,39	**1,47**	0,95	0,79	0,48	0,37	7195	1920	40		NT014
600	75,68	18		2,18	**1,24**	0,80	0,67	0,40	0,31	7758	1939			
600	85,60	16		2,01	**1,10**	0,71	0,59	0,36	0,28	8180	1950			
600	97,62	14		1,86	**0,97**	0,62	0,52	0,31	0,27	8649	1961			
600	114,14	12		1,65	**0,83**	0,54	0,45	0,27	0,23	9150	1972			
600	137,91	10		1,37	**0,69**	0,45	0,37	0,25	0,19	9150	1982			
600	158,52	8,8	**MT284**	1,21	**0,60**	0,39	0,32	0,22	0,17	9150	1602	39	337	MT015
600	175,17	8,0	**NT284**	1,09	**0,55**	0,35	0,29	0,20	0,15	9150	1625	41		NT015
600	204,44	6,8		0,94	**0,47**	0,30	0,25	0,17	0,13	9150	1656			
600	240,47	5,8		0,80	**0,40**	0,26	0,24	0,14	0,11	9150	1684			
600	285,89	4,9		0,67	**0,34**	0,24	0,20	0,12	0,09	9150	1709			
600	323,39	4,3		0,60	**0,30**	0,21	0,18	0,11	0,08	9150	1725			
600	368,77	3,8		0,52	**0,26**	0,19	0,16	0,09	0,07	9150	1739			
600	431,18	3,2		0,50	**0,25**	0,18	0,15	0,09	0,07	9150	1800			
600	376,94	3,7	**MT285**	0,52	**0,26**	0,19	0,16	0,09	0,07	9150	1066	58	338	MT016
600	443,37	3,2	**NT285**	0,50	**0,25**	0,18	0,15	0,09	0,07	9150	1082	60		NT016
600	491,50	2,8		0,45	**0,22**	0,16	0,13	0,08	0,06	9150	1091			
600	573,81	2,4		0,38	**0,19**	0,14	0,11	0,07	0,05	9150	1102			
600	669,25	2,1		0,33	**0,16**	0,12	0,10	0,06	0,05	9150	1112			
600	739,53	1,9		0,30	**0,15**	0,11	0,09	0,05	0,04	9150	1117			
600	863,11	1,6		0,25	**0,13**	0,09	0,08	0,05	0,04	9150	1125			
600	1015,21	1,4		0,24	**0,11**	0,08	0,06	0,04	0,03	9150	1132			
600	1206,98	1,2		0,20	**0,09**	0,07	0,05	0,03	0,03	9150	1138			
600	1365,28	1,0		0,18	**0,08**	0,06	0,05	0,03	0,02	9150	1142			
600	1817,07	0,77	**MT286**	0,14	**0,06**	0,04	0,04	0,02	0,02	9150	1149	59	338	MT017
600	2119,30	0,66	**NT286**	0,12	**0,05**	0,04	0,03	0,02	0,01	9150	1152	61		NT017
600	2341,83	0,60		0,11	**0,05**	0,03	0,03	0,02	0,01	9150	1154			
600	2733,17	0,51		0,09	**0,04**	0,03	0,02	0,01	0,01	9150	1156			
600	3214,82	0,44		0,08	**0,04**	0,03	0,02	0,01	0,01	9150	1158			
385	3,28	427	**MT372**	27,93	**17,70**	13,20	11,76	8,35	7,08	975	-	45	339	MT018
410	3,74	374	**NT372**	26,10	**16,54**	12,49	11,07	7,91	6,67	879	-	48		NT018
445	4,29	326		24,53	**15,67**	11,69	10,33	7,41	6,26	633	-			
475	4,96	282		22,77	**14,49**	10,82	9,61	6,87	5,81	518	-			
510	5,23	268		23,03	**14,75**	11,00	9,80	6,93	5,91	1064	-			
530	5,97	235		21,21	**13,45**	10,14	9,01	6,41	5,25	1160	-			
560	6,84	205		18,95	**12,40**	9,28	8,22	5,88	4,58	1131	-			
560	8,25	170		16,10	**10,29**	7,70	6,82	4,88	3,80	2471	-			
590	9,41	149		14,76	**9,51**	7,07	6,24	4,28	3,33	2511	-			
620	10,80	130		13,73	**8,72**	6,44	5,75	3,73	2,91	2594	-			
650	12,48	112		12,38	**7,93**	5,94	5,25	3,24	2,52	2731	-			
670	13,53	103		11,86	**7,53**	5,58	4,96	2,98	2,32	2772	-			
710	16,20	86		10,48	**6,68**	4,97	4,15	2,49	1,94	2965	-			
740	18,45	76		9,71	**6,12**	4,37	3,65	2,19	1,71	3118	-			
770	20,62	68		8,99	**5,70**	3,91	3,26	1,96	1,53	3205	-			
805	23,33	60		8,22	**5,27**	3,46	2,89	1,74	1,35	3300	-			
650	18,68	75	**MT373**	8,33	**5,35**	3,99	3,55	2,19	1,71	5079	1113	47	339	MT019
650	20,64	68	**NT373**	7,55	**4,85**	3,71	3,30	1,99	1,55	5333	1278	50		NT019
650	21,65	65		7,20	**4,62**	3,58	3,14	1,90	1,48	5601	1576			
710	25,27	55		6,54	**4,33**	3,23	2,70	1,63	1,27	5809	1571			
750	29,47	47		5,92	**3,92**	2,77	2,31	1,39	1,09	6105	1590			
780	35,25	40		5,23	**3,42**	2,32	1,94	1,17	0,91	6536	1756			
820	41,16	34		4,67	**3,09**	1,99	1,67	1,00	0,78	6887	1771			
820	48,00	29		4,11	**2,65**	1,71	1,43	0,86	0,67	7400	1810			
820	53,04	26		3,95	**2,40**	1,55	1,29	0,78	0,61	7747	1830			
820	61,91	23		3,40	**2,06**	1,33	1,11	0,67	0,52	8307	1856			



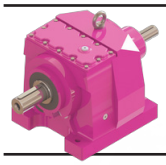
Motorsuz Güç Devir Sayfaları
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
820	72,81	19	**MT373**	3,04	**1,76**	1,13	0,95	0,57	0,44	8927	1881	47	339	MT019
820	86,57	16	**NT373**	2,73	**1,48**	0,96	0,80	0,48	0,37	9627	1902	50		NT019
820	97,92	14		2,52	**1,31**	0,85	0,71	0,43	0,33	10150	1916			
820	111,67	13		2,30	**1,16**	0,75	0,62	0,37	0,29	10732	1928			
820	138,72	10		1,86	**0,93**	0,60	0,50	0,30	0,26	11600	1945			
820	157,76	8,9		1,64	**0,82**	0,53	0,44	0,27	0,23	11600	1954			
820	181,34	7,7	**MT374**	1,44	**0,72**	0,46	0,39	0,26	0,20	11600	757	57	340	MT020
820	200,38	7,0	**NT374**	1,31	**0,65**	0,42	0,35	0,23	0,18	11600	897	60		NT020
820	233,86	6,0		1,12	**0,56**	0,36	0,30	0,20	0,16	11600	1620			
820	275,08	5,1		0,95	**0,48**	0,31	0,26	0,17	0,13	11600	1653			
820	327,04	4,3		0,80	**0,40**	0,26	0,24	0,14	0,11	11600	1683			
820	369,93	3,8		0,71	**0,36**	0,25	0,21	0,13	0,10	11600	1702			
820	421,85	3,3		0,62	**0,31**	0,22	0,19	0,11	0,09	11600	1719			
820	524,07	2,7		0,50	**0,25**	0,18	0,15	0,09	0,07	11600	1743			
820	488,82	2,9	**MT375**	0,55	**0,28**	0,20	0,16	0,10	0,08	11600	1090	63	341	MT021
820	533,70	2,6	**NT375**	0,51	**0,25**	0,18	0,15	0,09	0,07	11600	1093	66		NT021
820	631,45	2,2		0,47	**0,24**	0,17	0,14	0,08	0,07	11600	1097			
820	676,02	2,1		0,44	**0,22**	0,16	0,13	0,08	0,06	11600	1099			
820	765,58	1,8		0,39	**0,20**	0,14	0,12	0,07	0,05	11600	1101			
820	845,97	1,7		0,36	**0,18**	0,13	0,11	0,06	0,05	11600	1107			
820	987,33	1,4		0,30	**0,15**	0,11	0,09	0,05	0,04	11600	1116			
820	1161,33	1,2		0,26	**0,13**	0,09	0,08	0,05	0,04	11600	1124			
820	1380,71	1,0		0,24	**0,11**	0,08	0,06	0,04	0,03	11600	1132			
820	1561,78	0,90		0,21	**0,10**	0,07	0,06	0,03	0,03	11600	1136			
820	1690,05	0,83	**MT376**	0,20	**0,09**	0,06	0,05	0,03	0,03	11600	1146	65	341	MT022
820	1999,59	0,70	**NT376**	0,17	**0,08**	0,05	0,05	0,03	0,02	11600	1147	68		NT022
820	2140,73	0,65		0,16	**0,07**	0,05	0,04	0,03	0,02	11600	1148			
820	2424,34	0,58		0,14	**0,06**	0,05	0,04	0,02	0,02	11600	1148			
820	2678,89	0,52		0,13	**0,06**	0,04	0,03	0,02	0,02	11600	1150			
820	3126,56	0,45		0,11	**0,05**	0,04	0,03	0,02	0,01	11600	1153			
820	3677,53	0,38		0,09	**0,04**	0,03	0,02	0,01	0,01	11600	1156			
820	4372,24	0,32		0,08	**0,04**	0,03	0,02	0,01	0,01	11600	1158			
820	4945,64	0,28		0,07	**0,03**	0,02	0,02	0,01	0,01	11600	1160			
590	3,27	429	**MT472**	-	**27,21**	20,52	18,11	13,00	11,06	5240	-	76	342	MT023
650	3,83	365	**MT473**	39,94	**25,56**	19,02	16,93	12,11	10,23	5434	-	80		NT023
710	4,54	309		37,12	**23,63**	17,60	15,58	11,22	9,50	5672	-			
800	4,89	287		39,93	**24,68**	18,11	16,11	11,30	9,50	5567	-			
925	5,66	247		-	**24,70**	18,51	16,31	11,46	9,61	5876	-			
985	6,65	211		36,28	**22,43**	16,52	14,52	10,22	8,56	6172	-			
1020	7,87	178		32,05	**19,67**	14,48	12,81	9,02	7,54	6595	-			
1025	8,47	165		29,71	**18,32**	13,49	11,88	8,37	6,99	6822	-			
1050	9,53	147		27,23	**16,70**	12,41	10,95	7,68	6,22	7144	-			
1100	10,79	130		25,06	**15,47**	11,38	10,03	7,04	5,50	7430	-			
1165	12,05	116		23,66	**14,65**	10,78	9,50	6,31	4,91	7798	-			
1205	13,56	103		21,83	**13,48**	9,92	8,76	5,61	4,37	8130	-			
1250	15,35	91		19,99	**12,37**	9,09	8,01	4,96	3,87	8491	-			
1295	17,25	81		18,44	**11,42**	8,39	7,35	4,42	3,44	8840	-			
1450	18,72	75		19,72	**11,77**	8,11	6,77	4,07	3,17	8737	-			
1455	22,15	63		16,97	**10,00**	6,87	5,73	3,45	2,68	9470	-			
1550	18,04	78	**MT473**	13,47	**13,14**	8,49	7,09	4,27	3,33	8072	-	78	342	MT024
1550	21,74	64	**NT473**	12,60	**10,93**	7,06	5,89	3,56	2,77	8893	-	82		NT024
1550	25,67	55		13,63	**9,24**	5,97	4,99	3,01	2,34	9884	565			
1550	30,93	45		12,32	**7,69**	4,97	4,15	2,50	1,95	10807	996			
1550	37,45	37		10,20	**6,37**	4,11	3,43	2,07	1,61	11817	1362			
1550	42,75	33		9,35	**5,59**	3,61	3,02	1,82	1,42	12553	1563			



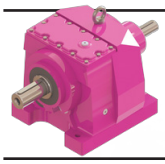
Motorsuz Güç Devir Sayfaları
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
1550	49,05	29	**MT473**	8,54	**4,88**	3,15	2,63	1,59	1,24	13354	1614	78	342	MT024
1550	55,82	25	**NT473**	7,75	**4,29**	2,77	2,31	1,39	1,09	14141	1848	82		NT024
1550	63,70	22		7,00	**3,77**	2,43	2,03	1,22	0,95	14982	1886			
1550	73,09	19		6,52	**3,29**	2,13	1,77	1,07	0,83	15600	1920			
1550	84,46	17		5,67	**2,86**	1,84	1,54	0,93	0,72	15600	1952			
1550	86,52	16		5,53	**2,79**	1,80	1,50	0,90	0,70	15600	1959			
1550	91,58	15		5,23	**2,63**	1,70	1,42	0,85	0,67	15600	1970			
1550	109,64	13		4,38	**2,21**	1,42	1,19	0,72	0,56	15600	2000			
1550	124,85	11		3,86	**1,94**	1,25	1,05	0,63	0,49	15600	2019			
1550	139,54	10		3,46	**1,74**	1,12	0,94	0,56	0,44	15600	2036			
1550	157,90	8,9		3,06	**1,54**	0,99	0,83	0,50	0,39	15600	2049			
1550	194,05	7,2		2,51	**1,26**	0,81	0,68	0,41	0,32	15600	2068			
1550	219,00	6,4		2,22	**1,12**	0,72	0,60	0,36	0,28	15600	2077			
1550	229,46	6,1	**MT474**	2,15	**1,07**	0,69	0,57	0,34	0,27	15600	1490	72	343	MT025
1550	259,55	5,4	**NT474**	1,90	**0,95**	0,61	0,51	0,31	0,26	15600	1500	76		NT025
1550	295,98	4,7		1,67	**0,83**	0,54	0,45	0,27	0,23	15600	1509			
1550	346,07	4,0		1,43	**0,71**	0,46	0,38	0,26	0,20	15600	1518			
1550	418,16	3,3		1,19	**0,59**	0,38	0,32	0,21	0,16	15600	1527			
1550	442,61	3,2		1,12	**0,56**	0,36	0,30	0,20	0,16	15600	1539			
1550	529,93	2,6		0,94	**0,47**	0,30	0,25	0,17	0,13	15600	1573			
1550	603,46	2,3		0,82	**0,41**	0,26	0,25	0,15	0,11	15600	1594			
1550	674,46	2,1		0,74	**0,37**	0,26	0,22	0,13	0,10	15600	1610			
1550	726,85	1,9	**MT475**	0,70	**0,35**	0,25	0,21	0,12	0,10	15600	1772	88	344	MT026
1550	871,52	1,6	**NT475**	0,58	**0,29**	0,21	0,17	0,10	0,08	15600	1778	92		NT026
1550	934,94	1,5		0,54	**0,27**	0,19	0,16	0,10	0,08	15600	1779			
1550	1053,93	1,3		0,54	**0,27**	0,19	0,16	0,10	0,07	15600	1783			
1550	1204,49	1,2		0,47	**0,23**	0,17	0,14	0,08	0,07	15600	1785			
1550	1285,79	1,1		0,44	**0,22**	0,16	0,13	0,08	0,06	15600	1787			
1550	1386,75	1,0		0,41	**0,20**	0,15	0,12	0,07	0,06	15600	1788			
1550	1631,08	0,86		0,35	**0,17**	0,12	0,10	0,06	0,05	15600	1791			
1550	1738,98	0,81		0,33	**0,16**	0,12	0,10	0,06	0,05	15600	1792			
1550	1990,76	0,70		0,29	**0,14**	0,10	0,09	0,05	0,04	15600	1793			
1550	2107,15	0,66		0,27	**0,13**	0,10	0,08	0,05	0,04	15600	1796			
1550	2522,85	0,55		0,25	**0,11**	0,08	0,07	0,04	0,03	15600	1804			
1550	3115,96	0,45	**MT476**	0,21	**0,09**	0,07	0,06	0,03	0,03	15600	1822	90	344	MT027
1550	3561,10	0,39	**NT476**	0,18	**0,08**	0,06	0,05	0,03	0,02	15600	1823	94		NT027
1550	3801,48	0,37		0,17	**0,08**	0,05	0,05	0,03	0,02	15600	1824			
1550	4099,95	0,34		0,16	**0,07**	0,05	0,04	0,03	0,02	15600	1824			
1550	4822,33	0,29		0,13	**0,06**	0,04	0,04	0,02	0,02	15600	1825			
1550	5141,34	0,27		0,13	**0,06**	0,04	0,03	0,02	0,02	15600	1825			
1550	5885,71	0,24		0,11	**0,05**	0,04	0,03	0,02	0,01	15600	1826			
1550	6229,83	0,22		0,10	**0,05**	0,03	0,03	0,02	0,01	15600	1827			
1550	7458,85	0,19		0,09	**0,04**	0,03	0,02	0,01	0,01	15600	1830			
1830	4,37	321	**MT572**	-	**63,03**	46,86	41,51	29,46	26,09	7626	-	109	345	MT053
1910	4,95	283	**NT572**	-	**58,14**	43,38	38,32	27,22	23,05	7727	-	119		NT053
1980	5,63	249		-	**53,05**	39,56	35,03	24,83	20,29	8090	-			
2080	6,43	218		-	**48,78**	36,29	32,05	22,79	17,76	8505	-			
2180	7,41	189		-	**44,43**	32,99	29,17	19,81	15,43	8933	-			
2160	8,34	168		-	**39,13**	28,85	25,34	17,60	13,71	9439	-			
2200	9,48	148		-	**35,08**	25,81	22,73	15,49	12,07	10015	-			
2250	10,85	129		-	**31,40**	23,13	20,42	13,56	10,56	10605	-			
2320	12,50	112		-	**28,14**	20,73	18,21	11,78	9,18	11248	-			
2390	14,54	96		40,34	**24,96**	18,39	16,18	10,14	7,90	11965	-			
2460	17,07	82		35,40	**21,87**	16,11	14,20	8,63	6,72	12809	-			
2520	19,15	73		32,37	**19,99**	14,73	12,80	7,70	6,00	13383	-			
2650	23,02	61		28,26	**17,50**	12,77	10,65	6,41	4,99	14468	-			
2750	27,00	52		25,04	**15,51**	10,90	9,10	5,47	4,26	15633	-			



Motorsuz Güç Devir Sayfaları
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
2390	22,64	62	**MT573**	25,70	**16,07**	11,92	10,52	6,52	5,08	14923	578	111	345	MT054
2520	26,54	53	**NT573**	23,12	**14,52**	10,75	9,32	5,62	4,38	15734	647	121		NT054
2650	31,38	45		20,66	**12,94**	9,46	7,90	4,76	3,71	16788	710			
2750	35,31	40		19,09	**11,96**	8,43	7,04	4,24	3,31	17736	704			
2860	39,98	35		17,57	**11,00**	7,45	6,22	3,75	2,92	18777	668			
3000	48,74	29		15,38	**9,48**	6,12	5,11	3,08	2,40	19500	2669			
3000	54,74	26		13,81	**8,45**	5,45	4,55	2,74	2,14	19500	3008			
3000	64,72	22		12,30	**7,15**	4,62	3,85	2,32	1,81	19500	3078			
3000	72,81	19		11,34	**6,37**	4,11	3,43	2,07	1,61	19500	3121			
3000	82,45	17		10,44	**5,63**	3,64	3,04	1,83	1,43	19500	3161			
3000	100,53	14		9,13	**4,63**	2,99	2,49	1,50	1,17	19500	3213			
3000	118,95	12		7,78	**3,92**	2,53	2,11	1,27	0,99	19500	3250			
3000	134,45	10		6,90	**3,48**	2,24	1,87	1,13	0,88	19500	3274			
3000	153,61	9,1		6,06	**3,05**	1,97	1,64	0,99	0,77	19500	3296			
3000	167,32	8,4		5,57	**2,81**	1,81	1,51	0,91	0,71	19500	3311			
3000	194,15	7,2	**MT574**	4,91	**2,46**	1,58	1,32	0,79	0,61	19500	1627	128	346	MT055
3000	221,40	6,3	**NT574**	4,32	**2,16**	1,39	1,16	0,69	0,54	19500	1649	138		NT055
3000	258,87	5,4		3,69	**1,85**	1,19	0,99	0,59	0,46	19500	1673			
3000	291,25	4,8		3,29	**1,64**	1,06	0,88	0,53	0,41	19500	1738			
3000	301,59	4,6		3,17	**1,59**	1,02	0,85	0,51	0,40	19500	1852			
3000	343,91	4,1		2,78	**1,39**	0,90	0,75	0,45	0,35	19500	1867			
3000	402,12	3,5		2,38	**1,19**	0,77	0,64	0,38	0,30	19500	1882			
3000	485,89	2,9		1,98	**0,99**	0,64	0,53	0,32	0,27	19500	1897			
3000	574,90	2,4		1,67	**0,84**	0,54	0,45	0,27	0,23	19500	1953			
3000	620,62	2,3	**MT575**	1,59	**0,79**	0,51	0,43	0,26	0,22	19500	1535	132	347	MT056
3000	698,26	2,0	**NT575**	1,41	**0,71**	0,45	0,38	0,25	0,20	19500	1570	142		NT056
3000	790,68	1,8		1,25	**0,62**	0,40	0,33	0,22	0,17	19500	1601			
3000	964,05	1,5		1,02	**0,51**	0,33	0,27	0,18	0,14	19500	1645			
3000	1140,65	1,2		0,87	**0,43**	0,28	0,26	0,15	0,12	19500	1676			
3000	1259,61	1,1		0,79	**0,39**	0,25	0,23	0,14	0,11	19500	1691			
3000	1489,14	0,94		0,67	**0,33**	0,24	0,20	0,12	0,09	19500	1715			
3000	1675,43	0,84		0,59	**0,30**	0,21	0,18	0,11	0,08	19500	1729			
3000	1897,20	0,74		0,52	**0,26**	0,19	0,16	0,09	0,07	19500	1742			
3000	2313,18	0,61		0,48	**0,24**	0,17	0,14	0,09	0,07	19500	1760			
3000	2736,94	0,51		0,40	**0,20**	0,14	0,12	0,07	0,06	19500	1773			
3000	2850,22	0,49	**MT576**	0,39	**0,20**	0,14	0,12	0,07	0,05	19500	1776	134	347	MT057
3000	3372,36	0,42	**NT576**	0,33	**0,17**	0,12	0,10	0,06	0,05	19500	1786	144		NT057
3000	4402,68	0,32		0,26	**0,13**	0,09	0,08	0,05	0,04	19500	1800			
3000	4953,44	0,28		0,25	**0,11**	0,08	0,07	0,04	0,03	19500	1804			
3000	6838,96	0,20		0,18	**0,08**	0,06	0,05	0,03	0,02	19500	1815			
3000	8091,82	0,17		0,16	**0,07**	0,05	0,04	0,02	0,02	19500	1819			
2150	3,29	425	**MT672**	-	**97,98**	72,26	63,72	44,87	37,72	8475	-	171	348	MT058
2400	3,79	370	**NT672**	-	**95,28**	70,12	61,93	43,47	36,58	8443	-	181		NT058
2670	4,37	320		-	**91,93**	67,70	59,83	42,05	35,29	8444	-			
2700	4,53	309		-	**89,55**	66,08	58,17	40,94	34,41	8537	-			
2920	5,08	275		-	**86,44**	63,75	56,22	39,52	32,13	8931	-			
3170	5,73	244		-	**83,34**	61,37	54,18	36,63	28,54	9330	-			
2870	6,88	203		-	**62,88**	46,33	40,90	28,74	23,77	10601	-			
2920	7,91	177		-	**55,74**	41,11	36,35	25,54	20,71	11338	-			
2990	9,13	153		-	**49,51**	36,62	32,25	22,63	17,97	12104	-			
3030	9,47	148		-	**48,33**	35,58	31,41	22,06	17,31	12259	-			
3090	10,62	132		-	**43,99**	32,50	28,65	19,83	15,45	12883	-			
3170	11,97	117		-	**40,09**	29,51	26,05	17,61	13,72	13531	-			
3250	13,58	103		-	**36,28**	26,77	23,60	15,54	12,11	14261	-			
3350	15,53	90		52,95	**32,75**	24,14	21,30	13,61	10,60	15049	-			
3470	17,93	78		47,44	**29,42**	21,65	19,11	11,80	9,19	15925	-			
3580	20,74	68		42,30	**26,23**	19,32	16,94	10,20	7,94	16867	-			



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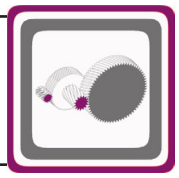
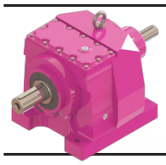


Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
3680	23,18	60	**MT672** **NT672**	38,93	**24,15**	17,81	15,18	9,13	7,11	17731	-	171 181	348	MT058 NT058
3530	26,66	53	**MT673**	-	**20,27**	15,05	13,28	8,03	6,26	19264	2705	199	348	MT059
3670	30,20	46	**NT673**	-	**18,63**	13,80	11,77	7,10	5,54	20176	2810	209		NT059
3820	34,36	41		-	**17,08**	12,42	10,37	6,25	4,87	21447	2884			
3990	39,30	36		-	**15,62**	10,87	9,08	5,47	4,27	22833	2909			
4160	45,29	31		22,66	**14,17**	9,46	7,90	4,76	3,71	24363	2932			
4300	52,68	27		20,51	**12,62**	8,15	6,80	4,10	3,20	26077	3012			
4300	53,99	26		19,75	**12,28**	7,93	6,62	3,99	3,11	26364	3664			
4300	61,42	23		18,09	**10,82**	6,99	5,83	3,52	2,74	26500	3730			
4300	70,26	20		16,50	**9,48**	6,12	5,11	3,08	2,40	26500	3790			
4300	80,96	17		15,04	**8,24**	5,32	4,44	2,68	2,09	26500	3845			
4300	94,17	15		13,59	**7,10**	4,59	3,83	2,31	1,80	26500	3895			
4300	110,55	13		12,02	**6,05**	3,91	3,26	1,96	1,53	26500	3960			
4300	124,07	11		10,74	**5,41**	3,49	2,91	1,75	1,37	26500	3988			
4300	149,11	9,4		8,95	**4,51**	2,91	2,43	1,46	1,14	26500	4023			
4300	174,89	8,0		7,66	**3,85**	2,49	2,07	1,25	0,97	26500	4051			
4300	196,61	7,1		6,83	**3,44**	2,22	1,85	1,11	0,87	26500	4068			
4300	215,97	6,5	**MT674**	6,33	**3,17**	2,04	1,70	1,02	0,79	26500	1737	205	349	MT060
4300	245,67	5,7	**NT674**	5,57	**2,79**	1,79	1,49	0,90	0,70	26500	1845	215		NT060
4300	281,02	5,0		4,88	**2,44**	1,57	1,31	0,78	0,61	26500	1944			
4300	323,82	4,3		4,24	**2,12**	1,36	1,14	0,68	0,53	26500	2035			
4300	376,69	3,7		3,65	**1,83**	1,17	0,98	0,59	0,46	26500	2188			
4300	442,20	3,2		3,11	**1,55**	1,00	0,83	0,50	0,39	26500	2194			
4300	500,39	2,8		2,75	**1,37**	0,88	0,74	0,44	0,34	26500	2207			
4300	583,04	2,4	**MT675**	2,41	**1,21**	0,77	0,65	0,39	0,30	26500	2063	214	350	MT061
4300	673,70	2,1	**NT675**	2,09	**1,05**	0,67	0,56	0,34	0,26	26500	2073	225		NT061
4300	730,46	1,9		1,93	**0,96**	0,62	0,52	0,31	0,27	26500	2079			
4300	874,56	1,6		1,61	**0,81**	0,52	0,43	0,26	0,22	26500	2089			
4300	995,91	1,4		1,42	**0,71**	0,46	0,38	0,25	0,20	26500	2095			
4300	1113,08	1,3		1,27	**0,64**	0,41	0,34	0,23	0,18	26500	2100			
4300	1259,54	1,1		1,12	**0,56**	0,36	0,30	0,20	0,16	26500	2105			
4300	1432,74	0,98		0,99	**0,49**	0,32	0,26	0,18	0,14	26500	2124			
4300	1638,93	0,85		0,87	**0,43**	0,28	0,26	0,15	0,12	26500	2141			
4300	1888,53	0,74		0,75	**0,38**	0,27	0,22	0,13	0,10	26500	2156			
4300	2196,86	0,64		0,65	**0,32**	0,23	0,19	0,12	0,09	26500	2171			
4300	2578,93	0,54		0,55	**0,28**	0,20	0,16	0,10	0,08	26500	2184			
4300	2863,86	0,49	**MT676**	0,51	**0,25**	0,18	0,15	0,09	0,07	26500	2217	217	350	MT062
4300	3342,43	0,42	**NT676**	0,48	**0,24**	0,17	0,14	0,09	0,07	26500	2220	229		NT062
4300	3931,45	0,36		0,41	**0,21**	0,15	0,12	0,07	0,06	26500	2222			
4300	4674,12	0,30		0,35	**0,17**	0,12	0,10	0,06	0,05	26500	2224			
4300	5287,12	0,26		0,31	**0,15**	0,11	0,09	0,05	0,04	26500	2225			
4300	6029,17	0,23		0,27	**0,13**	0,10	0,08	0,05	0,04	26500	2227			
4300	7490,08	0,19		0,24	**0,11**	0,08	0,06	0,04	0,03	26500	2228			
4300	8518,13	0,16		0,21	**0,10**	0,07	0,06	0,03	0,03	26500	2229			
4300	9689,49	0,14		0,19	**0,08**	0,06	0,05	0,03	0,02	26500	2233			
4300	11083,95	0,13		0,16	**0,07**	0,05	0,04	0,03	0,02	26500	2236			
4300	12771,99	0,11		0,14	**0,06**	0,05	0,04	0,02	0,02	26500	2239			
4300	14857,21	0,09		0,12	**0,05**	0,04	0,03	0,02	0,02	26500	2242			
4300	17441,07	0,08		0,10	**0,05**	0,03	0,03	0,02	0,01	26500	2244			
3680	4,25	329	**MT772**	-	**130,00**	95,87	84,55	59,50	50,02	10.313	-	296	351	MT063
3990	4,83	290	**NT772**	-	**124,04**	91,59	80,77	56,70	47,79	10.825	-	365		NT063
4330	5,53	253		-	**117,81**	86,83	76,55	53,86	45,26	11.527	-			
4490	5,86	239		-	**115,24**	84,89	74,84	52,64	44,25	11.732	-			
4770	6,52	215		-	**110,03**	81,06	71,49	50,30	42,28	12.319	-			
5070	7,30	192		-	**104,54**	77,12	68,01	47,77	40,19	12.826	-			



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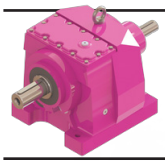
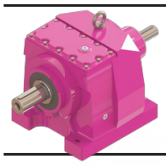
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
6200	8,46	166	**MT772**	-	**110,54**	82,53	73,27	46,20	35,99	19342	-	296	351	MT063
6470	9,62	146	**NT772**	-	**101,52**	75,67	67,19	40,66	31,68	20304	-	365		NT063
6770	11,00	127		-	**92,98**	69,42	59,11	35,59	27,72	21353	-			
6900	11,65	120		-	**89,40**	66,74	55,76	33,57	26,15	21845	-			
7140	12,98	108		-	**83,14**	60,06	50,11	30,17	23,50	22732	-			
7420	14,54	96		-	**77,23**	53,69	44,80	26,97	21,01	23688	-			
7520	15,63	90	**MT773**	-	**73,23**	50,31	42,01	25,35	19,76	33422	-	259	351	MT064
7810	17,53	80	**NT773**	-	**67,91**	44,92	37,51	22,63	17,65	33422	-	320		NT064
8000	19,76	71		-	**61,81**	39,92	33,33	20,11	15,68	33422	-			
8000	22,62	62		-	**53,97**	34,85	29,09	17,55	13,69	33422	-			
8000	25,99	54		-	**47,04**	30,38	25,37	15,30	11,93	37392	-			
8000	30,00	47		-	**40,83**	26,37	22,02	13,28	10,36	41675	-			
8000	31,11	45		-	**39,34**	25,41	21,21	12,80	9,98	42789	-			
8000	34,89	40		-	**35,13**	22,69	18,94	11,43	8,91	46386	-			
8000	39,33	36		-	**31,22**	20,16	16,83	10,15	7,91	48500	-			
8000	44,17	32		-	**27,81**	17,96	15,00	9,04	7,05	48500	4431			
8000	50,75	28		-	**24,25**	15,66	13,07	7,89	6,15	48500	4571			
8000	58,59	24		-	**21,05**	13,59	11,35	6,84	5,33	48500	4696			
8000	60,76	23		-	**20,28**	13,10	10,93	6,59	5,14	48500	4706			
8000	68,15	21		-	**18,11**	11,70	9,77	5,89	4,59	48500	4791			
8000	76,81	18		-	**16,10**	10,39	8,68	5,23	4,08	48500	4869			
8000	87,13	16		-	**14,22**	9,18	7,66	4,62	3,60	48500	4942			
8000	99,63	14		24,75	**12,46**	8,05	6,72	4,05	3,15	48500	5009			
8000	115,06	12		21,49	**10,82**	6,98	5,83	3,51	2,74	48500	5072			
8000	133,05	11		18,58	**9,36**	6,04	5,04	3,04	2,37	48500	5147			
8000	148,73	9,4		16,66	**8,39**	5,41	4,52	2,72	2,12	48500	5183			
8000	178,78	7,8		13,89	**6,99**	4,51	3,76	2,27	1,77	48500	5236			
8000	208,82	6,7		11,92	**6,00**	3,87	3,23	1,95	1,51	48500	5272			
8000	190,96	7,3	**MT774**	13,29	**6,64**	4,27	3,56	2,14	1,66	48500	-	269	352	MT065
8000	214,17	6,5	**NT774**	11,86	**5,93**	3,81	3,18	1,91	1,48	48500	-	330		NT065
8000	241,42	5,8		10,53	**5,27**	3,39	2,82	1,69	1,32	48500	616			
8000	273,85	5,1		9,30	**4,65**	2,99	2,49	1,49	1,16	48500	1258			
8000	313,11	4,5		8,14	**4,07**	2,62	2,18	1,31	1,02	48500	1665			
8000	361,62	3,9		7,06	**3,53**	2,27	1,89	1,13	0,88	48500	1794			
8000	418,17	3,3		6,10	**3,05**	1,96	1,63	0,98	0,76	48500	1908			
8000	467,43	3,0		5,46	**2,73**	1,76	1,46	0,88	0,68	48500	1984			
8000	532,29	2,6		4,81	**2,40**	1,54	1,29	0,77	0,60	48500	2007			
8000	594,92	2,4		4,30	**2,15**	1,38	1,15	0,69	0,54	48500	2027			
8000	641,40	2,2	**MT775**	4,08	**2,04**	1,31	1,09	0,66	0,51	48500	1748	328	353	MT066
8000	725,80	1,9	**NT775**	3,61	**1,81**	1,16	0,97	0,58	0,45	48500	1762	400		NT066
8000	822,02	1,7		3,18	**1,59**	1,02	0,85	0,51	0,40	48500	1961			
8000	984,18	1,4		2,67	**1,33**	0,86	0,71	0,43	0,33	48500	1978			
8000	1120,74	1,2		2,35	**1,17**	0,75	0,63	0,38	0,29	48500	1988			
8000	1252,60	1,1		2,10	**1,05**	0,67	0,56	0,34	0,26	48500	1997			
8000	1417,41	0,99		1,86	**0,93**	0,60	0,50	0,30	0,26	48500	2005			
8000	1589,68	0,88		1,66	**0,83**	0,53	0,44	0,27	0,23	48500	2032			
8000	1791,91	0,78		1,47	**0,74**	0,47	0,39	0,26	0,20	48500	2058			
8000	2032,66	0,69		1,30	**0,65**	0,42	0,35	0,23	0,18	48500	2082			
8000	2324,10	0,60		1,14	**0,57**	0,37	0,30	0,20	0,16	48500	2104			
8000	2684,10	0,52		0,99	**0,49**	0,32	0,26	0,18	0,14	48500	2125			
8000	3103,85	0,45		0,85	**0,43**	0,27	0,25	0,15	0,12	48500	2143			
8000	3814,39	0,37		0,69	**0,35**	0,25	0,21	0,12	0,10	48500	2148			
8000	4263,81	0,33		0,62	**0,31**	0,22	0,18	0,11	0,09	48500	2159			
8000	4812,09	0,29		0,55	**0,28**	0,20	0,16	0,10	0,08	48500	2161			
8000	2916,59	0,48	**MT776**	0,92	**0,46**	0,30	0,27	0,16	0,13	48500	2187	332	353	MT067
8000	3222,83	0,43	**NT776**	0,84	**0,42**	0,27	0,25	0,15	0,12	48500	2190	405		NT067
8000	3761,39	0,37		0,72	**0,36**	0,26	0,21	0,13	0,10	48500	2194			



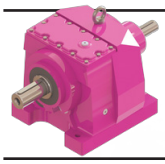
Motorsuz Güç Devir Sayfaları
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
8000	4424,24	0,32	**MT776**	0,61	**0,31**	0,22	0,18	0,11	0,08	48500	2198	332	353	MT067
8000	5260,00	0,27	**NT776**	0,52	**0,26**	0,18	0,15	0,09	0,07	48500	2201	405		NT067
8000	5949,83	0,24		0,51	**0,25**	0,18	0,15	0,09	0,07	48500	2204			
8000	6784,90	0,21		0,45	**0,22**	0,16	0,13	0,08	0,06	48500	2206			
8000	8428,93	0,17		0,36	**0,18**	0,13	0,11	0,06	0,05	48500	2208			
8000	9585,84	0,15		0,32	**0,16**	0,11	0,09	0,06	0,04	48500	2210			
8000	10750,89	0,13		0,28	**0,14**	0,10	0,08	0,05	0,04	48500	2215			
8000	12118,56	0,12		0,25	**0,13**	0,09	0,07	0,04	0,03	48500	2220			
8000	13746,73	0,10		0,25	**0,11**	0,08	0,07	0,04	0,03	48500	2225			
8000	15717,68	0,09		0,21	**0,10**	0,07	0,06	0,03	0,03	48500	2229			
8000	18152,38	0,08		0,19	**0,08**	0,06	0,05	0,03	0,02	48500	2233			
8000	20991,08	0,07		0,16	**0,07**	0,05	0,04	0,03	0,02	48500	2236			
8000	23464,25	0,06		0,14	**0,06**	0,05	0,04	0,02	0,02	48500	2239			
8700	4,32	324	**MT872**	-	**307,71**	225,10	198,95	138,70	114,95	54833	-	550	354	MT043
9000	4,95	283	**NT872**	-	**277,41**	204,09	179,16	125,82	100,17	57334	-	560		NT043
9550	5,22	268		-	**279,26**	204,90	180,93	122,19	95,03	43596	-			
9900	5,99	234		-	**252,28**	185,93	163,13	106,48	82,82	45656	-			
10200	6,64	211		-	**234,53**	172,20	151,51	96,08	74,73	47129	-			
10600	7,55	185		-	**214,29**	157,25	137,54	84,48	65,70	48992	-			
11200	8,87	158		-	**192,83**	141,12	119,90	71,94	55,95	76122	-			
11500	10,09	139		-	**174,08**	126,51	105,42	63,25	49,20	79405	-			
12700	11,59	121	**MT873**	-	**170,91**	112,46	93,72	56,23	43,74	75784	-	555	354	MT044
13000	13,30	105	**NT873**	-	**152,46**	98,01	81,67	49,00	38,11	72000	-	565		NT044
13000	14,02	100		-	**144,63**	92,98	77,48	46,49	36,16	57957	-			
13000	16,09	87		-	**126,04**	81,03	67,52	40,51	31,51	62738	-			
13000	17,83	79		-	**113,73**	73,11	60,93	36,56	28,43	66441	-			
13000	20,28	69		-	**99,99**	64,28	53,57	32,14	25,00	71241	-			
13000	23,87	59		-	**84,92**	54,59	45,50	27,30	21,23	72000	-			
13000	27,39	51		-	**74,01**	47,58	39,65	23,79	18,50	72000	-			
13000	30,36	46		-	**66,78**	42,93	35,77	21,46	16,69	72000	-			
13000	34,53	41		-	**58,71**	37,74	31,45	18,87	14,68	72000	-			
13000	40,55	35		-	**50,00**	32,14	26,79	16,07	12,50	72000	1072			
13000	46,12	30		-	**43,96**	28,26	23,55	14,13	10,99	72000	1795			
13000	52,86	26		-	**38,36**	24,66	20,55	12,33	9,59	72000	2466			
13000	56,54	25		71,71	**35,86**	23,05	19,21	11,53	8,96	72000	-			
13000	64,77	22		62,60	**31,30**	20,12	16,77	10,06	7,83	72000	-			
13000	75,51	19		53,70	**26,85**	17,26	14,38	8,63	6,71	72000	3698			
13000	86,51	16		46,87	**23,44**	15,07	12,56	7,53	5,86	72000	4108			
13000	99,81	14		40,63	**20,31**	13,06	10,88	6,53	5,08	72000	4705			
13000	110,17	13		36,81	**18,40**	11,83	9,86	5,92	4,60	72000	4844			
13000	107,60	13	**MT874**	38,04	**19,02**	12,23	10,19	6,11	4,76	72000	681	590	355	MT045
13000	125,70	11	**NT874**	32,63	**16,31**	10,49	8,74	5,24	4,08	72000	1284	600		NT045
13000	147,61	9,5		27,84	**13,92**	8,95	7,46	4,47	3,48	72000	1816			
13000	174,68	8,0		23,59	**11,79**	7,58	6,32	3,79	2,95	72000	2288			
13000	188,08	7,4		21,87	**10,93**	7,03	5,86	3,51	2,73	72000	2623			
13000	211,60	6,6		19,47	**9,73**	6,26	5,21	3,13	2,43	72000	2686			
13000	239,61	5,8		17,22	**8,61**	5,53	4,61	2,77	2,15	72000	2746			
13000	292,15	4,8		14,14	**7,07**	4,54	3,79	2,27	1,77	72000	2823			
13000	345,67	4,1		11,97	**5,99**	3,85	3,21	1,92	1,50	72000	2880			
13000	390,74	3,6		10,61	**5,30**	3,41	2,84	1,71	1,33	72000	2916			
13000	446,42	3,1		9,30	**4,65**	2,99	2,49	1,50	1,16	72000	2950			
13000	495,97	2,8	**MT875**	8,55	**4,28**	2,75	2,29	1,37	1,07	72000	1496	618	356	MT046
13000	537,75	2,6	**NT875**	7,89	**3,94**	2,53	2,11	1,27	0,99	72000	1520	628		NT046
13000	643,84	2,2		6,60	**3,30**	2,12	1,77	1,06	0,83	72000	1561			
13000	718,74	1,9		5,92	**2,96**	1,90	1,59	0,95	0,74	72000	1634			
13000	807,91	1,7		5,27	**2,63**	1,69	1,41	0,85	0,66	72000	1703			
13000	915,85	1,5		4,65	**2,33**	1,50	1,25	0,75	0,58	72000	1768			



Motorsuz Güç Devir Sayfaları
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
13000	1049,18	1,3	**MT875**	4,07	**2,03**	1,31	1,09	0,65	0,51	72000	1830	618	356	MT046
13000	1210,51	1,2	**NT875**	3,52	**1,76**	1,13	0,94	0,57	0,44	72000	1888	628		NT046
13000	1336,15	1,0		3,19	**1,59**	1,03	0,85	0,51	0,40	72000	1922			
13000	1521,55	0,92		2,81	**1,40**	0,90	0,75	0,45	0,35	72000	1935			
13000	1700,56	0,82		2,51	**1,26**	0,81	0,67	0,40	0,31	72000	1946			
13000	1924,32	0,73		2,22	**1,11**	0,71	0,60	0,36	0,28	72000	1955			
13000	2108,33	0,66	**MT876**	2,07	**1,03**	0,67	0,55	0,33	0,26	72000	2088	620	356	MT047
13000	2460,65	0,57	**NT876**	1,78	**0,89**	0,57	0,48	0,29	0,25	72000	2098	630		NT047
13000	2894,28	0,48		1,51	**0,76**	0,49	0,41	0,27	0,21	72000	2108			
13000	3441,02	0,41		1,28	**0,64**	0,41	0,34	0,23	0,18	72000	2117			
13000	3892,30	0,36		1,13	**0,56**	0,36	0,30	0,20	0,16	72000	2122			
13000	4438,59	0,32		0,99	**0,50**	0,32	0,27	0,18	0,14	72000	2127			
13000	4954,95	0,28		0,89	**0,44**	0,29	0,26	0,16	0,12	72000	2141			
13000	5569,66	0,25		0,79	**0,40**	0,25	0,24	0,14	0,11	72000	2154			
13000	6313,78	0,22		0,70	**0,35**	0,25	0,21	0,12	0,10	72000	2166			
13000	7233,00	0,19		0,61	**0,31**	0,22	0,18	0,11	0,08	72000	2178			
13000	8345,18	0,17		0,53	**0,26**	0,19	0,16	0,09	0,07	72000	2189			
13000	11443,34	0,12		0,43	**0,21**	0,15	0,13	0,08	0,06	72000	2198			
13000	13014,00	0,11		0,38	**0,19**	0,13	0,11	0,07	0,05	72000	2200			
13000	14977,32	0,09		0,33	**0,16**	0,12	0,10	0,06	0,05	72000	2202			
13000	17501,59	0,08		0,28	**0,14**	0,10	0,08	0,05	0,04	72000	2203			
9950	7,11	197	**MT972**	-	**209,66**	154,84	135,99	95,54	80,30	96156	23900	960	357	MT048
10700	7,92	177	**NT972**	-	**202,71**	149,00	131,45	92,36	77,46	98548	22386	1010		NT048
11450	8,86	158		-	**193,98**	143,08	126,22	88,63	74,41	101270	17560			
12350	9,99	140		-	**185,87**	136,82	120,24	84,60	68,38	104116	11280			
18000	11,56	121		-	**234,26**	151,02	126,00	75,87	59,11	94500	12624			
18000	12,86	109		-	**210,63**	135,79	113,30	68,22	53,15	94500	17217			
18000	14,40	97		-	**188,37**	121,45	101,33	61,01	47,53	94500	21524			
18000	16,23	86		-	**167,35**	107,90	90,03	54,20	42,23	94500	23900			
18000	18,15	77	**MT973**	-	**150,34**	97,05	81,03	48,89	38,13	94500	23900	1000	357	MT049
18000	20,36	69	**NT973**	-	**134,23**	86,66	72,36	43,66	34,05	94500	23900	1050		NT049
18000	22,95	61		-	**119,26**	77,01	64,30	38,79	30,25	94500	23900			
18000	26,03	54		-	**105,31**	68,01	56,79	34,26	26,72	94500	23900			
18000	29,49	47		-	**92,89**	59,97	50,07	30,21	23,56	94500	23900			
18000	33,08	42		-	**82,94**	53,56	44,72	26,98	21,04	94500	23900			
18000	37,29	38		-	**73,70**	47,59	39,74	23,97	18,69	94500	23900			
18000	42,30	33		-	**65,09**	42,04	35,10	21,17	16,51	94500	23900			
18000	48,86	29		-	**56,33**	36,37	30,37	18,32	14,28	94500	23900			
18000	54,80	26		-	**50,30**	32,48	27,12	16,36	12,75	94500	23900			
18000	61,77	23		-	**44,70**	28,87	24,10	14,54	11,33	94500	23900			
18000	70,07	20		-	**39,48**	25,50	21,29	12,84	10,01	94500	23900			
18000	82,20	17		-	**33,69**	21,76	18,16	10,95	8,54	94500	23900			
18000	91,56	15		-	**30,30**	19,57	16,34	9,85	7,68	94500	23900			
18000	102,69	14		-	**27,07**	17,48	14,59	8,80	6,85	94500	23900			
18000	116,17	12		-	**23,98**	15,48	12,93	7,79	6,07	94500	23900			
18000	132,83	11		41,76	**21,03**	13,58	11,33	6,83	5,32	94500	23900			
18000	150,02	9,3		36,97	**18,62**	12,02	10,03	6,04	4,71	94500	23900			
18000	166,73	8,4		33,33	**16,78**	10,83	9,04	5,45	4,24	94500	23900			
18000	186,95	7,5		29,80	**15,00**	9,68	8,08	4,87	3,79	94500	23900			
18000	172,08	8,1	**MT974**	32,93	**16,47**	10,59	8,82	5,29	4,12	94500	277	1050	358	MT050
18000	193,13	7,2	**NT974**	29,40	**14,70**	9,45	7,87	4,72	3,67	94500	466	1100		NT050
18000	216,03	6,5		26,33	**13,17**	8,46	7,05	4,23	3,29	94500	629			
18000	272,24	5,1		20,93	**10,47**	6,73	5,61	3,36	2,62	94500	1143			
18000	305,33	4,6		18,68	**9,34**	6,01	5,00	3,00	2,34	94500	2263			
18000	344,17	4,1		16,59	**8,30**	5,33	4,44	2,67	2,07	94500	3191			
18000	390,41	3,6		14,65	**7,32**	4,71	3,92	2,35	1,83	94500	3396			
18000	457,99	3,1		12,48	**6,24**	4,01	3,34	2,01	1,56	94500	3622			

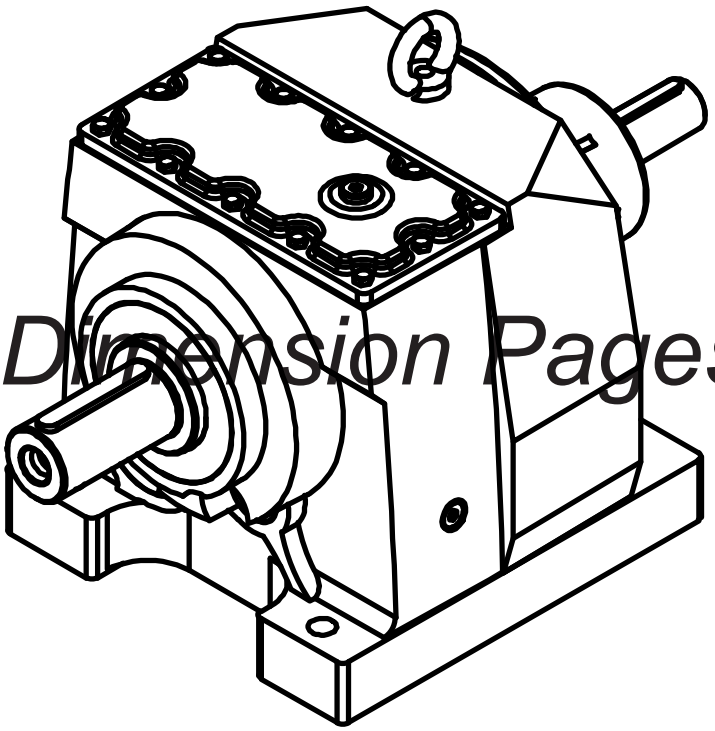


Motorsuz Güç Devir Sayfaları
Gear Units Performance Tables
Leistung und Drehzahlübersicht von Getriebe

Anma Momenti *Nominal Torques* Nenn-drehmomente Ma [Nm] (n1=1400rpm)	**Çevrim Oranı** *Ratio* Übersetzung i	**Çıkış Devri** *Output Speeds* Abtriebs-drehzahlen n2 [r.p.m] (n1=1400rpm)	**Tipi** *Type* Typ	**Pe= Nominal Güç [kW] (Servis Faktörü fs=1,0 için)** *Pe= Nominal Power [kW] (For Service Factor fs=1,0)* Pe= NennLeistung [kW] (Bei Betriebsfaktor fs=1,0) **Giriş devri[d/d]** / *Input speed[rpm]* / Antriebsdrehzahl[upm]						**Güv. Rad.Yük Çıkış** *Per.O.Loads (Output)* Zul.Querkräfte (Abtrieb) Fqam [N] (n1=1400rpm)	**Güv.Rad.Yük Giriş** *Per.O.Loads (Input)* Zul.Querkräfte (Antrieb) Fqem [N] (n1=1400rpm)	**Ağırlık** *Weight* Gewicht [kg]	**Ölçü Sayfası** *Dim. Page* Maße Seite	**Fiyat Kodu** *Price Ref.* Preis No.
				n1=2800	**n1=1400**	n1=900	n1=750	n1=450	n1=350					
18000	510,11	2,7	**MT974** **NT974**	11,22	**5,61**	3,61	3,01	1,80	1,40	94500	3755	1050 1100	358	MT050 NT050
18000	462,18	3,0	**MT975**	12,62	**6,31**	4,06	3,38	2,03	1,58	94500	1774	1100	359	MT051
18000	546,94	2,6	**NT975**	10,69	**5,35**	3,44	2,86	1,72	1,34	94500	1831	1150		NT051
18000	588,87	2,4		9,91	**4,96**	3,19	2,66	1,59	1,24	94500	1875			
18000	662,54	2,1		8,83	**4,41**	2,84	2,36	1,42	1,10	94500	1906			
18000	750,24	1,9		7,81	**3,91**	2,51	2,09	1,26	0,98	94500	1936			
18000	842,80	1,7		6,97	**3,48**	2,24	1,87	1,12	0,87	94500	1953			
18000	914,74	1,5		6,41	**3,21**	2,06	1,72	1,03	0,80	94500	1974			
18000	1082,31	1,3		5,43	**2,72**	1,75	1,46	0,87	0,68	94500	2002			
18000	1213,85	1,2		4,85	**2,42**	1,56	1,30	0,78	0,61	94500	2070			
18000	1368,27	1,0		4,30	**2,15**	1,38	1,15	0,69	0,54	94500	2133			
18000	1552,10	0,90		3,80	**1,90**	1,22	1,02	0,61	0,47	94500	2192			
18000	1820,78	0,77		3,24	**1,62**	1,04	0,87	0,52	0,40	94500	2257			
18000	2027,97	0,69		2,91	**1,45**	0,93	0,78	0,47	0,36	94500	2295			
18000	2836,64	0,49	**MT976**	2,12	**1,06**	0,68	0,57	0,34	0,26	94500	2427	1105	359	MT052
18000	3594,81	0,39	**NT976**	1,68	**0,84**	0,54	0,45	0,27	0,23	94500	2441	1155		NT052
18000	4227,50	0,33		1,43	**0,71**	0,46	0,38	0,26	0,20	94500	2494			
18000	4474,67	0,31		1,35	**0,68**	0,43	0,36	0,24	0,19	94500	2496			
18000	5357,43	0,26		1,13	**0,57**	0,36	0,30	0,20	0,16	94500	2504			
18000	6842,29	0,20		0,89	**0,44**	0,29	0,26	0,16	0,12	94500	2521			
18000	8620,11	0,16		0,70	**0,35**	0,25	0,21	0,13	0,10	94500	2537			
18000	11064,86	0,13		0,55	**0,28**	0,20	0,16	0,10	0,08	94500	2550			
18000	15951,72	0,09		0,42	**0,21**	0,15	0,13	0,08	0,06	94500	2565			
18000	20051,59	0,07		0,34	**0,17**	0,12	0,10	0,06	0,05	94500	2573			

Notlar / *Notes* / Notizen

Ölçü Sayfaları

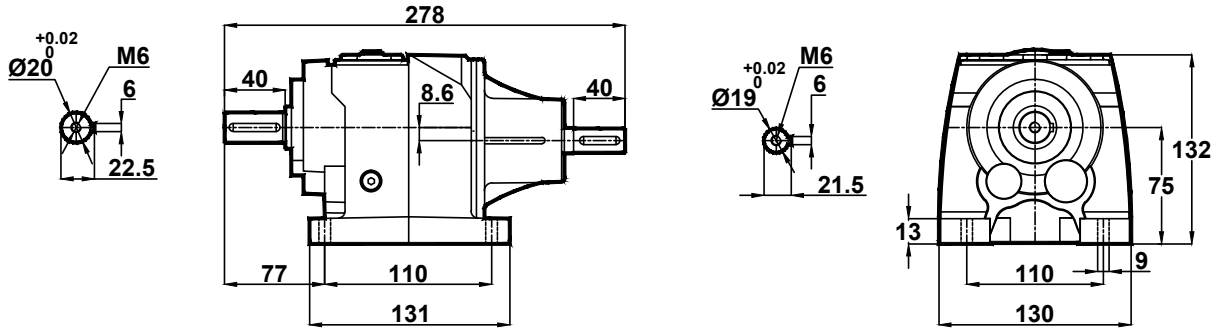


Dimension Pages

Abmessungsseiten

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT002
MT003



NT002
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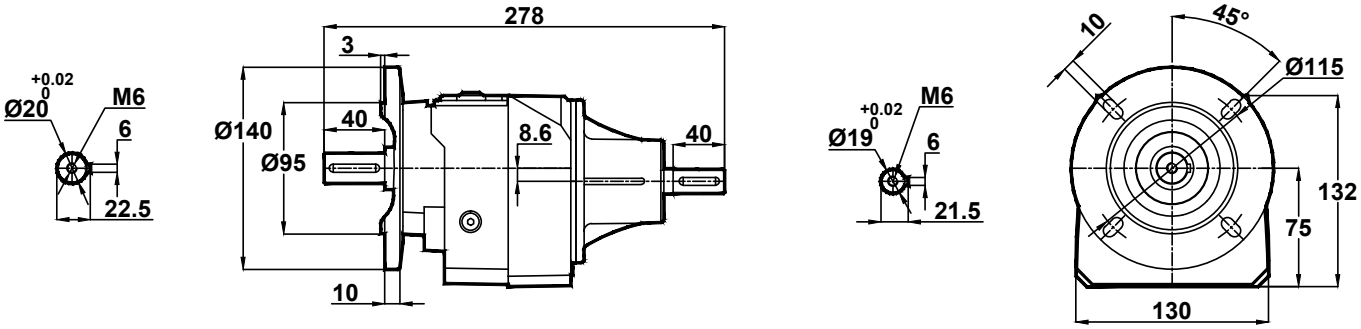
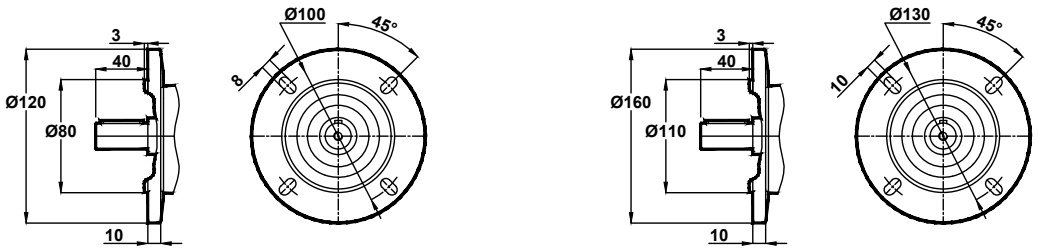
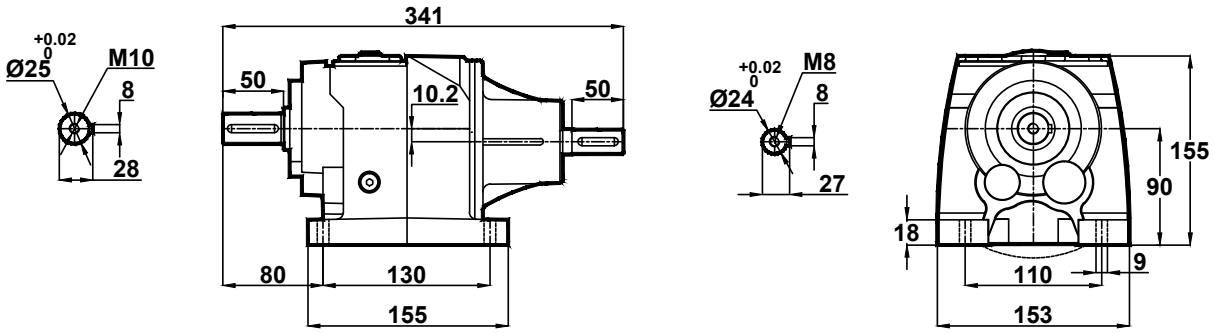


Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT102
MT103



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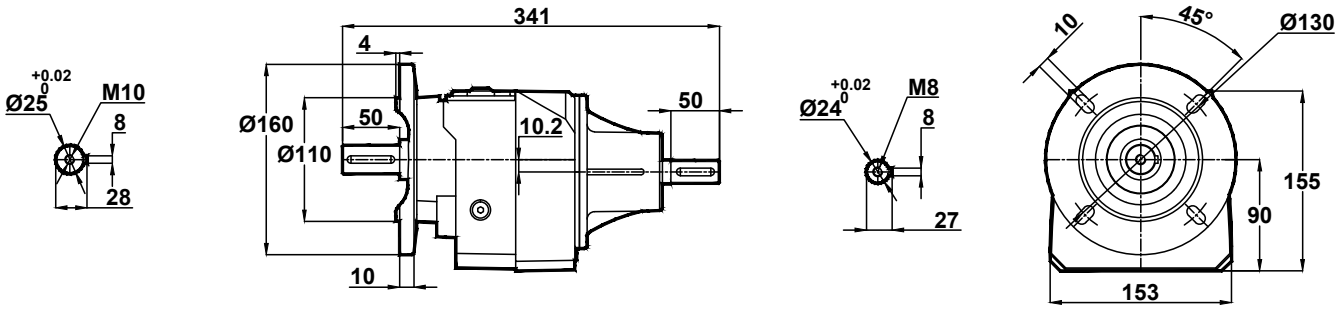
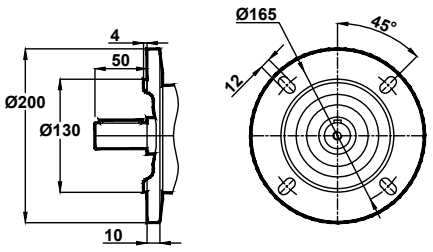


Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



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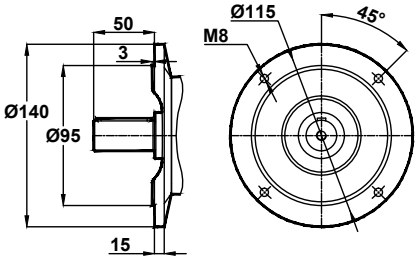

Opt. 2

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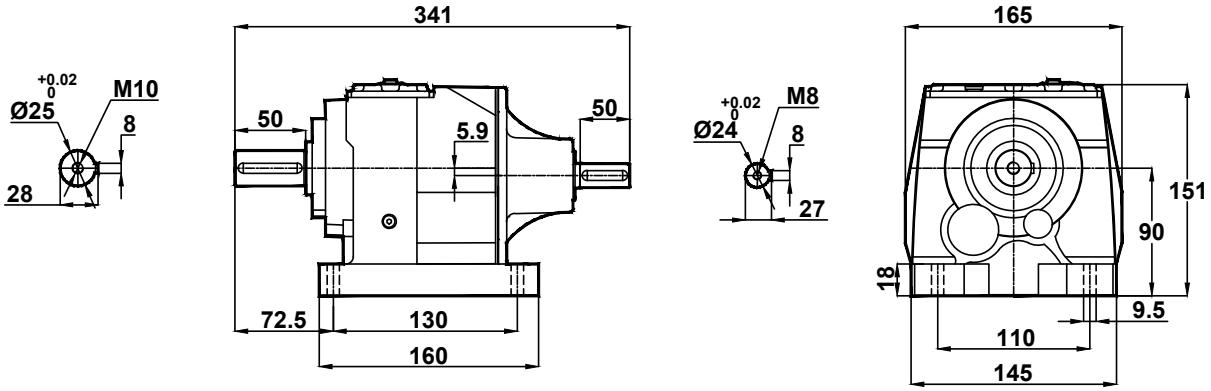
MT172
MT173



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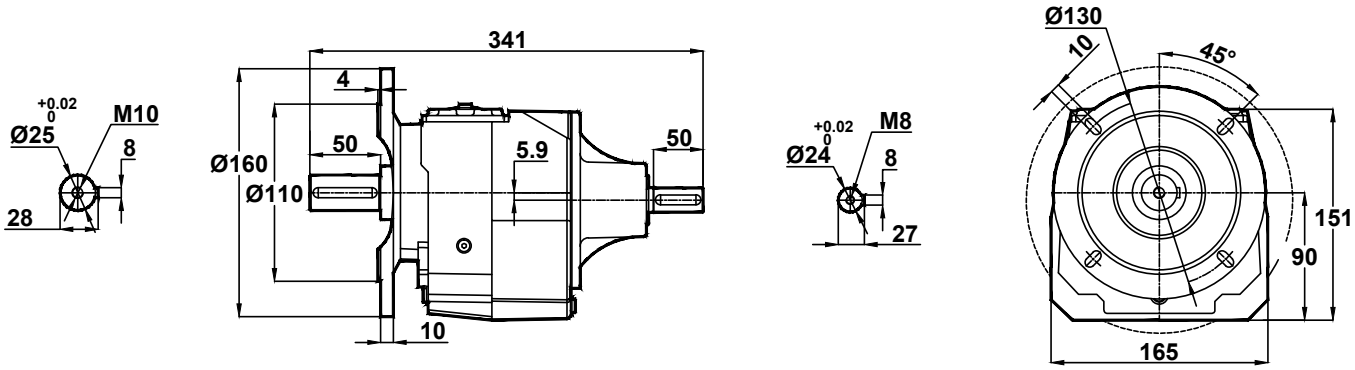
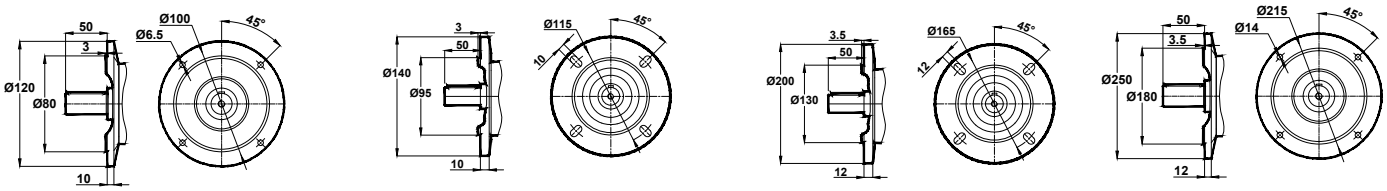
NT173



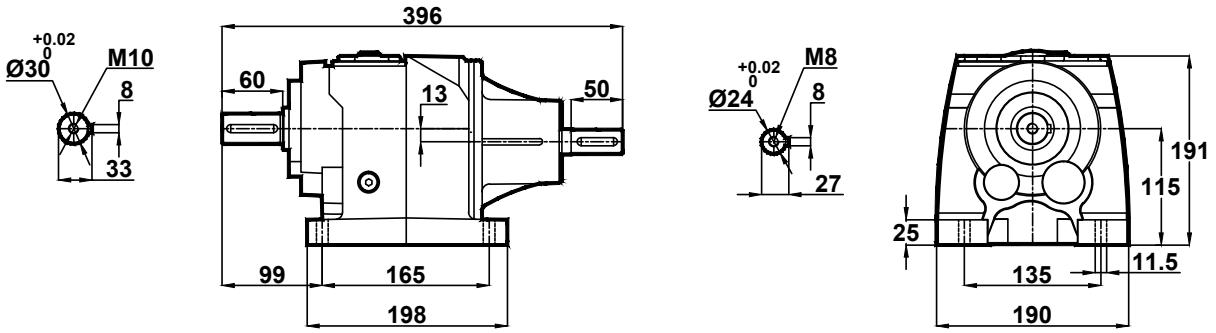
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1 **Opt. 2** **Opt. 3** **Opt. 4**

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT202
MT203



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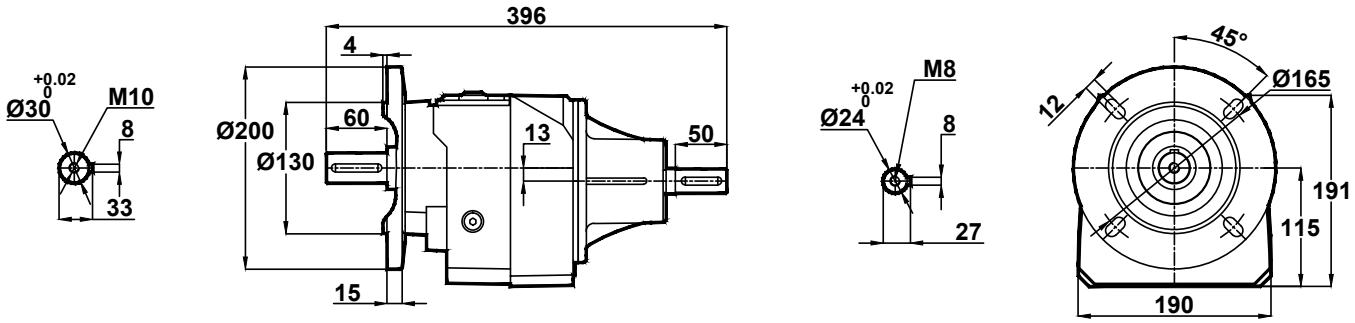
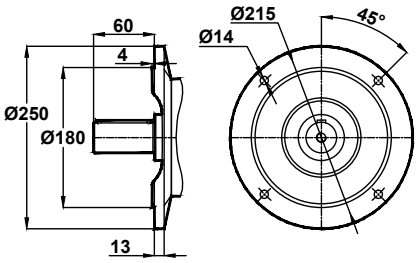


Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



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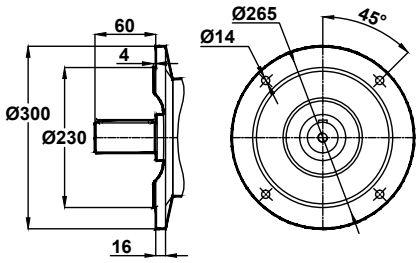
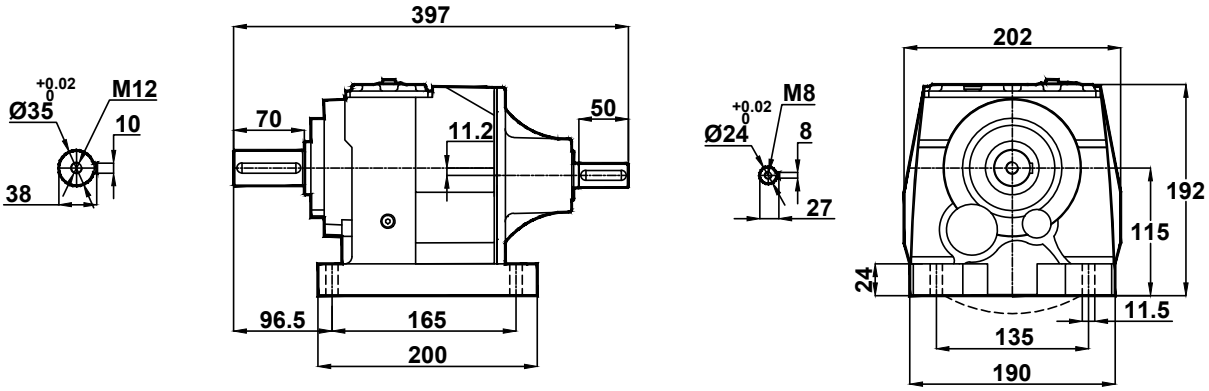


Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT272
MT273



NT272
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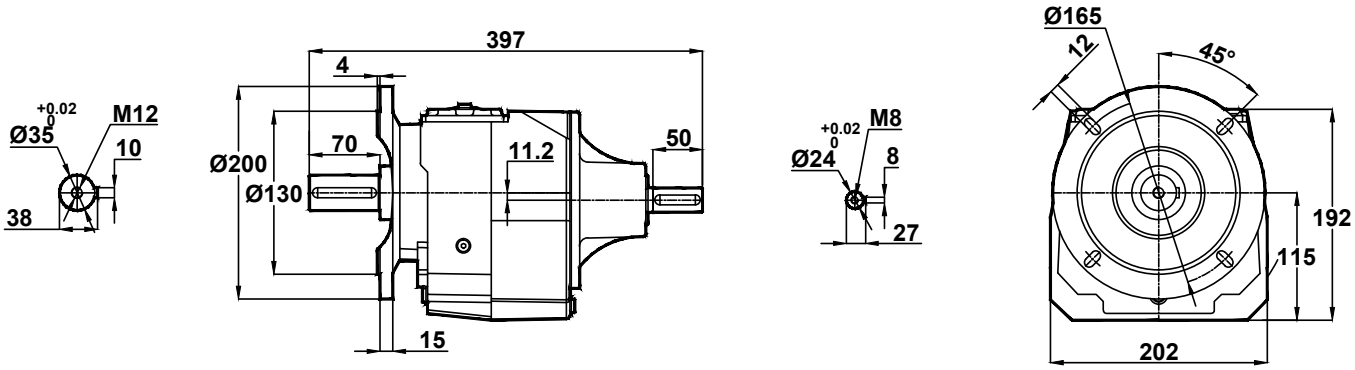
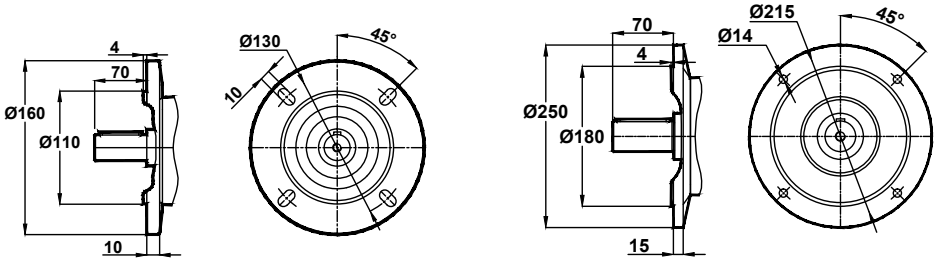


Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

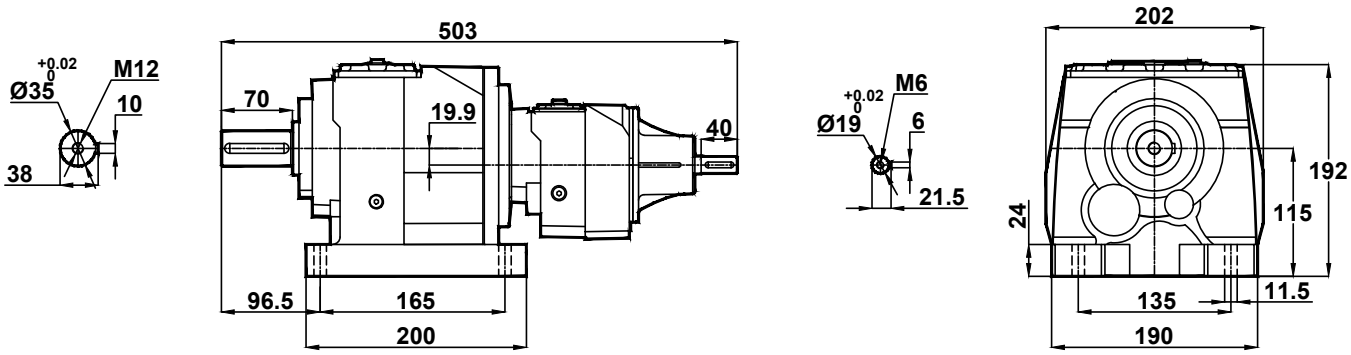


Opt. 1

Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT275
MT276



NT275
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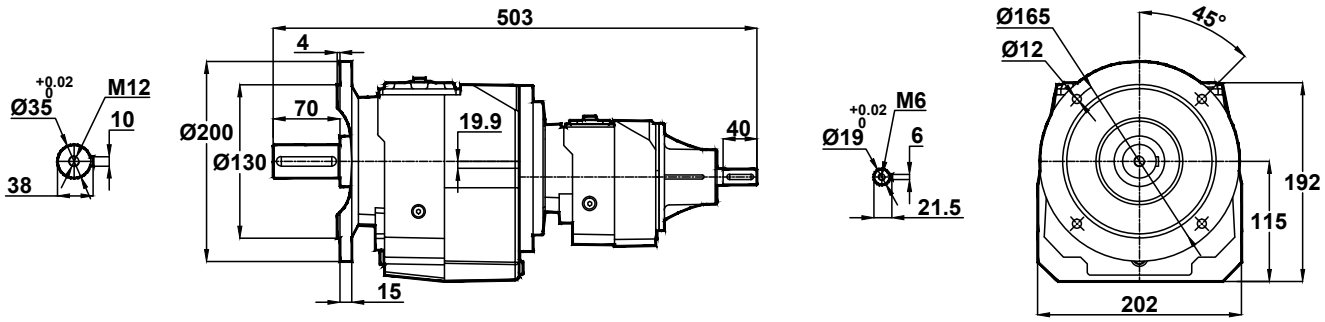
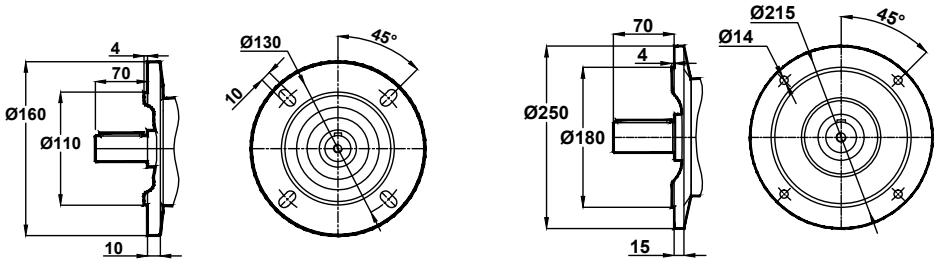


Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

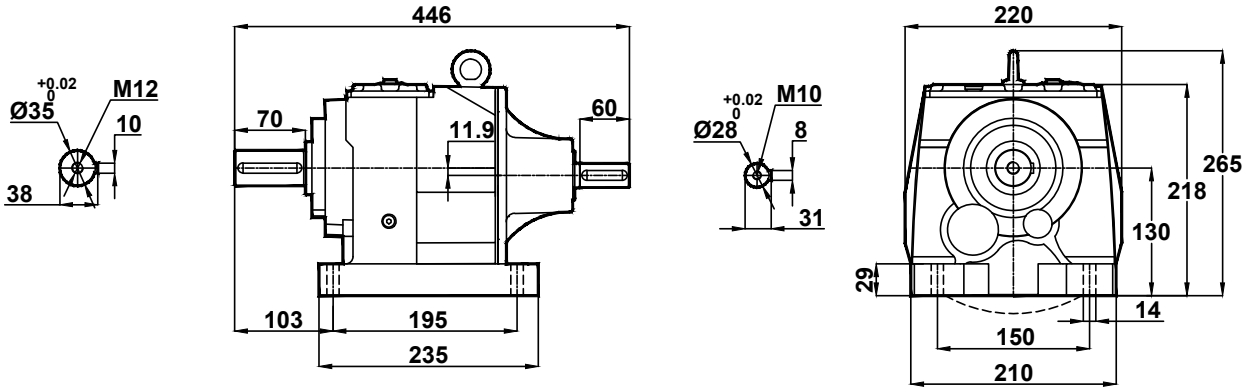


Opt. 1

Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT282
MT283



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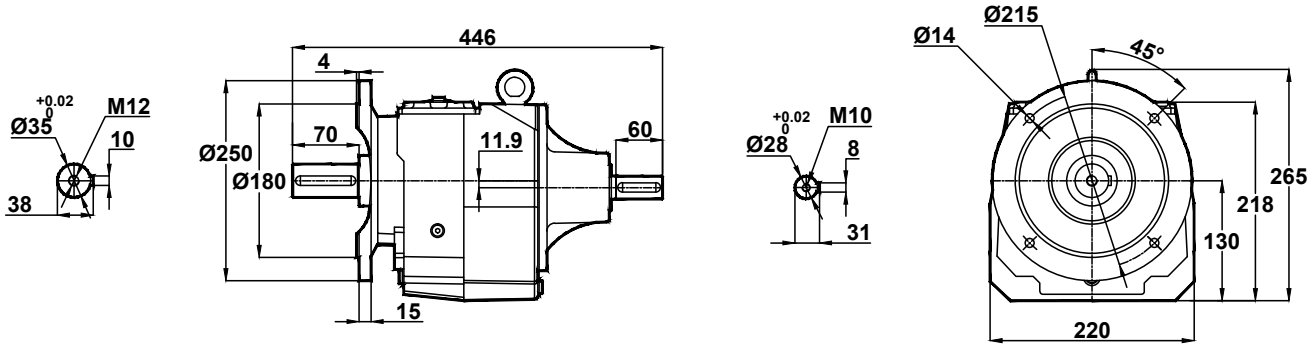
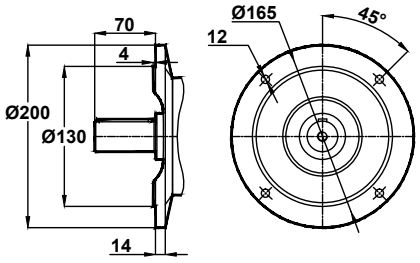
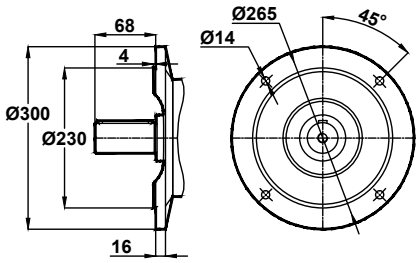


Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



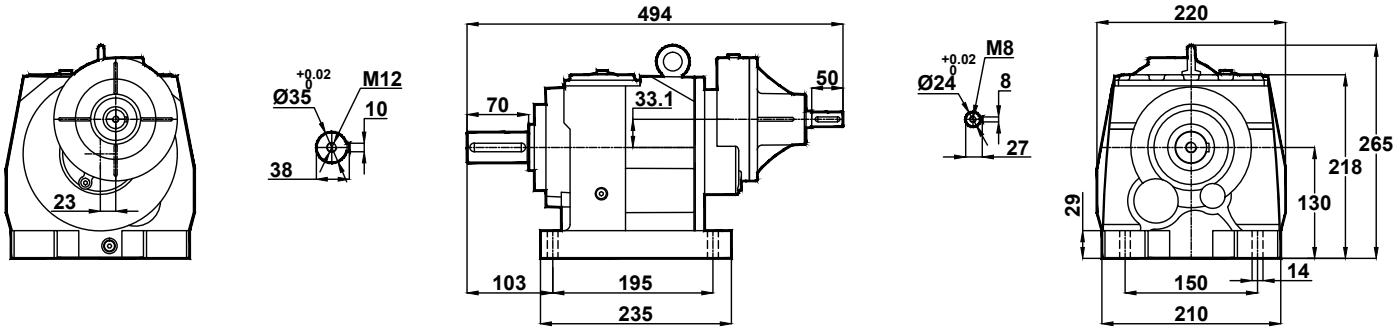
Opt. 1



Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT284



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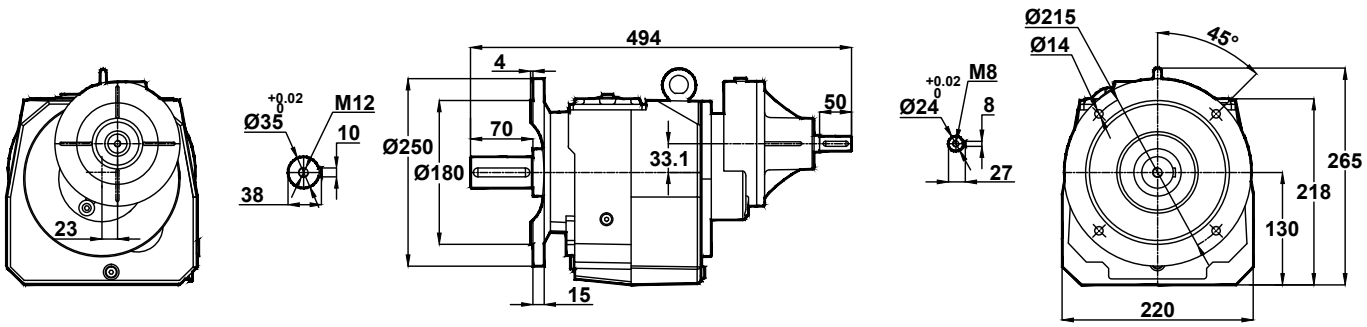
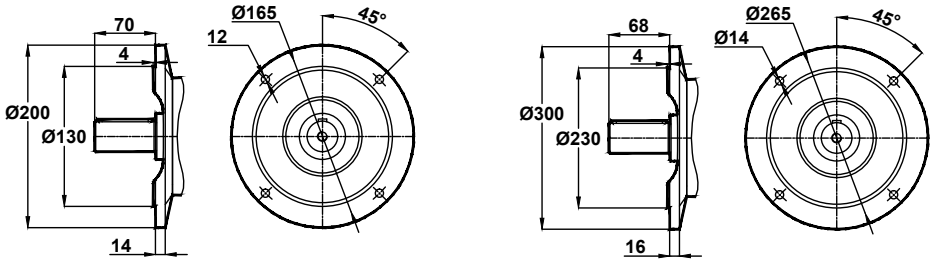


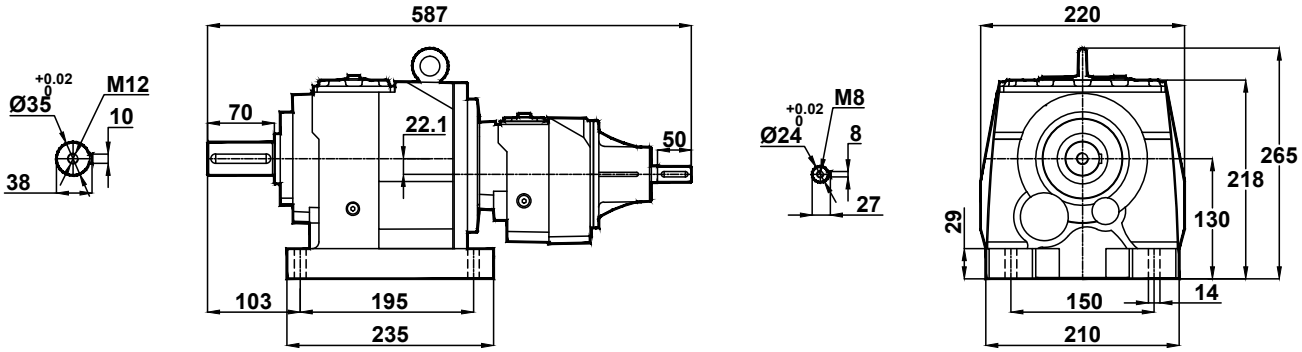
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1 **Opt. 2**

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT285
MT286



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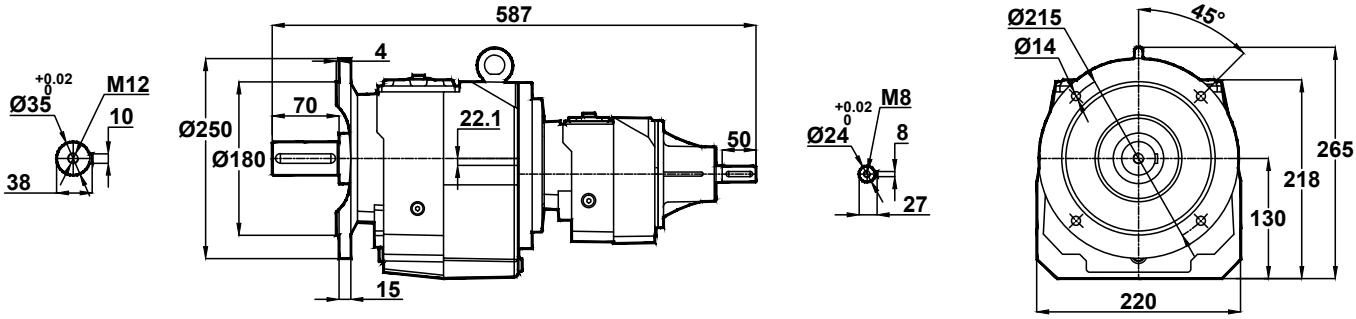
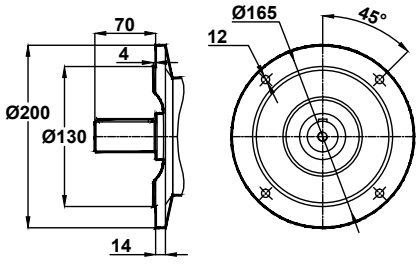
NT286



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



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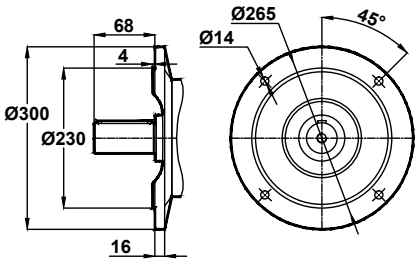

Opt. 2

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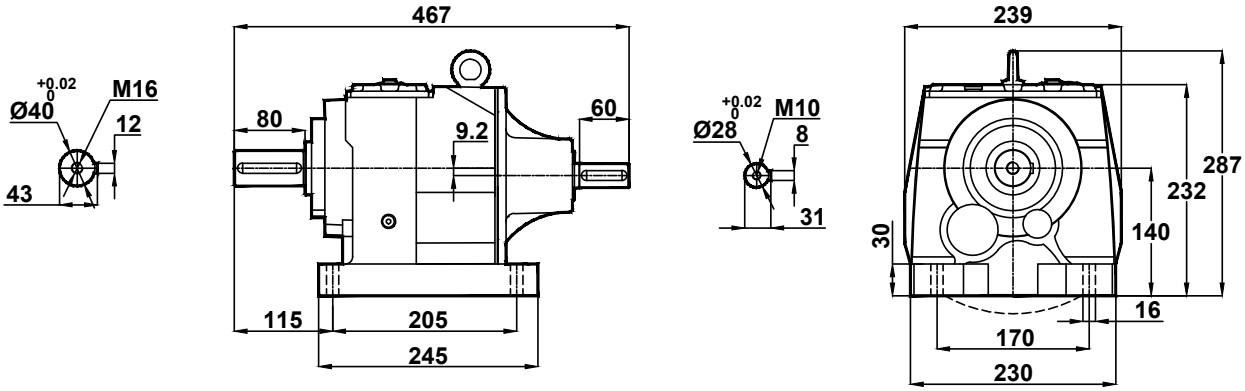
MT372
MT373



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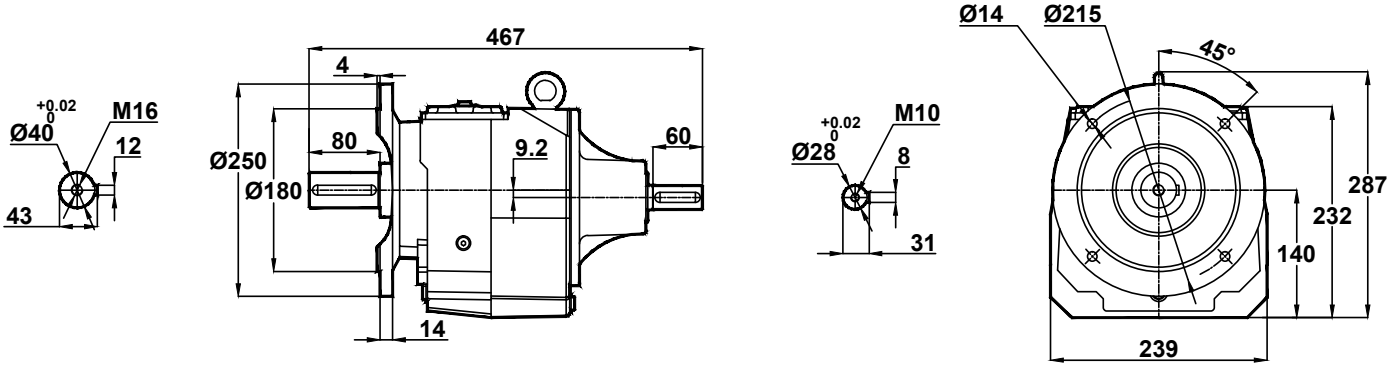
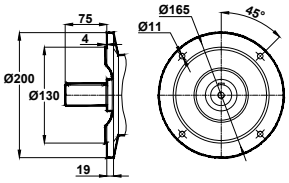
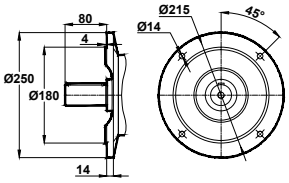
NT373



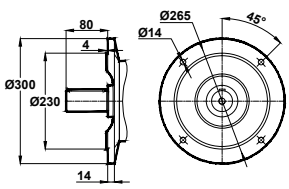
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



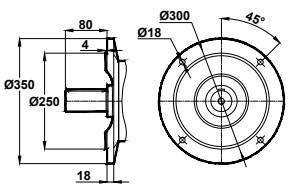
Opt. 1



Opt. 2



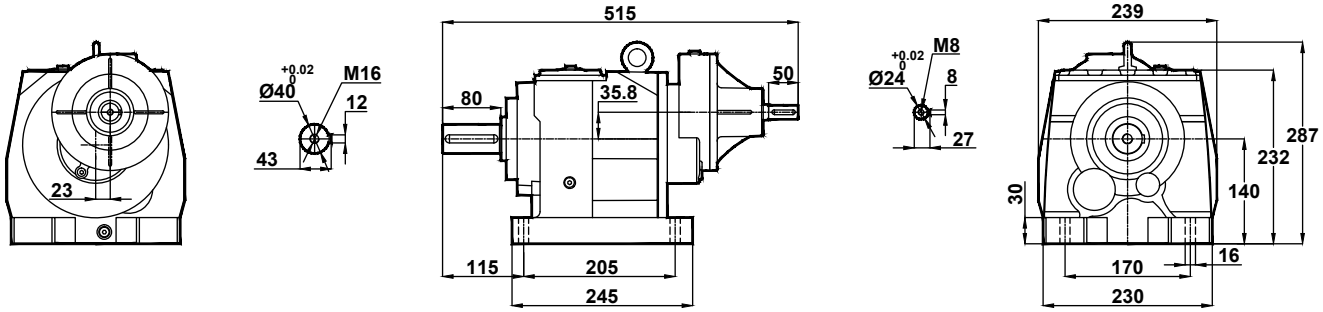
Opt. 3



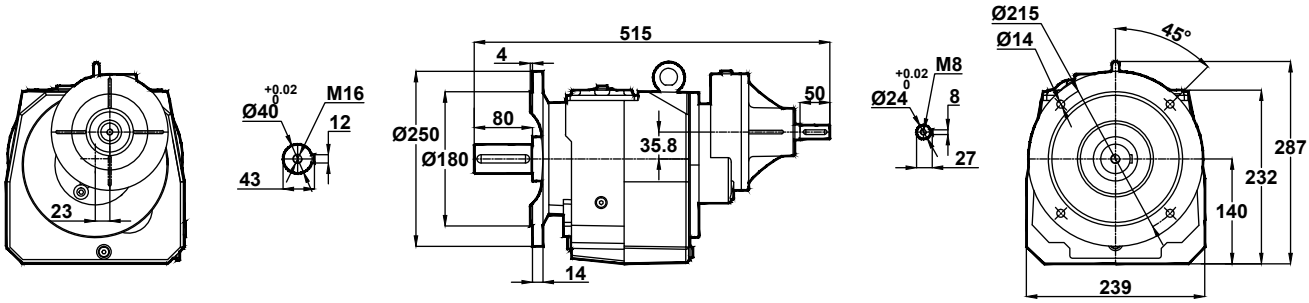
Opt. 4

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

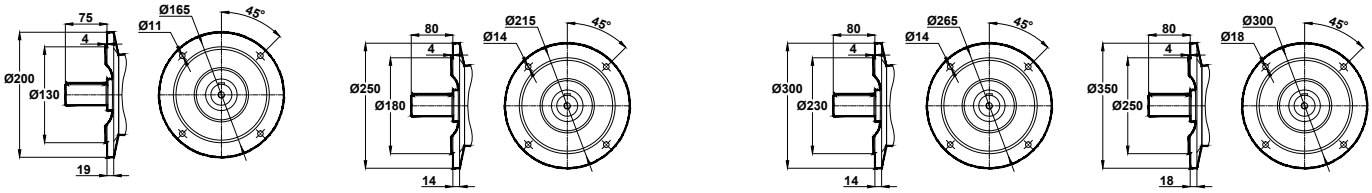
MT374



NT374



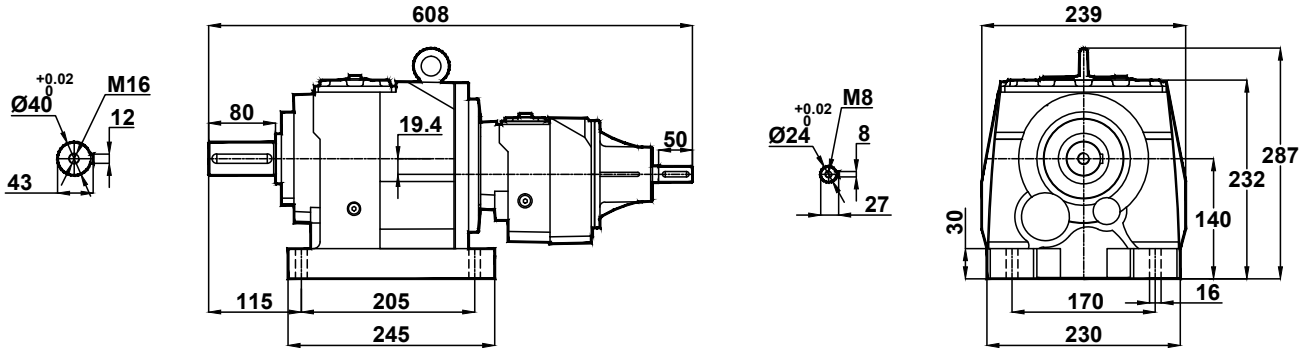
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



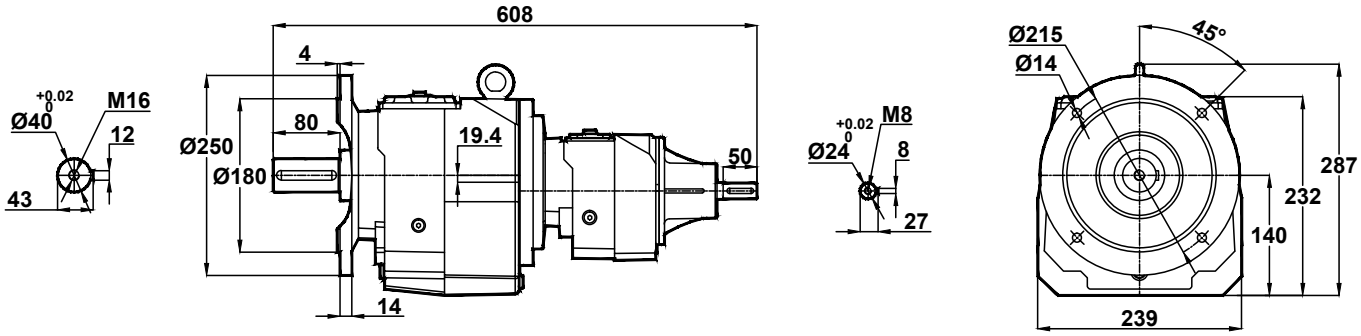
Opt. 1 **Opt. 2** **Opt. 3** **Opt. 4**

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

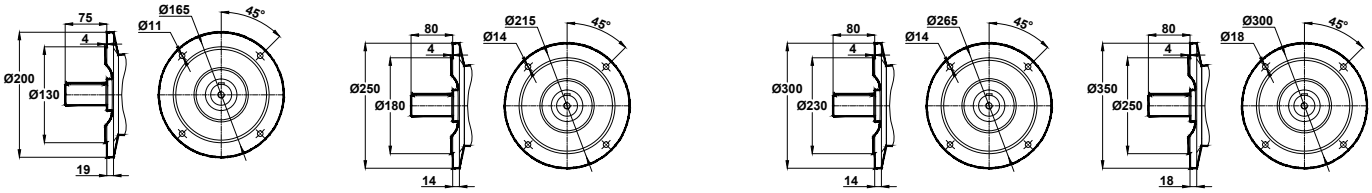
MT375
MT376



NT375
NT376



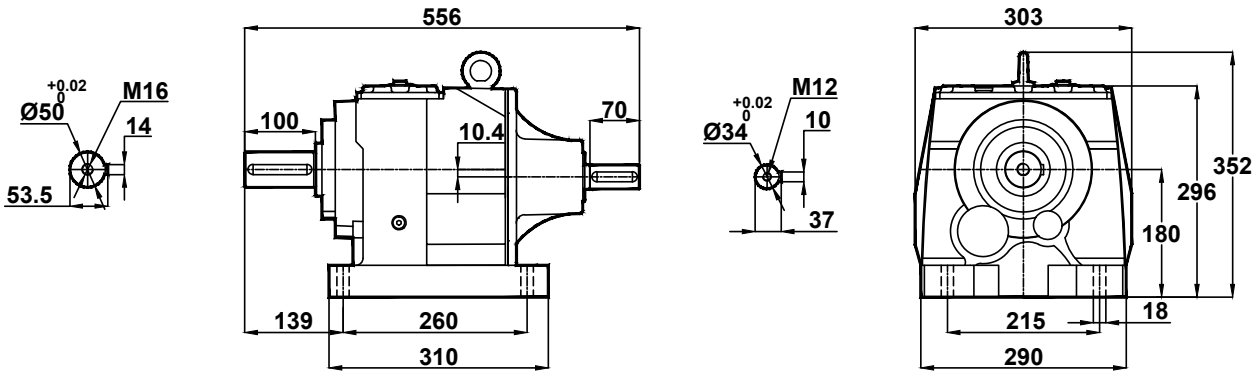
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



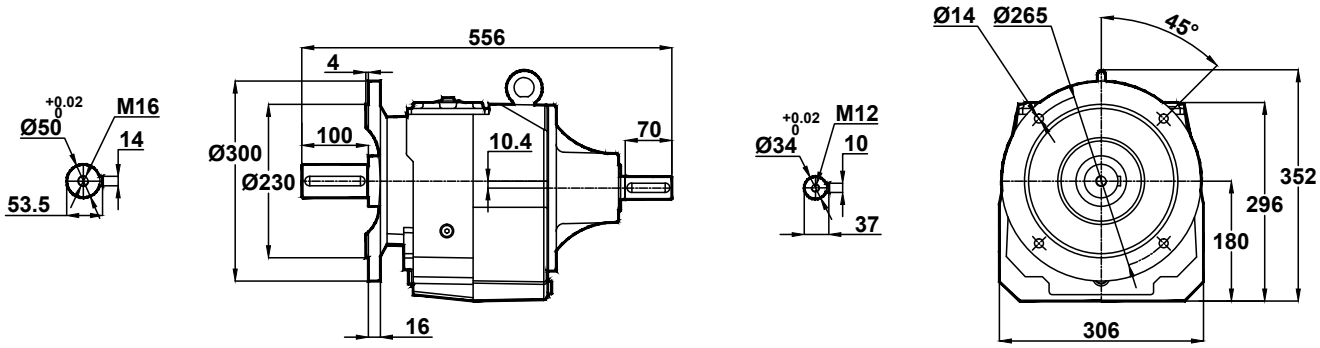
Opt. 1 **Opt. 2** **Opt. 3** **Opt. 4**

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

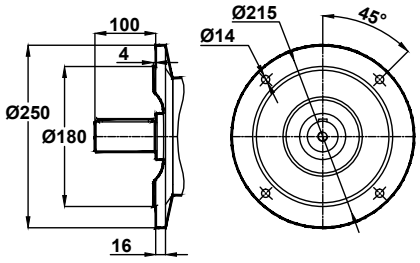
MT472
MT473



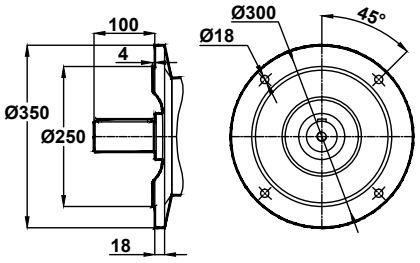
NT472
NT473



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



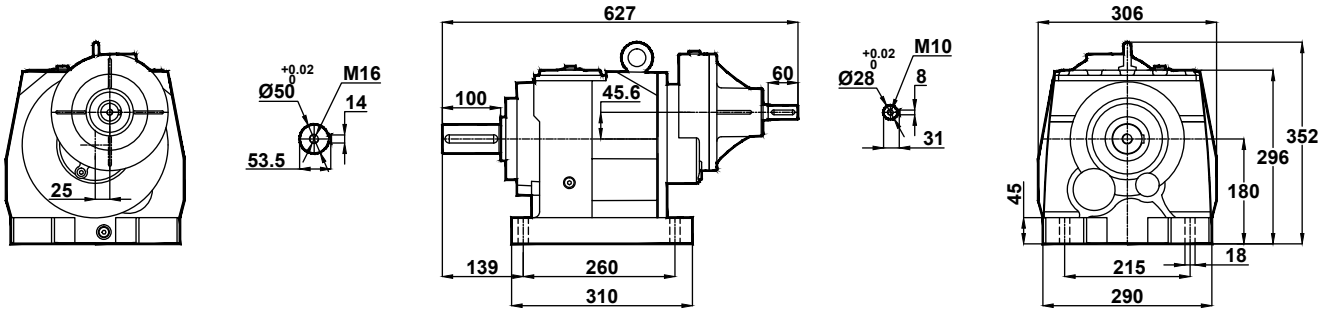
Opt. 1



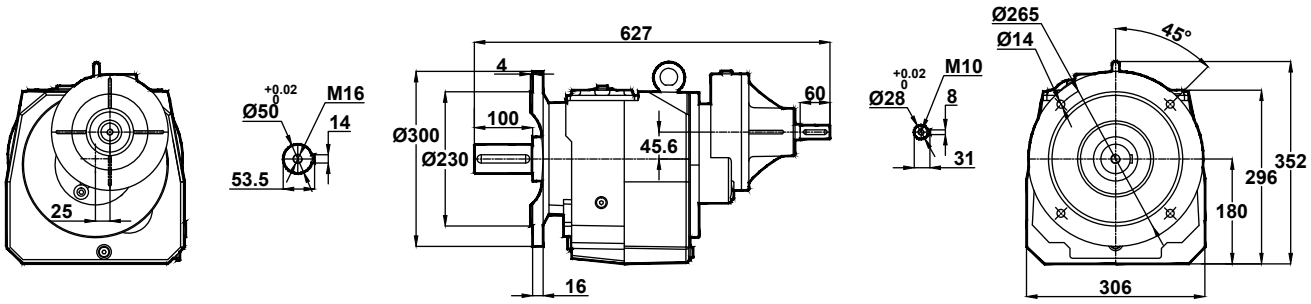
Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

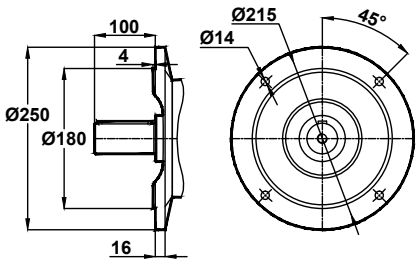
MT474



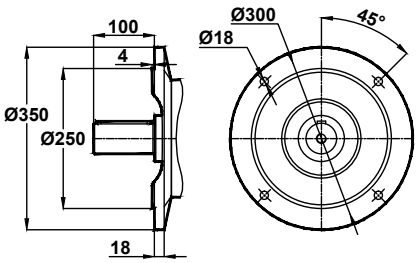
NT474



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



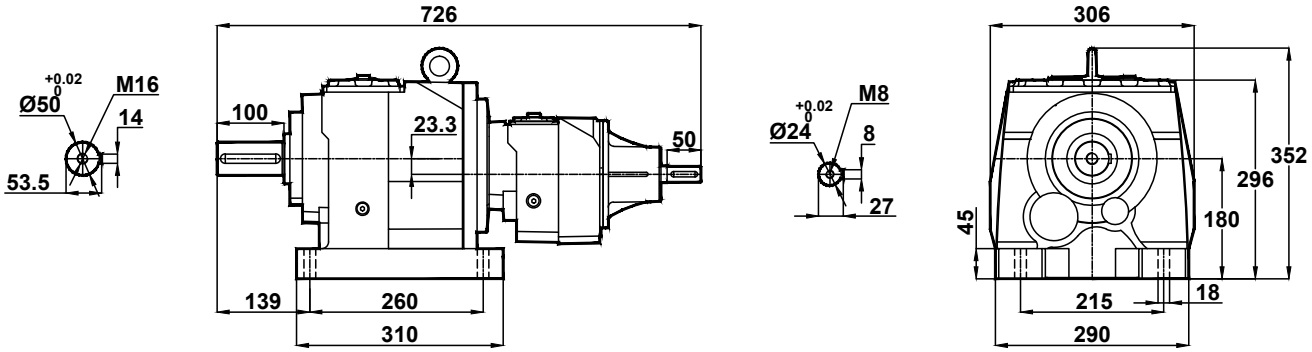
Opt. 1



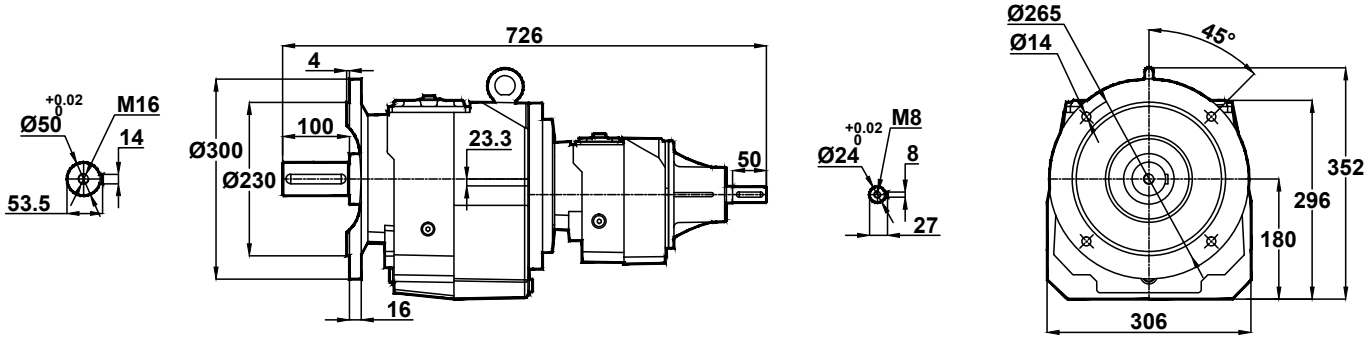
Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

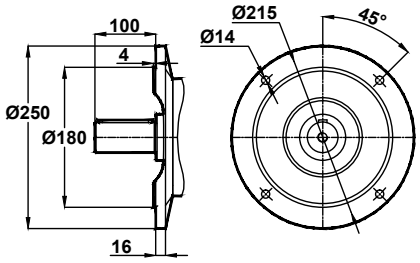
MT475
MT476



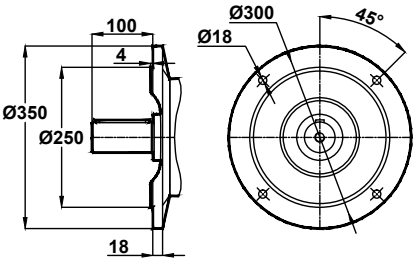
NT475
NT476



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



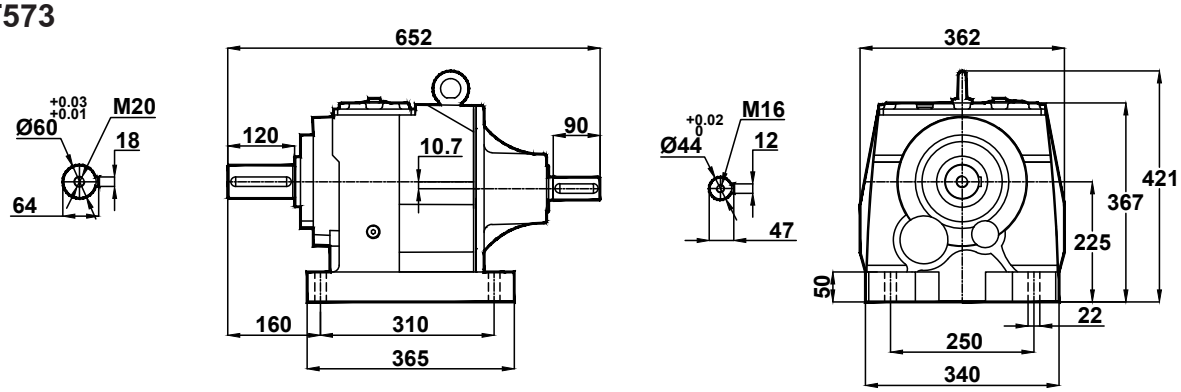
Opt. 1



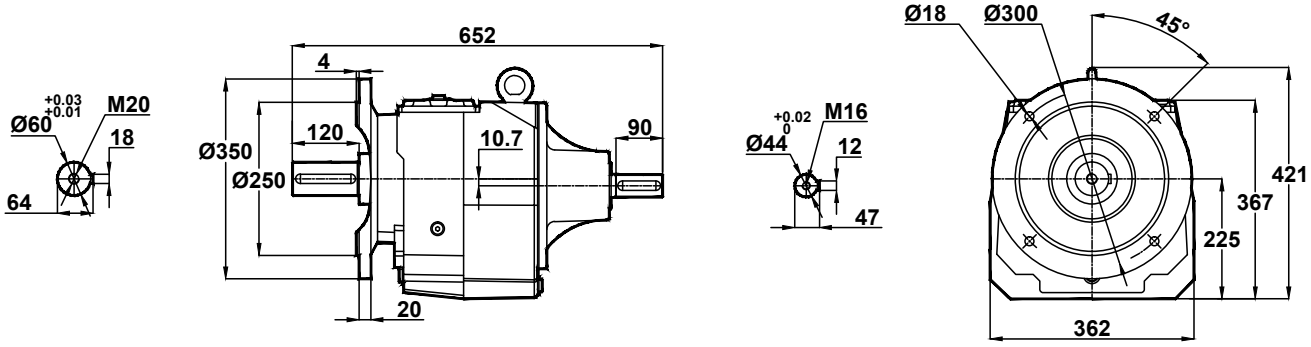
Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

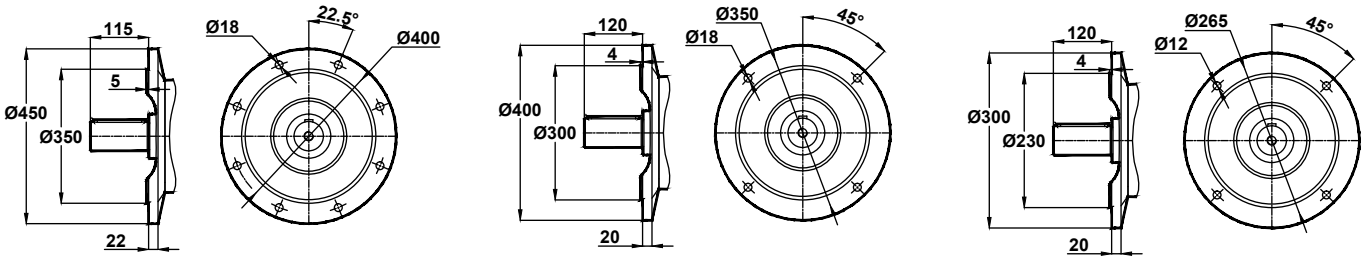
MT572
MT573



NT572
NT573



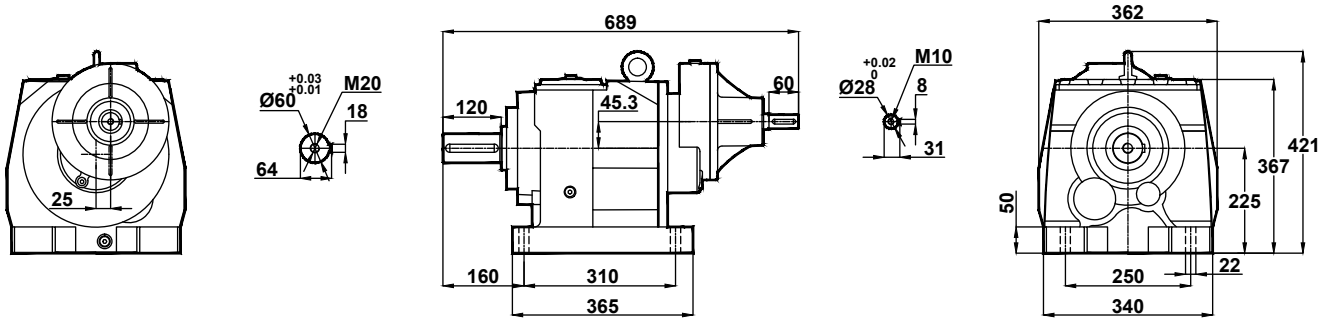
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



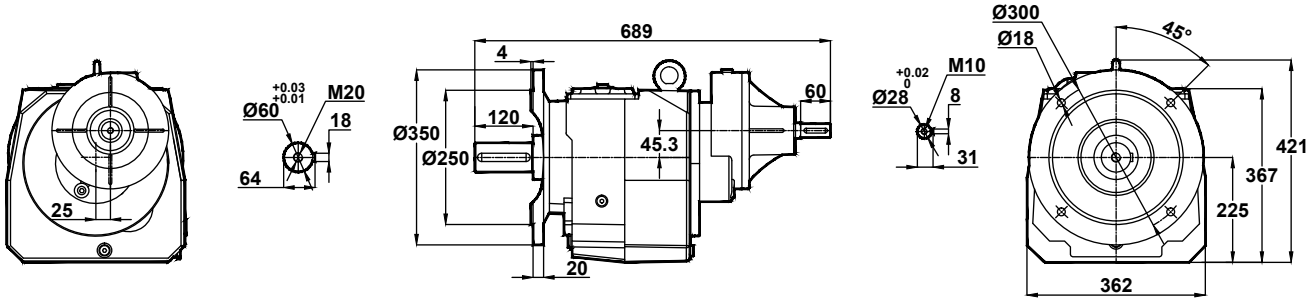
Opt. 1 **Opt. 2** **Opt. 3**

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

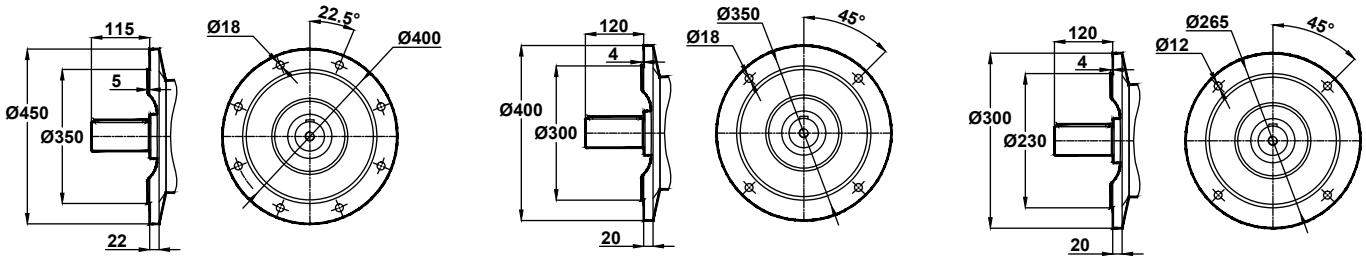
MT574



NT574



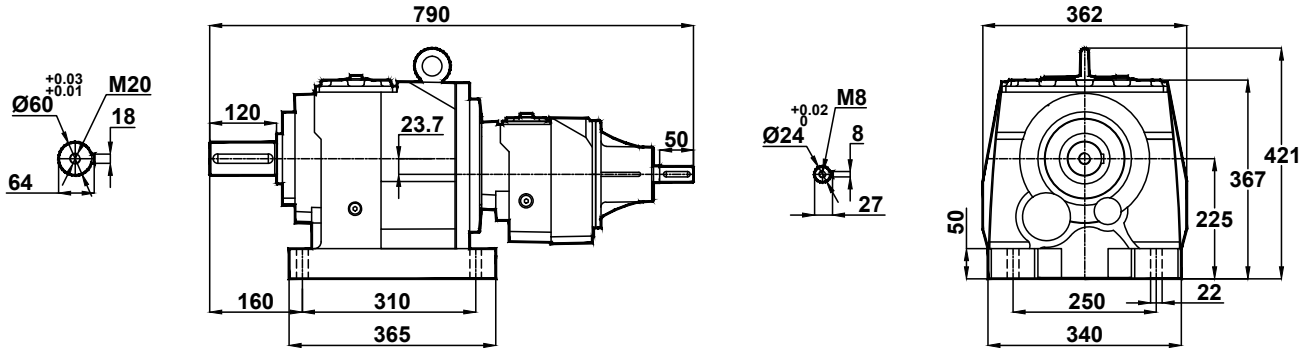
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



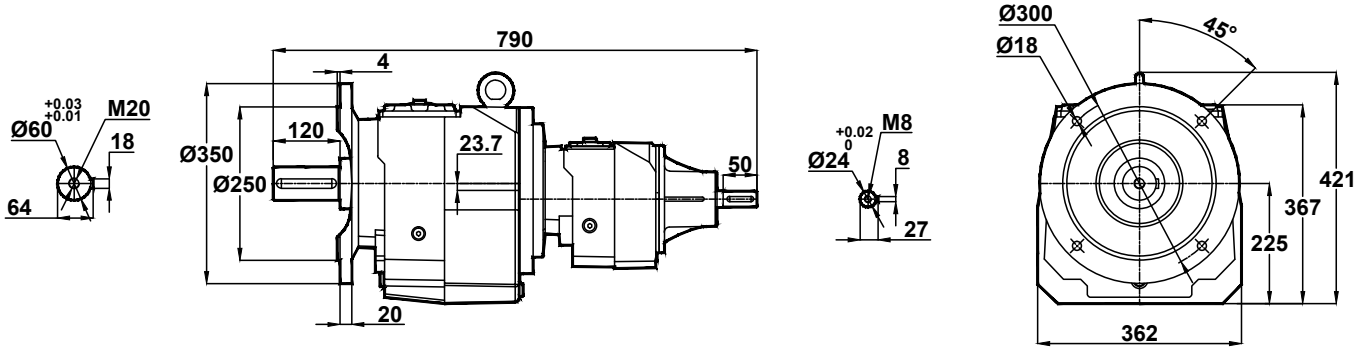
Opt. 1 **Opt. 2** **Opt. 3**

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

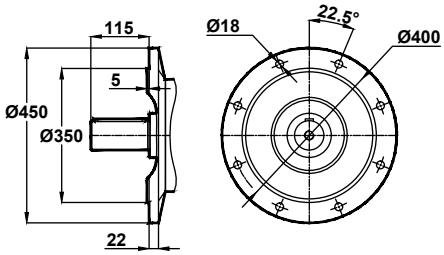
MT575
MT576



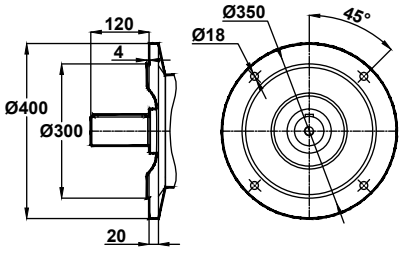
NT575
NT576



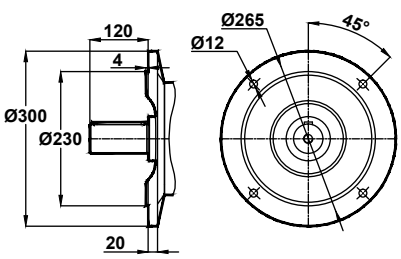
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



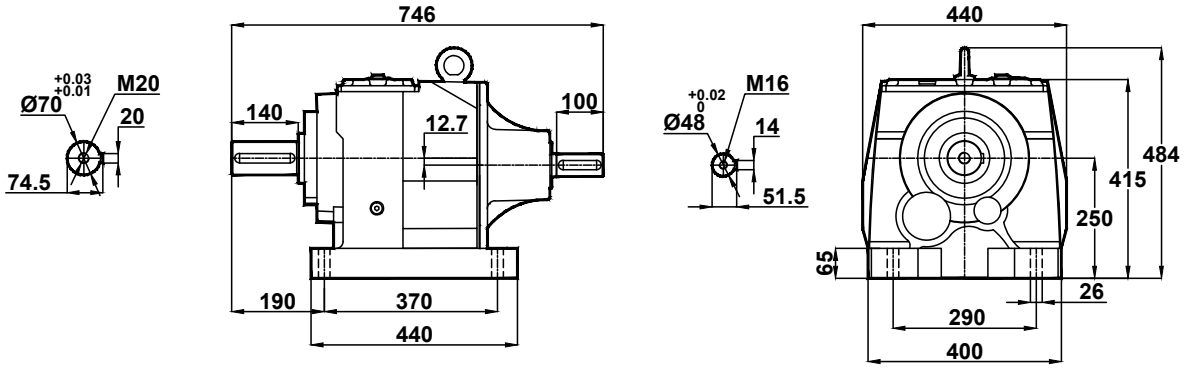
Opt. 2



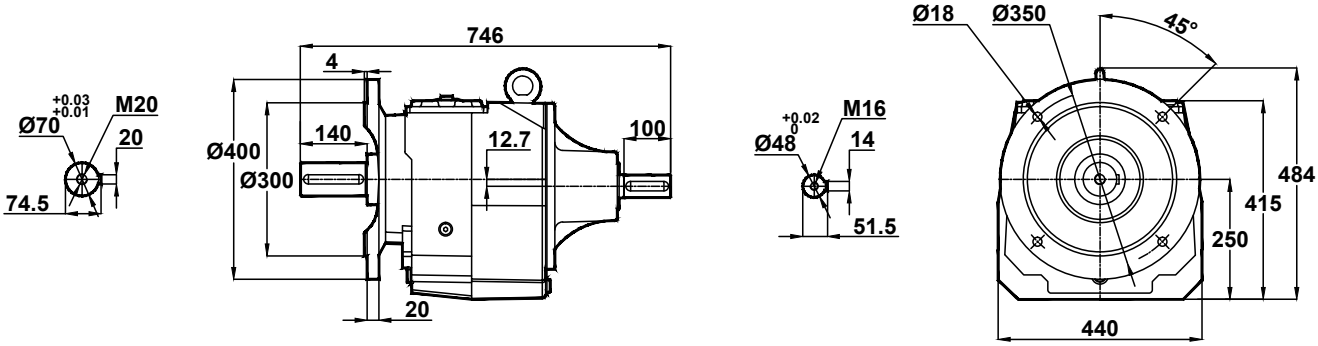
Opt. 3

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

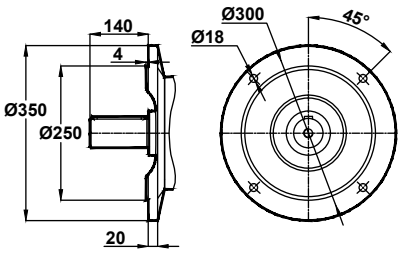
MT672
MT673



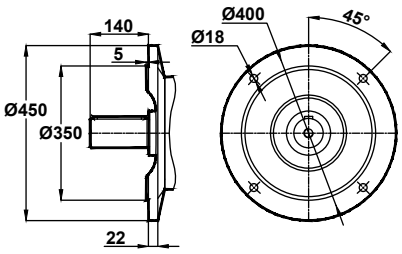
NT672
NT673



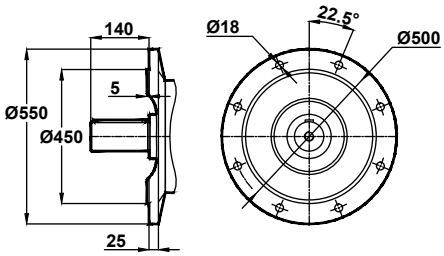
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



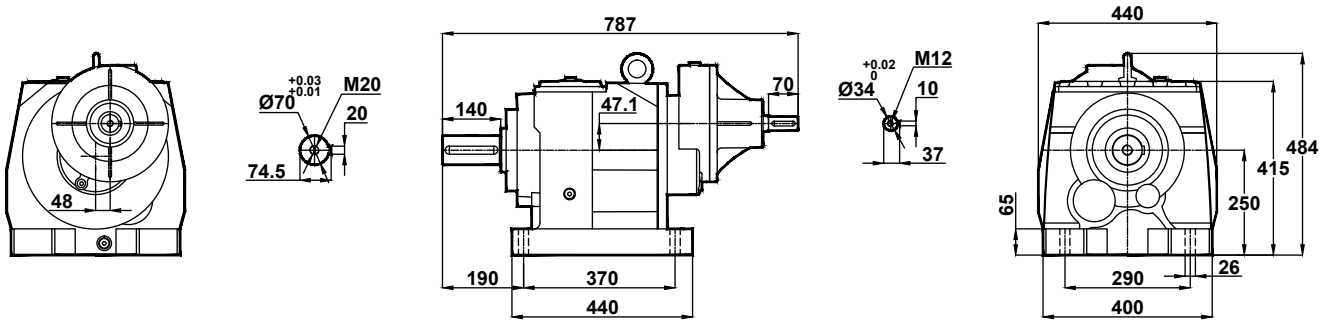
Opt. 2



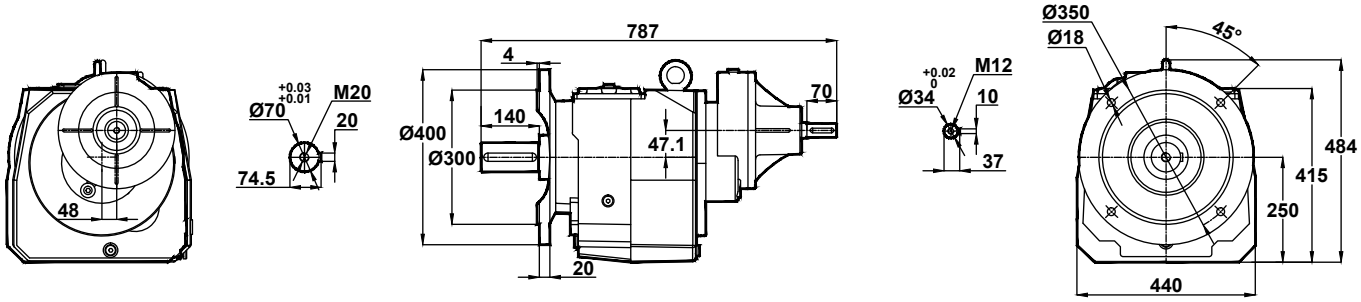
Opt. 3

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

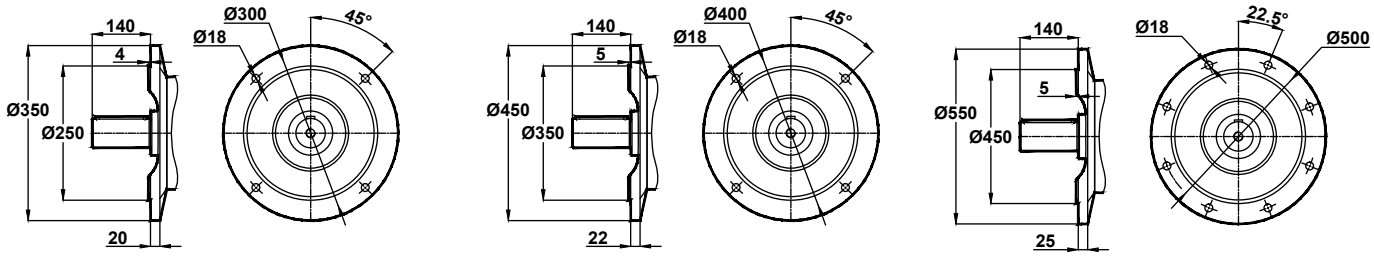
MT674



NT674

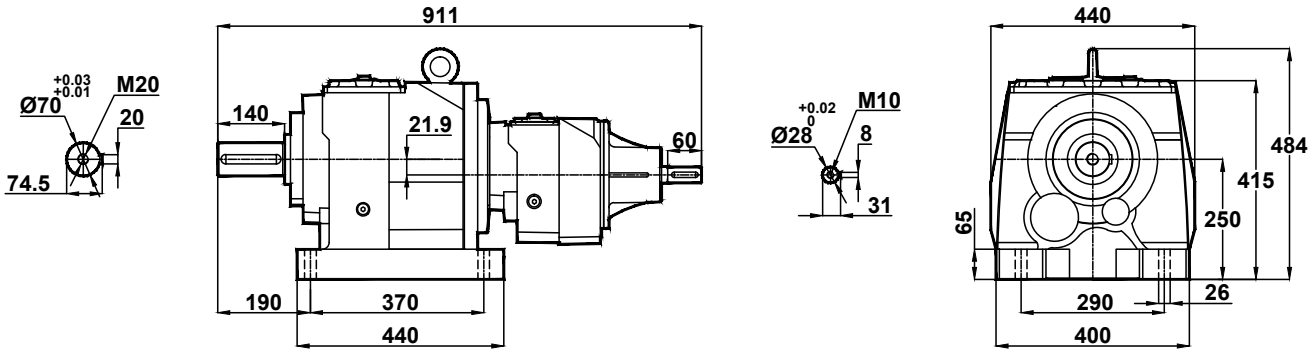


Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

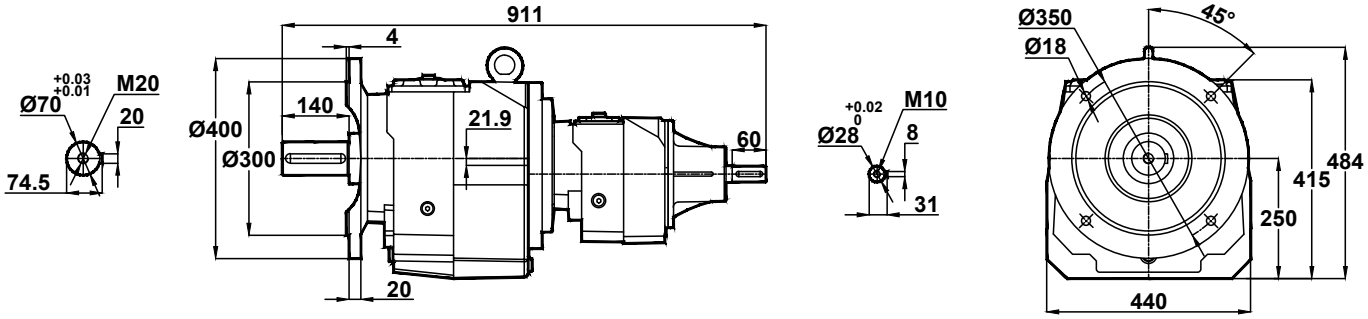


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

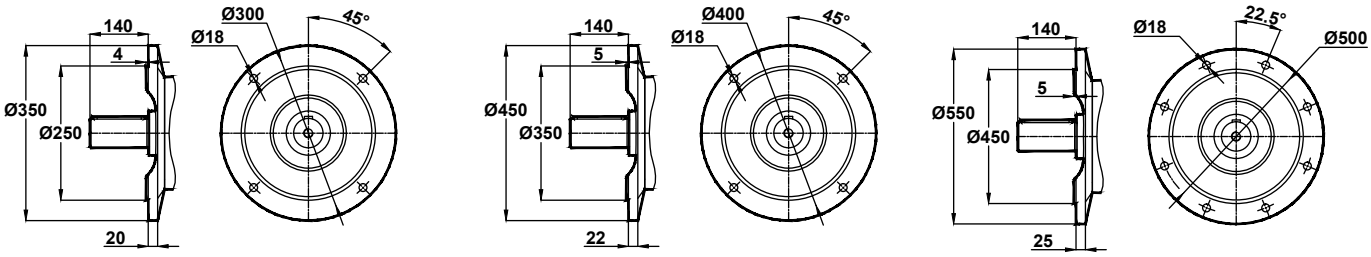
MT675
MT676



NT675
NT676



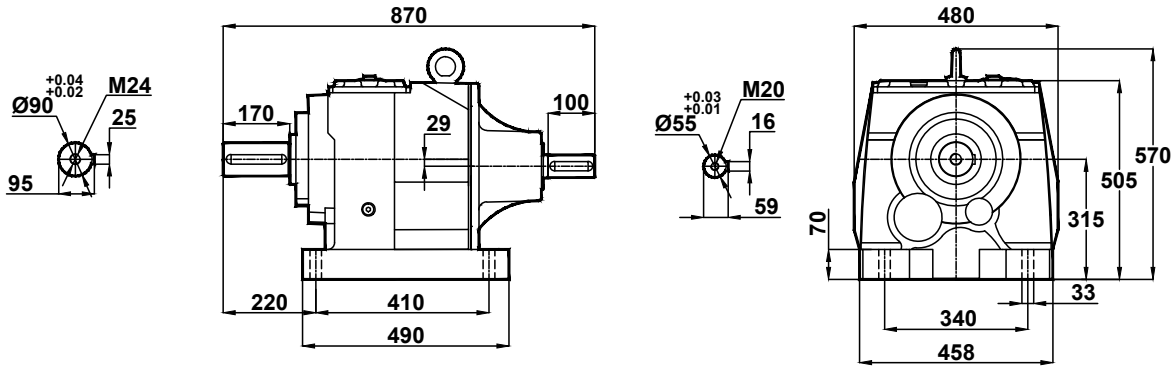
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



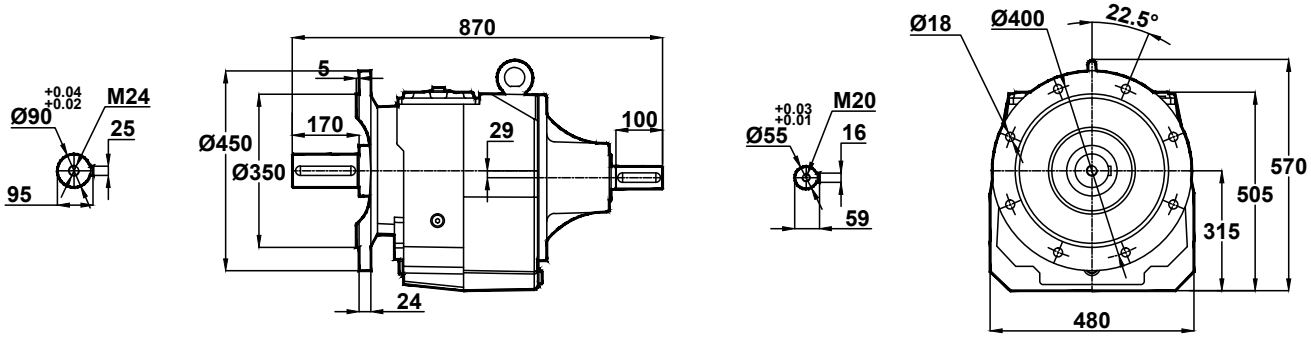
Opt. 1 **Opt. 2** **Opt. 3**

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

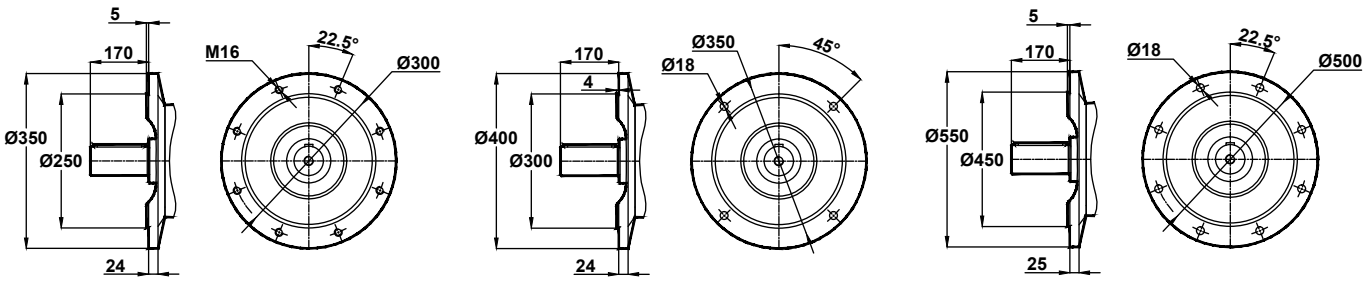
MT772
MT773



NT772
NT773



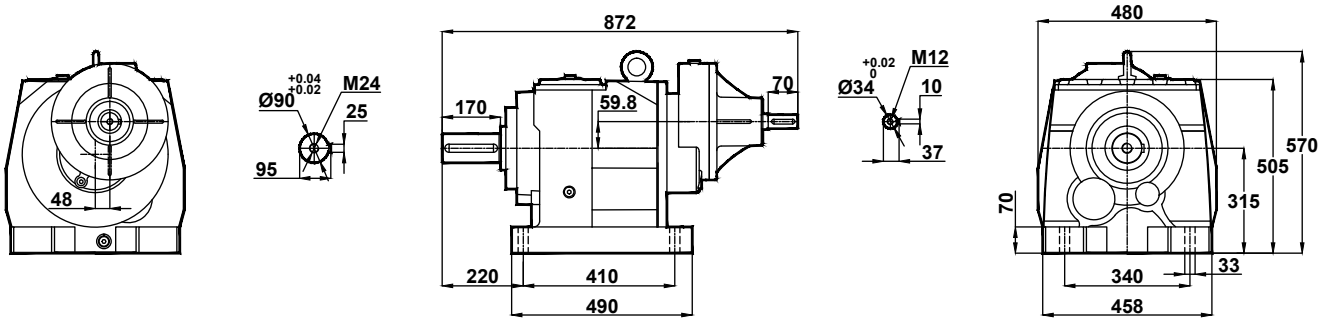
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



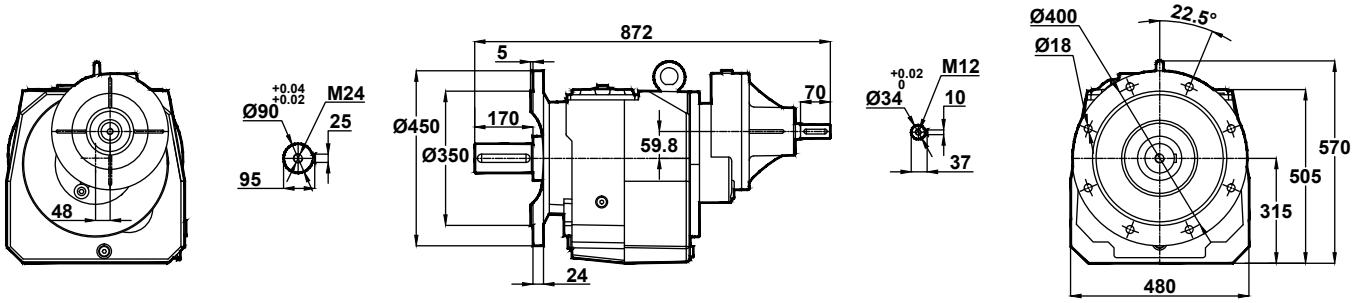
Opt. 1 **Opt. 2** **Opt. 3**

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

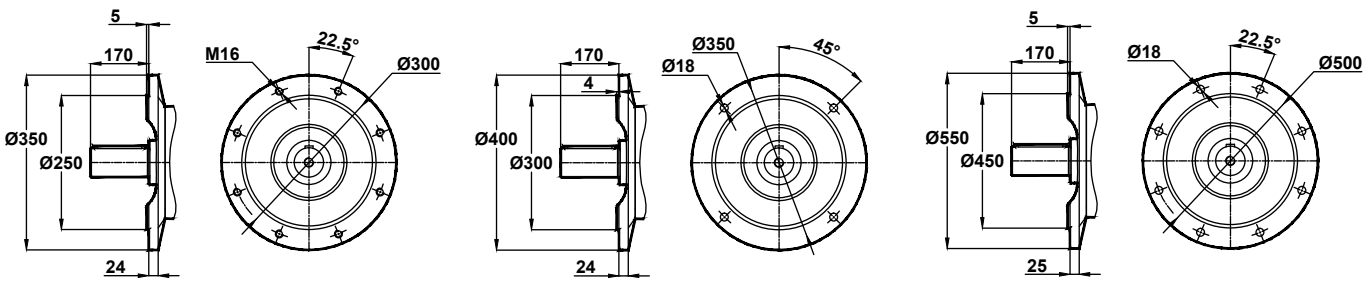
MT774



NT774



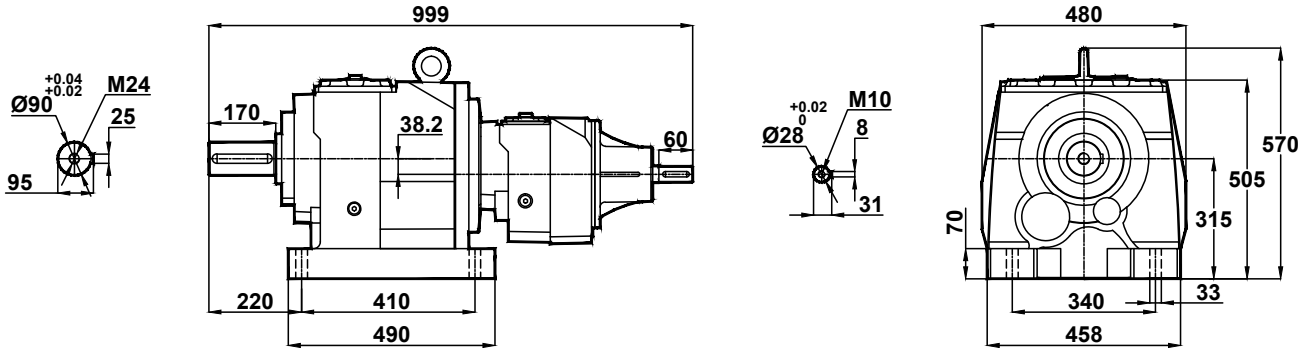
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



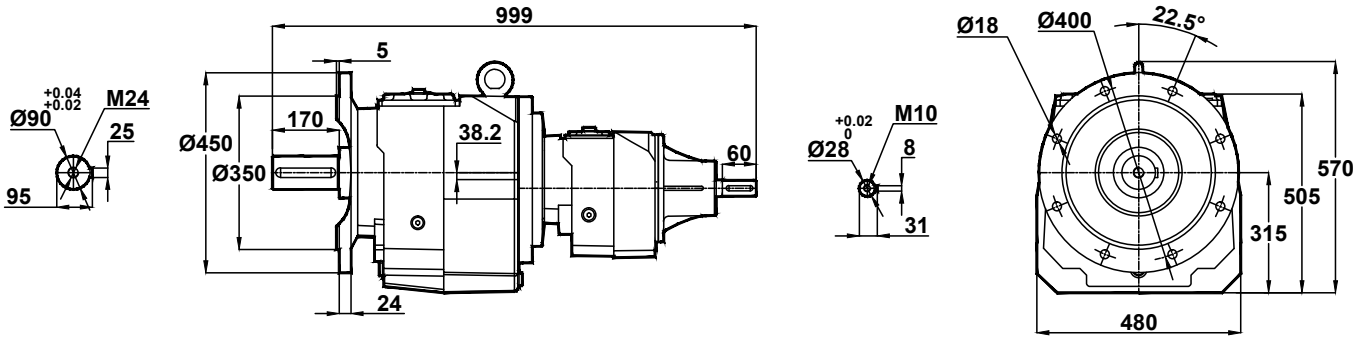
Opt. 1 **Opt. 2** **Opt. 3**

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

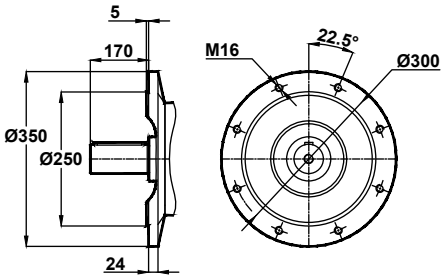
MT775
MT776



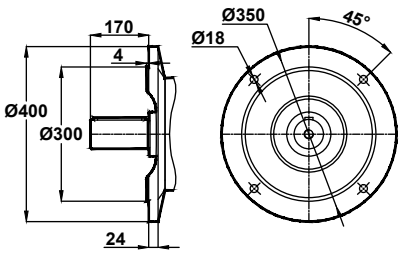
NT775
NT776



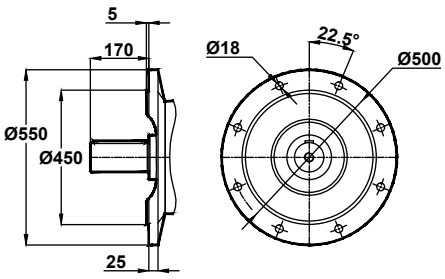
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



Opt. 1



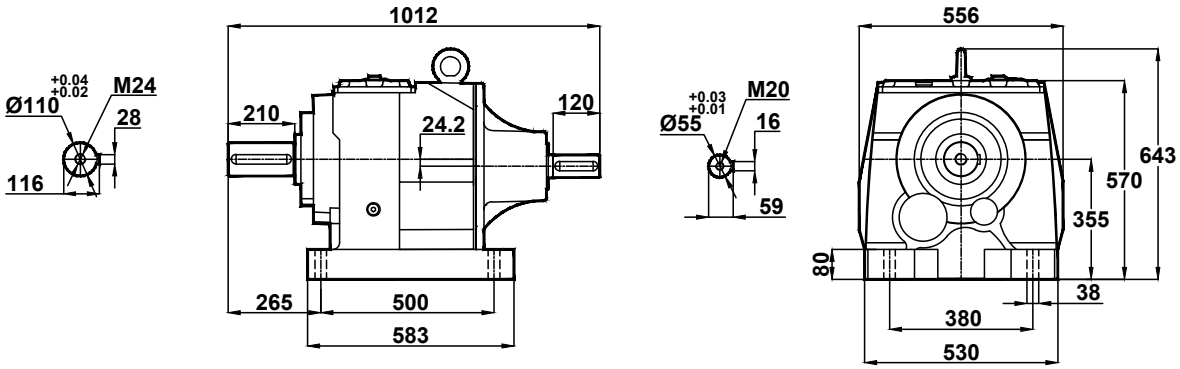
Opt. 2



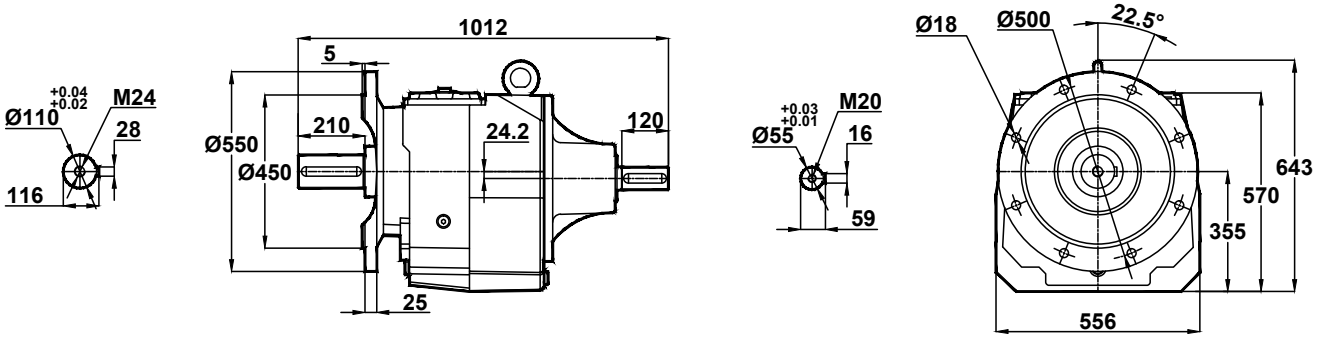
Opt. 3

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

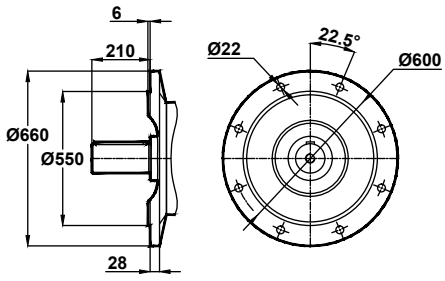
MT872
MT873



NT872
NT873



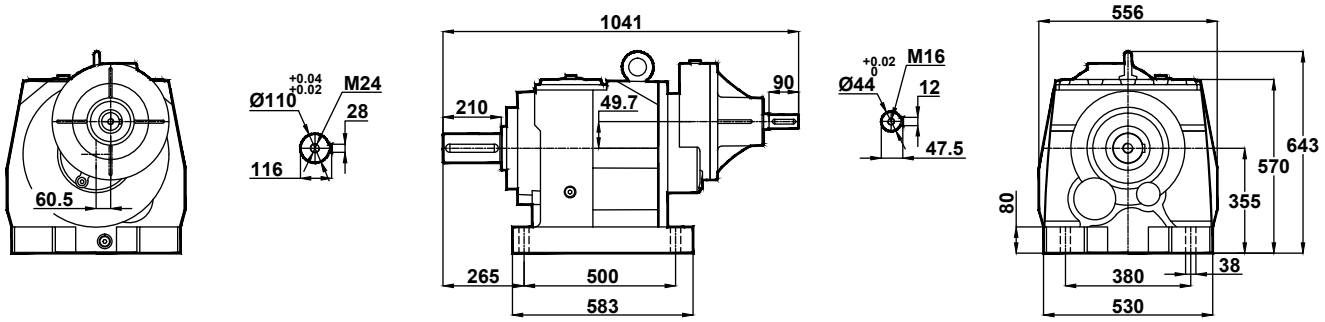
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



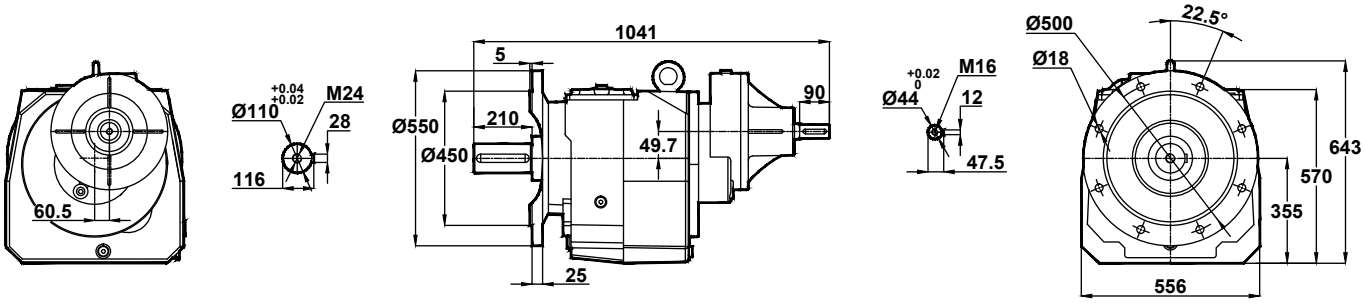
Opt. 1

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

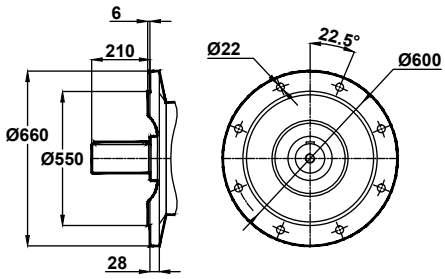
MT874



NT874



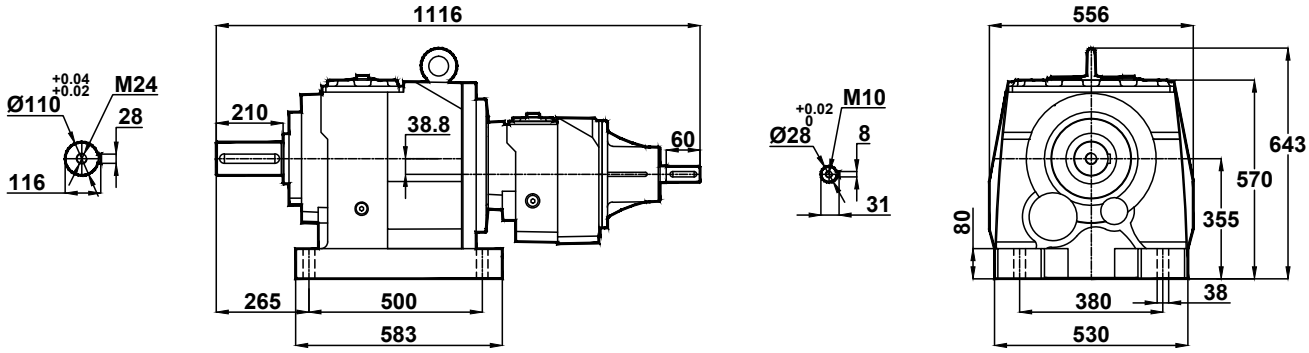
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



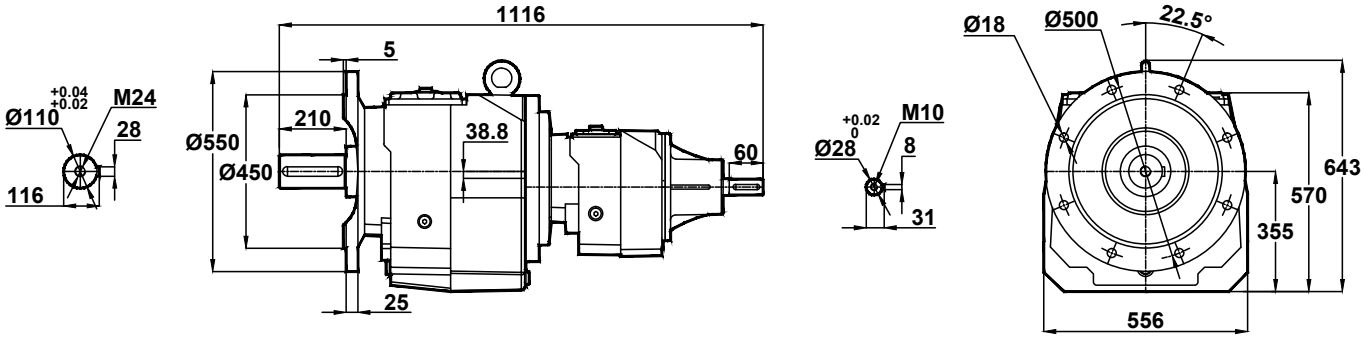
Opt. 1

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

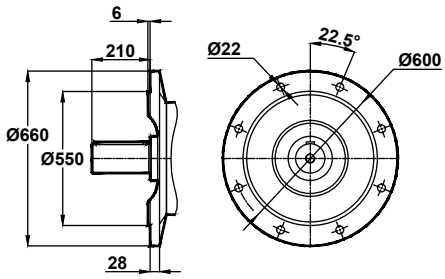
MT875
MT876



NT875
NT876



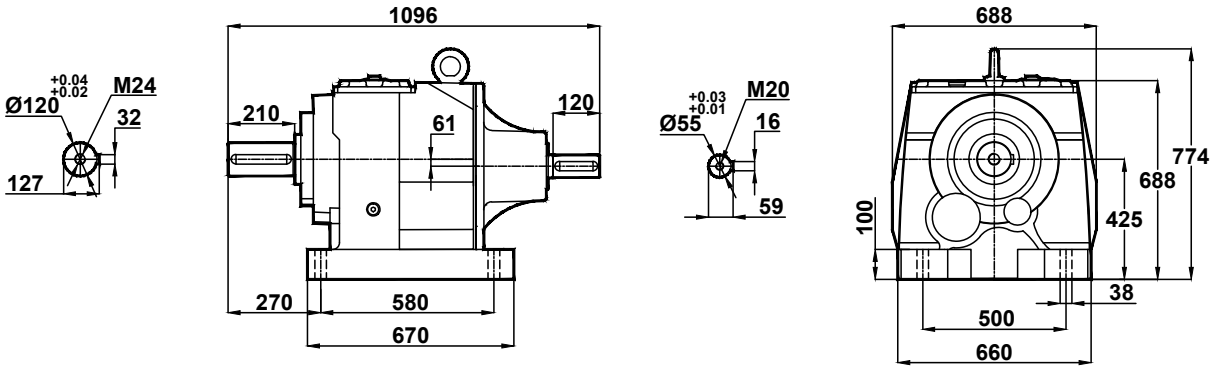
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



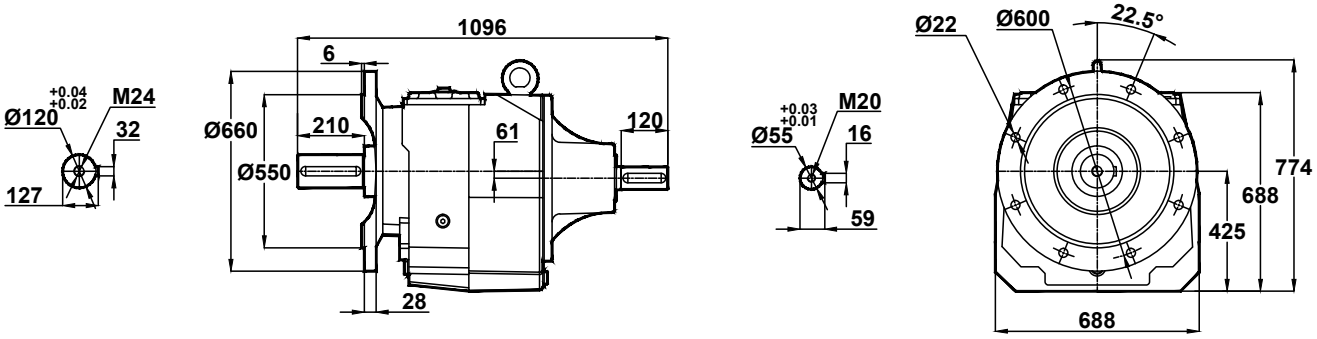
Opt. 1

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT972
MT973

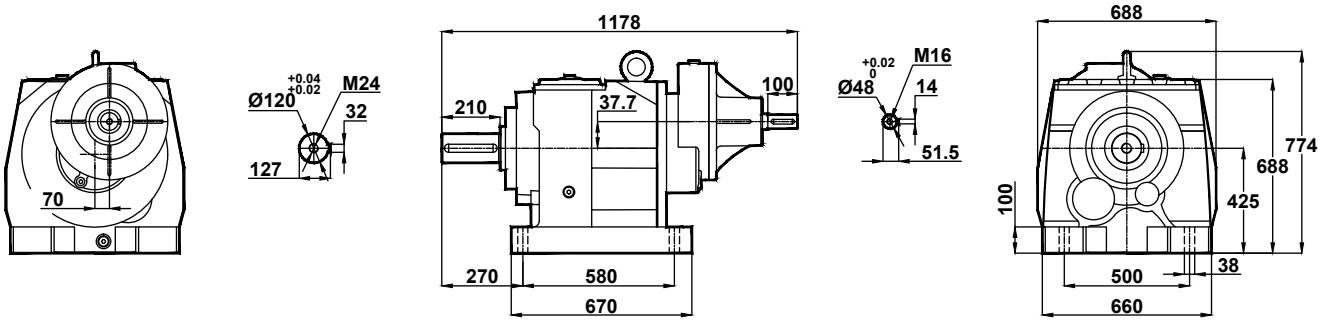


NT972
NT973

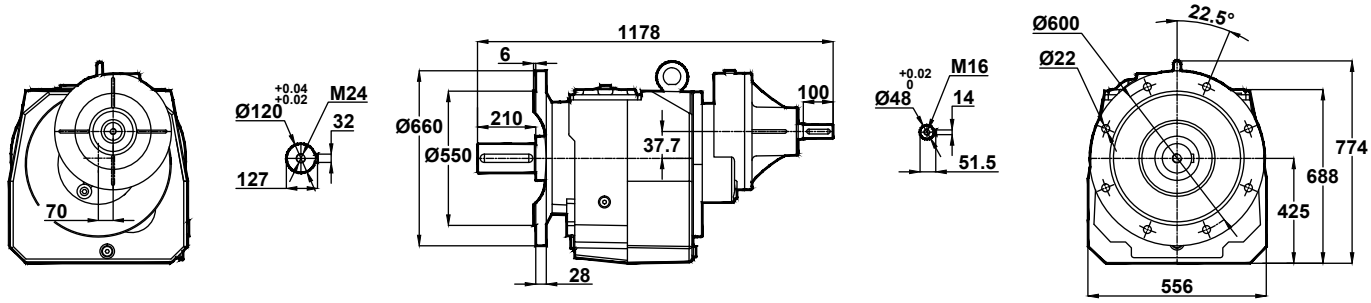


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT974

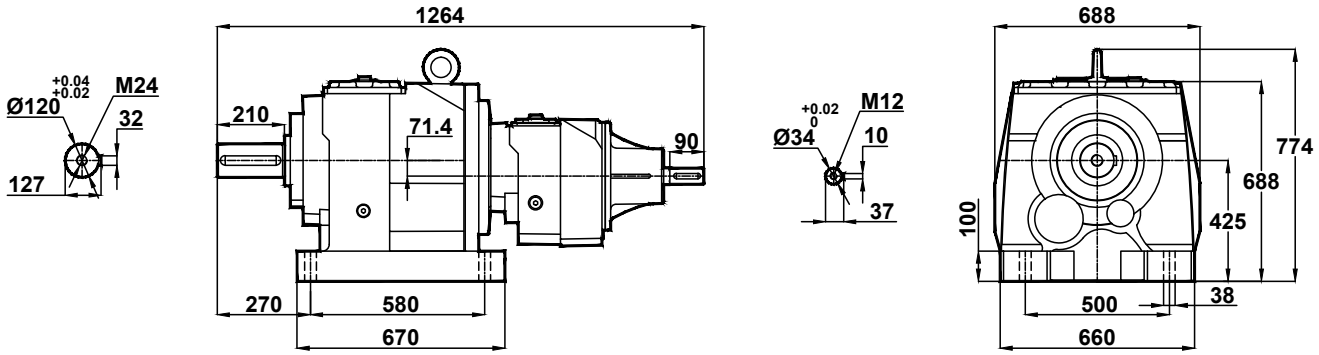


NT974

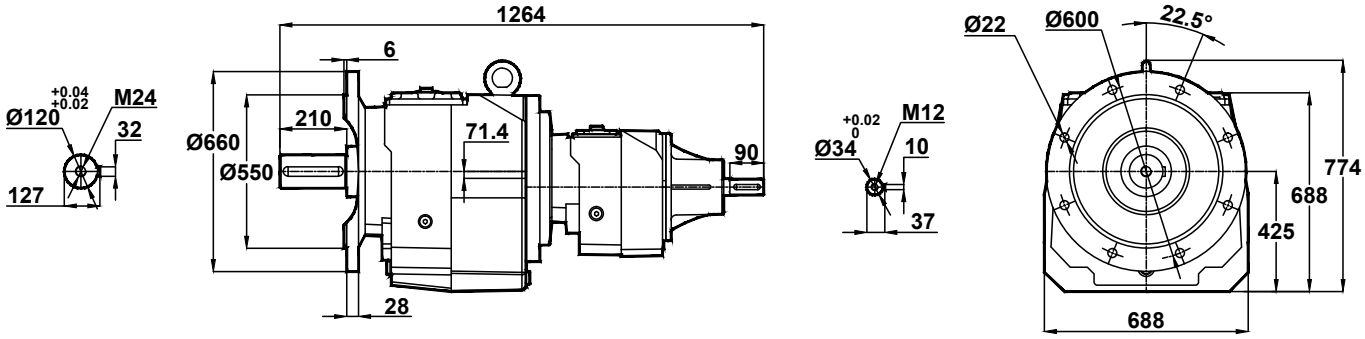


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MT975
MT976

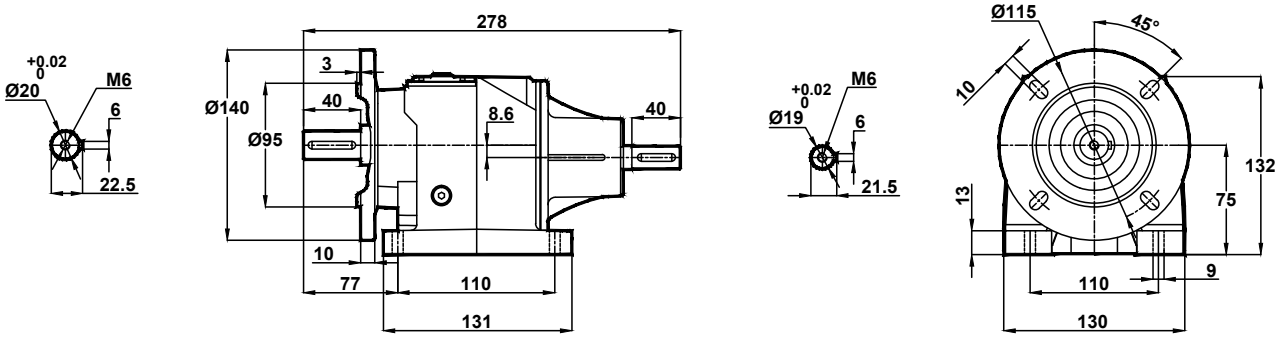


NT975
NT976

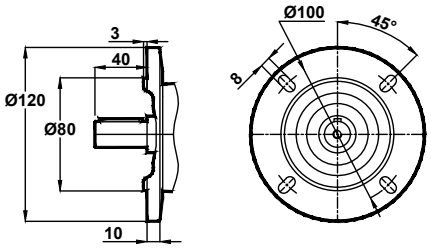


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

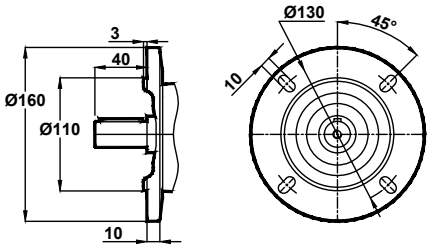
MTF002
MTF003



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



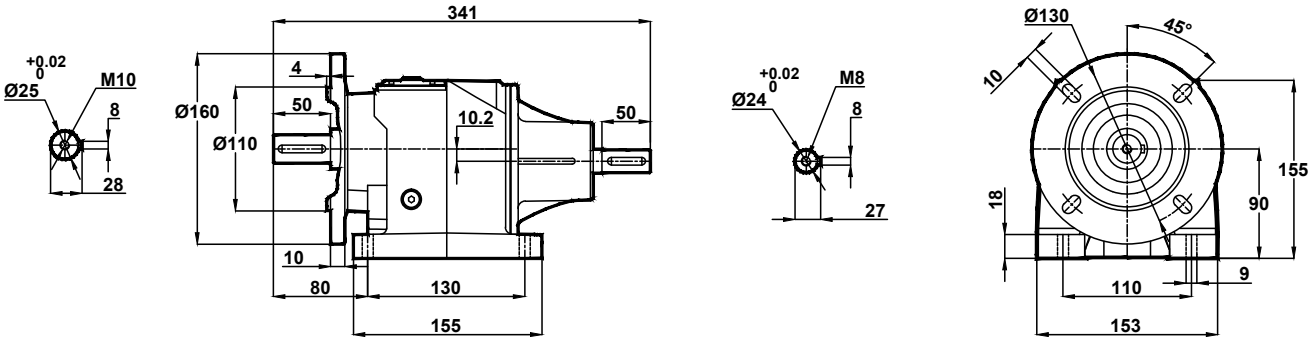
Opt. 1



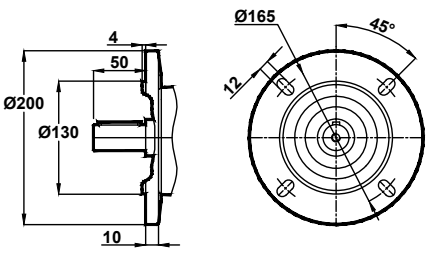
Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

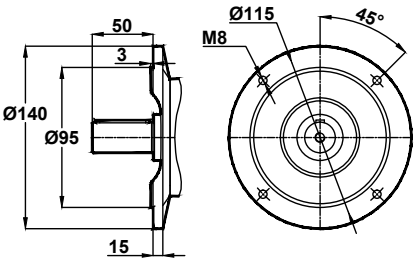
MTF102
MTF103



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

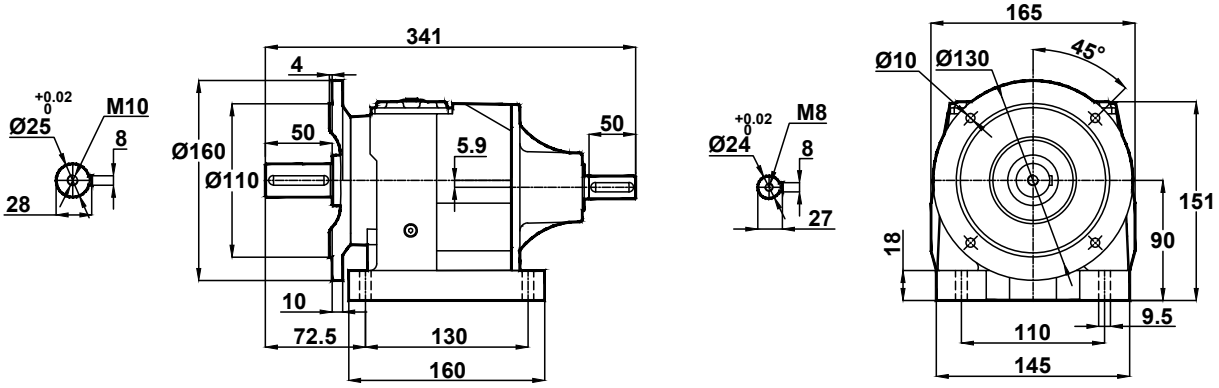


Opt. 1

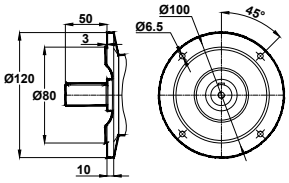


Opt. 2

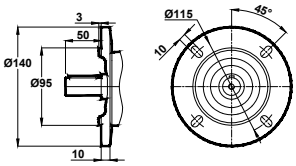
MTF172
MTF173



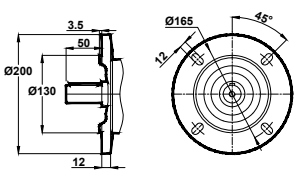
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



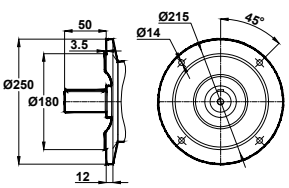
Opt. 1



Opt. 2



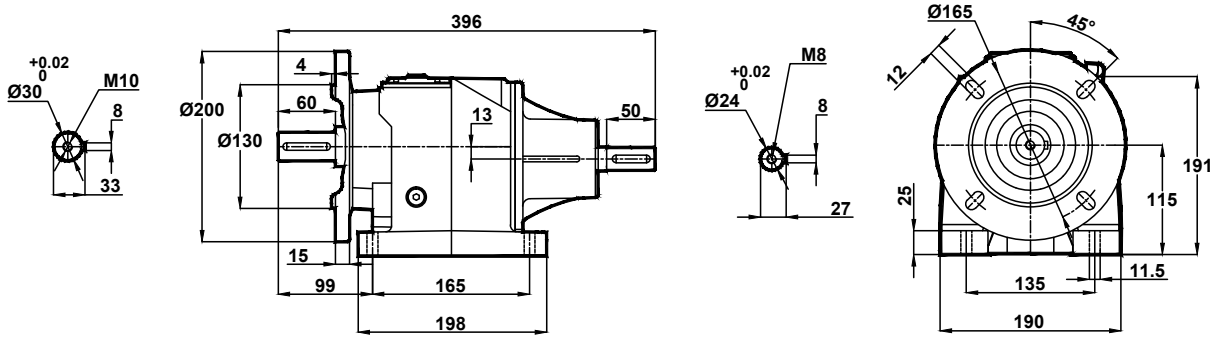
Opt. 3



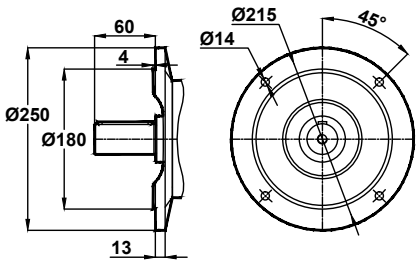
Opt. 4

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

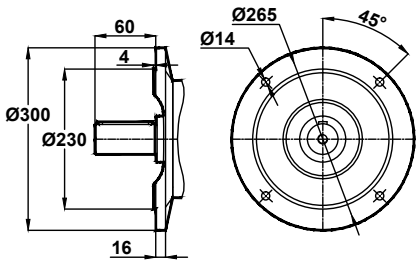
MTF202
MTF203



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



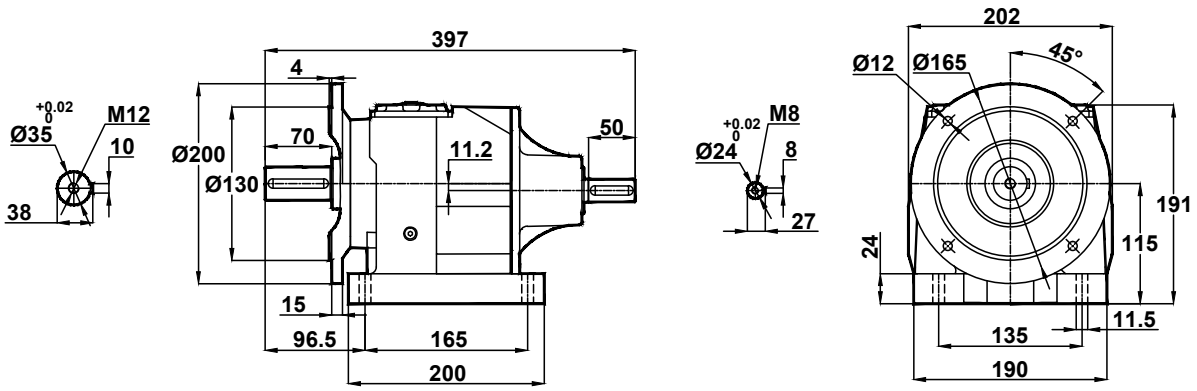
Opt. 1



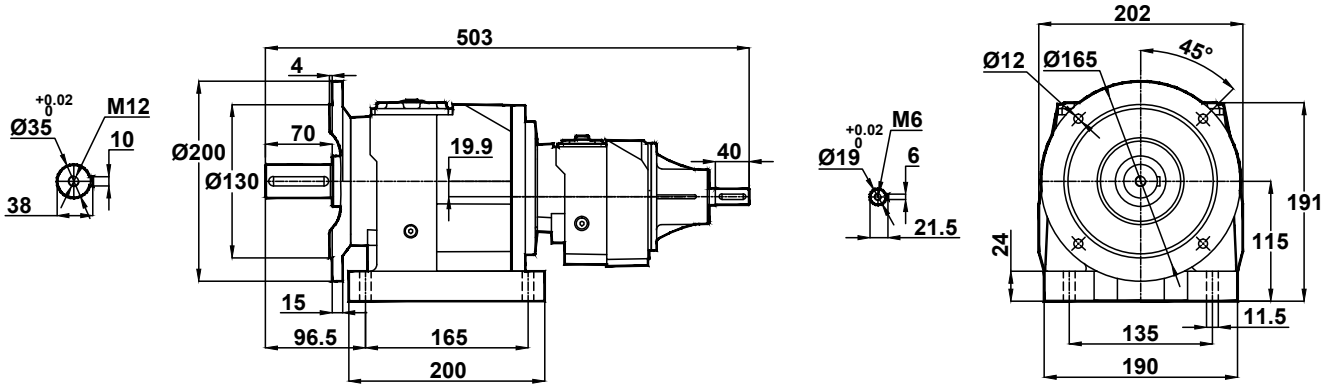
Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

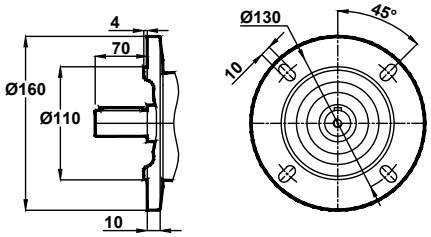
MTF272
MTF273



MTF275
MTF276



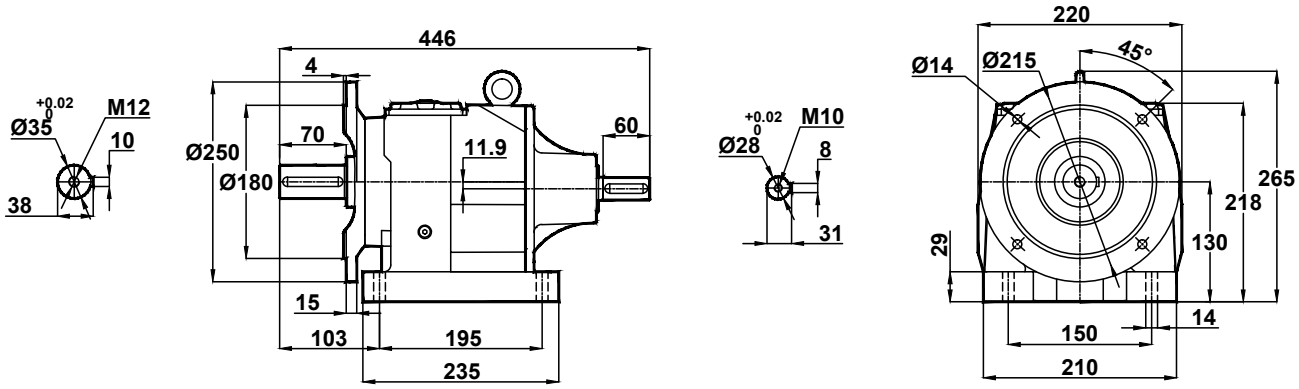
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



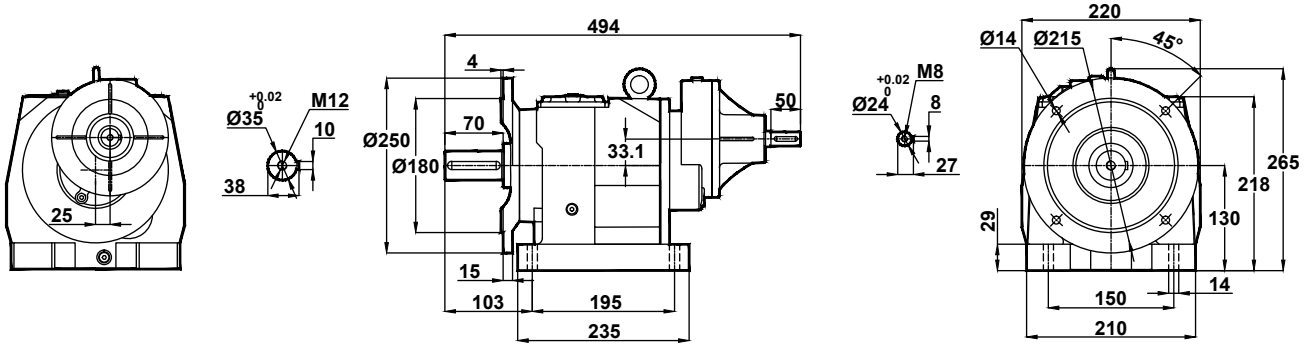
Opt. 1

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

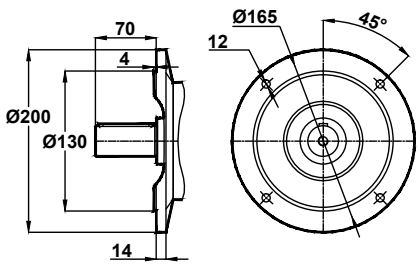
MTF282
MTF283



MTF284



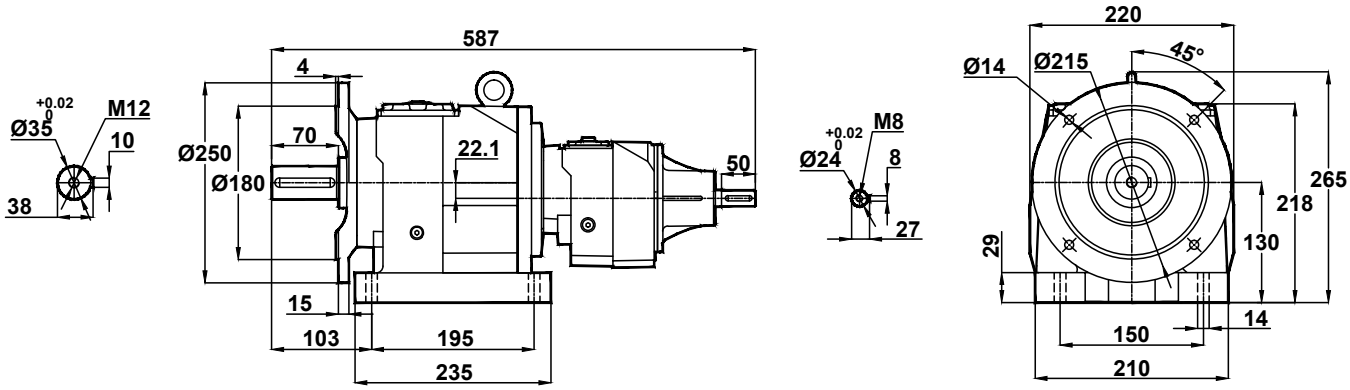
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



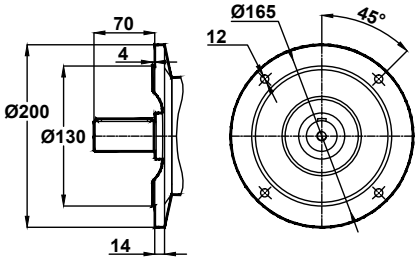
Opt. 1

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

MTF285
MTF286



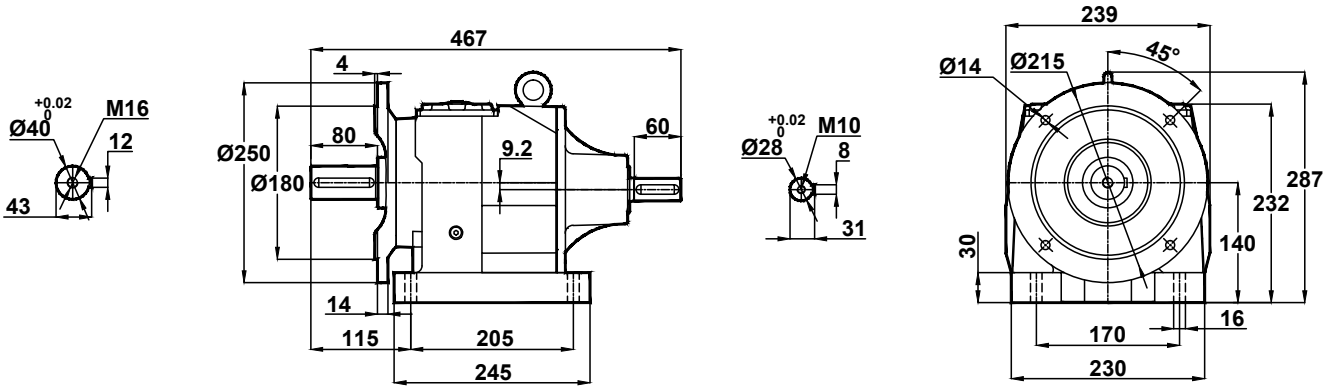
Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



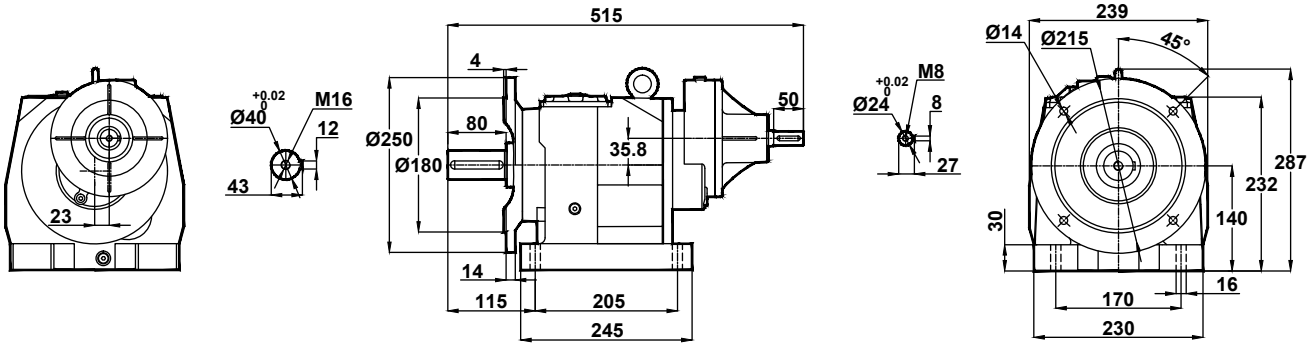
Opt. 1

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

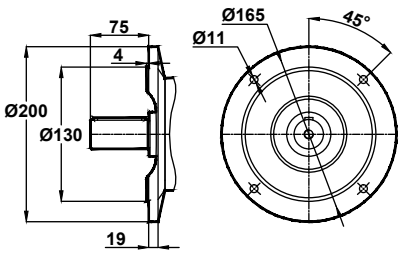
MTF372
MTF373



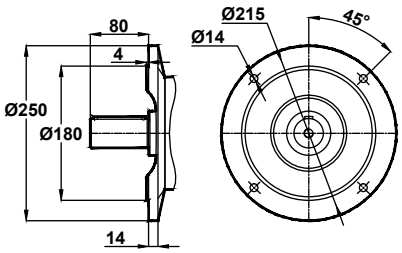
MTF374



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



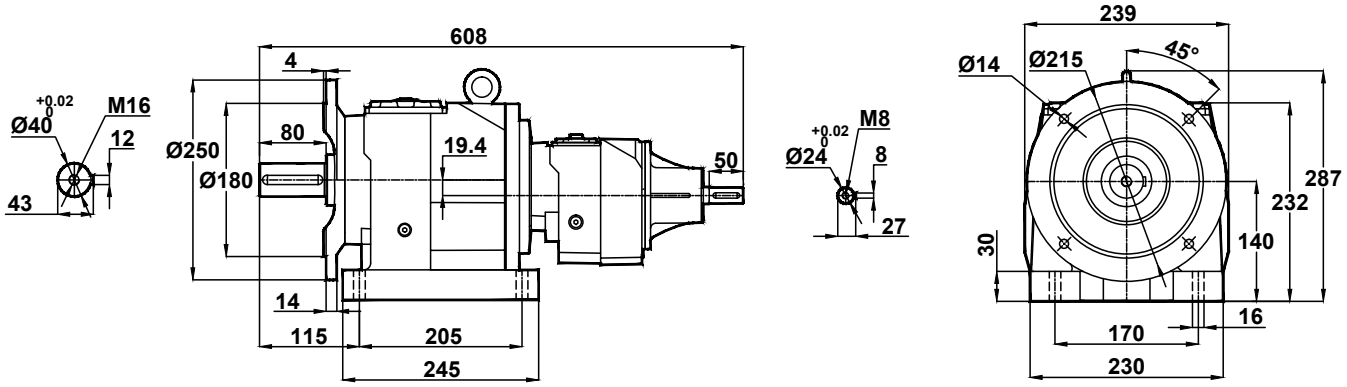
Opt. 1



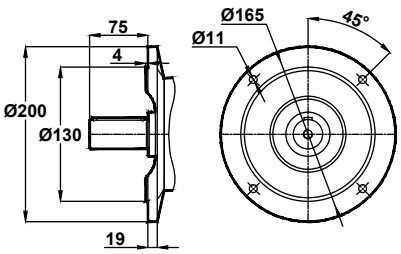
Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

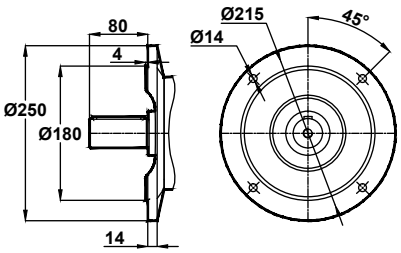
MTF375
MTF376



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*



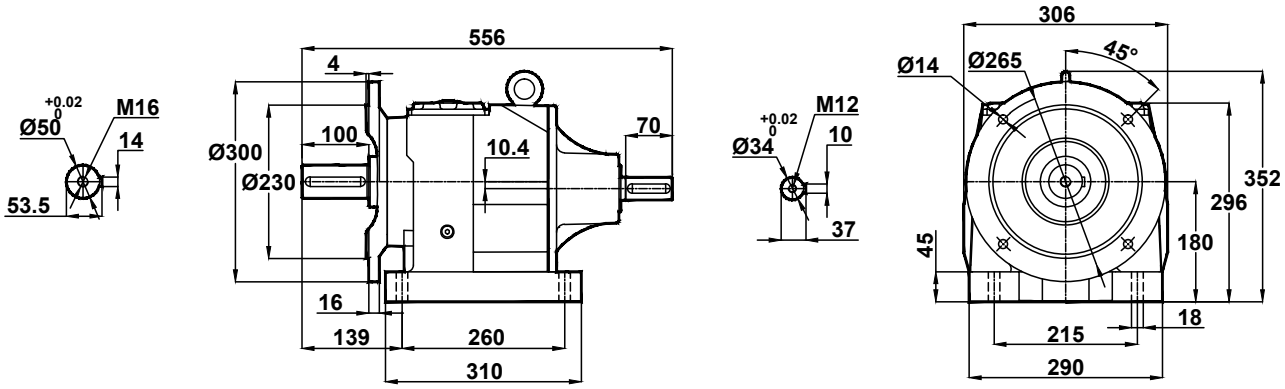
Opt. 1



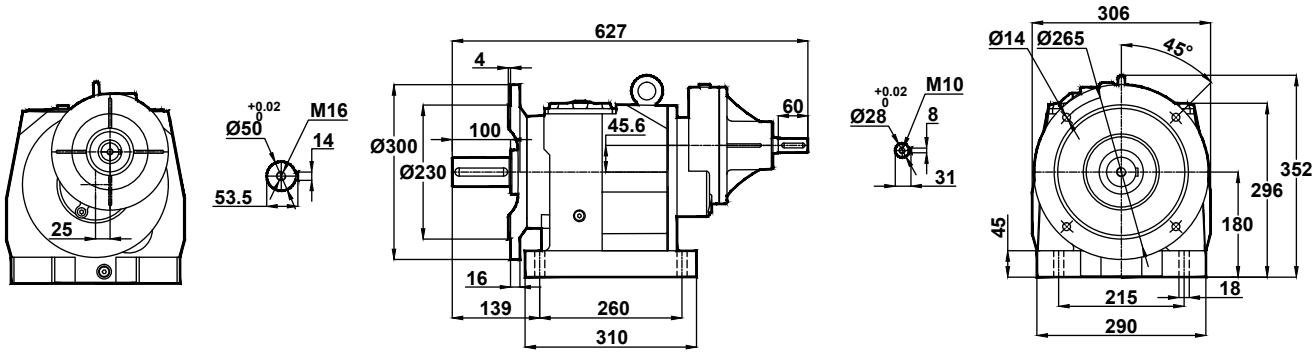
Opt. 2

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

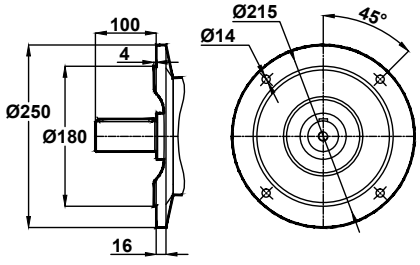
MTF472
MTF473



MTF474

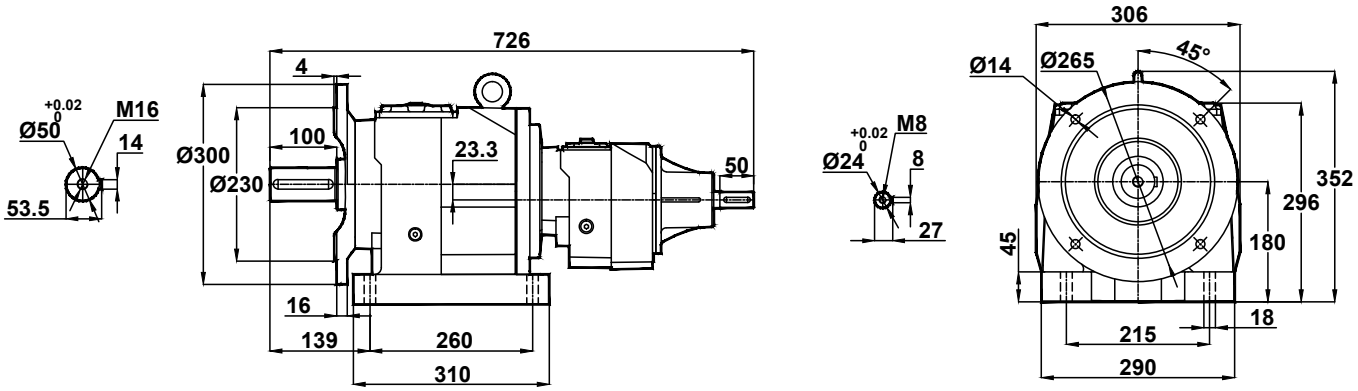


Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

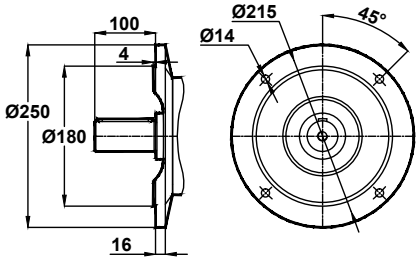


Opt. 1

MTF475
MTF476



Opsiyonel Flanş Ölçüleri / *Optional Flange Dimensions / Auswählbare Flanschabmessungen*

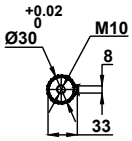


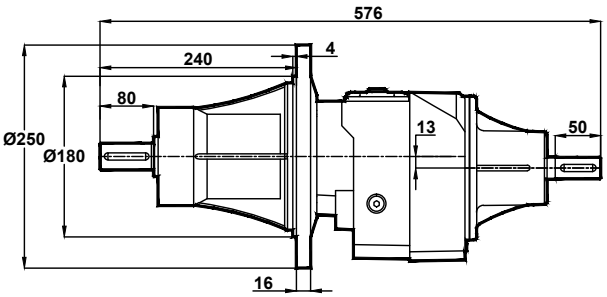
Opt. 1

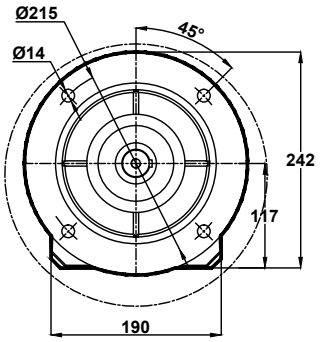
Notlar / *Notes* / Notizen

-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NTB202
NTB203

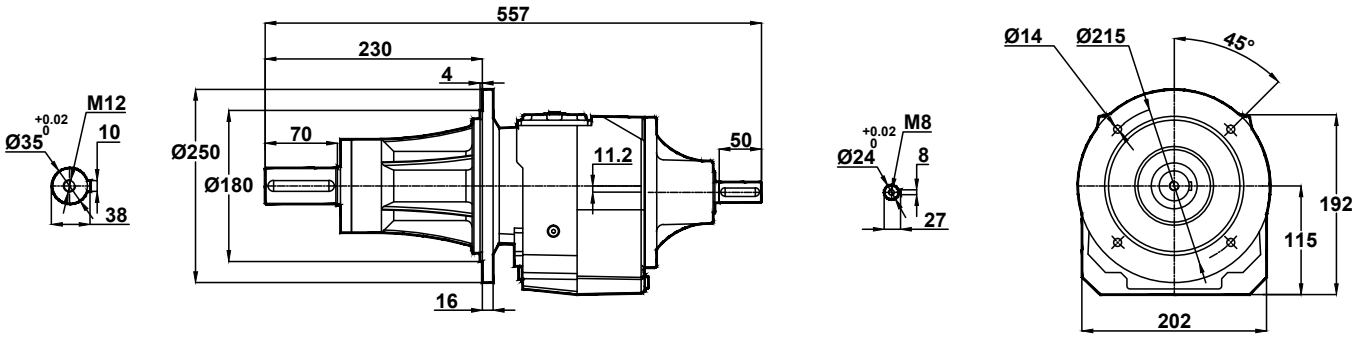




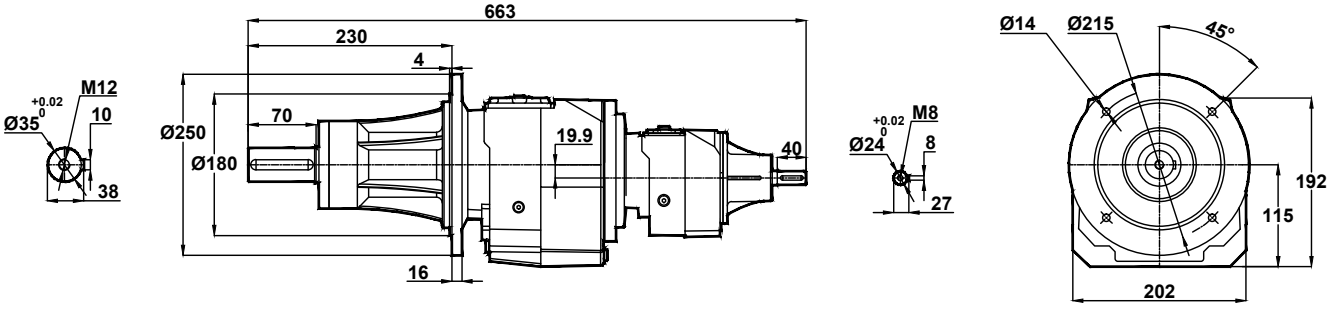


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NTB272
NTB273

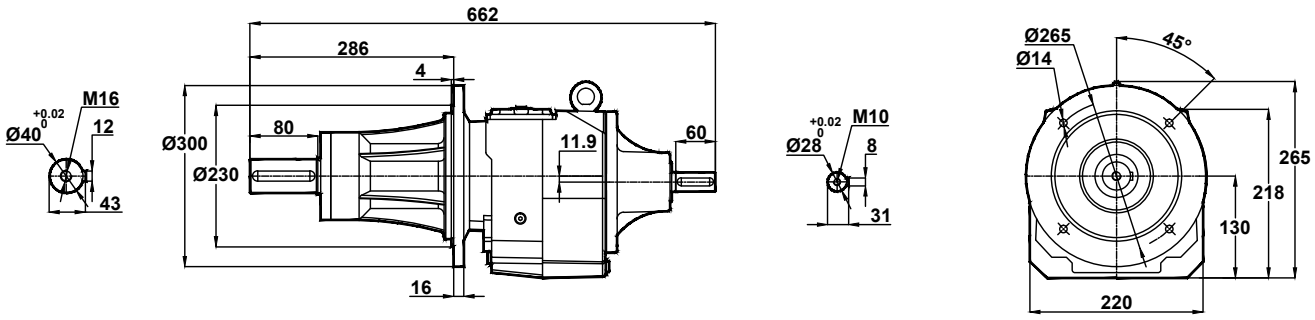


NTB275
NTB276

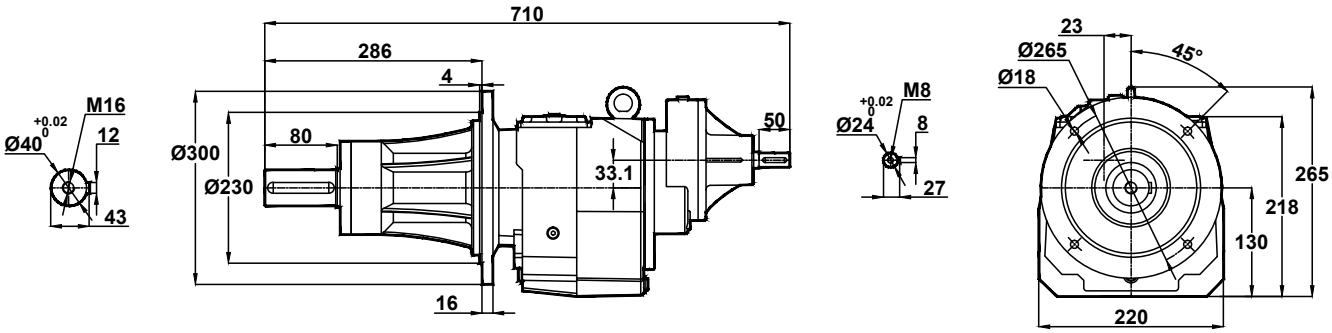


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NTB282
NTB283

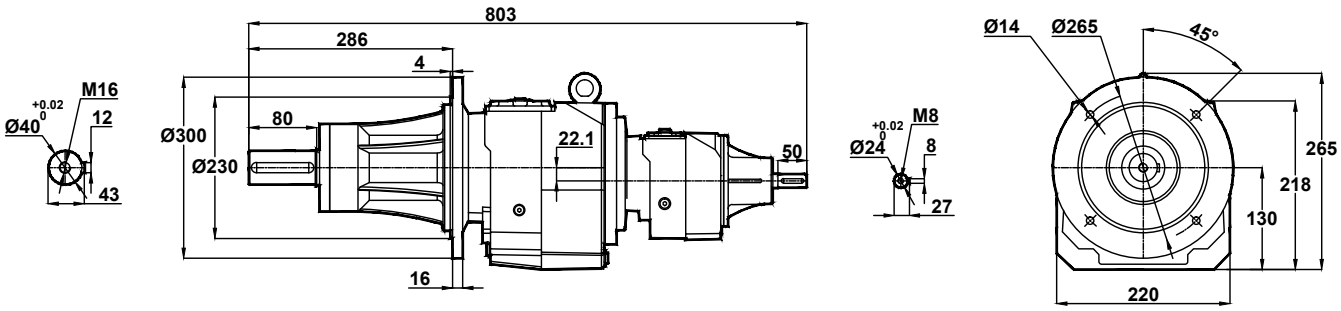


NTB284



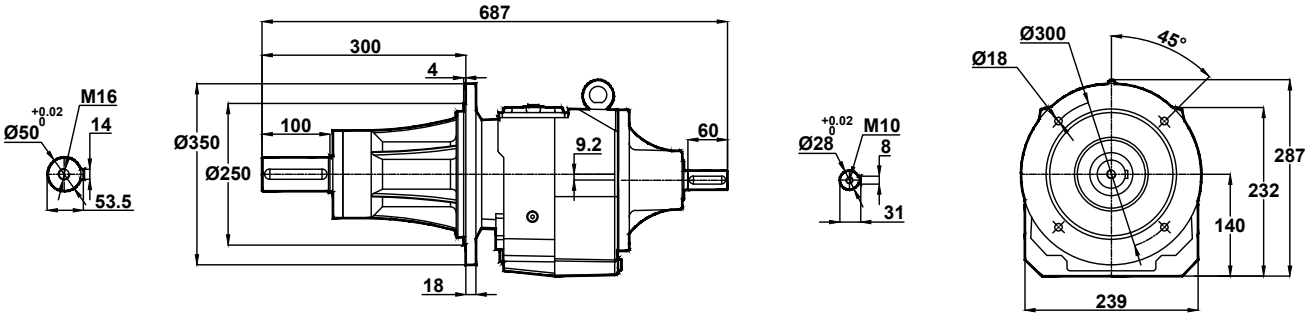
-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NTB285
NTB286

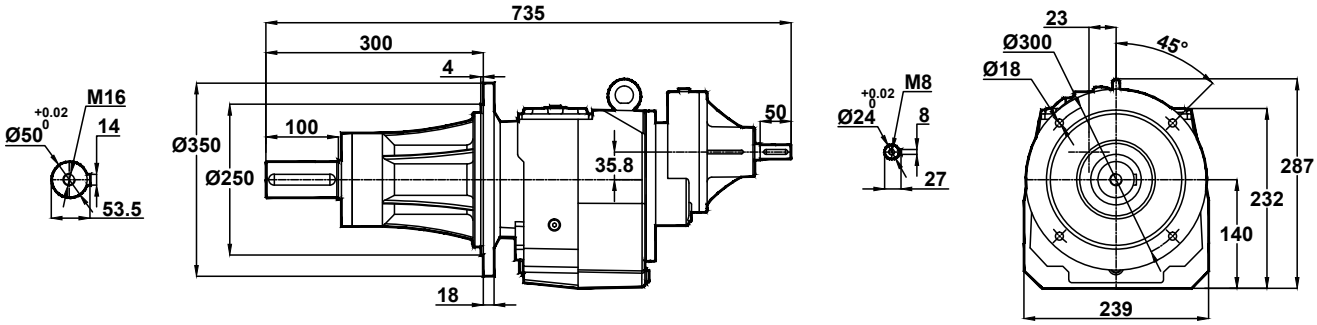


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

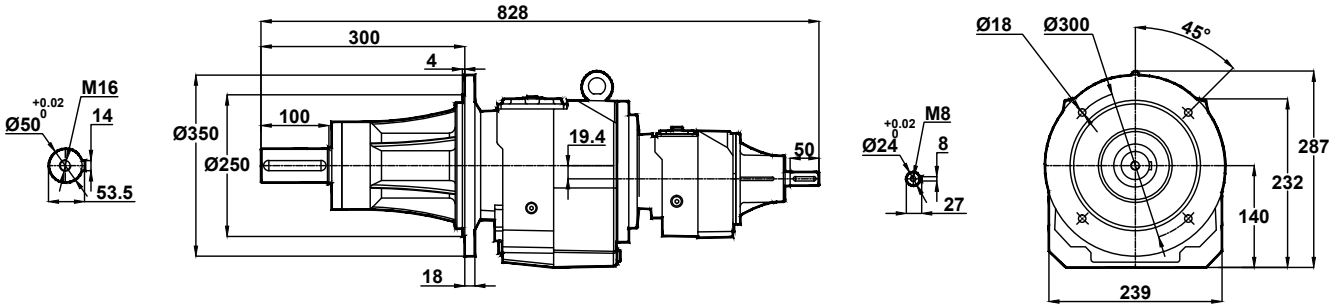
NTB372
NTB373



NTB374

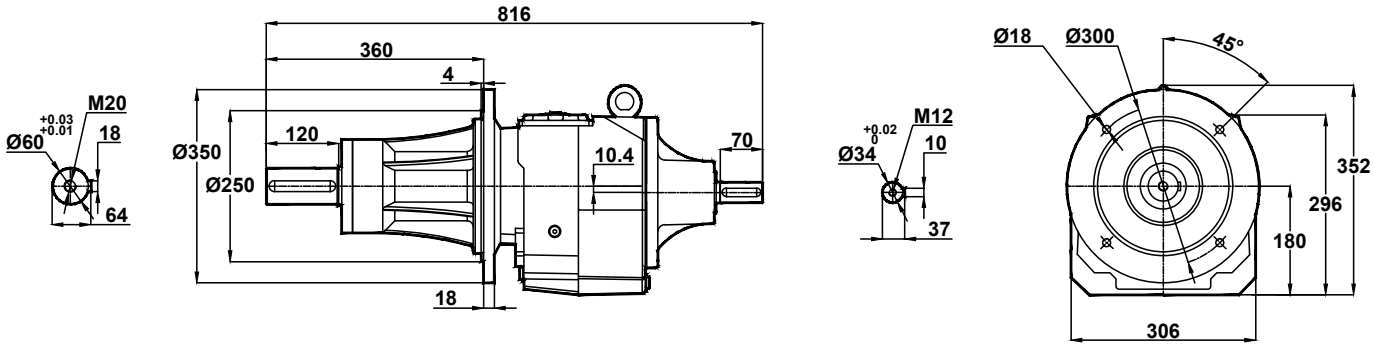


NTB375
NTB376



-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NTB472
NTB473



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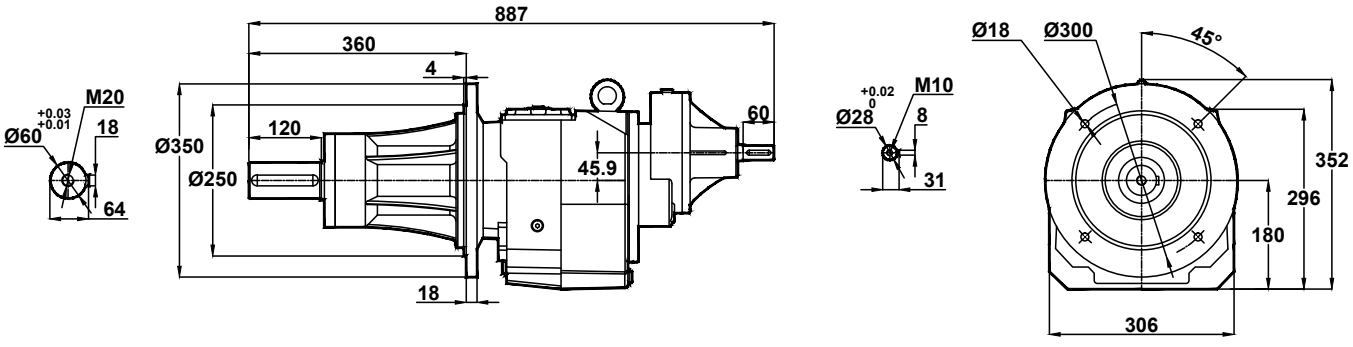
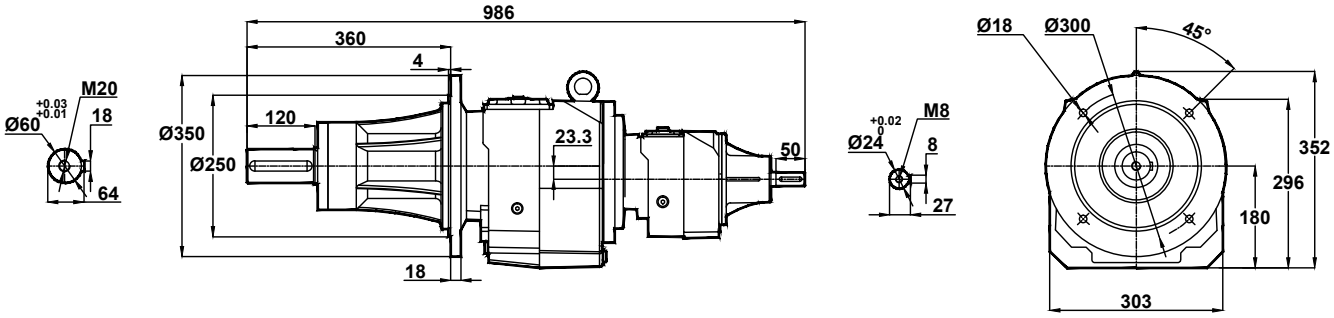
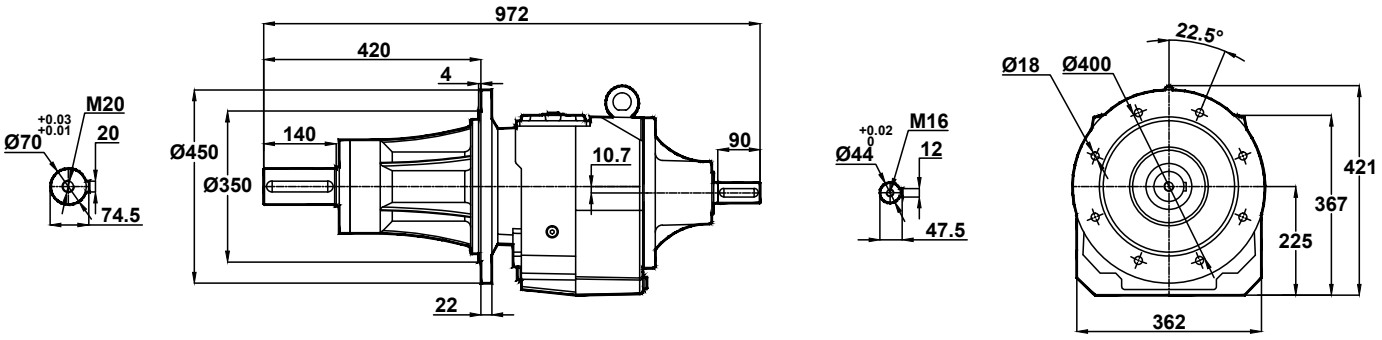


NTB475
NTB476



-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NTB572
NTB573



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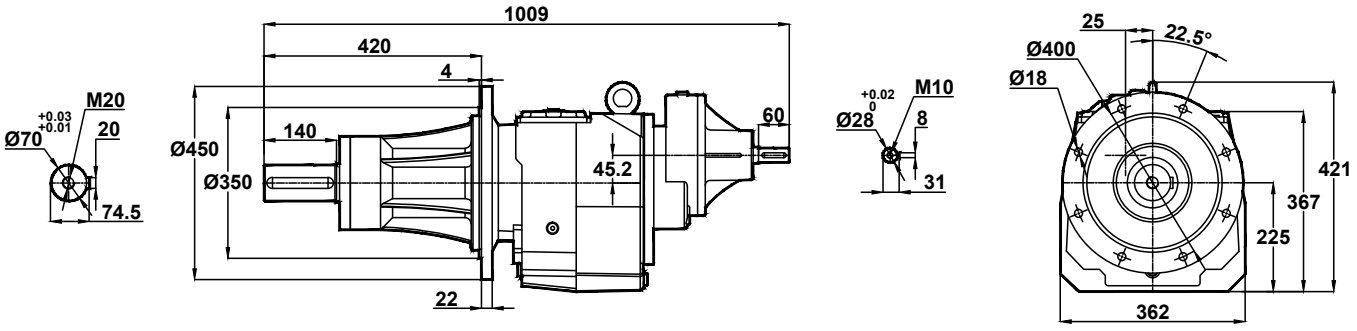
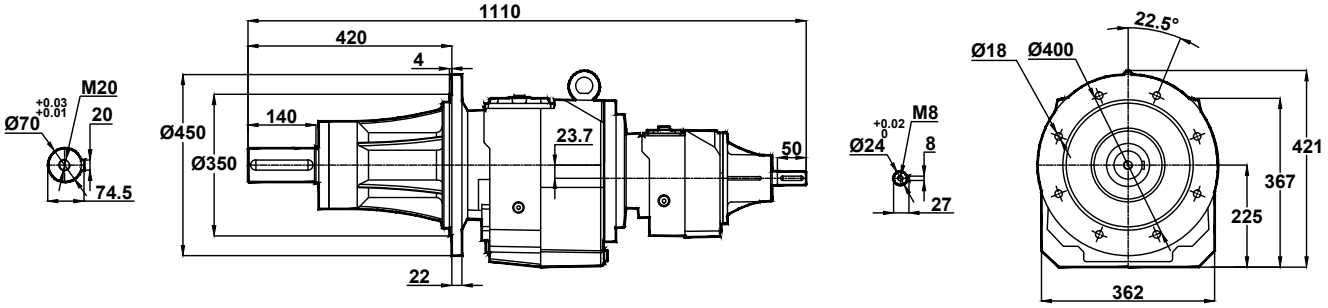
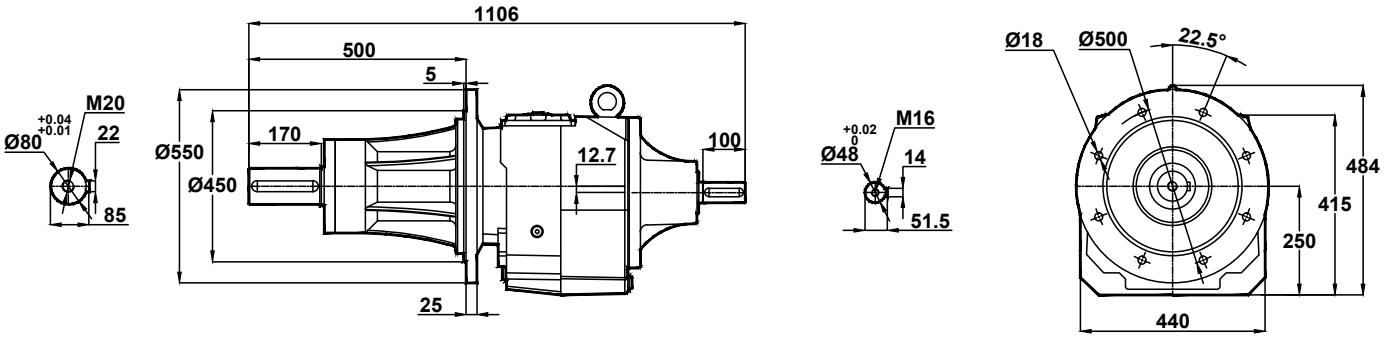


NTB575
NTB576



-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NTB672
NTB673



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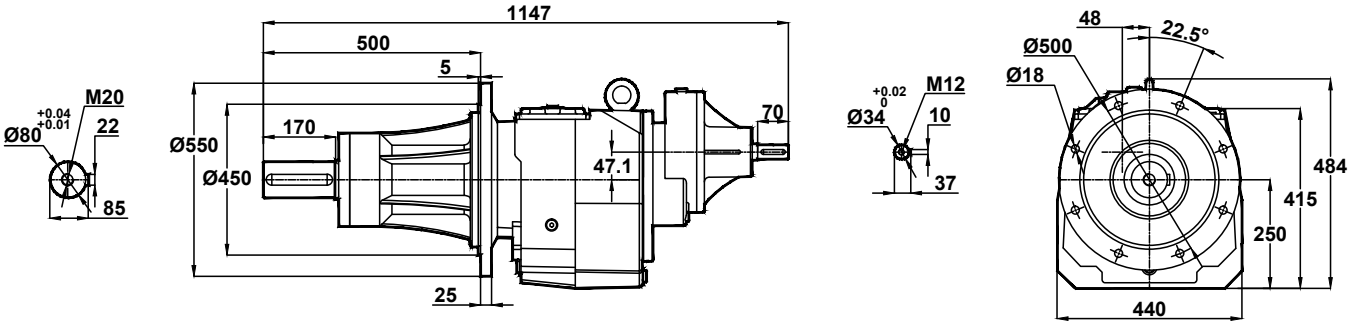
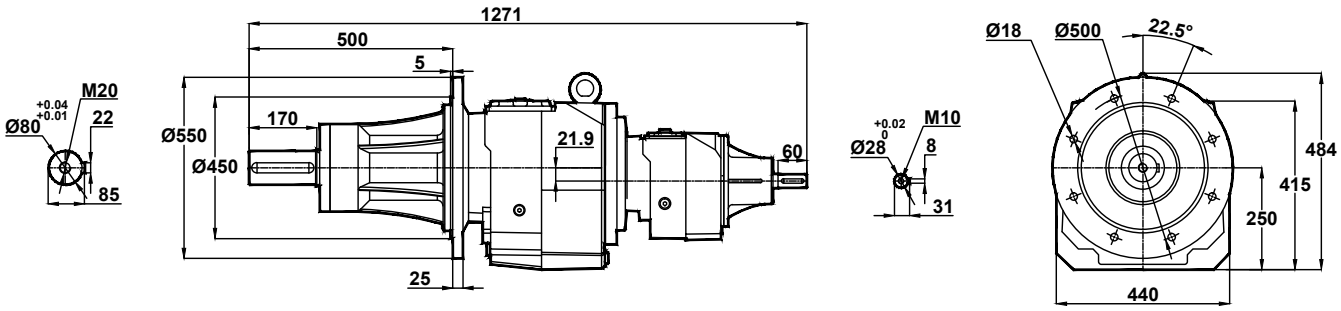
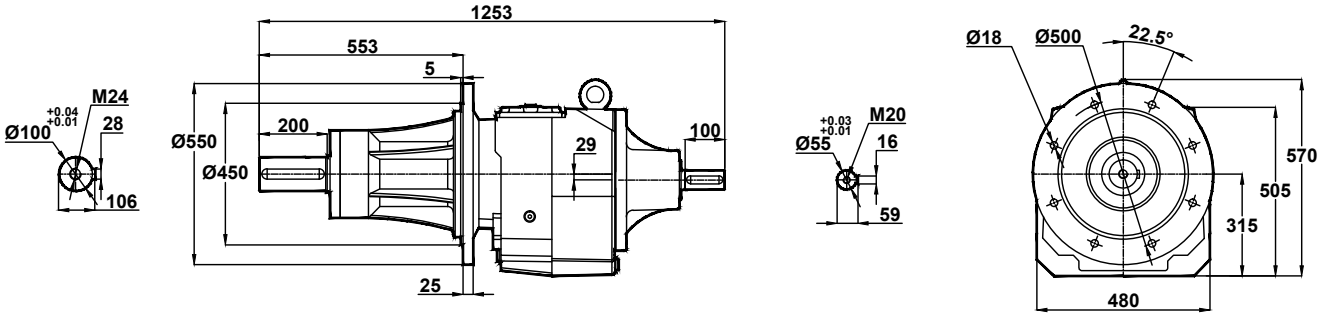


NTB675
NTB676



-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NTB772
NTB773



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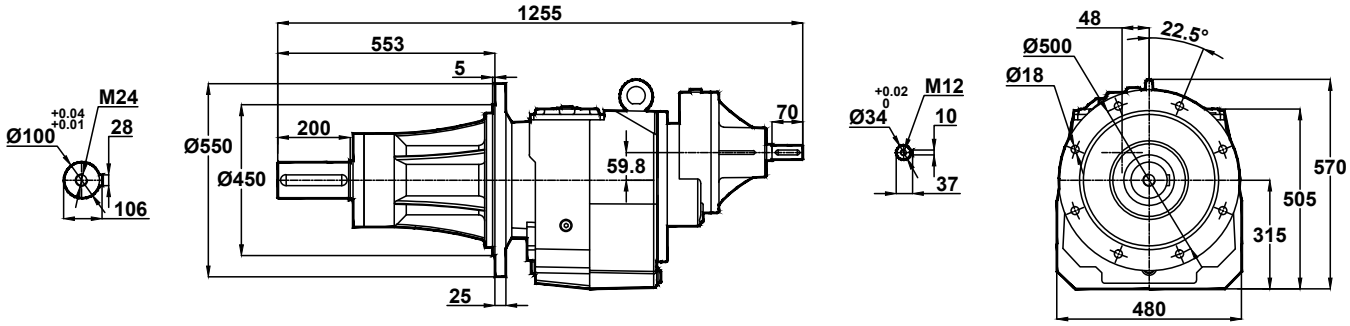
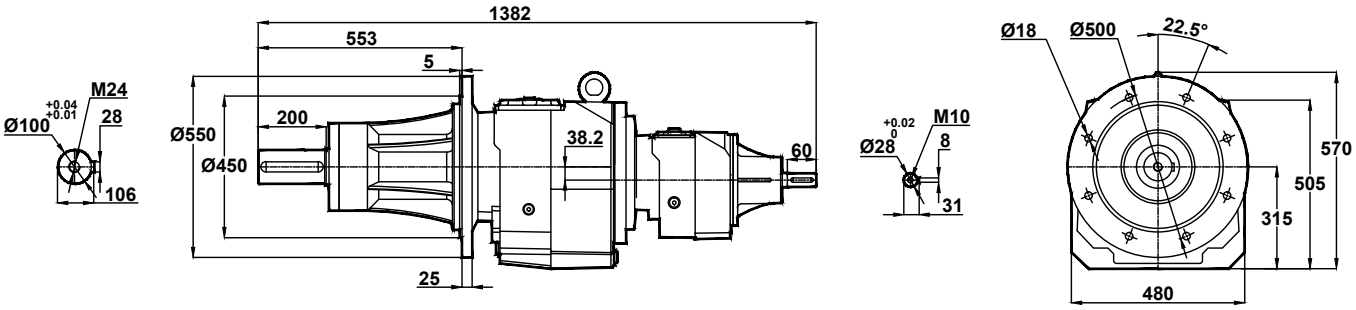
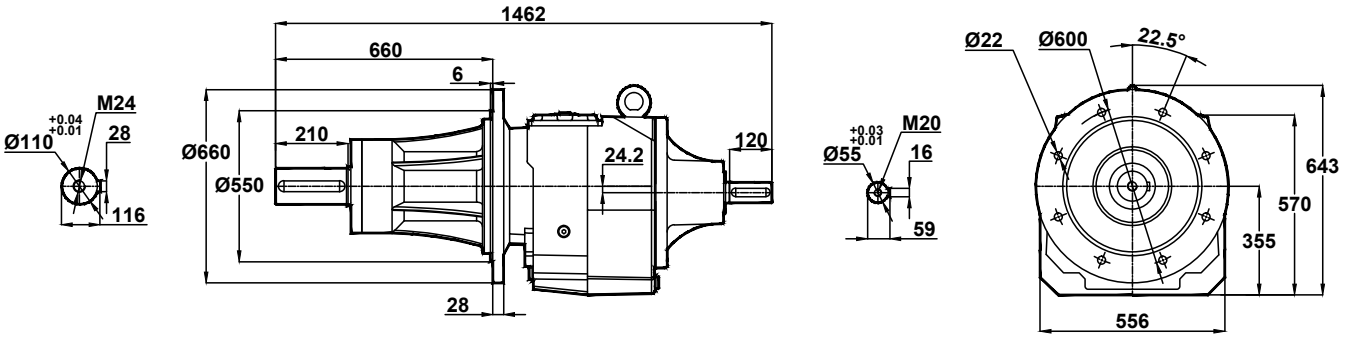


NTB775
NTB776



-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

NTB872
NTB873



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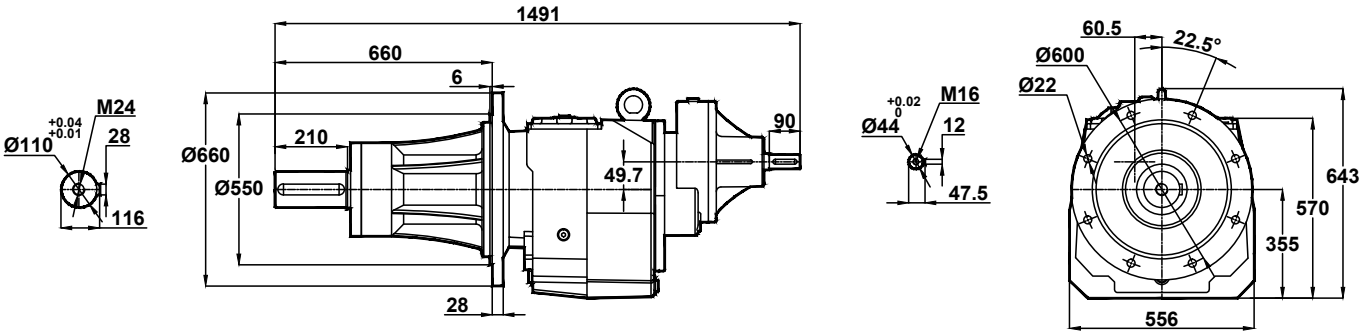
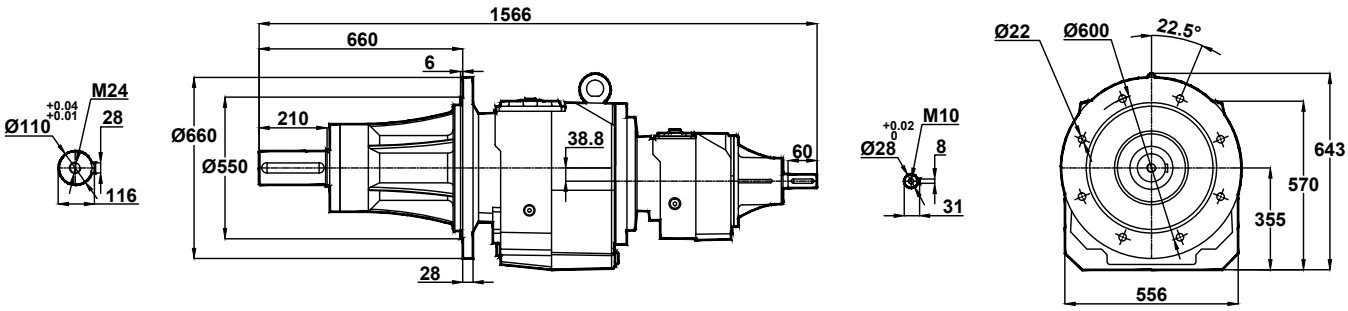
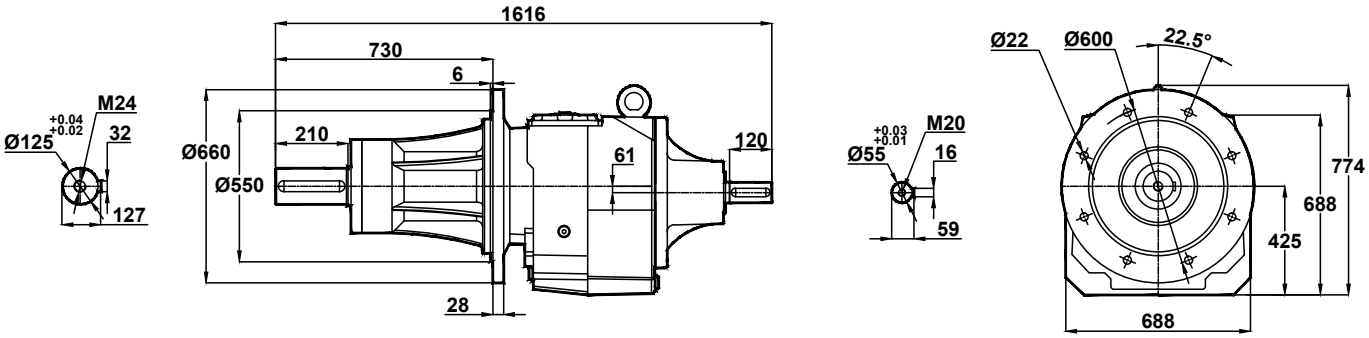


NTB875
NTB876

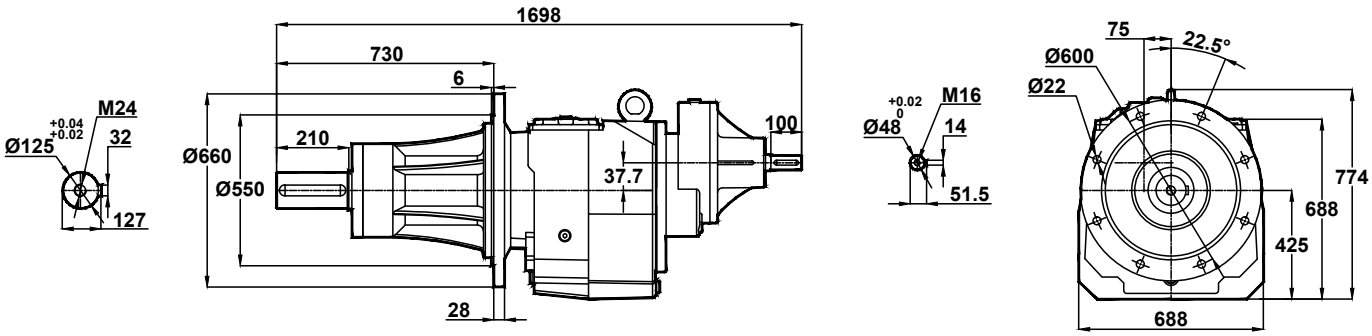


-Mil ucu çektirme deliği DIN 332 sayfa 2 / *Tapped center hole to DIN 332, sheet 2* / Zentrierung mit gewinde DIN 332, Blatt 2

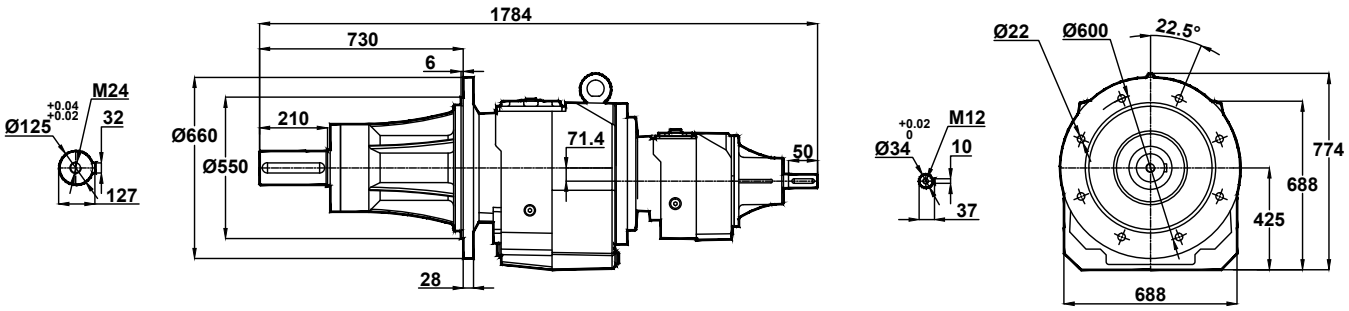
NTB972
NTB973



NTB974



NTB975
NTB976



Notlar / *Notes* / Note

Notlar / *Notes* / Note

Notlar / *Notes* / Note