

Helisel Dişli Redüktörler

Gearmotors / Motoréducteurs hélicoïdal

R00



SERIES
İR



IR Series
• Helical Gear Units •



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Genel Bilgiler

General Information
Informations g n rales

iR

SERİSİ / SERIES / SÉRIES



- Monoblok döküm gövdeli
- 12 Farklı gövde büyüklüğü
- 85 – 18000 Nm moment aralığı
- 3 – 27000 Tahvil aralığı

- Cast iron monobloc housing
- 12 Size of housing
- Torque range from 85 to 18000 Nm
- Ratio range from 3 to 27000

- *Carter monobloc en fonte*
- *12 tailles de carter*
- *Couple allant de 85 à 18000 Nm*
- *Rapport de réduction compris entre 3 et 27000*

İR serisi redüktörlerin genel özellikleri

Tamamı helisel dişlilerden oluşan IR serileri, devamlı yük altında ve ağır şartlarda çalışmaya elverişli olarak dizayn edilmiş redüktörlerimizdir. Dişli malzemesi, bu redüktörlere uygun yüksek dereceli çelikten 16MnCr5 veya fiziksel olarak eşdeğer malzemelerden yapılmış ve taşlanmıştır. Dişli sertliği 57 HRC değerindedir.

Yüksek kalite döküm teknolojisi ile elde edilen gövde yapısı GG22 pik malzemesinden tekil gövde (monoblok) olarak yapılmıştır. Helisel dişli redüktörler genellikle yüksek tork ve verim ihtiyacı olan uygulamalarda kullanılır. IR serisi redüktörler kolay montaj ve esnek kullanım olanağına sahiptir.

Helisel redüktörler, dişli kutusu çıkış şaftının motor şaftıyla aynı hizada bulunduğu koaksiyel ünitelerdir. Helisel dişlilerde, dişlerin her biri arasında kademeli teması izin verilen açılarda açılmıştır. Bu yenilik düzgün ve sessiz bir çalışma sağlar.

Bu redüktörlerimiz , daima dolu çıkış milleri olarak üretilmektedir. Ayaklı, flanşlı ve ayaklı-flanşlı opsiyonları ile farklı konstruksiyonlar için farklı montaj şekilleri mevcuttur.

İR 43 İR153 12 gövde büyüklüğü
0,12 kW ' dan 160 kW ' a kadar motor bağlama opsiyonu
85 Nm ' den 18000 Nm ' ye kadar çıkış torku opsiyonu

Descriptions and specifications of the IR serie.

Designed to work under heavy loads and in hard conditions, the helical IR serie is perfectly adapted to a wide range of applications. The helical gears are made of 16MnCr5 steel and match the 57 HRC Standards, each gear is heat treated and controlled to make sure that it match the highest standards.

The robust monobloc housing is made of GG22 iron and is machined under state of art standards. The unicas housing of the gearbox and the gears technology is offering a perfect balance between power and space optimization.

The IR Series are designed with an output shaft on the same line as the electrical motors used to power them. Each gear is calculated, designed and ground to provide a noiseless working of the final gearbox.

The IR Series gear units are available with output shaft, hollow shaft, double output shaft, extruder and various flange configurations.

12 sizes of housing
Motor configuration from 0.12 kw to 160 kw
Torque ranging from 85 to 18000 Nm

Descriptions et spécifications de la série IR.

Conçus pour résister à des charges importantes et fonctionner dans des conditions difficiles, les réducteurs hélicoïdaux de la série IR sont parfaitement adaptés à tous types d'applications et configurations.

Les pignons hélicoïdaux sont fabriqués à partir d'acier 16McCr5 avec une dureté de 57 HRC.

Le carter (GG22) en monobloc offre une grande robustesse et résistance aux réducteurs de la série IR. La configuration de l'arbre de sortie permet aussi de renforcer les qualités techniques du réducteur tout en facilitant les opérations de montage et de maintenance.

Les réducteurs IR sont disponibles avec une large gamme d'options et configurations (Arbre de sortie, bride, extruder...) leur permettant de s'adapter à de nombreuses applications.

12 tailles de carter

Puissances moteur de 0.12 à 160 kw

Couple allant de 85 à 18000 Nm



Giriş Opsiyonları

Input options / Options d'entrée



İR_
Giriş milli
Solid input shaft
Avec arbre de sortie



İR_M
Motorlu
With motor
Avec moteur



İR_P
IEC pam flanşlı
IEC input flange
Avec bride PAM - IEC



İR_PM
IEC pam flanşlı motorlu
IEC input flange with motor
Avec bride PAM-IEC et moteur

Bağlantı Opsiyonları

Connection Options / Options de connexion



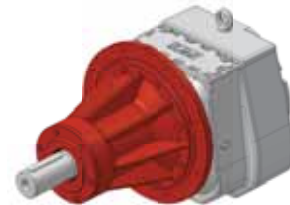
IRA...
Ayaklı - Çıkış milli
Food mounted - Output shaft
à pattes - Arbre de sortie



IRF...
Çıkış milli - Çıkış flanşlı
Output shaft - Flange mounted
Arbre de sortie - Bride de sortie



IRAF...
Çıkış milli - Ayaklı ve çıkış flanşlı
Output shaft - Foot mounted and output flange
Arbre et bride de sortie - à pattes et bride de sortie



IRB...
Çıkış milli - Çıkış boğazlı flanşlı
Output shaft - Throat flange mounted
Arbre de sortie - Bride de gorge sortie

	Redüktör Opsiyonları	Gearboxes options	Options des motoréducteurs
Kod / Code	Opsiyon	Options	Options
EL	Ekstruder	Extruder	Extruder
OTS	Yağ sıcaklık sensörü	Oil temperature sensor	Capteur de température d'huile

	Motor Opsiyonları	Motor options	Options des moteurs
Kod / Code	Opsiyon	Options	Options
BR	Fren	Brake	Frein
BRH	Manuel kollu fren	Brake with hand release	Frein avec ouverture manuel
BD	Çift Fren	Double brake	Double frein
BDH	Manuel kollu çift fren	Double brake with hand release	Double frein avec ouverture manuel
E	Encoder	Encoder	Encoder
BS	Mekanik kilit	Backstop	Roulement anti-retour
EMK	Elektromanyetik kavrama	Electromagnetic clutches	Disque electromagnetique
CF	Harici fan	External fan	Ventilation externe
FG	Kanopi	Canopy	Canopé
U	Fansız motor (güdüük)	Without fan	Sans ventilation
M	Monofaze motor	Mono phase motor	Moteur monophasé
DS	Çift çıkış (kuyruk) milli motor	Double shaft motor	Doble Ejes

	Çıkış Mili	Output shaft	Arbre de sortie
Kod / Code	Varyasyon	Options	Options
111	Özel mil ölçüsü	Special shaft dimensions	Dimensions de l'arbre spéciale
112	Özel mil malzemesi	Special shaft materials	Matériel de l'arbre spéciale
113	Sertleştirilmiş mil	Hardened shaft	Axe durci
114	Diş çekilmiş mil	Screw	Axe à vis
115	Çoklu kama uygulaması	Shaft with multiple key	Arbre à multi clavette

	Giriş Mili - Pam Mili	Input shaft	Bride pam
Kod / Code	Varyasyon	Options	Options
131	Özel mil ölçüsü	Dimensions of the shaft	Dimensions de l'arbre spéciale
132	Özel mil malzemesi	Material of special shaft	Matériaux de l'arbre spéciale
133	Sertleştirilmiş mil	Hardened steel shaft	Arbre en acier trempé
134	Çoklu kama uygulaması	Hollow shaft with screw	Arbre creux a vis
135	Özel alın mili	Special input shaft	Arbre d'entrée spéciale
136	Diş çekilmiş mil	Shaft with screw	Arbre de sortie avec vis
137	Kaplin bağlantısı	Connection coupling	Couplage de connexion

	Çıkış Flanşı	Output flange	Bride de sortie
Kod / Code	Varyasyon	Options	Options
141	Özel flanş ölçüsü	Dimensions of special output flange	Dimensions de la bride de sortie spéciale
142	Özel flanş malzemesi	Material of special output flange	Matériaux de la bride de sortie spéciale
143	Opsiyonel flanş	Optional output flange	Bride de sortie optionnelle
144	Standart dışı flanş*	Special output flange*	Bride de sortie spéciale*

	Giriş Flanşı	Input Flange	Bride d'entrée
Kod / Code	Varyasyon	Options	Options
151	Özel flanş ölçüsü	Dimension of special input flange	Bride d'entrée spéciale
152	Özel flanş malzemesi	Material of special input flange	Matériaux de la bride d'entrée spéciale
153	Standart dışı flanş*	Special input flange*	Bride d'entrée spéciale*
154	IEC B14 Flanş	IEC B14 flange	IEC B14 Bride
155	IEC B5 Flanş	IEC B5 flange	IEC B5 Bride
156	Kaplinli Pam Flanş	IEC PAM with integrated coupling	Bride IEC avec accouplement intégré

* İstenilen değişiklik ürünün standart flanşı üzerinde yapılamayıp yeni bir flanş tasarlanması durumudur/ In the case your configuration require the production of a special flange / Dans le cas où la configuration de votre application requiert une bride d'entrée spéciale.

	Yağ	Oil	Huiles
Kod / Code	Varyasyon	Options	Options
211	Sentetik yağ VG 220 (SHC 630)	Synthetic oil VG 220 (SHC 630)	Huile synthétique VG 220 (SHC 630)
212	Gıda uyumlu yağ VG 220 (CIBUS 220)	Food compatible oil VG 220 (CIBUS 220)	Huile pour industrie agroalimentaire VG 220 (CIBUS 220)
213	-40C° Uyumlu yağ VG 220 (SHC 630)	Cold resistant oil -40C° VG 220 (SHC 630)	Huile base température -40C° VG220 (SHC 630)

	Keçe - Tapa	Seal - Cover	Joint - Bouchon
Kod / Code	Varyasyon	Options	Options
221	Özel ölçü keçe	Dimensions of special seal	Dimensions du joint spéciale
222	Özel ölçü tapa	Dimensions of special cover	Dimensions du bouchon spéciale
223	Özel marka keçe	Special brand of seal	Marque du joint spéciale
224	Özel marka tapa	Special brand of cover	Marque du bouchon spéciale
225	Viton keçe	Viton seal	Joint en viton
226	Özel tip keçe uygulaması	Special configuration of seal	Configuration spéciale du joint

	Redüktör Rulmanı	Gearboxes Bearing	Roulement des motoréducteurs
Kod / Code	Varyasyon	Options	Options
231	Güçlendirilmiş çıkış rulmanı	Reinforced output bearing	Roulement renforcé (Sortie)
232	Güçlendirilmiş giriş rulmanı	Reinforced input bearing	Roulement renforcée (Entrée)
233	Özel marka rulman	Special brand of bearing	Marque du roulement spéciale
234	Özel ölçü rulman	Special dimensions of bearing	Dimensions du roulement spéciale
235	Mekanik kilit CW*	Backstop bearing (CW)	Roulement anti-retour (CW)
236	Mekanik kilit CCW*	Backstop bearing (CCW)	Roulement anti-retour (CCW)

	Gövde	Housing	Carter
Kod / Code	Varyasyon	Options	Options
241	Özel işlenmiş gövde	Special housing	Carter spéciale
242	Özel malzeme	Special housing materials	Carter avec matériaux spéciaux

	Boya	Paint	Peinture
Kod / Code	Varyasyon	Options	Options
251	Özel renk boya	Special paint color	Couleur spéciale
252	Özel tip boya	Special paint type	Type de peinture spéciale
253	Epoksi boya	Epoxy paint	Peinture epoxy
254	Akrilik boya (dış ortam)	Acrylic paint	Peinture acrylique (Environnement extérieur)
255	Su bazlı boya	Water based paint	Peinture à base d'eau
256	Antikorozyon boya	Anti-corrosion paint	Peinture anti-corrosion

	Dişli	Gears	Pignons
Kod / Code	Varyasyon	Options	Options
261*	Özel imalat dişli	Special gear	Pignons spéciaux
262	Katalog dışı tahvil	Gear ratio (Catalogue)	Rapport de réduction des pignons (Catalogue)

* 261 kodu, 262 kodunu kapsamaktadır. / 261 and 262 codes are equivalent. / Les codes 261 et 262 sont équivalents.

	Voltaj - Frekans	Voltage and frequency	Voltage et fréquence
Kod / Code	Varyasyon	Options	Options
311	Özel voltaj motor	Special Voltage	Voltage spéciale
312	Özel frekans motor	Special frequency	Fréquence spéciale

* 400 V 50 Hz dışı tüm sarımlar standart dışı kabul edilir. / 400 V 50 Hz are considered as standard / 400 V 50 Hz sont les normes standards

	Koruma Sınıfı	IP Classification	Classification IP
Kod / Code	Varyasyon	Options	Options
321	IP 54	IP 54	IP 54
322	IP 56	IP 56	IP 56
323	IP 65	IP 65	IP 65
324	IP 66	IP 66	IP 66

* IP 55 Standart kabul edilir. / IP 55 is our standard / IP 55 étant la classe standard

	İzolasyon Sınıfı	Isolation class	Classe d'isolations
Kod / Code	Varyasyon	Options	Options
331	B sınıfı	B - class	Classe - B
332	H sınıfı	H - class	Classe - H

* F izolasyon sınıfı standart kabul edilir. / F class is accepted as a standard / La classe F étant la norme d'isolation standard

* 0 C° ile 40 C° aralığı dışındaki ortam sıcaklıkları için bilgi alınız. / Adapted for outside environment with temperature in between 0 C° and 40 C° / Adapté aux environnements extérieurs avec une température comprises entre 0° C et 40° C

	Rulman	Bearing	Roulement
Kod / Code	Varyasyon	Options	Options
341	Sıcak ortam rulmanı*	Bearing for hot environment	Roulement pour environnement a températures élevées
342	Soğuk ortam rulmanı*	Bearing for cold environment	Roulement pour environnement a températures négatives
343	İzole rulman	Isolated bearing	Roulement isolé
344	Gresörlük	Bearing with greasing nipples	Roulement avec graisseurs
345	Mekanik kilit CW	Backstop bearing (CW)	Roulement anti-retour (CW)
346	Mekanik kilit CCW	Backstop bearing (CCW)	Roulement anti-retou (CCW)

* 0 C° ile 40 C° aralığı dışındaki ortam sıcaklıkları için bilgi alınız. / Adapted for outside environment with temperature in between 0 C° and 40 C° / Adapté aux environnements extérieurs avec une température comprises entre 0° C et 40° C

	Motor Markası	Brand motor	Marque de moteur
Kod / Code	Varyasyon	Options	Options
351	Gamak Motor	Gamak Motor	Gamak Motor
353	İ.Mak/A Motor*	İ.Mak/A Motor*	İ.Mak/A Motor*
354	İ.Mak/W Motor	İ.Mak/W Motor	İ.Mak/W Motor
356	Diğer**	Others**	Autres**

* İ.Mak/A marka motor standart kabul edilir. / İ.Mak brand motor standard category / Catégorie standard de moteur de marque İ.Mak

** Diğer motor seçeneği, sadece pam flanşlı bağlantı olarak verilebilmektedir. / Other motors options are only available with IEC Connection flange / Les moteurs non listés sont disponibles seulement en configuration bride IEC

	Verim Sınıfı	Efficiency classifications	Classes d'efficience énergétique
Kod / Code	Varyasyon	Options	Options
363	IE4	IE4	IE4

* IE3 verim sınıfı standart kabul edilir. / IE3 is the standard category / IE3 étant la norme standard

	Kuyruk Milli Motor	Double shaft motor	Ejes con Doble Extensión
Kod / Code	Varyasyon	Options	Options
367	Özel mil ölçüsü	Dimensions of the shaft	Dimensions de l'arbre spéciale
368	Standart dışı mil*	Special output shaft*	Arbre de sortie spéciale*

* İstenilen değişiklik ürünün standart mili üzerinde yapılamayıp yeni bir mil tasarlanması durumudur. /The requested change cannot be made on the standard shaft of the product and a new shaft will be designed. /

	Fren markası	Brake's brand	Marque du frein
Kod / Code	Varyasyon	Options	Options
412	EMF fren	EMF brake	Frein - EMF
413	Fatih fren	Fatih brake	Frein - Fatih
414	Diğer	Other	Autres

	Fren Tipi	Type of brake	Type de frein
Kod / Code	Varyasyon	Options	Options
421	220 V soğutmalı	220 V cooler	220 V - avec refroidissement
422	24 V soğutmalı	24 V cooler	24 V - avec refroidissement
423	220 V soğutmasız*	220 V without cooler	220 V - sans refroidissement
424	24 V soğutmasız*	24 V without cooler	24 V - sans refroidissement
425	Çift balatalı fren	Double disk brake	Frein avec double disque
426	Özel tip fren	Special brake type	Type de frein spéciale
427	Özel voltaj fren	Special voltage for brake	Frein avec voltage spéciale

* Soğutmasız frenlerde motor fan muhafazası bulunmamaktadır / The brake without cooling are installed without fan or cover. / Les freins sans refroidissement ne sont pas équipés de couvercle ou d'hélice.

	Enkoder	Encoder	Codeur
Kod / Code	Varyasyon	Options	Options
431	HPL 100 Pulse rotary enkoder	HPL 100 Pulse rotary encoder	HPL 100 Codeur d'impulsions rotatif
432	HPL 360 Pulse rotary enkoder	HPL 360 Pulse rotary encoder	HPL 360 Codeur d'impulsions rotatif
433	HPL 500 Pulse rotary enkoder	HPL 500 Pulse rotary encoder	HPL 500 Codeur d'impulsions rotatif
434	HPL 1024 Pulse rotary enkoder	HPL 1024 Pulse rotary encoder	HPL 1024 Codeur d'impulsions rotatif
435	HPL 2048 Pulse rotary enkoder	HPL 2048 Pulse rotary encoder	HPL 2048 Codeur d'impulsions rotatif
436	HTL 1024 Pulse rotary enkoder	HTL 1024 Pulse rotary encoder	HTL 1024 Codeur d'impulsions rotatif
437	HTL 2048 Pulse rotary enkoder	HTL 2048 Pulse rotary encoder	HTL 2048 Codeur d'impulsions rotatif
438	TTL 1024 Pulse rotary enkoder	TTL 1024 Pulse rotary encoder	HTL 1024 Codeur d'impulsions rotatif
439	TTL 2048 Pulse rotary enkoder	TTL 2048 Pulse rotary encoder	TTL 2048 Codeur d'impulsions rotatif
440	Diğer	Others	Autres

* Diğer encoder çeşitleri için fabrikaya danışınız. / For different type of encoder contact our sales team. / Pour des de codeurs différents contactez notre équipe technique.

	Termistör - Isıtıcı	Thermistor and heater	Thermistatet chauffage
Kod / Code	Varyasyon	Options	Options
441	PTC X 1 termistör	PTC X 1 thermistor	PTC X 1 Thermistat
442	Bimetal termostat	Bimetallic switch	Interrupteur bilame
443	Basınç sensörü	Pressure sensor	Senseur pression
444	110 V sargı ısıtıcı	110 V coil heat	Bobine chauffante 110 V
445	220 V sargı ısıtıcı	220 V coil heat	Bobine chauffante 220 V
446	PT 100	PT 100	PT 100

	Harici Fan	External fan	Ventilateur externe
Kod / Code	Varyasyon	Options	Options
451	24 VDC (EBM)	24 VDC (EBM)	24 VDC (EBM)
452	230 VAC (EBM)	230 VAC (EBM)	230 VAC (EBM)
453	380 VAC (EBM)	380 VAC (EBM)	380 VAC (EBM)
454	230 VAC	230 VAC	230 VAC
455	380 VAC	380 VAC	380 VAC

	Özel Motorlar	Special motor	Moteur spécial
Kod / Code	Varyasyon	Options	Options
461	Servo motor*	Servo motor	Servo moteur
462	DC motor*	DC motor	Moteur DC
463	Vektör motor	Vector motor	Moteur vecteur
464	Tork motoru	Tork motor	Moteur à couple élevé
465	Hidro motor*	Hydraulic motor	Moteur hydraulique
466	Pnömatik motor*	Compressed air motor	Moteur a air comprimé
467	Ex-proof motor	Explosion proof motor	Moteur anti-explosion
468	Senkron relüktans motor	Synchronous reluctance motors	Moteur à reluctance synchrone
469	Senkron motor*	Synchronous motors	Moteurs synchrones
470	Müşteri motoru	Customer's motor	Moteur en provenance du client

* Motorlar firmamız tarafından tedarik edilmemektedir / Our factory is not providing such motors / Moteur non fournis par notre usine

Özel motor kodları motorların fabrikamız tarafından takıldığı durumlarda uygulanır / Motors installed in our factory / Moteur installés dans notre usine

Bazı uygulamalarda redüktör kullanıcıları redüktör durduğunda sistemin ağırlıkla beraber geri kaymasını istemez.

Bu gibi durumlarda redüktörlerde kilitli rulman uygulaması yapılır. Buna göre aşağıda verilen tiplere göre dönüş yönü belirtilmelidir.

Ccw : Saat Yönünün Tersi

Cw : Saat Yönü

In certain applications when the machinery stops, the operator would not like the gearbox to slip and loose its adjustment. Under these circumstances, the gearbox would be equipped with a locked ball bearing. Accordingly, the direction of rotation should be noted as shown below.

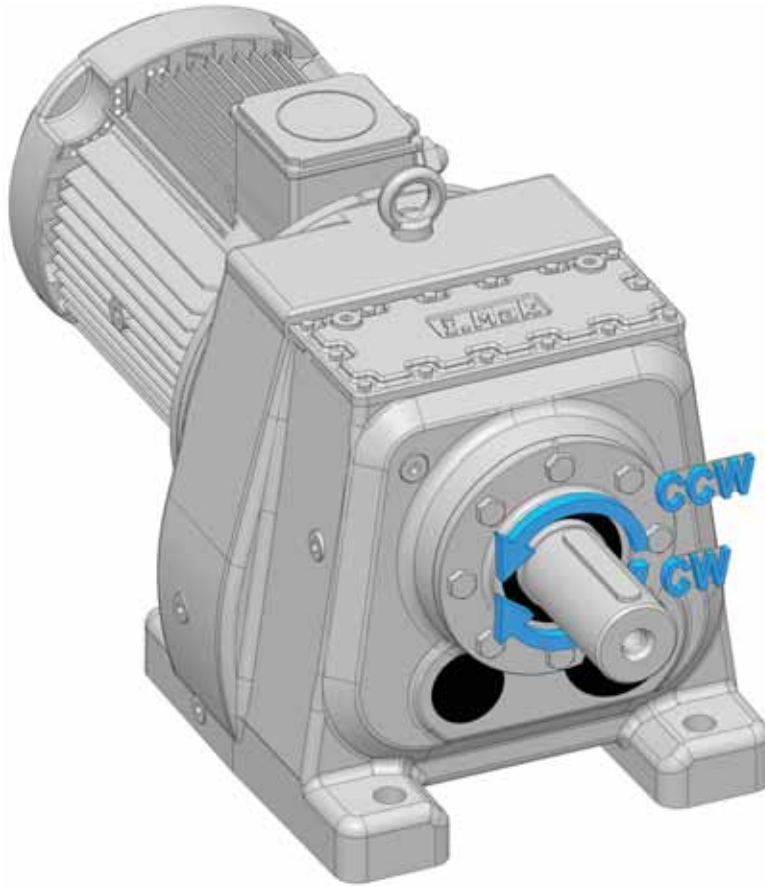
Ccw : Counterclockwise

Cw : Clockwise

Afin de répondre aux besoins de précision et de sécurité de certaines applications, nos réducteurs sont disponibles avec une option anti-retour. Cette option se compose d'un roulement anti-retour qui permet au réducteur de rester dans la position d'arrêt jusqu'au redémarrage de l'application par l'opérateur.

Ccw : Sens anti-horaire

Cw : Sens horaire



Servis Faktörü (S_f)**Servis Faktörü = İşletme****Katsayısı = (S_f)**

Redüktörlerdeki bu değer, tahrik edeceği makinenin bütün teknik ve karakteristik özelliklerine dayanma süresine bağlıdır. Genel olarak makineler yüklenme bakımından üç tip karakteristik gösterirler.

1. HAFİF YÜK (U)
2. ORTA YÜK (M)
3. AĞIR YÜK (H)

Üç değişik yükleme biçiminde çalışan, üç ayrı makinede üretilen momentler birbirine eşitte olsalar, ağır çalışan makinede daha büyük işletme katsayılı Redüktör kullanılmaktadır.

Günlük çalışma saati ise, çalışan dişli ve transmisyon elemanlarının malzeme yorulmasına maruz kalması bakımından, çalışma saatinin fazla olması halinde zararlı yönde etki eder.

Star-Stop durumuna gelince, her makinenin ilk kalkış esnasında en yüksek yüke maruz kaldığı düşünülürse tehlikeli görülür. Müteakip çalışmalarda bu daha aşağıya düşer.

Kataloğumuzda işletme katsayılarının nasıl kullanıldığının anlaşılması için bir misal ile belirtelim.

Önce tablo-1'den makinenin çalışma sahasına göre karakteristiğini belirleyelim. Makinemiz elektrik motor tahrikli ZİNCİR KOVALI EKSKAVATÖR ise yükleme durumu AĞIR' dır. (H) Tablo 2'den makine 24 saat çalışacağına göre minimum işletme katsayısı $S_f = 2$ bulunur.

Service Factor (S_f)

Value of the service factor of a gearbox depends on all technical and characteristic specifications of a driven machine. Generally machines have three types of loading characteristics:

1. UNIFORM LOAD (U)
2. MODERATE LOAD (M)
3. HEAVY LOAD (H)

Even if the torques required by three different machines operating at three different load specifications are equal.

Gearbox of the machine operating under heavy load conditions should have greater service factor.

Daily working period has effect on gearbox elements due to the materials fatigue of working parts.

It must be taken into account that all machines are subject to the greatest load at the first start, so that the number of starts has also effect on service factor.

This is an example how to use the service factor given in the catalogue.

Load specification of machine should be determined first, from table 1 in our example, the machine is CHAIN BUCKET EXCAVATOR driven by electric motor has HEAVY load specification and daily operation time is 24 hours. So that minimum service factor $S_f = 2$ is taken from Table 2.

Service facteur (S_f)

La valeur du service facteur d'un motoréducteur dépend des caractéristique de l'application. Ont distingue trois type de charges différentes

1. Charges uniformes (U)
2. Charges modérées (M)
3. Charges élevées (H)

Les spécifications des charges restent les même lorsque trois machines différentes sont soumises à des charges distinctes.

Les réducteurs utilisés dans des applications soumises à de fortes charges doivent obligatoirement avoir des services facteurs élevés.

Le nombre d'heures d'utilisations journalières a une influence directe sur l'usure des pièces et composants du réducteur.

Le réducteur est soumis à une charge maximale lors du démarrage de l'application. Le nombre d'arrêt/rédemarrage est donc à prendre en compte lors de l'analyse du service facteur.

L'exemple ci-dessous explique le processus d'analyse et de calcul du service facteur.

L'application étudiée est un excavateur a godets (Tableau 1) , le réducteur est actionné par un moteur électrique. La charge est "élevée" et la durée de fonctionnement journalière est de 24h. En se basant sur le tableau 2, le service facteur minimum requis est $S_f = 2$

Ekskavatörler		Excavators		Excavateur	
Zincir kovalı ekskavatörler	H	Chain-Bucket excavators	H	Excavateurs à gaudets	H
Paletli yürüyüşler	H	Travelling gears (Caterpillar)	H	Convoyeur à étage	H
Ray üzerinde yürüyüşler	M	Travelling gears (Rails)	M	Convoyeur à rails	M
Manevra mekanizmaları	U	Manoeuvring winches	U	Grues à manœuvre	U
Emiş pompaları	M	Pumps	M	Pompes	M
Kovalı çarklar	H	Bucket wheels	H	Roue à gaudets	H
Dönüş mekanizmalar	M	Slewing gears	M	Pignons rotatif	M

İnşaat Makinaları		Building Machines		Machine de Construction	
İnşaat asansörleri	U	Hoists	U	Grues de construction	U
Betoniyerler	M	Concrete mixers	M	Malaxeur à béton	M
Yol inşaat makinaları	M	Road contruction machines	M	Machine de construction(routes)	M

Kaldırma ve İletme Tesisleri		Conveyor		Convoyeurs	
Zincirli konveyör	M	Through chain conveyors	M	Convoyeurs à chaines	M
Mafsallı bantlı konveyörler	M	Link conveyors	M	Convoyeur à bande souple	M
Lastik bantlı konveyörler (Dökme Yükler)	U	Belt conveyors (Bulk Goods)	U	Convoyeur à bande rigide	U
Lastik bantlı elevatörler	M	Ballast elevators	M	Elevateurs à bande	M
Lastik ceppli elevatörler	M	Ballast pocket elevators	M	Elevateur à poche	M
Lastik bantlı konveyörler (Parça Yükler)	M	Belt conveyors (Piece Goods)	M	Convoyeur à bande	M
Askılı konveyörler	U	Chain conveyors	U	Convoyeur à chaines	U
Yük asansörleri	M	Goods lifts	M	Elévateur à chaines	M
Kovalı elevatörler (Toz Malzeme)	U	Bucket elevators (Flour Goods)	U	Elévateur à godets (graviers)	U
Helezon konveyör	M	Screw conveyors	M	Vis d'Archimède	M
Kovalı elevatörler (Parçalı Malzeme)	M	Bucket elevators (Piece Goods)	M	Elévateurs à godets (Roches)	M
Eğik asansörler	H	Inclined hoists	H	Grues inclinées	H
Çelik bantlı konveyörler	M	Steel belt conveyors	M	Convoyeur à bande (Acier)	M
Paletli konveyörler	M	Apron conveyors	M	Convoyeurs à palettes	M

Tahrik Makinası Torque Machine Machines couplées	Günlük Çalışma Müddeti (Saat) Daily Working Period (Hour) Utilisation journalière (Heure)	Makinanın Yükleme Karakteristiği Load Characteristics of Machines Caractéristique des charges		
		Hafif Yük U Uniform Load U Charge uniforme U	Orta Yük M Moderate Load M Charge modérée M	Ağır Yük H Heavy Load H Charge élevée H
Elekt. Motorlu / Elect. Motor / Moteurs élect. Türbin / Turbin / Turbine Hidrolik / Hydraulic / Hydraulique	0.....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
Pistonlu Makinalar (4....6 Silindir Piston Machines (4....6 Cylinder) Machine à pistons (4.....6 Cylindres)	0.....3	1	1.25	2
	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
Pistonlu Makinalar (1....2 Silindir Piston Machines (1....2 Cylinder) Machine à pistons (1.....2 Cylindres)	0.....3	1.25	1.5	2
	3....10	1.5	1.75	2.25
	10...24	1.75	2	2.5

Kimya Endüstrisi		Chemical Industry		Industrie Chimique	
Soğutma tamburları	M	Cooling drums	M	Tambours de refroidissement	M
Karıştırıcılar	M	Mixers	M	Mixeurs	M
Çalkalayıcılar (Hafif Akışkanlar)	U	Agitators (Liquids)	U	Agitateurs (Liquides)	U
Çalkalayıcılar (Ağır Akışkanlar)	M	Agitators (Semi Liquids)	M	Agitateurs (Semi liquide)	M
Tambur kurutucuları	M	Drying drums	M	Tambours de séchage	M
Sanrifüjler	U	Centrifuges (Lights)	U	Centrifugeuse (Légère)	U
Sanrifüjler	H	Centrifuges (Heavy)	H	Centrifugeuse (Lourde)	H

Petrol Endüstrisi		Oil Industry		Pétrole et Hydrocarbures	
Boru hattı pompaları	M	Pipeline pumps	M	Pompes à oléoducs	M
Kuyu açma mekanizmaları	H	Rotary drilling equipment	H	Foreuse à cylindres	H

Ventilatör Ve Aspiratörler		Fans		Ventilations	
Pistonlu ventilatörler	M	Rotary piston blowers	M	Souffleurs rotatifs	M
Ventilatör (Aksiyal ve Radyal)	U	Blowers (Axial and Radial)	U	Souffleurs (Axe et radial)	U
Santrifüj (türbinli) köruk	H	Centrifugal	H	Centrifugeuse	H

Kauçuk Makinaları		Rubber Machines		Industrie du Caoutchouc	
Ekstruder ve kanderler	H	Extruders and calenders	H	Extrudeuse	H
Yoğurma makinaları	H	Pug mills	H	Malaxeur	H
Karıştırıcılar	M	Mixers	M	Mixeurs	M
Silindirme makinaları	H	Rolling mills	H	Presse	H

Ağaç İşleme Makinaları		Wood Working Machine		Industries Forestières	
Yontma tamburları	H	Backers	H	Presse à bois	H
Planya makinaları	M	Planing machines	M	Aplanisseuses	M
Ağaç işleme tezgahları	U	Wood working machines	U	Découpe de bois	U
Şerit testereleler	H	Band saws	H	Scie	H

Yıkama Makinaları		Washing Machines		Laveuses	
Yıkama makinaları	U	Washing machines	U	Machine de lavage	U
Tamburlu kurutucular	M	Tumblers	M	Tambours	M

Tahrik Makinası Torque Machine Machines couplées	Günlük Çalışma Müddeti (Saat) Daily Working Period (Hour) Utilisation journalière (Heure)	Makinanın Yükleme Karakteristiği Load Characteristics of Machines Caractéristique des charges		
		Hafif Yük U Uniform Load U Charge uniforme U	Orta Yük M Moderate Load M Charge modérée M	Ağır Yük H Heavy Load H Charge élevée H
Elekt. Motorlu / Elect. Motor / Moteurs élect. Türbin / Turbin / Turbine Hidrolik / Hydraulic / Hydraulique	0....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
Pistonlu Makinalar (4....6 Silindir Piston Machines (4....6 Cylinder) Machine à pistons (4.....6 Cylindres)	0....3	1	1.25	2
	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
Pistonlu Makinalar (1....2 Silindir Piston Machines (1....2 Cylinder) Machine à pistons (1.....2 Cylindres)	0....3	1.25	1.5	2
	3....10	1.5	1.75	2.25
	10...24	1.75	2	2.5

Vinç Tesisleri		Cranes		Grues	
Bom kaldırma	H	Derricking jib bomm gear	H	Bras ouvrant	H
Vinç yürüyüşerleri	U	Travelling gears	U	Grues(Charriot)	U
Yük kaldırma	H	Hoist gears	H	Grues	H
Dönüş tertibatları	U	Slewing gears	U	Pignons rotatifs	U

Metal İşleme Makinaları		Metal Working Machines		Métallurgie et Acieries	
Planya makineleri	S	Planing machine	S	Aplaniseuses	S
Çekiç tokmak	S	Hammer	S	Marteau	S
Oyma makinesi	S	Engraving machine	S	Graveuses	S
Presler	H	Presses	H	Presses	H
Makaslar (Giyotin)	M	Shears	M	Découpeuses	M
Sıcak basma presleri	H	Forging presses	H	Presse à forge	H
Takım tezgahları (Ana Tahrir)	M	Machines tools (Main Drives)	M	Machine outil (Axe principal)	M
Takım tezgahları (Yardımcı Tahrir)	U	Machines tools (Auxiliarily Drives)	U	Machine outil (axe secondaire)	U

Gıda Endüstri Makinaları		Food Industry Machines		Industrie Agroalimentaire	
Doldurma makinaları (Şişe, Kavanoz vs.)	U	Filling machines (Bottles, Contaniers.)	U	Embouteilleuse	U
Yoğurma makinaları	M	Kneading machines	M	Malaxeurs	M
Ambalaj makinaları	U	Packaging machines	U	Machine d'emballage	U
Şeker kamışı kırıcıları	M	Cane crushers	M	Presse à canne	M
Şeker kamışı kesicileri	M	Cane cutters	M	Découpeuse de canne	M
Şeker kamışı öğütücüleri	H	Cane millis	H	Broyeurs de cannes	H
Şeker pancarı kesicileri	M	Sugar beet cutters	M	Découpeuse de betteraves	M
Şeker pancarı yıkayıcıları	M	Suger beet washers	M	Laveuse à betteraves	M

Pompalar		Pumps		Pompes	
Pistonlu pompalar (Q1 / 100)	H	Piston pumps (Q1 / 100)	H	Pompes à piston (Q1 / 100)	H
Pistonlu pompalar (Q1 / 100 : 1 / 20)	M	Piston pumps (Q1 / 100 : 1 / 20)	M	Pompes à piston (Q1 / 100 : 1 / 20)	M
Türbin (Hafif Akışkan)	U	Turbin (Light - Liquids)	U	Turbine (Liquides légers)	U
Türbin (Ağır Akışkan)	M	Turbin (Semi - Liquids)	M	Turbine (Semi-liquide)	M

Tahrir Makinası Torque Machine Machines couplées	Günlük Çalışma Müddeti (Saat) Daily Working Period (Hour) Utilisation journalière (Heure)	Makinanın Yükleme Karakteristiği Load Characteristics of Machines Caractéristique des charges		
		Hafif Yük U Uniform Load U Charge uniforme U	Orta Yük M Moderate Load M Charge modérée M	Ağır Yük H Heavy Load H Charge élevée H
Elekt. Motorlu / Elect. Motor / Moteurs élect. Türbin / Turbin / Turbine Hidrolik / Hydraulic / Hydraulique	0.....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
Pistonlu Makinalar (4....6 Silindir Piston Machines (4....6 Cylinder) Machine à pistons (4.....6 Cylindres)	0.....3	1	1.25	2
	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
Pistonlu Makinalar (1....2 Silindir Piston Machines (1....2 Cylinder) Machine à pistons (1.....2 Cylindres)	0.....3	1.25	1.5	2
	3....10	1.5	1.75	2.25
	10...24	1.75	2	2.5

Kağıt Endüstri Makinaları		Paper Industry Machines		Indusrtie Papetière	
Düzleme silindirleri	H	Glazing Cylinders	H	Cylindres appliniseurs	H
Holender	M	Hollenders	M	Holenders	M
Kağıt hamur makineleri	H	Pulpers	H	Pulpeuses	H
Kalender	H	Calender	H	Calendrier	H
Taş presler	H	Stone Presses	H	Presse	H
Vakum presler	H	Vacum Presses	H	Presse à aspiration	H
Kuru silindirler	H	Drying Cylinders	H	Cylindres de séchage	H

Taş ve Kil Makinaları		Stone and Clay Working Machines		Roches et Argiles	
Kırıcılar	H	Breakers	H	Broyeurs	H
Döner fırınlar	M	Rotary ovens	M	Four rotatifs	M
Çekiçli değirmenler	H	Hammer mills	H	Broyeux à marteaux	H
Bilyalı değirmenler	H	Ball mills	H	Broyeurs à billes	H
Çarpmalı öğütücüler	H	Beater mills	H	Broyeux à percussions	H
Tuğla presleri	H	Brick presses	H	Presse à pavés	H

Tekstil Makinaları		Textile Machines		Industrie du Textile	
Sargı makinaları (Q1 / 100)	M	Batchers (Q1 / 100)	M	Machines d'emballages	M
Basma ve boyama mak.	M	Printing and dyeing machines	M	Presse et imprimante	M
Dokuma tezgahları	M	Looms	M	Tisseuse	M

Kompresörler		Compressors		Compresseurs	
Turbo kompresör	M	Turbo compressors	M	Turbocompresseurs	M

Silindirme ve Çekme Tesisleri		Metal Rolling Mills		Acieries	
Sac kesme makineleri	H	Sheet metal cutting machines	H	Découpeuses	H
Hız ayarlı silindirler	M	Roller adjustment drivers	M	Ajusteuse à presses	M
Çubuk kesme makineleri	H	Billet shears	H	Scies	H
Kabuk sıyırma makineleri	H	Descaling machines	H	Eplucheuse	H
Tel çekme tesisleri	M	Wire drawing machines	M	Enrouleuses	M
Soğuk çekme tesisleri	H	Cooling beds	H	Bande de refroidissements	H
Rulolu nakil (Hafif)	M	Roller tables (Lights)	M	Enrouleuses (légères)	M
Rulolu nakil (Ağır)	H	Roller tables (Heavy)	H	Enrouleuses (lourdes)	H
Silindir haddeleme	H	Manipulators	H	Cylindres	H

Tahrik Makinası Torque Machine Machines couplées	Günlük Çalışma Müddeti (Saat) Daily Working Period (Hour) Utilisation journalière (Heure)	Makinanın Yükleme Karakteristiği Load Characteristics of Machines Caractéristique des charges		
		Hafif Yük U Uniform Load U Charge uniforme U	Orta Yük M Moderate Load M Charge modérée M	Ağır Yük H Heavy Load H Charge élevée H
Elekt. Motorlu / Elect. Motor / <i>Moteurs élect.</i> Türbin / Turbin / <i>Turbine</i> Hidrolik / Hydraulic / <i>Hydraulique</i>	0.....3	0.8	1	1.5
	3....10	1	1.25	1.75
	10...24	1.25	1.5	2
Pistonlu Makinalar (4....6 Silindir Piston Machines (4....6 Cylinder) <i>Machine à pistons (4.....6 Cylindres)</i>	0.....3	1	1.25	2
	3....10	1.25	1.5	2
	10...24	1.5	1.75	2
Pistonlu Makinalar (1....2 Silindir) Piston Machines (1....2 Cylinder) <i>Machine à pistons (1.....2 Cylindres)</i>	0.....3	1.25	1.5	2
	3....10	1.5	1.75	2.25
	10...24	1.75	2	2.5

Radyal Yüklerin Belirlenmesi

Meydana gelen radyal yükün hesaplanabilmesi için redüktörün çıkış veya giriş miline bağlanan iletme elemanının tipi dikkate alınmalıdır. Aşağıdaki tabloda bazı iletme elemanları faktörleri (f_i) verilmiştir.

<u>İletme Elemanı</u>	<u>İletme Elemanı Faktörü (f_i)</u>	<u>Açıklama</u>
Dişli	1,15	< 17 diş
Zincir Dişli	1,40	< 13 diş
Zincir Dişli	1,25	< 20 diş
V-Kayış Kasnakları	1,75	Ön Gerilme Kuvveti
Düz Kayış Kasnakları	2,50	Ön Gerilme Kuvveti
Triger Kayış Kasnakları	1,50	Ön Gerilme Kuvveti

Mil üzerindeki radyal yük aşağıdaki formülle hesaplanır:

$$F_R = \frac{Md \cdot 2000}{d_0} \cdot f_i$$

$F_R[N]$ = Radyal Yük

$M_d[Nm]$ = Döndürme Momenti

$d_0[mm]$ = İletme elemanının Ortalama Çapı

f_i = İletme Elemanı Faktörü

Bu değerler gözönüne alınarak hesaplanan sonuçlar doğrultusunda, kataloğumuzda yer alan redüktörlere ait radyal yükleri görerek seçim yapabilirsiniz. Bu tablolarda verilen radyal yükler rulman ömrüne göre belirlenmiş olup $S_f = 1$ şartına ve yükün milin ortasını yüklediği durumlar için verilmiştir.

Determining of Overhung Loads

Type of transmission component mounting output or input shaft has to be consideration to find occurred overhung loads. Some transmission component factor (f_i) is given at the table below.

<u>Transmission Component</u>	<u>Transmission Component Factor (f_i)</u>	<u>Explanation</u>
Gear	1,15	< 17 teeth
Sprockets	1,40	< 13 teeth
Sprockets	1,25	< 20 teeth
V- Belt Pulleys	1,75	Pre-tension
Flat Belt Pulleys	2,50	Pre-tension
Trigger Belt Pulleys	1,50	Pre-tension

Overhung Loads on shaft is find by at the formula below:

$$F_R = \frac{Md \cdot 2000}{d_0} \cdot f_i$$

$F_R[N]$ = Overhung Load

$M_d[Nm]$ = Torque

$d_0[mm]$ = Mean Diameter of Transmission Component

f_i = Transmission Component Factor

You can Choose, by seeing overhung loads belong to gearboxes in our catalog according to determined results by considering these values. The given overhung loads on the tables are determined according to working life, on $S_f = 1$ and force which are applied to the midpoint of the shaft

Calcul des charges radiales

Afin de déterminer les charges radiales en bouts d'arbres il conviens de prendre en compte les paramètre et coefficients suivants. Le coefficient correcteur (f_i) est a appliquer en fonction du type de transmission

<u>Elément de transmission</u>	<u>Coefficient correcteur (f_i)</u>	<u>Remarques</u>
Pignons	1,15	< 17 dents
Roue a chaîne	1,40	< 13 dents
Roue a chaîne	1,25	< 20 dents
Poulies a gorges	1,75	En fonction de la précontrainte
Poulies plates	2,50	En fonction de la précontrainte
Poulies dentées	1,50	En fonction de la précontrainte

La charge radiale en bout d'arbre se calcule en utilisant la formule suivante:

$$F_R = \frac{Md \cdot 2000}{d_0} \cdot f_i$$

$F_R[N]$ = Charge appliquée en bout d'arbre(N)

$M_d[Nm]$ = Couple en Nm

$d_0[mm]$ = Diamètre de l'élément de transmission(mm)

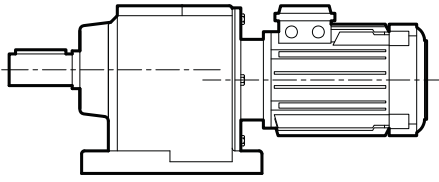
f_i = Coefficient correcteur pour charge radiale

Les résultats sont définis en fonction de la durée de vie et d'utilisation des réducteurs. Les résultats se basent sur les charges radiales appliquées au centre de l'arbre.

Radyal Yk Hesabı, Çıkış Miline etkiyen Durum iin

Calculation of Overhung Load for State Acting on Output Shaft

Calcul des charges radiales appliques sur l'arbre de sortie



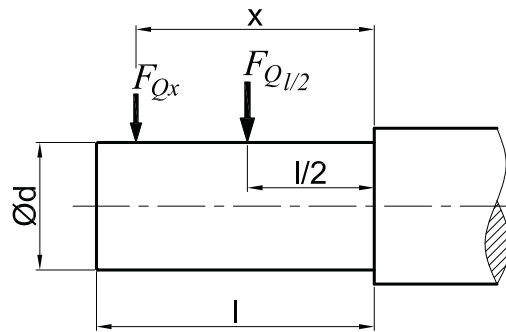
Monoblok İR Serisi
Monoblok İR Series / Monoblok İR Srie

Radyal Yk Hesabı iin Sabit Deęerler Tablosu

Tables of Fixed Values for Calculation of Overhung Load

Tableau des valeurs prtablies pour le calcul des charges radiales

İR Serisi / İR Series / İR Srie (Monoblok)				
Tip/ Type	k	c	d	l
İR 42 - 43	94.5	74.5	20	40
İR 52 - 53	111.1	86.1	25	50
İR 621 - 631	133	108	30	60
İR 62 - 63	143	108	35	70
İR 721-731	153.5	118.5	35	70
İR 72 - 73	169.5	129.5	40	80
İR 82 - 83	209.5	159.5	50	100
İR 92 - 93	242	182	60	120
İR 102 - 103	282	217	70	130
İR 122 - 123	315.25	231	90	170
İR 142 - 143	384	279	110	210
İR 152 - 153	417	312	120	210

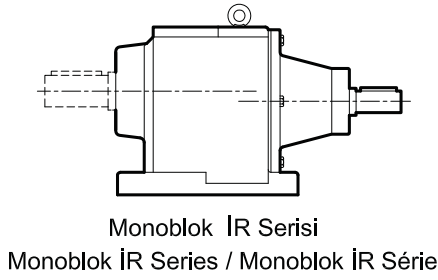


Radyal yk, milin orta noktasında deęil ise $F_{Qx} = F_{Q_{l/2}} \cdot \frac{k}{c+x}$ forml ile hesaplanır.

If overhung load is not applied at the midpoint of output shaft; it is calculated by $F_{Qx} = F_{Q_{l/2}} \cdot \frac{k}{c+x}$

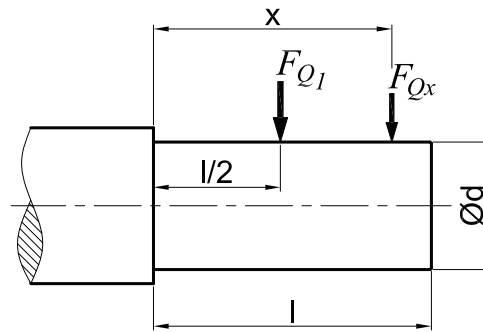
Dans le cas o les charges radiales ne sont pas appliques au centre de l'arbre d'entree, la formule  appliquer est $F_{Qx} = F_{Q_{l/2}} \cdot \frac{k}{c+x}$

Radyal Yk Hesabı, Giriş Miline etkiyen Durum için
Calculation of Overhung Load for State Acting on Input Shaft
Calcul des charges appliquées sur l'arbre d'entrée



Radyal Yk Hesabı için Sabit Değerler Tablosu
Tables of Fixed Values for Calculation of Overhung Load
Tableau des valeurs préétablies pour le calcul des charges radiales

İR Serisi / İR Series / İR Série (Monoblok)				
Tip/ Type	k	c	d	l
İR 42 - 43	83.5	63.5	19	40
İR 52 - 53	52.5	67.5	24	50
İR 621 - 631	110	77	24	50
İR 62 - 63	110	77	24	50
İR 721 - 731	119	89	28	60
İR 72 - 73	119	89	28	60
İR 82 - 83	123	88	34	70
İR 92 - 93	159.5	109.5	48	100
İR 102 - 103	187,5	132,5	55	110
İR 122 - 123	233	178	55	110
İR 142 - 143	233	178	55	110
İR 152 - 153	271,5	201,5	70	140



Radyal yk, milin orta noktasında deęil ise $F_{Qx} = F_{Ql} \cdot \frac{k}{c+x}$ forml ile hesaplanır.

If overhung load is not applied at the midpoint of input shaft; it is calculated by $F_{Qx} = F_{Ql} \cdot \frac{k}{c+x}$

Dans le cas o les charges radiales ne sont appliquées au centre de l'arbre d'entrée, la formule à appliquer est

$$F_{Qx} = F_{Ql} \cdot \frac{k}{c+x}$$

1500 d/d Motorlar / 1500 r.p.m. Motors / Moteurs 1500 r.p.m.

Kod Code Code	Güç (kW) Power (kW) Puissance (kW)	Hız (d/d) Speed (r.p.m.) Vitesse (r.p.m.)	Anma Akımı Rated Current Ampère	Moment (Nm) Torque (Nm) Couple (Nm)	Verim		IE Sınıfı IE Class Classe IE	Çalışma Sınıfı Duty Type Classe d'utilisation
					100%	75%		
					Efficiency			
					100%	75%		
					Efficiency			
100%	75%							
63M4a	0,12	1315	0,42	0,88	50,0	49,8	IE1	S1
63M4b	0,18	1320	0,58	1,30	57,0	56,5		
71M4a	0,25	1375	0,71	1,80	68,5	66,1	IE2	
71M4b	0,37	1375	1,12	2,50	66,0	64,9		
80M4a	0,55	1410	1,55	3,70	77,1	74,5		
80M4b	0,75	1435	1,90	5,00	82,5	81,0	IE3	
90S4a	1,1	1435	2,55	7,35	84,1	82,9		
90L4a	1,5	1450	3,40	9,9	85,3	84,8		
100L4a	2,2	1450	4,90	14,5	86,7	86,7		
100L4b	3	1450	6,40	19,8	87,7	87,3		
112M4a	4	1450	8,20	26,3	88,6	87,8		
132S4a	5,5	1460	11,5	35,8	89,6	89,3		
132M4a	7,5	1460	15,9	49,1	90,4	89,1		
160M4a	11	1470	22,9	71,6	91,4	91,4		
160L4a	15	1470	30,5	97,5	92,1	90,3		
180M4a	18,5	1475	36,3	120	92,6	92,5		
180L4a	22	1480	44,5	143	93,0	92,6		
200L4a	30	1470	52,5	195	93,6	92,4		
225S4a	37	1470	64,8	240	93,9	93,6		
225M4a	45	1480	81,0	290	94,2	93,4		
250M4a	55	1480	96,0	355	94,6	94,6		
280S4a	75	1490	128,6	481	96,0	95,2	IE4	
280M4a	90	1490	153,0	577	96,1	94,5		
315S4a	110	1489	193,5	705	96,3	95,4		
315M4a	132	1488	230,0	847	96,4	95,2		
315M4b	160	1485	271,7	1029	96,6	96,1		
315L4a	185	1482	317,7	1195	96,6	96,3		
315L4b	200	1486	347,1	1285	96,7	96,6		
355M4a	250	1485	460,0	1608	96,7	96,5		
355M4b	315	1484	535,3	2027	96,7	96,6		
355L4c	355	1485	588,7	2286	96,7	96,5		
355L4d	400	1482	686,2	2577	96,7	96,3		
400L4a	450	1483	754,7	2898	96,7	96,4		

* Motor teknik değerleri İ.Mak-A marka motorlar içindir, kullanılan diğer markalar için değişiklik gösterebilir.

1000 d/d Motorlar / 1000 r.p.m. Motors / Moteurs 1000 r.p.m.

Kod Code Code	Güç (kW) Power (kW) Puissance (kW)	Hız (d/d) Speed (r.p.m.) Vitesse (r.p.m.)	Anma Akımı Rated Current Ampère	Moment (Nm) Torque (Nm) Couple (Nm)	Verim		IE Sınıfı IE Class Classe IE	Çalışma Sınıfı Duny Type Classe d'utilisation
					100%	75%		
					Efficiency			
					100%	75%		
					Efficiency			
					100%	75%		
71M6a	0,18	835	0,75	2,00	45,5	43,6	IE1	S1
71M6b	0,25	860	0,80	2,70	52,1	46,3		
80M6a	0,37	950	1,15	3,73	73,5	72,5	IE3	
80M6b	0,55	950	1,60	5,64	74,4	73,6		
90S6a	0,75	940	2,05	7,62	78,9	77,5		
90L6a	1,1	935	3,05	11,30	81,0	78,5		
10L6a	1,5	940	3,60	15,3	82,5	81,5		
112M6a	2,2	970	5,10	21,2	84,3	83,5		
132S6a	3	970	6,90	29,7	85,6	87,4		
132M6a	4	965	8,75	39,6	86,8	87,6		
132M6b	5,5	960	12,5	54,6	88,0	87,7		
160M6a	7,5	975	16,2	73,5	89,1	89,8		
160L6a	11	975	25,0	107,7	90,3	89,9		
180L6a	15	975	30,0	147,0	91,2	91,0		
200L6a	18,5	980	35,0	181	91,7	91,1		
200L6b	22	975	43,0	215	92,2	91,6		
225M6a	30	985	58,0	290	92,9	92,0		
250M6a	37	985	69,5	360	93,3	92,2		
280S6a	45	985	90,2	436	93,7	93,5		
280M6a	55	985	109,8	530	94,1	93,3		
315S6a	75	995	145,6	719	95,4	95,4	IE4	
315M6a	90	995	168,3	869	95,6	95,5		
315M6b	110	992	209,3	1059	95,8	95,6		
315L6a	132	991	236,2	1272	96,0	95,8		
355M6a	160	990	289,2	1543	96,2	96,2		
355M6b	200	992	365,6	1930	96,3	96,2		
355M6c	250	992	437,8	2407	96,5	96,2		
355L6a	315	991	547,2	3035	96,6	96,5		
355L6b	355	990	602,8	3424	96,6	96,5		

* Motor teknik değerleri İ.Mak-A marka motorlar içindir, kullanılan diğer markalar için değişiklik gösterebilir.

Frenler**1) Pervanesiz frenler**

Elektrik motorunun arkasındaki soğutma kapağı takılmayarak bunların yerine monte edilen frenlerdir. Kısa süreli çalışan motorlarda bu tip frenler kullanılır.

2) Pervaneli frenler

Elektrik motorunun motor mili ve fan kapağı uzatılarak monte edilen frenlerdir. Devamlı çalışan motorlarda bu tip frenler kullanılır.

3) Mikro anahtarlı frenler

Elektrik motorlarının demeraj akımının yüksek olması ve freni açmada gecikmesi dolayısıyla istenmeyen durumlar meydana gelir. Bunları önlemek için, frenin üzerine konulan bir mikro anahtar vasıtasıyla freni açtıktan hemen sonra motorun çalışması sağlanır. Bu tip frenler özellikle büyük güçteki redüktörlerin elektrik motorları için uygundur.

Redüktörlerin ani veya gecikmeli frenlenmesi

Gecikmeli veya ani frenlenen redüktörler birçok sanayi makinalarında kullanılmaktadır. Bu sebepten frenler hem ani hem de gecikmeli fren yapacak şekilde dizayn edilmişlerdir. Frenlerin elektrik bağlantısında yapılacak bir değişiklikle ani veya gecikmeli frenleme sağlanır. Her frenli redüktör ile birlikte elektrik bağlantı şeması verilmektedir.

Frenli redüktörleri teslim aldığınızda fren bağlantısının gecikmeli olarak yapıldığını unutmayınız.

Brakes**1) Brakes without cooling fan**

Brake which is mounted on fan side of electric motor by cancelling cooling fan and fan cover of motor. This type of brake is used for a short period running motors.

2) Brakes with cooling fan

Brake which is mounted on fan side of electric motor by extending motor shaft and fan cover to use fan. This type of brake is necessary for continuously running motors

3) Brakes with micro switch

Because of high starting current of motors delayed disengagement of magnetic brakes undesirable conditions occur. To prevent this situation, starting of motor is provided after disengagement of brake by means of brake by means of a micro switch installed on the brake. This type of brake is especially suitable for high power geared motors.

Non-delayed or delayed braking of geared motors

Delayed or non-delayed geared motors are used in many industrial machines. Therefore, brakes are designed to operate in both delayed and non-delayed conditions. This is supplied with each brake mounted geared motor.

Please do not forget that the brakes are connected for delayed operations standard.

Freins**1) Freins sans hélices de refroidissements**

Freins montés directement à l'emplacement de l'hélice de refroidissement. Dans cette configuration l'hélice et le couvercle extérieur sont retirés. Ce type de configuration est conseillé pour les applications et moteurs avec une durée de fonctionnement réduite.

2) Freins avec hélice de refroidissement

Le frein est monté directement à l'arrière de l'emplacement de l'hélice de refroidissement. Ce type de configuration nécessite une prolongation de l'arbre d'entraînement du moteur. Ce type de configuration est conseillé pour les applications nécessitant un usage continu du frein.

3) Frein à ouverture manuelle

La forte charge appliquée par le moteur sur certains freins entraîne une prolongation de la période de blocage. Afin d'éviter un arrêt prolongé certains freins sont équipés d'un clé d'ouverture manuelle, cette option permet un redémarrage immédiat du moteur. Ce type de freins est particulièrement adapté aux moteurs à forte puissance.

Freins avec ou sans retardement d'arrêt.

Les motoréducteurs équipés de freins à retardement d'arrêt sont utilisés dans notre nombreuses applications et secteurs. Les freins sont conçus pour opérés avec ou sans l'option de retardement. Cette option est disponible pour l'ensemble de notre gamme de motoréducteurs. A noter que le freins doit être correctement connecté pour permettre un fonctionnement optimale de cette option.

Fren alıştırma voltajları

Frenler 24V-DC veya 220V-AC ile çalışacak şekilde imal edilir. 220 voltluk frenlerin bağlantıları motor klemens kutusunda yapılmaktadır. 24V ile çalışan frenlerin bağlantısı için ayrıca 220/30V trafo ile doğrultucu gerekmektedir. İstenildiğinde bunlar firmamızca temin edilmektedir.

Frenli redüktörlerin elektrik motorlarına toprak hattı bağlantısı muhakkak yapılmalıdır.

Fren siparişlerinde belirtilmesi gereken hususlar

- 1) Fren momenti
- 2) Fren tipi
- 3) Fren voltajı

24V ile çalışan fren siparişlerinde trafolu doğrultucu istenip istenmediğini lütfen belirtiniz.

Fren bağlantı şemaları

Operating voltage of brakes

Brakes are manufactured to operate at 24V-DC or 220V-AC. 220V brakes are connected to the motor terminal box directly, but 220/30V transformer with rectifier unit needed for 24V operating brakes. This unit will be supplied if required.

Geared brake motors must be earthed.

Required ordering data for brakes

- 1) Brake torque
- 2) Brake type
- 3) Brake operating voltage.

Please inform as if you need 220/30V transformer with rectifier unit for 24V operating brakes

Brake connection types

Voltage et caractéristique des freins

Les freins sont adaptés à un voltage de 24V-DC ou 220V-AC. Les freins fonctionnant sous 220V sont directement connectés à la boîte de Klemens, Les freins fonctionnant sous 24V doivent impérativement être couplés à un transformateur, cette unité est disponible en option.

Données Nécessaire à la Commande d'un Frein.

- 1) Couple des freins
- 2) Type de freins
- 3) Type de voltage

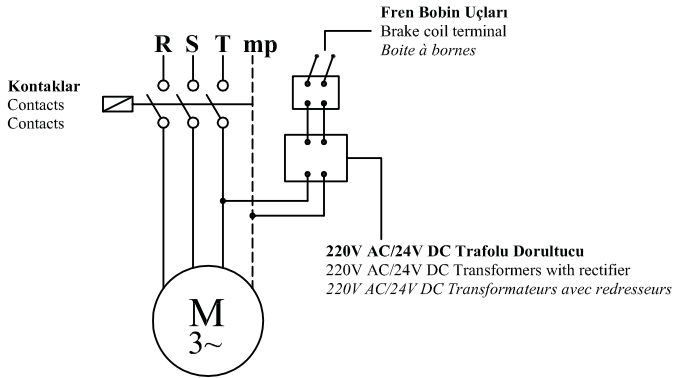
Veillez à nous informer si une unité de transformation 220/30V est nécessaire au branchement de votre frein (24 V)

Type de connexion des freins

Gecikmeli Frenleme (24V)

Delayed Running Brake (24V)

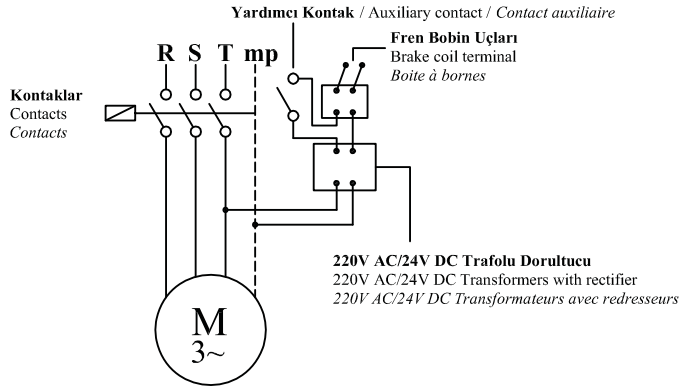
Frein à retardement (24 V)



Ani Frenleme (24V)

Sudden Running Brake (24V)

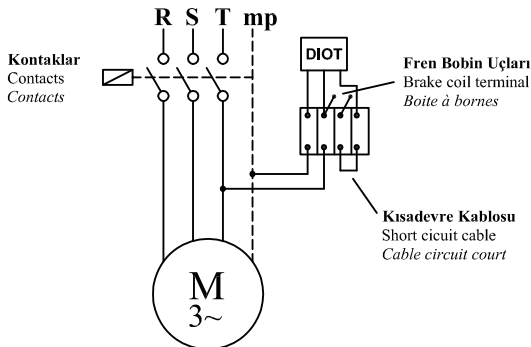
Frein à arrêt immédiat (24 V)



Gecikmeli Frenleme (220V)

Delayed Running Brake (220V)

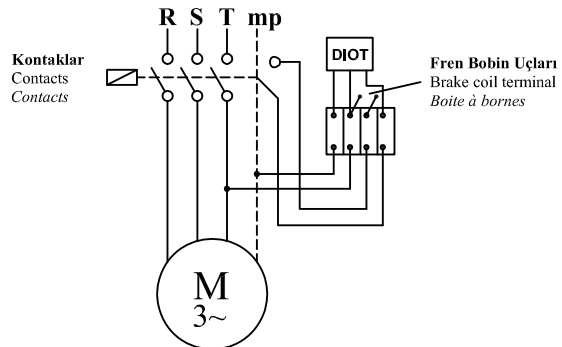
Frein à retardement (220 V)



Ani Frenleme (220V)

Sudden Running Brake (220V)

Frein à arrêt immédiat (220 V)



Tablo 1 / Table 1 / Tableau 1

Motor büyüklüğü Motor size Dimensions du moteur	n1 d/d / r.p.m / r.p.m			
	750	1000	1500	3000
	Güç / Power / Puissance [kW]			
63			0,12 - 0,18	0,18 - 0,25
71	0,09 - 0,12	0,18 - 0,28	0,25 - 0,37	0,37 - 0,55
80	0,18 - 0,25	0,37 - 0,55	0,55 - 0,75	0,75 - 1,1
90 S	0,37	0,75	1,1	1,5
90 L	0,55	1,1	1,5	2,2
100	0,75 - 1,1	1,5	2,2 - 3	3
112	1,5	2,2	4	4
132 S	2,2	3	5,5	5,5 - 7,5
132 M	3	4 - 5,5	7,5	11
160 M	4-5,5	7,5	11	15
160 L	7,5	11	15	18,5
180 M			18,5	22
180 L	11	15	22	
200	15	18,5 - 22	30	30 - 37
225 S	18,5		37	
225 M	22	30	45	45
250	30	37	55	55
280 S	37	45	75	75
280 M	45	55	90	90

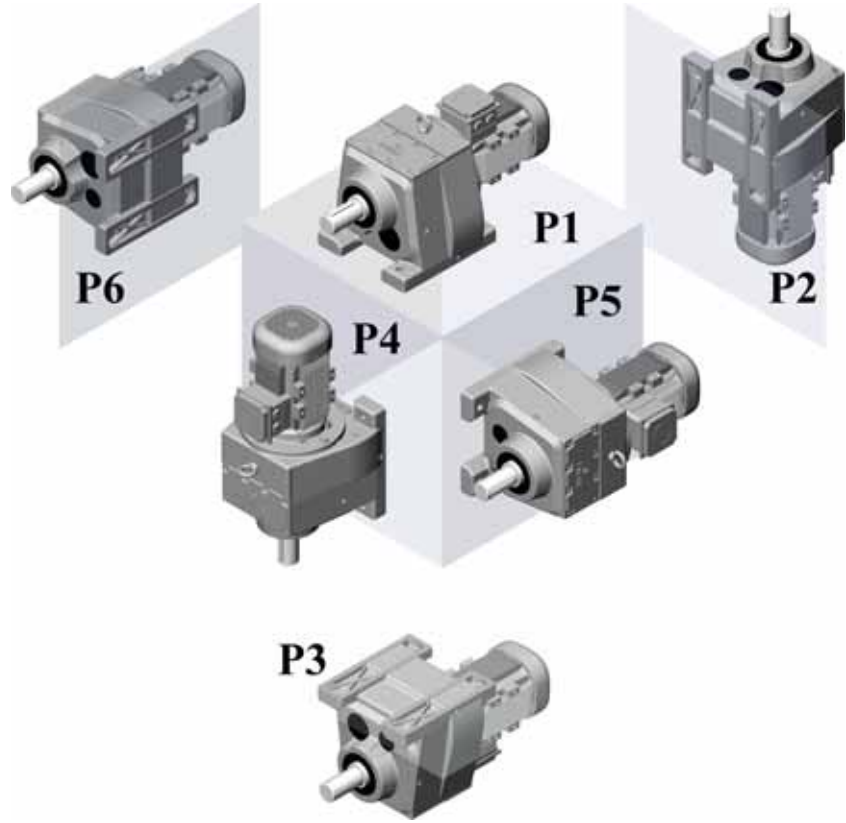
Tablo 2 / Table 2 / Tableau 2

Motor büyüklüğü Motor size Dimensions du moteur	Fren momenti [kgm] Braking torque [kgm] Puissance de freinage [kgm]																			
	Hafif frenleme Light braking Freins légers										Kuvvetli frenleme Strong braking Freins lourds									
	0,5	1	2,5	4	5	10	20	30	50	80	0,5	1	2,5	4	5	10	20	30	50	80
63																				
71																				
80																				
90 S																				
90 L																				
100																				
112																				
132 S																				
132 M																				
160 M																				
160 L																				
180 M																				
180 L																				
200																				
225 S																				
225 M																				
250																				
280 S																				
280 M																				

*Belirtilen montaj pozisyonları görsel amaçlıdır. Montaj yüzeylerini bağlayıcı değildir.

*The specified mounting positions are for visual purposes. Mounting surfaces are not binding.

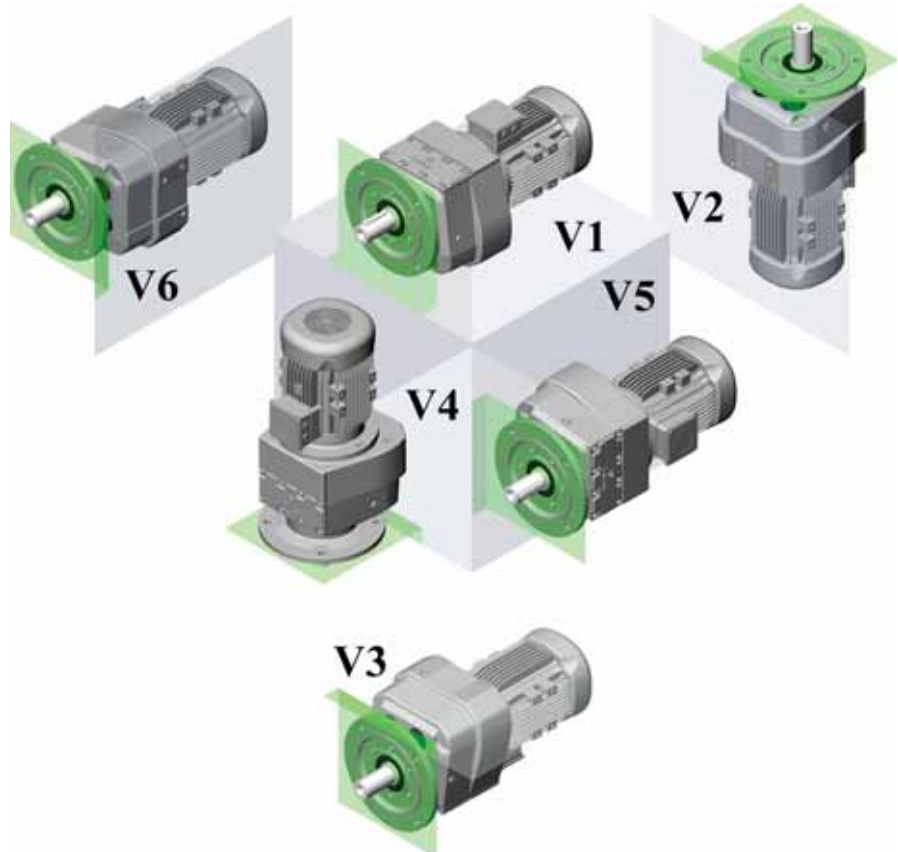
*Die angegebene Einbaulage ist für heute.
Die Montagefläche ist nicht bindend.



*Belirtilen montaj pozisyonları görsel amaçlıdır. Montaj yüzeylerini bağlayıcı değildir.

*The specified mounting positions are for visual purposes. Mounting surfaces are not binding.

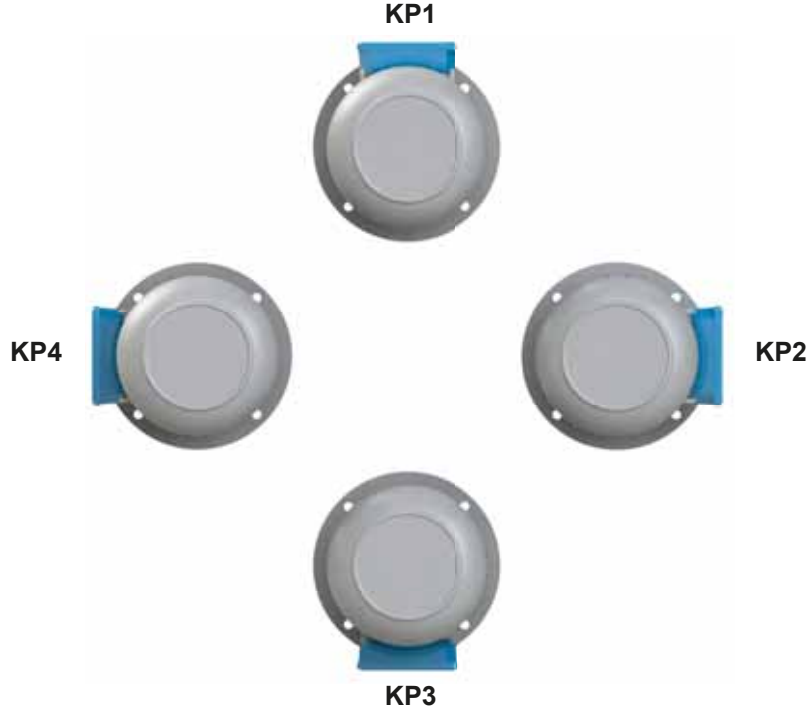
*Die angegebene Einbaulage ist für heute.
Die Montagefläche ist nicht bindend.



Standart klemens pozisyonu "KP1" dir, aksi belirtilmediği sürece standart pozisyonunda yapılır.

The standard mounting position is "KP1", if the mounting is not during the order, the mounting position is always "KP1"

La position de montage standard est "KP1", si aucune position de montage n'est précisée lors de la prise de commande, la position "KP1" sera attribuée par défaut



Rakor yönleri Cable entry / Entrée des câbles

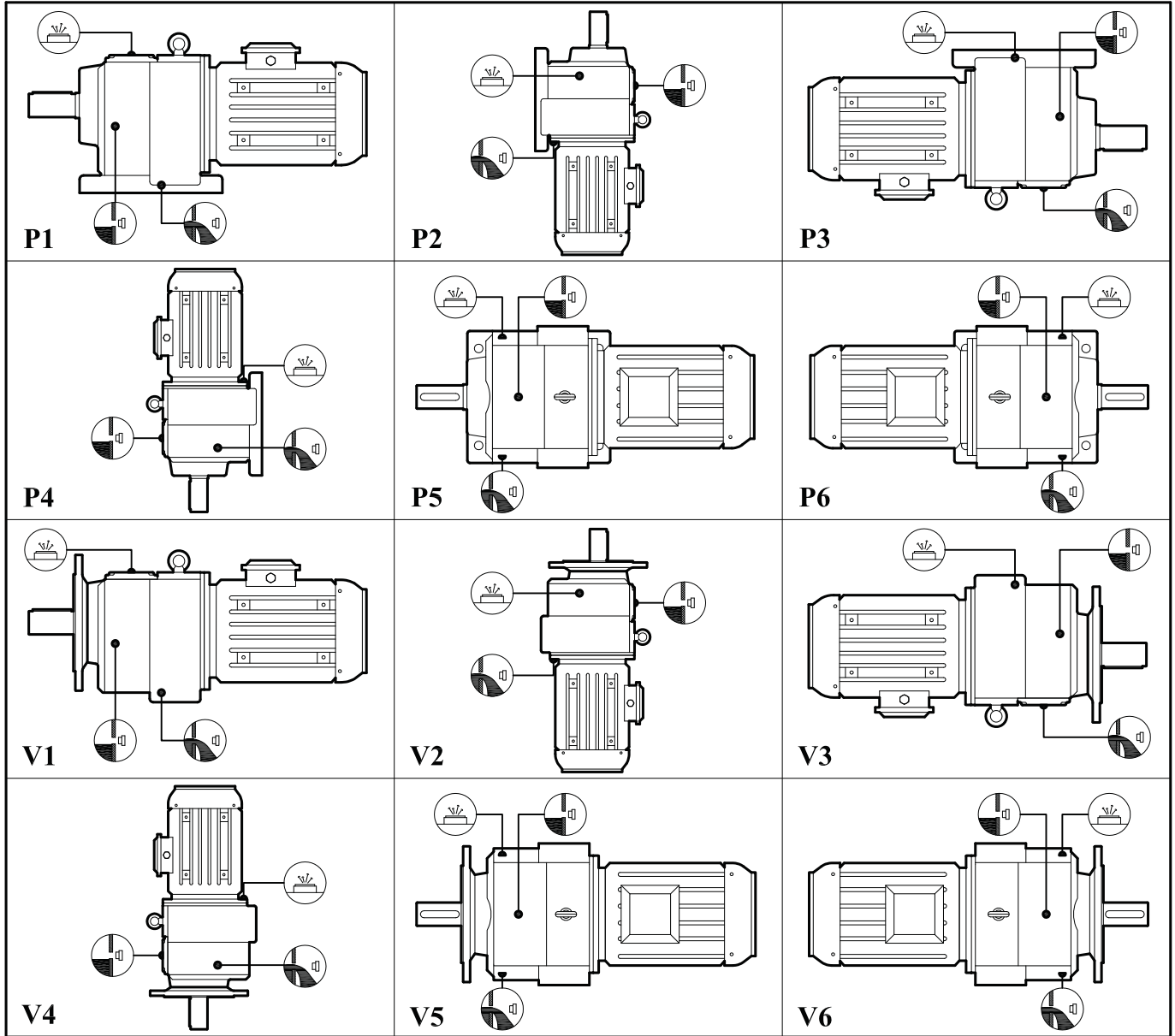
Standart rakor yönü "A" dır, belirtilmediği sürece standart yönde yapılır.

The standard position of the cable entry is "A", if the position is not specified during the order, the mounting position will be accepted as "A"

La position standard de l'entrée des câbles est "A", si aucune position de montage n'est précisée lors de la prise de commande, la position "A" sera attribuée par défaut.



Yağ Cinsi Lubricant Art des Lubrifiant	ISO Viskozite sinifi Viscosity class Catégorie de viscosité	DIN 51517-3	Kullanım sicaklığı Usage temperature ebranchs température d'usage C°	Firma Firm Marque						
										
Mineral Yağ Mineral Oil Huile Minéral	ISO VG 320	CLP	-10.....+90	Mobilgear 600XP320	Degol BG 320	Energol GR-XP 320	OmalaS2 GX 320	Alpha SP 320	Klüberoil GEM 1 N 320	Recompound FL 320
	ISO VG 220	CLP	-10.....+90	Mobilgear 600 XP 220	Degol BG 220	Energol GR-XP 220	OmalaS2 GX 220	Alpha SP 220	Klüberoil GEM 1 N 220	Recompound FL 220
	ISO VG 150	CLP	-10.....+90	Mobilgear 600 XP 150	Degol BG 150	Energol GR-XP 150	OmalaS2 GX 150	Alpha SP 150	Klüberoil GEM 1 N 150	Recompound FL 150
	ISO VG 100	CLP	-15.....+90	Mobilgear 600 XP 100	-	-	OmalaS2 GX 100	Alpha SP 100	Klüberoil GEM 1 N 100	Recompound FL 100
Sentetik Yağ Synthetic Oil Huile Synthétique	ISO VG 320	CLP HC	-30.....+110	Mobil SHC Gear 320	Degol GS 320	Enersyn SG-XP320	OmalaS4 GX V 320	Optigear Synthetic PD 320 ES	Klübersynth GEM4 N 320	Recompound Syn 320
	ISO VG 220	CLP HC	-35.....+110	Mobil SHC Gear 220	Degol GS 220	Enersyn SG-XP220	OmalaS4 GX V 220	Optigear Synthetic PD 220 ES	Klübersynth GEM4 N 220	Recompound Syn 220
	ISO VG 150	CLP HC	-40.....+110	Mobil SHC Gear 150	Degol GS 150	Enersyn SG-XP150	OmalaS4 GX V 150	Optigear Synthetic PD 150 ES	Klübersynth GEM4 N 150	Recompound Syn 150
	ISO VG 100	CLP HC	-45.....+110	Mobil SHC 627	-	-	-	Optigear Synthetic PD 100 ES	Klübersynth GEM4 N 100	Recompound Syn 100



Semboller :
Seymbols :
Seymboles :



Yağ Doldurma ve Havalandırma
Oil Filling and Vent Plug
Valve d'aération

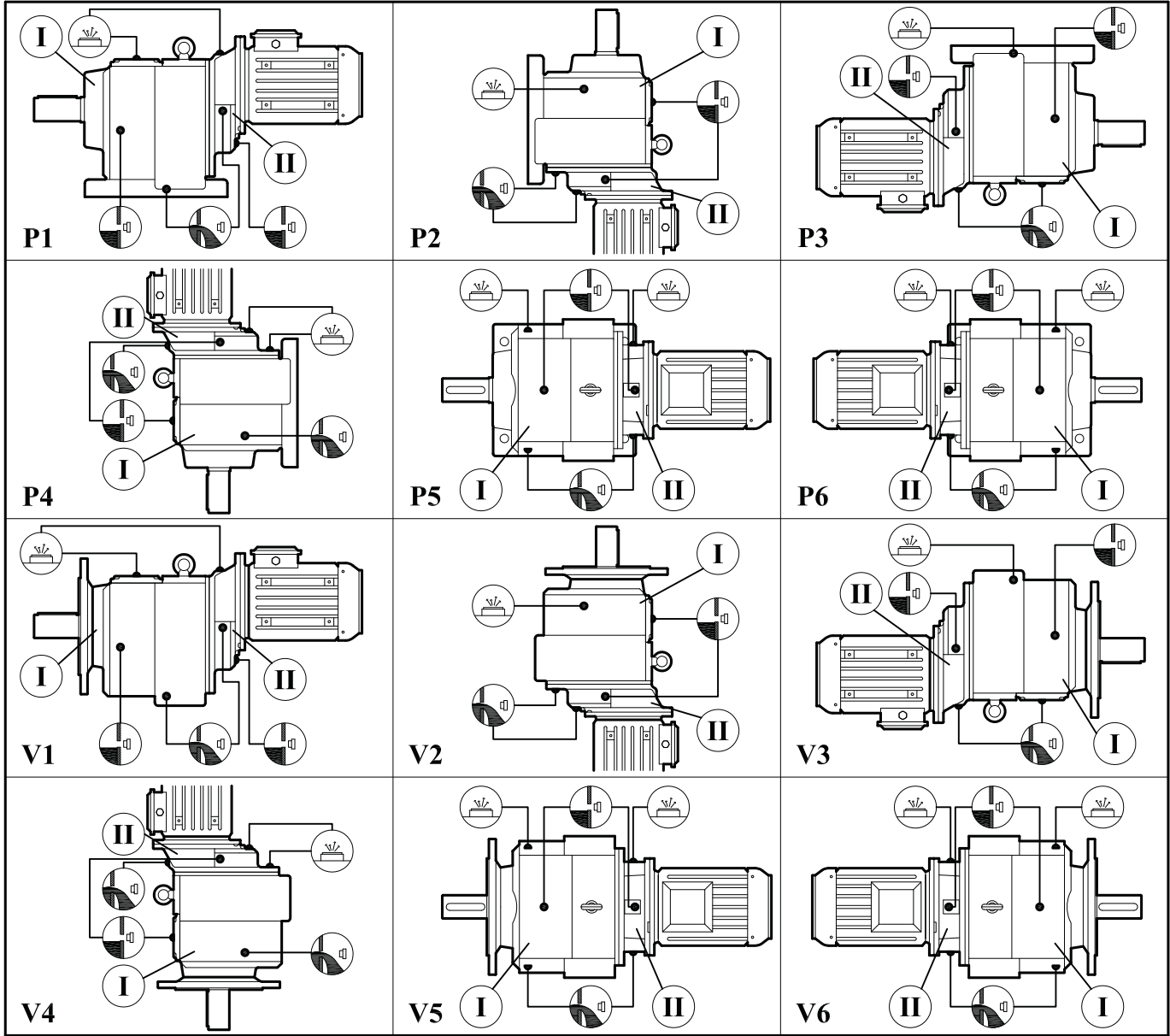


Yağ Seviye Tespit
Oil Level
Niveau d'huile



Yağ Boşaltma
Oil Drain Plug
Bouchon de drainage

TİP Type Type	Bağlantı pozisyonları için yağ miktarları (litre) / Oil quantities for mounting positions (liter) Quantités d'huiles en fonction de la position de montage (litres)											
	P1	V1	P2	V2	P4	V4	P3	V3	P5	V5	P6	V6
İR.... 42 / 43	0,4 / 0,35			0,7 / 0,65			0,5 / 0,45			0,5 / 0,45		
İR.... 52 / 53	0,8 / 0,75			1,2 / 1,15			0,8 / 0,75			0,8 / 0,75		
İR.... 621 / 631	1,25 / 1,1			1,8 / 1,65			1,25 / 1,1			1,25 / 1,1		
İR.... 62 / 63	1,25 / 1,1			1,8 / 1,65			1,25 / 1,1			1,25 / 1,1		
İR.... 721 / 731	2,2 / 2			2,7 / 2,5			2,2 / 2			2,2 / 2		
İR.... 72 / 73	2,5 / 2,3			3 / 2,8			2,5 / 2,3			2,5 / 2,3		
İR.... 82 / 83	5,5 / 5			7,5 / 7			5,5 / 5			5,5 / 5		
İR.... 92 / 93	9 / 8			11 / 10			9 / 8			9 / 8		
İR.... 102 / 103	14 / 13			17 / 16			14 / 13			14 / 13		
İR.... 122 / 123	30 / 28			35 / 33			30 / 28			30 / 28		
İR.... 142 / 143	38 / 30			53 / 45			45 / 39			38 / 36		
İR.... 152 / 153	65 / 60			102 / 97			94 / 90			82 / 75		



Semboller :
Seymbols :
Seymboles :



Yağ Doldurma ve Havalandırma
Oil Filling and Vent Plug
Valve d'aération

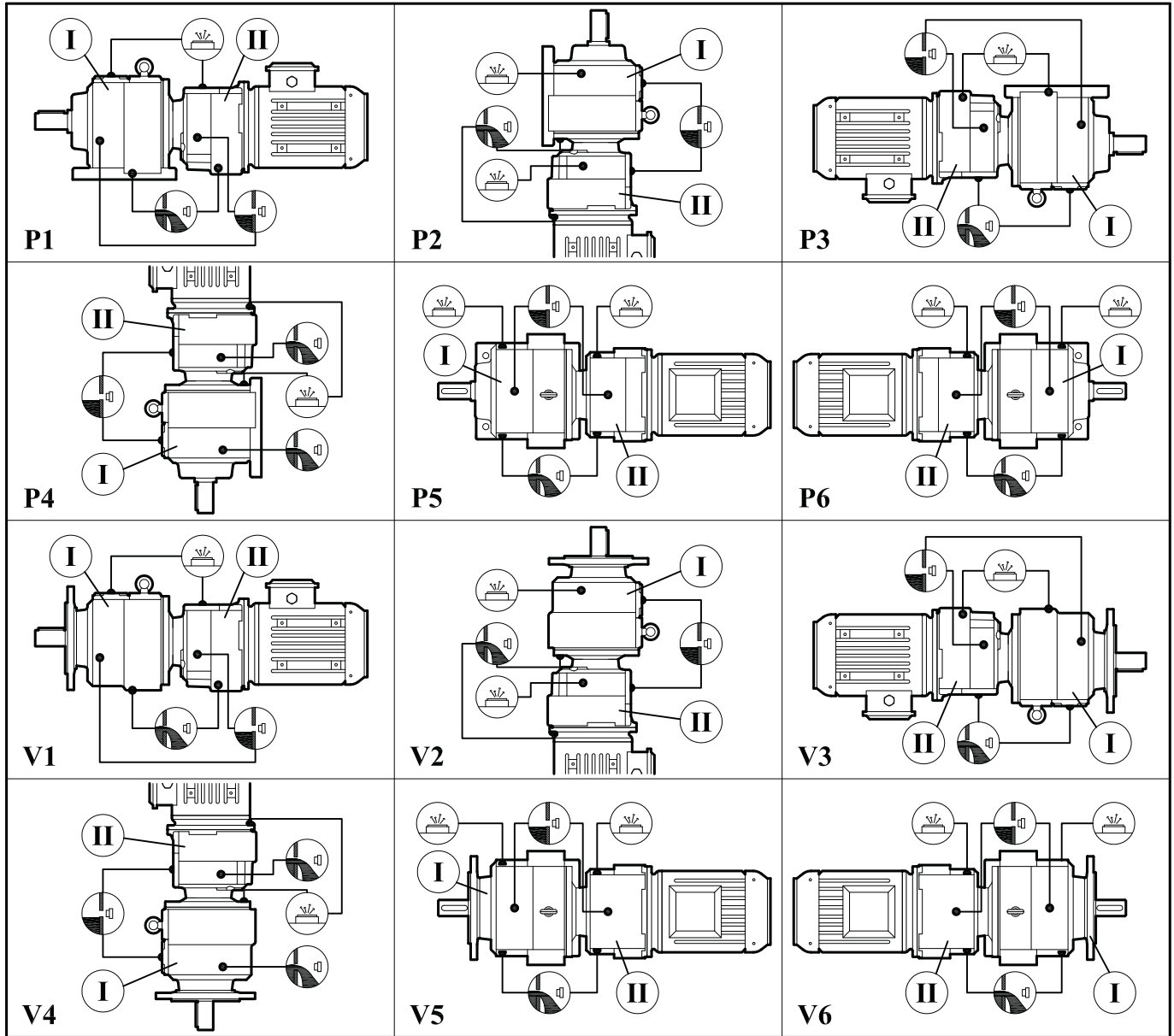


Yağ Seviye Tespit
Oil Level
Niveau d'huile



Yağ Boşaltma
Oil Drain Plug
Bouchon de drainage

TİP Type Type	Bağlantı pozisyonları için yağ miktarları (litre) / Oil quantities for mounting positions (liter) Quantités d'huiles en fonction de la position de montage (litres)											
	P1	V1	P2	V2	P3	V3	P4	V4	P5	V5	P6	V6
	I / II		I / II		I / II		I / II		I / II			
İR.... 64	1,1 / 0,1		1,65 / 0,3		1,1 / 0,25		1,65 / 0,2		1,1 / 0,2			
İR.... 741	2 / 0,2		2,5 / 0,35		2 / 0,4		2,5 / 0,35		2 / 0,35			
İR.... 74	2,3 / 0,2		2,8 / 0,35		2,3 / 0,4		2,8 / 0,35		2,3 / 0,35			
İR.... 84	5 / 0,3		7 / 0,75		5 / 0,75		7 / 0,5		5 / 0,5			
İR.... 94	8 / 0,6		10 / 1,2		8 / 1,3		10 / 1,1		8 / 1			
İR.... 104	13 / 0,7		16 / 1,35		13 / 1,8		16 / 1,5		13 / 1,2			
İR.... 124	30 / 1,85		35 / 4		30 / 4,5		35 / 4		30 / 2,75			
İR.... 144	30 / 1,85		45 / 4		39 / 4,5		45 / 4		36 / 2,75			
İR.... 154	65 / 4,35		102 / 6,5		94 / 7		102 / 6,5		82 / 5,25			



Semboller :
Symbols :
Symböles :



Yağ Doldurma ve Havalandırma
Oil Filling and Vent Plug
Valve d'aération



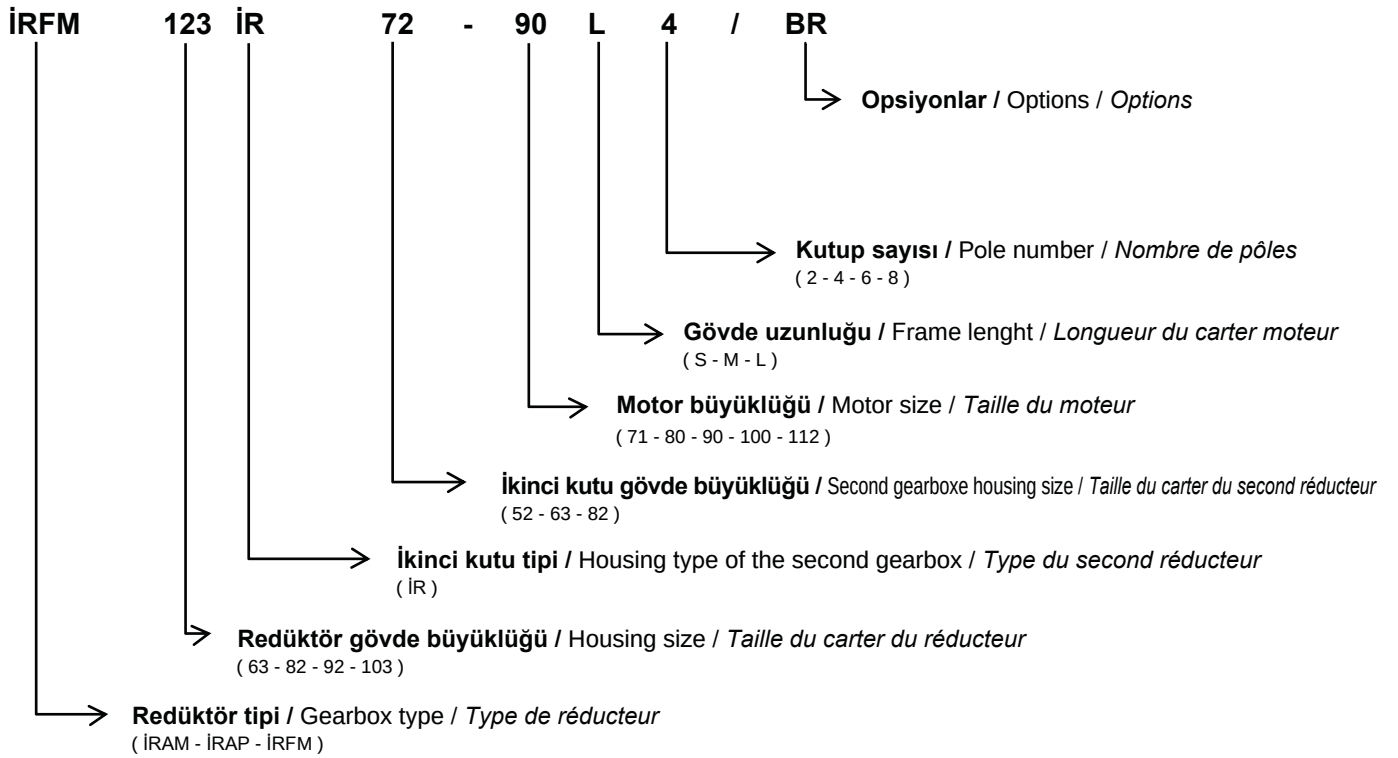
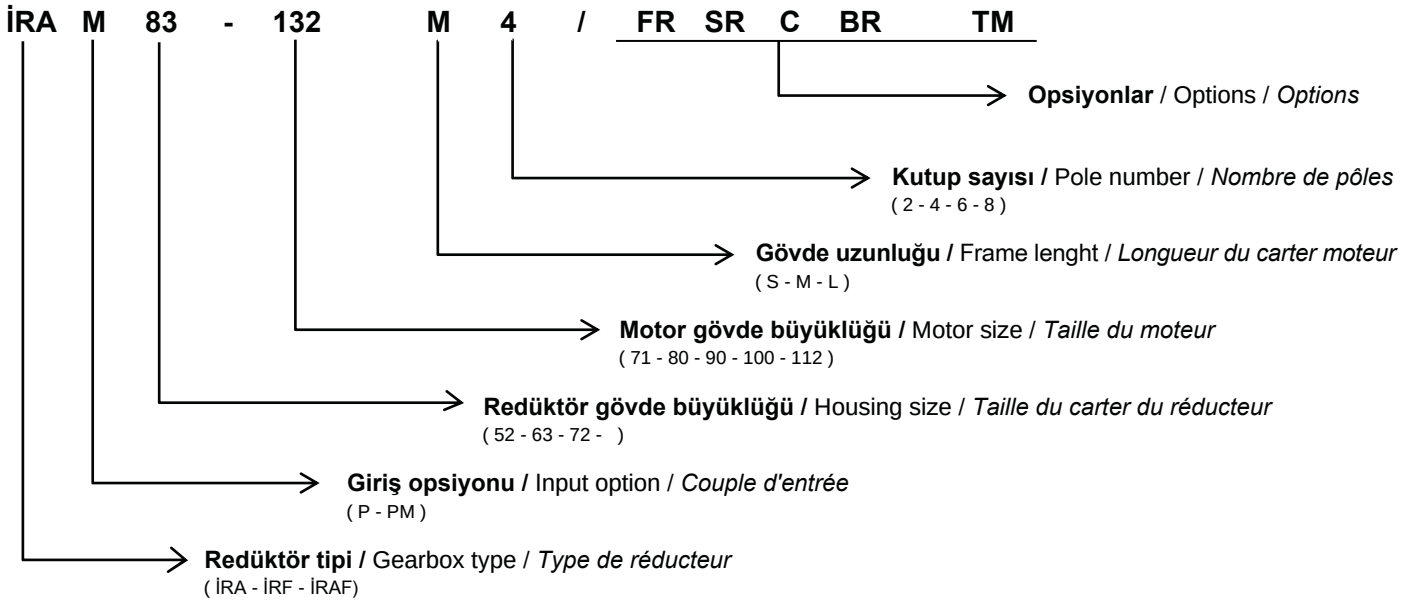
Yağ Seviye Tespit
Oil Level
Niveau d'huile



Yağ Boşaltma
Oil Drain Plug
Bouchon de drainage

TİP Type Type	Bağlantı pozisyonları için yağ miktarları (litre) Oil quantities for mounting positions (liter) Quantités d'huiles en fonction da la position de montage (litres)											
	P1	V1	P2	V2	P4	V4	P3	V3	P5	V5	P6	V6
	I / II		I / II				I / II		I / II			
İR.... 52 İR 42	0,8 / 0,4		1,2 / 0,7				0,8 / 0,5		0,8 / 0,5			
İR.... 52 İR 43	0,8 / 0,35		1,2 / 0,65				0,8 / 0,45		0,8 / 0,45			
İR.... 53 İR 42	0,75 / 0,4		1,15 / 0,7				0,75 / 0,5		0,75 / 0,5			
İR.... 53 İR 43	0,75 / 0,35		1,15 / 0,65				0,75 / 0,45		0,75 / 0,45			
İR.... 621 İR 52	1,25 / 0,8		1,8 / 1,2				1,25 / 0,8		1,25 / 0,8			
İR.... 621 İR 53	1,25 / 0,75		1,8 / 1,15				1,25 / 0,75		1,25 / 0,75			
İR.... 631 İR 52	1,1 / 0,8		1,65 / 1,2				1,1 / 0,8		1,1 / 0,8			
İR.... 631 İR 53	1,1 / 0,75		1,65 / 1,15				1,1 / 0,75		1,1 / 0,75			
İR.... 62 İR 52	1,25 / 0,8		1,8 / 1,2				1,25 / 0,8		1,25 / 0,8			
İR.... 62 İR 53	1,25 / 0,75		1,8 / 1,15				1,25 / 0,75		1,25 / 0,75			

TİP Type Type	Bağlantı pozisyonları için yağ miktarları (litre) Oil quantities for mounting positions (liter) Quantités d'huiles en fonction de la position de montage (litres)											
	P1	V1	P2	V2	P4	V4	P3	V3	P5	V5	P6	V6
	I / II		I / II				I / II		I / II			
İR.... 63 İR 52	1,1 / 0,8		1,65 / 1,2				1,1 / 0,8		1,1 / 0,8			
İR.... 63 İR 53	1,1 / 0,75		1,65 / 1,15				1,1 / 0,75		1,1 / 0,75			
İR.... 721 İR 52	2,2 / 0,8		2,7 / 1,2				2,2 / 0,8		2,2 / 0,8			
İR.... 721 İR 53	2,2 / 0,75		2,7 / 1,15				2,2 / 0,75		2,2 / 0,75			
İR.... 731 İR 52	2 / 0,8		2,5 / 1,2				2 / 0,8		2 / 0,8			
İR.... 731 İR 53	2 / 0,75		2,5 / 1,15				2 / 0,75		2 / 0,75			
İR.... 72 İR 52	2,5 / 0,8		3 / 1,2				2,5 / 0,8		2,5 / 0,8			
İR.... 72 İR 53	2,5 / 0,75		3 / 1,15				2,5 / 0,75		2,5 / 0,75			
İR.... 73 İR 52	2,3 / 0,8		2,8 / 1,2				2,3 / 0,8		2,3 / 0,8			
İR.... 73 İR 53	2,3 / 0,75		2,8 / 1,15				2,3 / 0,75		2,3 / 0,75			
İR.... 82 İR 62	5,5 / 1,25		7,5 / 1,8				5,5 / 1,25		5,5 / 1,25			
İR.... 82 İR 63	5,5 / 1,1		7,5 / 1,65				5,5 / 1,1		5,5 / 1,1			
İR.... 83 İR 62	5 / 1,25		7 / 1,8				5 / 1,25		5 / 1,25			
İR.... 83 İR 63	5 / 1,1		7 / 1,65				5 / 1,1		5 / 1,1			
İR.... 92 İR 62	9 / 1,25		11 / 1,8				9 / 1,25		9 / 1,25			
İR.... 92 İR 63	9 / 1,1		11 / 1,65				9 / 1,1		9 / 1,1			
İR.... 93 İR 62	8 / 1,25		10 / 1,8				8 / 1,25		8 / 1,25			
İR.... 93 İR 63	8 / 1,1		10 / 1,65				8 / 1,1		8 / 1,1			
İR.... 102 İR 72	14 / 2,5		17 / 3				14 / 2,5		14 / 2,5			
İR.... 102 İR 73	14 / 2,3		17 / 2,8				14 / 2,3		14 / 2,3			
İR.... 103 İR 72	13 / 2,5		16 / 3				13 / 2,5		13 / 2,5			
İR.... 103 İR 73	13 / 2,3		16 / 2,8				13 / 2,3		13 / 2,3			
İR.... 122 İR 72	30 / 2,5		35 / 3				30 / 2,5		30 / 2,5			
İR.... 122 İR 73	30 / 2,3		35 / 2,8				30 / 2,3		30 / 2,3			
İR.... 123 İR 72	28 / 2,5		33 / 3				28 / 2,5		28 / 2,5			
İR.... 123 İR 73	28 / 2,3		33 / 2,8				28 / 2,3		28 / 2,3			
İR.... 142 İR 72	38 / 2,5		53 / 3				45 / 2,5		38 / 2,5			
İR.... 142 İR 73	38 / 2,3		53 / 2,8				45 / 2,3		38 / 2,3			
İR.... 143 İR 72	30 / 2,5		45 / 3				39 / 2,5		36 / 2,5			
İR.... 143 İR 73	30 / 2,3		45 / 2,8				39 / 2,3		36 / 2,3			
İR.... 143 İR 82	30 / 5,5		45 / 7,5				39 / 5,5		36 / 5,5			
İR.... 152 İR 93	65 / 8		102 / 10				94 / 8		82 / 8			
İR.... 153 İR 92	60 / 9		97 / 11				90 / 9		75 / 9			
İR.... 153 İR 93	60 / 8		97 / 10				90 / 8		75 / 8			



Redüktörlerin Kontrol ve Bakımları

- Redüktörlerin yağ seviyesi ve miktarını kontrol ediniz. Yağın cinsini İ.MAK kataloğunda yer alan yağ çizelgelerini kullanarak seçiniz.
- Havalandırma tapasının faal olup olmadığına bakınız. Hava tahliye deliği çalışmaz ise redüktör gövdesinin içinde biriken hava, basınç oluşturarak keçelerden yağ sızmasına sebep olur. Böylece yağ azalarak çevre kirliliğine yol açar ve redüktörün verimli çalışmasını engellemiş olur.
- Redüktör bağlantı cıvatalarının gevşeyip gevşemediğini kontrol ediniz, gevşeyen cıvatalar var ise sıkamak suretiyle tedbir alınız. Redüktör montajında meydana gelen eksen kaçıklığında zararlı sarsıntılara dikkat ediniz.
- Redüktörün ilk çalıştırmadan 500 saat sonra, sonraki her 6000 saatte periyodik olarak yağını değiştiriniz.
- Özel hususlar ve çalışma şartları hakkında mutlaka firmamıza danışınız.

Control and maintenance gearboxes

- Check the oil levels and quantity of your gearboxes. Choose the type and quantity of oil from the İ.MAK catalogue.
- Check if the ventilation stopper is active or not. If the air evacuation hole does not work properly, the accumulated air in the gearbox trunk might causes pressure and gas leakage from the mats.
- Before starting your geared motors, proceed to the checking of connection bolts and screw. Check if they have loosened or not during transport or installation. Take measures by firming loosened bolts. A wrong connexion might create vibration to the axis and conduct to damage of the geared motor.
- Change the oil after 500 hours of initial operation and periodically every 6000 hours of operating the geared motor.
- If you are facing any technical issue, please consult the user guide delivered with the geared motor. In case of special issue or emergency please directly contact your reseller or the closest I-MAK technical center.

Contrôle et maintenance des réducteurs

- Vérifiez le niveau et la quantité d'huile de façons régulière. Consultez le catalogue I-MAK pour obtenir les niveaux d'huiles requis en fonction du modèle et de la position du réducteur.
- Vérifiez le fonctionnement de la valve d'aération. L'absence d'évacuation de l'air peut provoquer une augmentation de la pression dans le réducteur pouvant conduire à des fuites d'huiles.
- Contrôler les vis et boulons reliant le moteur au réducteur, en cas de mauvaise fermeture le moteur peut créer des vibrations de l'arbre entraînant l'endommagement du motoréducteur.
- La première vidange doit être effectuée après 500 heures d'utilisations du motoréducteur, les vidanges suivantes doivent être effectuées au bout de 6000 heures d'utilisations.
- En cas de problèmes techniques, consultez le manuel d'utilisation fournis à la livraison du motoréducteur. En cas de problèmes particulier ou d'urgence, veuillez à contacter votre revendeur ou le centre technique I-MAK le plus proche.

		YERLİ MALİ BELGESİ Domestic goods certificate <i>Certificat de produit national</i>
		TÜRK STANDARTLARI ENSTİTÜSÜ KRİTERE UYGUNLUK BELGESİ Certificate of conformity to Turkish standards <i>Certificats de conformité aux standards Turcs</i>
		MARKA YENİLEME BELGESİ Certificate of trademark registration <i>Certificat d'enregistrement de marque</i>
		ISO 9001:2008 YÖNETİM SİSTEMİ ISO 9000:2008 Quality management system <i>ISO 9000:2008 : Systèmes de management de la qualité</i>
		ISO10002:2004 MÜŞTERİ MEMNUNİYETİ YÖNETİM SİSTEMİ ISO 10002:2004 Customer satisfaction management system <i>ISO 10002:2004 Management de la qualité - Satisfaction clients</i>
		OHSAS 18001:2007 İŞ SAĞLIĞI VE GÜVENLİĞİ YÖNETİM SİSTEMİ OHSAS 18001:2007 : Occupational health and safety management <i>OHSAS 18001:2007 : Management de la santé et de la sécurité au travail</i>
		AT UYGUNLUK BEYANI CE Declaration of conformity <i>Déclaration de conformité aux standards CE</i>
		EC TYPE EXAMINATION CERTIFICATE ATEX Certificate <i>Certificat ATEX</i>

İR Serisi Motorlu Redüktörler Güç ve Devir Tabloları

İR Series Motor Power Ratings and Output Speed
İR Series puissances et vitesses de sorties moteur



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,12 0,16	0,27	5008	0,84	3876	26000	İRAPM İRFPM İRAFPM	93 İR 63 / 63 M 4a	328 329 330	157 167 177
	0,29	4673	0,90	3609	26000				
	0,30	4545	0,92	3489	26000				
	0,33	4241	0,99	3172	26000				
	0,33	4138	1,01	3172	26000				
	0,36	3861	1,09	2907	26000				
	0,37	3778	1,11	2829	26000				
	0,39	3525	1,19	2684	26000				
	0,40	3456	1,21	2617	26000				
	0,44	3168	1,32	2379	26000				
	0,46	2992	1,12	2310	26000	İRAPM İRFPM İRAFPM	92 İR 63 / 63 M 4a	328 329 330	151 161 171
	0,50	2792	1,20	2125	26000				
	0,53	2636	1,27	2005	26000				
	0,56	2460	1,36	1897	26000				
	0,59	2343	1,43	1801	26000				
	0,64	2186	1,53	1660	26000				
	0,66	2096	1,59	1610	26000				
	0,71	1956	1,71	1497	26000				
	0,74	1886	1,77	1436	26000				
	0,79	1760	1,90	1345	26000				
	0,87	1592	2,10	1221	26000	İRAPM İRFPM İRAFPM	83 İR 63 / 63 M 4a	308 309 310	108 113 115
	0,99	1409	2,40	1073	26000				
	1,0	1315	2,50	1063	26000				
	1,1	1201	2,80	966	26000				
	1,2	1098	3,80	885	26000				
	0,47	2930	0,90	2227	18000				
	0,52	2659	0,99	2013	18000				
	0,63	2205	1,12	1661	18000				
	0,69	2013	1,22	1517	18000				
	0,76	1840	1,34	1377	18000				
	0,78	1779	1,43	1362	18000	İRAPM İRFPM İRAFPM	82 İR 63 / 63 M 4a	308 309 310	103 108 110
	0,88	1580	1,61	1207	18000				
	0,98	1418	1,69	1084	18000				
	1,0	1278	1,88	1063	18000				
	1,2	1157	2,00	885	18000				
	1,3	1050	2,20	817	18000				
	1,4	984	2,00	759	18000				
	1,5	887	2,40	708	18000				
	1,7	803	2,60	625	18000				
	2,1	663	3,00	506	18000	İRAPM İRFPM İRAFPM	73 İR 52 / 63 M 4a	288 289 290	52 55 58
	2,3	604	3,20	462	18000				
	1,0	1375	0,94	1063	12100				
	1,1	1223	1,05	966	12100				
	1,2	1095	1,18	885	12100				
	1,2	1079	1,19	885	12100				
1,4	966	1,33	759	12100					
1,5	894	1,44	708	12100					
1,7	801	1,44	625	12100					
1,7	789	1,44	625	12100					
1,9	702	1,84	559	12100					
2,0	697	1,85	531	12100					
2,2	627	2,00	483	12100					
2,4	563	2,30	443	12100					
2,5	553	2,30	425	12100					
2,6	535	2,30	409	12100					



Helisel Dişli Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,12 0,16	2,9	469	2,60	366	12100	İRAPM İRFPM İRAFPM	73 İR 52 / 63 M 4a	288	52
	3,3	419	2,90	322	12100			289	55
	3,3	414	2,90	322	12100			290	58
	3,7	376	3,20	287	12100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	3,7	370	3,30	287	12100			283	47
	2,4	576	1,95	449	12100			284	50
	3,1	447	2,45	348	12100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	3,5	394	3,00	308	12100			283	47
	3,9	350	3,45	277	12100			284	50
	4,4	314	3,58	245	12100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	1,5	921	0,78	708	10100			283	47
	1,6	824	0,87	664	10100			284	50
	1,8	742	0,97	590	10100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	2,0	675	1,07	531	10100			283	47
	2,3	604	1,56	462	10100			284	50
	2,6	533	1,77	409	10100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	2,8	491	1,88	379	10100			283	47
	2,9	480	1,95	366	10100			284	50
	3,3	423	2,20	322	10100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	3,5	390	2,30	304	10100			283	47
	4,0	344	2,60	266	10100			284	50
	4,5	306	3,00	236	10100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	1,6	836	0,86	664	10100			283	47
	1,8	749	0,96	590	10100			284	50
	2,0	674	1,06	531	10100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	2,3	600	1,56	462	10100			283	47
	2,6	530	1,77	409	10100			284	50
	2,9	468	2,00	366	10100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	3,3	416	2,20	322	10100			283	47
	3,7	372	2,50	287	10100			284	50
	4,2	333	2,80	253	10100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	4,6	300	2,90	231	10100			283	47
	2,2	622	1,25	490	18100			284	50
	2,6	537	1,44	415	18100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	3,0	465	1,66	360	18100			283	47
	3,2	435	1,77	337	18100			284	50
	3,6	383	2,00	300	18100	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
	4,1	338	2,30	263	18100			283	47
	4,6	301	2,60	235	18100			284	50
	1,8	777	0,84	590	7300	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44
1,9	704	0,93	559	7300	283			47	
2,2	622	1,04	483	7300	284			50	
2,4	566	1,15	443	7300	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44	
2,9	475	1,37	366	7300			283	47	
3,1	449	1,45	343	7300			284	50	
3,5	397	1,64	304	7300	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44	
3,6	379	1,72	295	7300			283	47	
4,3	323	2,00	247	7300			284	50	
4,8	286	2,20	221	7300	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44	
5,1	273	2,40	208	7300			283	47	
5,7	242	2,60	186	7300			284	50	
6,0	231	2,30	180	7300	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44	
6,8	203	2,60	159	7300			283	47	
7,6	184	2,70	142	7300			284	50	
8,6	162	3,00	125	7300	İRAPM İRFPM İRAFPM	74 / 63 M 4a	282	44	
9,4	148	3,30	115	7300			283	47	
10	134	3,60	108	7300			284	50	



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{QV2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,12 0,16	3,2	424	1,35	337	7300	İRAPM İRFPM İRAFPM	64 / 63 M 4a	242	32
	3,5	395	1,44	308	7300			243	37
	4,3	319	1,77	251	7300			244	38
	4,8	291	1,95	225	7300				
	5,0	276	2,00	216	7300				
	3,7	377	0,75	287	4250	İRAM İRFM İRAFM	53 İR 42 / 63 M 4a	207 208 209	25 27 28
	4,2	333	0,84	253	4250				
	4,6	303	0,93	231	4250				
	5,2	268	1,05	204	4250				
	5,9	237	1,19	180	4250				
	6,4	216	1,30	166	4250				
	7,2	192	1,47	148	4250				
	7,4	188	1,49	144	4250				
	8,3	168	1,67	128	4250				
	9,2	152	1,85	115	4250				
	10	136	1,99	106	4250				
	11	123	2,30	97	4250				
	12	111	2,50	89	4250				
	14	100	2,80	76	4250				
	13	105	2,30	84	5350	İRAPM İRFPM İRAFPM	53 / 63 M 4a	204	17
	15	88,98	2,80	73	5150			205	19
	18	77,16	3,10	61	5150			206	20
	20	67,60	3,30	55	5150				
	17	81,36	1,27	64	2270	İRAM İRFM İRAFM	43 / 63 M 4a	195 196 197	11 12 13
	19	70,05	1,48	58	2270				
	22	60,89	1,70	50	2270				
	26	53,33	1,94	42	2270				
	29	46,97	2,20	38	2270				
	33	41,84	2,50	33	2270				
	38	36,37	2,90	29	2120				
	43	31,85	3,20	25	2120				
	49	28,06	3,70	22	2000				
	53	26,19	4,00	21	2000				
	56	24,82	4,20	20	2000				
	61	22,61	4,40	18	1940				
	66	21,10	4,80	17	1940				
	69	20,00	5,20	16	1940				
	75	18,59	5,50	15	1940				
	78	17,76	5,80	14	1900				
	85	16,45	6,20	13	1900				
	88	15,80	6,40	12	1850				
	95	14,60	7,10	12	1850				
	99	14,08	7,50	11	1850				
	107	12,99	7,90	10	1750				
	120	11,58	8,90	9	1700				
	124	11,24	5,40	9	1650	İRAPM İRFPM İRAFPM	42 / 63 M 4a	198 199 200	10 11 12
	142	9,845	6,00	8	1600				
	161	8,672	6,80	7	1500				
	182	7,673	7,90	6	1450				
	203	6,872	11,40	5	1450				
	230	6,08	12,80	5	1450				
	252	5,538	13,70	4	1360				
	259	5,398	14,20	4	1300				
	285	4,9	15,10	4	1250				
	291	4,803	16,00	4	1200				
	321	4,35	16,90	3	1100				
	327	4,28	17,80	3	1100				
	361	3,87	19,20	3	1100				
	405	3,449	21,50	3	1080				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			
0,18 0,25	0,53	2636	0,85	3007	26000	İRAPM İRFPM İRAFPM	92 İR 63 / 63 M 4b	328 329 330	151 161 171
	0,56	2460	0,91	2846	26000				
	0,59	2343	0,95	2702	26000				
	0,64	2186	1,02	2490	26000				
	0,66	2096	1,06	2415	26000				
	0,71	1956	1,14	2245	26000				
	0,74	1886	1,18	2154	26000				
	0,79	1760	1,27	2018	26000				
	0,87	1592	1,40	1832	26000				
	0,99	1409	1,60	1610	26000				
	1,0	1315	1,67	1594	26000				
	1,1	1201	1,87	1449	26000				
	1,2	1098	2,53	1328	26000				
	1,4	993	2,73	1138	26000				
	0,78	1779	0,95	2043	18100	İRAPM İRFPM İRAFPM	82 İR 63 / 63 M 4b	308 309 310	103 108 110
	0,88	1580	1,07	1811	18100				
	0,98	1418	1,13	1626	18100				
	1,0	1278	1,25	1594	18000				
	1,2	1157	1,33	1328	18000				
	1,3	1050	1,47	1226	18000				
	1,4	984	1,33	1138	18000				
	1,5	887	1,60	1063	18000				
	1,7	803	1,73	938	18000				
	2,1	663	2,00	759	18000				
	2,3	604	2,13	693	18000	İRAM İRFM İRAFM	84 / 71 M 6a	299 300 301	90 95 97
	1,2	699	1,25	1348	18100				
	1,4	634	1,37	1156	18100				
	1,5	578	1,50	1079	18100				
	1,6	529	1,64	1011	18100				
	1,8	486	1,79	899	18100				
	2,1	428	2,00	771	18100				
	2,3	381	2,30	704	18100				
	2,6	342	2,50	622	18100				
	2,9	309	2,70	558	18100				
	1,2	1095	0,79	1328	12100				
	1,2	1079	0,79	1328	12100				
	1,4	966	0,89	1138	12100				
	1,5	894	0,96	1063	12100				
	1,7	801	0,96	938	12100				
	1,7	789	0,96	938	12100				
	1,9	702	1,23	839	12100				
	2,0	697	1,23	797	12100				
	2,2	627	1,33	724	12100				
	2,4	563	1,53	664	12100				
	2,5	553	1,53	638	12100				
	2,6	535	1,53	613	12100				
2,9	469	1,73	550	12100					
3,3	419	1,93	483	12100					
3,3	414	1,93	483	12100					
3,7	376	2,13	431	12100					
3,7	370	2,20	431	12100					
4,2	332	2,40	379	12100					
5,0	276	2,60	319	12100					
5,1	270	2,67	313	12100					
5,6	250	2,87	285	12100					
5,7	244	2,93	280	12100					



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]				 ~kg					
0,18 0,25	1,5	576	0,83	1079	12100	İRAM İRFM İRAFM	74 / 71 M 6a	279	45					
	2,0	447	1,04	809	12100			280	48					
	2,2	394	1,32	736	12100			281	51					
	2,5	350	1,48	647	12100	İRAM İRFM İRAFM	74 / 63 M 4b	279 280 281	44 47 50					
	2,4	576	1,30	674	12100									
	3,1	447	1,63	522	12100									
	3,5	394	2,00	462	12100									
	3,9	350	2,30	415	12100									
	4,4	314	2,39	368	12100									
	4,9	282	2,50	330	12100	İRAM İRFM İRAFM İRBM	73 / 71 M 6a	271	39					
	5,8	154	3,10	283	12100			272	42					
								273	45					
								274	57					
						2,3	604	1,04	693	10100	İRAM İRFM İRAFM	721 İR 53 / 63 M 4b	265 266 267	53 56 59
	2,6	533	1,18	613	10100									
	2,8	491	1,25	569	10100									
	2,9	480	1,30	550	10100									
	3,3	423	1,47	483	10100									
	3,5	390	1,53	455	10100									
	4,0	344	1,73	398	10100									
	4,5	306	2,00	354	10100									
	2,3	600	1,04	693	10100	İRAM İRFM İRAFM	731 İR 52 / 63 M 4b	265 266 267	54 57 60					
										2,6	530	1,18	613	10100
										2,9	468	1,33	550	10100
										3,3	416	1,47	483	10100
										3,7	372	1,67	431	10100
										4,2	333	1,87	379	10100
										4,6	300	1,93	346	10100
										2,0	435	0,76	809	12100
	2,3	383	0,87	704	12100	260	50							
	2,6	338	0,98	622	12100	261	53							
	2,2	622	0,83	736	12100	İRAPM İRFPM İRAFPM	741 / 63 M 4b	262 263 264	46 49 52					
	2,6	537	0,96	622	12100									
	3,0	465	1,11	539	12100									
	3,2	435	1,18	506	12100									
	3,6	383	1,33	449	12100									
	4,1	338	1,53	395	12100									
	4,6	301	1,73	352	12100									
	5,8	239	2,20	279	12100									
	7,4	188	2,67	219	12100	İRAM İRFM İRAFM İRBM	731 / 71 M 6a	251	41					
	5,9	152	1,88	278	10100			252	44					
	6,6	134	2,10	249	10100			253	47					
	7,7	116	2,50	213	10100			254	59					
	2,9	475	0,91	550	7300	İRAPM İRFPM İRAFPM	63 İR 52 / 63 M 4b	248 249 250	43 48 49					
	3,1	449	0,97	514	7300									
	3,5	397	1,09	455	7300									
	3,6	379	1,15	443	7300									
	4,3	323	1,33	371	7300									
	4,8	286	1,47	332	7300									
	5,1	273	1,60	313	7300									
	5,7	242	1,73	280	7300									
6,5	215	2,00	245	7300										



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg	
0,18 0,25	6,0	231	1,53	270	7300	İRAPM İRFPM İRAFPM	62 İR 52 / 63 M 4b	248	38	
	6,8	203	1,73	238	7300			249	43	
	7,6	184	1,80	213	7300			250	44	
	8,6	162	2,00	188	7300					
	9,4	148	2,20	172	7300					
	10	134	2,40	162	7300					
	2,8	319	0,76	578	7300	İRAM İRFM İRAFM	64 / 71 M 6a	239	33	
	3,0	291	0,84	539	7300			240	38	
	3,2	424	0,90	506	7300			241	39	
	3,5	395	0,96	462	7300	İRAPM İRFPM İRAFPM	64 / 63 M 4b			
	4,3	319	1,18	376	7300			242	32	
	4,8	291	1,30	337	7300			243	37	
	5,0	276	1,33	324	7300			244	38	
	5,9	235	1,60	274	7300					
	6,5	213	1,73	249	7300					
	7,6	182	2,07	213	7300					
	8,9	156	2,40	182	7300					
	7,0	127	1,80	235	7300	İRAPM İRFPM İRAFPM İRBPM	63 / 71 M 6a	235	30	
	7,5	119	1,90	219	7300			236	35	
								237	36	
								238	42	
						239	48			
	9,3	96,27	2,30	177	7300	İRAM İRFM İRAFM İRBPM	63 / 71 M 6a	231	30	
	10	87,81	2,60	164	7300			232	35	
								233	36	
								234	42	
	10	127	2,70	164	7300	İRAPM İRFPM İRAFPM İRBPM	63 / 63 M 4b	235	28	
	11	119	2,90	149	7300			236	33	
								237	34	
								238	40	
	7,0	127	1,80	235	7300	İRAPM İRFPM İRAFPM	631 / 71 M 6a	216	30	
	7,5	119	1,90	219	7300			217	35	
								218	36	
	9,3	96,27	2,30	177	7300	İRAM İRFM İRAFM	631 / 71 M 6a	213	30	
	10	87,81	2,60	164	7300			214	35	
								215	36	
	10	127	2,70	164	7300	İRAPM İRFPM İRAFPM	631 / 63 M 4b	216	28	
	11	119	2,90	149	7300			217	33	
								218	34	
	5,9	237	0,79	270	4250	İRAM İRFM İRAFM	53 İR 42 / 63 M 4b	207	25	
	6,4	216	0,87	249	4250			208	27	
	7,2	192	0,98	221	4250			209	28	
	7,4	188	0,99	215	4250					
	8,3	168	1,11	192	4250					
	9,2	152	1,23	173	4250					
	10	136	1,33	159	4250					
	11	123	1,53	145	4250					
	12	111	1,67	133	4250					
14	100	1,87	114	4250						
8,5	105	0,99	193	5000	İRAPM İRFPM İRAFPM			53 / 71 M 6a	204	19
10	88,98	1,18	164	5000					205	21
11	77,16	1,33	149	5000		206	22			



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	İ Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,18 0,25	13	105	1,53	126	5000	İRAPM İRFPM İRAFPM	53 / 63 M 4b	204 205 206	17 19 20
	15	88,98	1,86	110	4900				
	18	77,16	2,06	91	4900				
	20	67,60	2,20	82	4750				
	25	54,81	2,80	66	4750				
	28	48,41	3,40	59	4750				
	16	53,33	0,83	103	2270	İRAM İRFM İRAFM	43 / 71 M 6a	195 196 197	13 14 14
	19	46,97	0,95	86	2270				
	17	81,36	0,84	97	2250				
	19	70,05	0,98	86	2250	İRAM İRFM İRAFM	43 / 63 M 4b	195 196 197	11 12 13
	22	60,89	1,13	75	2220				
	26	53,33	1,29	63	2220				
	29	46,97	1,46	57	2220	İRAM İRFM İRAFM	43 / 63 M 4b	195 196 197	11 12 13
	33	41,84	1,66	50	2090				
	38	36,37	1,93	43	2090				
	43	31,85	2,13	38	2000				
	49	28,06	2,46	34	2000				
	53	26,19	2,66	31	1960				
	56	24,82	2,80	29	1900				
	61	22,61	2,93	27	1900				
	66	21,10	3,20	25	1900				
	69	20,00	3,46	24	1900				
	75	18,59	3,66	22	1900				
	78	17,76	3,86	21	1860				
	85	16,45	4,13	19	1860				
	88	15,80	4,26	19	1800				
	95	14,60	4,73	17	1800				
	99	14,08	5,00	17	1800				
	107	12,99	5,26	15	1720				
	120	11,58	5,93	14	1700				
	124	11,24	3,60	13	1610	İRAM İRFM İRAFM	42 / 63 M 4b	195 196 197	10 11 12
	142	9,845	4,00	12	1550				
	161	8,672	4,53	10	1460				
	182	7,673	5,26	9	1400				
	203	6,872	7,60	8	1400				
	230	6,08	8,53	7	1400				
	252	5,538	9,13	7	1320				
	259	5,398	9,46	6	1250				
	285	4,9	10,00	6	1200				
	291	4,803	10,60	6	1150				
	321	4,35	11,20	5	1060				
	327	4,28	11,80	5	1060				
	361	3,87	12,80	5	1050				
	405	3,449	14,30	4	1020				
0,25 0,34	0,13	10023	0,79	16773	60000	İRAM İRFM İRAFM	143 İR 73 / 71 M 4a	385 386 387	513 527 553
	0,15	8995	0,88	14537	60000				
	0,16	8569	0,93	13628	60000				
	0,18	7690	1,01	12114	60000				
	0,20	6932	1,15	10903	60000				
	0,22	6272	1,25	9911	60000				
	0,24	5692	1,39	9086	60000				
	0,27	5179	1,54	8076	60000				
	0,32	4310	1,82	6814	60000				
	0,36	3818	2,02	6057	60000				
	0,38	3602	2,16	5738	60000				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,25 0,34	0,40	3473	2,30	5451	60000	İRAM	143 İR 73 / 71 M 4a	383	513
	0,45	3091	2,52	4846	60000	İRFM		384	527
	0,48	2890	2,74	4543	60000	İRAFM		385	553
	0,19	7333	0,85	11476	55000	İRAM İRFM İRAFM	123 İR 73 / 71 M 4a	365 366 367	338 340 368
	0,21	6617	0,94	10383	55000				
	0,22	6286	0,96	9911	55000				
	0,25	5578	1,10	8722	55000				
	0,28	4983	1,20	7788	55000				
	0,31	4476	1,34	7034	55000				
	0,34	4039	1,49	6413	55000				
	0,38	3659	1,63	5738	55000				
	0,42	3324	1,82	5192	55000				
	0,34	4059	1,43	6511	55000	İRAM İRFM İRAFM	122 İR 73 / 71 M 4a	365 366 367	311 313 341
	0,38	3671	1,58	5826	55000				
	0,45	3066	1,87	4919	55000				
	0,51	2698	2,09	4341	55000				
	0,60	2333	2,52	3690	55000	İRAM İRFM İRAFM	103 İR 73 / 71 M 4a	345 346 347	248 251 273
	0,29	4790	0,82	7519	34000				
	0,33	4230	0,90	6608	34000				
	0,37	3760	0,94	5893	34000				
	0,41	3359	0,96	5318	34000				
	0,46	3014	1,05	4740	34000				
	0,51	2713	1,15	4276	34000	İRAM İRFM İRAFM	102 İR 73 / 71 M 4a	345 346 347	246 249 271
	0,57	2448	1,35	3825	34000				
	0,51	2733	0,96	4341	34000				
	0,58	2413	1,06	3817	34000				
	0,65	2145	1,17	3406	34000				
	0,73	1916	1,31	3033	34000				
	0,85	1635	1,59	2604	34000				
	0,95	1460	1,74	2330	34000				
	1,0	1311	1,90	2214	34000				
	1,1	1180	2,40	2012	34000				
	1,2	1103	2,60	1845	34000				
	1,4	986	2,60	1581	34000	İRAM İRFM İRAFM	92 İR 63 / 71 M 4a	325 326 327	154 164 174
	1,5	884	2,60	1476	34000				
	1,7	796	2,60	1302	34000				
	1,9	718	2,60	1165	34000				
	2,1	650	2,60	1054	34000				
	2,4	575	2,60	922	34000				
	0,74	1886	0,85	2992	26000				
	0,79	1760	0,91	2802	26000				
	0,87	1592	1,01	2545	26000				
0,99	1409	1,15	2236	26000					
1,0	1315	1,20	2214	26000	İRAM İRFM İRAFM	93 İR 62 / 71 M 4a	325 326 327	155 165 175	
1,1	1201	1,34	2012	26000					
1,2	1098	1,82	1845	26000					
1,4	993	1,97	1581	26000					
1,5	901	1,97	1476	26000					
1,7	821	1,97	1302	26000					
1,8	749	1,97	1230	26000					
2,0	685	1,97	1107	26000					
1,9	725	2,80	1165	26000					
2,1	648	3,10	1054	26000					



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,25 0,34	1,2	1162	0,88	1845	18100	İRAM İRFM İRAFM	82 İR 63 / 71 M 4a	305 306 307	106 111 113
	1,3	1043	0,98	1703	18100				
	1,4	940	1,09	1581	18100				
	1,6	851	1,20	1384	18100				
	1,8	772	1,33	1230	18100				
	1,9	724	1,32	1165	18100				
	2,1	653	1,51	1054	18100				
	2,3	590	1,62	962	18100				
	2,6	536	1,85	851	18100				
	2,8	488	1,95	791	18100				
	3,1	444	2,00	714	18100				
	3,4	406	2,20	651	18100				
	3,5	394	2,40	632	18100				
	3,8	359	2,50	583	18100				
	4,4	315	3,10	503	18100				
	4,8	286	3,30	461	18100				
	5,3	261	3,50	418	18100				
	1,2	699	0,90	1873	18100	İRAM İRFM İRAFM	84 / 71 M 6b	299 300 301	93 98 100
	1,4	634	0,99	1605	18100				
	1,5	578	1,08	1498	18100				
	1,6	529	1,18	1405	18100				
	1,8	486	1,29	1249	18100				
	2,0	699	1,39	1124	18100	İRAM İRFM İRAFM	84 / 71 M 4a	299 300 301	91 96 98
	2,2	634	1,54	1022	18100				
	2,4	578	1,68	936	18100				
	2,6	529	1,84	864	18100				
	2,8	486	2,00	803	18100				
	3,2	428	2,30	702	18100				
	3,6	381	2,50	624	18100				
	4,0	342	2,80	562	18100				
	4,5	309	3,10	499	18100	İRAM İRFM İRAFM	73 İR 52 / 71 M 4a	285 286 287	54 57 60
	1,9	702	0,88	1165	12100				
	2,0	697	0,89	1107	12100				
	2,2	627	0,96	1006	12100				
	2,4	563	1,10	922	12100				
	2,5	553	1,10	885	12100				
	2,6	535	1,10	851	12100				
	2,9	469	1,25	763	12100				
	3,3	419	1,39	671	12100				
	3,3	414	1,39	671	12100				
	3,7	376	1,54	598	12100				
	3,7	370	1,58	598	12100				
	4,2	332	1,73	527	12100				
	5,0	276	1,87	443	12100				
	5,1	270	1,92	434	12100				
	5,6	250	2,06	395	12100				
	5,7	244	2,11	388	12100				
	6,0	232	2,20	375	12100	İRAM İRFM İRAFM	72 İR 52 / 71 M 4a	285 286 287	52 55 58
	6,7	206	2,40	335	12100				
	2,2	394	0,95	1022	12100	İRAM İRFM İRAFM	74 / 71 M 6b	279 280 281	48 51 54
	2,5	350	1,07	899	12100				



Helisel Dişli Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg		
0,25 0,34	2,4	576	0,94	936	12100	İRAM İRFM İRAFM	74 / 71 M 4a	279	46		
	3,1	447	1,18	725	12100			280	49		
	3,5	394	1,44	642	12100			281	52		
	3,9	350	1,66	576	12100						
	4,4	314	1,72	511	12100						
	4,9	282	1,80	459	12100						
	5,8	154	2,23	393	12100	İRAM İRFM İRAFM İRBM	73 / 71 M 6b	271	42		
	6,7	133	2,59	341	12100			272	45		
	9,0	154	3,40	254	12100			İRAM İRFM İRAFM İRBM	73 / 71 M 4a	273	48
										274	60
						271	40				
						272	43				
	273	46									
	274	58									
	2,6	533	0,85	851	10100	İRAM İRFM İRAFM	721 İR 53 / 71 M 4a	265 266 267	55 58 61		
	2,8	491	0,90	791	10100						
	2,9	480	0,94	763	10100						
	3,3	423	1,06	671	10100						
	3,5	390	1,10	632	10100						
	4,0	344	1,25	553	10100						
	4,5	306	1,44	492	10100						
	5,1	274	1,49	434	10100						
	5,6	246	1,63	395	10100						
	6,3	221	1,87	351	10100						
	7,0	199	2,02	316	10100						
	7,7	180	2,23	287	10100						
	8,5	163	2,52	260	10100						
	9,4	148	2,74	236	10100						
	2,6	530	0,85	851	10100	İRAM İRFM İRAFM	731 İR 52 / 71 M 4a	265 266 267	56 59 62		
	2,9	468	0,96	763	10100						
	3,3	416	1,06	671	10100						
	3,7	372	1,20	598	10100						
	4,2	333	1,34	527	10100						
	4,6	300	1,39	481	10100						
	5,2	267	1,58	426	10100						
	5,8	238	1,73	382	10100						
	6,5	214	1,94	341	10100						
	6,9	201	2,09	321	10100						
	7,7	180	2,23	287	10100						
	8,6	162	2,59	257	10100						
	9,5	146	2,88	233	10100						
	3,0	465	0,80	749	18100	İRAPM İRFPM İRAFPM	741 / 71 M 4a	262 263 264	48 51 54		
	3,2	435	0,85	702	18100	İRAM İRFM İRAFM	741 / 71 M 4a	259 260 261	48 51 54		
	3,6	383	0,96	624	18100						
	4,1	338	1,10	548	18100						
	4,6	301	1,25	489	18100						
	5,8	239	1,58	387	18100						
	7,4	188	1,92	304	18100						
	8,3	168	2,23	271	18100						
	9,2	151	2,45	244	18100						
	5,9	152	1,35	387	10100	İRAM İRFM İRAFM İRBM	731 / 71 M 6b	251	44		
	6,6	134	1,51	346	10100			252	47		
	7,7	116	1,80	296	10100			253	50		
	8,9	100	2,01	256	10100			254	62		

Güç Devir Tabloları / Performance Tables / Table de Performances



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,25 0,34	9,2	152	2,11	248	10100	İRAM İRFM İRAFM İRBM	731 / 71 M 4a	251	42
	10	134	2,35	228	10100			252	45
	12	116	2,73	190	10100			253	48
	13	100	3,16	176	10100			254	60
	15	88,93	3,50	152	10100				
	4,3	323	0,96	515	7300	İRAM İRFM İRAFM	63 İR 52 / 71 M 4a		
	4,8	286	1,06	461	7300				
	5,1	273	1,15	434	7300				
	5,7	242	1,25	388	7300			245	45
	6,5	215	1,44	341	7300			246	50
	7,3	191	1,63	303	7300			247	51
	8,2	170	1,84	270	7300				
	9,2	151	2,00	241	7300				
	6,0	231	1,10	375	7300	İRAM İRFM İRAFM	62 İR 52 / 71 M 4a		
	6,8	203	1,25	331	7300			245	40
	7,6	184	1,30	296	7300			246	45
	8,6	162	1,44	261	7300			247	46
	9,4	148	1,58	239	7300	İRAM İRFM İRAFM	64 / 71 M 4a		
	10	134	1,73	225	7300				
	4,3	319	0,85	523	7300				
	4,8	291	0,94	468	7300				
	5,0	276	0,96	449	7300			239	34
	5,9	235	1,15	381	7300			240	39
	6,5	213	1,25	346	7300	İRAPM İRFPM İRAFPM İRBPM	63 / 71 M 6b	241	40
	7,6	182	1,49	296	7300				
	8,9	156	1,73	253	7300				
	7,0	127	1,29	326	7300			235	33
	7,5	119	1,36	304	7300	İRFPM	63 / 71 M 6b	236	38
						İRAFPM		237	39
						İRBPM		238	45
						İRAM		231	33
	9,3	96,27	1,65	245	7300	İRFM	63 / 71 M 6b	232	38
	10	87,81	1,87	228	7300	İRAFM		233	39
						İRBM		234	45
	10	127	1,94	228	7300	İRAPM	63 / 71 M 4a	235	31
	11	119	2,08	207	7300	İRFPM		236	36
						İRAFPM		237	37
						İRBPM	238	43	
	14	96,27	2,59	163	7300	İRAM	63 / 71 M 4a	231	31
	15	87,81	2,80	152	7300	İRFM		232	36
	16	83,37	3,02	143	7300	İRAFM		233	37
	19	70,96	3,81	120	7300	İRBM		234	43
	7,0	127	1,29	326	7300	İRAPM	631 / 71 M 6b	216	33
	7,5	119	1,36	304	7300	İRFPM		217	38
İRAFPM						218		39	
9,3	96,27	1,65	245	7300	İRAM	631 / 71 M 6b	213	33	
10	87,81	1,87	228	7300	İRFM		214	38	
					İRAFM		215	39	
10	127	1,94	228	7300	İRAPM	631 / 71 M 4a	216	31	
11	119	2,08	207	7300	İRFPM		217	36	
					İRAFPM		218	37	
14	96,27	2,59	163	7300	İRAM	631 / 71 M 4a	213	31	
15	87,81	2,80	152	7300	İRFM		214	36	
16	83,37	3,02	143	7300	İRAFM		215	37	
19	70,96	3,81	120	7300	İRBM		216	37	



Helisel Dişlili Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{QV2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,25 0,34	8,3	168	0,80	267	4250	İRAM İRFM İRAFM	53 İR 42 / 71 M 4a	207	27
	9,2	152	0,89	241	4250			208	29
	10	136	0,96	221	4250			209	30
	11	123	1,10	201	4250				
	12	111	1,20	184	4250				
	14	100	1,34	158	4250				
	13	105	1,10	176	4550	İRAPM İRFPM İRAFPM	53 / 71 M 4a	204	20
								205	22
	15	88,98	1,34	152	4550			206	23
	18	77,16	1,48	127	4500	İRAM İRFM İRAFM	53 / 71 M 4a		
	20	67,60	1,58	114	4400			201	20
	25	54,81	2,01	91	4400			202	22
	28	48,41	2,44	81	4300			203	23
	31	43,98	2,78	74	4150				
	35	39,09	3,07	65	4150				
	40	34,93	3,40	57	4150	İRAM İRFM İRAFM	43 / 71 M 4a		
	22	60,89	0,81	104	2130				
	26	53,33	0,93	88	2130				
	29	46,97	1,05	79	2130				
	38	36,37	1,39	60	2010				
	43	31,85	1,53	53	1920				
	49	28,06	1,77	47	1920				
	53	26,19	1,92	43	1880			195	14
	56	24,82	2,01	41	1840			196	15
	61	22,61	2,11	37	1830			197	15
	66	21,10	2,30	35	1820				
	69	20,00	2,49	33	1810				
	75	18,59	2,64	30	1810				
	78	17,76	2,78	29	1780				
	85	16,45	2,97	27	1770				
	88	15,80	3,07	26	1720	İRAM İRFM İRAFM	42 / 71 M 4a		
	95	14,60	3,40	24	1720				
	99	14,08	3,60	23	1720				
	107	12,99	3,79	21	1660				
	120	11,58	4,27	19	1630				
	124	11,24	2,59	19	1550				
	142	9,845	2,88	16	1490				
	161	8,672	3,26	14	1400				
	182	7,673	3,79	13	1340				
	203	6,872	5,47	11	1340				
	230	6,08	6,14	10	1340			195	13
	252	5,538	6,57	9	1260			196	14
	259	5,398	6,81	9	1190			197	14
	285	4,9	7,24	8	1140				
	291	4,803	7,68	8	1090				
	321	4,35	8,11	7	1000	İRAM İRFM İRAFM	143 İR 73 / 71 M 4b	385	513
	327	4,28	8,54	7	1000			386	527
	361	3,87	9,21	6	950			387	553
	405	3,449	10,30	6	900				
0,37 0,5	0,22	6272	0,84	14669	60000	İRAM İRFM İRAFM	143 İR 73 / 71 M 4b		
	0,24	5692	0,94	13447	60000				
	0,27	5179	1,04	11952	60000				
	0,32	4310	1,23	10085	60000				
	0,36	3818	1,36	8964	60000				
	0,38	3602	1,46	8493	60000				
	0,40	3473	1,56	8068	60000				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,37 0,5	0,45	3091	1,70	7171	60000	İRAM İRFM İRAFM	143 İR 73 / 71 M 4b	385	513
	0,48	2890	1,85	6723	60000			386	527
	0,57	2416	2,23	5662	60000			387	553
	0,67	2073	2,57	4817	60000	İRAM İRFM İRAFM	123 İR 73 / 71 M 4b	365	338
	0,28	4983	0,81	11526	55000			366	340
	0,31	4476	0,91	10410	55000			367	368
	0,34	4039	1,01	9492	55000	İRAM İRFM İRAFM	122 İR 73 / 71 M 4b	365	311
	0,38	3659	1,10	8493	55000			366	313
	0,42	3324	1,23	7684	55000			367	341
	0,34	4059	0,96	9636	55000	İRAM İRFM İRAFM	103 İR 73 / 71 M 4b	345	248
	0,38	3671	1,07	8622	55000			346	251
	0,45	3066	1,26	7281	55000			347	273
	0,51	2698	1,41	6424	55000	İRAM İRFM İRAFM	102 İR 73 / 71 M 4b	345	246
	0,60	2333	1,70	5461	55000			346	249
	0,67	2070	1,90	4890	55000			347	271
	0,75	1849	2,09	4368	55000	İRAM İRFM İRAFM	104 / 80 M 6a	339	237
	0,84	1661	2,34	3900	55000			340	240
	0,57	2448	0,91	5662	34000			341	262
	0,65	2145	0,79	5040	34000	İRAM İRFM İRAFM	92 İR 63 / 71 M 4b	325	154
	0,73	1916	0,89	4488	34000			326	164
	0,85	1635	1,07	3854	34000			327	174
	0,95	1460	1,18	3449	34000	İRAM İRFM İRAFM	93 İR 62 / 71 M 4b	325	155
	1,0	1311	1,28	3276	34000			326	165
	1,1	1180	1,62	2978	34000			327	175
	1,2	1103	1,76	2730	34000	İRAM İRFM İRAFM	94 / 80 M 6a	319	151
	1,4	986	1,76	2340	34000			320	161
	1,5	884	1,76	2184	34000			321	171
	1,7	796	1,76	1927	34000	İRAM İRFM İRAFM	92 İR 63 / 71 M 4b	325	154
	1,9	718	1,76	1724	34000			326	164
	2,1	650	1,76	1560	34000			327	174
	2,4	575	1,76	1365	34000	İRAM İRFM İRAFM	93 İR 62 / 71 M 4b	325	155
	1,1	802	1,36	3024	34000			326	165
	1,2	719	1,53	2772	34000			327	175
	1,4	611	1,85	2376	34000	İRAM İRFM İRAFM	94 / 80 M 6a	319	151
	1,6	548	2,10	2079	34000			320	161
	1,8	494	2,30	1848	34000			321	171
	1,1	1201	0,91	2978	26000	İRAM İRFM İRAFM	92 İR 63 / 71 M 4b	325	154
	1,2	1098	1,23	2730	26000			326	164
	1,4	993	1,33	2340	26000			327	174
	1,5	901	1,33	2184	26000	İRAM İRFM İRAFM	93 İR 62 / 71 M 4b	325	155
	1,7	821	1,33	1927	26000			326	165
	1,8	749	1,33	1820	26000			327	175
	2,0	685	1,33	1638	26000	İRAM İRFM İRAFM	94 / 80 M 6a	319	151
	1,9	725	1,89	1724	26000			320	161
	2,1	648	2,09	1560	26000			321	171
	2,6	538	2,30	1260	26000	İRAM İRFM İRAFM	93 İR 62 / 71 M 4b	325	155
	2,6	527	2,57	1260	26000			326	165
	2,9	479	2,84	1130	26000			327	175
	3,2	436	3,11	1024	26000	İRAM İRFM İRAFM	94 / 80 M 6a	319	151
	3,5	398	3,38	936	26000			320	161
	3,8	364	3,72	862	26000			321	171
	4,1	334	4,05	799	26000	İRAM İRFM İRAFM	93 İR 62 / 71 M 4b	325	155
	1,8	478	1,67	1848	26000			326	165
	2,0	431	1,85	1663	26000			327	175
	2,3	380	2,10	1446	26000	İRAM İRFM İRAFM	94 / 80 M 6a	319	151
	2,6	337	2,35	1279	26000			320	161
								321	171



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg		
0,37 0,5	3,0	293	2,50	1126	26000	İRAPM	93 / 80 M 6a	315	132		
	3,2	273	2,68	1055	26000	İRFBM		316	142		
	3,7	240	3,00	913	26000	İRAFPM		317	152		
	4,2	213	3,50	804	26000	İRBPM		318	178		
	1,8	772	0,90	1820	18100	İRAM İRFM İRAFM	82 İR 63 / 71 M 4b	305	106		
	1,9	724	0,89	1724	18100					306	111
	2,1	653	1,02	1560	18100					307	113
	2,3	590	1,09	1424	18100						
	2,6	536	1,25	1260	18100						
	2,8	488	1,32	1170	18100						
	3,1	444	1,35	1057	18100						
	3,4	406	1,49	964	18100						
	3,5	394	1,62	936	18100						
	3,8	359	1,69	862	18100						
	4,4	315	2,09	745	18100						
	4,8	286	2,23	683	18100						
	5,3	261	2,36	618	18100						
	1,6	529	0,80	2079	18100	İRAM İRFM İRAFM	84 / 80 M 6a	299	93		
	1,8	486	0,87	1848	18100	300		98			
	2,0	699	0,94	1663	18100	301		100			
	2,2	634	1,04	1512	18100	İRAM İRFM İRAFM	84 / 71 M 4b	299	91		
	2,4	578	1,14	1386	18100					300	96
	2,6	529	1,24	1279	18100					301	98
	2,8	486	1,35	1188	18100						
	3,2	428	1,55	1039	18100						
	3,6	381	1,69	924	18100						
	4,0	342	1,89	832	18100						
	4,5	309	2,09	739	18100	İRAM İRFM İRAFM İRBM	83 / 80 M 6a	291	83		
	5,0	275	2,36	665	18100			292	88		
	3,5	250	1,57	965	18100			293	90		
	4,0	221	1,78	844	18100			294	113		
	4,3	208	2,00	785	18100						
	4,8	186	2,10	704	18100	İRAM İRFM İRAFM	74 / 71 M 4b	279	46		
	5,3	168	2,30	637	18100			280	49		
	3,5	394	0,97	950	12100			281	52		
	3,9	350	1,12	853	12100						
	4,4	314	1,16	756	12100	İRAM İRFM İRAFM	73 / 80 M 6a	271	42		
	4,9	282	1,22	679	12100			272	45		
	5,8	154	1,50	582	12100			273	48		
	6,7	133	1,75	504	12100			274	60		
	8,7	103	2,18	388	12100	İRBM					
	9,8	91,36	2,77	345	12100	İRAM	73 / 71 M 4b	271	40		
9,0	154	2,29	375	12100	İRFM	272		43			
10	133	2,63	338	12100	İRAFM	273		46			
13	103	3,40	260	12100	İRBM	274		58			
4,0	344	0,84	819	10100	İRAM İRFM İRAFM	721 İR 53 / 71 M 4b	265	55			
4,5	306	0,97	728	10100					266	58	
5,1	274	1,01	642	10100					267	61	
5,6	246	1,10	585	10100							
6,3	221	1,26	520	10100							
7,0	199	1,36	468	10100							
7,7	180	1,51	425	10100							
8,5	163	1,70	385	10100							
9,4	148	1,85	349	10100							



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,37 0,5	3,7	372	0,81	885	10100	İRAM İRFM İRAFM	731 İR 52 / 71 M 4b	265 266 267	56 59 62
	4,2	333	0,91	780	10100				
	4,6	300	0,94	712	10100				
	5,2	267	1,07	630	10100				
	5,8	238	1,17	565	10100				
	6,5	214	1,31	504	10100				
	6,9	201	1,41	475	10100				
	7,7	180	1,51	425	10100				
	8,6	162	1,75	381	10100				
	9,5	146	1,95	345	10100				
	4,6	301	0,84	723	12100	İRAM İRFM İRAFM	741 / 71 M 4b	259 260 261	48 51 54
	5,8	239	1,07	573	12100				
	7,4	188	1,30	449	12100				
	8,3	168	1,51	401	12100				
	9,2	151	1,65	362	12100	İRAM İRFM İRAFM İRBM	731 / 80 M 6a	251 252 253 254	44 47 50 62
	5,9	152	0,91	572	10100				
	6,6	134	1,02	512	10100				
	7,7	116	1,21	439	10100				
	8,9	100	1,36	379	10100	İRAM İRFM İRAFM İRBM	731 / 71 M 4b	251 252 253 254	42 45 48 60
	9,2	152	1,42	367	10100				
	10	134	1,58	338	10100				
	12	116	1,84	281	10100				
	13	100	2,14	260	10100	İRAM İRFM İRAFM	64 / 71 M 4b	239 240 241	34 39 40
	15	88,93	2,36	225	10100				
	5,9	235	0,78	564	7300				
	6,5	213	0,84	512	7300				
	7,6	182	1,01	438	7300	İRAPM İRFPM İRAFPM İRBPM	63 / 80 M 6a	235 236 237 238	33 38 39 45
	8,9	156	1,17	374	7300				
	7,0	127	0,87	482	7170				
	7,5	119	0,92	450	7170				
	9,3	96,27	1,11	363	7170	İRAM İRFM İRAFM İRBM	63 / 80 M 6a	231 232 233 234	33 38 39 45
	10	87,81	1,26	338	7170				
	10	127	1,31	338	7170				
	11	119	1,41	307	7170				
	14	96,27	1,75	241	7170	İRAM İRFM İRAFM İRBM	63 / 71 M 4b	235 236 237 238	31 36 37 43
	15	87,81	1,89	225	7170				
	16	83,37	2,04	211	7170				
	19	70,96	2,57	178	7170				
	22	61,03	2,77	153	7170	İRAPM İRFPM İRAFPM İRBPM	631 / 80 M 6a	231 232 233 234	31 36 37 43
	27	51,65	3,78	125	7170				
	10	127	1,31	338	7170				
	11	119	1,41	307	7170				
	14	96,27	1,75	241	7170	İRAM İRFM İRAFM	631 / 80 M 6a	216 217 218	31 36 37
	15	87,81	1,89	225	7170				
	10	127	1,31	338	7170				
	11	119	1,41	307	7170				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg		
0,37 0,5	14	96,27	1,75	241	7170	İRAM İRFM İRAFM	631 / 71 M 4b	213	31		
	15	87,81	1,89	225	7170			214	36		
	16	83,37	2,04	211	7170			215	37		
	19	70,96	2,57	178	7170						
	22	61,03	2,77	153	7170						
	27	51,65	3,78	125	7170						
	12	111	0,81	273	4250	İRAM İRFM İRAFM	53 İR 42 / 71 M 4b	207	27		
	14	100	0,91	234	4250			208 209	29 30		
	15	88,98	0,90	225	4250	İRAPM İRFPM İRAFPM	53 / 71 M 4b	204 205 206	20 22 23		
	18	77,16	1,00	188	4250			İRAM İRFM İRAFM	53 / 71 M 4b	201 202 203	20 22 23
	20	67,60	1,07	169	4200						
	25	54,81	1,36	135	4050						
	28	48,41	1,65	121	4050						
	31	43,98	1,88	109	4050						
	35	39,09	2,07	96	4000						
	40	34,93	2,30	84	4000						
	44	31,33	2,49	77	4000						
	49	28,21	2,80	69	4000						
	54	25,46	2,98	63	3850						
	60	23,02	3,24	56	3800						
	63	21,88	3,30	54	3800						
	81	17,18	3,50	42	3600	İRAM İRFM İRAFM	52 / 71 M 4b				
	93	15,05	4,30	37	3550						
	105	13,29	4,80	33	3500						
	118	11,81	5,40	29	3500						
	132	10,55	5,90	26	3500	İRAM İRFM İRAFM	43 / 71 M 4b	195 196 197	14 15 15		
	38	36,37	0,94	89	1880						
	43	31,85	1,03	79	1850						
	49	28,06	1,20	69	1820						
	53	26,19	1,29	64	1800						
	56	24,82	1,36	60	1760						
	61	22,61	1,42	55	1740						
	66	21,10	1,55	51	1700						
	69	20,00	1,68	49	1650						
	75	18,59	1,78	45	1600						
	78	17,76	1,88	43	1600						
	85	16,45	2,01	40	1550						
	88	15,80	2,07	38	1500						
	95	14,60	2,30	36	1500						
	99	14,08	2,43	34	1490						
	107	12,99	2,56	32	1450						
	120	11,58	2,88	28	1430	İRAM İRFM İRAFM	42 / 71 M 4b	195 196 197	13 14 14		
	124	11,24	1,75	28	1400						
	142	9,845	1,94	24	1350						
	161	8,672	2,20	21	1300						
	182	7,673	2,56	19	1250						
	203	6,872	3,69	17	1200						
	230	6,08	4,15	15	1150						
	252	5,538	4,44	14	1100						
	259	5,398	4,60	13	1080						
	285	4,9	4,89	12	1030						



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,37 0,5	291	4,803	5,18	12	970	İRAM İRFM İRAFM	42 / 71 M 4b	195	13
	321	4,35	5,48	11	950			196	14
	327	4,28	5,77	10	900			197	14
	361	3,87	6,22	9	900				
	405	3,449	6,97	8	850				
0,55 0,75	0,23	6078	0,80	20857	110000	İRAPM İRFPM İRAFPM	153 İR 93 / 80 M 4a	414 415 416	1067 1117 1137
	0,29	4749	1,02	16542	110000	İRAM İRFM İRAFM	153 İR 92 / 80 M 4a	414 415 416	1061 1111 1131
	0,34	4079	1,19	14109	110000				
	0,47	2978	1,73	10362	110000				
	0,53	2596	1,98	9189	110000				
	0,64	2175	2,40	7610	110000				
	0,72	1931	2,70	6764	110000	İRAM İRFPM İRAFPM	152 İR 93 / 80 M 4a	414 415 416	992 1042 1062
	0,79	1753	2,90	6165	110000				
	0,42	3281	1,57	11596	110000				
	0,47	2974	1,73	10362	110000				
	0,51	2709	1,90	9549	110000				
	0,56	2479	2,10	8697	110000	İRAM İRFM İRAFM	143 İR 73 / 80 M 4a	385 386 387	515 529 555
	0,72	1937	2,70	6764	110000				
	0,75	1847	2,60	6494	110000				
	0,83	1683	2,90	5868	110000				
	0,32	4310	0,83	14991	60000	İRAM İRFM İRAFM	143 İR 72 / 80 M 4a	385 386 387	513 527 553
	0,36	3818	0,92	13325	60000				
	0,38	3602	0,98	12624	60000				
	0,40	3473	1,05	11993	60000				
	0,45	3091	1,15	10660	60000	İRAM İRFM İRAFM	123 İR 72 / 80 M 4a	365 366 367	338 340 368
	0,48	2890	1,24	9994	60000				
	0,57	2416	1,50	8416	60000				
	0,67	2073	1,73	7160	60000				
	0,64	2184	1,68	7610	60000	İRAM İRFM İRAFM	122 İR 73 / 80 M 4a	365 366 367	313 315 343
	0,70	1979	1,86	6957	60000				
	0,77	1795	2,00	6325	60000				
	1,0	1398	2,60	4870	60000				
	1,1	1247	2,90	4427	60000	İRAM İRFM İRAFM	103 İR 72 / 80 M 4a	345 346 347	248 251 273
	0,49	2829	0,91	9939	55000				
	0,55	2517	1,05	8855	55000				
	0,61	2260	1,14	7984	55000				
	0,68	2044	1,27	7162	55000				
	0,84	1657	1,68	5798	55000	İRAM İRFM İRAFM			
	0,92	1511	1,86	5294	55000				
	1,0	1357	2,09	4870	55000				
	1,1	1227	2,29	4427	55000				
	1,3	1025	2,76	3746	55000				
	0,51	2698	0,95	9549	55000	İRAM İRFM İRAFM			
	0,60	2333	1,15	8117	55000				
	0,67	2070	1,28	7269	55000				
	0,75	1849	1,41	6494	55000				
	0,84	1661	1,57	5798	55000				
	0,91	1535	1,60	5352	55000	İRAM İRFM İRAFM			
	1,1	1173	1,09	4427	34000				
	1,3	1046	1,20	3746	34000				
	1,5	923	1,32	3247	34000				
	1,7	821	1,46	2865	34001				
	1,9	733	1,60	2563	34002	İRAM İRFM İRAFM			
	2,1	658	1,75	2319	34003				
	2,3	592	1,90	2117	34004				
	2,6	535	2,20	1873	34005				
	2,8	485	2,80	1739	34006				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,55 0,75	0,95	1460	0,79	5127	34000	İRAM İRFM İRAFM	102 İR 73 / 80 M 4a	345 346 347	248 251 273
	1,0	1311	0,86	4870	34000				
	1,1	1180	1,09	4427	34000				
	1,2	1103	1,18	4059	34000				
	1,4	986	1,18	3479	34000				
	1,5	884	1,18	3247	34000				
	1,7	796	1,18	2865	34001				
	1,9	718	1,18	2563	34002				
	2,1	650	1,18	2319	34003				
	2,4	575	1,18	2029	34004				
	1,1	802	0,91	4495	34000	İRAM İRFM İRAFM	104 / 80 M 6b	339 340 341	239 242 264
	1,2	719	1,03	4120	34000				
	1,4	611	1,24	3532	34000				
	1,6	548	1,41	3090	34000				
	1,8	494	1,55	2747	34000				
	1,7	802	1,43	2908	34000	İRAM İRFM İRAFM	104 / 80 M 4a	339 340 341	237 240 262
	1,9	719	1,60	2602	34000				
	2,2	611	1,95	2247	34000				
	2,5	548	2,20	1978	34000				
	2,8	494	2,40	1766	34000				
	3,1	446	2,70	1595	34000				
	3,4	405	2,90	1454	34000				
	1,9	725	1,27	2563	26000	İRAM İRFM İRAFM	93 İR 62 / 80 M 4a	325 326 327	157 167 177
	2,1	648	1,41	2319	26000				
	2,6	538	1,55	1873	26000				
	2,6	527	1,73	1873	26000				
	2,9	479	1,91	1679	26000				
	3,2	436	2,09	1522	26000				
	3,5	398	2,27	1391	26000				
	3,8	364	2,50	1282	26000				
	4,1	334	2,73	1188	26000	İRAM İRFM İRAFM	92 İR 62 / 80 M 4a	325 326 327	151 161 171
	4,4	315	2,32	1124	26000				
	5,0	278	2,64	989	26000				
	5,6	247	2,95	883	26000				
	6,3	221	3,32	785	26000	İRAM İRFM İRAFM	94 / 80 M 6b	319 320 321	152 162 172
	1,8	478	1,12	2747	26000				
	2,0	431	1,24	2472	26000				
	2,3	380	1,41	2150	26000				
	2,6	337	1,58	1902	26000				
	2,9	478	1,75	1705	26000	İRAM İRFM İRAFM	94 / 80 M 4a	319 320 321	151 161 171
	3,2	431	1,94	1545	26000				
	3,6	380	2,20	1373	26000				
4,1	337	2,50	1206	26000					
4,6	302	2,70	1075	26000					
5,2	269	3,10	951	26000					
5,9	237	3,50	838	26000					
3,0	293	1,68	1673	24700	İRAPM İRFPM İRAFPM	93 / 80 M 6b	315 316 317	134 144 154	
3,2	273	1,80	1569	24700					
3,7	240	2,02	1357	24700					
4,2	213	2,35	1195	24700					
4,7	293	2,66	1068	25000	İRAPM İRFPM İRAFPM İRBPM	93 / 80 M 4a	315 316 317 318	132 142 152 178	
5,1	273	2,85	984	25000					
5,8	240	3,20	865	25000					
6,5	213	3,65	772	25000					



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg			
0,55 0,75	2,6	536	0,84	1873	18100	İRAM İRFM İRAFM	82 İR 63 / 80 M 4a	305 306 307	108 113 115			
	2,8	488	0,89	1739	18100							
	3,1	444	0,91	1571	18100							
	3,4	406	1,00	1432	18100							
	3,5	394	1,09	1391	18100							
	3,8	359	1,14	1282	18100							
	4,4	315	1,41	1107	18100							
	4,8	286	1,50	1015	18100							
	5,3	261	1,59	919	18100							
	5,8	240	1,91	840	18100							
	6,4	218	2,05	761	18100							
	7,7	181	2,27	632	18100							
	2,6	529	0,84	1902	18100	İRAM İRFM İRAFM	84 / 80 M 4a	299 300 301	93 98 100			
	2,8	486	0,91	1766	18100							
	3,2	428	1,05	1545	18100							
	3,6	381	1,14	1373	18100							
	4,0	342	1,27	1236	18100							
	4,5	309	1,41	1099	18100							
	5,0	275	1,59	989	18100							
	5,1	273	1,55	969	18100							
	5,7	242	1,68	867	18100							
	6,4	217	1,88	773	18100							
	7,1	196	2,09	696	18100							
	8,0	174	2,35	618	18100							
	8,3	168	2,55	596	18100							
	3,5	250	1,06	1434	17350	İRAM İRFM İRAFM İRBM	83 / 80 M 6b	291 292 293 294	85 90 92 115			
	4,0	221	1,20	1255	17350							
	4,3	208	1,35	1167	17350							
	4,8	186	1,41	1046	17300							
	5,3	168	1,55	947	17300	İRAM İRFM İRAFM İRBM	83 / 80 M 4a	291 292 293 294	83 88 90 113			
	5,5	250	1,65	913	17350							
	6,3	221	1,86	797	17350							
	6,7	208	2,10	749	17350							
	7,4	186	2,20	678	17350							
	8,3	168	2,40	605	17350							
	9,1	152	2,60	552	17100							
	10	139	2,90	502	17100							
	10	127	3,20	502	17100							
	11	117	3,50	456	17100							
	13	103	3,90	386	17100	İRAM İRFM İRAFM	72 İR 52 / 80 M 4a	285 286 287	54 57 60			
6,0	232	1,00	824	11500								
6,7	206	1,09	738	11500								
8,7	160	1,73	568	11500								
4,9	282	0,82	1009	12100	İRAM İRFM İRAFM	74 / 80 M 4a	279 280 281	48 51 54				
5,8	154	1,01	865	11500					İRAM İRFM İRAFM İRBM	73 / 80 M 6b	271 272 273 274	44 47 50 62
6,7	133	1,17	749	11500								
8,7	103	1,47	577	11500								
9,8	91,36	1,86	512	11500								
9,0	154	1,54	558	11500	İRAM İRFM İRAFM İRBM	73 / 80 M 4a	271 272 273 274	42 45 48 60				
10	133	1,77	502	11500								
13	103	2,28	386	11500								
15	91,36	2,89	335	11500								
17	81,25	3,30	295	11500								
19	72,75	3,50	264	11500								
21	65,52	3,60	239	11500								
23	59,41	3,90	218	11500								



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg	
0,55 0,75	6,9	201	0,95	706	10100	İRAM İRFM İRAFM	731 İR 52 / 80 M 4a	265 266 267	58 61 64	
	7,7	180	1,01	632	10100	İRAM İRFM İRAFM		721 İR 53 / 80 M 4a	265 266 267	57 60 63
	8,6	162	1,18	566	10100					
	9,5	146	1,31	513	10100					
	6,3	221	0,85	773	9500		İRAM İRFM İRAFM			
	7,0	199	0,92	696	9500					
	7,7	180	1,01	632	9500					
	8,5	163	1,15	573	9500					
	9,4	148	1,24	518	9500	İRAM İRFM İRAFM İRBM	731 / 80 M 6b	251 252 253 254	46 49 52 64	
	7,4	188	0,87	668	12100					
	8,3	168	1,01	596	12100					
	9,2	151	1,11	537	12100					
	7,7	116	0,81	652	9500	İRAM İRFM İRAFM İRBM	731 / 80 M 4a	251 252 253 254	44 47 50 62	
	8,9	100	0,91	564	9500					
	9,2	152	0,96	546	9500					
	10	134	1,06	502	9500					
	12	116	1,24	418	9500					
	13	100	1,44	386	9500					
	15	88,93	1,59	335	9500					
	17	78,42	1,81	295	9350					
	20	69,74	2,04	251	9350					
	22	62,45	2,31	228	9300					
	25	55,54	2,62	201	9250					
	28	49,73	2,89	179	9250					
	31	44,79	3,22	162	9200					
	8,9	156	0,79	556	7300	İRAM İRFM İRAFM	64 / 80 M 4a	239 240 241	36 41 42	
	10	87,81	0,85	502	7090	İRAM İRFM İRAFM İRBM	63 / 80 M 6b	231 232 233 234	35 40 41 47	
	10	127	0,88	502	7090	İRAPHM İRFPM İRAFPFM	63 / 80 M 4a	235 236 237 238	33 38 39 45	
	11	119	0,94	456	7090	İRBPM				
	14	96,27	1,17	359	7090	İRAM İRFM İRAFM İRBM	63 / 80 M 4a	231 232 233 234	33 38 39 45	
	15	87,81	1,27	335	7090					
	16	83,37	1,37	314	7090					
	19	70,96	1,73	264	7090					
	22	61,03	1,86	228	7090					
	27	51,65	2,54	186	7090					
	29	46,79	2,77	173	7090					
	32	42,55	3,09	157	7090					
	39	35,74	3,70	129	7090					
	10	87,81	0,85	502	7090	İRAM İRFM İRAFM	631 / 80 M 6b	213 214 215	35 40 41	
	10	127	0,88	502	7090	İRAPHM İRFPM	631 / 80 M 4a	216 217	33 38	
	11	119	0,94	456	7090	İRAFPFM		218	39	



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,55 0,75	14	96,27	1,17	359	7090	İRAM İRFM İRAFM	631 / 80 M 4a	213	33
	15	87,81	1,27	335	7090			214	38
	16	83,37	1,37	314	7090			215	39
	19	70,96	1,73	264	7090				
	22	61,03	1,86	228	7090				
	27	51,65	2,54	186	7090				
	29	46,79	2,77	173	7090				
	32	42,55	3,09	157	7090				
	39	35,74	3,70	129	7090				
	25	54,81	0,91	201	4000	İRAM İRFM İRAFM	53 / 80 M 4a	201	22
	28	48,41	1,11	179	4000			202	24
	31	43,98	1,26	162	3950			203	25
	35	39,09	1,39	143	3950				
	40	34,93	1,54	125	3900				
	44	31,33	1,68	114	3900				
	49	28,21	1,88	102	3900				
	54	25,46	2,00	93	3800				
	60	23,02	2,18	84	3700				
	63	21,88	2,22	80	3700	İRAM İRFM İRAFM	52 / 80 M 4a	201	21
	81	17,18	2,35	63	3450			202	23
	93	15,05	2,89	55	3450			203	24
	105	13,29	3,22	49	3400				
	118	11,81	3,63	43	3350				
	132	10,55	3,96	39	3350	İRAM İRFM İRAFM	43 / 80 M 4a	195	16
	147	9,47	4,40	35	3350			196	17
	49	28,06	0,80	102	1620			197	17
	53	26,19	0,87	95	1600				
	56	24,82	0,91	90	1560				
	61	22,61	0,96	82	1540				
	66	21,10	1,04	76	1500				
	69	20,00	1,13	73	1450				
	75	18,59	1,20	67	1400				
	78	17,76	1,26	64	1400				
	85	16,45	1,35	59	1350				
	88	15,80	1,39	57	1300				
	95	14,60	1,54	53	1300				
	99	14,08	1,63	51	1290				
	107	12,99	1,72	47	1250				
	120	11,58	1,94	42	1230	İRAM İRFM İRAFM	42 / 80 M 4a	195	15
	124	11,24	1,17	41	1360			196	16
	142	9,845	1,30	36	1310			197	16
	161	8,672	1,48	32	1270				
	182	7,673	1,72	28	1220				
	203	6,872	2,48	25	1160				
	230	6,08	2,79	22	1110				
	252	5,538	2,98	20	1060				
	259	5,398	3,09	20	1050				
	285	4,9	3,29	18	1020				
	291	4,803	3,49	18	940				
	321	4,35	3,68	16	910				
	327	4,28	3,88	16	880				
	361	3,87	4,18	14	860				
	405	3,449	4,69	13	810				
0,75 1,1	0,34	4079	0,87	19240	110000	İRAPM	153 İR 93 / 80 M 4b	414	1072
						İRFPM		415	1122
						İRAFPM		416	1142



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	İ Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,75 1,1	0,47	2978	1,27	14130	110000	İRAPM İRFPM İRAFPM	153 İR 92 / 80 M 4b	414	1066
	0,53	2596	1,45	12531	110000			415	1116
	0,64	2175	1,76	10377	110000			416	1136
	0,72	1931	1,98	9224	110000				
	0,79	1753	2,10	8407	110000				
	0,88	1589	2,30	7547	110000				
	1,0	1381	2,70	6641	110000	İRAPM İRFPM İRAFPM	152 İR 93 / 80 M 4b	414	997
	0,42	3281	1,15	15812	110000			415	1047
	0,47	2974	1,27	14130	110000			416	1067
	0,51	2709	1,39	13022	110000				
	0,56	2479	1,54	11859	110000				
	0,72	1937	1,98	9224	110000				
	0,75	1847	1,91	8855	110000	İRAM İRFM İRAFM	143 İR 73 / 80 M 4b	385	519
	0,83	1683	2,10	8001	110000			386	533
	0,90	1539	2,30	7379	110000			387	559
	0,99	1414	2,50	6708	110000				
	1,1	1203	2,90	6037	110000				
	0,45	3091	0,84	14537	60000	İRAM İRFM İRAFM	143 İR 72 / 80 M 4b	385	517
	0,48	2890	0,91	13628	60000			386	531
	0,57	2416	1,10	11476	60000			387	557
	0,67	2073	1,27	9764	60000				
	0,64	2184	1,23	10377	60000				
	0,70	1979	1,36	9487	60000	İRAM İRFM İRAFM	123 İR 72 / 80 M 4b	365	342
	0,77	1795	1,47	8625	60000			366	344
	1,0	1398	1,91	6641	60000			367	372
	1,1	1247	2,13	6037	60000				
	1,2	1120	2,35	5534	60000				
	1,4	983	2,71	4744	60000	İRAM İRFM İRAFM	122 İR 73 / 80 M 4b	365	317
	1,5	877	3,00	4427	60000			366	319
	0,61	2260	0,83	10887	55000			367	347
	0,68	2044	0,93	9766	55000				
	0,84	1657	1,23	7906	55000	İRAM İRFM İRAFM	122 İR 73 / 80 M 4b	365	317
	0,92	1511	1,37	7219	55000			366	319
	1,0	1357	1,53	6641	55000			367	347
	1,1	1227	1,68	6037	55000				
	1,3	1025	2,02	5109	55000				
	1,5	902	2,27	4427	55000	İRAM İRFM İRAFM	122 İR 73 / 80 M 4b	365	317
	1,7	800	2,57	3907	55000			366	319
	1,9	715	2,90	3495	55000			367	347
	0,67	2070	0,94	9912	55000				
	0,75	1849	1,03	8855	55000	İRAM İRFM İRAFM	122 İR 73 / 80 M 4b	365	317
	0,84	1661	1,15	7906	55000			366	319
	0,91	1535	1,17	7298	55000			367	347
	1,0	1362	1,17	6641	55000				
	1,1	1265	1,53	6037	55000				
	1,3	1050	1,90	5109	55000	İRAM İRFM İRAFM	122 İR 73 / 80 M 4b	365	317
	1,4	935	1,90	4744	55000			366	319
	1,6	833	1,90	4151	55000			367	347
	1,8	748	1,90	3690	55000				
	1,9	706	1,90	3495	55000				
	2,2	634	1,90	3019	55000	İRAM İRFM İRAFM	122 İR 73 / 80 M 4b	365	317
	2,4	572	1,90	2767	55000			366	319
	2,7	518	1,90	2460	55000			367	347
	2,9	471	1,90	2290	55000				
	3,2	429	1,90	2075	55000	İRAM İRFM İRAFM	122 İR 73 / 80 M 4b	365	317
	3,5	391	1,90	1897	55000			366	319
	3,9	358	1,90	1703	55000			367	347
	4,2	328	1,90	1581	55000				
	4,6	300	1,90	1444	55000				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,75 1,1	1,0	883	1,22	6742	55000	İRAPM İRFPM İRAFP	124 / 90 S 6a	362	370
	1,1	798	1,35	6129	55000			363	372
	1,3	647	1,80	5186	55000			364	400
	1,5	590	1,98	4495	55000	İRAM İRFM İRAFM	103 İR 72 / 80 M 4b	345 346 347	252 255 277
	1,1	1173	0,80	6037	33450				
	1,3	1046	0,88	5109	33450				
	1,5	923	0,97	4427	33450				
	1,7	821	1,07	3907	33450				
	1,9	733	1,17	3495	33450				
	2,1	658	1,28	3162	33450				
	2,3	592	1,39	2887	33450				
	2,6	535	1,61	2554	33450				
	2,8	485	2,05	2372	33450				
	3,2	428	2,40	2075	33450				
	3,6	381	2,60	1845	33450				
	4,1	340	2,79	1620	33450				
	1,1	1180	0,80	6037	33450	İRAM İRFM İRAFM	102 İR 73 / 80 M 4b	345 346 347	252 255 277
	1,2	1103	0,87	5534	33450				
	1,4	986	0,87	4744	33450				
	1,5	884	0,87	4427	33450				
	1,7	796	0,87	3907	33450				
	1,9	718	0,87	3495	33450				
	2,1	650	0,87	3162	33450				
	2,4	575	0,87	2767	33450				
	1,4	611	0,91	4816	34000	İRAM İRFM İRAFM	104 / 90 S 6a	339 340 341	242 245 267
	1,6	548	1,04	4214	34000				
	1,8	494	1,13	3746	34000				
	1,7	802	1,05	3966	34000	İRAM İRFM İRAFM	104 / 80 M 4b	339 340 341	241 244 266
	1,9	719	1,17	3549	34000				
	2,2	611	1,43	3065	34000				
	2,5	548	1,61	2697	34000				
	2,8	494	1,76	2408	34000				
	3,1	446	1,98	2175	34000				
	3,4	405	2,13	1983	34000				
	3,7	370	2,35	1822	34000				
	4,1	339	2,57	1644	34000				
	4,5	306	2,90	1498	34000				
	2,1	648	1,03	3162	24700	İRAM İRFM İRAFM	93 İR 62 / 80 M 4b	325 326 327	161 171 181
	2,6	538	1,13	2554	24700				
	2,6	527	1,27	2554	24700				
	2,9	479	1,40	2290	24700				
	3,2	436	1,53	2075	24700				
	3,5	398	1,67	1897	24700				
	3,8	364	1,83	1748	24700				
	4,1	334	2,00	1620	24700				
	4,4	315	1,70	1532	26000	İRAM İRFM İRAFM	92 İR 62 / 80 M 4b	325 326 327	155 165 175
	5,0	278	1,93	1348	26000				
	5,6	247	2,17	1204	26000				
	6,3	221	2,43	1070	26000				
	1,8	478	0,82	3746	26000	İRAM İRFM İRAFM	94 / 90 S 6a	319 320 321	156 166 176
	2,0	431	0,91	3371	26000				
	2,3	380	1,04	2931	26000				
	2,6	337	1,16	2593	26000				
	2,9	478	1,28	2325	26000	İRAM İRFM İRAFM	94 / 80 M 4b	319 320 321	155 165 175
	3,2	431	1,42	2107	26000				
	3,6	380	1,61	1873	26000				
	4,1	337	1,83	1644	26000				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg		
0,75 1,1	4,6	302	1,98	1466	26000	İRAM İRFM İRAFM	94 / 80 M 4b	319	155		
	5,2	269	2,27	1297	26000			320	165		
	5,9	237	2,57	1143	26000			321	175		
	6,6	210	2,86	1022	26000	İRAPM İRFPM İRAFPM İRBPM	93 / 90 S 6a	315	137		
	7,4	188	3,20	911	26000			316	147		
	3,0	293	1,23	2282	24700			317	157		
	3,2	273	1,32	2139	24700			318	183		
	3,7	240	1,48	1850	24700	İRAPM İRFPM İRAFPM İRBPM	93 / 80 M 4b	315	137		
	4,2	213	1,73	1630	24700			316	147		
	4,7	293	1,95	1456	24700			317	157		
	5,1	273	2,09	1342	24700			318	183		
	5,8	240	2,35	1180	24700			315	137		
	6,5	213	2,68	1053	24700			316	147		
	7,3	191	2,99	938	24500	İRAM İRFM İRAFPM İRBPM	82 İR 63 / 80 M 4b	317	157		
	8,1	172	3,31	845	24500			318	183		
	3,8	359	0,83	1748	18100			İRAM İRFM İRAFPM	84 / 80 M 4b	305	112
	4,4	315	1,03	1509	18100					306	117
	4,8	286	1,10	1384	18100					307	119
	5,3	261	1,17	1253	18100						
	5,8	240	1,40	1145	18100						
	6,4	218	1,50	1038	18100	İRAM İRFM İRAFPM	84 / 80 M 4b				
	7,7	181	1,67	862	18100						
	3,2	428	0,77	2107	18100						
	3,6	381	0,83	1873	18100						
	4,0	342	0,93	1686	18100						
	4,5	309	1,03	1498	18100						
	5,0	275	1,17	1348	18100						
	5,1	273	1,13	1322	18100						
	5,7	242	1,23	1183	18100						
	6,4	217	1,38	1053	18100						
	7,1	196	1,53	950	18100						
	8,0	174	1,73	843	18100						
	8,3	168	1,87	812	18100	İRAM İRFM İRAFPM İRBPM	83 / 90 S 6a	291	88		
	4,0	221	0,88	1711	16900			292	93		
	4,3	208	0,99	1592	16900			293	95		
	4,8	186	1,04	1426	16900			294	118		
	5,3	168	1,13	1292	16700	İRAM İRFM İRAFPM İRBPM	83 / 80 M 4b				
	5,5	250	1,21	1245	17100						
	6,3	221	1,36	1087	17050						
	6,7	208	1,54	1022	17000						
	7,4	186	1,61	925	17000						
	8,3	168	1,76	825	17000			291	88		
	9,1	152	1,90	752	16900			292	93		
	10	139	2,12	684	16900			293	95		
	10	127	2,34	684	16900			294	118		
	11	117	2,56	622	16900						
	13	103	2,86	527	16800						
	15	91,85	3,22	456	16800	İRAM İRFM İRAFPM	741 / 80 M 4b	259	55		
	9,2	151	0,82	733	11200			260	58		
								261	61		
	6,7	133	0,86	1022	11200	İRAM İRFM İRAFPM	73 / 90 S 6a	271	47		
	8,7	103	1,08	787	11200			272	50		
					273			53			
9,8	91,36	1,36	698	11200	İRBPM		274	65			



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	İ Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,75 1,1	9,0	154	1,13	761	11200	İRAM İRFM İRAFM İRBM	73 / 80 M 4b	271 272 273 274	46 49 52 64
	10	133	1,30	684	11200				
	13	103	1,67	527	11200				
	15	91,36	2,12	456	11200				
	17	81,25	2,42	403	11200				
	19	72,75	2,56	360	11200				
	21	65,52	2,64	326	11200				
	23	59,41	2,86	298	11200				
	26	52,47	3,30	263	11200				
	30	46,36	3,70	228	11200				
	12	116	0,91	570	9350	İRAM İRFM İRAFM İRBM	731 / 80 M 4b	251 252 253 254	48 51 54 66
	13	100	1,05	527	9350				
	15	88,93	1,16	456	9350				
	17	78,42	1,33	403	9200				
	20	69,74	1,50	342	9200				
	22	62,45	1,70	311	9150				
	25	55,54	1,92	274	9100				
	28	49,73	2,12	244	9100				
	31	44,79	2,36	221	9050				
	35	39,88	3,22	196	9050				
	39	35,22	3,52	176	9000	İRAM İRFM İRAFM İRBM	721 / 80 M 4b	251 252 253 254	46 49 52 64
	44	31,62	3,40	158	9000				
	49	28,05	3,80	142	9000				
	14	96,27	0,86	489	7000	İRAM İRFM İRAFM İRBM	63 / 80 M 4b	231 232 233 234	37 42 43 49
	15	87,81	0,93	456	7000				
	16	83,37	1,00	428	7000				
	19	70,96	1,27	360	7000				
	22	61,03	1,36	311	7000				
	27	51,65	1,86	254	7000				
	29	46,79	2,03	236	7000				
	32	42,55	2,27	214	7000				
	39	35,74	2,71	176	7000				
	46	29,85	3,22	149	7000				
	55	25,16	3,81	124	7000	İRAM İRFM İRAFM	631 / 80 M 4b	213 214 215	37 42 43
	14	96,27	0,86	489	7000				
	15	87,81	0,93	456	7000				
	16	83,37	1,00	428	7000				
	19	70,96	1,27	360	7000				
	22	61,03	1,36	311	7000				
	27	51,65	1,86	254	7000				
	29	46,79	2,03	236	7000				
	32	42,55	2,27	214	7000				
	39	35,74	2,71	176	7000				
	46	29,85	3,22	149	7000				
	55	25,16	3,81	124	7000	İRAM İRFM İRAFM	53 / 80 M 4b	201 202 203	26 28 29
	31	43,98	0,92	221	3800				
	35	39,09	1,02	196	3750				
	40	34,93	1,13	171	3600				
	44	31,33	1,23	156	3550				
	49	28,21	1,38	140	3550				
	54	25,46	1,47	127	3500				
	60	23,02	1,60	114	3500				
	63	21,88	1,63	109	3400				
	71	19,69	1,81	96	3350				
	78	17,77	2,03	88	3300				
	87	16,07	2,27	79	3300				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{QV2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
0,75 1,1	81	17,18	1,72	86	3300	İRAM İRFM İRAFM	52 / 80 M 4b	201 202 203	25 27 28
	93	15,05	2,12	75	3200				
	105	13,29	2,36	66	3150				
	118	11,81	2,66	59	3150				
	132	10,55	2,91	53	3100				
	147	9,47	3,23	47	3100				
	157	8,888	3,37	44	3050				
	175	7,974	3,52	40	3050				
	195	7,178	3,67	36	3000				
	216	6,479	3,81	32	3000				
	240	5,821	3,96	29	3000				
	66	21,10	0,76	104	1470	İRAM İRFM İRAFM	43 / 80 M 4b	195 196 197	20 21 22
	69	20,00	0,83	99	1420				
	75	18,59	0,88	91	1390				
	78	17,76	0,92	88	1370				
	85	16,45	0,99	81	1320				
	88	15,80	1,02	78	1290				
	95	14,60	1,13	72	1270				
	99	14,08	1,20	69	1260				
	107	12,99	1,26	64	1230				
	120	11,58	1,42	57	1200				
	124	11,24	0,86	56	1320	İRAM İRFM İRAFM	42 / 80 M 4b	195 196 197	19 20 21
	142	9,845	0,96	49	1270				
	161	8,672	1,08	43	1230				
	182	7,673	1,26	38	1180				
	203	6,872	1,82	34	1120				
	230	6,08	2,04	30	1070				
	252	5,538	2,19	28	1030				
	259	5,398	2,27	27	1020				
	285	4,9	2,41	24	990				
	291	4,803	2,56	24	910				
	321	4,35	2,70	22	880				
	327	4,28	2,84	21	850				
	361	3,87	3,07	19	830				
	405	3,449	3,44	17	800				
1,1 1,5	0,47	2978	0,87	20724	110000	İRAPM İRFPM İRAFPM	153 İR 92 / 90 S 4a	414 415 416	1067 1117 1137
	0,53	2596	0,99	18378	110000				
	0,64	2175	1,20	15219	110000				
	0,72	1931	1,35	13528	110000				
	0,79	1753	1,45	12330	110000				
	0,88	1589	1,60	11069	110000				
	1,0	1381	1,85	9740	110000				
	1,1	1216	2,10	8855	110000				
	1,3	1035	2,50	7493	110000				
	0,47	2974	0,86	20724	110000	İRAPM İRFPM İRAFPM	152 İR 93 / 90 S 4a	414 415 416	998 1048 1068
	0,51	2709	0,95	19099	110000				
	0,56	2479	1,05	17394	110000				
	0,72	1937	1,35	13528	110000				
	0,75	1847	1,30	12987	110000				
	0,83	1683	1,45	11735	110000				
	0,90	1539	1,55	10823	110000				
	0,99	1414	1,70	9839	110000				
	1,1	1203	2,00	8855	110000				
	0,67	2073	0,86	14320	60000	İRAM İRFM İRAFM	143 İR 73 / 90 S 4a	385 386 387	520 534 560



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1,1 1,5	0,64	2184	0,84	15219	60000	İRAM İRFM İRAFM	143 İR 72 / 90 S 4a	385 386 387	518 532 558
	0,70	1979	0,93	13915	60000				
	0,77	1795	1,00	12650	60000				
	1,0	1398	1,30	9740	60000				
	1,1	1247	1,45	8855	60000				
	1,2	1120	1,60	8117	60000				
	1,4	983	1,85	6957	60000				
	1,5	877	2,05	6494	60000				
	1,7	787	2,25	5730	60000				
	1,8	750	2,39	5411	60000				
	2,0	673	2,66	4870	60000				
	2,3	607	3,00	4235	60000				
	2,6	537	3,40	3746	60000	İRAM İRFM İRAFM	143 İR 82 / 90 S 4a	391 392 393	559 573 599
	1,6	545	2,23	6180	60000	İRAPM İRFPM İRAFPM	144 / 90 L 6b	382 383 384	547 561 587
	1,8	487	2,50	5494	60000				
	2,0	437	2,80	4944	60000				
	2,3	384	3,10	4299	60000				
	0,84	1657	0,84	11596	55000	İRAM İRFM İRAFM	123 İR 72 / 90 S 4a	365 366 367	343 345 373
	0,92	1511	0,93	10587	55000				
	1,0	1357	1,04	9740	55000				
	1,1	1227	1,14	8855	55000				
	1,3	1025	1,38	7493	55000				
	1,5	902	1,55	6494	55000				
	1,7	800	1,75	5730	55000				
	1,9	715	1,98	5127	55000				
	2,1	642	2,18	4638	55000				
	2,4	579	2,39	4059	55000				
	2,5	551	2,45	3896	55000				
	2,8	491	2,80	3479	55000				
	0,91	1535	0,80	10704	55000	İRAM İRFM İRAFM	122 İR 73 / 90 S 4a	365 366 367	318 320 348
	1,0	1362	0,80	9740	55000				
	1,1	1265	1,04	8855	55000				
	1,3	1050	1,29	7493	55000				
	1,4	935	1,29	6957	55000				
	1,6	833	1,29	6088	55000				
	1,8	748	1,29	5411	55000				
	1,9	706	1,29	5127	55000				
	2,2	634	1,29	4427	55000				
	2,4	572	1,29	4059	55000				
	2,7	518	1,29	3608	55000				
	2,9	471	1,29	3359	55000				
	3,2	429	1,29	3044	55000				
	3,5	391	1,29	2783	55000				
	3,9	358	1,29	2498	55000				
	4,2	328	1,29	2319	55000				
	4,6	300	1,29	2117	55000				
	1,0	883	0,83	9889	55000	İRAPM İRFPM İRAFPM	124 / 90 L 6b	362 363 364	372 374 402
	1,1	798	0,92	8990	55000				
	1,3	647	1,23	7607	55000				
	1,5	590	1,35	6592	55000				
	1,5	883	1,30	6592	55000	İRAPM İRFPM İRAFPM	124 / 90 S 4a	362 363 364	370 372 400
	1,7	798	1,44	5817	55000				
	2,1	647	1,91	4709	55000				
	2,3	590	2,10	4299	55000				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1,1 1,5	2,6	530	2,30	3803	55000	İRAPM İRFPM İRAFPM	124 / 90 S 4a	362 363 364	370 372 400
	2,9	479	2,60	3410	55000				
	3,4	400	3,10	2908	55000				
	3,9	352	3,50	2536	55000				
	2,8	494	1,20	3532	34000	İRAM İRFM İRAFM	104 / 90 L 6b	339 340 341	242 245 267
	1,9	719	0,80	5205	34000	İRAM İRFM İRAFM	104 / 90 S 4a	339 340 341	242 245 267
	2,2	611	0,98	4495	34000				
	2,5	548	1,10	3955	34000				
	2,8	494	1,20	3532	34000				
	3,1	446	1,35	3190	34000				
	3,4	405	1,45	2908	34000				
	3,7	370	1,60	2673	34000				
	4,1	339	1,75	2412	34000	İRAM İRFM İRAFM	93 İR 62 / 90 S 4a	325 326 327	162 172 182
	4,5	306	1,98	2197	34000				
	4,9	281	2,12	2018	34000				
	3,2	436	1,05	3044	24700	İRAM İRFM İRAFM	92 İR 62 / 90 S 4a	325 326 327	156 166 176
	3,5	398	1,14	2783	24700				
	3,8	364	1,25	2563	24700				
	4,1	334	1,36	2376	24700	İRAM İRFM İRAFM	94 / 90 L 6b	319 320 321	158 168 178
	4,4	315	1,16	2247	26000				
	5,0	278	1,32	1978	26000				
	5,6	247	1,48	1766	26000	İRAM İRFM İRAFM	94 / 90 S 4a	319 320 321	156 166 176
	6,3	221	1,66	1570	26000				
	2,6	337	0,79	3803	26000				
	2,9	478	0,88	3410	26000				
	3,2	431	0,97	3090	26000				
	3,6	380	1,10	2747	26000				
	4,1	337	1,25	2412	26000				
	4,6	302	1,35	2150	26000	İRAM İRFM İRAFM	93 / 90 L 6b	315 316 317 318	139 149 159 185
	5,2	269	1,55	1902	26000				
	5,9	237	1,75	1676	26000				
	6,6	210	1,95	1498	26000				
	7,4	188	2,18	1336	26000				
	8,2	169	2,46	1206	26000				
	9,1	153	2,66	1087	26000	İRAPM İRFPM İRAFPM İRBPM	93 / 90 S 4a	315 316 317 318	138 148 158 184
	3,0	293	0,84	3346	23500				
	3,2	273	0,90	3137	23500				
	3,7	240	1,01	2713	23000				
	4,2	213	1,18	2390	23000				
	4,7	293	1,33	2136	23500				
	5,1	273	1,43	1968	23500	İRAM İRFM İRAFM	82 İR 63 / 90 S 4a	305 306 307	113 118 120
	5,8	240	1,60	1731	23500				
	6,5	213	1,83	1545	23000				
	7,3	191	2,04	1375	23000				
	8,1	172	2,26	1239	23000				
	8,9	156	2,49	1128	23000				
	10	131	2,97	1004	22900				
	11	120	3,20	913	22900				
	12	110	3,54	837	22900				
	5,3	261	0,80	1838	18100				
	5,8	240	0,95	1679	18100				
	6,4	218	1,02	1522	18100				
	7,7	181	1,14	1265	18100				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{QV2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1,1 1,5	5,1	273	0,77	1939	18100	İRAM İRFM İRAFM	84 / 90 S 4a	299	99
	5,7	242	0,84	1735	18100			300	104
	6,4	217	0,94	1545	18100			301	106
	7,1	196	1,04	1393	18100				
	8,0	174	1,18	1236	18100				
	8,3	168	1,28	1191	18100	İRAM İRFM İRAFM İRBM	83 / 90 S 4a		
	6,3	221	0,93	1594	16900				
	6,7	208	1,05	1498	16900				
	7,4	186	1,10	1357	16900				
	8,3	168	1,20	1210	16750				
	9,1	152	1,30	1103	16750				
	10	139	1,45	1004	16750			291	89
	10	127	1,60	1004	16750			292	94
	11	117	1,75	913	16600			293	96
	13	103	1,95	772	16600			294	119
	15	91,85	2,20	669	16600				
	16	82,47	2,50	627	16500				
	18	74,47	2,80	558	16500				
	21	66,18	3,10	478	16500				
	23	59,39	3,47	436	16500				
	26	53,54	3,75	386	16400				
	29	47,58	4,29	346	16400				
	10	133	0,88	1004	10500	İRAM İRFM İRAFM İRBM	73 / 90 S 4a		
	13	103	1,14	772	10500				
	15	91,36	1,44	669	10500				
	17	81,25	1,65	591	10500				
	19	72,75	1,75	528	10500			271	47
	21	65,52	1,80	478	10500			272	50
	23	59,41	1,95	436	10500			273	53
	26	52,47	2,25	386	10500			274	65
	30	46,36	2,52	335	10500				
	33	41,66	2,79	304	10500				
	37	37,38	3,10	271	10500	İRAM İRFM İRAFM İRBM	731 / 90 S 4a		
	44	31,16	3,50	228	10500				
	50	27,84	3,90	201	10500				
	15	88,93	0,79	669	9250				
	17	78,42	0,90	591	9100				
	20	69,74	1,02	502	9100				
	22	62,45	1,15	456	9050				
	25	55,54	1,31	402	9000			251	49
	28	49,73	1,44	359	9000			252	52
	31	44,79	1,61	324	8950			253	55
	35	39,88	2,20	287	8950			254	67
	39	35,22	2,40	257	8900				
	44	31,30	2,60	228	8900				
	50	27,97	2,86	201	8800				
	55	25,09	3,20	183	8800				
	61	22,59	3,47	165	8700				
	57	24,25	3,00	179	8800	İRAM İRFM İRAFM İRBM	721 / 90 S 4a	251 252 253 254	47 50 53 65
	19	70,96	0,86	528	6500	İRAM İRFM İRAFM İRBM	63 / 90 S 4a	231	38
	22	61,03	0,93	456	6500			232	43
	27	51,65	1,27	372	6500			233	44
	29	46,79	1,38	346	6500			234	50
	32	42,55	1,54	314	6500				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1,1 1,5	39	35,74	1,85	257	6500	İRAM İRFM İRAFM İRBM	63 / 90 S 4a	231	38
	46	29,85	2,19	218	6500			232	43
	55	25,16	2,60	183	6500			233	44
	65	21,5	3,05	154	6500			234	50
	68	20,53	3,20	148	6500				
	77	18,18	3,61	130	6500	İRAM İRFM İRAFM İRBM	62 / 90 S 4a	231	33
	83	16,67	3,40	123	6300			232	38
	92	15,13	3,75	111	6300			233	39
	103	13,47	4,20	99	6300			234	45
	114	12,20	4,40	89	6300				
	19	70,96	0,86	528	6500	İRAM İRFM İRAFM	631 / 90 S 4a	213	38
	22	61,03	0,93	456	6500			214	43
	27	51,65	1,27	372	6500			215	44
	29	46,79	1,38	346	6500				
	32	42,55	1,54	314	6500				
	39	35,74	1,85	257	6500				
	46	29,85	2,19	218	6500				
	55	25,16	2,60	183	6500				
	65	21,5	3,05	154	6500				
	68	20,53	3,20	148	6500				
	77	18,18	3,61	130	6500	İRAM İRFM İRAFM	621 / 90 S 4a	213	33
	83	16,67	3,40	123	6300			214	38
	92	15,13	3,75	111	6300			215	39
	103	13,47	4,20	99	6300				
	114	12,20	4,40	89	6300				
	44	31,33	0,84	228	3400	İRAM İRFM İRAFM	53 / 90 S 4a	201	27
	49	28,21	0,94	205	3300			202	29
	54	25,46	1,00	186	3300			203	30
	60	23,02	1,09	167	3250				
	63	21,88	1,11	159	3250				
	71	19,69	1,23	141	3200				
	78	17,77	1,38	129	3100				
	87	16,07	1,54	115	3050				
	105	13,29	1,61	97	3000				
	118	11,81	1,81	86	3000				
	132	10,55	1,98	77	3000	İRAM İRFM İRAFM	52 / 90 S 4a	201	26
	147	9,47	2,20	69	2900			202	28
	157	8,888	2,30	65	2800			203	29
	175	7,974	2,40	58	2650				
	195	7,178	2,50	52	2600				
	216	6,479	2,60	47	2600				
	240	5,821	2,70	42	2550				
	266	5,254	2,79	38	2500				
	278	5,032	2,89	37	2500				
	310	4,515	3,19	33	2450				
	344	4,064	3,39	30	2400	İRAM İRFM İRAFM	43 / 90 S 4a	195	21
	381	3,668	3,59	27	2400			196	22
	95	14,60	0,77	106	1200			197	23
	99	14,08	0,81	101	1180				
	107	12,99	0,86	94	1150				
	120	11,58	0,97	84	1100	İRAM İRFM İRAFM	42 / 90 S 4a	195	20
	182	7,673	0,86	56	1050			196	21
	203	6,872	1,24	50	1030			197	22
	230	6,08	1,39	44	1000				
	252	5,538	1,49	40	1000				
	259	5,398	1,54	39	960				
	285	4,9	1,64	36	930				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1,1 1,5	291	4,803	1,74	35	890	İRAM İRFM İRAFM	42 / 90 S 4a	195	20
	321	4,35	1,84	32	860			196	21
	327	4,28	1,94	31	830			197	22
	361	3,87	2,09	28	800				
	405	3,449	2,34	25	770				
1,5 2,2	0,64	2175	0,88	20754	110000	İRAPM İRFPM İRAFPM	153 İR 92 / 90 L 4a	414	1070
	0,72	1931	0,99	18448	110000			415	1120
	0,79	1753	1,06	16813	110000			416	1140
	0,88	1589	1,17	15094	110000				
	1,0	1381	1,36	13282	110000				
	1,1	1216	1,54	12075	110000	İRAPM İRFPM İRAFPM	152 İR 93 / 90 L 4a	414	1001
	1,3	1035	1,80	10217	110000			415	1051
	1,7	792	2,20	7813	110000			416	1071
	0,72	1937	0,99	18448	110000				
	0,75	1847	0,95	17710	110000				
	0,83	1683	1,06	16003	110000	İRAM İRFM İRAFM	143 İR 72 / 90 L 4a	385	522
	0,90	1539	1,14	14758	110000			386	536
	0,99	1414	1,25	13417	110000			387	562
	1,1	1203	1,47	12075	110000				
	1,3	1033	1,72	10217	110000				
	1,0	1398	0,95	13282	60000	İRAM İRFM İRAFPM	143 İR 82 / 90 L 4a	391	562
	1,1	1247	1,06	12075	60000			392	576
	1,2	1120	1,17	11069	60000			393	602
	1,4	983	1,36	9487	60000				
	1,5	877	1,50	8855	60000	İRAPM İRFPM İRAFPM	144 / 100 L 6a	382	554
	1,7	787	1,65	7813	60000			383	568
	1,8	750	1,75	7379	60000			384	594
	2,0	673	1,95	6641	60000				
	2,3	607	2,20	5775	60000				
	2,5	549	2,42	5313	60000	İRAPM İRFPM İRAFPM	144 / 90 L 4a	382	549
	2,8	498	2,64	4744	60000			383	563
	3,0	453	2,90	4427	60000			384	589
	2,6	537	2,49	5109	60000				
	2,8	487	2,71	4744	60000	İRAM İRFM İRAFPM	123 İR 72 / 90 L 4a	365	347
	3,2	437	3,01	4151	60000			366	349
	3,5	398	3,30	3795	60000			367	377
	1,6	545	1,64	8428	60000				
	1,8	487	1,83	7491	60000				
	2,0	437	2,05	6742	60000	İRAM İRFM İRAFPM	123 İR 72 / 90 L 4a		
	2,3	384	2,27	5863	60000				
	2,5	545	2,60	5394	60000				
	2,8	487	2,90	4816	60000				
	1,1	1227	0,84	12075	55000	İRAM İRFM İRAFPM	123 İR 72 / 90 L 4a		
	1,3	1025	1,01	10217	55000				
	1,5	902	1,14	8855	55000				
	1,7	800	1,28	7813	55000				
	1,9	715	1,45	6991	55000				
	2,1	642	1,60	6325	55000	İRAM İRFM İRAFPM	123 İR 72 / 90 L 4a		
	2,4	579	1,75	5534	55000				
	2,5	551	1,80	5313	55000				
	2,8	491	2,05	4744	55000				
	3,2	436	2,35	4151	55000				
	3,6	388	2,57	3690	55000	İRAM İRFM İRAFPM	123 İR 72 / 90 L 4a		
	4,0	348	2,86	3321	55000				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1,5 2,2	1,3	1050	0,95	10217	55000	İRAM İRFM İRAFPM	122 İR 73 / 90 L 4a	365 366 367	322 324 352
	1,4	935	0,95	9487	55000				
	1,6	833	0,95	8301	55000				
	1,8	748	0,95	7379	55000				
	1,9	706	0,95	6991	55000				
	2,2	634	0,95	6037	55000				
	2,4	572	0,95	5534	55000				
	2,7	518	0,95	4919	55000				
	2,9	471	0,95	4580	55000				
	3,2	429	0,95	4151	55000				
	3,5	391	0,95	3795	55000				
	3,9	358	0,95	3406	55000				
	4,2	328	0,95	3162	55000				
	4,6	300	0,95	2887	55000				
	1,3	647	0,90	10373	55000	İRAPM İRFPM İRAFPM	124 / 100 L 6a	362 363 364	379 381 409
	1,5	590	0,99	8990	55000				
	1,5	883	0,95	8990	55000				
	1,7	798	1,06	7932	55000	İRAPM İRFPM İRAFPM	124 / 90 L 4a	362 363 364	374 376 404
	2,1	647	1,40	6421	55000				
	2,3	590	1,54	5863	55000				
	2,6	530	1,69	5186	55000				
	2,9	479	1,91	4650	55000				
	3,4	400	2,27	3966	55000				
	3,9	352	2,57	3458	55000				
	4,4	312	2,86	3065	55000				
	5,0	279	3,23	2697	55000	İRAPM İRFPM İRAFPM	103 İR 72 / 90 L 4a	348 349 350	257 260 282
	5,5	250	3,60	2452	55000				
	2,6	535	0,81	5109	32000				
	2,8	485	1,03	4744	32000				
	3,2	428	1,20	4151	32000				
	3,6	381	1,30	3690	32000				
	4,1	340	1,40	3240	32000				
	4,5	305	1,55	2952	32000				
	5,0	275	1,70	2656	32000	İRAPM İRFPM İRAFPM	102 İR 72 / 90 L 4a	348 349 350	255 258 280
	5,6	248	2,00	2372	32000				
	5,8	239	2,00	2325	32000				
	6,6	211	2,20	2043	32000				
	7,4	188	2,45	1822	32000	İRAM İRFM İRAFPM	104 / 90 L 4a	339 340 341	246 249 271
	8,3	168	2,70	1625	32000				
	2,5	548	0,81	5394	34000				
	2,8	494	0,88	4816	34000				
	3,1	446	0,99	4350	34000				
	3,4	405	1,06	3966	34000				
	3,7	370	1,17	3644	34000				
	4,1	339	1,28	3289	34000				
	4,5	306	1,45	2997	34000	İRAPM İRFPM İRAFPM	103 / 100 L 6a	335 336 337 338	228 231 253
	4,9	281	1,55	2752	34000				
	3,5	256	1,09	3911	31000				
	3,9	225	1,19	3510	31000				
	4,3	207	1,31	3184	31000				
	4,8	184	1,47	2852	31000				
	5,4	165	1,64	2535	31000				
	6,3	140	2,00	2173	31000				
	7,1	126	2,20	1928	31000				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1,5 2,2	3,8	364	0,92	3495	24700	İRAM İRFM İRAFM	93 İR 62 / 90 L 4a	325	166
	4,1	334	1,00	3240	24700			326	176
								327	186
	4,4	315	0,85	3065	26000	İRAM İRFM İRAFM	92 İR 62 / 90 L 4a	325	160
	5,0	278	0,97	2697	26000			326	170
	5,6	247	1,08	2408	26000			327	180
	6,3	221	1,22	2140	26000		94 / 90 L 4a	319 320 321	159 169 179
	3,6	380	0,81	3746	26000				
	4,1	337	0,92	3289	26000				
	4,6	302	0,99	2931	26000				
	5,2	269	1,14	2593	26000	İRAM İRFM İRAFM			
	5,9	237	1,28	2286	26000				
	6,6	210	1,43	2043	26000				
	7,4	188	1,60	1822	26000				
	8,2	169	1,80	1644	26000				
	9,1	153	1,95	1482	26000				
	4,7	293	0,98	2913	23100		93 / 90 L 4a	315 316 317 318	141 151 161 187
	5,1	273	1,05	2684	23100				
	5,8	240	1,17	2360	23100				
	6,5	213	1,34	2106	22800				
	7,3	191	1,50	1875	22800	İRAPM İRFPM İRAFPM İRBPM			
	8,1	172	1,66	1690	22800				
	8,9	156	1,83	1538	22800				
	10	131	2,18	1369	22700				
	11	120	2,35	1245	22700				
	12	110	2,60	1141	22700				
	14	96,96	2,93	978	22700				
	16	86,16	3,30	856	22700		84 / 90 L 4a	299	102
	7,1	196	0,77	1899	18100	İRAM İRFM İRAFM		300	107
	8,0	174	0,86	1686	18100			301	109
	8,3	168	0,94	1625	18100		83 / 90 L 4a	291 292 293 294	92 97 99 122
	8,3	168	0,88	1649	16700				
	9,1	152	0,95	1504	16700				
	10	139	1,06	1369	16700				
	10	127	1,17	1369	16500				
	11	117	1,28	1245	16500				
	13	103	1,43	1053	16300				
	15	91,85	1,61	913	16300	İRAM İRFM İRAFM İRBPM			
	16	82,47	1,83	856	16300				
	18	74,47	2,05	761	16300				
	21	66,18	2,27	652	16250		73 / 90 L 4a	271 272 273 274	51 54 57 69
	23	59,39	2,55	595	16250				
	26	53,54	2,75	527	16250				
	29	47,58	3,15	472	16200				
	30	45,93	3,20	456	16200				
	33	41,22	3,60	415	16200				
	37	37,16	3,96	370	16200				
	15	91,36	1,06	913	10000				
	17	81,25	1,21	805	10000				
	19	72,75	1,28	721	10000	İRAM İRFM İRAFM İRBPM			
	21	65,52	1,32	652	10000				
	23	59,41	1,43	595	10000				
	26	52,47	1,65	527	10000				
	30	46,36	1,85	456	10000				
	33	41,66	2,05	415	10000				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{QV2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1,5 2,2	37	37,38	2,27	370	10000	İRAM İRFM İRAFM İRBM	73 / 90 L 4a	271	51
	44	31,16	2,56	311	10000			272	54
	50	27,84	2,86	274	10000			273	57
	56	24,97	3,08	244	10000			274	69
	62	22,48	3,59	221	10000				
	22	62,45	0,85	622	8950	İRAM İRFM İRAFM İRBM	731 / 90 L 4a	251	53
	25	55,54	0,96	548	8900			252	56
	28	49,73	1,06	489	8900			253	59
	31	44,79	1,18	442	8850			254	71
	35	39,88	1,61	391	8850				
	39	35,22	1,76	351	8800				
	44	31,30	1,90	311	8800				
	50	27,97	2,10	274	8700				
	55	25,09	2,35	249	8700				
	61	22,59	2,55	224	8600				
	57	24,25	2,20	244	8700	İRAM İRFM İRAFM İRBM	721 / 90 L 4a	251	51
								252	54
	65	21,38	2,50	214	8600			253	57
								254	69
	27	51,65	0,93	507	5400	İRAM İRFM İRAFM İRBM	63 / 90 L 4a	231	42
	29	46,79	1,01	472	5400			232	47
	32	42,55	1,13	428	5400			233	48
	39	35,74	1,35	351	5400			234	54
	46	29,85	1,61	298	5400				
	55	25,16	1,90	249	5400				
	65	21,5	2,23	211	5400				
	68	20,53	2,34	201	5400				
	77	18,18	2,64	178	5400				
	89	15,59	3,00	154	5400				
	101	13,80	3,35	136	5400	İRAM İRFM İRAFM	631 / 90 L 4a	213	42
	27	51,65	0,93	507	5400			214	47
	29	46,79	1,01	472	5400			215	48
	32	42,55	1,13	428	5400				
	39	35,74	1,35	351	5400				
	46	29,85	1,61	298	5400				
	55	25,16	1,90	249	5400				
	65	21,5	2,23	211	5400				
	68	20,53	2,34	201	5400				
	77	18,18	2,64	178	5400				
	89	15,59	3,00	154	5400	İRAM İRFM İRAFM İRBM	62 / 90 L 4a	231	37
	101	13,80	3,35	136	5400			232	42
	83	16,67	2,50	167	5400			233	43
	92	15,13	2,75	151	5400			234	49
	103	13,47	3,05	135	5400				
	114	12,20	3,20	122	5400				
	126	11,10	3,50	110	5400				
	138	10,07	3,81	101	5400				
	149	9,358	3,59	93	5400				
	164	8,51	3,81	85	5400				
	182	7,673	3,96	76	5400	İRAM İRFM İRAFM	621 / 90 L 4a	213	37
	196	7,108	4,25	71	5400			214	42
	83	16,67	2,50	167	5200			215	43
	92	15,13	2,75	151	5200				
	103	13,47	3,05	135	5200				
	114	12,20	3,20	122	5200				
	126	11,10	3,50	110	5200				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{QV2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1,5 2,2	138	10,07	3,81	101	5200	İRAM İRFM İRAFM	621 / 90 L 4a	213	37
	149	9,358	3,59	93	5200			214	42
	164	8,51	3,81	85	5200			215	43
	182	7,673	3,96	76	5200	İRAM İRFM İRAFM	53 / 90 L 4a	201	31
	196	7,108	4,25	71	5200			202	33
	63	21,88	0,81	217	2950			203	34
	71	19,69	0,90	193	2900	İRAM İRFM İRAFM	52 / 90 L 4a	201 202 203	30 32 33
	78	17,77	1,01	176	2900				
	87	16,07	1,13	157	2800				
	105	13,29	1,18	132	2750				
	118	11,81	1,33	118	2700				
	132	10,55	1,45	105	2650				
	147	9,47	1,61	95	2600				
	157	8,888	1,68	89	2550				
	175	7,974	1,76	79	2550				
	195	7,178	1,83	71	2550				
	216	6,479	1,90	64	2500				
	240	5,821	1,98	58	2400				
	266	5,254	2,05	52	2350				
	278	5,032	2,12	50	2350				
	310	4,515	2,34	45	2250				
	344	4,064	2,49	40	2200				
	381	3,668	2,63	36	2150				
	422	3,317	2,86	33	2150				
	457	3,059	2,86	30	2150				
	481	2,906	3,00	29	2150				
	544	2,572	3,23	26	2150				
	295	9,47	3,15	47	2350	İRAM İRFM İRAFM	52 / 90 S 2a	201 202 203	26 28 29
	315	8,888	3,08	44	2350				
	351	7,974	3,08	40	2200				
	390	7,178	3,22	36	2200				
	432	6,479	3,44	32	2150				
	481	5,821	3,44	29	2100				
	532	5,254	3,66	26	2000	İRAM İRFM İRAFM	42 / 90 L 4a	195 196 197	24 25 25
	556	5,032	3,96	25	1900				
	620	4,515	4,40	22	1750				
	203	6,872	0,91	68	1000				
	230	6,08	1,02	60	970				
	252	5,538	1,09	55	970				
	259	5,398	1,13	54	930				
	285	4,9	1,20	49	900				
	291	4,803	1,28	48	860				
	321	4,35	1,35	43	830				
2,2 3	327	4,28	1,42	43	800	İRAM İRFM İRAFM	153 İR 92 / 100 L 4a	411 412 413	1079 1129 1149
	361	3,87	1,53	38	770				
	405	3,449	1,72	34	750				
	0,88	1589	0,80	22137	110000	İRAM İRFM İRAFM	152 İR 93 / 100 L 4a	411 412 413	1010 1060 1080
	1,0	1381	0,93	19481	110000				
	1,1	1216	1,05	17710	110000				
	1,3	1035	1,22	14985	110000	İRAM İRFM İRAFM	153 İR 92 / 100 L 4a	411 412 413	1079 1129 1149
	1,7	792	1,64	11459	110000				
	2,1	644	1,88	9277	110000				
	2,7	503	2,40	7215	110000	İRAM İRFM İRAFM	152 İR 93 / 100 L 4a	411 412 413	1010 1060 1080
	0,99	1414	0,85	19678	110000				
	1,1	1203	1,00	17710	110000				
	1,3	1033	1,18	14985	110000				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2,2 3	1,7	784	1,64	11634	110000	İRAPM İRFPM İRAFPM	154 / 100 L 4a	408 409 410	1031 1101 1101
	2,0	695	1,84	9889	110000				
	2,2	612	2,10	8990	110000				
	2,5	548	2,30	7911	110000				
	2,8	495	2,60	7063	110000				
	3,2	431	3,00	6180	110000				
	3,8	361	3,50	5205	110000				
	4,3	321	3,90	4599	110000				
	1,2	1120	0,80	16234	60000	İRAM İRFM İRAFPM	143 İR 72 / 100 L 4a	385 386 387	531 545 571
	1,4	983	0,93	13915	60000				
	1,5	877	1,02	12987	60000				
	1,7	787	1,13	11459	60000				
	1,8	750	1,19	10823	60000				
	2,0	673	1,33	9740	60000				
	2,3	607	1,50	8470	60000				
	2,5	549	1,65	7792	60000				
	2,8	498	1,80	6957	60000				
	3,0	453	1,98	6494	60000				
	3,7	377	2,39	5265	60000				
	4,4	315	2,86	4427	60000				
	2,6	537	1,70	7493	60000	İRAM İRFM İRAFPM	143 İR 82 / 100 L 4a	391 392 393	571 585 611
	2,8	487	1,85	6957	60000				
	3,2	437	2,05	6088	60000				
	3,5	398	2,25	5566	60000				
	4,2	331	2,73	4638	60000				
	5,0	277	3,30	3896	60000	İRAPM İRFPM İRAFPM	144 / 112 M 6a	382 383 384	562 576 602
	1,6	545	1,12	12361	60000				
	1,8	487	1,25	10987	60000				
	2,0	437	1,40	9889	60000				
	2,3	384	1,55	8599	60000				
	2,5	545	1,77	7911	60000	İRAPM İRFPM İRAFPM	144 / 100 L 4a	382 383 384	558 572 598
	2,8	487	1,98	7063	60000				
	3,1	437	2,18	6380	60000				
	3,6	384	2,45	5494	60000				
	4,0	344	2,80	4944	60000				
	4,5	307	3,10	4395	60000	İRAM İRFM İRAFPM	123 İR 72 / 100 L 4a	365 366 367	356 358 386
	1,7	800	0,88	11459	55000				
	1,9	715	0,99	10253	55000				
	2,1	642	1,09	9277	55000				
	2,4	579	1,19	8117	55000				
	2,5	551	1,23	7792	55000				
	2,8	491	1,40	6957	55000				
	3,2	436	1,60	6088	55000				
	3,6	388	1,75	5411	55000				
	4,0	348	1,95	4870	55000				
	4,4	314	2,11	4427	55000				
	4,9	285	2,39	3976	55000				
	5,4	259	2,59	3608	55000	İRAPM İRFPM İRAFPM	124 / 100 L 4a	362 363 364	383 385 413
	5,9	236	2,90	3302	55000				
	6,5	215	3,20	2997	55000				
	2,1	647	0,96	9418	55000				
	2,3	590	1,05	8599	55000				
	2,6	530	1,15	7607	55000				
	2,9	479	1,30	6820	55000				
	3,4	400	1,55	5817	55000				
	3,9	352	1,75	5071	55000				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2,2 3	4,4	312	1,95	4495	55000	İRAPM İRFPM İRAFPM	124 / 100 L 4a	362	383
	5,0	279	2,20	3955	55000			363	385
	5,5	250	2,46	3596	55000			364	413
	6,1	226	2,73	3242	55000	İRAM İRFM İRAFM	103 İR 72 / 100 L 4a	345	266
	6,5	215	2,80	3043	55000			346	269
	3,2	428	0,82	6088	30700			347	291
	3,6	381	0,89	5411	30700				
	4,1	340	0,95	4751	30700				
	4,5	305	1,06	4329	30700				
	5,0	275	1,16	3896	30700	İRAM İRFM İRAFM	102 İR 72 / 100 L 4a	345	264
	5,6	248	1,36	3479	31000			346	267
	5,8	239	1,36	3410	31000			347	289
	6,6	211	1,50	2997	31000	İRAM İRFM İRAFM	104 / 100 L 4a	339	255
	7,4	188	1,67	2673	31000			340	258
	8,3	168	1,84	2383	31000			341	280
	3,7	370	0,80	5345	34000	İRAPM İRFPM İRAFPM İRBPM	103 / 112 M 6a	335	235
	4,1	339	0,88	4824	34000			336	238
	4,5	306	0,99	4395	34000			337	260
	4,9	281	1,06	4036	34000			338	308
	3,5	256	0,74	5737	30700				
	3,9	225	0,81	5148	30700	İRAPM İRFPM İRAFPM İRBPM	103 / 100 L 4a	335	231
	4,3	207	0,89	4669	30700			336	234
	4,8	184	1,00	4183	30700			337	256
	5,4	165	1,12	3718	30700			338	304
	6,3	140	1,36	3187	30700				
	7,1	126	1,50	2828	30700				
	5,4	256	1,17	3718	30700				
	6,2	225	1,27	3238	30700				
	6,7	207	1,38	2997	30700				
	7,5	184	1,56	2677	30700				
	8,4	165	1,74	2390	30700	İRAM İRFM İRAFM	94 / 100 L 4a	319	169
	9,9	140	2,10	2028	30550			320	179
	11	126	2,30	1825	30550			321	189
	12	113	2,60	1673	30550	İRAM İRFM İRAFPM İRBPM	93 / 100 L 4a		
	13	103	2,80	1545	30550				
	14	94,54	3,10	1434	30550				
	16	86,72	3,30	1255	30550				
	18	77,32	3,70	1115	30400				
	5,9	237	0,88	3352	26000				
	6,6	210	0,98	2997	26000				
	7,4	188	1,09	2673	26000				
	8,2	169	1,23	2412	26000				
	9,1	153	1,33	2173	26000				
	5,8	240	0,80	3462	22500				
	6,5	213	0,91	3089	22500				
	7,3	191	1,02	2751	22500				
	8,1	172	1,13	2479	22500				
	8,9	156	1,24	2256	22500				
	10	131	1,49	2008	22500				
	11	120	1,60	1825	22500			311	150
	12	110	1,77	1673	22500			312	160
	14	96,96	2,00	1434	22500			313	170
	16	86,16	2,25	1255	22400			314	196
	18	77,10	2,50	1115	22400				
	20	68,65	2,66	1004	22400				
	23	60,50	3,00	873	22400				
	26	53,76	3,55	772	22250				
	29	48,11	3,95	692	22250				
	32	43,29	4,50	627	22250				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{QV2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types		 ~kg
2,2 3	10	127	0,80	2008	16100	İRAM İRFM İRAFM İRBM 83 / 100 L 4a	291 292 293 294	101 106 108 131
	11	117	0,87	1825	16100			
	13	103	0,97	1545	16100			
	15	91,85	1,10	1339	16100			
	16	82,47	1,25	1255	16050			
	18	74,47	1,40	1115	16050			
	21	66,18	1,55	956	16050			
	23	59,39	1,73	873	16000			
	26	53,54	1,87	772	16000			
	29	47,58	2,14	692	16000			
	30	45,93	2,18	669	15900			
	33	41,22	2,45	608	15900			
	37	37,16	2,70	543	15850			
	42	33,02	3,20	478	15800			
	46	30,08	3,47	436	15750			
	51	27,12	3,75	394	15500			
	58	24,10	4,22	346	15300	İRAM İRFM İRAFM İRBM 73 / 100 L 4a	271 272 273 274	60 63 66 78
	62	22,27	4,63	324	15100			
	17	81,25	0,82	1181	9700			
	19	72,75	0,87	1057	9700			
	21	65,52	0,90	956	9700			
	23	59,41	0,97	873	9700			
	26	52,47	1,12	772	9700			
	30	46,36	1,26	669	9700			
	33	41,66	1,39	608	9700			
	37	37,38	1,55	543	9700			
	44	31,16	1,75	456	9700			
	50	27,84	1,95	402	9700			
	56	24,97	2,10	359	9700			
	62	22,48	2,45	324	9700			
	68	20,29	2,75	295	9700			
	76	18,35	2,93	264	9700	İRAM İRFM İRAFM İRBM 72 / 100 L 4a	271 272 273 274	58 61 64 76
	84	16,62	3,20	239	9700			
	92	15,06	3,90	218	9700			
	103	13,52	3,71	198	9350			
	31	44,79	0,80	648	8650	İRAM İRFM İRAFM İRBM 731 / 100 L 4a	251 252 253 254	62 65 68 80
	35	39,88	1,10	574	8650			
	39	35,22	1,20	515	8600			
	44	31,30	1,30	456	8600			
	50	27,97	1,43	402	8500			
	55	25,09	1,60	365	8500			
	61	22,59	1,73	329	8400			
	65	21,38	1,70	314	8400	İRAM İRFM İRAFM İRBM 721 / 100 L 4a	251 252 253 254	60 63 66 78
	73	19,02	1,87	279	8350			
	82	17,03	2,10	249	8300			
	90	15,39	2,30	226	8300			
	101	13,73	2,40	202	8200			
	115	12,12	2,79	177	8200			
	125	11,17	2,86	163	8200			
	141	9,866	3,27	145	8100	İRAM İRFM İRAFM İRBM 63 / 100 L 4a	231 232 233 234	51 56 57 63
	39	35,74	0,92	515	4550			
	46	29,85	1,09	436	4550			
	55	25,16	1,30	365	4550			
	65	21,5	1,52	309	4550			



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2,2 3	68	20,53	1,60	295	4550	İRAM	63 / 100 L 4a	231	51
	77	18,18	1,80	261	4550	İRFM		232	56
	89	15,59	2,04	226	4550	İRAFM		233	57
	101	13,80	2,28	199	4550	İRBM		234	63
	103	13,47	2,07	198	4150	İRAM İRFM İRAFM İRBM	62 / 100 L 4a	231 232 233 234	46 51 52 58
	114	12,20	2,18	179	4150				
	126	11,10	2,38	162	4150				
	138	10,07	2,60	148	4150				
	149	9,358	2,45	137	4150				
	164	8,51	2,60	124	4150				
	182	7,673	2,70	112	4150				
	196	7,108	2,90	104	4150				
	216	6,48	3,00	94	4150				
	233	5,992	3,20	87	4150				
	39	35,74	0,92	515	4550	İRAM İRFM İRAFM	631 / 100 L 4a	213 214 215	51 56 57
	46	29,85	1,09	436	4550				
	55	25,16	1,30	365	4550				
	65	21,5	1,52	309	4550				
	68	20,53	1,60	295	4550				
	77	18,18	1,80	261	4550				
	89	15,59	2,04	226	4550				
	101	13,80	2,28	199	4550	İRAM İRFM İRAFM	621 / 100 L 4a	213 214 215	46 51 52
	103	13,47	2,07	198	4150				
	114	12,20	2,18	179	4150				
	126	11,10	2,38	162	4150				
	138	10,07	2,60	148	4150				
	149	9,358	2,45	137	4150				
	164	8,51	2,60	124	4150				
	182	7,673	2,70	112	4150				
	196	7,108	2,90	104	4150				
	216	6,48	3,00	94	4150				
	233	5,992	3,20	87	4150	İRAM İRFM İRAFM	52 / 100 L 4a	201 202 203	39 41 42
	132	10,55	0,99	154	2150				
	147	9,47	1,10	139	2100				
	157	8,888	1,15	130	2100				
	175	7,974	1,20	116	2100				
	195	7,178	1,25	105	2100				
	216	6,479	1,30	94	2050				
	240	5,821	1,35	85	2050				
	266	5,254	1,39	77	2050				
	278	5,032	1,44	73	2050				
	310	4,515	1,59	66	2050				
	344	4,064	1,69	59	2000				
	381	3,668	1,79	54	2000				
	422	3,317	1,95	48	2000				
	457	3,059	1,95	45	2000				
	481	2,906	2,05	42	2000				
	544	2,572	2,20	37	2000				
	265	10,55	1,95	77	2050	İRAM İRFM İRAFM	52 / 90 L 2a	201 202 203	29 31 32
	295	9,47	2,15	69	2050				
	315	8,888	2,10	65	2000				
	351	7,974	2,10	58	1950				
	390	7,178	2,20	52	1900				
	432	6,479	2,35	47	1850				
	481	5,821	2,35	42	1850				
	532	5,254	2,50	38	1800				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{QV2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2,2 3	556	5,032	2,70	37	1800	İRAM İRFM İRAFM	52 / 90 L 2a	201	29
	620	4,515	3,00	33	1700			202	31
	688	4,064	3,13	30	1600			203	32
	763	3,668	3,34	27	1550				
	844	3,317	3,55	24	1500				
3 4	1,3	1035	0,90	20434	110000	İRAM İRFM İRAFM	153 İR 92 / 100 L 4b	411	1082
	1,7	792	1,20	15626	110000			412	1132
	2,1	644	1,38	12650	110000			413	1152
	2,7	503	1,76	9839	110000				
	3,2	432	2,00	8301	110000				
	3,6	386	2,30	7379	110000				
	4,0	348	2,50	6641	110000				
	1,3	1033	0,86	20434	30000	İRAM İRFM İRAFM	152 İR 93 / 100 L 4b	411	1013
								412	1063
								413	1083
	1,7	784	1,20	15864	110000	İRAPM İRFPM İRAFPM	154 / 100 L 4b		
	2,0	695	1,35	13485	110000				
	2,2	612	1,55	12259	110000				
	2,5	548	1,70	10788	110000				
	2,8	495	1,91	9632	110000			408	1034
	3,2	431	2,20	8428	110000			409	1104
	3,8	361	2,60	7097	110000			410	1104
	4,3	321	2,90	6272	110000				
	4,8	291	3,20	5619	110000				
	5,2	264	3,60	5186	110000				
	6,0	229	4,10	4495	110000				
	1,7	787	0,83	15626	60000	İRAM İRFM İRAFM	143 İR 72 / 100 L 4b		
	1,8	750	0,88	14758	60000				
	2,0	673	0,98	13282	60000				
	2,3	607	1,10	11550	60000				
	2,5	549	1,21	10626	60000			385	534
	2,8	498	1,32	9487	60000			386	548
	3,0	453	1,45	8855	60000			387	574
	3,7	377	1,75	7180	60000				
	4,4	315	2,10	6037	60000				
	5,1	270	2,45	5209	60000				
	2,6	537	1,25	10217	60000	İRAM İRFM İRAFM	143 İR 82 / 100 L 4b		
	2,8	487	1,36	9487	60000				
	3,2	437	1,50	8301	60000			391	574
	3,5	398	1,65	7590	60000			392	588
	4,2	331	2,00	6325	60000			393	614
	5,0	277	2,42	5313	60000				
	5,6	249	2,64	4744	60000				
	6,5	214	3,10	4087	60000				
	1,6	545	0,82	16856	60000	İRAM İRFM İRAFM	144 / 132 S 6a	379	571
	1,8	487	0,92	14983	60000			380	585
	2,0	437	1,03	13485	60000			381	611
	2,3	384	1,14	11726	60000				
	2,5	545	1,30	10788	60000				
	2,8	487	1,45	9632	60000	İRAPM İRFPM İRAFPM	144 / 100 L 4b		
	3,1	437	1,60	8700	60000				
	3,6	384	1,80	7491	60000			382	561
	4,0	344	2,06	6742	60000			383	575
	4,5	307	2,28	5993	60000			384	601
	5,0	275	2,50	5394	60000				
	5,3	262	2,64	5089	60000				
	5,9	235	2,90	4571	60000				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
3 4	2,5	551	0,90	10626	50000	İRAM İRFM İRAFM	123 İR 72 / 100 L 4b	365 366 367	359 361 389
	2,8	491	1,03	9487	50000				
	3,2	436	1,17	8301	50000				
	3,6	388	1,28	7379	50000				
	4,0	348	1,43	6641	50000				
	4,4	314	1,55	6037	50000				
	4,9	285	1,75	5421	50000				
	5,4	259	1,90	4919	50000				
	5,9	236	2,13	4503	50000				
	6,5	215	2,35	4087	50000				
	2,6	530	0,84	10373	50000	İRAPM İRFPM İRAFPM	124 / 100 L 4b	362 363 364	386 388 416
	2,9	479	0,95	9300	50000				
	3,4	400	1,14	7932	50000				
	3,9	352	1,28	6915	50000				
	4,4	312	1,43	6129	50000				
	5,0	279	1,61	5394	50000				
	5,5	250	1,80	4904	50000				
	6,1	226	2,00	4421	50000				
	6,5	215	2,05	4149	50000				
	4,3	209	1,29	6367	50000	İRAPM İRFPM İRAFPM İRBPM	123 / 132 S 6a	355 356 357 358	334 336 364 451
	4,8	186	1,45	5704	50000	İRAM İRFM İRAFM İRBM	123 / 132 S 6a	351 352 353 354	334 336 364 451
	5,3	167	1,62	5166	50000				
	5,9	151	1,79	4641	50000				
	7,3	122	2,40	3751	50000				
	8,0	111	2,50	3422	50000				
	8,9	100	2,80	3076	48000				
	9,9	90,71	3,00	2766	48000				
	11	75,76	3,70	2489	48000				
	5,0	275	0,85	5313	30000	İRAM İRFM İRAFM	103 İR 72 / 100 L 4b	345 346 347	269 272 294
	5,6	248	1,00	4744	30000	İRAM İRFM İRAFM	102 İR 72 / 100 L 4b	345 346 347	267 270 292
	5,8	239	1,00	4650	30000				
	6,6	211	1,10	4086	30000				
	7,4	188	1,23	3644	30000				
	8,3	168	1,35	3249	30000				
	4,9	281	0,78	5504	34000				
	5,4	256	0,86	5070	30000	İRAPM İRFPM İRAFPM İRBPM	103 / 100 L 4b	335 336 337 338	234 237 259 307
	6,2	225	0,93	4416	30000				
	6,7	207	1,01	4087	30000				
	7,5	184	1,14	3651	29700				
	8,4	165	1,28	3260	29700				
	9,9	140	1,54	2766	29700				
	11	126	1,69	2489	29700				
	12	113	1,91	2282	29700				
	13	103	2,05	2106	29700				
	14	94,54	2,27	1956	29450				
	16	86,72	2,42	1711	29450				
	18	77,32	2,71	1521	29450				
	20	68,28	3,08	1369	29450				
	23	60,69	3,45	1190	29300				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
3 4	7,4	188	0,80	3644	26000	İRAM	94 / 100 L 4b	319	172
	8,2	169	0,90	3289	26000	İRFM		320	182
	9,1	153	0,98	2964	26000	İRAFM		321	192
	8,9	156	0,91	3076	22000	İRAM İRFM İRAFM İRBM	93 / 100 L 4b	311 312 313 314	153 163 173 199
	10	131	1,09	2738	22000				
	11	120	1,17	2489	22000				
	12	110	1,30	2282	22000				
	14	96,96	1,47	1956	22000				
	16	86,16	1,65	1711	21750				
	18	77,10	1,83	1521	21750				
	20	68,65	1,95	1369	21750				
	23	60,50	2,20	1190	21750				
	26	53,76	2,60	1053	21750				
	29	48,11	2,90	944	21750				
	32	43,29	3,30	856	21500				
	35	39,13	3,59	782	21500				
	39	35,52	3,96	702	21500				
	43	32,34	4,40	637	21500				
	16	82,47	0,91	1711	15900	İRAM İRFM İRAFM İRBM	83 / 100 L 4b	291 292 293 294	104 109 111 134
	18	74,47	1,02	1521	15800				
	21	66,18	1,13	1304	15700				
	23	59,39	1,27	1190	15700				
	26	53,54	1,37	1053	15700				
	29	47,58	1,57	944	15700				
	30	45,93	1,60	913	15500				
	33	41,22	1,80	830	15500				
	37	37,16	1,98	740	15500				
	42	33,02	2,34	652	15400				
	46	30,08	2,55	595	15400				
	51	27,12	2,75	537	15300				
	58	24,10	3,10	472	15100				
	62	22,27	3,40	442	14900				
	69	20,26	3,66	397	14500				
	75	18,47	3,96	365	14250				
	83	16,86	4,18	330	14150				
	90	15,41	4,25	304	14100				
	93	14,89	4,40	299	14050	İRAM	82 / 100 L 4b	291	99
	105	13,23	4,80	265	14000	İRFM		292	104
	117	11,87	5,00	238	14000	İRAFM		293	106
						İRBM		294	129
	26	52,47	0,82	1053	9500	İRAM İRFM İRAFM İRBM	73 / 100 L 4b	271 272 273 274	63 66 69 81
	30	46,36	0,92	913	9500				
	33	41,66	1,02	830	9500				
	37	37,38	1,13	740	9500				
	44	31,16	1,28	622	9500				
	50	27,84	1,43	548	9500				
	56	24,97	1,54	489	9500				
	62	22,48	1,79	442	9500				
	68	20,29	2,01	403	9500				
	76	18,35	2,15	360	9500				
	84	16,62	2,34	326	9500				
	92	15,06	2,86	298	9500				
	103	13,52	2,72	270	8800	İRAM İRFM İRAFM İRBM	72 / 100 L 4b	271 272 273 274	61 64 67 79
	116	12,02	2,87	240	8800				
	130	10,74	3,20	214	8800				
	149	9,337	3,40	187	8800				
	168	8,333	3,62	165	8800				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
3 4	35	39,88	0,80	782	8450	İRAM İRFM İRAFM İRBM	731 / 100 L 4b	251	65
	39	35,22	0,88	702	8400			252	68
	44	31,30	0,95	622	8400			253	71
	50	27,97	1,05	548	8300			254	83
	55	25,09	1,17	498	8300				
	61	22,59	1,27	449	8200	İRAM İRFM İRAFM İRBM	721 / 100 L 4b	251	63
	65	21,38	1,25	428	8200			252	66
	73	19,02	1,37	381	8150			253	69
	82	17,03	1,54	339	8100			254	81
	90	15,39	1,68	309	8100				
	101	13,73	1,76	275	8000				
	115	12,12	2,05	242	8000				
	125	11,17	2,10	222	8000				
	141	9,866	2,40	197	7900				
	159	8,769	2,50	175	7900				
	178	7,834	2,55	156	7900	İRAM İRFM İRAFM İRBM	63 / 100 L 4b	231	54
	199	7,029	2,86	140	7800			232	59
	221	6,327	3,15	126	7800			233	60
	46	29,85	0,80	595	4300			234	66
	55	25,16	0,95	498	4300				
	65	21,5	1,11	421	4300				
	68	20,53	1,17	403	4300	İRAM İRFM İRAFM İRBM	62 / 100 L 4b		
	77	18,18	1,32	356	4300				
	89	15,59	1,50	308	4300				
	101	13,80	1,67	271	4300				
	103	13,47	1,52	270	3750				
	114	12,20	1,60	244	3750				
	126	11,10	1,75	221	3750				
	138	10,07	1,90	201	3750				
	149	9,358	1,79	187	3750				
	164	8,51	1,90	169	3750				
	182	7,673	1,98	153	3750				
	196	7,108	2,12	142	3750				
	216	6,48	2,20	129	3750			231	49
	233	5,992	2,35	119	3750			232	54
	244	5,723	3,90	114	3750			233	55
	262	5,325	3,90	106	3750			234	61
	276	5,06	4,20	101	3750	İRAM İRFM İRAFM	631 / 100 L 4b		
	311	4,499	4,50	89	3750				
	350	3,998	4,76	79	3750				
	377	3,711	3,37	74	3750				
	425	3,287	3,44	65	3750				
	479	2,917	3,52	58	3750				
	540	2,592	3,52	51	3750				
	572	2,444	3,52	49	3750				
	46	29,85	0,80	595	4300			213	54
	55	25,16	0,95	498	4300			214	59
	65	21,5	1,11	421	4300	İRAM İRFM İRAFM	621 / 100 L 4b	215	60
	68	20,53	1,17	403	4300				
	77	18,18	1,32	356	4300				
	89	15,59	1,50	308	4300				
	101	13,80	1,67	271	4300				
	103	13,47	1,52	270	3750	İRAM İRFM İRAFM	621 / 100 L 4b	213	49
	114	12,20	1,60	244	3750			214	54
	126	11,10	1,75	221	3750			215	55
	138	10,07	1,90	201	3750				
	149	9,358	1,79	187	3750				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{QV2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg				
3 4	164	8,51	1,90	169	3750	İRAM İRFM İRAFM	621 / 100 L 4b	213 214 215	49 54 55				
	182	7,673	1,98	153	3750								
	196	7,108	2,12	142	3750								
	216	6,48	2,20	129	3750								
	233	5,992	2,35	119	3750								
	244	5,723	3,90	114	3750								
	262	5,325	3,90	106	3750								
	276	5,06	4,20	101	3750								
	311	4,499	4,50	89	3750								
	350	3,998	4,76	79	3750								
	377	3,711	3,37	74	3750								
	425	3,287	3,44	65	3750								
	479	2,917	3,52	58	3750								
	540	2,592	3,52	51	3750								
	572	2,444	3,52	49	3750								
	157	8,888	0,84	177	1950	İRAM İRFM İRAFM	52 / 100 L 4b	201 202 203	42 44 45				
	175	7,974	0,88	159	1900								
	195	7,178	0,91	143	1850								
	216	6,479	0,95	129	1850								
	240	5,821	0,99	116	1850								
	266	5,254	1,02	104	1800								
	278	5,032	1,06	100	1800								
	310	4,515	1,17	90	1750								
	344	4,064	1,24	81	1750								
	381	3,668	1,31	73	1750								
	422	3,317	1,43	66	1750								
	457	3,059	1,43	61	1750								
	481	2,906	1,50	58	1750								
	544	2,572	1,61	51	1750								
	265	10,55	1,43	105	1750					İRAM İRFM İRAFM	52 / 100 L 2a	201 202 203	35 37 38
	295	9,47	1,57	94	1700								
	315	8,888	1,54	88	1700								
	351	7,974	1,54	79	1650								
	390	7,178	1,61	71	1600								
	432	6,479	1,72	64	1600								
	481	5,821	1,72	58	1550								
	532	5,254	1,83	52	1550								
	556	5,032	1,98	50	1500								
	620	4,515	2,20	45	1500								
	688	4,064	2,29	40	1400								
	763	3,668	2,44	36	1400								
	844	3,317	2,60	33	1350								
	4 5,5	1,7	792	0,90	20835	110000	İRAM İRFM İRAFM	153 İR 92 / 112 M 4b	411 412 413				
2,1		644	1,03	16867	110000								
2,7		503	1,32	13118	110000								
3,2		432	1,54	11069	110000								
3,6		386	1,72	9839	110000								
4,0		348	1,91	8855	110000								
4,4		314	2,10	8050	110000								
5,3		260	2,50	6683	110000								
1,7		784	0,90	21152	110000	İRAPM İRFPM İRAFPM	154 / 112 M 4b	408 409 410	1041 1111 1111				
2,0		695	1,01	17980	110000								
2,2		612	1,16	16345	110000								
2,5		548	1,28	14384	110000								
2,8		495	1,43	12843	110000								
3,2		431	1,05	11237	110000								
3,8		361	1,93	9463	110000								



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
4 5,5	4,3	321	2,20	8363	110000	İRAPM İRFPM İRAFPM	154 / 112 M 4b	408	1041
	4,8	291	2,40	7491	110000			409	1111
	5,2	264	2,70	6915	110000			410	1111
	6,0	229	3,10	5993	110000	İRAM İRFM İRAFM	143 İR 82 / 112 M 4b	391	581
	2,6	537	0,94	13623	60000			392	595
	2,8	487	1,02	12650	60000			393	621
	3,2	437	1,13	11069	60000				
	3,5	398	1,24	10120	60000				
	4,2	331	1,50	8433	60000				
	5,0	277	1,82	7084	60000				
	5,6	249	1,98	6325	60000				
	6,5	214	2,33	5449	60000				
	7,2	193	2,55	4919	60000				
	7,9	176	2,78	4484	60000				
	8,4	165	3,00	4217	60000				
	2,3	607	0,83	15400	60000	İRAM İRFM İRAFM	143 İR 72 / 112 M 4b	385	541
	2,5	549	0,91	14168	60000			386	555
	2,8	498	0,99	12650	60000			387	581
	3,0	453	1,09	11807	60000				
	3,7	377	1,31	9573	60000				
	4,4	315	1,58	8050	60000				
	5,1	270	1,84	6945	60000	İRAM İRFM İRAFM	144 / 132 M 6a	379	581
	2,0	437	0,77	17980	60000			380	595
	2,3	384	0,85	15634	60000			381	621
	2,5	545	0,98	14384	60000	İRAPM İRFPM İRAFPM	144 / 112 M 4b		
	2,8	487	1,09	12843	60000			382	568
	3,1	437	1,20	11600	60000			383	582
	3,6	384	1,35	9989	60000			384	608
	4,0	344	1,54	8990	60000				
	4,5	307	1,71	7991	60000				
	5,0	275	1,87	7192	60000				
	5,3	262	1,98	6785	60000				
	5,9	235	2,18	6095	60000				
	6,5	212	2,40	5532	60000				
	7,2	192	2,48	4994	60000				
	8,0	174	2,93	4495	60000				
	5,5	161	2,00	6638	60000	İRAM İRFM İRAFM İRBM	143 / 132 M 6a	371	519
	6,1	146	2,20	5985	60000			372	533
	6,7	132	2,50	5449	60000			373	559
	3,2	436	0,88	11069	50000	İRAM İRFM İRAFM	123 İR 72 / 112 M 4b	374	688
	3,6	388	0,96	9839	50000			365	366
	4,0	348	1,07	8990	50000			366	368
	4,4	314	1,16	8173	50000			367	396
	4,9	285	1,31	7339	50000				
	5,4	259	1,43	6659	50000				
	5,9	236	1,60	6095	50000				
	6,5	215	1,76	5532	50000				
	3,4	400	0,85	10576	47750	İRAPM İRFPM İRAFPM	124 / 112 M 4b	362	393
	3,9	352	0,96	9220	47750			363	395
	4,4	312	1,07	8173	47750			364	423
	5,0	279	1,21	7192	47750				
	5,5	250	1,35	6538	46900				
	6,1	226	1,50	5895	46900				
	6,5	215	1,54	5532	46900				



Helisel Dişlilı Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
4 5,5	4,3	209	0,96	8490	47750	İRAPM İRFPM İRAFPM İRBPM	123 / 132 M 6a	355 356 357 358	344 346 374 461
	4,8	186	1,09	7606	47750	İRAM İRFM İRAFM İRBM	123 / 132 M 6a	351 352 353 354	344 346 374 461
	5,3	167	1,22	6888	47750				
	5,9	151	1,34	6188	47750				
	7,3	122	1,80	5001	47750				
	8,0	111	1,88	4563	46900				
	8,9	100	2,10	4102	46900				
	9,9	90,71	2,25	3688	46900				
	11	75,76	2,80	3319	46750				
	7,5	184	0,86	4868	29100	İRAPM İRFPM İRAFPM İRBPM	103 / 112 M 4b	335 336 337 338	241 244 266 314
	8,4	165	0,96	4346	29100				
	9,9	140	1,16	3688	29100				
	11	126	1,27	3319	29100				
	12	113	1,43	3042	29000				
	13	103	1,54	2808	29000				
	14	94,54	1,71	2608	29000				
	16	86,72	1,82	2282	29000				
	18	77,32	2,04	2028	29000				
	20	68,28	2,31	1825	29000				
	23	60,69	2,59	1587	28800				
	25	54,22	3,00	1460	28800				
	28	48,64	3,30	1304	28800				
	31	43,79	3,68	1178	28800				
	10	131	0,82	3651	21200	İRAM İRFM İRAFM İRBM	93 / 112 M 4b	311 312 313 314	160 170 180 206
	11	120	0,88	3319	21200				
	12	110	0,97	3042	21200				
	14	96,96	1,10	2608	21200				
	16	86,16	1,24	2282	21200				
	18	77,10	1,38	2028	21000				
	20	68,65	1,46	1825	21000				
	23	60,50	1,65	1587	21000				
	26	53,76	1,95	1404	20900				
	29	48,11	2,18	1259	20900				
	32	43,29	2,48	1141	20900				
	35	39,13	2,70	1043	20800				
	39	35,52	2,97	936	20800				
	43	32,34	3,30	849	20700				
	47	29,52	3,60	777	20700				
	59	23,38	4,30	628	18000				
	67	20,60	4,50	553	18000	İRAM İRFM İRAFM İRBM	83 / 112 M 4b	291 292 293 294	111 116 118 141
	76	18,31	4,90	488	18000				
	21	66,18	0,85	1738	15400				
23	59,39	0,95	1587	15400					
26	53,54	1,03	1404	15400					
29	47,58	1,18	1259	15150					
30	45,93	1,20	1217	15150					
33	41,22	1,35	1106	15150					
37	37,16	1,48	987	15150					
42	33,02	1,76	869	15000					
46	30,08	1,91	794	15000					
51	27,12	2,06	716	14950					
58	24,10	2,32	629	14700					

Güç Devir Tabloları / Performance Tables / Table de Performances



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
4 5,5	62	22,27	2,55	589	14350	İRAM İRFM İRAFM İRBM	83 / 112 M 4b	291	111
	69	20,26	2,75	529	14250			292	116
	75	18,47	2,97	487	14150			293	118
	83	16,86	3,13	440	13600			294	141
	90	15,41	3,19	406	13600				
	93	14,89	3,30	399	13300	İRAM İRFM İRAFM İRBM	82 / 112 M 4b	291	106
	105	13,23	3,60	353	13100			292	111
	117	11,87	3,75	317	13000			293	113
	130	10,70	4,20	285	13000			294	136
	144	9,689	4,65	257	13000				
	37	37,38	0,85	987	9300	İRAM İRFM İRAFM İRBM	73 / 112 M 4b		
	44	31,16	0,96	830	9300				
	50	27,84	1,07	730	9300			271	70
	56	24,97	1,15	652	9300			272	73
	62	22,48	1,34	589	9300			273	76
	68	20,29	1,51	537	9300			274	88
	76	18,35	1,61	480	9300				
	84	16,62	1,76	435	9300				
	92	15,06	2,14	397	9300				
	103	13,52	2,04	360	8350			İRAM İRFM İRAFM İRBM	72 / 112 M 4b
	116	12,02	2,15	320	8350	271	68		
	130	10,74	2,40	285	8350	272	71		
	149	9,337	2,55	249	8350	273	74		
	168	8,333	2,71	221	8350	274	86		
	187	7,476	2,92	198	8350				
	208	6,73	3,07	178	8350				
	230	6,074	3,60	161	8350	İRAM İRFM İRAFM İRBM	721 / 112 M 4b		
	73	19,02	1,03	508	8000				
	82	17,03	1,15	452	7950				
	90	15,39	1,26	412	7950				
	101	13,73	1,32	367	7850				
	115	12,12	1,53	322	7850				
	125	11,17	1,57	297	7850				
	141	9,866	1,80	263	7750				
	159	8,769	1,87	233	7750				
	178	7,834	1,91	208	7750				
	199	7,029	2,14	186	7750				
	221	6,327	2,36	168	7650				
	245	5,71	2,58	151	7650				
	271	5,164	2,86	137	7600				
	299	4,677	3,00	124	7550				
	330	4,24	3,07	112	7550				
	367	3,809	3,07	101	7450				
	407	3,438	3,07	91	7450				
	450	3,109	3,07	82	7450				
	497	2,816	3,07	75	7400				
	548	2,553	3,07	68	7400				
	65	21,5	0,83	562	3600	İRAM İRFM İRAFM İRBM	63 / 112 M 4b	231	61
	68	20,53	0,88	537	3600			232	66
	77	18,18	0,99	474	3600			233	67
	89	15,59	1,12	410	3600			234	73
	101	13,80	1,25	361	3600				
	103	13,47	1,14	360	3400	İRAM İRFM İRAFM İRBM	62 / 112 M 4b	231	56
	114	12,20	1,20	325	3400			232	61
	126	11,10	1,31	294	3400			233	62
	138	10,07	1,43	269	3400			234	68
	149	9,358	1,34	249	3400				



Helisel Dişlilı Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg		
4 5,5	164	8,51	1,43	226	3400	İRAM İRFM İRAFM İRBM	62 / 112 M 4b	231	56		
	182	7,673	1,48	204	3400						
	196	7,108	1,59	189	3400						
	216	6,48	1,65	172	3400						
	233	5,992	1,76	159	3400						
	244	5,723	2,92	152	3400			232	61		
	262	5,325	2,92	141	3400						
	276	5,06	3,15	134	3400					233	62
	311	4,499	3,37	119	3400						
	350	3,998	3,57	106	3400						
	377	3,711	2,53	98	3400						
	425	3,287	2,58	87	3400						
	479	2,917	2,64	77	3400						
	540	2,592	2,64	69	3400						
	572	2,444	2,64	65	3400						
	65	21,5	0,83	562	3600	İRAM İRFM İRAFM	631 / 112 M 4b	213	61		
	68	20,53	0,88	537	3600						
	77	18,18	0,99	474	3600						
	89	15,59	1,12	410	3600			214	66		
	101	13,80	1,25	361	3600					215	67
	103	13,47	1,14	360	3400						
	114	12,20	1,20	325	3400	İRAM İRFM İRAFM	621 / 112 M 4b	213	56		
	126	11,10	1,31	294	3400						
	138	10,07	1,43	269	3400						
	149	9,358	1,34	249	3400						
	164	8,51	1,43	226	3400						
	182	7,673	1,48	204	3400						
	196	7,108	1,59	189	3400						
	216	6,48	1,65	172	3400						
	233	5,992	1,76	159	3400						
	244	5,723	2,92	152	3400						
	262	5,325	2,92	141	3400						
	276	5,06	3,15	134	3400						
	311	4,499	3,37	119	3400						
	350	3,998	3,57	106	3400						
	377	3,711	2,53	98	3400						
	425	3,287	2,58	87	3400						
	479	2,917	2,64	77	3400						
	540	2,592	2,64	69	3400						
	572	2,444	2,64	65	3400						
5,5 7,5	2,7	503	0,96	18038	110000	İRAM İRFM İRAFM	153 İR 92 / 132 S 4a	411	1091		
	3,2	432	1,12	15219	110000						
	3,6	386	1,25	13528	110000						
	4,0	348	1,39	12176	110000			412	1141		
	4,4	314	1,54	11069	110000						
	5,3	260	1,86	9189	110000						
	5,8	237	2,00	8397	110000	İRAM İRFM İRAFM	154 / 132 S 4a	405	1043		
	2,2	612	0,85	22474	110000						
	2,5	548	0,93	19777	110000						
	2,8	495	1,04	17658	110000						
	3,2	431	1,20	15451	110000						
	3,8	361	1,40	13012	110000						
	4,3	321	1,58	11499	110000						
	4,8	291	1,75	10301	110000						
	5,2	264	1,96	9508	110000						
	6,0	229	2,20	8241	110000						



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
5,5 7,5	3,2	437	0,82	15219	60000	İRAM İRFM İRAFM	143 İR 82 / 132 S 4a	391 392 393	583 597 623
	3,5	398	0,90	13915	60000				
	4,2	331	1,09	11596	60000				
	5,0	277	1,32	9740	60000				
	5,6	249	1,44	8697	60000				
	6,5	214	1,69	7493	60000				
	7,2	193	1,85	6764	60000				
	7,9	176	2,02	6165	60000				
	8,4	165	2,18	5798	60000	İRAM İRFM İRAFM	143 İR 72 / 132 S 4a	385 386 387	543 557 583
	3,0	453	0,79	16234	60000				
	3,7	377	0,95	13163	60000				
	4,4	315	1,15	11069	60000				
	5,1	270	1,34	9549	60000				
	2,8	487	0,79	17658	60000				
	3,1	437	0,87	15950	60000				
	3,6	384	0,98	13734	60000				
	4,0	344	1,12	12361	60000				
	4,5	307	1,24	10987	60000				
	5,0	275	1,36	9889	60000				
	5,3	262	1,44	9329	60000				
	5,9	235	1,58	8380	60000				
	6,5	212	1,75	7607	60000				
	7,2	192	1,80	6867	60000				
	8,0	174	2,13	6180	60000	İRAM İRFM İRAFM İRBM	143 / 132 M 6b	371 372 373 374	533 547 573 702
	5,5	161	1,45	9127	60000				
	6,1	146	1,60	8229	60000				
	6,7	132	1,82	7492	60000				
	8,7	103	2,25	5770	60000				
	9,7	92,23	2,55	5175	60000				
	10	82,86	2,91	5020	60000				
	12	72,70	3,27	4183	60000				
	4,4	312	0,78	11237	45210	İRAM İRFM İRAFM	124 / 132 S 4a	359 360 361	395 397 425
	5,0	279	0,88	9889	45210				
	5,5	250	0,98	8990	44490				
	6,1	226	1,09	8106	44200				
	6,5	215	1,12	7607	44100	İRAM İRFM İRAFM İRBM	123 / 132 M 6b	351 352 353 354	358 360 388 475
	5,3	167	0,88	9471	45210				
	5,9	151	0,98	8508	45210				
	7,5	186	1,23	6693	45210				
	8,3	167	1,37	6048	45210	İRAM İRFM İRAFM İRBM	123 / 132 S 4a	351 352 353 354	333 335 363 450
9,2	151	1,52	5456	44490					
11	122	1,94	4563	44200					
12	111	2,00	4183	44100					
13	100	2,30	3861	43800					
15	90,71	2,50	3346	43700					
18	75,76	3,00	2789	43570					
20	66,67	3,40	2510	43180					
23	59,16	3,80	2182	43180					
26	52,84	4,30	1931	43180	İRAM İRFM İRAFM İRBM	103 / 132 S 4a	331 332 333 334	243 246 268 316	
11	126	0,92	4563	28500					
12	113	1,04	4183	28500					
13	103	1,12	3861	28500					
14	94,54	1,24	3585	28500					
16	86,72	1,32	3137	28300					
18	77,32	1,48	2789	28300					



Helisel Dişli Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
5,5 7,5	20	68,28	1,68	2510	28300	İRAM İRFM İRAFM İRBM	103 / 132 S 4a	331 332 333 334	243 246 268 316
	23	60,69	1,88	2182	28300				
	25	54,22	2,18	2008	28000				
	28	48,64	2,40	1793	28000				
	31	43,79	2,67	1619	27900				
	35	39,52	2,91	1434	27900				
	39	35,87	3,27	1287	27900				
	44	31,67	3,64	1141	27750				
	14	96,96	0,80	3585	20000	İRAM İRFM İRAFM İRBM	93 / 132 S 4a	311 312 313 314	162 172 182 208
	16	86,16	0,90	3137	20000				
	18	77,10	1,00	2789	20000				
	20	68,65	1,06	2510	20000				
	23	60,50	1,20	2182	20000				
	26	53,76	1,42	1931	20000				
	29	48,11	1,58	1731	20000				
	32	43,29	1,80	1569	20000				
	35	39,13	1,96	1434	19800				
	39	35,52	2,16	1287	19800				
	43	32,34	2,40	1167	19800				
	47	29,52	2,62	1068	19800				
	51	27,01	2,84	984	19600				
	56	24,76	3,11	896	19601				
	69	20,09	3,80	727	19602				
	83	16,85	4,50	605	19603				
	59	23,38	3,13	864	17800	İRAM İRFM İRAFM İRBM	92 / 132 S 4a	311 312 313 314	156 166 176 202
	67	20,60	3,27	761	17600				
	76	18,31	3,56	671	17450				
	85	16,38	3,90	600	17250				
	94	14,74	4,20	542	17100				
	105	13,32	4,60	485	17000				
	29	47,58	0,85	1731	14800	İRAM İRFM İRAFM İRBM	83 / 132 S 4a	291 292 293 294	113 118 120 143
	30	45,93	0,87	1673	14800				
	33	41,22	0,98	1521	14700				
	37	37,16	1,08	1357	14600				
	42	33,02	1,28	1195	14500				
	46	30,08	1,39	1091	14450				
	51	27,12	1,50	984	14250				
	58	24,10	1,69	865	14100				
	62	22,27	1,85	810	14000				
	69	20,26	2,00	727	13750				
	75	18,47	2,16	669	13350				
	83	16,86	2,28	605	13050				
	90	15,41	2,32	558	12800				
	93	14,89	2,40	548	12800	İRAM İRFM İRAFM İRBM	82 / 132 S 4a	291 292 293 294	108 113 115 138
105	13,23	2,61	485	12200					
117	11,87	2,72	436	12000					
130	10,70	3,05	392	11900					
144	9,689	3,38	354	11650					
159	8,793	3,63	321	11250					
169	8,244	3,78	302	11100					
188	7,432	4,07	271	10900					
208	6,724	4,14	245	10800					
229	6,103	4,43	223	10700					
252	5,552	4,58	202	10600					
276	5,061	4,72	185	10500					

Güç Devir Tabloları / Performance Tables / Table de Performances



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	İ Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg		
5,5 7,5	62	22,48	0,98	810	8500	İRAM İRFM İRAFM İRBM	73 / 132 S 4a	271	72		
	68	20,29	1,10	738	8500			272	75		
	76	18,35	1,17	660	8500			273	78		
	84	16,62	1,28	598	8500			274	90		
	92	15,06	1,56	546	8500						
	103	13,52	1,48	495	7870	İRAM İRFM İRAFM İRBM	72 / 132 S 4a			271 272 273 274	70 73 76 88
	116	12,02	1,56	439	7870						
	130	10,74	1,74	392	7870						
	149	9,337	1,85	342	7870						
	168	8,333	1,97	303	7870						
	187	7,476	2,12	273	7870						
	208	6,73	2,23	245	7870						
	230	6,074	2,61	222	7870						
	254	5,494	2,70	201	7870						
	280	4,995	2,71	182	7870						
	311	4,497	2,83	164	7870						
	344	4,059	3,00	148	7870						
	381	3,67	3,12	134	7870						
	421	3,324	3,27	121	7870						
	464	3,014	3,40	110	7870						
	512	2,733	3,64	100	7870						
	544	2,571	3,64	94	7870						
	460	6,074	4,90	111	7870			İRAM İRFM İRAFM İRBM	72 / 132 S 2a		
	509	5,494	5,10	100	7870						
	560	4,995	5,10	91	7870						
	622	4,497	5,20	82	7870						
	689	4,059	5,50	74	7870						
	115	12,12	1,11	443	7600	İRAM İRFM İRAFM İRBM	721 / 132 S 4a	251 252 253 254	72 75 78 90		
	141	9,866	1,30	361	7550						
	159	8,769	1,36	321	7500						
	178	7,834	1,39	286	7450						
	199	7,029	1,56	256	7400						
	221	6,327	1,72	231	7400						
	245	5,71	1,88	208	7350						
	271	5,164	2,08	188	7350						
	299	4,677	2,18	170	7300						
	330	4,24	2,23	154	7280						
	367	3,809	2,23	139	7250						
	407	3,438	2,23	125	7100						
	450	3,109	2,23	113	7100						
	497	2,816	2,23	103	7100						
	548	2,553	2,23	93	7100						
	101	13,80	0,91	497	3300					İRAM İRFM İRAFM İRBM	63 / 132 S 4a
	182	7,673	1,08	280	3000	İRAM İRFM İRAFM İRBM	62 / 132 S 4a	231 232 233 234	58 63 64 70		
	196	7,108	1,16	260	3000						
	216	6,48	1,20	236	3000						
	233	5,992	1,28	219	3000						
	244	5,723	2,12	209	3000						
	262	5,325	2,12	195	3000						
	276	5,06	2,29	185	3000						
	311	4,499	2,45	164	3000						
	350	3,998	2,60	146	3000						



Helisel Dişlil Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
5,5 7,5	377	3,711	1,84	135	3000	İRAM İRFM İRAFM İRBM	62 / 132 S 4a	231	58
	425	3,287	1,88	120	3000			232	63
	479	2,917	1,92	106	3000			233	64
	540	2,592	1,92	94	3000			234	70
	572	2,444	1,92	89	3000				
	393	7,108	2,30	130	3000	İRAM İRFM İRAFM İRBM	62 / 132 S 2a	231 232 233 234	71 76 77 83
	432	6,48	2,30	118	3000				
	467	5,992	2,30	109	3000				
	489	5,723	4,20	104	3000				
	525	5,325	4,20	97	3000				
	553	5,06	4,50	92	3000				
	622	4,499	4,80	82	3000				
	700	3,998	5,20	73	3000				
	754	3,711	3,80	68	3000				
	851	3,287	3,90	60	3000				
	101	13,80	0,91	497	3300	İRAM İRFM İRAFM	631 / 132 S 4a	213 214 215	63 68 69
	182	7,673	1,08	280	3000	İRAM İRFM İRAFM	621 / 132 S 4a	213 214 215	58 63 64
	196	7,108	1,16	260	3000				
	216	6,48	1,20	236	3000				
	233	5,992	1,28	219	3000				
	244	5,723	2,12	209	3000				
	262	5,325	2,12	195	3000				
	276	5,06	2,29	185	3000				
	311	4,499	2,45	164	3000				
	350	3,998	2,60	146	3000				
	377	3,711	1,84	135	3000				
	425	3,287	1,88	120	3000	İRAM İRFM İRAFM	621 / 132 S 2a	213 214 215	71 76 77
	479	2,917	1,92	106	3000				
	540	2,592	1,92	94	3000				
	572	2,444	1,92	89	3000				
	393	7,108	2,30	130	3000				
	432	6,48	2,30	118	3000				
	467	5,992	2,30	109	3000				
	489	5,723	4,20	104	3000				
	525	5,325	4,20	97	3000				
	553	5,06	4,50	92	3000				
	622	4,499	4,80	82	3000				
	700	3,998	5,20	73	3000				
	754	3,711	3,80	68	3000				
	851	3,287	3,90	60	3000				
7,5 11	3,2	432	0,82	20754	110000	İRAM İRFM İRAFM	153 İR 92 / 132 M 4a	411	1102
	3,6	386	0,92	18448	110000			412	1152
	4,0	348	1,02	16603	110000			413	1172
	4,4	314	1,18	15094	110000				
	5,3	260	1,36	12531	110000				
	5,8	237	1,50	11450	110000	İRAM İRFM İRAFM	154 / 132 M 4a	405 406 407	1054 1124 1124
	3,2	431	0,88	21070	110000				
	3,8	361	1,03	17743	110000				
	4,3	321	1,16	15680	110000				
	4,8	291	1,28	14047	110000				
	5,2	264	1,44	12966	110000				
	6,0	229	1,64	11237	110000				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
7,5 11	4,0	221	1,10	17112	110000	İRAM İRFM İRAFM İRBM	153 / 160 M 6a	397 398 399 400	1021 1071 1091 1326
	4,4	201	1,20	15557	110000				
	5,0	178	1,36	13690	110000				
	5,7	157	1,55	12009	110000				
	6,3	141	1,72	10865	110000				
	7,0	127	1,91	9779	110000				
	8,1	111	2,20	8451	110000				
	9,6	93,04	2,60	7130	110000				
	10	82,63	2,90	6845	110000				
	12	75	3,20	5704	110000				
	13	67,98	3,50	5265	110000	İRAM İRFM İRAFM	143 İR 82 / 132 M 4a	391 392 393	594 608 634
	4,2	331	0,80	15812	60000				
	5,0	277	0,97	13282	60000				
	5,6	249	1,06	11859	60000				
	6,5	214	1,24	10217	60000				
	7,2	193	1,36	9224	60000				
	7,9	176	1,48	8407	60000				
	8,4	165	1,60	7906	60000	İRAM İRFM İRAFM	144 / 132 M 4a	379 380 381	581 595 621
	4,0	344	0,82	16856	60000				
	4,5	307	0,91	14983	60000				
	5,0	275	1,00	13485	60000				
	5,3	262	1,06	12721	60000				
	5,9	235	1,16	11428	60000				
	6,5	212	1,28	10373	60000	İRAM İRFM İRAFM İRBM	143 / 160 M 6a	371 372 373 374	566 580 606 735
	7,2	192	1,32	9364	60000				
	8,0	174	1,56	8428	60000				
	5,5	161	1,07	12445	60000				
	6,1	146	1,17	11221	60000				
	6,7	132	1,33	10216	60000				
	8,7	103	1,65	7868	60000	İRAPM İRFPM İRAFPM İRBPM	143 / 132 M 4a	375 376 377 378	519 533 559 688
	9,7	92,23	1,87	7057	60000				
	10	82,86	2,13	6845	60000				
	12	72,70	2,40	5704	60000				
	8,6	161	1,70	7959	60000				
	9,5	146	1,88	7205	60000				
	10	132	2,00	6845	60000	İRAM İRFM İRAFM İRBM	124 / 132 M 4a	359 360 361	406 408 436
	13	103	2,40	5265	60000				
	15	92,23	2,70	4563	60000				
	16	82,86	3,30	4278	60000				
	6,1	226	0,80	11053	45200				
	6,5	215	0,82	10373	45200				
	7,5	186	0,90	9127	45210	İRAM İRFM İRAFM İRBM	123 / 132 M 4a	351 352 353 354	344 346 374 461
	8,3	167	1,00	8247	45210				
	9,2	151	1,11	7440	44490				
	11	122	1,42	6223	44200				
12	111	1,47	5704	44100					
13	100	1,69	5265	43800					
15	90,71	1,83	4563	43300					
18	75,76	2,20	3803	43180					
20	66,67	2,49	3422	43180					
23	59,16	2,79	2976	43180					
26	52,84	3,15	2633	43180					
29	47,47	3,45	2360	42900					
32	42,84	3,80	2139	42720					
34	40,7	4,00	2013	42720					



Helisel Dişli Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
7,5 11	16	86,72	0,97	4278	27000	İRAM İRFM İRAFM İRBM	103 / 132 M 4a	331 332 333 334	254 257 279 327
	18	77,32	1,09	3803	27000				
	20	68,28	1,23	3422	27000				
	23	60,69	1,38	2976	26500				
	25	54,22	1,60	2738	26500				
	28	48,64	1,76	2445	26100				
	31	43,79	1,96	2208	26000				
	35	39,52	2,13	1956	25800				
	39	35,87	2,40	1755	28500				
	44	31,67	2,67	1556	25500				
	49	28,15	3,08	1397	25000				
	55	25,15	3,37	1245	24500				
	62	22,56	3,81	1104	24200				
	20	68,65	0,78	3422	19200	İRAM İRFM İRAFM İRBM	93 / 132 M 4a	311 312 313 314	173 183 193 219
	23	60,50	0,88	2976	19200				
	26	53,76	1,04	2633	19100				
	29	48,11	1,16	2360	19000				
	32	43,29	1,32	2139	19000				
	35	39,13	1,44	1956	19000				
	39	35,52	1,58	1755	19000				
	43	32,34	1,76	1592	18900				
	47	29,52	1,92	1456	18900				
	51	27,01	2,08	1342	18800				
	56	24,76	2,28	1222	18801				
	69	20,09	2,79	992	18802				
	83	16,85	3,30	825	18803				
	98	14,21	3,96	698	18804				
	59	23,38	2,29	1178	17000	İRAM İRFM İRAFM İRBM	92 / 132 M 4a	311 312 313 314	167 177 187 213
	67	20,60	2,40	1037	17000				
	76	18,31	2,61	914	17000				
	85	16,38	2,86	818	16800				
	94	14,74	3,08	739	16800				
	105	13,32	3,37	662	16700				
	127	11,01	4,10	547	16550				
	139	10,05	4,40	500	16500				
	152	9,2	4,50	457	16500				
	37	37,16	0,79	1850	14300				
	42	33,02	0,93	1630	14150				
	46	30,08	1,02	1488	14050				
	51	27,12	1,10	1342	13800				
	58	24,10	1,24	1180	13500				
	62	22,27	1,36	1104	13350				
	69	20,26	1,46	992	13150				
	75	18,47	1,58	913	12950				
	83	16,86	1,67	825	12500				
	90	15,41	1,70	761	12050				
	93	14,89	1,76	747	12050				
	105	13,23	1,92	662	11800				
	117	11,87	2,00	594	11450				
	130	10,70	2,24	535	11100				
	144	9,689	2,48	483	10850				
	159	8,793	2,66	437	10650				
	169	8,244	2,77	411	10500				
	188	7,432	2,98	370	10400				
	208	6,724	3,04	334	10200				
	229	6,103	3,25	303	10100				
	252	5,552	3,36	276	10000				
İRAM İRFM İRAFM İRBM	82 / 132 M 4a	291 292 293 294	119 124 126 149						



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	İ Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
7,5 11	276	5,061	3,46	252	9900	İRAM İRFM İRAFM İRBM	82 / 132 M 4a	291 292 293 294	119 124 126 149
	303	4,62	3,57	229	9800				
	331	4,222	3,66	210	9650				
	345	4,052	3,74	201	9600				
	378	3,694	3,96	184	9500				
	415	3,372	4,18	167	9500				
	454	3,082	4,40	153	9500				
	478	2,926	4,40	145	9500				
	523	2,674	4,47	133	9500				
	589	2,373	4,62	118	9500				
	68	20,29	0,80	1007	7600	İRAM İRFM İRAFM İRBM	73 / 132 M 4a	271 272 273 274	83 86 89 101
	76	18,35	0,86	901	7600				
	84	16,62	0,93	815	7600				
	92	15,06	1,14	744	7600				
	103	13,52	1,09	675	7500	İRAM İRFM İRAFM İRBM	72 / 132 M 4a	271 272 273 274	81 84 87 99
	116	12,02	1,15	599	7500				
	130	10,74	1,28	535	7500				
	149	9,337	1,36	466	7500				
	168	8,333	1,45	414	7500				
	187	7,476	1,56	372	7500				
	208	6,73	1,64	334	7500				
	230	6,074	1,92	302	7500				
	254	5,494	1,98	274	7500				
	280	4,995	1,99	248	7500				
	311	4,497	2,08	223	7500				
	344	4,059	2,20	202	7500				
	381	3,67	2,29	182	7500				
	421	3,324	2,40	165	7500				
	464	3,014	2,50	150	7500				
	512	2,733	2,67	136	7500				
	544	2,571	2,67	128	7500				
	460	6,074	3,59	151	7870	İRAM İRFM İRAFM İRBM	72 / 132 S 2b	271 272 273 274	95 98 101 113
	509	5,494	3,74	137	7870				
	560	4,995	3,74	124	7870				
	622	4,497	3,81	112	7870				
	689	4,059	4,03	101	7870	İRAM İRFM İRAFM İRBM	721 / 132 M 4a	251 252 253 254	83 86 89 101
	115	12,12	0,82	604	7400				
	141	9,866	0,96	493	7400				
	159	8,769	1,00	437	7370				
	178	7,834	1,02	390	7350				
	199	7,029	1,14	349	7300				
	221	6,327	1,26	314	7300				
	245	5,71	1,37	284	7250				
	271	5,164	1,52	256	7250				
	299	4,677	1,60	232	7200				
	330	4,24	1,64	211	7170				
	367	3,809	1,64	189	7150				
	407	3,438	1,64	171	7000				
450	3,109	1,64	154	7000					
497	2,816	1,64	140	7000					
548	2,553	1,64	127	7000					
11 15	5,3	260	0,93	18378	110000	İRAM İRFM İRAFM	153 İR 92 / 160 M 4a	411	1145
	5,8	237	1,02	16794	110000			412	1195
								413	1215



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
11 15	4,8	291	0,87	20602	110000	İRAM	154 / 160 M 4a	405	1097
	5,2	264	0,98	19017	110000	İRFM		406	1167
	6,0	229	1,12	16481	110000	İRAFM		407	1167
	4,4	201	0,82	22817	110000	İRAM	153 / 160 L 6a	397	1047
	5,0	178	0,93	20079	110000	İRFM		398	1097
	5,7	157	1,06	17613	110000	İRAFM		399	1117
	6,3	141	1,17	15935	110000	İRBM		400	1352
	7,0	127	1,30	14342	110000	İRAM İRFM İRAFM İRBM	153 / 160 M 4a	397 398 399 400	1017 1067 1087 1322
	6,3	221	1,17	15935	110000				
	6,9	201	1,28	14550	110000				
	7,8	178	1,44	12871	110000				
	8,8	157	1,64	11408	110000				
	9,9	141	1,82	10141	110000				
	10	127	2,00	10039	110000				
	12	111	2,30	8366	110000				
	15	93,04	2,70	6693	110000				
	16	82,63	3,10	6275	110000				
	6,5	214	0,85	14985	60000	İRAM	143 İR 82 / 160 M 4a	391	637
	7,2	193	0,93	13528	60000	İRFM		392	651
	7,9	176	1,01	12330	60000	İRAFM		393	677
	8,4	165	1,09	11596	60000	İRAM İRFM İRAFM	144 / 160 M 4a	379 380 381	624 638 664
	5,9	235	0,79	16761	60000				
	6,5	212	0,87	15213	60000				
	7,2	192	0,90	13734	60000				
	8,0	174	1,06	12361	60000	İRAM İRFM İRAFM İRBM	143 / 160 L 6a	371 372 373 374	592 606 632 761
	6,1	146	0,80	16458	60000				
	6,7	132	0,91	14984	60000				
	8,7	103	1,13	11539	60000				
	9,7	92,23	1,27	10350	60000				
	10	82,86	1,45	10039	60000	İRAM İRFM İRAFM İRBM	143 / 160 M 4a	371 372 373 374	562 576 602 731
	12	72,70	1,64	8366	60000				
	8,6	161	1,16	11674	60000				
	9,5	146	1,28	10568	60000				
	10	132	1,36	10039	60000				
	13	103	1,64	7723	60000				
	15	92,23	1,84	6693	60000				
	16	82,86	2,25	6275	60000				
	19	72,70	2,52	5284	60000				
	21	64,89	2,90	4781	60000	İRAM İRFM İRAFM İRBM	123 / 160 M 4a	351 352 353 354	387 389 417 504
	13	100	1,15	7723	44800				
15	90,71	1,25	6693	44300					
18	75,76	1,50	5577	43870					
20	66,67	1,70	5020	43180					
23	59,16	1,90	4365	43180					
26	52,84	2,15	3861	43180					
29	47,47	2,35	3462	43000					
32	42,84	2,59	3137	43000					
34	40,7	2,73	2953	43000					
38	36,11	3,00	2642	42880	İRAM İRFM İRAFM İRBM	103 / 160 M 4a	331 332 333 334	297 300 322 370	
43	32,26	3,41	2335	42700					
48	28,98	3,75	2092	42700					
23	60,69	0,94	4365	25000					
25	54,22	1,09	4016	25000					
28	48,64	1,20	3585	24800					
31	43,79	1,34	3238	24800					
35	39,52	1,45	2868	24500					
39	35,87	1,64	2574	24500					



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
11 15	44	31,67	1,82	2282	24200	İRAM İRFM İRAFM İRBM	103 / 160 M 4a	331	297
	49	28,15	2,10	2049	24000			332	300
	55	25,15	2,30	1825	23800			333	322
	62	22,56	2,60	1619	23500			334	370
	68	20,31	2,86	1476	23100				
	76	18,36	3,20	1321	22800				
	84	16,58	3,55	1195	22500				
	93	15,01	3,95	1079	22000				
	79	17,69	3,20	1290	22000	İRAM İRFM İRAFM İRBM	102 / 160 M 4a	331 332 333 334	295 298 320 368
	29	48,11	0,79	3462	17800	İRAM İRFM İRAFM İRBM	93 / 160 M 4a	311	216
	32	43,29	0,90	3137	17800			312	226
	35	39,13	0,98	2868	17600			313	236
	39	35,52	1,08	2574	17500			314	262
	43	32,34	1,20	2335	17450				
	47	29,52	1,31	2136	17250				
	51	27,01	1,42	1968	17150				
	56	24,76	1,55	1793	17151				
	69	20,09	1,90	1455	17152				
	83	16,85	2,25	1210	17153				
	98	14,21	2,70	1024	17154	İRAM İRFM İRAFM İRBM	92 / 160 M 4a	311	210
	67	20,60	1,64	1521	15150			312	220
	76	18,31	1,78	1341	15000			313	230
	85	16,38	1,95	1199	14800			314	256
	94	14,74	2,10	1084	14600				
	105	13,32	2,30	971	14400				
	127	11,01	2,80	803	14150				
	139	10,05	3,00	733	14000				
	152	9,2	3,07	671	13650				
	168	8,317	3,20	607	13400				
	185	7,548	3,55	551	13000	İRAM İRFM İRAFM İRBM	83 / 160 M 4a	291	167
	203	6,872	3,89	502	12850			292	172
	223	6,274	4,30	457	12700			293	174
	62	22,27	0,92	1619	12150			294	197
	69	20,26	1,00	1455	12000				
	75	18,47	1,08	1339	11900				
	83	16,86	1,14	1210	11650				
	90	15,41	1,16	1115	11350	İRAM İRFM İRAFM İRBM	82 / 160 M 4a	291	162
	105	13,23	1,30	971	10950			292	167
	117	11,87	1,36	871	10750			293	169
	130	10,70	1,52	784	10500			294	192
	144	9,689	1,69	708	10350				
	159	8,793	1,81	641	10050				
	169	8,244	1,89	603	9800				
	188	7,432	2,03	542	9700				
	208	6,724	2,07	490	9600				
	229	6,103	2,21	445	9500				
	252	5,552	2,29	404	9400				
	276	5,061	2,36	369	9300				
	303	4,62	2,43	336	9250				
	331	4,222	2,50	308	9150				
	345	4,052	2,55	295	9050				
	378	3,694	2,70	270	8950				
	415	3,372	2,85	246	8800				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
11 15	454	3,082	3,00	224	8700	İRAM	82 / 160 M 4a	291	162
	478	2,926	3,00	213	8700	İRFM		292	167
	523	2,674	3,05	195	8700	İRAFM		293	169
	589	2,373	3,15	173	8700	İRBM		294	192
	254	5,494	1,35	401	5580	İRAM	72 / 160 M 4a	271	124
	381	3,67	1,56	268	5580	İRFM		272	127
	421	3,324	1,63	242	5580	İRAFM		273	130
	464	3,014	1,70	220	5580	İRBM		274	142
	512	2,733	1,82	199	5580				
	544	2,571	1,82	187	5580				
15 20	6,0	229	0,82	22474	110000	İRAM İRFM İRAFM	154 / 160 L 4a	405 406 407	1120 1190 1190
	5,7	157	0,78	24018	110000	İRAM	153 / 180 L 6a	397	1087
	6,3	141	0,86	21730	110000	İRFM		398	1137
	7,0	127	0,96	19557	110000	İRAFM		399	1157
	6,3	221	0,86	21730	110000	İRBM		400	1392
	6,9	201	0,94	19841	110000	İRAM İRFM İRAFM İRBM	153 / 160 L 4a	397 398 399 400	1040 1090 1110 1345
	7,8	178	1,06	17551	110000				
	8,8	157	1,20	15557	110000				
	9,9	141	1,33	13828	110000				
	10	127	1,47	13690	110000				
	12	111	1,69	11408	110000				
	15	93,04	1,98	9127	110000				
	16	82,63	2,27	8556	110000				
	18	75	2,50	7606	110000				
	20	67,98	2,80	6845	110000				
	9,7	92,23	0,93	14113	60000	İRAM	143 / 180 L 6a	371	632
	10	82,86	1,07	13690	60000	İRFM		372	646
	12	72,70	1,20	11408	60000	İRAFM		373	672
	8,6	161	0,85	15919	60000	İRBM		374	801
	9,5	146	0,94	14411	60000	İRAM İRFM İRAFM İRBM	143 / 160 L 4a	371 372 373 374	585 599 625 754
	10	132	1,00	13690	60000				
	13	103	1,20	10531	60000				
	15	92,23	1,35	9127	60000				
	16	82,86	1,65	8556	60000				
	19	72,70	1,85	7205	60000				
	21	64,89	2,13	6519	60000				
	24	58,23	2,28	5704	60000				
	25	55,48	2,50	5476	60000	İRAM İRFM İRAFM İRBM	123 / 160 L 4a	351 352 353 354	410 412 440 527
	28	49,78	2,79	4889	60000				
	31	44,88	3,10	4416	60000				
	34	40,61	3,30	4026	60000				
	15	90,71	0,92	9127	45200				
	18	75,76	1,10	7606	45000				
	20	66,67	1,25	6845	44800				
	23	59,16	1,39	5952	44400				
	26	52,84	1,58	5265	44250				
	29	47,47	1,72	4721	44000				
	32	42,84	1,90	4278	43780				
	34	40,7	2,00	4026	43540				
	38	36,11	2,20	3603	43500				
	43	32,26	2,50	3184	43400				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			
15 20	48	28,98	2,75	2852	42700	İRAM	123 / 160 L 4a	351	410
	53	26,15	3,08	2583	41800	İRFM		352	412
	59	23,68	3,37	2320	41000	İRAFM		353	440
	65	21,52	3,67	2106	40000	İRBM		354	527
	53	26,28	3,00	2622	41800	İRAM	122 / 160 L 4a	351	383
	58	23,76	3,30	2396	41700	İRFM		352	385
	70	19,85	4,00	1985	41600	İRAFM		353	413
	80	17,46	4,50	1737	41500	İRBM		354	500
	25	54,22	0,80	5476	23000	İRAM İRFM İRAFM İRBM	103 / 160 L 4a	331 332 333 334	320 323 345 393
	28	48,64	0,88	4889	22500				
	31	43,79	0,98	4416	22000				
	35	39,52	1,07	3911	21500				
	39	35,87	1,20	3510	21300				
	44	31,67	1,33	3111	21300				
	49	28,15	1,54	2794	21000				
	55	25,15	1,69	2489	20800				
	62	22,56	1,91	2208	20500				
	68	20,31	2,10	2013	20000				
	76	18,36	2,35	1801	20000				
	84	16,58	2,60	1630	20000				
	93	15,01	2,90	1472	20000				
	79	17,69	2,35	1759	20000	İRAM İRFM İRAFM İRBM	102 / 160 L 4a	331 332 333 334	318 321 343 391
	89	15,62	2,80	1562	19500				
	100	13,88	3,01	1390	19500				
	112	12,40	3,37	1241	19000				
	132	10,58	4,10	1053	19000	İRAM İRFM İRAFM İRBM	93 / 160 L 4a	311 312 313 314	239 249 259 285
	148	9,457	4,50	939	18000				
	69	20,09	1,39	1984	14000				
	83	16,85	1,65	1649	14000				
	98	14,21	1,98	1397	14000				
	67	20,60	1,20	2074	14000				
	76	18,31	1,31	1829	13900				
	85	16,38	1,43	1635	13800				
	94	14,74	1,54	1479	13750				
	105	13,32	1,69	1324	13600				
	127	11,01	2,05	1094	13500				
	139	10,05	2,20	1000	13500				
	152	9,2	2,25	914	13300				
	168	8,317	2,35	827	13200				
	185	7,548	2,60	751	13050	İRAM İRFM İRAFM İRBM	92 / 160 L 4a	311 312 313 314	233 243 253 279
	203	6,872	2,85	685	12900				
	223	6,274	3,15	623	12800				
	243	5,74	3,30	572	12600				
	266	5,261	3,37	522	12500				
	315	4,437	3,59	441	12400				
	83	16,86	0,83	1649	10350	İRAM İRFM İRAFM İRBM	83 / 160 L 4a	291	190
								292	195
	90	15,41	0,85	1521	10100			293	197
					294			220	
105	13,23	0,96	1324	9900	İRAM İRFM İRAFM İRBM	82 / 160 L 4a	291	185	
117	11,87	1,00	1188	9700			292	190	
130	10,70	1,12	1069	9650			293	192	
144	9,689	1,24	965	9600			294	215	
159	8,793	1,33	874	9500					
169	8,244	1,38	822	9300					



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
15 20	188	7,432	1,49	739	9200	İRAM İRFM İRAFM İRBM	82 / 160 L 4a		185 190 192 215
	208	6,724	1,52	668	9050				
	229	6,103	1,62	607	8950				
	252	5,552	1,68	552	8850				
	276	5,061	1,73	504	8800				
	303	4,62	1,78	459	8700				
	331	4,222	1,83	420	8600				
	345	4,052	1,87	403	8500				
	378	3,694	1,98	368	8350				
	415	3,372	2,09	335	8300				
	454	3,082	2,20	306	8250				
	478	2,926	2,20	291	8250				
	523	2,674	2,23	266	8250				
	589	2,373	2,31	236	8250				
18,5 25	7,8	178	0,86	21647	110000	İRAM İRFM İRAFM İRBM	153 / 180 M 4a		1085 1135 1155 1390
	8,8	157	0,98	19187	110000				
	9,9	141	1,08	17055	110000				
	10	127	1,19	16884	110000				
	12	111	1,37	14070	110000				
	15	93,04	1,61	11256	110000				
	16	82,63	1,84	10553	110000				
	18	75	2,00	9380	110000				
	20	67,98	2,20	8442	110000				
	23	59,07	2,50	7341	110000				
	10	132	0,81	16884	60000	İRAM İRFM İRAFM İRBM	143 / 180 M 4a		630 644 670 799
	13	103	0,97	12988	60000				
	15	92,23	1,09	11256	60000				
	16	82,86	1,34	10553	60000				
	19	72,70	1,50	8886	60000				
	21	64,89	1,72	8040	60000				
	24	58,23	1,84	7035	60000				
	25	55,48	2,02	6754	60000				
	28	49,78	2,26	6030	60000				
	31	44,88	2,51	5447	60000				
	34	40,61	2,68	4966	60000	İRAM İRFM İRAFM İRBM	123 / 180 M 4a		455 457 485 572
	37	36,85	3,00	4563	60000				
	41	33,53	3,32	4118	60000				
	18	75,76	0,89	9380	44380				
	20	66,67	1,01	8442	44350				
	23	59,16	1,13	7341	44300				
	26	52,84	1,28	6494	44250				
	29	47,47	1,40	5822	44150				
	32	42,84	1,54	5276	44100				
	34	40,7	1,62	4966	43540				
	38	36,11	1,78	4443	43500	İRAM İRFM İRAFM İRBM	122 / 180 M 4a		428 430 458 545
	43	32,26	2,03	3927	43400				
	48	28,98	2,23	3518	42800				
	53	26,15	2,50	3186	42300				
	59	23,68	2,74	2862	41500				
	65	21,52	2,97	2598	41500				
	71	19,60	3,33	2378	41500				
	78	17,89	3,65	2165	41500				
	58	23,76	2,68	2955	40000				
	70	19,85	3,24	2449	41700				
	80	17,46	3,65	2143	41600	İRAM İRFM İRAFM İRBM	122 / 180 M 4a		
	90	15,5	4,14	1905	41500				
	101	13,84	4,62	1697	41370				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	İ Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
18,5 25	35	39,52	0,86	4824	21000	İRAM İRFM İRAFM İRBM	103 / 180 M 4a	331 332 333 334	365 368 390 438
	39	35,87	0,97	4329	20450				
	44	31,67	1,08	3837	20100				
	49	28,15	1,25	3446	19800				
	55	25,15	1,37	3070	19600				
	62	22,56	1,55	2723	19000				
	68	20,31	1,70	2483	19000				
	76	18,36	1,91	2222	18900				
	84	16,58	2,11	2010	18900				
	93	15,01	2,35	1816	18700				
	79	17,69	1,91	2170	18500	İRAM İRFM İRAFM İRBM	102 / 180 M 4a	331 332 333 334	363 366 388 436
	89	15,62	2,27	1926	18500				
	100	13,88	2,44	1714	18250				
	112	12,40	2,74	1530	18100				
	132	10,58	3,32	1299	18000				
	148	9,457	3,65	1158	17900				
	164	8,485	4,05	1045	17700				
	183	7,638	4,10	937	17700				
	195	7,144	4,20	879	17500				
	85	16,38	1,16	2017	12900	İRAM İRFM İRAFM İRBM	92 / 180 M 4a	311 312 313 314	278 288 298 324
	94	14,74	1,25	1824	12750				
	105	13,32	1,37	1633	12650				
	127	11,01	1,66	1350	12450				
	139	10,05	1,78	1233	12350				
	152	9,2	1,82	1128	12200				
	168	8,317	1,91	1020	12100				
	185	7,548	2,11	927	12050				
	203	6,872	2,31	844	12000				
	223	6,274	2,56	769	11850				
	243	5,74	2,68	705	11800				
	266	5,261	2,74	644	11750				
	315	4,437	2,91	544	11750				
	343	4,08	2,97	500	11600				
	373	3,753	3,45	460	11500				
	391	3,58	3,45	438	11850				
	463	3,019	3,45	370	11850				
	504	2,776	3,57	340	11850				
	548	2,554	3,57	313	11850				
	571	2,45	3,57	300	11850				
	130	10,70	0,90	1319	9400	İRAM İRFM İRAFM İRBM	82 / 180 M 4a	291 292 293 294	230 235 237 260
	144	9,689	1,00	1190	9300				
	159	8,793	1,08	1078	9250				
	188	7,432	1,21	912	8950				
	208	6,724	1,23	824	8850				
	229	6,103	1,31	749	8750				
	252	5,552	1,36	680	8650				
	276	5,061	1,40	621	8550				
	303	4,62	1,44	566	8400				
	331	4,222	1,48	518	8250				
	345	4,052	1,51	497	8150				
	378	3,694	1,60	453	8050				
	415	3,372	1,69	413	8000				
	454	3,082	1,78	378	8000				
	478	2,926	1,78	359	8000				
	523	2,674	1,81	328	8000				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
22 30	8,8	157	0,82	22817	110000	İRAM İRFM İRAFM İRBM	153 / 180 L 4a	397 398 399 400	1101 1151 1171 1406
	9,9	141	0,91	20281	110000				
	10	127	1,00	20079	110000				
	12	111	1,15	16732	110000				
	15	93,04	1,35	13386	110000				
	16	82,63	1,55	12549	110000				
	18	75	1,70	11155	110000				
	20	67,98	1,90	10039	110000				
	23	59,07	2,10	8730	110000				
	26	52,03	2,40	7723	110000				
	31	44,27	2,90	6477	110000				
	15	92,23	0,92	13386	60000	İRAM İRFM İRAFM İRBM	143 / 180 L 4a	371 372 373 374	646 660 686 815
	16	82,86	1,13	12549	60000				
	19	72,70	1,26	10568	60000				
	21	64,89	1,45	9561	60000				
	24	58,23	1,55	8366	60000				
	25	55,48	1,70	8031	60000				
	28	49,78	1,90	7171	60000				
	31	44,88	2,11	6477	60000				
	34	40,61	2,25	5905	60000				
	37	36,85	2,52	5427	60000				
	41	33,53	2,80	4897	60000				
	50	27,90	3,34	4016	60000	İRAM İRFM İRAFM İRBM	123 / 180 L 4a	351 352 353 354	471 473 501 588
	23	59,16	0,95	8730	44000				
	26	52,84	1,08	7723	44000				
	29	47,47	1,18	6924	44000				
	32	42,84	1,30	6275	43900				
	34	40,7	1,36	5905	43700				
	38	36,11	1,50	5284	43600				
	43	32,26	1,70	4669	43400				
	48	28,98	1,88	4183	43000				
	53	26,15	2,10	3788	42500				
	59	23,68	2,30	3403	42000				
	65	21,52	2,50	3089	41500				
	71	19,60	2,80	2828	41500				
	78	17,89	3,07	2574	41500				
	70	19,85	2,73	2912	41000	İRAM İRFM İRAFM İRBM	122 / 180 L 4a	351 352 353 354	444 446 474 561
	80	17,46	3,07	2548	41000				
	90	15,5	3,48	2265	41000				
	101	13,84	3,89	2018	41000				
	112	12,43	4,36	1820	40140				
	121	11,49	4,62	1685	40140	İRAM İRFM İRAFM İRBM	103 / 180 L 4a	331 332 333 334	381 384 406 454
	44	31,67	0,91	4563	20000				
	49	28,15	1,05	4098	19500				
	55	25,15	1,15	3651	19500				
	62	22,56	1,30	3238	19100				
	68	20,31	1,43	2953	19000				
	76	18,36	1,60	2642	18700				
	84	16,58	1,77	2390	18500				
	93	15,01	1,98	2159	18000				
	79	17,69	1,60	2580	17600				
	89	15,62	1,91	2290	17200				
	100	13,88	2,05	2038	17000				
	112	12,40	2,30	1820	16700				
	132	10,58	2,80	1544	16500				
	148	9,457	3,07	1377	16300				
	164	8,485	3,41	1243	16000				
	183	7,638	3,45	1114	16000				



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	İ Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
22 30	195	7,144	3,53	1045	16000	İRAM İRFM İRAFM İRBM	102 / 180 L 4a	331 332 333 334	379 382 404 452
	219	6,382	3,70	931	15700				
	244	5,726	3,78	835	15700				
	271	5,154	3,87	752	15700				
	300	4,652	4,04	679	15500				
	332	4,207	4,20	614	15500				
	376	3,723	3,89	542	15500				
	416	3,36	4,01	490	15000				
	460	3,039	4,01	443	15000				
	508	2,752	4,09	401	15000				
	561	2,495	4,09	363	15000				
	618	2,263	4,09	330	15000				
	105	13,32	1,15	1941	12100	İRAM İRFM İRAFM İRBM	92 / 180 L 4a	311 312 313 314	294 304 314 340
	127	11,01	1,40	1605	11800				
	139	10,05	1,50	1467	11700				
	152	9,2	1,53	1341	11500				
	168	8,317	1,60	1213	11100				
	185	7,548	1,77	1102	10900				
	203	6,872	1,94	1004	10900				
	223	6,274	2,15	914	10800				
	243	5,74	2,25	839	10700				
	266	5,261	2,30	766	10600				
	315	4,437	2,45	647	10600				
	343	4,08	2,50	594	10500				
	373	3,753	2,90	546	10500				
	391	3,58	2,90	521	10500				
	463	3,019	2,90	440	10500				
	504	2,776	3,00	404	10500				
	548	2,554	3,00	372	10500				
	571	2,45	3,00	357	10500				
	208	6,724	1,03	980	8750	İRAM İRFM İRAFM İRBM	82 / 180 L 4a	291 292 293 294	246 251 253 276
	229	6,103	1,10	890	8600				
	252	5,552	1,14	809	8450				
	276	5,061	1,18	739	8350				
	303	4,62	1,21	673	8250				
	331	4,222	1,25	616	8050				
	345	4,052	1,27	591	7900				
	378	3,694	1,35	539	7800				
	415	3,372	1,42	491	7700				
	454	3,082	1,50	449	7600				
	478	2,926	1,50	426	7600				
	523	2,674	1,52	390	7600				
	589	2,373	1,57	346	7600				
30 40	12	111	0,84	22817	110000	İRAM İRFM İRAFM İRBM	153 / 200 L 4a	397 398 399 400	1150 1200 1220 1455
	15	93,04	0,99	18253	110000				
	16	82,63	1,14	17112	110000				
	18	75	1,25	15211	110000				
	20	67,98	1,39	13690	110000				
	23	59,07	1,57	11904	110000				
	26	52,03	1,80	10531	110000				
	31	44,27	2,10	8832	110000				
	36	38,46	2,30	7606	110000				
	39	35,19	2,50	7021	110000				
	50	27,49	3,10	5476	110000				
	59	23,61	3,70	4641	110000				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
30 40	16	82,86	0,83	17112	60000	İRAM İRFM İRAFM İRBM	143 / 200 L 4a	371 372 373 374	695 709 735 864
	19	72,70	0,93	14411	60000				
	21	64,89	1,06	13038	60000				
	24	58,23	1,14	11408	60000				
	25	55,48	1,25	10952	60000				
	28	49,78	1,39	9779	60000				
	31	44,88	1,55	8832	60000				
	34	40,61	1,65	8053	60000				
	37	36,85	1,85	7400	60000				
	41	33,53	2,05	6678	60000				
	50	27,90	2,45	5476	60000				
	60	23,32	2,90	4563	60000				
	69	20,01	3,27	3968	60000	İRAM İRFM İRAFM İRBM	142 / 200 L 4a	371 372 373 374	645 659 685 814
	69	20,02	2,79	4029	60000				
	77	18,16	3,08	3610	60000				
	86	16,20	3,50	3232	60000				
	96	14,55	3,90	2896	60000	İRAM İRFM İRAFM İRBM	123 / 200 L 4a	351 352 353 354	520 522 550 637
	29	47,47	0,86	9441	44250				
	32	42,84	0,95	8556	44250				
	34	40,7	1,00	8053	44000				
	38	36,11	1,10	7205	44000				
	43	32,26	1,25	6367	43990				
	48	28,98	1,38	5704	43970				
	53	26,15	1,54	5166	43000				
	59	23,68	1,69	4641	42000				
	65	21,52	1,83	4212	42000				
	71	19,60	2,05	3856	41500				
	78	17,89	2,25	3510	41500	İRAM İRFM İRAFM İRBM	122 / 200 L 4a	351 352 353 354	493 495 523 610
	80	17,46	2,25	3475	42000				
	90	15,5	2,55	3089	42000				
	101	13,84	2,85	2752	41800				
	112	12,43	3,20	2482	40500				
	121	11,49	3,39	2297	40500				
	137	10,2	3,82	2029	40210				
	153	9,112	4,26	1817	39100				
	171	8,185	4,26	1626	38900				
	181	7,724	4,40	1536	38440				
	201	6,938	4,40	1383	38000				
	223	6,261	4,40	1246	37800				
	246	5,671	4,40	1130	37400				
271	5,153	4,30	1026	37400					
298	4,694	4,30	933	37400					
326	4,284	4,30	853	37400					
357	3,917	4,30	779	37400					
390	3,585	4,30	713	37400					
426	3,284	4,30	653	37400	İRAM İRFM İRAFM İRBM	103 / 200 L 4a	331 332 333 334	430 433 455 503	
62	22,56	0,95	4416	15900					
68	20,31	1,05	4026	15900					
76	18,36	1,18	3603	15900					
84	16,58	1,30	3260	15900					
93	15,01	1,45	2944	15900	İRAM İRFM İRAFM İRBM	102 / 200 L 4a	331 332 333 334	428 431 453 501	
89	15,62	1,40	3123	15700					
100	13,88	1,50	2780	15700					
112	12,40	1,69	2482	15500					
132	10,58	2,05	2106	15100					
148	9,457	2,25	1878	15100					
164	8,485	2,50	1695	14800					



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
30 40	183	7,638	2,53	1519	14500	İRAM İRFM İRAFM İRBM	102 / 200 L 4a	331 332 333 334	428 431 453 501
	195	7,144	2,59	1425	14500				
	219	6,382	2,71	1269	14500				
	244	5,726	2,78	1139	14500				
	271	5,154	2,84	1026	14350				
	300	4,652	2,96	927	14100				
	332	4,207	3,08	837	14100				
	376	3,723	2,85	739	14100				
	416	3,36	2,94	668	14100				
	460	3,039	2,94	604	13850				
	508	2,752	3,00	547	13850				
	561	2,495	3,00	495	13850				
	618	2,263	3,00	450	13850				
	203	6,872	1,43	1369	10600	İRAM İRFM İRAFM İRBM	92 / 200 L 4a	311 312 313 314	343 353 363 389
	223	6,274	1,58	1246	10500				
	243	5,74	1,65	1144	10500				
	266	5,261	1,69	1045	10350				
	315	4,437	1,80	882	10200				
	343	4,08	1,83	810	10100				
	373	3,753	2,13	745	10000				
	391	3,58	2,13	711	10000				
	463	3,019	2,13	600	10000				
	504	2,776	2,20	552	10000				
	548	2,554	2,20	507	10000				
	571	2,45	2,20	487	10000				
37 50	15	93,04	0,80	22512	110000	İRAM İRFM İRAFM İRBM	153 / 225 S 4a	397 398 399 400	1275 1325 1345 1580
	16	82,63	0,92	21105	110000				
	18	75	1,01	18760	110000				
	20	67,98	1,13	16884	110000				
	23	59,07	1,28	14682	110000				
	26	52,03	1,45	12988	110000				
	31	44,27	1,72	10893	110000				
	36	38,46	1,84	9380	110000				
	39	35,19	2,00	8659	110000				
	50	27,49	2,50	6754	110000				
	59	23,61	3,00	5724	110000	İRAM İRFM İRAFM İRBM	152 / 225 S 4a	397 398 399 400	1200 1250 1270 1505
	49	28,54	2,30	6997	110000				
	53	25,92	2,50	6468	110000				
	59	23,57	2,80	5811	110000				
	66	21,08	3,10	5194	110000				
	73	19	3,50	4696	110000				
	81	17,22	3,80	4232	110000				
	89	15,68	4,20	3852	110000				
	21	64,89	0,86	16080	60000	İRAM İRFM İRAFM İRBM	143 / 225 S 4a	371 372 373 374	820 834 860 989
	24	58,23	0,92	14070	60000				
	25	55,48	1,01	13507	60000				
	28	49,78	1,13	12060	60000				
	31	44,88	1,26	10893	60000				
	34	40,61	1,34	9932	60000				
	37	36,85	1,50	9127	60000				
	41	33,53	1,66	8236	60000				
	50	27,90	1,99	6754	60000				
	60	23,32	2,35	5628	60000				
	69	20,01	2,65	4894	60000				
	69	20,02	2,26	4969	60000				
	77	18,16	2,50	4452	60000				
	86	16,20	2,84	3986	60000				
	96	14,55	3,16	3571	60000				
	109	12,77	3,90	3145	60000				



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P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg				
37 50	43	32,26	1,01	7853	44000	İRAM İRFM İRAFM İRBM	123 / 225 S 4a	351	645				
	48	28,98	1,11	7035	43970			352	647				
	53	26,15	1,25	6371	42300			353	675				
	59	23,68	1,37	5724	41500			354	762				
	65	21,52	1,49	5195	41000								
	71	19,60	1,66	4756	41000								
	78	17,89	1,82	4329	41500	İRAM İRFM İRFM İRAFM İRBM	122 / 225 S 4a	351 352 353 354	618 620 648 735				
	80	17,46	1,82	4285	41000								
	90	15,5	2,07	3809	41000								
	101	13,84	2,31	3394	40900								
	112	12,43	2,59	3061	40140								
	121	11,49	2,75	2833	40140								
	137	10,2	3,10	2502	40210								
	153	9,112	3,45	2241	39100								
	171	8,185	3,45	2005	38900								
	181	7,724	3,57	1894	38440								
	201	6,938	3,57	1706	38000								
	223	6,261	3,57	1537	37800								
	246	5,671	3,57	1394	37400								
	271	5,153	3,49	1265	37400								
	298	4,694	3,49	1150	37400								
	326	4,284	3,49	1052	37400								
	357	3,917	3,49	960	37400								
	390	3,585	3,49	879	37400								
	426	3,284	3,49	805	37400								
	89	15,62	1,14	3852	15000					İRAM İRFM İRFM İRAFM İRBM	102 / 225 S 4a	331 332 333 334	553 556 578 626
	100	13,88	1,22	3428	14600								
	112	12,40	1,37	3061	14600								
	132	10,58	1,66	2597	14350								
	148	9,457	1,82	2316	14350								
	164	8,485	2,03	2090	14100								
	183	7,638	2,05	1873	14100								
	195	7,144	2,10	1758	14100								
	219	6,382	2,20	1565	14100								
	244	5,726	2,25	1405	13800								
	271	5,154	2,30	1265	13800								
	300	4,652	2,40	1143	13800								
	332	4,207	2,50	1033	13800								
	376	3,723	2,31	912	13500								
	416	3,36	2,38	824	13500								
	460	3,039	2,38	745	13500								
	508	2,752	2,43	675	13450								
	561	2,495	2,43	611	13300								
	618	2,263	2,43	555	13200								
45 60	18	75	0,83	22817	110000	İRAM İRFM İRAFM İRBM	153 / 225 M 4a	397	1305				
	20	67,98	0,93	20535	110000			398	1355				
	23	59,07	1,05	17857	110000			399	1375				
	26	52,03	1,20	15796	110000			400	1610				
	31	44,27	1,41	13248	110000								
	36	38,46	1,51	11408	110000								
	39	35,19	1,66	10531	110000								
	50	27,49	2,10	8214	110000	İRAM İRFM İRAFM İRBM	152 / 225 M 4a	397	1230				
	59	23,61	2,50	6961	110000			398	1280				
	49	28,54	1,89	8509	110000			399	1300				
	53	25,92	2,06	7867	110000			400	1535				
	59	23,57	2,30	7067	110000								
	66	21,08	2,55	6317	110000								



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
45 60	73	19	2,88	5712	110000	İRAM	152 / 225 M 4a	397	1230
	81	17,22	3,12	5148	110000	İRFM		398	1280
	89	15,68	3,45	4685	110000	İRAFM		399	1300
	97	14,35	3,80	4298	110000	İRBM		400	1535
	25	55,48	0,83	16428	60000	İRAM İRFM İRAFM İRBM	143 / 225 M 4a	371 372 373 374	850 864 890 1019
	28	49,78	0,93	14668	60000				
	31	44,88	1,03	13248	60000				
	34	40,61	1,10	12079	60000				
	37	36,85	1,23	11100	60000				
	41	33,53	1,37	10017	60000				
	50	27,90	1,63	8214	60000				
	60	23,32	1,93	6845	60000				
	69	20,01	2,18	5952	60000	İRAM İRFM İRAFM İRBM	142 / 225 M 4a	371 372 373 374	800 814 840 969
	69	20,02	1,86	6043	60000				
	77	18,16	2,05	5415	60000				
	86	16,20	2,33	4848	60000				
	96	14,55	2,60	4343	60000				
	109	12,77	3,21	3825	60000	İRAM İRFM İRAFM İRBM	123 / 225 M 4a	351 352 353 354	675 677 705 792
	122	11,4	3,62	3418	60000				
	53	26,15	1,03	7749	42500				
	59	23,68	1,12	6961	41500				
	65	21,52	1,22	6318	41500				
	71	19,60	1,37	5785	41500	İRAM İRFM İRAFM İRBM	122 / 225 M 4a	351 352 353 354	648 650 678 765
	78	17,89	1,50	5265	41500				
	80	17,46	1,50	5212	40200				
	90	15,5	1,70	4633	40140				
	101	13,84	1,90	4128	40210				
	112	12,43	2,13	3723	39100				
	121	11,49	2,26	3446	38900				
	137	10,2	2,55	3043	38440				
	153	9,112	2,84	2725	38000				
	171	8,185	2,84	2438	37800				
	181	7,724	2,93	2304	36200				
	201	6,938	2,93	2074	36200				
	223	6,261	2,93	1870	36200				
	246	5,671	2,93	1695	36200				
	271	5,153	2,87	1539	36000				
	298	4,694	2,87	1399	36000				
	326	4,284	2,87	1279	36000				
	357	3,917	2,87	1168	36000				
	390	3,585	2,87	1069	36000				
	426	3,284	2,87	979	36000	İRAM İRFM İRAFM İRBM	102 / 225 M 4a	331 332 333 334	583 586 608 656
	100	13,88	1,00	4170	14000				
	112	12,40	1,12	3723	14000				
	132	10,58	1,37	3159	14000				
	148	9,457	1,50	2817	14000				
	164	8,485	1,67	2542	13800				
	183	7,638	1,69	2278	13800				
	195	7,144	1,73	2138	13800				
	219	6,382	1,81	1904	13500				
	244	5,726	1,85	1709	13500				
	271	5,154	1,89	1539	13500				
	300	4,652	1,97	1390	13500				
	332	4,207	2,06	1256	13500				
	376	3,723	1,90	1109	13500				
	416	3,36	1,96	1002	13300				



Helisel Dişli Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
45 60	460	3,039	1,96	906	13300	İRAM	102 / 225 M 4a	331	583
	508	2,752	2,00	821	13000	İRFM		332	586
	561	2,495	2,00	743	13000	İRAFM		333	608
	618	2,263	2,00	675	13000	İRBM		334	656
55 75	23	59,07	0,86	21825	110000	İRAM İRFM İRAFM İRBM	153 / 250 M 4a	397	1370
	26	52,03	0,98	19306	110000			398	1420
	31	44,27	1,16	16192	110000			399	1440
	36	38,46	1,24	13944	110000			400	1675
	39	35,19	1,36	12871	110000	İRAM İRFM İRAFM İRBM	152 / 250 M 4a	397	1295
	50	27,49	1,73	10039	110000			398	1345
	59	23,61	2,00	8508	110000			399	1365
	49	28,54	1,55	10400	110000			400	1600
	53	25,92	1,68	9615	110000				
	59	23,57	1,88	8637	110000				
	66	21,08	2,09	7721	110000				
	73	19	2,35	6981	110000				
	81	17,22	2,56	6291	110000	İRAM İRFM İRAFM İRBM	143 / 250 M 4a	371	915
	89	15,68	2,83	5726	110000			372	929
	97	14,35	3,10	5254	110000			373	955
	124	11,21	3,90	4110	110000			374	1084
	130	10,69	3,90	3920	110000	İRAM İRFM İRAFM İRBM	142 / 250 M 4a		
	31	44,88	0,85	16192	60000			371	865
	34	40,61	0,90	14764	60000			372	879
	37	36,85	1,01	13567	60000			373	905
	41	33,53	1,12	12243	60000			374	1034
	50	27,90	1,34	10039	60000				
	60	23,32	1,58	8366	60000				
	69	20,01	1,78	7275	60000	İRAM İRFM İRAFM İRBM	122 / 250 M 4a	351	713
	69	20,02	1,52	7386	60000			352	715
	77	18,16	1,68	6618	60000			353	743
	86	16,20	1,91	5926	60000			354	830
	96	14,55	2,13	5308	60000				
	109	12,77	2,62	4675	60000				
	122	11,4	2,96	4177	60000				
	136	10,23	3,30	3747	60000	İRAM İRFM İRAFM İRBM	153 / 280 S 4a	397	1530
	151	9,222	3,44	3375	60000			398	1580
	167	8,344	3,68	3052	60000			399	1600
	184	7,573	3,76	2770	60000			400	1835
75 100	203	6,89	4,09	2510	60000	İRAM İRFM İRAFM İRBM	152 / 280 S 4a	397	1455
	244	5,733	4,50	2089	60000			398	1505
	223	6,261	2,40	2285	35600			399	1525
	246	5,671	2,40	2072	35600			400	1760
	271	5,153	2,35	1880	35600	İRAM İRFM İRAFM İRBM	153 / 280 S 4a	397	1530
	298	4,694	2,35	1710	35600			398	1580
	326	4,284	2,35	1563	35000			399	1600
	357	3,917	2,35	1427	35000			400	1835
75 100	390	3,585	2,35	1307	35000	İRAM İRFM İRAFM İRBM	152 / 280 S 4a	397	1455
	426	3,284	2,35	1196	35000			398	1505
	31	44,27	0,85	22081	110000			399	1525
	36	38,46	0,90	19014	110000			400	1760



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
75 100	124	11,21	2,90	5604	110000	İRAM İRFM İRAFM İRBM	152 / 280 S 4a	397	1455
	130	10,69	2,80	5346	110000			398	1505
	143	9,744	3,10	4860	110000			399	1525
	157	8,915	3,40	4426	110000			400	1760
	171	8,186	3,70	4064	110000				
	50	27,90	0,98	13690	60000	İRAM İRFM İRAFM İRBM	143 / 280 S 4a	371	1075
	60	23,32	1,16	11408	60000			372	1089
	69	20,01	1,31	9920	60000			373	1115
	96	14,55	1,56	7239	60000			374	1244
	109	12,77	1,92	6375	60000				
	122	11,4	2,17	5696	60000	İRAM İRFM İRAFM İRBM	142 / 280 S 4a	371 372 373 374	1025 1039 1065 1194
	136	10,23	2,42	5110	60000				
	151	9,222	2,52	4602	60000				
	167	8,344	2,70	4161	60000				
	184	7,573	2,76	3777	60000				
	203	6,89	3,00	3423	60000				
	244	5,733	3,30	2848	60000				
	292	4.792	3.96	2380	60000				
90 120	39	35,19	0,83	21062	110000	İRAM İRFM İRAFM İRBM	153 / 280 M 4a	397	1590
	50	27,49	1,06	16428	110000			398	1640
	59	23,61	1,24	13922	110000			399	1660
	73	19	1,44	11423	110000			400	1895
	81	17,22	1,45	10295	110000				
	89	15,68	1,72	9370	110000	İRAM İRFM İRAFM İRBM	152 / 280 M 4a	397 398 399 400	1515 1565 1585 1820
	97	14,35	1,89	8597	110000				
	124	11,21	2,40	6725	110000				
	130	10,69	2,40	6415	110000				
	143	9,744	2,60	5832	110000				
	157	8,915	2,80	5312	110000				
	171	8,186	3,10	4877	110000				
	201	6,965	3,60	4149	110000				
	233	5,983	4,20	3579	110000	İRAM İRFM İRAFM İRBM	142 / 280 M 4a	371 372 373 374	1085 1099 1125 1254
	96	14,55	1,30	8687	60000				
	109	12,77	1,60	7651	60000				
	122	11,4	1,81	6835	60000				
	136	10,23	2,01	6132	60000				
	151	9,222	2,10	5523	60000				
	167	8,344	2,25	4993	60000				
	184	7,573	2,30	4532	60000				
	203	6,89	2,50	4108	60000				
	244	5,733	2,75	3418	60000				
	292	4.792	3.30	2856	60000				
110 150	50	27,49	0,87	20079	110000	İRAM İRFM İRAFM İRBM	153 / 315 S 4a	397	1786
					398			1836	
	59	23,61	1,02	17016	110000			399	1856
					400			2091	
	81	17,22	1,19	12583	110000	İRAM İRFM İRAFM İRBM	152 / 315 S 4a	397 398 399 400	1711 1761 1781 2016
	89	15,68	1,41	11452	110000				
	97	14,35	1,55	10507	110000				
	124	11,21	1,98	8220	110000				
	130	10,69	1,95	7840	110000				
	143	9,744	2,10	7127	110000				
	157	8,915	2,30	6492	110000				
	171	8,186	2,50	5960	110000				
	201	6,965	2,90	5071	110000				
233	5.983	3.40	4374	110000					



Helisel Dişlilili Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



P ₁ GÜÇ Power Puissance [kW] Hp	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m]	i Tahvil Ratio Rapport de réduction	S _f Servis Faktörü Service Factor Service facteur	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
132 180	59	23,61	0,85	20419	110000	İRAM İRFM İRAFM İRBM	153 / 315 M 4a	397 398 399 400	1807 1857 1877 2112
	124	11,21	1,65	9863	110000	İRAM İRFM İRAFM İRBM	152 / 315 M 4a	397 398 399 400	1732 1782 1802 2037
	130	10,69	1,62	9408	110000				
	143	9,744	1,76	8553	110000				
	157	8,915	1,93	7790	110000				
	171	8,186	2,10	7152	110000				
	201	6,965	2,40	6085	110000				
	233	5,983	2,80	5249	110000				
160 218	124	11,21	1,36	11956	110000	İRAM İRFM İRAFM İRBM	152 / 315 M 4b	397 398 399 400	1780 1830 1850 2085
	130	10,69	1,34	11404	110000				
	143	9,744	1,45	10367	110000				
	157	8,915	1,60	9443	110000				
	171	8,186	1,73	8670	110000				
	201	6,965	2,00	7376	110000				
	233	5,983	2,30	6363	110000				

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İR Serisi Redüktörler Güç ve Devir Tabloları

İR Series Power Ratings and Output Speed
İR Series puissances et vitesses de sorties



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
85 Nm	0,31	34	81,36	85	390	2100	İRA İRF İRAF	43	195 196 197	12 13 13
	0,36	39	70,05	85	390	2100				
	0,41	45	60,89	85	390	2100				
	0,48	52	53,33	85	390	2100				
	0,54	59	46,97	85	390	2100				
	0,61	66	41,84	85	390	2100				
	0,70	76	36,37	85	390	2100				
	0,81	87	31,85	85	390	2100				
	0,92	99	28,06	85	390	2100				
	0,98	106	26,19	85	390	2100				
	1,0	112	24,82	85	390	2000				
	1,1	123	22,61	85	390	2000				
	1,2	132	21,10	85	390	2000				
	1,3	140	20,00	85	390	2000				
	1,3	150	18,59	85	390	2000				
	1,4	157	17,76	85	390	1850				
	1,5	170	16,45	85	390	1850				
	1,6	177	15,80	85	390	1850				
	1,7	191	14,60	85	390	1850				
	1,8	198	14,08	85	390	1800				
	2,0	215	12,99	85	390	1800				
	2,2	241	11,58	85	390	1800				
	2,2	249	11,24	85	390	800				
	2,6	284	9,845	85	390	800				
	2,9	322	8,672	85	390	800				
	3,3	364	7,673	85	390	750				
	3,7	407	6,872	85	390	750				
	4,2	460	6,08	85	390	750				
	4,6	505	5,538	85	390	750				
	4,7	518	5,398	85	390	750				
	5,2	571	4,9	85	390	750				
	5,3	582	4,803	85	390	750				
	5,8	643	4,35	85	390	750				
	5,9	654	4,28	85	390	750				
	6,6	723	3,87	85	390	750				
	7,4	811	3,449	85	390	750				
150 Nm	0,00	0,32	8598	150	390	4250	İRA İRF İRAF	53 İR 43	207 208 209	26 28 29
	0,00	0,37	7402	150	390	4250				
	0,00	0,43	6435	150	390	4250				
	0,00	0,51	5419	150	390	4250				
	0,01	0,59	4699	150	390	4250				
	0,01	0,68	4117	150	390	4250				
	0,01	0,83	3338	150	390	4250				
	0,01	0,94	2948	150	390	4250				
	0,01	1,0	2679	150	390	4250				
	0,01	1,1	2346	150	390	4250				
	0,02	1,3	2085	150	390	4250				
	0,02	1,5	1863	150	390	4250				
	0,02	1,7	1641	150	390	4250				
	0,03	1,9	1462	150	390	4250				
	0,03	2,2	1271	150	390	4250				
	0,03	2,0	1398	150	390	4250				
	0,03	2,3	1204	150	390	4250				
	0,04	2,6	1046	150	390	4250				
	0,05	3,0	917	150	390	4250				
	0,05	3,4	809	150	390	4250				
	0,06	3,9	709	150	390	4250				
	0,07	4,4	630	150	390	4250				
	0,08	5,0	555	150	390	4250				
	0,09	5,6	496	150	390	4250				



Helisel Dişlili Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types		 ~kg	
150 Nm	0,03	2,3	1188	150	390	4250	İRA İRF İRAF	53 İR 42	207 208 209	25 27 28
	0,04	2,6	1040	150	390	4250				
	0,05	3,0	916	150	390	4250				
	0,05	3,1	878	150	390	4250				
	0,06	3,6	772	150	390	4250				
	0,06	4,1	669	150	390	4250				
	0,07	4,7	586	150	390	4250				
	0,08	5,3	519	150	390	4250				
	0,11	6,6	421	150	390	4250				
	0,12	7,4	377	150	390	4250				
	0,14	8,4	333	150	390	4250				
	0,16	9,5	294	150	390	4250				
	0,16	10	267	150	390	4250				
	0,18	11	238	150	390	4250				
	0,23	14	193	150	390	4250				
	0,27	16	173	150	390	4250				
	0,30	18	152	150	390	4250				
	0,33	20	138	150	390	4250				
	0,37	22	125	150	390	4250				
	0,42	25	111	150	390	4250				
	0,49	29	95	150	390	4250				
	0,23	14	193	150	390	4250	İRA İRF İRAF	52 İR 42	207 208 209	24 26 27
	0,26	16	169	150	390	4250				
	0,30	18	148	150	390	4250				
	0,35	21	131	150	390	4250				
	0,40	24	116	150	390	4250				
	0,43	26	104	150	390	4250				
	0,50	30	93	150	390	4250	İRA İRF İRAF	53	201 202 203	18 20 21
	0,42	26	105	150	475	4250				
	0,50	31	88,98	150	475	4250				
	0,59	36	77,16	150	475	4250				
	0,67	41	67,60	150	475	4250				
	0,83	51	54,81	150	475	4250				
	0,93	57	48,41	150	475	4250				
	1,0	63	43,98	150	475	4250				
	1,1	71	39,09	150	475	4250				
	1,3	80	34,93	150	475	4250				
	1,4	89	31,33	150	475	4250				
	1,6	99	28,21	150	475	4250				
	1,7	109	25,46	150	475	4250				
	1,9	121	23,02	150	475	4250				
	2,0	127	21,88	150	475	4250				
	2,3	142	19,69	150	475	4250				
	2,5	157	17,77	150	475	4250				
	2,8	174	16,07	150	475	4250				
	2,6	162	17,18	150	475	3500	İRA İRF İRAF	52	201 202 203	17 19 20
	3,0	186	15,05	150	475	3500				
	3,3	210	13,29	150	475	3500				
	3,8	237	11,81	150	475	3500				
	4,2	265	10,55	150	475	3500				
	4,7	295	9,47	150	475	3500				
	5,0	315	8,888	150	475	3500				
	5,6	351	7,974	150	475	3500				
	6,3	390	7,178	150	475	3500				
	6,9	432	6,479	150	475	3500				
	7,7	481	5,821	150	475	3500				
	8,6	532	5,254	150	475	3500				
	9,0	556	5,032	150	475	3500				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
150 Nm	10	620	4,515	150	475	3500	İRA İRF İRAF	52	201 202 203	17 19 20
	11	688	4,064	150	475	3500				
	12	763	3,668	150	475	3500				
	13	844	3,317	150	475	3500				
	14	915	3,059	150	475	3500				
	15	963	2,906	150	475	3500				
	17	1088	2,572	150	475	3500				
410 Nm	0,98	22	127	410	590	7000	İRA İRF İRAF	631	213 214 215	29 34 35
	1,0	23	119	410	590	7000				
	1,3	29	96,27	410	590	7000				
	1,3	31	87,81	410	590	7000				
	1,4	33	83,37	410	590	7000				
	1,7	39	70,96	410	590	7000				
	2,0	45	61,03	410	590	7000				
	2,4	54	51,65	410	590	7000				
	2,6	59	46,79	410	590	7000				
	2,9	65	42,55	410	590	7000				
	3,5	78	35,74	410	590	7000				
	4,1	93	29,85	410	590	7000				
	4,9	111	25,16	410	590	7000				
	5,8	130	21,5	410	590	7000				
	6,1	136	20,53	410	590	7000				
	6,9	154	18,18	410	590	7000				
	8,0	179	15,59	410	590	7000				
	9,0	202	13,80	410	590	7000				
	7,3	167	16,67	410	590	7000				
	8,1	185	15,13	410	590	7000				
	9,1	207	13,47	410	590	7000				
	10	229	12,20	410	590	7000				
	11	252	11,10	410	590	7000				
	12	278	10,07	410	590	7000				
	13	299	9,358	410	590	7000				
	14	329	8,51	410	590	7000				
	16	364	7,673	410	590	7000				
	17	393	7,108	410	590	7000				
	19	432	6,48	410	590	7000				
	20	467	5,992	410	590	7000				
	21	489	5,723	410	590	7000				
	23	525	5,325	410	590	7000				
	24	553	5,06	410	590	7000				
	27	622	4,499	410	590	7000				
	30	700	3,998	410	590	7000				
	33	754	3,711	410	590	7000				
	37	851	3,287	410	590	7000				
	42	959	2,917	410	590	7000				
	47	1080	2,592	410	590	7000				
	50	1145	2,444	410	590	7000				
	0,00	0,20	13520	410	475	7000				
	0,01	0,22	12617	410	475	7000				
	0,01	0,24	11345	410	475	7000				
	0,01	0,26	10587	410	475	7000				
	0,01	0,28	9873	410	475	7000				
	0,01	0,30	9214	410	475	7000				
	0,01	0,37	7479	410	475	7000				
	0,02	0,43	6508	410	475	7000				
	0,02	0,45	6194	410	475	7000				
	0,02	0,47	5936	410	475	7000				
	0,02	0,48	5780	410	475	7000				
	0,01	0,24	11345	410	475	7000				
	0,01	0,26	10587	410	475	7000				
	0,01	0,28	9873	410	475	7000				
	0,01	0,30	9214	410	475	7000				
	0,01	0,37	7479	410	475	7000				
	0,02	0,43	6508	410	475	7000				
	0,02	0,45	6194	410	475	7000				
	0,02	0,47	5936	410	475	7000				
	0,02	0,48	5780	410	475	7000				
	0,02	0,48	5780	410	475	7000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
410 Nm	0,02	0,49	5636	410	475	7000	İRA İRF İRAF	63 İR 53	245 246 247	#YOK
	0,02	0,58	4814	410	475	7000				
	0,02	0,60	4661	410	475	7000				
	0,02	0,61	4570	410	475	7000				
	0,03	0,65	4251	410	475	7000				
	0,03	0,69	4036	410	475	7000				
	0,03	0,71	3890	410	475	7000				
	0,03	0,81	3436	410	475	7000				
	0,04	0,94	2955	410	475	7000				
	0,04	1,0	2685	410	475	7000				
	0,05	1,1	2500	410	475	7000				
	0,05	1,2	2272	410	475	7000				
	0,05	1,2	2265	410	475	7000				
	0,06	1,3	2058	410	475	7000				
	0,06	1,4	1872	410	475	7000				
	0,05	1,2	2198	410	475	7000	İRA İRF İRAF	63 İR 52	245 246 247	43 48 49
	0,06	1,3	2052	410	475	7000				
	0,06	1,5	1797	410	475	7000				
	0,07	1,6	1701	410	475	7000				
	0,07	1,6	1654	410	475	7000				
	0,07	1,7	1587	410	475	7000				
	0,08	1,8	1509	410	475	7000				
	0,08	1,9	1432	410	475	7000				
	0,09	2,1	1280	410	475	7000				
	0,10	2,2	1219	410	475	7000				
	0,10	2,3	1167	410	475	7000				
	0,11	2,5	1108	410	475	7000				
	0,12	2,6	1049	410	475	7000				
	0,13	2,9	943	410	475	7000				
	0,14	3,1	887	410	475	7000				
	0,15	3,4	811	410	475	7000				
	0,15	3,4	804	410	475	7000				
	0,17	3,8	731	410	475	7000				
	0,18	4,0	686	410	475	7000				
	0,20	4,5	622	410	475	7000				
	0,20	4,5	614	410	475	7000				
	0,22	4,9	566	410	475	7000				
	0,24	5,2	538	410	475	7000				
	0,26	5,8	475	410	475	7000				
	0,28	6,2	449	410	475	7000				
	0,32	7,0	397	410	475	7000				
	0,33	7,3	379	410	475	7000				
	0,38	8,3	335	410	475	7000				
	0,44	9,7	286	410	475	7000				
	0,46	10	273	410	475	7000				
	0,50	11	242	410	475	7000				
	0,60	13	215	410	475	7000				
	0,64	14	190	410	475	7000				
	0,30	6,6	424	410	475	7000				
	0,31	7,0	395	410	475	7000				
	0,39	8,7	319	410	475	7000				
	0,43	9,6	291	410	475	7000				
	0,45	10	276	410	475	7000				
	0,50	11	235	410	475	7000				
	0,59	13	213	410	475	7000				
	0,68	15	182	410	475	7000				
	0,77	17	156	410	475	7000				
	0,95	21	132	410	475	7000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
410 Nm	0,98	22	127	410	590	7000	İRA İRF İRAF İRB	63	231 232 233 234	29 34 35 37
	1,0	23	119	410	590	7000				
	1,3	29	96,27	410	590	7000				
	1,3	31	87,81	410	590	7000				
	1,4	33	83,37	410	590	7000				
	1,7	39	70,96	410	590	7000				
	2,0	45	61,03	410	590	7000				
	2,4	54	51,65	410	590	7000				
	2,6	59	46,79	410	590	7000				
	2,9	65	42,55	410	590	7000				
	3,5	78	35,74	410	590	7000				
	4,1	93	29,85	410	590	7000				
	4,9	111	25,16	410	590	7000				
	5,8	130	21,5	410	590	7000				
	6,1	136	20,53	410	590	7000				
	6,9	154	18,18	410	590	7000				
	8,0	179	15,59	410	590	7000				
	9,0	202	13,80	410	590	7000				
	7,3	167	16,67	410	590	4500	İRA İRF İRAF İRB	62	231 232 233 234	24 29 30 32
	8,1	185	15,13	410	590	4500				
	9,1	207	13,47	410	590	4500				
	10	229	12,20	410	590	4500				
	11	252	11,10	410	590	4500				
	12	278	10,07	410	590	4500				
	13	299	9,358	410	590	4500				
	14	329	8,51	410	590	4500				
	16	364	7,673	410	590	4500				
	17	393	7,108	410	590	4500				
	19	432	6,48	410	590	4500				
	20	467	5,992	410	590	4500				
	21	489	5,723	410	590	4500				
	23	525	5,325	410	590	4500				
	24	553	5,06	410	590	4500				
	27	622	4,499	410	590	4500				
	30	700	3,998	410	590	4500				
	33	754	3,711	410	590	4500				
	37	851	3,287	410	590	4500				
	42	959	2,917	410	590	4500				
	47	1080	2,592	410	590	4500				
	50	1145	2,444	410	590	4500				
600 Nm	0,01	0,17	16071	600	475	10100	İRA İRF İRAF	731 İR 53	265 266 267	54 57 60
	0,01	0,19	14258	600	475	10100				
	0,01	0,22	12326	600	475	10100				
	0,01	0,26	10380	600	475	10100				
	0,02	0,31	9001	600	475	10100				
	0,02	0,35	7782	600	475	10100				
	0,02	0,40	6862	600	475	10100				
	0,03	0,46	6012	600	475	10100				
	0,03	0,52	5301	600	475	10100				
	0,04	0,65	4299	600	475	10100				
	0,05	0,73	3796	600	475	10100				
	0,05	0,81	3450	600	475	10100				
	0,06	0,91	3068	600	475	10100				
	0,06	1,0	2747	600	475	10100				
	0,07	1,1	2443	600	475	10100				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
600 Nm	0,06	1,0	2613	600	475	10100	İRA İRF İRAF	731 İR 52	265 266 267	54 57 60
	0,08	1,2	2318	600	475	10100				
	0,08	1,3	2004	600	475	10100				
	0,10	1,5	1756	600	475	10100				
	0,12	1,8	1518	600	475	10100				
	0,13	2,0	1339	600	475	10100				
	0,15	2,3	1180	600	475	10100				
	0,17	2,6	1050	600	475	10100				
	0,19	2,9	940	600	475	10100				
	0,22	3,3	836	600	475	10100				
	0,25	3,7	749	600	475	10100				
	0,27	4,1	674	600	475	10100				
	0,31	4,6	600	600	475	10100				
	0,35	5,2	530	600	475	10100				
	0,39	5,9	468	600	475	10100				
	0,45	6,7	416	600	475	10100				
	0,50	7,5	372	600	475	10100				
	0,56	8,4	333	600	475	10100				
	0,63	9,3	300	600	475	10100				
	0,67	10	267	600	475	10100				
	0,74	11	238	600	475	10100				
	0,88	13	214	600	475	10100				
	0,88	13	201	600	475	10100				
	1,0	15	180	600	475	10100				
	1,1	17	162	600	475	10100				
	1,2	19	146	600	475	10100				
	0,09	1,4	1872	600	475	10100	İRA İRF İRAF	721 İR 53	265 266 267	53 56 59
	0,11	1,7	1640	600	475	10100				
	0,12	1,9	1446	600	475	10100				
	0,14	2,1	1286	600	475	10100				
	0,15	2,3	1172	600	475	10100				
	0,18	2,7	1035	600	475	10100				
	0,20	3,0	921	600	475	10100				
	0,22	3,3	825	600	475	10100				
	0,25	3,7	743	600	475	10100				
	0,27	4,1	675	600	475	10100				
	0,31	4,6	604	600	475	10100				
	0,35	5,2	533	600	475	10100				
	0,38	5,7	491	600	475	10100				
	0,39	5,8	480	600	475	10100				
	0,44	6,6	423	600	475	10100				
	0,48	7,1	390	600	475	10100				
	0,54	8,1	344	600	475	10100				
	0,61	9,1	306	600	475	10100				
	0,67	10	274	600	475	10100				
	0,74	11	245	600	475	10100				
0,81	12	221	600	475	10100					
0,94	14	199	600	475	10100					
1,0	15	180	600	475	10100					
1,1	17	163	600	475	10100					
1,2	18	148	600	475	10100					
0,44	6,7	417	600	475	10100	İRA İRF İRAF	721 İR 52	265 266 267	50 53 56	
0,50	7,6	365	600	475	10100					
0,57	8,6	322	600	475	10100					
0,64	9,7	287	600	475	10100					
0,66	10	256	600	475	10100					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
600 Nm	0,80	12	226	600	475	10100	İRA İRF İRAF	721 İR 52	265 266 267	50 53 56
	0,86	13	201	600	475	10100				
	1,0	15	180	600	475	10100				
	1,1	17	162	600	475	10100				
	1,2	19	145	600	475	10100				
	0,30	4,5	622	600	475	10100	İRA İRF İRAF	741	259 260 261	46 49 52
	0,34	5,2	537	600	475	10100				
	0,40	6,0	465	600	475	10100				
	0,42	6,4	435	600	475	10100				
	0,48	7,3	383	600	475	10100				
	0,54	8,2	338	600	475	10100				
	0,62	9,3	301	600	475	10100				
	0,73	11	239	600	475	10100				
	0,93	14	188	600	475	10100				
	1,0	16	168	600	475	10100				
	1,2	18	151	600	475	10100	İRA İRF İRAF İRB	731	251 252 253 254	42 45 48 54
	1,1	18	152	600	1000	10100				
	1,3	20	134	600	1000	10100				
	1,5	24	116	600	1000	10100				
	1,8	28	100	600	1000	10100				
	2,0	31	88,93	600	1000	10100				
	2,3	35	78,42	600	1000	10100				
	2,6	40	69,74	600	1000	9700				
	2,8	44	62,45	600	1000	9700				
	3,2	50	55,54	600	1000	9700				
	3,6	56	49,73	600	1000	9700				
	4,0	62	44,79	600	1000	9700				
	4,6	70	39,88	600	1000	9500				
	5,1	79	35,22	600	1000	9500				
	5,8	89	31,30	600	1000	9500				
	6,5	100	27,97	600	1000	9250				
	7,2	111	25,09	600	1000	9250				
	8,0	123	22,59	600	1000	9250	İRA İRF İRAF İRB	721	251 252 253 254	40 43 46 52
	5,6	88	31,62	600	1000	7500				
	6,4	99	28,05	600	1000	7500				
	7,4	115	24,25	600	1000	7500				
	8,4	130	21,38	600	1000	7500				
	9,5	147	19,02	600	1000	7250				
	10	164	17,03	600	1000	7250				
	11	181	15,39	600	1000	7250				
	13	203	13,73	600	1000	7250				
	14	231	12,12	600	1000	7250				
	16	250	11,17	600	1000	7250				
	18	283	9,866	600	1000	7000				
	20	319	8,769	600	1000	7000				
	23	357	7,834	600	1000	7000				
	25	398	7,029	600	1000	7000				
	28	442	6,327	600	1000	7000				
	31	490	5,71	600	1000	7000				
	35	542	5,164	600	1000	7000				
	38	598	4,677	600	1000	7000				
	42	660	4,24	600	1000	7000				
	47	735	3,809	600	1000	7000				
	52	814	3,438	600	1000	7000				
	58	900	3,109	600	1000	7000				
	64	994	2,816	600	1000	7000				
	70	1096	2,553	600	1000	7000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types		 ~kg	
870 Nm	0,01	0,17	16321	870	475	12100	İRA İRF İRAF	73 İR 53	285 286 287	53 56 59
	0,01	0,19	14110	870	475	12100				
	0,01	0,20	13744	870	475	12100				
	0,02	0,23	11919	870	475	12100				
	0,02	0,25	10947	870	475	12100				
	0,02	0,27	10304	870	475	12100				
	0,02	0,29	9654	870	475	12100				
	0,03	0,32	8586	870	475	12100				
	0,03	0,36	7688	870	475	12100				
	0,04	0,43	6474	870	475	12100				
	0,04	0,49	5674	870	475	12100				
	0,05	0,52	5287	870	475	12100				
	0,06	0,63	4423	870	475	12100				
	0,06	0,70	3989	870	475	12100				
	0,07	0,79	3522	870	475	12100				
	0,08	0,88	3153	870	475	12100				
	0,09	0,99	2817	870	475	12100				
	0,10	1,1	2527	870	475	12100				
	0,12	1,3	2106	870	475	12100				
	0,12	1,3	2017	870	475	12100				
	0,13	1,4	1882	870	475	12100				
	0,15	1,6	1703	870	475	12100				
	0,17	1,8	1520	870	475	12100				
	0,18	1,9	1410	870	475	12100				
	0,21	2,2	1265	870	475	12100	İRA İRF İRAF	73 İR 52	285 286 287	52 55 58
	0,22	2,3	1187	870	475	12100				
	0,27	2,8	981	870	475	12100				
	0,29	3,0	921	870	475	12100				
	0,31	3,2	865	870	475	12100				
	0,33	3,4	812	870	475	12100				
	0,35	3,6	769	870	475	12100				
	0,37	3,8	722	870	475	12100				
	0,42	4,3	648	870	475	12100				
	0,47	4,8	576	870	475	12100				
	0,57	5,9	473	870	475	12100	İRA İRF İRAF	72 İR 52	285 286 287	50 53 56
	0,63	6,6	420	870	475	12100				
	0,82	8,5	326	870	475	12100				
	0,92	9,6	291	870	475	12100				
	0,96	10	261	870	475	12100				
	0,46	4,8	576	870	475	12100	İRA İRF İRAF	74	279 280 281	44 47 50
	0,60	6,2	447	870	475	12100				
	0,68	7,1	394	870	475	12100				
	0,77	8	350	870	475	12100				
	0,86	8,9	314	870	475	12100				
0,95	9,9	282	870	475	12100	İRA İRF İRAF İRB	73	271 272 273 274	40 43 46 52	
1,7	18	154	870	1200	12100					
2,0	21	133	870	1200	12100					
2,5	27	103	870	1200	12100					
2,8	30	91,36	870	1200	12100					
3,2	34	81,25	870	1200	12100					
3,6	38	72,75	870	1200	12100					
4,0	42	65,52	870	1200	12100					
4,4	47	59,41	870	1200	12100					
5,0	53	52,47	870	1200	12100					
5,7	60	46,36	870	1200	12100					
6,3	67	41,66	870	1200	12100					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
870 Nm	7,0	74	37,38	870	1200	12100	İRA İRF İRAF İRB	73	271 272 273 274	40 43 46 52
	8,4	89	31,16	870	1200	12100				
	9,5	100	27,84	870	1200	12100				
	10	112	24,97	870	1200	12100				
	11	124	22,48	870	1200	12100				
	13	137	20,29	870	1200	12100				
	14	152	18,35	870	1200	12100				
	16	168	16,62	870	1200	12100				
	17	185	15,06	870	1200	12100				
	19	207	13,52	870	1200	9000				
	21	232	12,02	870	1200	9000	İRA İRF İRAF İRB	72	271 272 273 274	38 41 44 50
	24	260	10,74	870	1200	9000				
	28	299	9,337	870	1200	9000				
	31	336	8,333	870	1200	9000				
	35	374	7,476	870	1200	9000				
	39	416	6,73	870	1200	9000				
	43	460	6,074	870	1200	9000				
	47	509	5,494	870	1200	9000				
	52	560	4,995	870	1200	9000				
	58	622	4,497	870	1200	9000				
	64	689	4,059	870	1200	9000				
	71	762	3,67	870	1200	9000				
	79	842	3,324	870	1200	9000				
	87	928	3,014	870	1200	9000				
	96	1024	2,733	870	1200	9000				
	102	1089	2,571	870	1200	9000				
1500 Nm	0,02	0,15	18231	1500	590	17000	İRA İRF İRAF	83 İR 63	305 306 307	109 114 116
	0,03	0,18	15217	1500	590	17000				
	0,03	0,20	13984	1500	590	17000				
	0,03	0,22	12302	1500	590	17500				
	0,04	0,25	10968	1500	590	17500				
	0,05	0,31	8893	1500	590	17500				
	0,06	0,35	7902	1500	590	17500				
	0,06	0,39	7092	1500	590	17500				
	0,07	0,43	6393	1500	590	17500				
	0,08	0,51	5484	1500	590	17500				
	0,09	0,56	4922	1500	590	17500				
	0,10	0,63	4437	1500	590	17500				
	0,11	0,69	4015	1500	590	17500				
	0,13	0,77	3593	1500	590	17500				
	0,14	0,86	3239	1500	590	17500				
	0,16	0,95	2930	1500	590	17500				
	0,17	1,0	2659	1500	590	17500				
	0,18	1,1	2419	1500	590	17500				
	0,20	1,2	2205	1500	590	17500				
	0,22	1,3	2013	1500	590	17500				
	0,25	1,5	1840	1500	590	17500				
	0,30	1,8	1481	1500	590	17500				
	0,34	2,0	1353	1500	590	17500				
	0,25	1,5	1778	1500	590	17500	İRA İRF İRAF	82 İR 63	305 306 307	104 109 111
	0,28	1,7	1580	1500	590	17500				
	0,32	1,9	1418	1500	590	17500				
	0,35	2,1	1279	1500	590	17500				
	0,40	2,4	1157	1500	590	17500				
	0,44	2,6	1050	1500	590	17500				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1500 Nm	0,35	2,1	1308	1500	590	17500	İRA İRF İRAF	82 İR 62	305 306 307	99 104 106
	0,40	2,4	1162	1500	590	17500				
	0,43	2,6	1043	1500	590	17500				
	0,48	2,9	940	1500	590	17500				
	0,53	3,2	850	1500	590	17500				
	0,60	3,6	772	1500	590	17500				
	0,63	3,8	723	1500	590	17500				
	0,70	4,2	653	1500	590	17500				
	0,78	4,7	590	1500	590	17500				
	0,86	5,2	535	1500	590	17500				
	0,95	5,7	487	1500	590	17500				
	1,1	6,9	405	1500	590	17500				
	1,2	7,7	359	1500	590	17500				
	1,4	8,9	314	1500	590	17500				
	1,5	9,4	295	1500	590	17500				
	1,6	10	265	1500	590	17500				
	1,8	11	240	1500	590	17500				
	0,66	4,0	699	1500	590	17500	İRA İRF İRAF	84	299 300 301	91 96 98
	0,73	4,4	634	1500	590	17500				
	0,80	4,8	578	1500	590	17500				
	0,86	5,2	529	1500	590	17500				
	0,95	5,7	486	1500	590	17500				
	1,0	6,5	428	1500	590	17500				
	1,2	7,3	381	1500	590	17500				
	1,3	8,1	342	1500	590	17500				
	1,5	9,0	309	1500	590	17500				
	1,6	10	275	1500	590	17500				
	1,6	10	273	1500	590	17500				
	1,8	11	242	1500	590	17500				
	2,0	12	217	1500	590	17500				
	2,3	14	196	1500	590	17500				
	2,6	16	174	1500	590	17500				
	2,6	16	168	1500	590	17500				
	1,8	11	250	1500	1550	17500				
	1,9	12	221	1500	1550	17500				
	2,1	13	208	1500	1550	17500				
	2,4	15	186	1500	1550	17500				
	2,6	16	168	1500	1550	17500				
	2,9	18	152	1500	1550	17500				
	3,2	20	139	1500	1550	17500				
	3,6	22	127	1500	1550	17500				
	3,7	23	117	1500	1550	17500				
	4,4	27	103	1500	1550	17500				
	4,9	30	91,85	1500	1550	17500				
5,4	33	82,47	1500	1550	17500					
6,0	37	74,47	1500	1550	17500					
6,9	42	66,18	1500	1550	17500					
7,7	47	59,39	1500	1550	17500					
8,5	52	53,54	1500	1550	17500					
9,5	58	47,58	1500	1550	17500					
9,8	60	45,93	1500	1550	17500					
11	67	41,22	1500	1550	17500					
12	75	37,16	1500	1550	17500					
13	84	33,02	1500	1550	17500					
15	93	30,08	1500	1550	17500					
16	103	27,12	1500	1550	17500					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1500 Nm	19	116	24,10	1500	1550	17500	İRA İRF İRAF İRB	83	291	87
	20	125	22,27	1500	1550	17500			292	92
	22	138	20,26	1500	1550	17500			293	94
	24	151	18,47	1500	1550	17500			294	105
	27	166	16,86	1500	1550	17500				
	29	181	15,41	1500	1550	17500				
	30	188	14,89	1500	1550	13000	İRA İRF İRAF İRB	82		
	34	211	13,23	1500	1550	13000				
	38	235	11,87	1500	1550	13000				
	42	261	10,70	1500	1550	13000				
	46	288	9,689	1500	1550	13000				
	51	318	8,793	1500	1550	13000				
	54	339	8,244	1500	1550	13000				
	60	376	7,432	1500	1550	13000				
	67	416	6,724	1500	1550	13000				
	74	458	6,103	1500	1550	13000				
	81	504	5,552	1500	1550	13000				
	89	553	5,061	1500	1550	13000				
	98	606	4,62	1500	1550	13000				
	107	663	4,222	1500	1550	13000				
	111	691	4,052	1500	1550	13000				
	122	757	3,694	1500	1550	13000				
	134	830	3,372	1500	1550	13000				
	146	908	3,082	1500	1550	13000				
	154	956	2,926	1500	1550	13000				
	169	1047	2,674	1500	1550	13000				
	190	1179	2,373	1500	1550	13000				
2800 Nm	0,03	0,12	22852	2800	590	25000				
	0,04	0,13	20623	2800	590	25000				
	0,04	0,14	18725	2800	590	25000				
	0,04	0,15	18426	2800	590	25000				
	0,04	0,15	17911	2800	590	25000				
	0,05	0,16	16707	2800	590	25000				
	0,05	0,16	16629	2800	590	25000				
	0,05	0,17	15663	2800	590	25000				
	0,05	0,18	15160	2800	590	25000				
	0,05	0,18	15098	2800	590	25000				
	0,06	0,19	14679	2800	590	25000				
	0,06	0,19	14410	2800	590	25000				
	0,06	0,20	13583	2800	590	25000				
	0,06	0,21	13137	2800	590	25000				
	0,06	0,21	13037	2800	590	25000				
	0,07	0,22	12258	2800	590	25000				
	0,07	0,23	11681	2800	590	25000				
	0,07	0,24	11577	2800	590	25000				
	0,08	0,25	11130	2800	590	25000				
	0,08	0,26	10542	2800	590	25000				
	0,08	0,27	10288	2800	590	25000				
	0,09	0,29	9565	2800	590	25000				
	0,09	0,30	9309	2800	590	25000				
	0,09	0,30	9206	2800	590	25000				
	0,10	0,32	8565	2800	590	25000				
	0,10	0,34	8198	2800	590	25000				
	0,10	0,34	8006	2800	590	25000				
	0,11	0,35	7808	2800	590	25000				
	0,12	0,38	7366	2800	590	25000				
	0,12	0,38	7224	2800	590	25000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2800 Nm	0,12	0,40	6881	2800	590	25000	İRA İRF İRAF	93 İR 63	325 326 327	158 168 178
	0,13	0,41	6715	2800	590	25000				
	0,13	0,43	6420	2800	590	25000				
	0,14	0,45	6115	2800	590	25000				
	0,15	0,47	5918	2800	590	25000				
	0,15	0,48	5745	2800	590	25000				
	0,16	0,51	5472	2800	590	25000				
	0,17	0,53	5259	2800	590	25000				
	0,17	0,54	5169	2800	590	25000				
	0,18	0,57	4872	2800	590	25000				
	0,18	0,59	4706	2800	590	25000				
	0,18	0,59	4673	2800	590	25000				
	0,20	0,65	4294	2800	590	25000				
	0,21	0,66	4241	2800	590	25000				
	0,21	0,66	4190	2800	590	25000				
	0,23	0,72	3862	2800	590	25000				
	0,24	0,75	3693	2800	590	25000				
	0,25	0,79	3525	2800	590	25000				
	0,27	0,86	3225	2800	590	25000				
	0,30	0,94	2956	2800	590	25000				
	0,22	0,70	3954	2800	590	25000	İRA İRF İRAF	93 İR 62	325 326 327	153 163 173
	0,23	0,75	3688	2800	590	25000				
	0,24	0,78	3582	2800	590	25000				
	0,26	0,83	3341	2800	590	25000				
	0,27	0,86	3241	2800	590	25000				
	0,30	0,95	2936	2800	590	25000				
	0,30	0,97	2878	2800	590	25000				
	0,31	1,0	2607	2800	590	25000				
	0,34	1,1	2336	2800	590	25000				
	0,41	1,3	2108	2800	590	25000				
	0,44	1,4	1914	2800	590	25000				
	0,53	1,7	1601	2800	590	25000				
	0,60	1,9	1473	2800	590	25000				
	0,63	2,0	1343	2800	590	25000				
	0,72	2,3	1183	2800	590	25000				
	0,82	2,6	1052	2800	590	25000				
	0,91	2,9	941	2800	590	25000				
	1,0	3,3	838	2800	590	25000				
	1,1	3,7	739	2800	590	25000				
	1,3	4,2	656	2800	590	25000				
	1,4	4,7	587	2800	590	25000				
	1,6	5,3	528	2800	590	25000				
	1,8	5,8	478	2800	590	25000				
	2,0	6,4	434	2800	590	25000				
	2,2	7,0	398	2800	590	25000				
	2,4	7,7	360	2800	590	25000				
	2,6	8,4	330	2800	590	25000				
	2,9	9,2	302	2800	590	25000				
	3,1	10	275	2800	590	25000				
	3,4	11	251	2800	590	25000				
	3,7	12	230	2800	590	25000				
	4,1	13	210	2800	590	25000				
	2,7	8,8	315	2800	590	25000				
	3,1	10	277	2800	590	25000				
	3,4	11	247	2800	590	25000				
		3,7	12	221	2800	590	25000			



Servis Faktörü Service Factor Service facteur S _f =1	P ₁	n ₂	i	M ₂	F _{Q1}	F _{Q1/2}	Tip Type Types			
	GÜÇ	Çıkış Devri	Tahvil	Çıkış Momenti	Rad. Yük	Rad. Yük				
	Power Puissance	Output Speeds Vitesse de sortie	Ratio Rapport de réduction	Output Torque Couple de sortie	Over Loads Charges radiales	Over Loads Charges radiales				
	[kW]	[r.p.m] (n ₁ =2800rpm)		[Nm]	[N]	[N]				~kg
2800 Nm	1,8	5,8	478	2800	590	25000	İRA İRF İRAF	94	319 320 321	154 164 174
	1,9	6,4	431	2800	590	25000				
	2,2	7,3	380	2800	590	25000				
	2,5	8,3	337	2800	590	25000				
	2,8	9,2	302	2800	590	25000				
	3,1	10	269	2800	590	25000				
	3,4	11	237	2800	590	25000				
	4,0	13	210	2800	590	25000				
	4,3	14	188	2800	590	25000				
	4,9	16	169	2800	590	25000				
	5,6	18	153	2800	590	25000				
	2,9	9,5	293	2800	2500	25000	İRA İRF İRAF İRB	93	311 312 313 314	140 150 160 170
	3,0	10	273	2800	2500	25000				
	3,3	11	240	2800	2500	25000				
	3,9	13	213	2800	2500	25000				
	4,2	14	191	2800	2500	25000				
	4,9	16	172	2800	2500	25000				
	5,2	17	156	2800	2500	25000				
	6,4	21	131	2800	2500	25000				
	7,0	23	120	2800	2500	25000				
	7,6	25	110	2800	2500	25000				
	8,5	28	96,96	2800	2500	25000				
	9,8	32	86,16	2800	2500	25000				
	11	36	77,10	2800	2500	25000				
	12	40	68,65	2800	2500	25000				
	14	46	60,50	2800	2500	25000				
	15	52	53,76	2800	2500	25000				
	17	58	48,11	2800	2500	25000				
	19	64	43,29	2800	2500	25000				
	21	71	39,13	2800	2500	25000				
	23	78	35,52	2800	2500	25000				
	26	86	32,34	2800	2500	25000				
	28	94	29,52	2800	2500	25000				
	31	103	27,01	2800	2500	25000				
	34	113	24,76	2800	2500	25000				
	42	139	20,09	2800	2500	25000				
	50	166	16,85	2800	2500	25000				
	60	197	14,21	2800	2500	25000				
	35	119	23,38	2800	2500	20000	İRA İRF İRAF İRB	92	311 312 313 314	134 144 154 164
	40	135	20,60	2800	2500	20000				
	45	152	18,31	2800	2500	20000				
	51	170	16,38	2800	2500	20000				
	57	189	14,74	2800	2500	20000				
	63	210	13,32	2800	2500	20000				
	76	254	11,01	2800	2500	20000				
84	278	10,05	2800	2500	20000					
91	304	9,2	2800	2500	20000					
101	336	8,317	2800	2500	20000					
111	370	7,548	2800	2500	20000					
122	407	6,872	2800	2500	20000					
134	446	6,274	2800	2500	20000					
147	487	5,74	2800	2500	20000					
160	532	5,261	2800	2500	20000					
190	631	4,437	2800	2500	20000					
207	686	4,08	2800	2500	20000					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Qv2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg				
2800 Nm	225	746	3,753	2800	2500	20000	İRA İRF İRAF İRB	92	311	134				
	236	782	3,58	2800	2500	20000			312	144				
	280	927	3,019	2800	2500	20000			313	154				
	304	1008	2,776	2800	2500	20000			314	164				
	331	1096	2,554	2800	2500	20000								
	345	1142	2,45	2800	2500	20000								
4300 Nm	0,05	0,12	22099	4300	1200	34000	İRA İRF İRAF	103 İR 73	345 346 347	248 251 273				
	0,06	0,14	18788	4300	1200	34000								
	0,07	0,16	16845	4300	1200	34000								
	0,08	0,18	15213	4300	1200	34000								
	0,09	0,20	13823	4300	1200	34000								
	0,10	0,22	12625	4300	1200	34000								
	0,11	0,24	11581	4300	1200	34000								
	0,13	0,27	10325	4300	1200	34000								
	0,14	0,30	9118	4300	1200	34000								
	0,16	0,34	8104	4300	1200	34000								
	0,18	0,38	7241	4300	1200	34000								
	0,21	0,43	6496	4300	1200	34000								
	0,23	0,47	5848	4300	1200	34000								
	0,26	0,53	5278	4300	1200	34000								
	0,28	0,58	4790	4300	1200	34000								
	0,32	0,66	4230	4300	1200	34000								
	0,36	0,74	3760	4300	1200	34000								
	0,40	0,83	3359	4300	1200	34000								
	0,45	0,92	3014	4300	1200	34000								
	0,49	1,0	2713	4300	1200	34000								
	0,54	1,1	2448	4300	1200	34000								
	0,48	1,0	2733	4300	1200	34000	İRA İRF İRAF	102 İR 73	345 346 347	246 249 271				
	0,53	1,1	2413	4300	1200	34000								
	0,63	1,3	2145	4300	1200	34000								
	0,67	1,4	1916	4300	1200	34000								
	0,82	1,7	1635	4300	1200	34000								
	0,92	1,9	1460	4300	1200	34000								
	1,0	2,1	1311	4300	1200	34000								
	1,1	2,3	1180	4300	1200	34000								
	1,2	2,5	1103	4300	1200	34000								
	1,3	2,8	986	4300	1200	34000								
	1,5	3,1	884	4300	1200	34000								
	1,6	3,5	796	4300	1200	34000								
	1,8	3,8	718	4300	1200	34000								
	2,0	4,3	650	4300	1200	34000								
	2,3	4,8	575	4300	1200	34000								
	1,1	2,3	1173	4300	1200	34000					İRA İRF İRAF	103 İR 72	345 346 347	246 249 271
	1,2	2,6	1046	4300	1200	34000								
	1,4	3,0	923	4300	1200	34000								
	1,6	3,4	821	4300	1200	34000								
	1,8	3,8	733	4300	1200	34000								
	2,0	4,2	658	4300	1200	34000								
	2,2	4,7	592	4300	1200	34000								
	2,5	5,2	535	4300	1200	34000								
	2,7	5,7	485	4300	1200	34000								
	3,1	6,5	428	4300	1200	34000								
	3,5	7,3	381	4300	1200	34000								
	3,9	8,2	340	4300	1200	34000								
4,4	9,1	305	4300	1200	34000									
4,8	10	275	4300	1200	34000									
5,3	11	248	4300	1200	34000									



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			~kg
4300 Nm	5,2	11	239	4300	1200	34000	İRA İRF İRAF	102 İR 72	345	244
	6,2	13	211	4300	1200	34000			346	247
	6,6	14	188	4300	1200	34000			347	269
	7,6	16	168	4300	1200	34000				
	1,6	3,4	802	4300	1200	34000	İRA İRF İRAF	104	339	241
	1,8	3,8	719	4300	1200	34000			340	244
	2,1	4,5	611	4300	1200	34000			341	266
	2,4	5,1	548	4300	1200	34000				
	2,6	5,6	494	4300	1200	34000				
	2,9	6,2	446	4300	1200	34000				
	3,3	6,9	405	4300	1200	34000				
	3,5	7,5	370	4300	1200	34000				
	3,9	8,2	339	4300	1200	34000				
	4,3	9,1	306	4300	1200	34000				
	4,7	9,9	281	4300	1200	34000				
	4,7	10	256	4300	3750	30000	İRA İRF İRAF İRB	103		
	5,6	12	225	4300	3750	30000				
	6,1	13	207	4300	3750	30000				
	7,0	15	184	4300	3750	30000				
	7,5	16	165	4300	3750	30000				
	9,4	20	140	4300	3750	30000				
	10	22	126	4300	3750	30000				
	11	24	113	4300	3750	30000				
	12	27	103	4300	3750	30000				
	13	29	94,54	4300	3750	30000				
	15	32	86,72	4300	3750	30000				
	16	36	77,32	4300	3750	30000			331	237
	19	41	68,28	4300	3750	30000			332	240
	21	46	60,69	4300	3750	30000			333	262
	24	51	54,22	4300	3750	30000			334	278
	26	57	48,64	4300	3750	30000				
	29	63	43,79	4300	3750	30000				
	32	70	39,52	4300	3750	30000				
	36	78	35,87	4300	3750	30000				
	41	88	31,67	4300	3750	30000				
	46	99	28,15	4300	3750	30000				
	52	111	25,15	4300	3750	30000				
	58	124	22,56	4300	3750	30000				
	64	137	20,31	4300	3750	30000				
	71	152	18,36	4300	3750	30000				
	79	168	16,58	4300	3750	30000				
	87	186	15,01	4300	3750	30000				
	73	158	17,69	4300	3750	25000	İRA İRF İRAF İRB	102		
	83	179	15,62	4300	3750	25000				
	93	201	13,88	4300	3750	25000				
	104	225	12,40	4300	3750	25000				
	122	264	10,58	4300	3750	25000				
	137	296	9,457	4300	3750	25000				
	152	329	8,485	4300	3750	25000			331	235
	169	366	7,638	4300	3750	25000			332	238
	181	391	7,144	4300	3750	25000			333	260
	203	438	6,382	4300	3750	25000			334	276
	226	488	5,726	4300	3750	25000				
	251	543	5,154	4300	3750	21000				
	278	601	4,652	4300	3750	21000				
	308	665	4,207	4300	3750	21000				
	348	752	3,723	4300	3750	21000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
4300 Nm	386	833	3,36	4300	3750	21000	İRA İRF İRAF İRB	102	331	235
	427	921	3,039	4300	3750	21000			332	238
	471	1017	2,752	4300	3750	19000			333	260
	520	1122	2,495	4300	3750	19000			334	276
	574	1237	2,263	4300	3750	19000				
8000 Nm	0,07	0,08	32309	8000	1200	52000	İRA İRF İRAF	123 İR 73	365 366 367	338 340 368
	0,08	0,09	28749	8000	1200	52000				
	0,09	0,10	25807	8000	1200	52000				
	0,10	0,11	23337	8000	1200	52000				
	0,12	0,14	18918	8000	1200	52000				
	0,14	0,16	17260	8000	1200	52000				
	0,16	0,18	15494	8000	1200	52000				
	0,18	0,20	13395	8000	1200	52000				
	0,21	0,23	12113	8000	1200	52000				
	0,22	0,25	11190	8000	1200	52000				
	0,24	0,27	10209	8000	1200	52000				
	0,27	0,30	9165	8000	1200	52000				
	0,30	0,33	8288	8000	1200	52000				
	0,32	0,35	7928	8000	1200	52000				
	0,39	0,43	6426	8000	1200	52000				
	0,43	0,47	5863	8000	1200	52000				
	0,48	0,53	5263	8000	1200	52000				
	0,53	0,58	4759	8000	1200	52000				
	0,64	0,70	3975	8000	1200	52000				
	0,73	0,80	3498	8000	1200	52000				
	0,82	0,90	3104	8000	1200	52000				
	0,91	1,0	2773	8000	1200	52000				
	0,61	0,68	4059	8000	1200	52000	İRA İRF İRAF	122 İR 73	365 366 367	311 313 341
	0,68	0,76	3671	8000	1200	52000				
	0,71	0,79	3509	8000	1200	52000				
	0,79	0,88	3173	8000	1200	52000				
	0,90	1,0	2650	8000	1200	52000				
	0,99	1,1	2399	8000	1200	52000				
	1,0	1,2	2170	8000	1200	52000				
	1,3	1,5	1812	8000	1200	52000				
	1,5	1,7	1594	8000	1200	52000				
	1,8	2,0	1379	8000	1200	52000				
	1,9	2,2	1247	8000	1200	52000				
	2,3	2,6	1042	8000	1200	52000				
	2,7	3,0	916	8000	1200	52000				
	3,0	3,4	813	8000	1200	52000				
	3,4	3,8	726	8000	1200	52000				
	3,7	4,2	652	8000	1200	52000				
	4,1	4,6	603	8000	1200	52000				
	0,88	0,98	2829	8000	1200	52000	İRA İRF İRAF	123 İR 72	365 366 367	336 338 366
	0,99	1,1	2517	8000	1200	52000				
	1,0	1,2	2260	8000	1200	52000				
	1,1	1,3	2043	8000	1200	52000				
	1,4	1,6	1657	8000	1200	52000				
	1,6	1,8	1511	8000	1200	52000				
	1,8	2,0	1357	8000	1200	52000				
	1,9	2,2	1227	8000	1200	52000				
	2,4	2,7	1025	8000	1200	52000				
	2,8	3,1	902	8000	1200	52000				
	3,1	3,5	800	8000	1200	52000				
	3,5	3,9	715	8000	1200	52000				
	3,8	4,3	642	8000	1200	52000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
8000 Nm	4,3	4,8	579	8000	1200	52000	İRA İRF İRAF	123 İR 72	365 366 367	336 338 366
	4,5	5,0	550	8000	1200	52000				
	5,1	5,7	488	8000	1200	52000				
	5,7	6,4	436	8000	1200	52000				
	6,4	7,1	392	8000	1200	52000				
	7,1	7,9	354	8000	1200	52000				
	7,8	8,7	320	8000	1200	52000				
	8,6	9,6	291	8000	1200	52000				
	9,0	10	265	8000	1200	52000				
	9,9	11	242	8000	1200	52000				
	10	12	221	8000	1200	52000				
	11	13	201	8000	1200	52000				
	13	15	183	8000	1200	52000				
	14	16	167	8000	1200	52000				
	7,3	8,3	335	8000	1200	52000	İRA İRF İRAF	122 İR 72	365 366 367	309 311 339
	7,7	8,7	321	8000	1200	52000				
	8,8	10	268	8000	1200	52000				
	9,7	11	236	8000	1200	52000				
	11	13	210	8000	1200	52000				
	12	14	187	8000	1200	52000				
	14	16	168	8000	1200	52000				
	16	18	155	8000	1200	52000				
	2,7	3,1	883	8000	1200	52000				
	3,1	3,5	798	8000	1200	52000				
	3,8	4,3	647	8000	1200	52000				
	4,1	4,7	590	8000	1200	52000				
	4,6	5,2	530	8000	1200	52000				
	5,1	5,8	479	8000	1200	52000				
	6,2	7	400	8000	1200	52000				
	7,0	7,9	352	8000	1200	52000				
	7,9	8,9	312	8000	1200	52000				
	8,8	10	279	8000	1200	52000				
	9,7	11	250	8000	1200	52000				
	10	12	226	8000	1200	52000				
	11	13	215	8000	1200	52000	İRA İRF İRAF İRB	123	351 352 353 354	351 353 381 412
	11	13	209	8000	3750	41000				
	13	15	186	8000	3750	41000				
	14	16	167	8000	3750	41000				
	15	18	151	8000	3750	41000				
	19	22	122	8000	3750	41000				
	21	25	111	8000	3750	41000				
	24	28	100	8000	3750	41000				
	26	30	90,71	8000	3750	41000				
	31	36	75,76	8000	3750	41000				
	35	41	66,67	8000	3750	41000				
	41	47	59,16	8000	3750	39700				
	45	52	52,84	8000	3750	39700				
	50	58	47,47	8000	3750	39700				
	56	65	42,84	8000	3750	39700				
	59	68	40,7	8000	3750	39700				
	67	77	36,11	8000	3750	39700				
	75	86	32,26	8000	3750	39700				
	84	96	28,98	8000	3750	39700				
	93	107	26,15	8000	3750	39700				
	103	118	23,68	8000	3750	39700				
	113	130	21,52	8000	3750	39700				
	124	142	19,60	8000	3750	39700				
	136	156	17,89	8000	3750	39700				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Qv2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
8000 Nm	91	106	26,28	8000	3750	45000	İRA İRF İRAF İRB	122		 324
	101	117	23,76	8000	3750	45000				
	121	141	19,85	8000	3750	45000				
	138	160	17,46	8000	3750	45000				
	155	180	15,5	8000	3750	45000				
	174	202	13,84	8000	3750	45000				
	194	225	12,43	8000	3750	45000				
	209	243	11,49	8000	3750	45000				
	236	274	10,2	8000	3750	45000				
	265	307	9,112	8000	3750	45000				
	295	342	8,185	8000	3750	45000				
	312	362	7,724	8000	3750	45000				
	347	403	6,938	8000	3750	45000				
	385	447	6,261	8000	3750	45000				
	425	493	5,671	8000	3750	45000				
	468	543	5,153	8000	3750	45000				
	514	596	4,694	8000	3750	45000				
	563	653	4,284	8000	3750	45000				
	616	714	3,917	8000	3750	45000				
	674	781	3,585	8000	3750	45000				
735	852	3,284	8000	3750	45000					
13000 Nm	7,6	5,2	537	13000	1550	60000	İRA İRF İRAF	143 İR 82		 557
	9,2	6,3	443	13000	1550	60000				
	10	7,0	398	13000	1550	60000				
	11	7,7	359	13000	1550	60000				
	12	8,4	331	13000	1550	60000				
	14	10	277	13000	1550	60000				
	16	11	249	13000	1550	60000				
	17	12	225	13000	1550	60000				
	19	13	207	13000	1550	60000				
	20	14	187	13000	1550	60000				
	24	17	157	13000	1550	60000				
	0,16	0,11	24943	13000	1200	60000	İRA İRF İRAF	143 İR 73		 513
	0,17	0,12	21564	13000	1200	60000				
	0,20	0,14	19545	13000	1200	60000				
	0,22	0,15	17730	13000	1200	60000				
	0,26	0,18	15134	13000	1200	60000				
	0,29	0,20	13372	13000	1200	60000				
	0,34	0,23	12131	13000	1200	60000				
	0,37	0,25	10788	13000	1200	60000				
	0,43	0,29	9446	13000	1200	60000				
	0,49	0,33	8427	13000	1200	60000				
	0,55	0,37	7474	13000	1200	60000				
	0,61	0,41	6732	13000	1200	60000				
	0,70	0,47	5907	13000	1200	60000				
	0,76	0,51	5425	13000	1200	60000				
	0,84	0,57	4839	13000	1200	60000				
	0,95	0,64	4347	13000	1200	60000				
	1,0	0,73	3814	13000	1200	60000				
	1,2	0,82	3404	13000	1200	60000				
	1,3	0,92	3026	13000	1200	60000				
	1,4	1,0	2717	13000	1200	60000				
	1,7	1,2	2184	13000	1200	60000	İRA İRF İRAF	143 İR 72		 511
	2,0	1,4	1979	13000	1200	60000				
	2,2	1,5	1759	13000	1200	60000				
	2,4	1,7	1596	13000	1200	60000				
	2,9	2,0	1365	13000	1200	60000				
3,6	2,5	1110	13000	1200	60000					
4,1	2,8	990	13000	1200	60000					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
13000 Nm	4,5	3,1	889	13000	1200	60000	İRA İRF İRAF	143 İR 72	385 386 387	511 525 551
	5,1	3,5	780	13000	1200	60000				
	5,8	4,0	696	13000	1200	60000				
	6,9	4,7	595	13000	1200	60000				
	7,4	5,1	540	13000	1200	60000				
	8,3	5,7	485	13000	1200	60000				
	9,3	6,4	436	13000	1200	60000				
	10	7,1	394	13000	1200	60000				
	7,3	5,1	545	13000	1200	60000	İRA İRF İRAF	144	379 380 381	564 578 604
	8,2	5,7	487	13000	1200	60000				
	9,2	6,4	437	13000	1200	60000				
	10	7,2	384	13000	1200	60000				
	11	8,1	344	13000	1200	60000				
	13	9,1	307	13000	1200	60000				
	14	10	275	13000	1200	60000				
	14	10	262	13000	1200	60000				
	15	11	235	13000	1200	60000	İRA İRF İRAF	143	371 372 373 374	526 540 566 639
	18	13	212	13000	1200	60000				
	20	14	192	13000	1200	60000				
	23	16	174	13000	1200	60000				
	24	17	161	13000	3750	60000				
	27	19	146	13000	3750	60000				
	29	21	132	13000	3750	60000				
	38	27	103	13000	3750	60000				
	42	30	92,23	13000	3750	60000	İRA İRF İRAF İRB	142	371 372 373 374	476 490 516 589
	47	33	82,86	13000	3750	60000				
	54	38	72,70	13000	3750	60000				
	61	43	64,89	13000	3750	60000				
	68	48	58,23	13000	3750	60000				
	71	50	55,48	13000	3750	60000				
	79	56	49,78	13000	3750	60000				
	88	62	44,88	13000	3750	60000				
	96	68	40,61	13000	3750	60000	İRA İRF İRAF İRB	142	371 372 373 374	476 490 516 589
	106	75	36,85	13000	3750	60000				
	118	83	33,53	13000	3750	60000				
	142	100	27,90	13000	3750	60000				
	170	120	23,32	13000	3750	60000				
	197	139	20,01	13000	3750	60000				
	195	139	20,02	13000	3750	60000				
	216	154	18,16	13000	3750	60000				
	241	172	16,20	13000	3750	60000				
	269	192	14,55	13000	3750	60000				
	307	219	12,77	13000	3750	60000				
	343	245	11,4	13000	3750	60000				
	383	273	10,23	13000	3750	60000				
	425	303	9,222	13000	3750	60000				
	470	335	8,344	13000	3750	60000	İRA İRF İRAF	153 İR 103	417 418 419	1165 1215 1235
517	369	7,573	13000	3750	60000					
569	406	6,89	13000	3750	60000					
684	488	5,733	13000	3750	60000					
819	584	4,792	13000	3750	60000					
0,80	0,39	7067	18000	3750	110000					
0,90	0,44	6223	18000	3750	110000					
1,0	0,50	5577	18000	3750	110000					
1,1	0,55	5035	18000	3750	110000					
1,2	0,61	4570	18000	3750	110000					
1,6	0,78	3586	18000	3750	110000					
1,7	0,87	3205	18000	3750	110000					
2,0	1,0	2588	18000	3750	110000					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types		 ~kg	
18000 Nm	0,20	0,10	27213	18000	2500	110000	İRA İRF İRAF	153 İR 93	411 412 413	1075 1125 1145
	0,22	0,11	23722	18000	2500	110000				
	0,28	0,14	19875	18000	2500	110000				
	0,30	0,15	17651	18000	2500	110000				
	0,35	0,17	16020	18000	2500	110000				
	0,39	0,19	14354	18000	2500	110000				
	0,43	0,21	13011	18000	2500	110000				
	0,49	0,24	11306	18000	2500	110000				
	0,57	0,28	9958	18000	2500	110000				
	0,63	0,31	8987	18000	2500	110000				
	0,74	0,36	7647	18000	2500	110000				
	0,86	0,42	6643	18000	2500	110000				
	0,94	0,46	6078	18000	2500	110000				
	1,0	0,50	5519	18000	2500	110000				
	1,3	0,64	4312	18000	2500	110000				
	1,5	0,75	3704	18000	2500	110000				
	1,8	0,90	3098	18000	2500	110000				
	2,0	1,0	2596	18000	2500	110000	İRA İRF İRAF	153 İR 92	411 412 413	1069 1119 1139
	2,4	1,2	2288	18000	2500	110000				
	2,6	1,3	2033	18000	2500	110000				
	3,0	1,5	1819	18000	2500	110000				
	3,4	1,7	1637	18000	2500	110000				
	4,0	2,0	1371	18000	2500	110000				
	4,4	2,2	1240	18000	2500	110000				
	5,4	2,7	1024	18000	2500	110000				
	6,7	3,3	825	18000	2500	110000				
	7,5	3,7	754	18000	2500	110000				
	8,1	4,0	683	18000	2500	110000				
	10	5,3	523	18000	2500	110000				
	12	6,2	445	18000	2500	110000				
	14	7,2	386	18000	2500	110000				
	16	7,9	353	18000	2500	110000				
	20	10	276	18000	2500	110000				
	22	11	237	18000	2500	110000				
	7,0	3,5	784	18000	2500	110000	İRA İRF İRAF	154	405 406 407	1037 1107 1107
	8,0	4,0	695	18000	2500	110000				
	9,0	4,5	612	18000	2500	110000				
	10	5,1	548	18000	2500	110000				
	11	5,6	495	18000	2500	110000				
	12	6,4	431	18000	2500	110000				
	15	7,7	361	18000	2500	110000				
	17	8,7	321	18000	2500	110000				
	19	9,6	291	18000	2500	110000				
	20	10	264	18000	2500	110000				
	24	12	229	18000	2500	110000				
	23	12	221	18000	5250	110000	İRA İRF İRAF İRB	153	397 398 399 400	1020 1070 1090 1230
	25	13	201	18000	5250	110000				
	29	15	178	18000	5250	110000				
33	17	157	18000	5250	110000					
37	19	141	18000	5250	110000					
43	22	127	18000	5250	110000					
49	25	111	18000	5250	110000					
59	30	93,04	18000	5250	110000					
65	33	82,63	18000	5250	110000					
72	37	75	18000	5250	110000					
80	41	67,98	18000	5250	110000					
92	47	59,07	18000	5250	110000					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =2800rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg	
18000 Nm	104	53	52,03	18000	5250	110000	İRA İRF İRAF İRB	153		397 398 399 400	1020 1070 1090 1230
	124	63	44,27	18000	5250	110000					
	142	72	38,46	18000	5250	110000					
	155	79	35,19	18000	5250	110000					
	199	101	27,49	18000	5250	110000					
	232	118	23,61	18000	5250	110000	İRA İRF İRAF İRB	152		397 398 399 400	945 995 1015 1155
	190	98	28,54	18000	5250	110000					
	209	108	25,92	18000	5250	110000					
	229	118	23,57	18000	5250	110000					
	256	132	21,08	18000	5250	110000					
	285	147	19	18000	5250	110000					
	314	162	17,22	18000	5250	110000					
	345	178	15,68	18000	5250	110000					
	378	195	14,35	18000	5250	110000					
	483	249	11,21	18000	5250	110000					
	507	261	10,69	18000	5250	110000					
	557	287	9,744	18000	5250	110000					
	609	314	8,915	18000	5250	110000					
	664	342	8,186	18000	5250	110000					
	780	402	6,965	18000	5250	110000					
	907	467	5,983	18000	5250	110000					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
85 Nm	0,15	17	81,36	85	390	2100	İRA İRF İRAF	43	195 196 197	12 13 13
	0,17	19	70,05	85	390	2100				
	0,20	22	60,89	85	390	2100				
	0,24	26	53,33	85	390	2100				
	0,27	29	46,97	85	390	2100				
	0,30	33	41,84	85	390	2100				
	0,35	38	36,37	85	390	2100				
	0,40	43	31,85	85	390	2100				
	0,45	49	28,06	85	390	2100				
	0,49	53	26,19	85	390	2100				
	0,52	56	24,82	85	390	2000				
	0,56	61	22,61	85	390	2000				
	0,61	66	21,10	85	390	2000				
	0,65	70	20,00	85	390	2000				
	0,69	75	18,59	85	390	2000				
	0,72	78	17,76	85	390	1850				
	0,79	85	16,45	85	390	1850				
	0,81	88	15,80	85	390	1850				
	0,88	95	14,60	85	390	1850				
	0,92	99	14,08	85	390	1800				
	0,99	107	12,99	85	390	1800				
	1,1	120	11,58	85	390	1800				
	1,1	124	11,24	85	390	800				
	1,3	142	9,845	85	390	800				
	1,4	161	8,672	85	390	800				
	1,6	182	7,673	85	390	750				
	1,8	203	6,872	85	390	750				
	2,1	230	6,08	85	390	750				
	2,3	252	5,538	85	390	750				
	2,3	259	5,398	85	390	750				
	2,6	285	4,9	85	390	750				
	2,6	291	4,803	85	390	750				
	2,9	321	4,35	85	390	750				
	2,9	327	4,28	85	390	750				
	3,3	361	3,87	85	390	750				
	3,7	405	3,449	85	390	750				
150 Nm	0,00	0,16	8598	150	390	4250	İRA İRF İRAF	53 İR 43	207 208 209	26 28 29
	0,00	0,18	7402	150	390	4250				
	0,00	0,21	6435	150	390	4250				
	0,00	0,25	5419	150	390	4250				
	0,00	0,29	4699	150	390	4250				
	0,00	0,34	4117	150	390	4250				
	0,00	0,41	3338	150	390	4250				
	0,00	0,47	2948	150	390	4250				
	0,00	0,52	2679	150	390	4250				
	0,01	0,59	2346	150	390	4250				
	0,01	0,67	2085	150	390	4250				
	0,01	0,75	1863	150	390	4250				
	0,01	0,85	1641	150	390	4250				
	0,01	0,95	1462	150	390	4250				
	0,01	1,1	1271	150	390	4250				
	0,01	1,0	1398	150	390	4250				
	0,01	1,1	1204	150	390	4250				
	0,02	1,3	1046	150	390	4250				
	0,02	1,5	917	150	390	4250				
	0,02	1,7	809	150	390	4250				
	0,03	1,9	709	150	390	4250				
	0,03	2,2	630	150	390	4250				
	0,04	2,5	555	150	390	4250				
	0,04	2,8	496	150	390	4250				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q12} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
150 Nm	0,01	1,1	1188	150	390	4250	İRA İRF İRAF	53 İR 42	207 208 209	25 27 28
	0,02	1,3	1040	150	390	4250				
	0,02	1,5	916	150	390	4250				
	0,02	1,5	878	150	390	4250				
	0,03	1,8	772	150	390	4250				
	0,03	2,0	669	150	390	4250				
	0,03	2,3	586	150	390	4250				
	0,04	2,6	519	150	390	4250				
	0,05	3,3	421	150	390	4250				
	0,06	3,7	377	150	390	4250				
	0,07	4,2	333	150	390	4250				
	0,07	4,7	294	150	390	4250				
	0,08	5,2	267	150	390	4250				
	0,09	5,8	238	150	390	4250				
	0,12	7,2	193	150	390	4250				
	0,13	8,0	173	150	390	4250				
	0,15	9,2	152	150	390	4250				
	0,16	10	138	150	390	4250				
	0,18	11	125	150	390	4250				
	0,20	12	111	150	390	4250				
	0,23	14	95	150	390	4250				
	0,12	7,2	193	150	390	4250	İRA İRF İRAF	52 İR 42	207 208 209	24 26 27
	0,13	8,2	169	150	390	4250				
	0,15	9,4	148	150	390	4250				
	0,16	10	131	150	390	4250				
	0,20	12	116	150	390	4250				
	0,21	13	104	150	390	4250				
	0,25	15	93	150	390	4250	İRA İRF İRAF	53	201 202 203	18 20 21
	0,21	13	105	150	475	4250				
	0,24	15	88,98	150	475	4250				
	0,29	18	77,16	150	475	4250				
	0,32	20	67,60	150	475	4250				
	0,41	25	54,81	150	475	4250				
	0,46	28	48,41	150	475	4250				
	0,50	31	43,98	150	475	4250				
	0,57	35	39,09	150	475	4250				
	0,65	40	34,93	150	475	4250				
	0,72	44	31,33	150	475	4250				
	0,80	49	28,21	150	475	4250				
	0,88	54	25,46	150	475	4250				
	0,98	60	23,02	150	475	4250				
	1,0	63	21,88	150	475	4250				
	1,1	71	19,69	150	475	4250				
	1,2	78	17,77	150	475	4250				
	1,4	87	16,07	150	475	4250				
	1,3	81	17,18	150	475	3500	İRA İRF İRAF	52	201 202 203	17 19 20
	1,5	93	15,05	150	475	3500				
	1,6	105	13,29	150	475	3500				
	1,9	118	11,81	150	475	3500				
	2,1	132	10,55	150	475	3500				
	2,3	147	9,47	150	475	3500				
	2,5	157	8,888	150	475	3500				
	2,8	175	7,974	150	475	3500				
	3,1	195	7,178	150	475	3500				
	3,4	216	6,479	150	475	3500				
	3,8	240	5,821	150	475	3500				
	4,3	266	5,254	150	475	3500				
	4,5	278	5,032	150	475	3500				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Qv2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg				
150 Nm	5,0	310	4,515	150	475	3500	İRA İRF İRAF	52	201 202 203	17 19 20				
	5,5	344	4,064	150	475	3500								
	6,1	381	3,668	150	475	3500								
	6,8	422	3,317	150	475	3500								
	7,3	457	3,059	150	475	3500								
	7,7	481	2,906	150	475	3500								
	8,8	544	2,572	150	475	3500								
410 Nm	0,49	11	127	410	590	7000	İRA İRF İRAF	631	213 214 215	29 34 35				
	0,49	11	119	410	590	7000								
	0,62	14	96,27	410	590	7000								
	0,67	15	87,81	410	590	7000								
	0,71	16	83,37	410	590	7000								
	0,85	19	70,96	410	590	7000								
	0,98	22	61,03	410	590	7000								
	1,2	27	51,65	410	590	7000								
	1,3	29	46,79	410	590	7000								
	1,4	32	42,55	410	590	7000								
	1,7	39	35,74	410	590	7000								
	2,0	46	29,85	410	590	7000								
	2,4	55	25,16	410	590	7000								
	2,9	65	21,5	410	590	7000								
	3,0	68	20,53	410	590	7000								
	3,4	77	18,18	410	590	7000								
	3,9	89	15,59	410	590	7000								
	4,5	101	13,80	410	590	7000								
	3,6	83	16,67	410	590	7000	İRA İRF İRAF	621	213 214 215	24 29 30				
	4,0	92	15,13	410	590	7000								
	4,5	103	13,47	410	590	7000								
	5,0	114	12,20	410	590	7000								
	5,5	126	11,10	410	590	7000								
	6,1	139	10,07	410	590	7000								
	6,5	149	9,358	410	590	7000								
	7,2	164	8,51	410	590	7000								
	8,0	182	7,673	410	590	7000								
	8,6	196	7,108	410	590	7000								
	9,5	216	6,48	410	590	7000								
	10	233	5,992	410	590	7000								
	10	244	5,723	410	590	7000								
	11	262	5,325	410	590	7000								
	12	276	5,06	410	590	7000								
	13	311	4,499	410	590	7000								
	15	350	3,998	410	590	7000								
	16	377	3,711	410	590	7000								
	18	425	3,287	410	590	7000								
	21	479	2,917	410	590	7000								
	23	540	2,592	410	590	7000								
	25	572	2,444	410	590	7000								
	0,00	0,10	13520	410	475	7000					İRA İRF İRAF	63 İR 53	245 246 247	#YOK
	0,00	0,11	12617	410	475	7000								
	0,00	0,12	11345	410	475	7000								
	0,00	0,13	10587	410	475	7000								
	0,00	0,14	9873	410	475	7000								
	0,00	0,15	9214	410	475	7000								
	0,00	0,18	7479	410	475	7000								
0,00	0,21	6508	410	475	7000									
0,01	0,22	6194	410	475	7000									
0,01	0,23	5936	410	475	7000									
0,01	0,24	5780	410	475	7000									



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
410 Nm	0,01	0,24	5636	410	475	7000	İRA İRF İRAF	63 İR 53	245 246 247	#YOK
	0,01	0,29	4814	410	475	7000				
	0,01	0,30	4661	410	475	7000				
	0,01	0,30	4570	410	475	7000				
	0,01	0,32	4251	410	475	7000				
	0,01	0,34	4036	410	475	7000				
	0,01	0,35	3890	410	475	7000				
	0,01	0,40	3436	410	475	7000				
	0,02	0,47	2955	410	475	7000				
	0,02	0,52	2685	410	475	7000				
	0,02	0,56	2500	410	475	7000				
	0,02	0,61	2272	410	475	7000				
	0,02	0,61	2265	410	475	7000				
	0,03	0,68	2058	410	475	7000				
	0,03	0,74	1872	410	475	7000				
	0,02	0,63	2198	410	475	7000	İRA İRF İRAF	63 İR 52	245 246 247	43 48 49
	0,03	0,68	2052	410	475	7000				
	0,03	0,77	1797	410	475	7000				
	0,03	0,82	1701	410	475	7000				
	0,03	0,84	1654	410	475	7000				
	0,04	0,88	1587	410	475	7000				
	0,04	0,92	1509	410	475	7000				
	0,04	0,97	1432	410	475	7000				
	0,04	1,0	1280	410	475	7000				
	0,05	1,1	1219	410	475	7000				
	0,05	1,1	1167	410	475	7000				
	0,05	1,2	1108	410	475	7000				
	0,06	1,3	1049	410	475	7000				
	0,06	1,4	943	410	475	7000				
	0,06	1,5	887	410	475	7000				
	0,07	1,7	811	410	475	7000				
	0,07	1,7	804	410	475	7000				
	0,08	1,9	731	410	475	7000				
	0,09	2,0	686	410	475	7000				
	0,10	2,2	622	410	475	7000				
	0,10	2,2	614	410	475	7000				
	0,11	2,4	566	410	475	7000				
	0,12	2,6	538	410	475	7000				
	0,13	2,9	475	410	475	7000				
	0,14	3,1	449	410	475	7000				
	0,16	3,5	397	410	475	7000				
	0,16	3,6	379	410	475	7000				
	0,18	4,1	335	410	475	7000				
	0,22	4,8	286	410	475	7000				
	0,23	5,1	273	410	475	7000				
	0,26	5,7	242	410	475	7000				
	0,30	6,5	215	410	475	7000				
	0,33	7,3	190	410	475	7000				
	0,15	3,3	424	410	475	7000	İRA İRF İRAF	64	239 240 241	32 37 38
	0,15	3,5	395	410	475	7000				
	0,19	4,3	319	410	475	7000				
	0,21	4,8	291	410	475	7000				
	0,22	5,0	276	410	475	7000				
	0,26	5,9	235	410	475	7000				
	0,29	6,5	213	410	475	7000				
	0,34	7,6	182	410	475	7000				
	0,40	8,9	156	410	475	7000				
	0,45	10	132	410	475	7000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
410 Nm	0,49	11	127	410	590	7000	İRA İRF İRAF İRB	63	231 232 233 234	29 34 35 37
	0,49	11	119	410	590	7000				
	0,62	14	96,27	410	590	7000				
	0,67	15	87,81	410	590	7000				
	0,71	16	83,37	410	590	7000				
	0,85	19	70,96	410	590	7000				
	0,98	22	61,03	410	590	7000				
	1,2	27	51,65	410	590	7000				
	1,3	29	46,79	410	590	7000				
	1,4	32	42,55	410	590	7000				
	1,7	39	35,74	410	590	7000				
	2,0	46	29,85	410	590	7000				
	2,4	55	25,16	410	590	7000				
	2,9	65	21,5	410	590	7000				
	3,0	68	20,53	410	590	7000				
	3,4	77	18,18	410	590	7000				
	3,9	89	15,59	410	590	7000				
	4,5	101	13,80	410	590	7000				
	3,6	83	16,67	410	590	4500	İRA İRF İRAF İRB	62	231 232 233 234	24 29 30 32
	4,0	92	15,13	410	590	4500				
	4,5	103	13,47	410	590	4500				
	5,0	114	12,20	410	590	4500				
	5,5	126	11,10	410	590	4500				
	6,1	139	10,07	410	590	4500				
	6,5	149	9,358	410	590	4500				
	7,2	164	8,51	410	590	4500				
	8,0	182	7,673	410	590	4500				
	8,6	196	7,108	410	590	4500				
	9,5	216	6,48	410	590	4500				
	10	233	5,992	410	590	4500				
	10	244	5,723	410	590	4500				
	11	262	5,325	410	590	4500				
	12	276	5,06	410	590	4500				
	13	311	4,499	410	590	4500				
	15	350	3,998	410	590	4500				
	16	377	3,711	410	590	4500				
	18	425	3,287	410	590	4500				
	21	479	2,917	410	590	4500				
	23	540	2,592	410	590	4500				
	25	572	2,444	410	590	4500				
600 Nm	0,00	0,08	16071	600	475	10100	İRA İRF İRAF	731 İR 53	265 266 267	54 57 60
	0,00	0,09	14258	600	475	10100				
	0,00	0,11	12326	600	475	10100				
	0,00	0,13	10380	600	475	10100				
	0,01	0,15	9001	600	475	10100				
	0,01	0,17	7782	600	475	10100				
	0,01	0,20	6862	600	475	10100				
	0,01	0,23	6012	600	475	10100				
	0,01	0,26	5301	600	475	10100				
	0,02	0,32	4299	600	475	10100				
	0,02	0,36	3796	600	475	10100				
	0,02	0,40	3450	600	475	10100				
	0,03	0,45	3068	600	475	10100				
	0,03	0,50	2747	600	475	10100				
	0,03	0,57	2443	600	475	10100				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
600 Nm	0,03	0,53	2613	600	475	10100	İRA İRF İRAF	731 İR 52	265 266 267	54 57 60
	0,04	0,60	2318	600	475	10100				
	0,04	0,69	2004	600	475	10100				
	0,05	0,79	1756	600	475	10100				
	0,06	0,92	1518	600	475	10100				
	0,06	1,0	1339	600	475	10100				
	0,07	1,1	1180	600	475	10100				
	0,08	1,3	1050	600	475	10100				
	0,09	1,4	940	600	475	10100				
	0,10	1,6	836	600	475	10100				
	0,12	1,8	749	600	475	10100				
	0,13	2,0	674	600	475	10100				
	0,15	2,3	600	600	475	10100				
	0,17	2,6	530	600	475	10100				
	0,19	2,9	468	600	475	10100				
	0,22	3,3	416	600	475	10100				
	0,25	3,7	372	600	475	10100				
	0,28	4,2	333	600	475	10100				
	0,31	4,6	300	600	475	10100				
	0,35	5,2	267	600	475	10100				
	0,39	5,8	238	600	475	10100				
	0,44	6,5	214	600	475	10100				
	0,46	6,9	201	600	475	10100				
	0,52	7,7	180	600	475	10100				
	0,58	8,6	162	600	475	10100				
	0,64	9,5	146	600	475	10100				
	0,05	0,74	1872	600	475	10100	İRA İRF İRAF	721 İR 53	265 266 267	53 56 59
	0,05	0,85	1640	600	475	10100				
	0,06	0,96	1446	600	475	10100				
	0,06	1,0	1286	600	475	10100				
	0,07	1,1	1172	600	475	10100				
	0,08	1,3	1035	600	475	10100				
	0,10	1,5	921	600	475	10100				
	0,10	1,6	825	600	475	10100				
	0,12	1,8	743	600	475	10100				
	0,13	2,0	675	600	475	10100				
	0,15	2,3	604	600	475	10100				
	0,17	2,6	533	600	475	10100				
	0,18	2,8	491	600	475	10100				
	0,19	2,9	480	600	475	10100				
	0,22	3,3	423	600	475	10100				
	0,23	3,5	390	600	475	10100				
	0,27	4,0	344	600	475	10100				
	0,30	4,5	306	600	475	10100				
	0,34	5,1	274	600	475	10100				
	0,38	5,7	245	600	475	10100				
	0,42	6,3	221	600	475	10100				
	0,47	7,0	199	600	475	10100				
0,52	7,7	180	600	475	10100					
0,57	8,5	163	600	475	10100					
0,63	9,4	148	600	475	10100					
0,22	3,3	417	600	475	10100	İRA İRF İRAF	721 İR 52	265 266 267	50 53 56	
0,25	3,8	365	600	475	10100					
0,28	4,3	322	600	475	10100					
0,32	4,8	287	600	475	10100					
0,36	5,4	256	600	475	10100					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
600 Nm	0,40	6,1	226	600	475	10100	İRA İRF İRAF	721 İR 52	265	50
	0,46	6,9	201	600	475	10100			266	53
	0,51	7,7	180	600	475	10100			267	56
	0,57	8,6	162	600	475	10100				
	0,64	9,6	145	600	475	10100				
	0,14	2,2	622	600	475	10100	İRA İRF İRAF	741		
	0,17	2,6	537	600	475	10100				
	0,20	3,0	465	600	475	10100				
	0,21	3,2	435	600	475	10100				
	0,24	3,6	383	600	475	10100				
	0,27	4,1	338	600	475	10100				
	0,30	4,6	301	600	475	10100				
	0,38	5,8	239	600	475	10100				
	0,49	7,4	188	600	475	10100				
	0,55	8,3	168	600	475	10100				
	0,61	9,2	151	600	475	10100				
	0,60	9,2	152	600	1000	10100	İRA İRF İRAF İRB	731		
	0,65	10	134	600	1000	10100				
	0,78	12	116	600	1000	10100				
	0,92	14	100	600	1000	10100				
	0,98	15	88,93	600	1000	10100				
	1,1	17	78,42	600	1000	10100				
	1,3	20	69,74	600	1000	9700				
	1,4	22	62,45	600	1000	9700				
	1,6	25	55,54	600	1000	9700				
	1,8	28	49,73	600	1000	9700				
	2,0	31	44,79	600	1000	9700				
	2,3	35	39,88	600	1000	9500				
	2,5	39	35,22	600	1000	9500				
	2,8	44	31,30	600	1000	9500				
	3,2	50	27,97	600	1000	9250				
	3,6	55	25,09	600	1000	9250				
	4,0	61	22,59	600	1000	9250				
	2,8	44	31,62	600	1000	7500	İRA İRF İRAF İRB	721		
	3,1	49	28,05	600	1000	7500				
	3,6	57	24,25	600	1000	7500				
	4,2	65	21,38	600	1000	7500				
	4,7	73	19,02	600	1000	7250				
	5,3	82	17,03	600	1000	7250				
	5,8	90	15,39	600	1000	7250				
	6,5	101	13,73	600	1000	7250				
	7,4	115	12,12	600	1000	7250				
	8,0	125	11,17	600	1000	7250				
	9,1	141	9,866	600	1000	7000				
	10	159	8,769	600	1000	7000				
	11	178	7,834	600	1000	7000				
	12	199	7,029	600	1000	7000				
	14	221	6,327	600	1000	7000				
	15	245	5,71	600	1000	7000				
	17	271	5,164	600	1000	7000				
	19	299	4,677	600	1000	7000				
	21	330	4,24	600	1000	7000				
	23	367	3,809	600	1000	7000				
	26	407	3,438	600	1000	7000				
	29	450	3,109	600	1000	7000				
	32	497	2,816	600	1000	7000				
	35	548	2,553	600	1000	7000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
870 Nm	0,00	0,08	16321	870	475	12100	İRA İRF İRAF	73 İR 53	285 286 287	53 56 59
	0,00	0,09	14110	870	475	12100				
	0,00	0,10	13744	870	475	12100				
	0,01	0,11	11919	870	475	12100				
	0,01	0,12	10947	870	475	12100				
	0,01	0,13	10304	870	475	12100				
	0,01	0,14	9654	870	475	12100				
	0,01	0,16	8586	870	475	12100				
	0,01	0,18	7688	870	475	12100				
	0,02	0,21	6474	870	475	12100				
	0,02	0,24	5674	870	475	12100				
	0,02	0,26	5287	870	475	12100				
	0,03	0,31	4423	870	475	12100				
	0,03	0,35	3989	870	475	12100				
	0,03	0,39	3522	870	475	12100				
	0,04	0,44	3153	870	475	12100				
	0,04	0,49	2817	870	475	12100				
	0,05	0,55	2527	870	475	12100				
	0,06	0,66	2106	870	475	12100				
	0,06	0,69	2017	870	475	12100				
	0,07	0,74	1882	870	475	12100				
	0,08	0,82	1703	870	475	12100				
	0,09	0,92	1520	870	475	12100				
	0,09	0,99	1410	870	475	12100				
	0,10	1,1	1265	870	475	12100	İRA İRF İRAF	73 İR 52	285 286 287	52 55 58
	0,10	1,1	1187	870	475	12100				
	0,13	1,4	981	870	475	12100				
	0,14	1,5	921	870	475	12100				
	0,15	1,6	865	870	475	12100				
	0,16	1,7	812	870	475	12100				
	0,17	1,8	769	870	475	12100				
	0,18	1,9	722	870	475	12100				
	0,20	2,1	648	870	475	12100				
	0,23	2,4	576	870	475	12100				
	0,28	2,9	473	870	475	12100				
	0,31	3,3	420	870	475	12100				
	0,40	4,2	326	870	475	12100				
	0,46	4,8	291	870	475	12100				
	0,51	5,3	261	870	475	12100	İRA İRF İRAF	74	279 280 281	44 47 50
	0,23	2,4	576	870	475	12100				
	0,30	3,1	447	870	475	12100				
	0,33	3,5	394	870	475	12100				
	0,38	4	350	870	475	12100				
	0,42	4,4	314	870	475	12100				
	0,47	4,9	282	870	475	12100	İRA İRF İRAF İRB	73	271 272 273 274	40 43 46 52
	0,85	9,0	154	870	1200	12100				
	0,95	10	133	870	1200	12100				
	1,2	13	103	870	1200	12100				
	1,4	15	91,36	870	1200	12100				
	1,6	17	81,25	870	1200	12100				
	1,8	19	72,75	870	1200	12100				
	2,0	21	65,52	870	1200	12100				
	2,1	23	59,41	870	1200	12100				
	2,4	26	52,47	870	1200	12100				
	2,8	30	46,36	870	1200	12100				
	3,1	33	41,66	870	1200	12100				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Qv2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
870 Nm	3,5	37	37,38	870	1200	12100	İRA İRF İRAF İRB	73	271 272 273 274	40 43 46 52
	4,1	44	31,16	870	1200	12100				
	4,7	50	27,84	870	1200	12100				
	5,3	56	24,97	870	1200	12100				
	5,9	62	22,48	870	1200	12100				
	6,4	68	20,29	870	1200	12100				
	7,2	76	18,35	870	1200	12100				
	8,0	84	16,62	870	1200	12100				
	8,7	92	15,06	870	1200	12100				
	9,6	103	13,52	870	1200	9000	İRA İRF İRAF İRB	72	271 272 273 274	38 41 44 50
	10	116	12,02	870	1200	9000				
	12	130	10,74	870	1200	9000				
	13	149	9,337	870	1200	9000				
	15	168	8,333	870	1200	9000				
	17	187	7,476	870	1200	9000				
	19	208	6,73	870	1200	9000				
	21	230	6,074	870	1200	9000				
	23	254	5,494	870	1200	9000				
	26	280	4,995	870	1200	9000				
	29	311	4,497	870	1200	9000				
	32	344	4,059	870	1200	9000				
	35	381	3,67	870	1200	9000				
	39	421	3,324	870	1200	9000				
	43	464	3,014	870	1200	9000				
	48	512	2,733	870	1200	9000				
	51	544	2,571	870	1200	9000				
1500 Nm	0,01	0,07	18231	1500	590	17000	İRA İRF İRAF	83 İR 63	305 306 307	109 114 116
	0,01	0,09	15217	1500	590	17000				
	0,01	0,10	13984	1500	590	17000				
	0,01	0,11	12302	1500	590	17500				
	0,02	0,12	10968	1500	590	17500				
	0,02	0,15	8893	1500	590	17500				
	0,02	0,17	7902	1500	590	17500				
	0,03	0,19	7092	1500	590	17500				
	0,03	0,21	6393	1500	590	17500				
	0,04	0,25	5484	1500	590	17500				
	0,04	0,28	4922	1500	590	17500				
	0,05	0,31	4437	1500	590	17500				
	0,05	0,34	4015	1500	590	17500				
	0,06	0,38	3593	1500	590	17500				
	0,07	0,43	3239	1500	590	17500				
	0,08	0,47	2930	1500	590	17500				
	0,08	0,52	2659	1500	590	17500				
	0,09	0,57	2419	1500	590	17500				
	0,10	0,63	2205	1500	590	17500				
	0,11	0,69	2013	1500	590	17500				
	0,13	0,76	1840	1500	590	17500				
	0,16	0,94	1481	1500	590	17500				
	0,17	1,0	1353	1500	590	17500				
	0,13	0,78	1778	1500	590	17500	İRA İRF İRAF	82 İR 63	305 306 307	104 109 111
	0,14	0,88	1580	1500	590	17500				
	0,16	0,98	1418	1500	590	17500				
	0,16	1,0	1279	1500	590	17500				
	0,20	1,2	1157	1500	590	17500				
	0,22	1,3	1050	1500	590	17500				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1500 Nm	0,16	1,0	1308	1500	590	17500	İRA İRF İRAF	82 İR 62	305 306 307	99 104 106
	0,20	1,2	1162	1500	590	17500				
	0,21	1,3	1043	1500	590	17500				
	0,23	1,4	940	1500	590	17500				
	0,26	1,6	850	1500	590	17500				
	0,30	1,8	772	1500	590	17500				
	0,31	1,9	723	1500	590	17500				
	0,35	2,1	653	1500	590	17500				
	0,38	2,3	590	1500	590	17500				
	0,43	2,6	535	1500	590	17500				
	0,46	2,8	487	1500	590	17500				
	0,56	3,4	405	1500	590	17500				
	0,63	3,8	359	1500	590	17500				
	0,73	4,4	314	1500	590	17500				
	0,78	4,7	295	1500	590	17500				
	0,86	5,2	265	1500	590	17500				
	0,96	5,8	240	1500	590	17500				
	0,33	2,0	699	1500	590	17500	İRA İRF İRAF	84	299 300 301	91 96 98
	0,36	2,2	634	1500	590	17500				
	0,40	2,4	578	1500	590	17500				
	0,43	2,6	529	1500	590	17500				
	0,46	2,8	486	1500	590	17500				
	0,53	3,2	428	1500	590	17500				
	0,60	3,6	381	1500	590	17500				
	0,66	4,0	342	1500	590	17500				
	0,75	4,5	309	1500	590	17500				
	0,83	5,0	275	1500	590	17500				
	0,85	5,1	273	1500	590	17500				
	0,95	5,7	242	1500	590	17500				
	1,0	6,4	217	1500	590	17500				
	1,1	7,1	196	1500	590	17500				
	1,3	8,0	174	1500	590	17500				
	1,3	8,3	168	1500	590	17500				
	0,92	5,6	250	1500	1550	17500				
	1,0	6,3	221	1500	1550	17500				
	1,1	6,7	208	1500	1550	17500				
	1,2	7,5	186	1500	1550	17500				
	1,3	8,3	168	1500	1550	17500				
	1,5	9,2	152	1500	1550	17500				
	1,6	10	139	1500	1550	17500				
	1,8	11	127	1500	1550	17500				
	1,8	11	117	1500	1550	17500				
	2,1	13	103	1500	1550	17500				
	2,4	15	91,85	1500	1550	17500				
	2,6	16	82,47	1500	1550	17500				
	2,9	18	74,47	1500	1550	17500				
	3,4	21	66,18	1500	1550	17500				
	3,7	23	59,39	1500	1550	17500				
4,2	26	53,54	1500	1550	17500					
4,7	29	47,58	1500	1550	17500					
4,9	30	45,93	1500	1550	17500					
5,4	33	41,22	1500	1550	17500					
6,0	37	37,16	1500	1550	17500					
6,9	42	33,02	1500	1550	17500					
7,5	46	30,08	1500	1550	17500					
8,3	51	27,12	1500	1550	17500					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1500 Nm	9,5	58	24,10	1500	1550	17500	İRA İRF İRAF İRB	83	291	87
	10	62	22,27	1500	1550	17500			292	92
	11	69	20,26	1500	1550	17500			293	94
	12	75	18,47	1500	1550	17500			294	105
	13	83	16,86	1500	1550	17500				
	14	90	15,41	1500	1550	17500	İRA İRF İRAF İRB	82	291 292 293 294	82 87 89 100
	15	94	14,89	1500	1550	13000				
	16	105	13,23	1500	1550	13000				
	18	117	11,87	1500	1550	13000				
	21	130	10,70	1500	1550	13000				
	23	144	9,689	1500	1550	13000				
	25	159	8,793	1500	1550	13000				
	27	169	8,244	1500	1550	13000				
	30	188	7,432	1500	1550	13000				
	33	208	6,724	1500	1550	13000				
	37	229	6,103	1500	1550	13000				
	40	252	5,552	1500	1550	13000				
	44	276	5,061	1500	1550	13000				
	49	303	4,62	1500	1550	13000				
	53	331	4,222	1500	1550	13000				
	55	345	4,052	1500	1550	13000				
	61	378	3,694	1500	1550	13000				
	67	415	3,372	1500	1550	13000				
	73	454	3,082	1500	1550	13000				
	77	478	2,926	1500	1550	13000				
	84	523	2,674	1500	1550	13000				
	95	589	2,373	1500	1550	13000				
2800 Nm	0,01	0,06	22852	2800	590	25000	İRA İRF İRAF	93 İR 63	325 326 327	158 168 178
	0,01	0,06	20623	2800	590	25000				
	0,02	0,07	18725	2800	590	25000				
	0,02	0,07	18426	2800	590	25000				
	0,02	0,07	17911	2800	590	25000				
	0,02	0,08	16707	2800	590	25000				
	0,02	0,08	16629	2800	590	25000				
	0,02	0,08	15663	2800	590	25000				
	0,02	0,09	15160	2800	590	25000				
	0,02	0,09	15098	2800	590	25000				
	0,02	0,09	14679	2800	590	25000				
	0,02	0,09	14410	2800	590	25000				
	0,03	0,10	13583	2800	590	25000				
	0,03	0,10	13137	2800	590	25000				
	0,03	0,10	13037	2800	590	25000				
	0,03	0,11	12258	2800	590	25000				
	0,03	0,11	11681	2800	590	25000				
	0,03	0,12	11577	2800	590	25000				
	0,03	0,12	11130	2800	590	25000				
	0,04	0,13	10542	2800	590	25000				
	0,04	0,13	10288	2800	590	25000				
	0,04	0,14	9565	2800	590	25000				
	0,04	0,15	9309	2800	590	25000				
	0,04	0,15	9206	2800	590	25000				
	0,05	0,16	8565	2800	590	25000				
	0,05	0,17	8198	2800	590	25000				
	0,05	0,17	8006	2800	590	25000				
	0,05	0,17	7808	2800	590	25000				
	0,06	0,19	7366	2800	590	25000				
	0,06	0,19	7224	2800	590	25000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2800 Nm	0,06	0,20	6881	2800	590	25000	İRA İRF İRAF	93 İR 63	325 326 327	158 168 178
	0,06	0,20	6715	2800	590	25000				
	0,06	0,21	6420	2800	590	25000				
	0,07	0,22	6115	2800	590	25000				
	0,07	0,23	5918	2800	590	25000				
	0,07	0,24	5745	2800	590	25000				
	0,08	0,25	5472	2800	590	25000				
	0,08	0,26	5259	2800	590	25000				
	0,08	0,27	5169	2800	590	25000				
	0,08	0,28	4872	2800	590	25000				
	0,09	0,29	4706	2800	590	25000				
	0,09	0,29	4673	2800	590	25000				
	0,10	0,32	4294	2800	590	25000				
	0,10	0,33	4241	2800	590	25000				
	0,10	0,33	4190	2800	590	25000				
	0,11	0,36	3862	2800	590	25000				
	0,11	0,37	3693	2800	590	25000				
	0,12	0,39	3525	2800	590	25000				
	0,13	0,43	3225	2800	590	25000				
	0,15	0,47	2956	2800	590	25000				
	0,11	0,35	3954	2800	590	25000	İRA İRF İRAF	93 İR 62	325 326 327	153 163 173
	0,11	0,37	3688	2800	590	25000				
	0,12	0,39	3582	2800	590	25000				
	0,12	0,41	3341	2800	590	25000				
	0,13	0,43	3241	2800	590	25000				
	0,14	0,47	2936	2800	590	25000				
	0,15	0,48	2878	2800	590	25000				
	0,16	0,53	2607	2800	590	25000				
	0,18	0,59	2336	2800	590	25000				
	0,20	0,66	2108	2800	590	25000				
	0,23	0,73	1914	2800	590	25000				
	0,27	0,87	1601	2800	590	25000				
	0,30	0,95	1473	2800	590	25000				
	0,31	1,0	1343	2800	590	25000				
	0,34	1,1	1183	2800	590	25000				
	0,41	1,3	1052	2800	590	25000				
	0,44	1,4	941	2800	590	25000				
	0,50	1,6	838	2800	590	25000				
	0,56	1,8	739	2800	590	25000				
	0,66	2,1	656	2800	590	25000				
	0,72	2,3	587	2800	590	25000				
	0,82	2,6	528	2800	590	25000				
	0,91	2,9	478	2800	590	25000				
	1,0	3,2	434	2800	590	25000				
1,1	3,5	398	2800	590	25000					
1,2	3,8	360	2800	590	25000					
1,3	4,2	330	2800	590	25000					
1,4	4,6	302	2800	590	25000					
1,5	5,0	275	2800	590	25000					
1,7	5,5	251	2800	590	25000					
1,8	6,0	230	2800	590	25000					
2,0	6,6	210	2800	590	25000	İRA İRF İRAF				
1,3	4,4	315	2800	590	25000					
1,5	5,0	277	2800	590	25000					
1,7	5,6	247	2800	590	25000					
	1,9	6,3	221	2800	590	25000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2800 Nm	0,90	2,9	478	2800	590	25000	İRA İRF İRAF	94		154 164 174
	0,99	3,2	431	2800	590	25000				
	1,1	3,6	380	2800	590	25000				
	1,2	4,1	337	2800	590	25000				
	1,4	4,6	302	2800	590	25000				
	1,6	5,2	269	2800	590	25000				
	1,8	5,9	237	2800	590	25000				
	2,0	6,6	210	2800	590	25000				
	2,3	7,4	188	2800	590	25000				
	2,5	8,2	169	2800	590	25000				
	2,8	9,1	153	2800	590	25000				
	1,4	4,7	293	2800	2500	25000	İRA İRF İRAF İRB	93		140 150 160 170
	1,5	5,1	273	2800	2500	25000				
	1,7	5,8	240	2800	2500	25000				
	1,9	6,5	213	2800	2500	25000				
	2,2	7,3	191	2800	2500	25000				
	2,4	8,1	172	2800	2500	25000				
	2,7	8,9	156	2800	2500	25000				
	3,0	10	131	2800	2500	25000				
	3,3	11	120	2800	2500	25000				
	3,6	12	110	2800	2500	25000				
	4,2	14	96,96	2800	2500	25000				
	4,9	16	86,16	2800	2500	25000				
	5,5	18	77,10	2800	2500	25000				
	6,1	20	68,65	2800	2500	25000				
	7,0	23	60,50	2800	2500	25000				
	7,9	26	53,76	2800	2500	25000				
	8,8	29	48,11	2800	2500	25000				
	9,8	32	43,29	2800	2500	25000				
	10	35	39,13	2800	2500	25000				
	11	39	35,52	2800	2500	25000				
	13	43	32,34	2800	2500	25000				
	14	47	29,52	2800	2500	25000				
	15	51	27,01	2800	2500	25000				
	17	56	24,76	2800	2500	25000				
	21	69	20,09	2800	2500	25000				
	25	83	16,85	2800	2500	25000				
	30	98	14,21	2800	2500	25000				
	17	59	23,38	2800	2500	20000	İRA İRF İRAF İRB	92		134 144 154 164
	20	67	20,60	2800	2500	20000				
	22	76	18,31	2800	2500	20000				
	25	85	16,38	2800	2500	20000				
	28	94	14,74	2800	2500	20000				
	31	105	13,32	2800	2500	20000				
	38	127	11,01	2800	2500	20000				
42	139	10,05	2800	2500	20000					
45	152	9,2	2800	2500	20000					
50	168	8,317	2800	2500	20000					
55	185	7,548	2800	2500	20000					
61	203	6,872	2800	2500	20000					
67	223	6,274	2800	2500	20000					
73	243	5,74	2800	2500	20000					
80	266	5,261	2800	2500	20000					
95	315	4,437	2800	2500	20000					
103	343	4,08	2800	2500	20000					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2800 Nm	112	373	3,753	2800	2500	20000	İRA İRF İRAF İRB	92	311	134
	118	391	3,58	2800	2500	20000			312	144
	139	463	3,019	2800	2500	20000			313	154
	152	504	2,776	2800	2500	20000			314	164
	165	548	2,554	2800	2500	20000				
	172	571	2,45	2800	2500	20000				
4300 Nm	0,02	0,06	22099	4300	1200	34000	İRA İRF İRAF	103 İR 73	345 346 347	248 251 273
	0,03	0,07	18788	4300	1200	34000				
	0,03	0,08	16845	4300	1200	34000				
	0,04	0,09	15213	4300	1200	34000				
	0,04	0,10	13823	4300	1200	34000				
	0,05	0,11	12625	4300	1200	34000				
	0,05	0,12	11581	4300	1200	34000				
	0,06	0,13	10325	4300	1200	34000				
	0,07	0,15	9118	4300	1200	34000				
	0,08	0,17	8104	4300	1200	34000				
	0,09	0,19	7241	4300	1200	34000				
	0,10	0,21	6496	4300	1200	34000				
	0,11	0,23	5848	4300	1200	34000				
	0,12	0,26	5278	4300	1200	34000				
	0,14	0,29	4790	4300	1200	34000				
	0,16	0,33	4230	4300	1200	34000				
	0,18	0,37	3760	4300	1200	34000				
	0,20	0,41	3359	4300	1200	34000				
	0,22	0,46	3014	4300	1200	34000				
	0,25	0,51	2713	4300	1200	34000				
	0,28	0,57	2448	4300	1200	34000				
	0,24	0,51	2733	4300	1200	34000	İRA İRF İRAF	102 İR 73	345 346 347	246 249 271
	0,28	0,58	2413	4300	1200	34000				
	0,31	0,65	2145	4300	1200	34000				
	0,35	0,73	1916	4300	1200	34000				
	0,41	0,85	1635	4300	1200	34000				
	0,46	0,95	1460	4300	1200	34000				
	0,48	1,0	1311	4300	1200	34000				
	0,53	1,1	1180	4300	1200	34000				
	0,58	1,2	1103	4300	1200	34000				
	0,67	1,4	986	4300	1200	34000				
	0,72	1,5	884	4300	1200	34000				
	0,82	1,7	796	4300	1200	34000	İRA İRF İRAF	103 İR 72	345 346 347	246 249 271
	0,92	1,9	718	4300	1200	34000				
	1,0	2,1	650	4300	1200	34000				
	1,1	2,4	575	4300	1200	34000				
	0,53	1,1	1173	4300	1200	34000				
	0,63	1,3	1046	4300	1200	34000				
	0,72	1,5	923	4300	1200	34000				
	0,82	1,7	821	4300	1200	34000				
	0,92	1,9	733	4300	1200	34000				
	1,0	2,1	658	4300	1200	34000				
1,1	2,3	592	4300	1200	34000					
1,2	2,6	535	4300	1200	34000					
1,3	2,8	485	4300	1200	34000					
1,5	3,2	428	4300	1200	34000					
1,7	3,6	381	4300	1200	34000					
1,9	4,1	340	4300	1200	34000					
2,1	4,5	305	4300	1200	34000					
2,4	5,0	275	4300	1200	34000					
2,7	5,6	248	4300	1200	34000					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
4300 Nm	2,7	5,8	239	4300	1200	34000	İRA İRF İRAF	102 İR 72	345	244
	3,1	6,6	211	4300	1200	34000			346	247
	3,5	7,4	188	4300	1200	34000			347	269
	3,9	8,3	168	4300	1200	34000	İRA İRF İRAF	104	339 340 341	241 244 266
	0,81	1,7	802	4300	1200	34000				
	0,90	1,9	719	4300	1200	34000				
	1,0	2,2	611	4300	1200	34000				
	1,1	2,5	548	4300	1200	34000				
	1,3	2,8	494	4300	1200	34000				
	1,4	3,1	446	4300	1200	34000				
	1,6	3,4	405	4300	1200	34000				
	1,7	3,7	370	4300	1200	34000				
	1,9	4,1	339	4300	1200	34000				
	2,1	4,5	306	4300	1200	34000				
	2,3	4,9	281	4300	1200	34000				
	2,5	5,4	256	4300	3750	30000	İRA İRF İRAF İRB	103	331 332 333 334	237 240 262 278
	2,9	6,2	225	4300	3750	30000				
	3,1	6,7	207	4300	3750	30000				
	3,5	7,6	184	4300	3750	30000				
	3,9	8,4	165	4300	3750	30000				
	4,7	10	140	4300	3750	30000				
	5,1	11	126	4300	3750	30000				
	5,6	12	113	4300	3750	30000				
	6,1	13	103	4300	3750	30000				
	6,5	14	94,54	4300	3750	30000				
	7,5	16	86,72	4300	3750	30000				
	8,4	18	77,32	4300	3750	30000				
	9,4	20	68,28	4300	3750	30000				
	10	23	60,69	4300	3750	30000				
	11	25	54,22	4300	3750	30000				
	13	28	48,64	4300	3750	30000				
	14	31	43,79	4300	3750	30000				
	16	35	39,52	4300	3750	30000				
	18	39	35,87	4300	3750	30000				
	20	44	31,67	4300	3750	30000				
	23	49	28,15	4300	3750	30000				
	25	55	25,15	4300	3750	30000				
	29	62	22,56	4300	3750	30000				
	32	68	20,31	4300	3750	30000				
	35	76	18,36	4300	3750	30000				
	39	84	16,58	4300	3750	30000				
	43	93	15,01	4300	3750	30000				
	36	79	17,69	4300	3750	25000				
	41	89	15,62	4300	3750	25000				
	46	100	13,88	4300	3750	25000				
	51	112	12,40	4300	3750	25000				
	61	132	10,58	4300	3750	25000				
	68	148	9,457	4300	3750	25000				
	76	164	8,485	4300	3750	25000				
	84	183	7,638	4300	3750	25000				
	90	195	7,144	4300	3750	25000				
	101	219	6,382	4300	3750	25000				
	113	244	5,726	4300	3750	25000				
	125	271	5,154	4300	3750	21000				
	139	300	4,652	4300	3750	21000				
	154	332	4,207	4300	3750	21000				
	174	376	3,723	4300	3750	21000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			~kg
4300 Nm	193	416	3,36	4300	3750	21000	İRA İRF İRAF İRB	102	331	235
	213	460	3,039	4300	3750	21000			332	238
	235	508	2,752	4300	3750	19000			333	260
	260	561	2,495	4300	3750	19000			334	276
	286	618	2,263	4300	3750	19000				
8000 Nm	0,03	0,04	32309	8000	1200	52000	İRA İRF İRAF	123 İR 73	365 366 367	338 340 368
	0,03	0,04	28749	8000	1200	52000				
	0,04	0,05	25807	8000	1200	52000				
	0,04	0,05	23337	8000	1200	52000				
	0,06	0,07	18918	8000	1200	52000				
	0,07	0,08	17260	8000	1200	52000				
	0,08	0,09	15494	8000	1200	52000				
	0,09	0,10	13395	8000	1200	52000				
	0,10	0,11	12113	8000	1200	52000				
	0,11	0,12	11190	8000	1200	52000				
	0,11	0,13	10209	8000	1200	52000				
	0,13	0,15	9165	8000	1200	52000				
	0,14	0,16	8288	8000	1200	52000				
	0,15	0,17	7928	8000	1200	52000				
	0,19	0,21	6426	8000	1200	52000				
	0,21	0,23	5863	8000	1200	52000				
	0,23	0,26	5263	8000	1200	52000				
	0,26	0,29	4759	8000	1200	52000				
	0,32	0,35	3975	8000	1200	52000				
	0,36	0,40	3498	8000	1200	52000				
	0,41	0,45	3104	8000	1200	52000				
	0,45	0,50	2773	8000	1200	52000				
	0,30	0,34	4059	8000	1200	52000	İRA İRF İRAF	122 İR 73	365 366 367	311 313 341
	0,34	0,38	3671	8000	1200	52000				
	0,35	0,39	3509	8000	1200	52000				
	0,39	0,44	3173	8000	1200	52000				
	0,46	0,52	2650	8000	1200	52000				
	0,52	0,58	2399	8000	1200	52000				
	0,57	0,64	2170	8000	1200	52000				
	0,69	0,77	1812	8000	1200	52000				
	0,78	0,87	1594	8000	1200	52000				
	0,90	1,0	1379	8000	1200	52000				
	0,99	1,1	1247	8000	1200	52000				
	1,1	1,3	1042	8000	1200	52000				
	1,3	1,5	916	8000	1200	52000				
	1,5	1,7	813	8000	1200	52000				
	1,7	1,9	726	8000	1200	52000				
	1,8	2,1	652	8000	1200	52000				
	2,0	2,3	603	8000	1200	52000				
	0,44	0,49	2829	8000	1200	52000	İRA İRF İRAF	123 İR 72	365 366 367	336 338 366
	0,49	0,55	2517	8000	1200	52000				
	0,55	0,61	2260	8000	1200	52000				
	0,61	0,68	2043	8000	1200	52000				
	0,75	0,84	1657	8000	1200	52000				
	0,83	0,92	1511	8000	1200	52000				
	0,90	1,0	1357	8000	1200	52000				
	0,99	1,1	1227	8000	1200	52000				
	1,1	1,3	1025	8000	1200	52000				
	1,3	1,5	902	8000	1200	52000				
	1,5	1,7	800	8000	1200	52000				
	1,7	1,9	715	8000	1200	52000				
	1,8	2,1	642	8000	1200	52000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
8000 Nm	2,1	2,4	579	8000	1200	52000	İRA İRF İRAF	123 İR 72	365 366 367	336 338 366
	2,2	2,5	550	8000	1200	52000				
	2,5	2,8	488	8000	1200	52000				
	2,8	3,2	436	8000	1200	52000				
	3,1	3,5	392	8000	1200	52000				
	3,5	3,9	354	8000	1200	52000				
	3,8	4,3	320	8000	1200	52000				
	4,3	4,8	291	8000	1200	52000				
	4,6	5,2	265	8000	1200	52000				
	5,1	5,7	242	8000	1200	52000				
	5,6	6,3	221	8000	1200	52000				
	6,2	6,9	201	8000	1200	52000				
	6,8	7,6	183	8000	1200	52000				
	7,4	8,3	167	8000	1200	52000				
	3,6	4,1	335	8000	1200	52000	İRA İRF İRAF	122 İR 72	365 366 367	309 311 339
	3,8	4,3	321	8000	1200	52000				
	4,6	5,2	268	8000	1200	52000				
	5,2	5,9	236	8000	1200	52000				
	5,8	6,6	210	8000	1200	52000				
	6,5	7,4	187	8000	1200	52000				
	7,3	8,3	168	8000	1200	52000				
	8,0	9,0	155	8000	1200	52000				
	1,3	1,5	883	8000	1200	52000	İRA İRF İRAF	124	359 360 361	389 391 419
	1,5	1,7	798	8000	1200	52000				
	1,8	2,1	647	8000	1200	52000				
	2,0	2,3	590	8000	1200	52000				
	2,3	2,6	530	8000	1200	52000				
	2,5	2,9	479	8000	1200	52000				
	3,1	3,5	400	8000	1200	52000				
	3,4	3,9	352	8000	1200	52000				
	3,9	4,4	312	8000	1200	52000				
	4,4	5,0	279	8000	1200	52000				
	4,9	5,6	250	8000	1200	52000	İRA İRF İRAF İRB	123	351 352 353 354	351 353 381 412
	5,4	6,1	226	8000	1200	52000				
	5,7	6,5	215	8000	1200	52000				
	5,7	6,6	209	8000	3750	41000				
	6,5	7,5	186	8000	3750	41000				
	7,2	8,3	167	8000	3750	41000				
	8,0	9,2	151	8000	3750	41000				
	9,6	11	122	8000	3750	41000				
	10	12	111	8000	3750	41000				
	12	14	100	8000	3750	41000				
	13	15	90,71	8000	3750	41000				
	15	18	75,76	8000	3750	41000				
	17	20	66,67	8000	3750	41000				
	20	23	59,16	8000	3750	39700				
	22	26	52,84	8000	3750	39700				
	25	29	47,47	8000	3750	39700				
	28	32	42,84	8000	3750	39700				
	29	34	40,7	8000	3750	39700				
	33	38	36,11	8000	3750	39700				
	37	43	32,26	8000	3750	39700				
	42	48	28,98	8000	3750	39700				
	46	53	26,15	8000	3750	39700				
	51	59	23,68	8000	3750	39700				
	56	65	21,52	8000	3750	39700				
	62	71	19,60	8000	3750	39700				
	68	78	17,89	8000	3750	39700				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
8000 Nm	45	53	26,28	8000	3750	45000	İRA İRF İRAF İRB	122	351 352 353 354	324 326 354 385
	50	58	23,76	8000	3750	45000				
	60	70	19,85	8000	3750	45000				
	69	80	17,46	8000	3750	45000				
	77	90	15,5	8000	3750	45000				
	87	101	13,84	8000	3750	45000				
	96	112	12,43	8000	3750	45000				
	104	121	11,49	8000	3750	45000				
	118	137	10,2	8000	3750	45000				
	132	153	9,112	8000	3750	45000				
	147	171	8,185	8000	3750	45000				
	156	181	7,724	8000	3750	45000				
	173	201	6,938	8000	3750	45000				
	192	223	6,261	8000	3750	45000				
	212	246	5,671	8000	3750	45000				
	233	271	5,153	8000	3750	45000				
	257	298	4,694	8000	3750	45000				
	281	326	4,284	8000	3750	45000				
	308	357	3,917	8000	3750	45000				
	336	390	3,585	8000	3750	45000				
367	426	3,284	8000	3750	45000					
13000 Nm	3,8	2,6	537	13000	1550	60000	İRA İRF İRAF	143 İR 82	391 392 393	557 571 597
	4,5	3,1	443	13000	1550	60000				
	5,1	3,5	398	13000	1550	60000				
	5,5	3,8	359	13000	1550	60000				
	6,1	4,2	331	13000	1550	60000				
	7,3	5,0	277	13000	1550	60000				
	8,2	5,6	249	13000	1550	60000				
	9,1	6,2	225	13000	1550	60000				
	9,8	6,7	207	13000	1550	60000				
	10	7,4	187	13000	1550	60000				
	13	8,9	157	13000	1550	60000	İRA İRF İRAF	143 İR 73	385 386 387	513 527 553
	0,07	0,05	24943	13000	1200	60000				
	0,08	0,06	21564	13000	1200	60000				
	0,10	0,07	19545	13000	1200	60000				
	0,10	0,07	17730	13000	1200	60000				
	0,13	0,09	15134	13000	1200	60000				
	0,14	0,10	13372	13000	1200	60000				
	0,16	0,11	12131	13000	1200	60000				
	0,17	0,12	10788	13000	1200	60000				
	0,20	0,14	9446	13000	1200	60000				
	0,23	0,16	8427	13000	1200	60000				
	0,26	0,18	7474	13000	1200	60000				
	0,29	0,20	6732	13000	1200	60000				
	0,34	0,23	5907	13000	1200	60000				
	0,37	0,25	5425	13000	1200	60000				
	0,41	0,28	4839	13000	1200	60000				
	0,47	0,32	4347	13000	1200	60000				
	0,53	0,36	3814	13000	1200	60000				
	0,61	0,41	3404	13000	1200	60000				
	0,68	0,46	3026	13000	1200	60000				
	0,76	0,51	2717	13000	1200	60000				
	0,93	0,64	2184	13000	1200	60000				
	1,0	0,70	1979	13000	1200	60000				
	1,1	0,79	1759	13000	1200	60000				
	1,2	0,87	1596	13000	1200	60000				
	1,4	1,0	1365	13000	1200	60000				
	1,7	1,2	1110	13000	1200	60000				
	2,0	1,4	990	13000	1200	60000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
13000 Nm	2,2	1,5	889	13000	1200	60000	İRA İRF İRAF	143 İR 72	385 386 387	511 525 551
	2,4	1,7	780	13000	1200	60000				
	2,9	2,0	696	13000	1200	60000				
	3,3	2,3	595	13000	1200	60000				
	3,6	2,5	540	13000	1200	60000				
	4,1	2,8	485	13000	1200	60000				
	4,6	3,2	436	13000	1200	60000				
	5,1	3,5	394	13000	1200	60000				
	3,6	2,5	545	13000	1200	60000	İRA İRF İRAF	144	379 380 381	564 578 604
	4,0	2,8	487	13000	1200	60000				
	4,6	3,2	437	13000	1200	60000				
	5,2	3,6	384	13000	1200	60000				
	5,7	4,0	344	13000	1200	60000				
	6,5	4,5	307	13000	1200	60000				
	7,2	5,0	275	13000	1200	60000				
	7,6	5,3	262	13000	1200	60000				
	8,5	5,9	235	13000	1200	60000	İRA İRF İRAF İRB	143	371 372 373 374	526 540 566 639
	9,5	6,6	212	13000	1200	60000				
	10	7,2	192	13000	1200	60000				
	11	8,0	174	13000	1200	60000				
	12	8,6	161	13000	3750	60000				
	13	9,5	146	13000	3750	60000				
	14	10	132	13000	3750	60000				
	18	13	103	13000	3750	60000				
	21	15	92,23	13000	3750	60000	İRA İRF İRAF İRB	142	371 372 373 374	476 490 516 589
	22	16	82,86	13000	3750	60000				
	27	19	72,70	13000	3750	60000				
	29	21	64,89	13000	3750	60000				
	34	24	58,23	13000	3750	60000				
	35	25	55,48	13000	3750	60000				
	39	28	49,78	13000	3750	60000				
	44	31	44,88	13000	3750	60000				
	48	34	40,61	13000	3750	60000	İRA İRF İRAF İRB	142	371 372 373 374	476 490 516 589
	52	37	36,85	13000	3750	60000				
	58	41	33,53	13000	3750	60000				
	71	50	27,90	13000	3750	60000				
	85	60	23,32	13000	3750	60000				
	98	69	20,01	13000	3750	60000				
	96	69	20,02	13000	3750	60000				
	108	77	18,16	13000	3750	60000	İRA İRF İRAF İRB	142	371 372 373 374	476 490 516 589
	120	86	16,20	13000	3750	60000				
	134	96	14,55	13000	3750	60000				
	152	109	12,77	13000	3750	60000				
	171	122	11,4	13000	3750	60000				
	190	136	10,23	13000	3750	60000				
	211	151	9,222	13000	3750	60000				
	234	167	8,344	13000	3750	60000				
258	184	7,573	13000	3750	60000	İRA İRF İRAF	153 İR 103	417 418 419	1165 1215 1235	
284	203	6,89	13000	3750	60000					
342	244	5,733	13000	3750	60000					
409	292	4,792	13000	3750	60000					
0,39	0,19	7067	18000	3750	110000					
0,45	0,22	6223	18000	3750	110000					
0,51	0,25	5577	18000	3750	110000					
0,55	0,27	5035	18000	3750	110000	İRA İRF İRAF	153 İR 103	417 418 419	1165 1215 1235	
0,61	0,30	4570	18000	3750	110000					
0,80	0,39	3586	18000	3750	110000					
0,88	0,43	3205	18000	3750	110000					
1,1	0,54	2588	18000	3750	110000	İRA İRF İRAF	153 İR 103	417 418 419	1165 1215 1235	



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg	
18000 Nm	0,10	0,05	27213	18000	2500	110000	İRA İRF İRAF	153 İR 93		411 412 413	1075 1125 1145
	0,10	0,05	23722	18000	2500	110000					
	0,14	0,07	19875	18000	2500	110000					
	0,14	0,07	17651	18000	2500	110000					
	0,16	0,08	16020	18000	2500	110000					
	0,18	0,09	14354	18000	2500	110000					
	0,20	0,10	13011	18000	2500	110000					
	0,24	0,12	11306	18000	2500	110000					
	0,28	0,14	9958	18000	2500	110000					
	0,30	0,15	8987	18000	2500	110000					
	0,37	0,18	7647	18000	2500	110000					
	0,43	0,21	6643	18000	2500	110000					
	0,47	0,23	6078	18000	2500	110000					
	0,51	0,25	5519	18000	2500	110000					
	0,66	0,32	4312	18000	2500	110000					
	0,76	0,37	3704	18000	2500	110000					
	0,92	0,45	3098	18000	2500	110000					
	1,0	0,53	2596	18000	2500	110000	İRA İRF İRAF	153 İR 92		411 412 413	1069 1119 1139
	1,2	0,61	2288	18000	2500	110000					
	1,3	0,68	2033	18000	2500	110000					
	1,5	0,76	1819	18000	2500	110000					
	1,7	0,85	1637	18000	2500	110000					
	2,0	1,0	1371	18000	2500	110000					
	2,2	1,1	1240	18000	2500	110000					
	2,6	1,3	1024	18000	2500	110000					
	3,2	1,6	825	18000	2500	110000					
	3,6	1,8	754	18000	2500	110000					
	4,0	2,0	683	18000	2500	110000					
	5,2	2,6	523	18000	2500	110000					
	6,3	3,1	445	18000	2500	110000					
	7,3	3,6	386	18000	2500	110000					
	7,9	3,9	353	18000	2500	110000					
	10	5,0	276	18000	2500	110000					
	11	5,9	237	18000	2500	110000					
	3,4	1,7	784	18000	2500	110000	İRA İRF İRAF	154		405 406 407	1037 1107 1107
	4,0	2,0	695	18000	2500	110000					
	4,4	2,2	612	18000	2500	110000					
	5,0	2,5	548	18000	2500	110000					
	5,6	2,8	495	18000	2500	110000					
	6,4	3,2	431	18000	2500	110000					
	7,6	3,8	361	18000	2500	110000					
	8,6	4,3	321	18000	2500	110000					
	9,6	4,8	291	18000	2500	110000					
	10	5,3	264	18000	2500	110000					
	12	6,1	229	18000	2500	110000	İRA İRF İRAF İRB	153		397 398 399 400	1020 1070 1090 1230
12	6,3	221	18000	5250	110000						
13	6,9	201	18000	5250	110000						
15	7,8	178	18000	5250	110000						
17	8,9	157	18000	5250	110000						
19	9,9	141	18000	5250	110000						
21	11	127	18000	5250	110000						
23	12	111	18000	5250	110000						
29	15	93,04	18000	5250	110000						
31	16	82,63	18000	5250	110000						
35	18	75	18000	5250	110000						
39	20	67,98	18000	5250	110000						
45	23	59,07	18000	5250	110000						



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =1400rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
18000 Nm	51	26	52,03	18000	5250	110000	İRA İRF İRAF İRB	153	397	1020
	61	31	44,27	18000	5250	110000			398	1070
	71	36	38,46	18000	5250	110000			399	1090
	76	39	35,19	18000	5250	110000			400	1230
	98	50	27,49	18000	5250	110000				
	116	59	23,61	18000	5250	110000	İRA İRF İRAF İRB	152		
	95	49	28,54	18000	5250	110000				
	104	54	25,92	18000	5250	110000				
	114	59	23,57	18000	5250	110000				
	128	66	21,08	18000	5250	110000				
	141	73	19	18000	5250	110000				
	157	81	17,22	18000	5250	110000				
	172	89	15,68	18000	5250	110000			397	945
	188	97	14,35	18000	5250	110000			398	995
	240	124	11,21	18000	5250	110000			399	1015
	252	130	10,69	18000	5250	110000			400	1155
	277	143	9,744	18000	5250	110000				
	304	157	8,915	18000	5250	110000				
	332	171	8,186	18000	5250	110000				
	390	201	6,965	18000	5250	110000				
	452	233	5,983	18000	5250	110000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
85 Nm	0,10	11	81,36	85	390	2100	İRA İRF İRAF	43	195 196 197	12 13 13
	0,11	12	70,05	85	390	2100				
	0,13	14	60,89	85	390	2100				
	0,14	16	53,33	85	390	2100				
	0,17	19	46,97	85	390	2100				
	0,19	21	41,84	85	390	2100				
	0,22	24	36,37	85	390	2100				
	0,26	28	31,85	85	390	2100				
	0,29	32	28,06	85	390	2100				
	0,31	34	26,19	85	390	2100				
	0,33	36	24,82	85	390	2000				
	0,36	39	22,61	85	390	2000				
	0,39	42	21,10	85	390	2000				
	0,41	45	20,00	85	390	2000				
	0,44	48	18,59	85	390	2000				
	0,46	50	17,76	85	390	1850				
	0,50	54	16,45	85	390	1850				
	0,52	56	15,80	85	390	1850				
	0,56	61	14,60	85	390	1850				
	0,58	63	14,08	85	390	1800				
	0,64	69	12,99	85	390	1800				
	0,71	77	11,58	85	390	1800				
	0,73	80	11,24	85	390	800				
	0,83	91	9,845	85	390	800				
	0,94	103	8,672	85	390	800				
	1,0	117	7,673	85	390	750				
	1,1	130	6,872	85	390	750				
	1,3	148	6,08	85	390	750				
	1,4	162	5,538	85	390	750				
	1,5	166	5,398	85	390	750				
	1,6	183	4,9	85	390	750				
	1,7	187	4,803	85	390	750				
	1,8	206	4,35	85	390	750				
	1,9	210	4,28	85	390	750				
	2,1	232	3,87	85	390	750				
	2,3	260	3,449	85	390	750				
150 Nm	0,00	0,10	8598	150	390	4250	İRA İRF İRAF	53 İR 43	207 208 209	26 28 29
	0,00	0,12	7402	150	390	4250				
	0,00	0,13	6435	150	390	4250				
	0,00	0,16	5419	150	390	4250				
	0,00	0,19	4699	150	390	4250				
	0,00	0,21	4117	150	390	4250				
	0,00	0,26	3338	150	390	4250				
	0,00	0,30	2948	150	390	4250				
	0,00	0,33	2679	150	390	4250				
	0,00	0,38	2346	150	390	4250				
	0,00	0,43	2085	150	390	4250				
	0,00	0,48	1863	150	390	4250				
	0,00	0,54	1641	150	390	4250				
	0,01	0,61	1462	150	390	4250				
	0,01	0,70	1271	150	390	4250				
	0,01	0,64	1398	150	390	4250				
	0,01	0,74	1204	150	390	4250				
	0,01	0,86	1046	150	390	4250				
	0,01	0,98	917	150	390	4250				
	0,01	1,1	809	150	390	4250				
	0,02	1,2	709	150	390	4250				
	0,02	1,4	630	150	390	4250				
	0,02	1,6	555	150	390	4250				
	0,03	1,8	496	150	390	4250				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types		 ~kg	
150 Nm	0,01	0,75	1188	150	390	4250	İRA İRF İRAF	53 İR 42	207 208 209	25 27 28
	0,01	0,86	1040	150	390	4250				
	0,01	0,98	916	150	390	4250				
	0,01	1,0	878	150	390	4250				
	0,01	1,1	772	150	390	4250				
	0,02	1,3	669	150	390	4250				
	0,02	1,5	586	150	390	4250				
	0,02	1,7	519	150	390	4250				
	0,03	2,1	421	150	390	4250				
	0,03	2,3	377	150	390	4250				
	0,04	2,7	333	150	390	4250				
	0,05	3,0	294	150	390	4250				
	0,05	3,3	267	150	390	4250				
	0,06	3,7	238	150	390	4250				
	0,07	4,6	193	150	390	4250				
	0,08	5,2	173	150	390	4250				
	0,09	5,9	152	150	390	4250				
	0,11	6,5	138	150	390	4250				
	0,12	7,2	125	150	390	4250				
	0,13	8,1	111	150	390	4250				
	0,15	9,4	95	150	390	4250				
	0,07	4,6	193	150	390	4250	İRA İRF İRAF	52 İR 42	207 208 209	24 26 27
	0,08	5,3	169	150	390	4250				
	0,10	6,0	148	150	390	4250				
	0,11	6,8	131	150	390	4250				
	0,12	7,7	116	150	390	4250				
	0,14	8,6	104	150	390	4250				
	0,16	9,6	93	150	390	4250				
	0,13	8,5	105	150	475	4250	İRA İRF İRAF	53	201 202 203	18 20 21
	0,16	10	88,98	150	475	4250				
	0,18	11	77,16	150	475	4250				
	0,21	13	67,60	150	475	4250				
	0,26	16	54,81	150	475	4250				
	0,29	18	48,41	150	475	4250				
	0,32	20	43,98	150	475	4250				
	0,37	23	39,09	150	475	4250				
	0,41	25	34,93	150	475	4250				
	0,46	28	31,33	150	475	4250				
	0,50	31	28,21	150	475	4250				
	0,57	35	25,46	150	475	4250				
	0,64	39	23,02	150	475	4250				
	0,67	41	21,88	150	475	4250				
	0,73	45	19,69	150	475	4250				
	0,82	50	17,77	150	475	4250				
	0,92	56	16,07	150	475	4250				
	0,84	52	17,18	150	475	3500	İRA İRF İRAF	52	201 202 203	17 19 20
	0,95	59	15,05	150	475	3500				
	1,0	67	13,29	150	475	3500				
1,2	76	11,81	150	475	3500					
1,3	85	10,55	150	475	3500					
1,5	95	9,47	150	475	3500					
1,6	101	8,888	150	475	3500					
1,8	112	7,974	150	475	3500					
2,0	125	7,178	150	475	3500					
2,2	138	6,479	150	475	3500					
2,4	154	5,821	150	475	3500					
2,7	171	5,254	150	475	3500					
2,8	178	5,032	150	475	3500					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
150 Nm	3,2	199	4,515	150	475	3500	İRA İRF İRAF	52	201 202 203	17 19 20
	3,5	221	4,064	150	475	3500				
	3,9	245	3,668	150	475	3500				
	4,3	271	3,317	150	475	3500				
	4,7	294	3,059	150	475	3500				
	5,0	309	2,906	150	475	3500				
	5,6	349	2,572	150	475	3500				
410 Nm	0,31	7,0	127	410	590	7000	İRA İRF İRAF	631	213 214 215	29 34 35
	0,33	7,5	119	410	590	7000				
	0,41	9,3	96,27	410	590	7000				
	0,44	10	87,81	410	590	7000				
	0,44	10	83,37	410	590	7000				
	0,53	12	70,96	410	590	7000				
	0,62	14	61,03	410	590	7000				
	0,76	17	51,65	410	590	7000				
	0,85	19	46,79	410	590	7000				
	0,94	21	42,55	410	590	7000				
	1,1	25	35,74	410	590	7000				
	1,3	30	29,85	410	590	7000				
	1,5	35	25,16	410	590	7000				
	1,8	41	21,5	410	590	7000				
	1,9	43	20,53	410	590	7000				
	2,2	49	18,18	410	590	7000				
	2,5	57	15,59	410	590	7000				
	2,9	65	13,80	410	590	7000				
	2,3	53	16,67	410	590	7000	İRA İRF İRAF	621	213 214 215	24 29 30
	2,6	59	15,13	410	590	7000				
	2,9	66	13,47	410	590	7000				
	3,2	73	12,20	410	590	7000				
	3,5	81	11,10	410	590	7000				
	3,9	89	10,07	410	590	7000				
	4,2	96	9,358	410	590	7000				
	4,6	105	8,51	410	590	7000				
	5,1	117	7,673	410	590	7000				
	5,5	126	7,108	410	590	7000				
	6,1	138	6,48	410	590	7000				
	6,6	150	5,992	410	590	7000				
	6,9	157	5,723	410	590	7000				
	7,4	169	5,325	410	590	7000				
	7,8	177	5,06	410	590	7000				
	8,8	200	4,499	410	590	7000				
	9,9	225	3,998	410	590	7000				
	10	242	3,711	410	590	7000				
	12	273	3,287	410	590	7000				
	13	308	2,917	410	590	7000				
	15	347	2,592	410	590	7000				
	16	368	2,444	410	590	7000				
	0,00	0,06	13520	410	475	7000	İRA İRF İRAF	63 İR 53	245 246 247	#YOK
	0,00	0,07	12617	410	475	7000				
	0,00	0,07	11345	410	475	7000				
	0,00	0,08	10587	410	475	7000				
	0,00	0,09	9873	410	475	7000				
	0,00	0,09	9214	410	475	7000				
	0,00	0,12	7479	410	475	7000				
	0,00	0,13	6508	410	475	7000				
	0,00	0,14	6194	410	475	7000				
	0,00	0,15	5936	410	475	7000				
	0,00	0,15	5780	410	475	7000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Qv2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
410 Nm	0,00	0,15	5636	410	475	7000	İRA İRF İRAF	63 İR 53	245 246 247	#YOK
	0,00	0,18	4814	410	475	7000				
	0,00	0,19	4661	410	475	7000				
	0,00	0,19	4570	410	475	7000				
	0,00	0,21	4251	410	475	7000				
	0,01	0,22	4036	410	475	7000				
	0,01	0,23	3890	410	475	7000				
	0,01	0,26	3436	410	475	7000				
	0,01	0,30	2955	410	475	7000				
	0,01	0,33	2685	410	475	7000				
	0,01	0,36	2500	410	475	7000				
	0,01	0,39	2272	410	475	7000				
	0,01	0,39	2265	410	475	7000				
	0,02	0,43	2058	410	475	7000				
	0,02	0,48	1872	410	475	7000				
	0,01	0,40	2198	410	475	7000				
	0,01	0,43	2052	410	475	7000				
	0,02	0,50	1797	410	475	7000				
	0,02	0,52	1701	410	475	7000				
	0,02	0,54	1654	410	475	7000				
	0,02	0,56	1587	410	475	7000				
	0,02	0,59	1509	410	475	7000				
	0,02	0,62	1432	410	475	7000				
	0,03	0,70	1280	410	475	7000				
	0,03	0,73	1219	410	475	7000				
	0,03	0,77	1167	410	475	7000				
	0,03	0,81	1108	410	475	7000				
	0,03	0,85	1049	410	475	7000				
	0,04	0,95	943	410	475	7000				
	0,04	1,0	887	410	475	7000				
	0,05	1,1	811	410	475	7000				
	0,05	1,1	804	410	475	7000				
	0,05	1,2	731	410	475	7000				
	0,06	1,3	686	410	475	7000				
	0,06	1,4	622	410	475	7000				
	0,06	1,4	614	410	475	7000				
	0,06	1,5	566	410	475	7000				
	0,07	1,6	538	410	475	7000				
	0,08	1,8	475	410	475	7000				
	0,09	2,0	449	410	475	7000				
	0,10	2,2	397	410	475	7000				
	0,10	2,3	379	410	475	7000				
	0,12	2,6	335	410	475	7000				
	0,14	3,1	286	410	475	7000				
	0,14	3,2	273	410	475	7000				
	0,17	3,7	242	410	475	7000				
	0,18	4,1	215	410	475	7000				
	0,21	4,7	190	410	475	7000				
	0,09	2,1	424	410	475	7000				
	0,10	2,2	395	410	475	7000				
	0,12	2,8	319	410	475	7000				
	0,13	3,0	291	410	475	7000				
	0,14	3,2	276	410	475	7000				
	0,17	3,8	235	410	475	7000				
	0,19	4,2	213	410	475	7000				
	0,22	4,9	182	410	475	7000				
	0,25	5,7	156	410	475	7000				
	0,31	6,8	132	410	475	7000				
							İRA İRF İRAF	64	239 240 241	32 37 38



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
410 Nm	0,31	7,0	127	410	590	7000	İRA İRF İRAF İRB	63	231 232 233 234	29 34 35 37
	0,33	7,5	119	410	590	7000				
	0,41	9,3	96,27	410	590	7000				
	0,44	10	87,81	410	590	7000				
	0,44	10	83,37	410	590	7000				
	0,53	12	70,96	410	590	7000				
	0,62	14	61,03	410	590	7000				
	0,76	17	51,65	410	590	7000				
	0,85	19	46,79	410	590	7000				
	0,94	21	42,55	410	590	7000				
	1,1	25	35,74	410	590	7000				
	1,3	30	29,85	410	590	7000				
	1,5	35	25,16	410	590	7000				
	1,8	41	21,5	410	590	7000				
	1,9	43	20,53	410	590	7000				
	2,2	49	18,18	410	590	7000				
	2,5	57	15,59	410	590	7000				
	2,9	65	13,80	410	590	7000				
	2,3	53	16,67	410	590	4500	İRA İRF İRAF İRB	62	231 232 233 234	24 29 30 32
	2,6	59	15,13	410	590	4500				
	2,9	66	13,47	410	590	4500				
	3,2	73	12,20	410	590	4500				
	3,5	81	11,10	410	590	4500				
	3,9	89	10,07	410	590	4500				
	4,2	96	9,358	410	590	4500				
	4,6	105	8,51	410	590	4500				
	5,1	117	7,673	410	590	4500				
	5,5	126	7,108	410	590	4500				
	6,1	138	6,48	410	590	4500				
	6,6	150	5,992	410	590	4500				
	6,9	157	5,723	410	590	4500				
	7,4	169	5,325	410	590	4500				
	7,8	177	5,06	410	590	4500				
	8,8	200	4,499	410	590	4500				
	9,9	225	3,998	410	590	4500				
	10	242	3,711	410	590	4500				
	12	273	3,287	410	590	4500				
	13	308	2,917	410	590	4500				
	15	347	2,592	410	590	4500				
	16	368	2,444	410	590	4500				
600 Nm	0,00	0,05	16071	600	475	10100	İRA İRF İRAF	731 İR 53	265 266 267	54 57 60
	0,00	0,06	14258	600	475	10100				
	0,00	0,07	12326	600	475	10100				
	0,00	0,08	10380	600	475	10100				
	0,00	0,09	9001	600	475	10100				
	0,00	0,11	7782	600	475	10100				
	0,00	0,13	6862	600	475	10100				
	0,00	0,14	6012	600	475	10100				
	0,01	0,16	5301	600	475	10100				
	0,01	0,20	4299	600	475	10100				
	0,01	0,23	3796	600	475	10100				
	0,01	0,26	3450	600	475	10100				
	0,01	0,29	3068	600	475	10100				
	0,02	0,32	2747	600	475	10100				
	0,02	0,36	2443	600	475	10100				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
600 Nm	0,02	0,34	2613	600	475	10100	İRA İRF İRAF	731 İR 52	265 266 267	54 57 60
	0,02	0,38	2318	600	475	10100				
	0,02	0,44	2004	600	475	10100				
	0,03	0,51	1756	600	475	10100				
	0,03	0,59	1518	600	475	10100				
	0,04	0,67	1339	600	475	10100				
	0,05	0,76	1180	600	475	10100				
	0,05	0,85	1050	600	475	10100				
	0,06	0,95	940	600	475	10100				
	0,06	1,0	836	600	475	10100				
	0,08	1,2	749	600	475	10100				
	0,08	1,3	674	600	475	10100				
	0,10	1,5	600	600	475	10100				
	0,10	1,6	530	600	475	10100				
	0,12	1,9	468	600	475	10100				
	0,14	2,1	416	600	475	10100				
	0,16	2,4	372	600	475	10100				
	0,18	2,7	333	600	475	10100				
	0,20	3	300	600	475	10100				
	0,22	3,3	267	600	475	10100				
	0,25	3,7	238	600	475	10100				
	0,28	4,2	214	600	475	10100				
	0,29	4,4	201	600	475	10100				
	0,33	5	180	600	475	10100				
	0,37	5,5	162	600	475	10100				
	0,41	6,1	146	600	475	10100				
	0,03	0,48	1872	600	475	10100	İRA İRF İRAF	721 İR 53	265 266 267	53 56 59
	0,03	0,54	1640	600	475	10100				
	0,04	0,62	1446	600	475	10100				
	0,04	0,69	1286	600	475	10100				
	0,05	0,76	1172	600	475	10100				
	0,05	0,86	1035	600	475	10100				
	0,06	0,97	921	600	475	10100				
	0,06	1,0	825	600	475	10100				
	0,08	1,2	743	600	475	10100				
	0,08	1,3	675	600	475	10100				
	0,09	1,4	604	600	475	10100				
	0,10	1,6	533	600	475	10100				
	0,12	1,8	491	600	475	10100				
	0,12	1,8	480	600	475	10100				
	0,14	2,1	423	600	475	10100				
	0,15	2,3	390	600	475	10100				
	0,17	2,6	344	600	475	10100				
	0,19	2,9	306	600	475	10100				
	0,21	3,2	274	600	475	10100				
	0,24	3,6	245	600	475	10100				
0,27	4,0	221	600	475	10100					
0,30	4,5	199	600	475	10100					
0,33	5	180	600	475	10100					
0,37	5,5	163	600	475	10100					
0,40	6,0	148	600	475	10100					
0,14	2,1	417	600	475	10100	İRA İRF İRAF	721 İR 52	265 266 267	50 53 56	
0,16	2,4	365	600	475	10100					
0,18	2,7	322	600	475	10100					
0,20	3,1	287	600	475	10100					
0,23	3,5	256	600	475	10100					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
600 Nm	0,26	3,9	226	600	475	10100	İRA İRF İRAF	721 İR 52	265	50
	0,29	4,4	201	600	475	10100			266	53
	0,33	5	180	600	475	10100			267	56
	0,36	5,5	162	600	475	10100				
	0,41	6,2	145	600	475	10100				
	0,09	1,4	622	600	475	10100	İRA İRF İRAF	741	259 260 261	46 49 52
	0,10	1,6	537	600	475	10100				
	0,12	1,9	465	600	475	10100				
	0,13	2,0	435	600	475	10100				
	0,15	2,3	383	600	475	10100				
	0,17	2,6	338	600	475	10100				
	0,19	2,9	301	600	475	10100				
	0,24	3,7	239	600	475	10100				
	0,31	4,7	188	600	475	10100				
	0,35	5,3	168	600	475	10100				
	0,39	5,9	151	600	475	10100	İRA İRF İRAF İRB	731	251 252 253 254	42 45 48 54
	0,38	5,9	152	600	1000	10100				
	0,44	6,7	134	600	1000	10100				
	0,50	7,7	116	600	1000	10100				
	0,59	9	100	600	1000	10100				
	0,65	10	88,93	600	1000	10100				
	0,72	11	78,42	600	1000	10100				
	0,78	12	69,74	600	1000	9700				
	0,92	14	62,45	600	1000	9700				
	1,0	16	55,54	600	1000	9700				
	1,1	18	49,73	600	1000	9700				
	1,3	20	44,79	600	1000	9700				
	1,4	22	39,88	600	1000	9500				
	1,6	25	35,22	600	1000	9500				
	1,8	28	31,30	600	1000	9500				
	2,1	32	27,97	600	1000	9250				
	2,3	35	25,09	600	1000	9250				
	2,5	39	22,59	600	1000	9250				
	1,8	28	31,62	600	1000	7500	İRA İRF İRAF İRB	721	251 252 253 254	40 43 46 52
	2,0	32	28,05	600	1000	7500				
	2,3	37	24,25	600	1000	7500				
	2,7	42	21,38	600	1000	7500				
	3,0	47	19,02	600	1000	7250				
	3,3	52	17,03	600	1000	7250				
	3,7	58	15,39	600	1000	7250				
	4,2	65	13,73	600	1000	7250				
	4,7	74	12,12	600	1000	7250				
	5,1	80	11,17	600	1000	7250				
	5,8	91	9,866	600	1000	7000				
	6,6	102	8,769	600	1000	7000				
	7,3	114	7,834	600	1000	7000				
	8,2	128	7,029	600	1000	7000				
	9,1	142	6,327	600	1000	7000				
	10	157	5,71	600	1000	7000				
	11	174	5,164	600	1000	7000				
	12	192	4,677	600	1000	7000				
	13	212	4,24	600	1000	7000				
	15	236	3,809	600	1000	7000				
	16	261	3,438	600	1000	7000				
	18	289	3,109	600	1000	7000				
	20	319	2,816	600	1000	7000				
	22	352	2,553	600	1000	7000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
870 Nm	0,00	0,05	16321	870	475	12100	İRA İRF İRAF	73 İR 53		 ~kg
	0,00	0,06	14110	870	475	12100				
	0,00	0,06	13744	870	475	12100				
	0,00	0,07	11919	870	475	12100				
	0,00	0,08	10947	870	475	12100				
	0,00	0,08	10304	870	475	12100				
	0,00	0,09	9654	870	475	12100				
	0,00	0,10	8586	870	475	12100				
	0,01	0,11	7688	870	475	12100				
	0,01	0,13	6474	870	475	12100				
	0,01	0,15	5674	870	475	12100				
	0,01	0,17	5287	870	475	12100				
	0,01	0,20	4423	870	475	12100				
	0,02	0,22	3989	870	475	12100				
	0,02	0,25	3522	870	475	12100				
	0,02	0,28	3153	870	475	12100				
	0,03	0,31	2817	870	475	12100				
	0,03	0,35	2527	870	475	12100				
	0,04	0,42	2106	870	475	12100				
	0,04	0,44	2017	870	475	12100				
	0,04	0,47	1882	870	475	12100				
	0,05	0,52	1703	870	475	12100				
	0,05	0,59	1520	870	475	12100				
	0,06	0,63	1410	870	475	12100				
	0,06	0,71	1265	870	475	12100				
	0,07	0,75	1187	870	475	12100				
	0,08	0,91	981	870	475	12100				
	0,09	0,97	921	870	475	12100				
	0,09	1,0	865	870	475	12100				
	0,10	1,1	812	870	475	12100				
	0,10	1,1	769	870	475	12100				
	0,11	1,2	722	870	475	12100				
	0,12	1,3	648	870	475	12100				
	0,14	1,5	576	870	475	12100				
	0,18	1,9	473	870	475	12100				
	0,20	2,1	420	870	475	12100				
	0,26	2,7	326	870	475	12100				
	0,29	3,0	291	870	475	12100				
	0,32	3,4	261	870	475	12100				
	0,14	1,5	576	870	475	12100				
	0,19	2,0	447	870	475	12100				
	0,21	2,2	394	870	475	12100				
	0,24	2,5	350	870	475	12100				
	0,27	2,8	314	870	475	12100				
	0,30	3,1	282	870	475	12100				
	0,55	5,8	154	870	1200	12100				
	0,63	6,7	133	870	1200	12100				
	0,82	8,7	103	870	1200	12100				
0,93	9,8	91,36	870	1200	12100					
1,0	11	81,25	870	1200	12100					
1,1	12	72,75	870	1200	12100					
1,2	13	65,52	870	1200	12100					
1,4	15	59,41	870	1200	12100					
1,6	17	52,47	870	1200	12100					
1,8	19	46,36	870	1200	12100					
2,0	21	41,66	870	1200	12100					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg	
870 Nm	2,2	24	37,38	870	1200	12100	İRA İRF İRAF İRB	73	271 272 273 274	40 43 46 52	
	2,6	28	31,16	870	1200	12100					
	3,0	32	27,84	870	1200	12100					
	3,4	36	24,97	870	1200	12100					
	3,8	40	22,48	870	1200	12100					
	4,1	44	20,29	870	1200	12100					
	4,6	49	18,35	870	1200	12100					
	5,1	54	16,62	870	1200	12100					
	5,6	59	15,06	870	1200	12100					
	6,1	66	13,52	870	1200	9000	İRA İRF İRAF İRB	72	271 272 273 274	38 41 44 50	
	6,9	74	12,02	870	1200	9000					
	7,7	83	10,74	870	1200	9000					
	9,0	96	9,337	870	1200	9000					
	10	108	8,333	870	1200	9000					
	11	120	7,476	870	1200	9000					
	12	133	6,73	870	1200	9000					
	13	148	6,074	870	1200	9000					
	15	163	5,494	870	1200	9000					
	16	180	4,995	870	1200	9000					
	18	200	4,497	870	1200	9000					
	20	221	4,059	870	1200	9000					
	23	245	3,67	870	1200	9000					
	25	270	3,324	870	1200	9000					
	27	298	3,014	870	1200	9000					
	30	329	2,733	870	1200	9000					
	32	350	2,571	870	1200	9000					
	1500 Nm	0,00	0,04	18231	1500	590	17000	İRA İRF İRAF	83 İR 63	305 306 307	109 114 116
		0,00	0,05	15217	1500	590	17000				
		0,01	0,06	13984	1500	590	17000				
		0,01	0,07	12302	1500	590	17500				
		0,01	0,08	10968	1500	590	17500				
		0,01	0,10	8893	1500	590	17500				
0,01		0,11	7902	1500	590	17500					
0,02		0,12	7092	1500	590	17500					
0,02		0,14	6393	1500	590	17500					
0,02		0,16	5484	1500	590	17500					
0,03		0,18	4922	1500	590	17500					
0,03		0,20	4437	1500	590	17500					
0,03		0,22	4015	1500	590	17500					
0,04		0,25	3593	1500	590	17500					
0,04		0,27	3239	1500	590	17500					
0,05		0,30	2930	1500	590	17500					
0,05		0,33	2659	1500	590	17500					
0,06		0,37	2419	1500	590	17500					
0,06		0,40	2205	1500	590	17500					
0,07		0,44	2013	1500	590	17500					
0,08		0,48	1840	1500	590	17500					
0,10		0,60	1481	1500	590	17500					
0,11		0,66	1353	1500	590	17500					
0,08		0,50	1778	1500	590	17500	İRA İRF İRAF	82 İR 63	305 306 307	104 109 111	
0,09		0,56	1580	1500	590	17500					
0,10		0,63	1418	1500	590	17500					
0,11		0,70	1279	1500	590	17500					
0,13		0,77	1157	1500	590	17500					
0,14		0,85	1050	1500	590	17500					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1500 Nm	0,11	0,68	1308	1500	590	17500	İRA İRF İRAF	82 İR 62	305 306 307	99 104 106
	0,12	0,77	1162	1500	590	17500				
	0,14	0,86	1043	1500	590	17500				
	0,15	0,95	940	1500	590	17500				
	0,16	1,0	850	1500	590	17500				
	0,18	1,1	772	1500	590	17500				
	0,20	1,2	723	1500	590	17500				
	0,21	1,3	653	1500	590	17500				
	0,25	1,5	590	1500	590	17500				
	0,26	1,6	535	1500	590	17500				
	0,30	1,8	487	1500	590	17500				
	0,36	2,2	405	1500	590	17500				
	0,41	2,5	359	1500	590	17500				
	0,46	2,8	314	1500	590	17500				
	0,50	3,0	295	1500	590	17500				
	0,55	3,3	265	1500	590	17500				
	0,61	3,7	240	1500	590	17500				
	0,20	1,2	699	1500	590	17500	İRA İRF İRAF	84	299 300 301	91 96 98
	0,23	1,4	634	1500	590	17500				
	0,25	1,5	578	1500	590	17500				
	0,28	1,7	529	1500	590	17500				
	0,30	1,8	486	1500	590	17500				
	0,35	2,1	428	1500	590	17500				
	0,38	2,3	381	1500	590	17500				
	0,43	2,6	342	1500	590	17500				
	0,48	2,9	309	1500	590	17500				
	0,53	3,2	275	1500	590	17500				
	0,53	3,2	273	1500	590	17500				
	0,61	3,7	242	1500	590	17500				
	0,68	4,1	217	1500	590	17500				
	0,75	4,5	196	1500	590	17500				
	0,85	5,1	174	1500	590	17500				
	0,88	5,3	168	1500	590	17500				
	0,59	3,6	250	1500	1550	17500				
	0,65	4,0	221	1500	1550	17500				
	0,70	4,3	208	1500	1550	17500				
	0,78	4,8	186	1500	1550	17500				
	0,87	5,3	168	1500	1550	17500				
	0,96	5,9	152	1500	1550	17500				
	1,0	6,4	139	1500	1550	17500				
	1,1	7,0	127	1500	1550	17500				
	1,2	7,6	117	1500	1550	17500				
	1,4	8,7	103	1500	1550	17500				
	1,5	9,7	91,85	1500	1550	17500				
	1,6	10	82,47	1500	1550	17500				
	1,9	12	74,47	1500	1550	17500				
	2,1	13	66,18	1500	1550	17500				
	2,4	15	59,39	1500	1550	17500				
	2,6	16	53,54	1500	1550	17500				
	2,9	18	47,58	1500	1550	17500				
	3,1	19	45,93	1500	1550	17500				
	3,4	21	41,22	1500	1550	17500				
	3,9	24	37,16	1500	1550	17500				
	4,4	27	33,02	1500	1550	17500				
	4,7	29	30,08	1500	1550	17500				
	5,4	33	27,12	1500	1550	17500				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg					
1500 Nm	6,0	37	24,10	1500	1550	17500	İRA İRF İRAF İRB	83	291	87					
	6,5	40	22,27	1500	1550	17500			292	92					
	7,2	44	20,26	1500	1550	17500			293	94					
	7,8	48	18,47	1500	1550	17500			294	105					
	8,7	53	16,86	1500	1550	17500									
	9,5	58	15,41	1500	1550	17500									
	9,7	60	14,89	1500	1550	13000	İRA İRF İRAF İRB	82							
	11	68	13,23	1500	1550	13000									
	12	75	11,87	1500	1550	13000									
	13	84	10,70	1500	1550	13000									
	14	92	9,689	1500	1550	13000									
	16	102	8,793	1500	1550	13000									
	17	109	8,244	1500	1550	13000									
	19	121	7,432	1500	1550	13000									
	21	133	6,724	1500	1550	13000									
	23	147	6,103	1500	1550	13000									
	26	162	5,552	1500	1550	13000									
	28	177	5,061	1500	1550	13000									
	31	194	4,62	1500	1550	13000									
	34	213	4,222	1500	1550	13000									
	35	222	4,052	1500	1550	13000									
	39	243	3,694	1500	1550	13000									
	43	266	3,372	1500	1550	13000									
	47	292	3,082	1500	1550	13000									
	49	307	2,926	1500	1550	13000									
	54	336	2,674	1500	1550	13000									
	61	379	2,373	1500	1550	13000									
	2800 Nm	0,00	0,03	22852	2800	590					25000	İRA İRF İRAF	93 İR 63	325 326 327	158 168 178
		0,01	0,04	20623	2800	590					25000				
		0,01	0,04	18725	2800	590					25000				
0,01		0,04	18426	2800	590	25000									
0,01		0,05	17911	2800	590	25000									
0,01		0,05	16707	2800	590	25000									
0,01		0,05	16629	2800	590	25000									
0,01		0,05	15663	2800	590	25000									
0,01		0,05	15160	2800	590	25000									
0,01		0,05	15098	2800	590	25000									
0,01		0,06	14679	2800	590	25000									
0,01		0,06	14410	2800	590	25000									
0,01		0,06	13583	2800	590	25000									
0,01		0,06	13137	2800	590	25000									
0,01		0,06	13037	2800	590	25000									
0,02		0,07	12258	2800	590	25000									
0,02		0,07	11681	2800	590	25000									
0,02		0,07	11577	2800	590	25000									
0,02		0,08	11130	2800	590	25000									
0,02		0,08	10542	2800	590	25000									
0,02		0,08	10288	2800	590	25000									
0,02		0,09	9565	2800	590	25000									
0,02		0,09	9309	2800	590	25000									
0,02		0,09	9206	2800	590	25000									
0,03		0,10	8565	2800	590	25000									
0,03		0,10	8198	2800	590	25000									
0,03		0,11	8006	2800	590	25000									
0,03		0,11	7808	2800	590	25000									
0,03		0,12	7366	2800	590	25000									
0,03		0,12	7224	2800	590	25000									



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2800 Nm	0,04	0,13	6881	2800	590	25000	İRA İRF İRAF	93 İR 63	325 326 327	158 168 178
	0,04	0,13	6715	2800	590	25000				
	0,04	0,14	6420	2800	590	25000				
	0,04	0,14	6115	2800	590	25000				
	0,04	0,15	5918	2800	590	25000				
	0,04	0,15	5745	2800	590	25000				
	0,05	0,16	5472	2800	590	25000				
	0,05	0,17	5259	2800	590	25000				
	0,05	0,17	5169	2800	590	25000				
	0,05	0,18	4872	2800	590	25000				
	0,06	0,19	4706	2800	590	25000				
	0,06	0,19	4673	2800	590	25000				
	0,06	0,20	4294	2800	590	25000				
	0,06	0,21	4241	2800	590	25000				
	0,06	0,21	4190	2800	590	25000				
	0,07	0,23	3862	2800	590	25000				
	0,07	0,24	3693	2800	590	25000				
	0,08	0,25	3525	2800	590	25000				
	0,08	0,27	3225	2800	590	25000				
	0,09	0,30	2956	2800	590	25000				
	0,06	0,22	3954	2800	590	25000	İRA İRF İRAF	93 İR 62	325 326 327	153 163 173
	0,07	0,24	3688	2800	590	25000				
	0,07	0,25	3582	2800	590	25000				
	0,08	0,26	3341	2800	590	25000				
	0,08	0,27	3241	2800	590	25000				
	0,09	0,30	2936	2800	590	25000				
	0,09	0,31	2878	2800	590	25000				
	0,10	0,34	2607	2800	590	25000				
	0,12	0,38	2336	2800	590	25000				
	0,13	0,42	2108	2800	590	25000				
	0,14	0,47	1914	2800	590	25000				
	0,17	0,56	1601	2800	590	25000				
	0,19	0,61	1473	2800	590	25000				
	0,21	0,67	1343	2800	590	25000				
	0,24	0,76	1183	2800	590	25000				
	0,26	0,85	1052	2800	590	25000				
	0,30	0,95	941	2800	590	25000				
	0,31	1,0	838	2800	590	25000				
	0,37	1,2	739	2800	590	25000				
	0,41	1,3	656	2800	590	25000				
	0,47	1,5	587	2800	590	25000				
	0,53	1,7	528	2800	590	25000				
	0,56	1,8	478	2800	590	25000				
	0,63	2,0	434	2800	590	25000				
	0,69	2,2	398	2800	590	25000				
	0,79	2,5	360	2800	590	25000				
	0,85	2,7	330	2800	590	25000				
	0,91	2,9	302	2800	590	25000				
	1,0	3,2	275	2800	590	25000				
	1,1	3,5	251	2800	590	25000				
	1,2	3,9	230	2800	590	25000				
	1,3	4,2	210	2800	590	25000				
	0,87	2,8	315	2800	590	25000				
	0,99	3,2	277	2800	590	25000				
	1,1	3,6	247	2800	590	25000				
		1,2	4,0	221	2800	590	25000			



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2800 Nm	0,56	1,8	478	2800	590	25000	İRA İRF İRAF	94	319 320 321	154 164 174
	0,62	2,0	431	2800	590	25000				
	0,71	2,3	380	2800	590	25000				
	0,80	2,6	337	2800	590	25000				
	0,90	2,9	302	2800	590	25000				
	1,0	3,3	269	2800	590	25000				
	1,1	3,7	237	2800	590	25000				
	1,3	4,2	210	2800	590	25000				
	1,4	4,7	188	2800	590	25000				
	1,6	5,3	169	2800	590	25000				
	1,8	5,8	153	2800	590	25000				
	0,92	3,0	293	2800	2500	25000	İRA İRF İRAF İRB	93	311 312 313 314	140 150 160 170
	0,98	3,2	273	2800	2500	25000				
	1,1	3,7	240	2800	2500	25000				
	1,2	4,2	213	2800	2500	25000				
	1,4	4,7	191	2800	2500	25000				
	1,5	5,2	172	2800	2500	25000				
	1,7	5,7	156	2800	2500	25000				
	2,0	6,8	131	2800	2500	25000				
	2,3	7,5	120	2800	2500	25000				
	2,4	8,1	110	2800	2500	25000				
	2,8	9,2	96,96	2800	2500	25000				
	3,0	10	86,16	2800	2500	25000				
	3,3	11	77,10	2800	2500	25000				
	3,9	13	68,65	2800	2500	25000				
	4,2	14	60,50	2800	2500	25000				
	4,9	16	53,76	2800	2500	25000				
	5,5	18	48,11	2800	2500	25000				
	6,1	20	43,29	2800	2500	25000				
	7,0	23	39,13	2800	2500	25000				
	7,6	25	35,52	2800	2500	25000				
	8,2	27	32,34	2800	2500	25000				
	9,2	30	29,52	2800	2500	25000				
	10	33	27,01	2800	2500	25000				
	11	36	24,76	2800	2500	25000				
	13	44	20,09	2800	2500	25000				
	16	53	16,85	2800	2500	25000				
	19	63	14,21	2800	2500	25000				
	11	38	23,38	2800	2500	20000				
	12	43	20,60	2800	2500	20000				
	14	49	18,31	2800	2500	20000				
	16	54	16,38	2800	2500	20000				
	18	61	14,74	2800	2500	20000				
	20	67	13,32	2800	2500	20000				
	24	81	11,01	2800	2500	20000				
	26	89	10,05	2800	2500	20000				
	29	97	9,2	2800	2500	20000				
	32	108	8,317	2800	2500	20000				
	35	119	7,548	2800	2500	20000				
	39	130	6,872	2800	2500	20000				
	43	143	6,274	2800	2500	20000				
	47	156	5,74	2800	2500	20000				
	51	171	5,261	2800	2500	20000				
	61	202	4,437	2800	2500	20000				
	66	220	4,08	2800	2500	20000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2800 Nm	72	239	3,753	2800	2500	20000	İRA İRF İRAF İRB	92	311	134
	75	251	3,58	2800	2500	20000			312	144
	90	298	3,019	2800	2500	20000			313	154
	97	324	2,776	2800	2500	20000			314	164
	106	352	2,554	2800	2500	20000				
	110	367	2,45	2800	2500	20000				
4300 Nm	0,01	0,04	22099	4300	1200	34000	İRA İRF İRAF	103 İR 73	345 346 347	248 251 273
	0,01	0,04	18788	4300	1200	34000				
	0,02	0,05	16845	4300	1200	34000				
	0,02	0,05	15213	4300	1200	34000				
	0,02	0,06	13823	4300	1200	34000				
	0,03	0,07	12625	4300	1200	34000				
	0,03	0,07	11581	4300	1200	34000				
	0,03	0,08	10325	4300	1200	34000				
	0,04	0,09	9118	4300	1200	34000				
	0,05	0,11	8104	4300	1200	34000				
	0,05	0,12	7241	4300	1200	34000				
	0,06	0,13	6496	4300	1200	34000				
	0,07	0,15	5848	4300	1200	34000				
	0,08	0,17	5278	4300	1200	34000				
	0,08	0,18	4790	4300	1200	34000				
	0,10	0,21	4230	4300	1200	34000				
	0,11	0,23	3760	4300	1200	34000				
	0,12	0,26	3359	4300	1200	34000				
	0,14	0,29	3014	4300	1200	34000				
	0,16	0,33	2713	4300	1200	34000				
	0,17	0,36	2448	4300	1200	34000				
	0,15	0,32	2733	4300	1200	34000	İRA İRF İRAF	102 İR 73	345 346 347	246 249 271
	0,17	0,37	2413	4300	1200	34000				
	0,19	0,41	2145	4300	1200	34000				
	0,22	0,46	1916	4300	1200	34000				
	0,26	0,55	1635	4300	1200	34000				
	0,29	0,61	1460	4300	1200	34000				
	0,33	0,68	1311	4300	1200	34000				
	0,36	0,76	1180	4300	1200	34000				
	0,39	0,81	1103	4300	1200	34000				
	0,44	0,91	986	4300	1200	34000				
	0,48	1,0	884	4300	1200	34000				
	0,53	1,1	796	4300	1200	34000				
	0,58	1,2	718	4300	1200	34000				
	0,63	1,3	650	4300	1200	34000				
	0,72	1,5	575	4300	1200	34000				
	0,36	0,76	1173	4300	1200	34000				
	0,41	0,86	1046	4300	1200	34000				
	0,47	0,97	923	4300	1200	34000				
	0,48	1,0	821	4300	1200	34000				
	0,58	1,2	733	4300	1200	34000				
	0,63	1,3	658	4300	1200	34000				
0,72	1,5	592	4300	1200	34000					
0,77	1,6	535	4300	1200	34000					
0,87	1,8	485	4300	1200	34000					
1,0	2,1	428	4300	1200	34000					
1,1	2,3	381	4300	1200	34000					
1,2	2,6	340	4300	1200	34000					
1,4	2,9	305	4300	1200	34000					
1,5	3,2	275	4300	1200	34000					
1,7	3,6	248	4300	1200	34000					



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			~kg
4300 Nm	1,7	3,7	239	4300	1200	34000	İRA İRF İRAF	102 İR 72	345	244
	2,0	4,2	211	4300	1200	34000			346	247
	2,2	4,7	188	4300	1200	34000			347	269
	2,5	5,3	168	4300	1200	34000				
	0,52	1,1	802	4300	1200	34000	İRA İRF İRAF	104	339 340 341	241 244 266
	0,57	1,2	719	4300	1200	34000				
	0,66	1,4	611	4300	1200	34000				
	0,76	1,6	548	4300	1200	34000				
	0,86	1,8	494	4300	1200	34000				
	0,95	2,0	446	4300	1200	34000				
	1,0	2,2	405	4300	1200	34000				
	1,1	2,4	370	4300	1200	34000				
	1,2	2,6	339	4300	1200	34000				
	1,3	2,9	306	4300	1200	34000				
	1,5	3,2	281	4300	1200	34000				
	1,6	3,5	256	4300	3750	30000	İRA İRF İRAF İRB	103	331 332 333 334	237 240 262 278
	1,8	4	225	4300	3750	30000				
	2,0	4,3	207	4300	3750	30000				
	2,2	4,8	184	4300	3750	30000				
	2,5	5,4	165	4300	3750	30000				
	3,0	6,4	140	4300	3750	30000				
	3,3	7,1	126	4300	3750	30000				
	3,7	7,9	113	4300	3750	30000				
	4,0	8,7	103	4300	3750	30000				
	4,4	9,5	94,54	4300	3750	30000				
	4,7	10	86,72	4300	3750	30000				
	5,1	11	77,32	4300	3750	30000				
	6,1	13	68,28	4300	3750	30000				
	6,5	14	60,69	4300	3750	30000				
	7,5	16	54,22	4300	3750	30000				
	8,4	18	48,64	4300	3750	30000				
	9,4	20	43,79	4300	3750	30000				
	10	22	39,52	4300	3750	30000				
	11	25	35,87	4300	3750	30000				
	13	28	31,67	4300	3750	30000				
	14	31	28,15	4300	3750	30000				
	16	35	25,15	4300	3750	30000				
	18	39	22,56	4300	3750	30000				
	20	44	20,31	4300	3750	30000				
	23	49	18,36	4300	3750	30000				
	25	54	16,58	4300	3750	30000				
	27	59	15,01	4300	3750	30000				
	23	50	17,69	4300	3750	25000	İRA İRF İRAF İRB	102	331 332 333 334	235 238 260 276
	26	57	15,62	4300	3750	25000				
	29	64	13,88	4300	3750	25000				
	33	72	12,40	4300	3750	25000				
	39	85	10,58	4300	3750	25000				
	44	95	9,457	4300	3750	25000				
	49	106	8,485	4300	3750	25000				
	54	117	7,638	4300	3750	25000				
	58	125	7,144	4300	3750	25000				
	65	141	6,382	4300	3750	25000				
	72	157	5,726	4300	3750	25000				
	80	174	5,154	4300	3750	21000				
	89	193	4,652	4300	3750	21000				
	98	213	4,207	4300	3750	21000				
	111	241	3,723	4300	3750	21000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
4300 Nm	123	267	3,36	4300	3750	21000	İRA İRF İRAF İRB	102	331	235
	137	296	3,039	4300	3750	21000			332	238
	151	327	2,752	4300	3750	19000			333	260
	167	360	2,495	4300	3750	19000			334	276
	184	397	2,263	4300	3750	19000				
8000 Nm	0,01	0,02	32309	8000	1200	52000	İRA İRF İRAF	123 İR 73	365 366 367	338 340 368
	0,02	0,03	28749	8000	1200	52000				
	0,02	0,03	25807	8000	1200	52000				
	0,02	0,03	23337	8000	1200	52000				
	0,03	0,04	18918	8000	1200	52000				
	0,04	0,05	17260	8000	1200	52000				
	0,04	0,05	15494	8000	1200	52000				
	0,05	0,06	13395	8000	1200	52000				
	0,06	0,07	12113	8000	1200	52000				
	0,07	0,08	11190	8000	1200	52000				
	0,07	0,08	10209	8000	1200	52000				
	0,08	0,09	9165	8000	1200	52000				
	0,09	0,10	8288	8000	1200	52000				
	0,10	0,11	7928	8000	1200	52000				
	0,12	0,14	6426	8000	1200	52000				
	0,13	0,15	5863	8000	1200	52000				
	0,15	0,17	5263	8000	1200	52000				
	0,16	0,18	4759	8000	1200	52000				
	0,20	0,22	3975	8000	1200	52000				
	0,22	0,25	3498	8000	1200	52000				
	0,25	0,28	3104	8000	1200	52000				
	0,29	0,32	2773	8000	1200	52000				
	0,19	0,22	4059	8000	1200	52000	İRA İRF İRAF	122 İR 73	365 366 367	311 313 341
	0,21	0,24	3671	8000	1200	52000				
	0,22	0,25	3509	8000	1200	52000				
	0,25	0,28	3173	8000	1200	52000				
	0,29	0,33	2650	8000	1200	52000				
	0,33	0,37	2399	8000	1200	52000				
	0,37	0,41	2170	8000	1200	52000				
	0,44	0,49	1812	8000	1200	52000				
	0,50	0,56	1594	8000	1200	52000				
	0,58	0,65	1379	8000	1200	52000				
	0,65	0,72	1247	8000	1200	52000				
	0,77	0,86	1042	8000	1200	52000				
	0,88	0,98	916	8000	1200	52000				
	0,99	1,1	813	8000	1200	52000				
	1,0	1,2	726	8000	1200	52000				
	1,1	1,3	652	8000	1200	52000				
	1,2	1,4	603	8000	1200	52000				
	0,28	0,31	2829	8000	1200	52000	İRA İRF İRAF	123 İR 72	365 366 367	336 338 366
	0,31	0,35	2517	8000	1200	52000				
	0,35	0,39	2260	8000	1200	52000				
	0,39	0,44	2043	8000	1200	52000				
	0,48	0,54	1657	8000	1200	52000				
	0,53	0,59	1511	8000	1200	52000				
	0,59	0,66	1357	8000	1200	52000				
	0,65	0,73	1227	8000	1200	52000				
	0,78	0,87	1025	8000	1200	52000				
	0,89	0,99	902	8000	1200	52000				
	0,99	1,1	800	8000	1200	52000				
	1,0	1,2	715	8000	1200	52000				
	1,2	1,4	642	8000	1200	52000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
8000 Nm	1,3	1,5	579	8000	1200	52000	İRA İRF İRAF	123 İR 72	365 366 367	336 338 366
	1,4	1,6	550	8000	1200	52000				
	1,6	1,8	488	8000	1200	52000				
	1,8	2,0	436	8000	1200	52000				
	1,9	2,2	392	8000	1200	52000				
	2,2	2,5	354	8000	1200	52000				
	2,5	2,8	320	8000	1200	52000				
	2,7	3,0	291	8000	1200	52000				
	2,9	3,3	265	8000	1200	52000				
	3,3	3,7	242	8000	1200	52000				
	3,6	4,0	221	8000	1200	52000				
	3,9	4,4	201	8000	1200	52000				
	4,4	4,9	183	8000	1200	52000				
	4,7	5,3	167	8000	1200	52000				
	2,3	2,6	335	8000	1200	52000	İRA İRF İRAF	122 İR 72	365 366 367	309 311 339
	2,4	2,8	321	8000	1200	52000				
	2,9	3,3	268	8000	1200	52000				
	3,3	3,8	236	8000	1200	52000				
	3,7	4,2	210	8000	1200	52000				
	4,2	4,8	187	8000	1200	52000				
	4,7	5,3	168	8000	1200	52000				
	5,1	5,8	155	8000	1200	52000				
	0,88	1,0	883	8000	1200	52000	İRA İRF İRAF	124	359 360 361	389 391 419
	0,97	1,1	798	8000	1200	52000				
	1,1	1,3	647	8000	1200	52000				
	1,3	1,5	590	8000	1200	52000				
	1,4	1,6	530	8000	1200	52000				
	1,6	1,8	479	8000	1200	52000				
	1,9	2,2	400	8000	1200	52000				
	2,2	2,5	352	8000	1200	52000				
	2,4	2,8	312	8000	1200	52000				
	2,8	3,2	279	8000	1200	52000				
	3,2	3,6	250	8000	1200	52000				
	3,4	3,9	226	8000	1200	52000				
	3,6	4,1	215	8000	1200	52000				
	3,7	4,3	209	8000	3750	41000	İRA İRF İRAF İRB	123	351 352 353 354	351 353 381 412
	4,2	4,8	186	8000	3750	41000				
	4,6	5,3	167	8000	3750	41000				
	5,1	5,9	151	8000	3750	41000				
	6,3	7,3	122	8000	3750	41000				
	7,1	8,1	111	8000	3750	41000				
	7,8	9	100	8000	3750	41000				
	8,6	9,9	90,71	8000	3750	41000				
	9,6	11	75,76	8000	3750	41000				
	11	13	66,67	8000	3750	41000				
	13	15	59,16	8000	3750	39700				
	14	17	52,84	8000	3750	39700				
	15	18	47,47	8000	3750	39700				
	18	21	42,84	8000	3750	39700				
	19	22	40,7	8000	3750	39700				
	21	24	36,11	8000	3750	39700				
	23	27	32,26	8000	3750	39700				
	27	31	28,98	8000	3750	39700				
	29	34	26,15	8000	3750	39700				
	33	38	23,68	8000	3750	39700				
	35	41	21,52	8000	3750	39700				
	39	45	19,60	8000	3750	39700				
	43	50	17,89	8000	3750	39700				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
8000 Nm	29	34	26,28	8000	3750	45000	İRA İRF İRAF İRB	122	351 352 353 354	324 326 354 385
	31	37	23,76	8000	3750	45000				
	38	45	19,85	8000	3750	45000				
	44	51	17,46	8000	3750	45000				
	50	58	15,5	8000	3750	45000				
	56	65	13,84	8000	3750	45000				
	62	72	12,43	8000	3750	45000				
	67	78	11,49	8000	3750	45000				
	75	88	10,2	8000	3750	45000				
	84	98	9,112	8000	3750	45000				
	94	109	8,185	8000	3750	45000				
	100	116	7,724	8000	3750	45000				
	111	129	6,938	8000	3750	45000				
	123	143	6,261	8000	3750	45000				
	136	158	5,671	8000	3750	45000				
	150	174	5,153	8000	3750	45000				
	164	191	4,694	8000	3750	45000				
	181	210	4,284	8000	3750	45000				
	197	229	3,917	8000	3750	45000				
	216	251	3,585	8000	3750	45000				
236	274	3,284	8000	3750	45000					
13000 Nm	2,3	1,6	537	13000	1550	60000	İRA İRF İRAF	143 İR 82	391 392 393	557 571 597
	2,9	2,0	443	13000	1550	60000				
	3,2	2,2	398	13000	1550	60000				
	3,6	2,5	359	13000	1550	60000				
	3,9	2,7	331	13000	1550	60000				
	4,6	3,2	277	13000	1550	60000				
	5,2	3,6	249	13000	1550	60000				
	5,8	4	225	13000	1550	60000				
	6,3	4,3	207	13000	1550	60000				
	7,0	4,8	187	13000	1550	60000				
	8,3	5,7	157	13000	1550	60000				
	0,04	0,03	24943	13000	1200	60000				
	0,05	0,04	21564	13000	1200	60000				
	0,05	0,04	19545	13000	1200	60000				
	0,07	0,05	17730	13000	1200	60000				
	0,07	0,05	15134	13000	1200	60000				
	0,08	0,06	13372	13000	1200	60000				
	0,10	0,07	12131	13000	1200	60000				
	0,11	0,08	10788	13000	1200	60000				
	0,13	0,09	9446	13000	1200	60000				
	0,14	0,10	8427	13000	1200	60000				
	0,17	0,12	7474	13000	1200	60000				
	0,19	0,13	6732	13000	1200	60000				
	0,22	0,15	5907	13000	1200	60000				
	0,23	0,16	5425	13000	1200	60000				
	0,26	0,18	4839	13000	1200	60000				
	0,29	0,20	4347	13000	1200	60000				
	0,34	0,23	3814	13000	1200	60000				
	0,38	0,26	3404	13000	1200	60000				
	0,43	0,29	3026	13000	1200	60000				
	0,49	0,33	2717	13000	1200	60000	İRA İRF İRAF	143 İR 72	385 386 387	511 525 551
	0,60	0,41	2184	13000	1200	60000				
	0,66	0,45	1979	13000	1200	60000				
	0,74	0,51	1759	13000	1200	60000				
	0,82	0,56	1596	13000	1200	60000				
	0,95	0,65	1365	13000	1200	60000				
	1,1	0,81	1110	13000	1200	60000				
	1,3	0,90	990	13000	1200	60000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
13000 Nm	1,4	1,0	889	13000	1200	60000	İRA İRF İRAF	143 İR 72	385 386 387	511 525 551
	1,6	1,1	780	13000	1200	60000				
	1,7	1,2	696	13000	1200	60000				
	2,2	1,5	595	13000	1200	60000				
	2,3	1,6	540	13000	1200	60000				
	2,6	1,8	485	13000	1200	60000				
	2,9	2,0	436	13000	1200	60000				
	3,2	2,2	394	13000	1200	60000				
	2,3	1,6	545	13000	1200	60000	İRA İRF İRAF	144	379 380 381	564 578 604
	2,6	1,8	487	13000	1200	60000				
	2,8	2,0	437	13000	1200	60000				
	3,3	2,3	384	13000	1200	60000				
	3,7	2,6	344	13000	1200	60000				
	4,1	2,9	307	13000	1200	60000				
	4,6	3,2	275	13000	1200	60000				
	4,9	3,4	262	13000	1200	60000				
	5,4	3,8	235	13000	1200	60000				
	6,0	4,2	212	13000	1200	60000				
	6,6	4,6	192	13000	1200	60000				
	7,3	5,1	174	13000	1200	60000	İRA İRF İRAF İRB	143	371 372 373 374	526 540 566 639
	7,8	5,5	161	13000	3750	60000				
	8,6	6,1	146	13000	3750	60000				
	9,6	6,8	132	13000	3750	60000				
	12	8,7	103	13000	3750	60000				
	13	9,7	92,23	13000	3750	60000				
	14	10	82,86	13000	3750	60000				
	17	12	72,70	13000	3750	60000				
	18	13	64,89	13000	3750	60000				
	21	15	58,23	13000	3750	60000				
	22	16	55,48	13000	3750	60000				
	25	18	49,78	13000	3750	60000				
	28	20	44,88	13000	3750	60000				
	31	22	40,61	13000	3750	60000				
	34	24	36,85	13000	3750	60000				
	37	26	33,53	13000	3750	60000				
	45	32	27,90	13000	3750	60000	İRA İRF İRAF İRB	142	371 372 373 374	476 490 516 589
	54	38	23,32	13000	3750	60000				
	62	44	20,01	13000	3750	60000				
	61	44	20,02	13000	3750	60000				
	68	49	18,16	13000	3750	60000				
	77	55	16,20	13000	3750	60000				
	85	61	14,55	13000	3750	60000				
	98	70	12,77	13000	3750	60000				
	109	78	11,4	13000	3750	60000				
	122	87	10,23	13000	3750	60000				
	136	97	9,222	13000	3750	60000				
150	107	8,344	13000	3750	60000					
165	118	7,573	13000	3750	60000					
182	130	6,89	13000	3750	60000					
218	156	5,733	13000	3750	60000					
262	187	4,792	13000	3750	60000					
18000 Nm	0,24	0,12	7067	18000	3750	110000	İRA İRF İRAF	153 İR 103	417 418 419	1165 1215 1235
	0,28	0,14	6223	18000	3750	110000				
	0,33	0,16	5577	18000	3750	110000				
	0,35	0,17	5035	18000	3750	110000				
	0,39	0,19	4570	18000	3750	110000				
	0,51	0,25	3586	18000	3750	110000				
	0,57	0,28	3205	18000	3750	110000				
	0,70	0,34	2588	18000	3750	110000				



Helisel Dişli Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Qv2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg	
18000 Nm	0,06	0,03	27213	18000	2500	110000	İRA İRF İRAF	153 İR 93		411 412 413	1075 1125 1145
	0,06	0,03	23722	18000	2500	110000					
	0,08	0,04	19875	18000	2500	110000					
	0,10	0,05	17651	18000	2500	110000					
	0,10	0,05	16020	18000	2500	110000					
	0,12	0,06	14354	18000	2500	110000					
	0,12	0,06	13011	18000	2500	110000					
	0,14	0,07	11306	18000	2500	110000					
	0,18	0,09	9958	18000	2500	110000					
	0,20	0,10	8987	18000	2500	110000					
	0,22	0,11	7647	18000	2500	110000					
	0,26	0,13	6643	18000	2500	110000					
	0,28	0,14	6078	18000	2500	110000					
	0,33	0,16	5519	18000	2500	110000					
	0,41	0,20	4312	18000	2500	110000					
	0,49	0,24	3704	18000	2500	110000					
	0,59	0,29	3098	18000	2500	110000					
	0,69	0,34	2596	18000	2500	110000	İRA İRF İRAF	153 İR 92		411 412 413	1069 1119 1139
	0,79	0,39	2288	18000	2500	110000					
	0,89	0,44	2033	18000	2500	110000					
	0,99	0,49	1819	18000	2500	110000					
	1,0	0,54	1637	18000	2500	110000					
	1,3	0,65	1371	18000	2500	110000					
	1,4	0,72	1240	18000	2500	110000					
	1,7	0,87	1024	18000	2500	110000					
	2,0	1,0	825	18000	2500	110000					
	2,2	1,1	754	18000	2500	110000					
	2,6	1,3	683	18000	2500	110000					
	3,4	1,7	523	18000	2500	110000					
	4,0	2,0	445	18000	2500	110000					
	4,6	2,3	386	18000	2500	110000					
	5,0	2,5	353	18000	2500	110000					
	6,5	3,2	276	18000	2500	110000					
	7,5	3,7	237	18000	2500	110000					
	2,2	1,1	784	18000	2500	110000	İRA İRF İRAF	154		405 406 407	1037 1107 1107
	2,4	1,2	695	18000	2500	110000					
	2,8	1,4	612	18000	2500	110000					
	3,2	1,6	548	18000	2500	110000					
	3,6	1,8	495	18000	2500	110000					
	4,0	2,0	431	18000	2500	110000					
	4,8	2,4	361	18000	2500	110000					
	5,6	2,8	321	18000	2500	110000					
	6,0	3,0	291	18000	2500	110000					
	6,8	3,4	264	18000	2500	110000					
	7,8	3,9	229	18000	2500	110000	İRA İRF İRAF İRB	153		397 398 399 400	1020 1070 1090 1230
	7,8	4,0	221	18000	5250	110000					
	8,6	4,4	201	18000	5250	110000					
	9,8	5,0	178	18000	5250	110000					
	11	5,7	157	18000	5250	110000					
	12	6,3	141	18000	5250	110000					
	13	7,0	127	18000	5250	110000					
	15	8,1	111	18000	5250	110000					
	18	9,6	93,04	18000	5250	110000					
	19	10	82,63	18000	5250	110000					
	23	12	75	18000	5250	110000					
	25	13	67,98	18000	5250	110000					
	29	15	59,07	18000	5250	110000					

Güç Devir Tabloları / Performance Tables / Table de Performances



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =900rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
18000 Nm	33	17	52,03	18000	5250	110000	İRA İRF İRAF İRB	153	397 398 399 400	1020 1070 1090 1230
	39	20	44,27	18000	5250	110000				
	45	23	38,46	18000	5250	110000				
	49	25	35,19	18000	5250	110000				
	63	32	27,49	18000	5250	110000				
	74	38	23,61	18000	5250	110000	İRA İRF İRAF İRB	152	397 398 399 400	945 995 1015 1155
	60	31	28,54	18000	5250	110000				
	66	34	25,92	18000	5250	110000				
	73	38	23,57	18000	5250	110000				
	81	42	21,08	18000	5250	110000				
	91	47	19	18000	5250	110000				
	101	52	17,22	18000	5250	110000				
	110	57	15,68	18000	5250	110000				
	120	62	14,35	18000	5250	110000				
	155	80	11,21	18000	5250	110000				
	163	84	10,69	18000	5250	110000				
	178	92	9,744	18000	5250	110000				
	194	100	8,915	18000	5250	110000				
	211	109	8,186	18000	5250	110000				
	250	129	6,965	18000	5250	110000				
	291	150	5,983	18000	5250	110000				



Helisel Dişlili Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
85 Nm	0,08	8,6	81,36	85	390	2100	İRA İRF İRAF	43	195 196 197	12 13 13
	0,09	9,9	70,05	85	390	2100				
	0,10	11	60,89	85	390	2100				
	0,12	13	53,33	85	390	2100				
	0,13	14	46,97	85	390	2100				
	0,14	16	41,84	85	390	2100				
	0,17	19	36,37	85	390	2100				
	0,19	21	31,85	85	390	2100				
	0,22	24	28,06	85	390	2100				
	0,24	26	26,19	85	390	2100				
	0,26	28	24,82	85	390	2000				
	0,27	30	22,61	85	390	2000				
	0,30	33	21,10	85	390	2000				
	0,32	35	20,00	85	390	2000				
	0,34	37	18,59	85	390	2000				
	0,36	39	17,76	85	390	1850				
	0,39	42	16,45	85	390	1850				
	0,40	44	15,80	85	390	1850				
	0,43	47	14,60	85	390	1850				
	0,45	49	14,08	85	390	1800				
	0,49	53	12,99	85	390	1800				
	0,55	60	11,58	85	390	1800				
	0,56	62	11,24	85	390	800				
	0,65	71	9,845	85	390	800				
	0,73	80	8,672	85	390	800				
	0,83	91	7,673	85	390	750				
	0,92	101	6,872	85	390	750				
	1,0	115	6,08	85	390	750				
	1,1	126	5,538	85	390	750				
	1,1	129	5,398	85	390	750				
	1,3	142	4,9	85	390	750				
	1,3	145	4,803	85	390	750				
	1,4	160	4,35	85	390	750				
	1,4	163	4,28	85	390	750				
	1,6	180	3,87	85	390	750				
	1,8	202	3,449	85	390	750				
150 Nm	0,00	0,08	8598	150	390	4250	İRA İRF İRAF	53 İR 43	207 208 209	26 28 29
	0,00	0,09	7402	150	390	4250				
	0,00	0,10	6435	150	390	4250				
	0,00	0,12	5419	150	390	4250				
	0,00	0,14	4699	150	390	4250				
	0,00	0,17	4117	150	390	4250				
	0,00	0,20	3338	150	390	4250				
	0,00	0,23	2948	150	390	4250				
	0,00	0,26	2679	150	390	4250				
	0,00	0,29	2346	150	390	4250				
	0,00	0,33	2085	150	390	4250				
	0,00	0,37	1863	150	390	4250				
	0,00	0,42	1641	150	390	4250				
	0,00	0,47	1462	150	390	4250				
	0,00	0,55	1271	150	390	4250				
	0,00	0,50	1398	150	390	4250				
	0,00	0,58	1204	150	390	4250				
	0,01	0,66	1046	150	390	4250				
	0,01	0,76	917	150	390	4250	İRA İRF İRAF	52 İR 43	207 208 209	25 27 28
	0,01	0,86	809	150	390	4250				
	0,01	0,98	709	150	390	4250				
	0,01	1,1	630	150	390	4250				
	0,02	1,2	555	150	390	4250				
	0,02	1,4	496	150	390	4250				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
150 Nm	0,00	0,58	1188	150	390	4250	İRA İRF İRAF	53 İR 42	207 208 209	25 27 28
	0,01	0,67	1040	150	390	4250				
	0,01	0,76	916	150	390	4250				
	0,01	0,79	878	150	390	4250				
	0,01	0,90	772	150	390	4250				
	0,01	1,0	669	150	390	4250				
	0,01	1,1	586	150	390	4250				
	0,02	1,3	519	150	390	4250				
	0,02	1,6	421	150	390	4250				
	0,03	1,8	377	150	390	4250				
	0,03	2,1	333	150	390	4250				
	0,03	2,3	294	150	390	4250				
	0,04	2,6	267	150	390	4250				
	0,04	2,9	238	150	390	4250				
	0,06	3,6	193	150	390	4250				
	0,06	4,0	173	150	390	4250				
	0,07	4,6	152	150	390	4250				
	0,08	5,0	138	150	390	4250				
	0,09	5,6	125	150	390	4250				
	0,10	6,3	111	150	390	4250				
	0,12	7,3	95	150	390	4250				
	0,06	3,6	193	150	390	4250	İRA İRF İRAF	52 İR 42	207 208 209	24 26 27
	0,06	4,1	169	150	390	4250				
	0,07	4,7	148	150	390	4250				
	0,08	5,3	131	150	390	4250				
	0,10	6,0	116	150	390	4250				
	0,11	6,7	104	150	390	4250				
	0,12	7,5	93	150	390	4250				
	0,10	6,6	105	150	475	4250	İRA İRF İRAF	53	201 202 203	18 20 21
	0,12	7,8	88,98	150	475	4250				
	0,14	9,0	77,16	150	475	4250				
	0,16	10	67,60	150	475	4250				
	0,19	12	54,81	150	475	4250				
	0,23	14	48,41	150	475	4250				
	0,24	15	43,98	150	475	4250				
	0,27	17	39,09	150	475	4250				
	0,32	20	34,93	150	475	4250				
	0,36	22	31,33	150	475	4250				
	0,39	24	28,21	150	475	4250				
	0,44	27	25,46	150	475	4250				
	0,49	30	23,02	150	475	4250				
	0,50	31	21,88	150	475	4250				
	0,57	35	19,69	150	475	4250				
	0,64	39	17,77	150	475	4250				
	0,70	43	16,07	150	475	4250	İRA İRF İRAF	52	201 202 203	17 19 20
	0,64	40	17,18	150	475	3500				
	0,74	46	15,05	150	475	3500				
	0,84	52	13,29	150	475	3500				
	0,95	59	11,81	150	475	3500				
	1,0	66	10,55	150	475	3500				
	1,1	73	9,47	150	475	3500				
	1,2	78	8,888	150	475	3500				
	1,4	87	7,974	150	475	3500				
	1,5	97	7,178	150	475	3500				
	1,7	108	6,479	150	475	3500				
	1,9	120	5,821	150	475	3500				
	2,1	133	5,254	150	475	3500				
	2,2	139	5,032	150	475	3500				



Helisel Dişlili Motorlu Redüktörler Güç ve Devir Tablosu

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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg				
150 Nm	2,5	155	4,515	150	475	3500	İRA İRF İRAF	52	201 202 203	17 19 20				
	2,7	172	4,064	150	475	3500								
	3,0	190	3,668	150	475	3500								
	3,4	211	3,317	150	475	3500								
	3,6	228	3,059	150	475	3500								
	3,8	240	2,906	150	475	3500								
	4,4	272	2,572	150	475	3500								
410 Nm	0,24	5,5	127	410	590	7000	İRA İRF İRAF	631	213 214 215	29 34 35				
	0,26	5,8	119	410	590	7000								
	0,32	7,2	96,27	410	590	7000								
	0,35	7,9	87,81	410	590	7000								
	0,37	8,3	83,37	410	590	7000								
	0,44	9,8	70,96	410	590	7000								
	0,49	11	61,03	410	590	7000								
	0,58	13	51,65	410	590	7000								
	0,62	14	46,79	410	590	7000								
	0,71	16	42,55	410	590	7000								
	0,85	19	35,74	410	590	7000								
	1,0	23	29,85	410	590	7000								
	1,2	27	25,16	410	590	7000								
	1,4	32	21,5	410	590	7000								
	1,5	34	20,53	410	590	7000								
	1,7	38	18,18	410	590	7000								
	1,9	44	15,59	410	590	7000								
	2,2	50	13,80	410	590	7000								
	1,8	41	16,67	410	590	7000					İRA İRF İRAF	621	213 214 215	24 29 30
	2,0	46	15,13	410	590	7000								
	2,2	51	13,47	410	590	7000								
	2,5	57	12,20	410	590	7000								
	2,7	63	11,10	410	590	7000								
	3,0	69	10,07	410	590	7000								
	3,2	74	9,358	410	590	7000								
	3,6	82	8,51	410	590	7000								
	4,0	91	7,673	410	590	7000								
	4,3	98	7,108	410	590	7000								
	4,7	108	6,48	410	590	7000								
	5,1	116	5,992	410	590	7000								
	5,3	122	5,723	410	590	7000								
	5,7	131	5,325	410	590	7000								
	6,1	138	5,06	410	590	7000								
	6,8	155	4,499	410	590	7000								
	7,7	175	3,998	410	590	7000								
	8,3	188	3,711	410	590	7000								
	9,3	212	3,287	410	590	7000								
	10	239	2,917	410	590	7000								
	11	270	2,592	410	590	7000								
	12	286	2,444	410	590	7000								
	0,00	0,05	13520	410	475	7000	İRA İRF İRAF	63 İR 53	245 246 247	#YOK				
	0,00	0,05	12617	410	475	7000								
	0,00	0,06	11345	410	475	7000								
	0,00	0,06	10587	410	475	7000								
	0,00	0,07	9873	410	475	7000								
	0,00	0,07	9214	410	475	7000								
	0,00	0,09	7479	410	475	7000								
	0,00	0,10	6508	410	475	7000								
	0,00	0,11	6194	410	475	7000								
	0,00	0,11	5936	410	475	7000								
	0,00	0,12	5780	410	475	7000								



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
410 Nm	0,00	0,12	5636	410	475	7000	İRA İRF İRAF	63 İR 53	245 246 247	#YOK
	0,00	0,14	4814	410	475	7000				
	0,00	0,15	4661	410	475	7000				
	0,00	0,15	4570	410	475	7000				
	0,00	0,16	4251	410	475	7000				
	0,00	0,17	4036	410	475	7000				
	0,00	0,17	3890	410	475	7000				
	0,00	0,20	3436	410	475	7000				
	0,01	0,23	2955	410	475	7000				
	0,01	0,26	2685	410	475	7000				
	0,01	0,28	2500	410	475	7000				
	0,01	0,30	2272	410	475	7000				
	0,01	0,30	2265	410	475	7000				
	0,01	0,34	2058	410	475	7000				
	0,01	0,37	1872	410	475	7000				
	0,01	0,31	2198	410	475	7000	İRA İRF İRAF	63 İR 52	245 246 247	43 48 49
	0,01	0,34	2052	410	475	7000				
	0,01	0,38	1797	410	475	7000				
	0,01	0,41	1701	410	475	7000				
	0,01	0,42	1654	410	475	7000				
	0,02	0,44	1587	410	475	7000				
	0,02	0,46	1509	410	475	7000				
	0,02	0,48	1432	410	475	7000				
	0,02	0,54	1280	410	475	7000				
	0,02	0,57	1219	410	475	7000				
	0,02	0,59	1167	410	475	7000				
	0,02	0,63	1108	410	475	7000				
	0,03	0,66	1049	410	475	7000				
	0,03	0,74	943	410	475	7000				
	0,03	0,78	887	410	475	7000				
	0,03	0,86	811	410	475	7000				
	0,04	0,87	804	410	475	7000				
	0,04	0,95	731	410	475	7000				
	0,04	1,0	686	410	475	7000				
	0,05	1,1	622	410	475	7000				
	0,05	1,1	614	410	475	7000				
	0,05	1,2	566	410	475	7000				
	0,06	1,3	538	410	475	7000				
	0,06	1,4	475	410	475	7000				
	0,06	1,5	449	410	475	7000				
	0,07	1,7	397	410	475	7000				
	0,08	1,8	379	410	475	7000				
	0,09	2,0	335	410	475	7000				
	0,11	2,4	286	410	475	7000				
	0,11	2,5	273	410	475	7000				
	0,12	2,8	242	410	475	7000				
	0,14	3,2	215	410	475	7000				
	0,16	3,6	190	410	475	7000				
	0,07	1,6	424	410	475	7000				
	0,07	1,7	395	410	475	7000				
	0,09	2,1	319	410	475	7000				
	0,10	2,4	291	410	475	7000				
	0,11	2,5	276	410	475	7000				
	0,13	2,9	235	410	475	7000				
	0,14	3,2	213	410	475	7000				
	0,17	3,8	182	410	475	7000				
	0,20	4,4	156	410	475	7000				
	0,24	5,3	132	410	475	7000				



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
410 Nm	0,24	5,5	127	410	590	7000	İRA İRF İRAF İRB	63		29 34 35 37
	0,26	5,8	119	410	590	7000				
	0,32	7,2	96,27	410	590	7000				
	0,35	7,9	87,81	410	590	7000				
	0,37	8,3	83,37	410	590	7000				
	0,44	9,8	70,96	410	590	7000				
	0,49	11	61,03	410	590	7000				
	0,58	13	51,65	410	590	7000				
	0,62	14	46,79	410	590	7000				
	0,71	16	42,55	410	590	7000				
	0,85	19	35,74	410	590	7000				
	1,0	23	29,85	410	590	7000				
	1,2	27	25,16	410	590	7000				
	1,4	32	21,5	410	590	7000				
	1,5	34	20,53	410	590	7000				
	1,7	38	18,18	410	590	7000				
	1,9	44	15,59	410	590	7000				
	2,2	50	13,80	410	590	7000				
	1,8	41	16,67	410	590	4500	İRA İRF İRAF İRB	62		24 29 30 32
	2,0	46	15,13	410	590	4500				
	2,2	51	13,47	410	590	4500				
	2,5	57	12,20	410	590	4500				
	2,7	63	11,10	410	590	4500				
	3,0	69	10,07	410	590	4500				
	3,2	74	9,358	410	590	4500				
	3,6	82	8,51	410	590	4500				
	4,0	91	7,673	410	590	4500				
	4,3	98	7,108	410	590	4500				
	4,7	108	6,48	410	590	4500				
	5,1	116	5,992	410	590	4500				
	5,3	122	5,723	410	590	4500				
	5,7	131	5,325	410	590	4500				
	6,1	138	5,06	410	590	4500				
	6,8	155	4,499	410	590	4500				
	7,7	175	3,998	410	590	4500				
	8,3	188	3,711	410	590	4500				
	9,3	212	3,287	410	590	4500				
	10	239	2,917	410	590	4500				
	11	270	2,592	410	590	4500				
	12	286	2,444	410	590	4500				
600 Nm	0,00	0,04	16071	600	475	10100	İRA İRF İRAF	731 İR 53		54 57 60
	0,00	0,04	14258	600	475	10100				
	0,00	0,05	12326	600	475	10100				
	0,00	0,06	10380	600	475	10100				
	0,00	0,07	9001	600	475	10100				
	0,00	0,08	7782	600	475	10100				
	0,00	0,10	6862	600	475	10100				
	0,00	0,11	6012	600	475	10100				
	0,00	0,13	5301	600	475	10100				
	0,01	0,16	4299	600	475	10100				
	0,01	0,18	3796	600	475	10100				
	0,01	0,20	3450	600	475	10100				
	0,01	0,22	3068	600	475	10100				
	0,01	0,25	2747	600	475	10100				
	0,01	0,28	2443	600	475	10100				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
600 Nm	0,01	0,26	2613	600	475	10100	İRA İRF İRAF	731 İR 52		 ~kg
	0,02	0,30	2318	600	475	10100				
	0,02	0,34	2004	600	475	10100				
	0,02	0,39	1756	600	475	10100				
	0,03	0,46	1518	600	475	10100				
	0,03	0,52	1339	600	475	10100				
	0,03	0,59	1180	600	475	10100				
	0,04	0,66	1050	600	475	10100				
	0,05	0,74	940	600	475	10100				
	0,05	0,83	836	600	475	10100				
	0,06	0,93	749	600	475	10100				
	0,06	1,0	674	600	475	10100				
	0,07	1,1	600	600	475	10100				
	0,08	1,3	530	600	475	10100				
	0,09	1,4	468	600	475	10100				
	0,10	1,6	416	600	475	10100				
	0,12	1,8	372	600	475	10100				
	0,14	2,1	333	600	475	10100				
	0,15	2,3	300	600	475	10100				
	0,17	2,6	267	600	475	10100				
	0,19	2,9	238	600	475	10100				
	0,21	3,2	214	600	475	10100				
	0,23	3,4	201	600	475	10100				
	0,25	3,8	180	600	475	10100				
	0,29	4,3	162	600	475	10100				
	0,31	4,7	146	600	475	10100				
	0,02	0,37	1872	600	475	10100	İRA İRF İRAF	721 İR 53		 ~kg
	0,02	0,42	1640	600	475	10100				
	0,03	0,48	1446	600	475	10100				
	0,03	0,54	1286	600	475	10100				
	0,03	0,59	1172	600	475	10100				
	0,04	0,67	1035	600	475	10100				
	0,05	0,76	921	600	475	10100				
	0,05	0,84	825	600	475	10100				
	0,06	0,94	743	600	475	10100				
	0,06	1,0	675	600	475	10100				
	0,07	1,1	604	600	475	10100				
	0,08	1,3	533	600	475	10100				
	0,09	1,4	491	600	475	10100				
	0,09	1,4	480	600	475	10100				
	0,10	1,6	423	600	475	10100				
	0,11	1,7	390	600	475	10100				
	0,13	2,0	344	600	475	10100				
	0,14	2,2	306	600	475	10100				
	0,16	2,5	274	600	475	10100				
	0,18	2,8	245	600	475	10100				
	0,21	3,1	221	600	475	10100				
	0,23	3,5	199	600	475	10100				
0,25	3,8	180	600	475	10100					
0,28	4,2	163	600	475	10100					
0,31	4,7	148	600	475	10100					
0,10	1,6	417	600	475	10100	İRA İRF İRAF	721 İR 52		 ~kg	
0,12	1,9	365	600	475	10100					
0,14	2,1	322	600	475	10100					
0,16	2,4	287	600	475	10100					
0,18	2,7	256	600	475	10100					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
600 Nm	0,20	3,0	226	600	475	10100	İRA İRF İRAF	721 İR 52	265	50
	0,22	3,4	201	600	475	10100			266	53
	0,25	3,8	180	600	475	10100			267	56
	0,28	4,3	162	600	475	10100				
	0,32	4,8	145	600	475	10100				
	0,07	1,1	622	600	475	10100	İRA İRF İRAF	741	259 260 261	46 49 52
	0,08	1,3	537	600	475	10100				
	0,10	1,5	465	600	475	10100				
	0,10	1,6	435	600	475	10100				
	0,12	1,8	383	600	475	10100				
	0,13	2,0	338	600	475	10100				
	0,15	2,3	301	600	475	10100				
	0,19	2,9	239	600	475	10100				
	0,24	3,7	188	600	475	10100				
	0,27	4,1	168	600	475	10100				
	0,30	4,6	151	600	475	10100				
	0,30	4,6	152	600	1000	10100	İRA İRF İRAF İRB	731	251 252 253 254	42 45 48 54
	0,34	5,2	134	600	1000	10100				
	0,39	6,0	116	600	1000	10100				
	0,46	7	100	600	1000	10100				
	0,51	7,8	88,93	600	1000	10100				
	0,58	8,9	78,42	600	1000	10100				
	0,65	10	69,74	600	1000	9700				
	0,72	11	62,45	600	1000	9700				
	0,78	12	55,54	600	1000	9700				
	0,92	14	49,73	600	1000	9700				
	0,98	15	44,79	600	1000	9700				
	1,1	17	39,88	600	1000	9500	İRA İRF İRAF İRB	721	251 252 253 254	40 43 46 52
	1,2	19	35,22	600	1000	9500				
	1,4	22	31,30	600	1000	9500				
	1,6	25	27,97	600	1000	9250				
	1,7	27	25,09	600	1000	9250				
	1,9	30	22,59	600	1000	9250				
	1,4	22	31,62	600	1000	7500				
	1,5	24	28,05	600	1000	7500				
	1,8	28	24,25	600	1000	7500				
	2,0	32	21,38	600	1000	7500				
	2,3	36	19,02	600	1000	7250				
	2,6	41	17,03	600	1000	7250				
	2,9	45	15,39	600	1000	7250				
	3,2	50	13,73	600	1000	7250				
	3,6	57	12,12	600	1000	7250				
	4,0	62	11,17	600	1000	7250				
	4,5	70	9,866	600	1000	7000				
	5,1	79	8,769	600	1000	7000				
	5,7	89	7,834	600	1000	7000				
	6,4	99	7,029	600	1000	7000				
	7,1	110	6,327	600	1000	7000				
	7,9	122	5,71	600	1000	7000				
	8,7	135	5,164	600	1000	7000				
	9,6	149	4,677	600	1000	7000				
	10	165	4,24	600	1000	7000				
	11	183	3,809	600	1000	7000				
	13	203	3,438	600	1000	7000				
	14	225	3,109	600	1000	7000				
	16	248	2,816	600	1000	7000				
	17	274	2,553	600	1000	7000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
870 Nm	0,00	0,04	16321	870	475	12100	İRA İRF İRAF	73 İR 53		 ~kg
	0,00	0,04	14110	870	475	12100				
	0,00	0,05	13744	870	475	12100				
	0,00	0,05	11919	870	475	12100				
	0,00	0,06	10947	870	475	12100				
	0,00	0,06	10304	870	475	12100				
	0,00	0,07	9654	870	475	12100				
	0,00	0,08	8586	870	475	12100				
	0,00	0,09	7688	870	475	12100				
	0,00	0,10	6474	870	475	12100				
	0,01	0,12	5674	870	475	12100				
	0,01	0,13	5287	870	475	12100				
	0,01	0,15	4423	870	475	12100				
	0,01	0,17	3989	870	475	12100				
	0,01	0,19	3522	870	475	12100				
	0,02	0,22	3153	870	475	12100				
	0,02	0,24	2817	870	475	12100				
	0,02	0,27	2527	870	475	12100				
	0,03	0,33	2106	870	475	12100				
	0,03	0,34	2017	870	475	12100				
	0,03	0,37	1882	870	475	12100				
	0,04	0,41	1703	870	475	12100				
	0,04	0,46	1520	870	475	12100				
	0,04	0,49	1410	870	475	12100				
	0,05	0,55	1265	870	475	12100				
	0,05	0,58	1187	870	475	12100				
	0,06	0,71	981	870	475	12100				
	0,07	0,76	921	870	475	12100				
	0,07	0,80	865	870	475	12100				
	0,08	0,86	812	870	475	12100				
	0,08	0,91	769	870	475	12100				
	0,09	0,96	722	870	475	12100				
	0,09	1,0	648	870	475	12100				
	0,11	1,2	576	870	475	12100				
	0,13	1,4	473	870	475	12100				
	0,15	1,6	420	870	475	12100				
	0,20	2,1	326	870	475	12100				
	0,23	2,4	291	870	475	12100				
	0,25	2,6	261	870	475	12100				
	0,11	1,2	576	870	475	12100				
	0,14	1,5	447	870	475	12100				
	0,16	1,7	394	870	475	12100				
	0,19	2	350	870	475	12100				
	0,21	2,2	314	870	475	12100				
	0,23	2,4	282	870	475	12100				
	0,42	4,5	154	870	1200	12100				
	0,49	5,2	133	870	1200	12100				
	0,63	6,7	103	870	1200	12100				
0,72	7,6	91,36	870	1200	12100					
0,81	8,6	81,25	870	1200	12100					
0,91	9,6	72,75	870	1200	12100					
0,95	10	65,52	870	1200	12100					
1,0	11	59,41	870	1200	12100					
1,2	13	52,47	870	1200	12100					
1,4	15	46,36	870	1200	12100					
1,5	16	41,66	870	1200	12100					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
870 Nm	1,7	18	37,38	870	1200	12100	İRA İRF İRAF İRB	73	271 272 273 274	40 43 46 52
	2,0	22	31,16	870	1200	12100				
	2,3	25	27,84	870	1200	12100				
	2,6	28	24,97	870	1200	12100				
	2,9	31	22,48	870	1200	12100				
	3,2	34	20,29	870	1200	12100				
	3,6	38	18,35	870	1200	12100				
	4,0	42	16,62	870	1200	12100				
	4,3	46	15,06	870	1200	12100				
	4,7	51	13,52	870	1200	9000				
	5,4	58	12,02	870	1200	9000	İRA İRF İRAF İRB	72	271 272 273 274	38 41 44 50
	6,1	65	10,74	870	1200	9000				
	6,9	74	9,337	870	1200	9000				
	7,8	84	8,333	870	1200	9000				
	8,7	93	7,476	870	1200	9000				
	9,7	104	6,73	870	1200	9000				
	10	115	6,074	870	1200	9000				
	11	127	5,494	870	1200	9000				
	13	140	4,995	870	1200	9000				
	14	155	4,497	870	1200	9000				
	16	172	4,059	870	1200	9000				
	17	190	3,67	870	1200	9000				
	19	210	3,324	870	1200	9000				
	21	232	3,014	870	1200	9000				
	24	256	2,733	870	1200	9000				
25	272	2,571	870	1200	9000					
1500 Nm	0,00	0,03	18231	1500	590	17000	İRA İRF İRAF	83 İR 63	305 306 307	109 114 116
	0,00	0,04	15217	1500	590	17000				
	0,00	0,05	13984	1500	590	17000				
	0,00	0,05	12302	1500	590	17500				
	0,01	0,06	10968	1500	590	17500				
	0,01	0,07	8893	1500	590	17500				
	0,01	0,08	7902	1500	590	17500				
	0,01	0,09	7092	1500	590	17500				
	0,01	0,10	6393	1500	590	17500				
	0,02	0,12	5484	1500	590	17500				
	0,02	0,14	4922	1500	590	17500				
	0,02	0,15	4437	1500	590	17500				
	0,02	0,17	4015	1500	590	17500				
	0,03	0,19	3593	1500	590	17500				
	0,03	0,21	3239	1500	590	17500				
	0,03	0,23	2930	1500	590	17500				
	0,04	0,26	2659	1500	590	17500				
	0,04	0,28	2419	1500	590	17500				
	0,05	0,31	2205	1500	590	17500				
	0,05	0,34	2013	1500	590	17500				
	0,06	0,38	1840	1500	590	17500				
	0,08	0,47	1481	1500	590	17500				
	0,08	0,51	1353	1500	590	17500				
	0,06	0,39	1778	1500	590	17500	İRA İRF İRAF	82 İR 63	305 306 307	104 109 111
	0,07	0,44	1580	1500	590	17500				
	0,08	0,49	1418	1500	590	17500				
	0,09	0,54	1279	1500	590	17500				
	0,10	0,60	1157	1500	590	17500				
	0,11	0,66	1050	1500	590	17500				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1500 Nm	0,08	0,53	1308	1500	590	17500	İRA İRF İRAF	82 İR 62	305 306 307	99 104 106
	0,10	0,60	1162	1500	590	17500				
	0,11	0,67	1043	1500	590	17500				
	0,12	0,74	940	1500	590	17500				
	0,13	0,82	850	1500	590	17500				
	0,15	0,90	772	1500	590	17500				
	0,16	0,96	723	1500	590	17500				
	0,16	1,0	653	1500	590	17500				
	0,18	1,1	590	1500	590	17500				
	0,21	1,3	535	1500	590	17500				
	0,23	1,4	487	1500	590	17500				
	0,28	1,7	405	1500	590	17500				
	0,31	1,9	359	1500	590	17500				
	0,36	2,2	314	1500	590	17500				
	0,38	2,3	295	1500	590	17500				
	0,43	2,6	265	1500	590	17500				
	0,48	2,9	240	1500	590	17500				
	0,16	1,0	699	1500	590	17500	İRA İRF İRAF	84	299 300 301	91 96 98
	0,18	1,1	634	1500	590	17500				
	0,20	1,2	578	1500	590	17500				
	0,21	1,3	529	1500	590	17500				
	0,23	1,4	486	1500	590	17500				
	0,26	1,6	428	1500	590	17500				
	0,30	1,8	381	1500	590	17500				
	0,33	2,0	342	1500	590	17500				
	0,36	2,2	309	1500	590	17500				
	0,41	2,5	275	1500	590	17500				
	0,41	2,5	273	1500	590	17500				
	0,46	2,8	242	1500	590	17500				
	0,53	3,2	217	1500	590	17500				
	0,58	3,5	196	1500	590	17500				
	0,66	4,0	174	1500	590	17500				
	0,68	4,1	168	1500	590	17500				
	0,46	2,8	250	1500	1550	17500	İRA İRF İRAF İRB	83	291 292 293 294	87 92 94 105
	0,50	3,1	221	1500	1550	17500				
	0,54	3,3	208	1500	1550	17500				
	0,60	3,7	186	1500	1550	17500				
	0,67	4,1	168	1500	1550	17500				
	0,75	4,6	152	1500	1550	17500				
	0,82	5,0	139	1500	1550	17500				
	0,90	5,5	127	1500	1550	17500				
	0,96	5,9	117	1500	1550	17500				
	1,1	6,7	103	1500	1550	17500				
	1,2	7,6	91,85	1500	1550	17500				
1,3	8,4	82,47	1500	1550	17500					
1,5	9,3	74,47	1500	1550	17500					
1,6	10	66,18	1500	1550	17500					
1,8	11	59,39	1500	1550	17500					
2,1	13	53,54	1500	1550	17500					
2,3	14	47,58	1500	1550	17500					
2,4	15	45,93	1500	1550	17500					
2,6	16	41,22	1500	1550	17500					
2,9	18	37,16	1500	1550	17500					
3,4	21	33,02	1500	1550	17500					
3,7	23	30,08	1500	1550	17500					
4,1	25	27,12	1500	1550	17500					



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
1500 Nm	4,7	29	24,10	1500	1550	17500	İRA İRF İRAF İRB	83	291	87
	5,0	31	22,27	1500	1550	17500			292	92
	5,5	34	20,26	1500	1550	17500			293	94
	6,0	37	18,47	1500	1550	17500			294	105
	6,7	41	16,86	1500	1550	17500	İRA İRF İRAF İRB	82	291 292 293 294	82 87 89 100
	7,3	45	15,41	1500	1550	17500				
	7,6	47	14,89	1500	1550	13000				
	8,4	52	13,23	1500	1550	13000				
	9,3	58	11,87	1500	1550	13000				
	10	65	10,70	1500	1550	13000				
	11	72	9,689	1500	1550	13000				
	12	79	8,793	1500	1550	13000				
	13	84	8,244	1500	1550	13000				
	15	94	7,432	1500	1550	13000				
	16	104	6,724	1500	1550	13000				
	18	114	6,103	1500	1550	13000				
	20	126	5,552	1500	1550	13000				
	22	138	5,061	1500	1550	13000				
	24	151	4,62	1500	1550	13000				
	26	165	4,222	1500	1550	13000				
	27	172	4,052	1500	1550	13000				
	30	189	3,694	1500	1550	13000				
	33	207	3,372	1500	1550	13000				
	36	227	3,082	1500	1550	13000				
	38	239	2,926	1500	1550	13000				
	42	261	2,674	1500	1550	13000				
	47	294	2,373	1500	1550	13000				
2800 Nm	0,00	0,03	22852	2800	590	25000	İRA İRF İRAF	93 İR 63	325 326 327	158 168 178
	0,00	0,03	20623	2800	590	25000				
	0,00	0,03	18725	2800	590	25000				
	0,00	0,03	18426	2800	590	25000				
	0,00	0,03	17911	2800	590	25000				
	0,01	0,04	16707	2800	590	25000				
	0,01	0,04	16629	2800	590	25000				
	0,01	0,04	15663	2800	590	25000				
	0,01	0,04	15160	2800	590	25000				
	0,01	0,04	15098	2800	590	25000				
	0,01	0,04	14679	2800	590	25000				
	0,01	0,04	14410	2800	590	25000				
	0,01	0,05	13583	2800	590	25000				
	0,01	0,05	13137	2800	590	25000				
	0,01	0,05	13037	2800	590	25000				
	0,01	0,05	12258	2800	590	25000				
	0,01	0,05	11681	2800	590	25000				
	0,01	0,06	11577	2800	590	25000				
	0,01	0,06	11130	2800	590	25000				
	0,01	0,06	10542	2800	590	25000				
	0,01	0,06	10288	2800	590	25000				
	0,02	0,07	9565	2800	590	25000				
	0,02	0,07	9309	2800	590	25000				
	0,02	0,07	9206	2800	590	25000				
	0,02	0,08	8565	2800	590	25000				
	0,02	0,08	8198	2800	590	25000				
	0,02	0,08	8006	2800	590	25000				
	0,02	0,08	7808	2800	590	25000				
	0,02	0,09	7366	2800	590	25000				
	0,02	0,09	7224	2800	590	25000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2800 Nm	0,03	0,10	6881	2800	590	25000	İRA İRF İRAF	93 İR 63	325 326 327	158 168 178
	0,03	0,10	6715	2800	590	25000				
	0,03	0,10	6420	2800	590	25000				
	0,03	0,11	6115	2800	590	25000				
	0,03	0,11	5918	2800	590	25000				
	0,03	0,12	5745	2800	590	25000				
	0,03	0,12	5472	2800	590	25000				
	0,04	0,13	5259	2800	590	25000				
	0,04	0,13	5169	2800	590	25000				
	0,04	0,14	4872	2800	590	25000				
	0,04	0,14	4706	2800	590	25000				
	0,04	0,14	4673	2800	590	25000				
	0,05	0,16	4294	2800	590	25000				
	0,05	0,16	4241	2800	590	25000				
	0,05	0,16	4190	2800	590	25000				
	0,05	0,18	3862	2800	590	25000				
	0,05	0,18	3693	2800	590	25000				
	0,06	0,19	3525	2800	590	25000				
	0,06	0,21	3225	2800	590	25000				
	0,07	0,23	2956	2800	590	25000				
	0,05	0,17	3954	2800	590	25000	İRA İRF İRAF	93 İR 62	325 326 327	153 163 173
	0,05	0,18	3688	2800	590	25000				
	0,06	0,19	3582	2800	590	25000				
	0,06	0,20	3341	2800	590	25000				
	0,06	0,21	3241	2800	590	25000				
	0,07	0,23	2936	2800	590	25000				
	0,07	0,24	2878	2800	590	25000				
	0,08	0,26	2607	2800	590	25000				
	0,09	0,29	2336	2800	590	25000				
	0,10	0,33	2108	2800	590	25000				
	0,11	0,36	1914	2800	590	25000				
	0,13	0,43	1601	2800	590	25000				
	0,14	0,47	1473	2800	590	25000				
	0,16	0,52	1343	2800	590	25000				
	0,18	0,59	1183	2800	590	25000				
	0,20	0,66	1052	2800	590	25000				
	0,23	0,74	941	2800	590	25000				
	0,26	0,83	838	2800	590	25000				
	0,29	0,94	739	2800	590	25000				
	0,31	1,0	656	2800	590	25000				
	0,34	1,1	587	2800	590	25000				
	0,41	1,3	528	2800	590	25000				
	0,44	1,4	478	2800	590	25000				
	0,50	1,6	434	2800	590	25000				
	0,53	1,7	398	2800	590	25000				
	0,60	1,9	360	2800	590	25000				
	0,66	2,1	330	2800	590	25000				
	0,72	2,3	302	2800	590	25000				
	0,79	2,5	275	2800	590	25000				
	0,85	2,7	251	2800	590	25000				
	0,94	3,0	230	2800	590	25000				
	1,0	3,3	210	2800	590	25000	İRA İRF İRAF	92 İR 62	325 326 327	147 157 167
	0,68	2,2	315	2800	590	25000				
	0,77	2,5	277	2800	590	25000				
	0,87	2,8	247	2800	590	25000				
	0,96	3,1	221	2800	590	590	25000			



Helisel Dişlili Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Qv2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
2800 Nm	0,43	1,4	478	2800	590	25000	İRA İRF İRAF	94	319 320 321	154 164 174
	0,49	1,6	431	2800	590	25000				
	0,56	1,8	380	2800	590	25000				
	0,62	2,0	337	2800	590	25000				
	0,71	2,3	302	2800	590	25000				
	0,80	2,6	269	2800	590	25000				
	0,90	2,9	237	2800	590	25000				
	1,0	3,3	210	2800	590	25000				
	1,1	3,7	188	2800	590	25000				
	1,2	4,1	169	2800	590	25000				
	1,4	4,5	153	2800	590	25000				
	0,70	2,3	293	2800	2500	25000	İRA İRF İRAF İRB	93	311 312 313 314	140 150 160 170
	0,76	2,5	273	2800	2500	25000				
	0,88	2,9	240	2800	2500	25000				
	0,98	3,2	213	2800	2500	25000				
	1,1	3,6	191	2800	2500	25000				
	1,2	4,0	172	2800	2500	25000				
	1,3	4,4	156	2800	2500	25000				
	1,6	5,3	131	2800	2500	25000				
	1,7	5,8	120	2800	2500	25000				
	1,9	6,3	110	2800	2500	25000				
	2,2	7,2	96,96	2800	2500	25000				
	2,4	8,1	86,16	2800	2500	25000				
	2,7	9,0	77,10	2800	2500	25000				
	3,0	10	68,65	2800	2500	25000				
	3,3	11	60,50	2800	2500	25000				
	3,9	13	53,76	2800	2500	25000				
	4,2	14	48,11	2800	2500	25000				
	4,9	16	43,29	2800	2500	25000				
	5,2	17	39,13	2800	2500	25000				
	5,8	19	35,52	2800	2500	25000				
	6,4	21	32,34	2800	2500	25000				
	7,0	23	29,52	2800	2500	25000				
	7,6	25	27,01	2800	2500	25000				
	8,5	28	24,76	2800	2500	25000				
	10	34	20,09	2800	2500	25000				
	12	41	16,85	2800	2500	25000				
	15	49	14,21	2800	2500	25000				
	8,7	29	23,38	2800	2500	20000	İRA İRF İRAF İRB	92	311 312 313 314	134 144 154 164
	9,9	33	20,60	2800	2500	20000				
	11	38	18,31	2800	2500	20000				
	12	42	16,38	2800	2500	20000				
	14	47	14,74	2800	2500	20000				
	15	52	13,32	2800	2500	20000				
	19	63	11,01	2800	2500	20000				
	20	69	10,05	2800	2500	20000				
	22	76	9,2	2800	2500	20000				
	25	84	8,317	2800	2500	20000				
	27	92	7,548	2800	2500	20000				
	30	101	6,872	2800	2500	20000				
	33	111	6,274	2800	2500	20000				
	36	121	5,74	2800	2500	20000				
	40	133	5,261	2800	2500	20000				
	47	157	4,437	2800	2500	20000				
	51	171	4,08	2800	2500	20000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg				
2800 Nm	56	186	3,753	2800	2500	20000	İRA İRF İRAF İRB	92	311	134				
	58	195	3,58	2800	2500	20000			312	144				
	69	231	3,019	2800	2500	20000			313	154				
	76	252	2,776	2800	2500	20000			314	164				
	82	274	2,554	2800	2500	20000								
	86	285	2,45	2800	2500	20000								
4300 Nm	0,01	0,03	22099	4300	1200	34000	İRA İRF İRAF	103 İR 73	345 346 347	248 251 273				
	0,01	0,03	18788	4300	1200	34000								
	0,01	0,04	16845	4300	1200	34000								
	0,01	0,04	15213	4300	1200	34000								
	0,02	0,05	13823	4300	1200	34000								
	0,02	0,05	12625	4300	1200	34000								
	0,02	0,06	11581	4300	1200	34000								
	0,02	0,06	10325	4300	1200	34000								
	0,03	0,07	9118	4300	1200	34000								
	0,03	0,08	8104	4300	1200	34000								
	0,04	0,09	7241	4300	1200	34000								
	0,04	0,10	6496	4300	1200	34000								
	0,05	0,11	5848	4300	1200	34000								
	0,06	0,13	5278	4300	1200	34000								
	0,06	0,14	4790	4300	1200	34000								
	0,07	0,16	4230	4300	1200	34000								
	0,08	0,18	3760	4300	1200	34000								
	0,09	0,20	3359	4300	1200	34000								
	0,11	0,23	3014	4300	1200	34000								
	0,12	0,25	2713	4300	1200	34000								
	0,13	0,28	2448	4300	1200	34000								
	0,12	0,25	2733	4300	1200	34000	İRA İRF İRAF	102 İR 73	345 346 347	246 249 271				
	0,14	0,29	2413	4300	1200	34000								
	0,15	0,32	2145	4300	1200	34000								
	0,17	0,36	1916	4300	1200	34000								
	0,20	0,42	1635	4300	1200	34000								
	0,22	0,47	1460	4300	1200	34000								
	0,25	0,53	1311	4300	1200	34000								
	0,28	0,59	1180	4300	1200	34000								
	0,30	0,63	1103	4300	1200	34000								
	0,33	0,70	986	4300	1200	34000								
	0,38	0,79	884	4300	1200	34000								
	0,42	0,87	796	4300	1200	34000								
	0,47	0,97	718	4300	1200	34000								
	0,48	1,0	650	4300	1200	34000								
	0,58	1,2	575	4300	1200	34000								
	0,28	0,59	1173	4300	1200	34000					İRA İRF İRAF	103 İR 72	345 346 347	246 249 271
	0,32	0,66	1046	4300	1200	34000								
	0,36	0,75	923	4300	1200	34000								
	0,41	0,85	821	4300	1200	34000								
	0,46	0,95	733	4300	1200	34000								
	0,48	1,0	658	4300	1200	34000								
	0,53	1,1	592	4300	1200	34000								
	0,63	1,3	535	4300	1200	34000								
	0,67	1,4	485	4300	1200	34000								
	0,77	1,6	428	4300	1200	34000								
	0,87	1,8	381	4300	1200	34000								
	0,97	2,0	340	4300	1200	34000								
1,0	2,2	305	4300	1200	34000									
1,2	2,5	275	4300	1200	34000									
1,3	2,8	248	4300	1200	34000									



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Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			
4300 Nm	1,3	2,9	239	4300	1200	34000	İRA İRF İRAF	102 İR 72	345	244
	1,5	3,3	211	4300	1200	34000			346	247
	1,7	3,7	188	4300	1200	34000			347	269
	1,9	4,1	168	4300	1200	34000	İRA İRF İRAF	104	339 340 341	241 244 266
	0,41	0,87	802	4300	1200	34000				
	0,46	0,97	719	4300	1200	34000				
	0,52	1,1	611	4300	1200	34000				
	0,57	1,2	548	4300	1200	34000				
	0,66	1,4	494	4300	1200	34000				
	0,71	1,5	446	4300	1200	34000				
	0,81	1,7	405	4300	1200	34000				
	0,86	1,8	370	4300	1200	34000				
	0,95	2,0	339	4300	1200	34000				
	1,0	2,2	306	4300	1200	34000				
	1,1	2,4	281	4300	1200	34000				
	1,2	2,7	256	4300	3750	30000	İRA İRF İRAF İRB	103	331 332 333 334	237 240 262 278
	1,4	3,1	225	4300	3750	30000				
	1,5	3,3	207	4300	3750	30000				
	1,7	3,8	184	4300	3750	30000				
	1,9	4,2	165	4300	3750	30000				
	2,3	5	140	4300	3750	30000				
	2,5	5,5	126	4300	3750	30000				
	2,8	6,1	113	4300	3750	30000				
	3,1	6,7	103	4300	3750	30000				
	3,4	7,4	94,54	4300	3750	30000				
	3,7	8,0	86,72	4300	3750	30000				
	4,2	9,0	77,32	4300	3750	30000				
	4,7	10	68,28	4300	3750	30000				
	5,1	11	60,69	4300	3750	30000				
	5,6	12	54,22	4300	3750	30000				
	6,5	14	48,64	4300	3750	30000				
	7,0	15	43,79	4300	3750	30000				
	8,0	17	39,52	4300	3750	30000				
	8,9	19	35,87	4300	3750	30000				
	10	22	31,67	4300	3750	30000				
	11	24	28,15	4300	3750	30000				
	12	27	25,15	4300	3750	30000				
	14	31	22,56	4300	3750	30000				
	16	34	20,31	4300	3750	30000				
	17	38	18,36	4300	3750	30000				
	19	42	16,58	4300	3750	30000				
	21	46	15,01	4300	3750	30000				
	18	39	17,69	4300	3750	25000	İRA İRF İRAF İRB	102	331 332 333 334	235 238 260 276
	20	44	15,62	4300	3750	25000				
	23	50	13,88	4300	3750	25000				
	25	56	12,40	4300	3750	25000				
	30	66	10,58	4300	3750	25000				
	34	74	9,457	4300	3750	25000				
	38	82	8,485	4300	3750	25000				
	42	91	7,638	4300	3750	25000				
	45	97	7,144	4300	3750	25000				
	50	109	6,382	4300	3750	25000				
	56	122	5,726	4300	3750	25000				
	62	135	5,154	4300	3750	21000				
	69	150	4,652	4300	3750	21000				
	77	166	4,207	4300	3750	21000				
	87	188	3,723	4300	3750	21000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
4300 Nm	96	208	3,36	4300	3750	21000	İRA İRF İRAF İRB	102	331	235
	106	230	3,039	4300	3750	21000			332	238
	117	254	2,752	4300	3750	19000			333	260
	129	280	2,495	4300	3750	19000			334	276
	143	309	2,263	4300	3750	19000				
8000 Nm	0,01	0,02	32309	8000	1200	52000	İRA İRF İRAF	123 İR 73	365 366 367	338 340 368
	0,01	0,02	28749	8000	1200	52000				
	0,01	0,02	25807	8000	1200	52000				
	0,01	0,02	23337	8000	1200	52000				
	0,02	0,03	18918	8000	1200	52000				
	0,03	0,04	17260	8000	1200	52000				
	0,03	0,04	15494	8000	1200	52000				
	0,04	0,05	13395	8000	1200	52000				
	0,04	0,05	12113	8000	1200	52000				
	0,05	0,06	11190	8000	1200	52000				
	0,05	0,06	10209	8000	1200	52000				
	0,06	0,07	9165	8000	1200	52000				
	0,07	0,08	8288	8000	1200	52000				
	0,07	0,08	7928	8000	1200	52000				
	0,09	0,10	6426	8000	1200	52000				
	0,10	0,11	5863	8000	1200	52000				
	0,11	0,13	5263	8000	1200	52000				
	0,12	0,14	4759	8000	1200	52000				
	0,15	0,17	3975	8000	1200	52000				
	0,18	0,20	3498	8000	1200	52000				
	0,20	0,22	3104	8000	1200	52000				
	0,22	0,25	2773	8000	1200	52000				
	0,15	0,17	4059	8000	1200	52000	İRA İRF İRAF	122 İR 73	365 366 367	311 313 341
	0,17	0,19	3671	8000	1200	52000				
	0,17	0,19	3509	8000	1200	52000				
	0,19	0,22	3173	8000	1200	52000				
	0,23	0,26	2650	8000	1200	52000				
	0,26	0,29	2399	8000	1200	52000				
	0,28	0,32	2170	8000	1200	52000				
	0,34	0,38	1812	8000	1200	52000				
	0,38	0,43	1594	8000	1200	52000				
	0,45	0,50	1379	8000	1200	52000				
	0,50	0,56	1247	8000	1200	52000				
	0,60	0,67	1042	8000	1200	52000				
	0,68	0,76	916	8000	1200	52000				
	0,77	0,86	813	8000	1200	52000				
	0,86	0,96	726	8000	1200	52000				
	0,90	1,0	652	8000	1200	52000	İRA İRF İRAF	123 İR 72	365 366 367	336 338 366
	0,99	1,1	603	8000	1200	52000				
	0,21	0,24	2829	8000	1200	52000				
	0,24	0,27	2517	8000	1200	52000				
	0,27	0,30	2260	8000	1200	52000				
	0,30	0,34	2043	8000	1200	52000				
	0,37	0,42	1657	8000	1200	52000				
	0,41	0,46	1511	8000	1200	52000				
0,46	0,51	1357	8000	1200	52000					
0,51	0,57	1227	8000	1200	52000					
0,61	0,68	1025	8000	1200	52000					
0,69	0,77	902	8000	1200	52000					
0,78	0,87	800	8000	1200	52000					
0,87	0,97	715	8000	1200	52000					
0,90	1,0	642	8000	1200	52000					



Helisel Dişli Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
8000 Nm	1,0	1,2	579	8000	1200	52000	İRA İRF İRAF	123 İR 72	365 366 367	336 338 366
	1,0	1,2	550	8000	1200	52000				
	1,2	1,4	488	8000	1200	52000				
	1,4	1,6	436	8000	1200	52000				
	1,5	1,7	392	8000	1200	52000				
	1,7	1,9	354	8000	1200	52000				
	1,8	2,1	320	8000	1200	52000				
	2,1	2,4	291	8000	1200	52000				
	2,3	2,6	265	8000	1200	52000				
	2,5	2,8	242	8000	1200	52000				
	2,8	3,1	221	8000	1200	52000				
	3,0	3,4	201	8000	1200	52000				
	3,4	3,8	183	8000	1200	52000				
	3,7	4,1	167	8000	1200	52000				
	1,7	2,0	335	8000	1200	52000	İRA İRF İRAF	122 İR 72	365 366 367	309 311 339
	1,8	2,1	321	8000	1200	52000				
	2,3	2,6	268	8000	1200	52000				
	2,5	2,9	236	8000	1200	52000				
	2,9	3,3	210	8000	1200	52000				
	3,2	3,7	187	8000	1200	52000				
	3,6	4,1	168	8000	1200	52000				
	4,0	4,5	155	8000	1200	52000				
	0,70	0,79	883	8000	1200	52000				
	0,77	0,87	798	8000	1200	52000				
	0,88	1,0	647	8000	1200	52000				
	0,97	1,1	590	8000	1200	52000				
	1,1	1,3	530	8000	1200	52000				
	1,2	1,4	479	8000	1200	52000				
	1,5	1,7	400	8000	1200	52000				
	1,6	1,9	352	8000	1200	52000				
	1,9	2,2	312	8000	1200	52000				
	2,2	2,5	279	8000	1200	52000				
	2,4	2,8	250	8000	1200	52000				
	2,6	3,0	226	8000	1200	52000				
	2,8	3,2	215	8000	1200	52000	İRA İRF İRAF İRB	123	351 352 353 354	351 353 381 412
	2,8	3,3	209	8000	3750	41000				
	3,2	3,7	186	8000	3750	41000				
	3,5	4,1	167	8000	3750	41000				
	4,0	4,6	151	8000	3750	41000				
	4,9	5,7	122	8000	3750	41000				
	5,5	6,3	111	8000	3750	41000				
	6,1	7	100	8000	3750	41000				
	6,7	7,7	90,71	8000	3750	41000				
	8,0	9,2	75,76	8000	3750	41000				
	8,7	10	66,67	8000	3750	41000				
	9,6	11	59,16	8000	3750	39700				
	11	13	52,84	8000	3750	39700				
	12	14	47,47	8000	3750	39700				
	14	16	42,84	8000	3750	39700				
	14	17	40,7	8000	3750	39700				
	16	19	36,11	8000	3750	39700				
	18	21	32,26	8000	3750	39700				
	21	24	28,98	8000	3750	39700				
	22	26	26,15	8000	3750	39700				
	25	29	23,68	8000	3750	39700				
	28	32	21,52	8000	3750	39700				
	30	35	19,60	8000	3750	39700				
	34	39	17,89	8000	3750	39700				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	i Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
8000 Nm	22	26	26,28	8000	3750	45000	İRA İRF İRAF İRB	122	351 352 353 354	324 326 354 385
	25	29	23,76	8000	3750	45000				
	30	35	19,85	8000	3750	45000				
	34	40	17,46	8000	3750	45000				
	38	45	15,5	8000	3750	45000				
	43	50	13,84	8000	3750	45000				
	48	56	12,43	8000	3750	45000				
	51	60	11,49	8000	3750	45000				
	58	68	10,2	8000	3750	45000				
	65	76	9,112	8000	3750	45000				
	73	85	8,185	8000	3750	45000				
	77	90	7,724	8000	3750	45000				
	86	100	6,938	8000	3750	45000				
	95	111	6,261	8000	3750	45000				
	106	123	5,671	8000	3750	45000				
	116	135	5,153	8000	3750	45000				
	128	149	4,694	8000	3750	45000				
	140	163	4,284	8000	3750	45000				
	153	178	3,917	8000	3750	45000				
	168	195	3,585	8000	3750	45000				
183	213	3,284	8000	3750	45000					
13000 Nm	1,9	1,3	537	13000	1550	60000	İRA İRF İRAF	143 İR 82	391 392 393	557 571 597
	2,2	1,5	443	13000	1550	60000				
	2,4	1,7	398	13000	1550	60000				
	2,7	1,9	359	13000	1550	60000				
	3,0	2,1	331	13000	1550	60000				
	3,6	2,5	277	13000	1550	60000				
	4,1	2,8	249	13000	1550	60000				
	4,5	3,1	225	13000	1550	60000				
	4,8	3,3	207	13000	1550	60000				
	5,4	3,7	187	13000	1550	60000				
	6,4	4,4	157	13000	1550	60000	İRA İRF İRAF	143 İR 73	385 386 387	513 527 553
	0,02	0,02	24943	13000	1200	60000				
	0,04	0,03	21564	13000	1200	60000				
	0,04	0,03	19545	13000	1200	60000				
	0,04	0,03	17730	13000	1200	60000				
	0,05	0,04	15134	13000	1200	60000				
	0,07	0,05	13372	13000	1200	60000				
	0,07	0,05	12131	13000	1200	60000				
	0,08	0,06	10788	13000	1200	60000				
	0,10	0,07	9446	13000	1200	60000				
	0,11	0,08	8427	13000	1200	60000				
	0,13	0,09	7474	13000	1200	60000				
	0,14	0,10	6732	13000	1200	60000				
	0,16	0,11	5907	13000	1200	60000				
	0,17	0,12	5425	13000	1200	60000				
	0,20	0,14	4839	13000	1200	60000				
	0,23	0,16	4347	13000	1200	60000				
	0,26	0,18	3814	13000	1200	60000				
	0,29	0,20	3404	13000	1200	60000				
	0,34	0,23	3026	13000	1200	60000				
	0,37	0,25	2717	13000	1200	60000	İRA İRF İRAF	143 İR 72	385 386 387	511 525 551
	0,46	0,32	2184	13000	1200	60000				
	0,51	0,35	1979	13000	1200	60000				
	0,57	0,39	1759	13000	1200	60000				
	0,63	0,43	1596	13000	1200	60000				
	0,74	0,51	1365	13000	1200	60000				
	0,92	0,63	1110	13000	1200	60000				
	1,0	0,70	990	13000	1200	60000				



Helisel Dişlili Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
13000 Nm	1,1	0,78	889	13000	1200	60000	İRA İRF İRAF	143 İR 72	385 386 387	511 525 551
	1,3	0,89	780	13000	1200	60000				
	1,4	1,0	696	13000	1200	60000				
	1,6	1,1	595	13000	1200	60000				
	1,7	1,2	540	13000	1200	60000				
	2,0	1,4	485	13000	1200	60000				
	2,3	1,6	436	13000	1200	60000				
	2,4	1,7	394	13000	1200	60000				
	1,7	1,2	545	13000	1200	60000	İRA İRF İRAF	144	379 380 381	564 578 604
	2,0	1,4	487	13000	1200	60000				
	2,3	1,6	437	13000	1200	60000				
	2,6	1,8	384	13000	1200	60000				
	2,8	2,0	344	13000	1200	60000				
	3,1	2,2	307	13000	1200	60000				
	3,6	2,5	275	13000	1200	60000				
	3,7	2,6	262	13000	1200	60000				
	4,1	2,9	235	13000	1200	60000				
	4,7	3,3	212	13000	1200	60000				
	5,2	3,6	192	13000	1200	60000				
	5,7	4,0	174	13000	1200	60000	İRA İRF İRAF İRB	143	371 372 373 374	526 540 566 639
	6,1	4,3	161	13000	3750	60000				
	6,6	4,7	146	13000	3750	60000				
	7,5	5,3	132	13000	3750	60000				
	9,5	6,7	103	13000	3750	60000				
	10	7,5	92,23	13000	3750	60000				
	11	8,4	82,86	13000	3750	60000				
	13	9,6	72,70	13000	3750	60000				
	14	10	64,89	13000	3750	60000				
	17	12	58,23	13000	3750	60000				
	17	12	55,48	13000	3750	60000				
	19	14	49,78	13000	3750	60000				
	21	15	44,88	13000	3750	60000				
	24	17	40,61	13000	3750	60000				
	25	18	36,85	13000	3750	60000				
	28	20	33,53	13000	3750	60000				
	35	25	27,90	13000	3750	60000				
	42	30	23,32	13000	3750	60000				
	48	34	20,01	13000	3750	60000				
	47	34	20,02	13000	3750	60000	İRA İRF İRAF İRB	142	371 372 373 374	476 490 516 589
	53	38	18,16	13000	3750	60000				
	60	43	16,20	13000	3750	60000				
	67	48	14,55	13000	3750	60000				
	75	54	12,77	13000	3750	60000				
	85	61	11,4	13000	3750	60000				
	95	68	10,23	13000	3750	60000				
	105	75	9,222	13000	3750	60000				
116	83	8,344	13000	3750	60000					
129	92	7,573	13000	3750	60000					
141	101	6,89	13000	3750	60000					
171	122	5,733	13000	3750	60000					
204	146	4,792	13000	3750	60000					
18000 Nm	0,18	0,09	7067	18000	3750	110000	İRA İRF İRAF	153 İR 103	417 418 419	1165 1215 1235
	0,22	0,11	6223	18000	3750	110000				
	0,24	0,12	5577	18000	3750	110000				
	0,26	0,13	5035	18000	3750	110000				
	0,30	0,15	4570	18000	3750	110000				
	0,39	0,19	3586	18000	3750	110000				
	0,43	0,21	3205	18000	3750	110000				
	0,55	0,27	2588	18000	3750	110000				



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
18000 Nm	0,04	0,02	27213	18000	2500	110000	İRA İRF İRAF	153 İR 93	411 412 413	1075 1125 1145
	0,04	0,02	23722	18000	2500	110000				
	0,06	0,03	19875	18000	2500	110000				
	0,06	0,03	17651	18000	2500	110000				
	0,08	0,04	16020	18000	2500	110000				
	0,08	0,04	14354	18000	2500	110000				
	0,10	0,05	13011	18000	2500	110000				
	0,12	0,06	11306	18000	2500	110000				
	0,14	0,07	9958	18000	2500	110000				
	0,14	0,07	8987	18000	2500	110000				
	0,18	0,09	7647	18000	2500	110000				
	0,20	0,10	6643	18000	2500	110000				
	0,22	0,11	6078	18000	2500	110000				
	0,24	0,12	5519	18000	2500	110000				
	0,33	0,16	4312	18000	2500	110000				
	0,37	0,18	3704	18000	2500	110000				
	0,45	0,22	3098	18000	2500	110000				
	0,52	0,26	2596	18000	2500	110000	İRA İRF İRAF	153 İR 92	411 412 413	1069 1119 1139
	0,60	0,30	2288	18000	2500	110000				
	0,69	0,34	2033	18000	2500	110000				
	0,77	0,38	1819	18000	2500	110000				
	0,85	0,42	1637	18000	2500	110000				
	1,0	0,51	1371	18000	2500	110000				
	1,1	0,56	1240	18000	2500	110000				
	1,3	0,68	1024	18000	2500	110000				
	1,7	0,84	825	18000	2500	110000				
	1,8	0,92	754	18000	2500	110000				
	2,0	1,0	683	18000	2500	110000				
	2,6	1,3	523	18000	2500	110000				
	3,0	1,5	445	18000	2500	110000				
	3,6	1,8	386	18000	2500	110000				
	3,8	1,9	353	18000	2500	110000				
	5,0	2,5	276	18000	2500	110000				
	5,8	2,9	237	18000	2500	110000				
	1,7	0,89	784	18000	2500	110000	İRA İRF İRAF	154	405 406 407	1037 1107 1107
	2,0	1,0	695	18000	2500	110000				
	2,2	1,1	612	18000	2500	110000				
	2,4	1,2	548	18000	2500	110000				
	2,8	1,4	495	18000	2500	110000				
	3,2	1,6	431	18000	2500	110000				
	3,8	1,9	361	18000	2500	110000				
	4,2	2,1	321	18000	2500	110000				
	4,8	2,4	291	18000	2500	110000				
	5,2	2,6	264	18000	2500	110000				
	6,0	3,0	229	18000	2500	110000	İRA İRF İRAF İRB	153	397 398 399 400	1020 1070 1090 1230
6,1	3,1	221	18000	5250	110000					
6,7	3,4	201	18000	5250	110000					
7,6	3,9	178	18000	5250	110000					
8,6	4,4	157	18000	5250	110000					
9,6	4,9	141	18000	5250	110000					
10	5,5	127	18000	5250	110000					
12	6,3	111	18000	5250	110000					
14	7,5	93,04	18000	5250	110000					
16	8,4	82,63	18000	5250	110000					
18	9,3	75	18000	5250	110000					
19	10	67,98	18000	5250	110000					
21	11	59,07	18000	5250	110000					



Helisel Dişlili Motorlu Redüktörler Güç ve Devir Tablosu

Helical Geared Motor Performance Tables / Motorréducteurs hélicoïdal



Servis Faktörü Service Factor Service facteur S _f =1	P ₁ GÜÇ Power Puissance [kW]	n ₂ Çıkış Devri Output Speeds Vitesse de sortie [r.p.m] (n ₁ =700rpm)	İ Tahvil Ratio Rapport de réduction	M ₂ Çıkış Momenti Output Torque Couple de sortie [Nm]	F _{Q1} Rad. Yük Over Loads Charges radiales [N]	F _{Q1/2} Rad. Yük Over Loads Charges radiales [N]	Tip Type Types			 ~kg
18000 Nm	25	13	52,03	18000	5250	110000	İRA İRF İRAF İRB	153	397	1020
	29	15	44,27	18000	5250	110000			398	1070
	35	18	38,46	18000	5250	110000			399	1090
	37	19	35,19	18000	5250	110000			400	1230
	49	25	27,49	18000	5250	110000				
	57	29	23,61	18000	5250	110000	İRA İRF İRAF İRB	152		
	46	24	28,54	18000	5250	110000				
	52	27	25,92	18000	5250	110000				
	56	29	23,57	18000	5250	110000				
	64	33	21,08	18000	5250	110000				
	69	36	19	18000	5250	110000				
	77	40	17,22	18000	5250	110000				
	85	44	15,68	18000	5250	110000				
	93	48	14,35	18000	5250	110000				
	120	62	11,21	18000	5250	110000				
	126	65	10,69	18000	5250	110000				
	137	71	9,744	18000	5250	110000				
	151	78	8,915	18000	5250	110000				
	165	85	8,186	18000	5250	110000				
	194	100	6,965	18000	5250	110000				
	225	116	5,983	18000	5250	110000				

HELİSEL DİŞLİ REDÜKTÖRLER

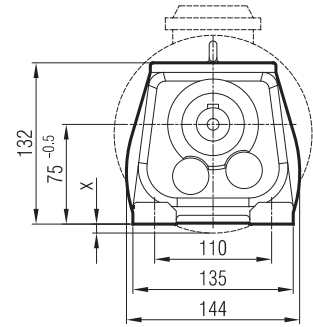
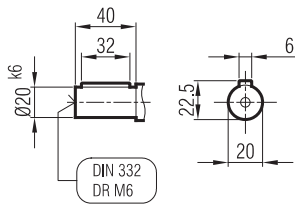
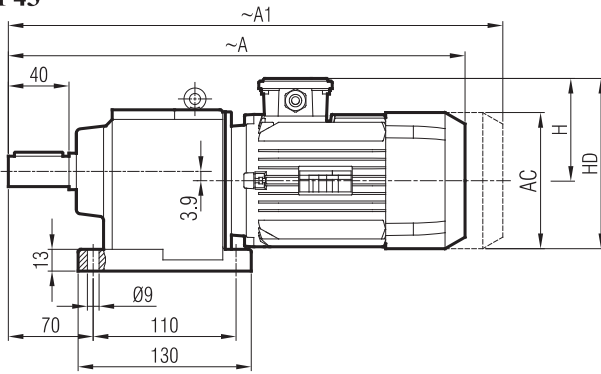


İR Serisi Redüktörler Ölçü Sayfaları

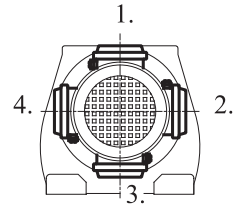
Dimensions Pages
Dimensions



İRAM 42
İRAM 43



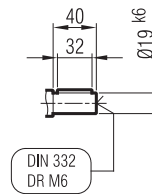
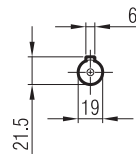
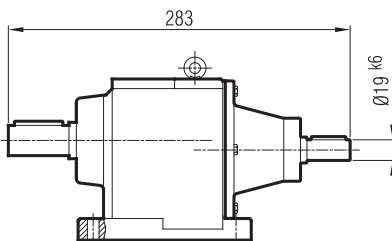
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M	71 M	80 M	90 S	90 L			
A	352	396	469	462	526			
A1	406	450	530	529	593			
H	108	123	136	141	141			
HD	171	194	216	231	231			
AC	125	138.5	158	176	176			
X	-	-	8	17	17			

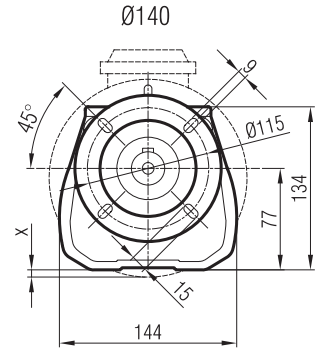
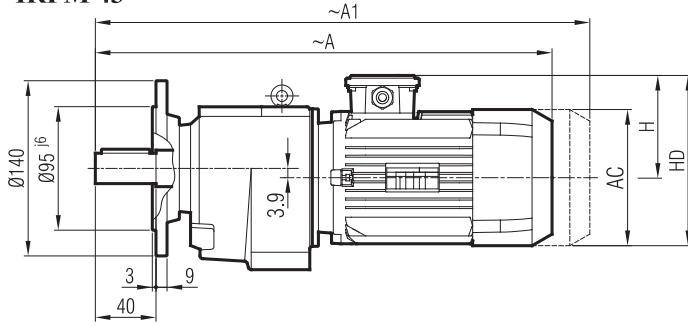
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 42
İRA 43

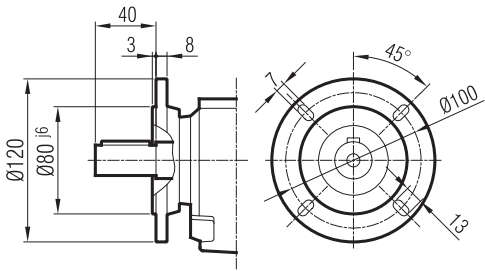




İRFM 42
İRFM 43

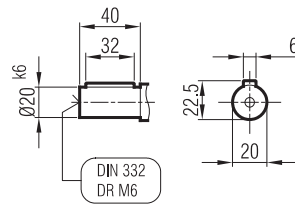


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes

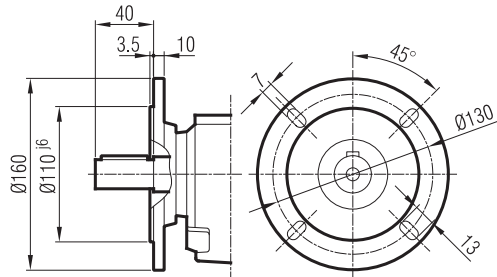
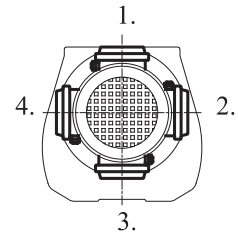


Ø120

Opsiyonel / Option



DIN 332
DR M6



Ø160

Opsiyonel / Option

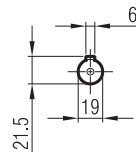
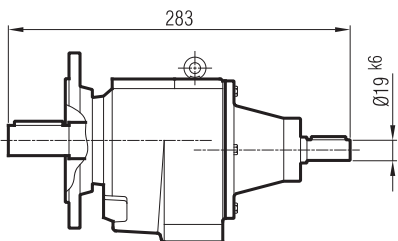
	63 M	71 M	80 M	90 S	90 L			
A	352	396	469	462	526			
A1	406	450	530	529	593			
H	108	123	136	141	141			
HD	171	194	216	231	231			
AC	125	138.5	158	176	176			
X	-	-	8	17	17			

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

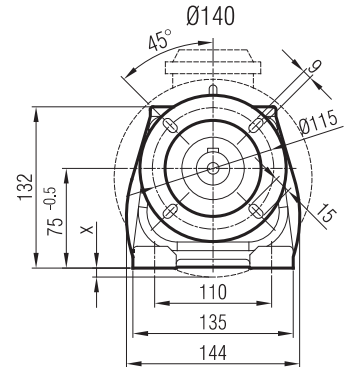
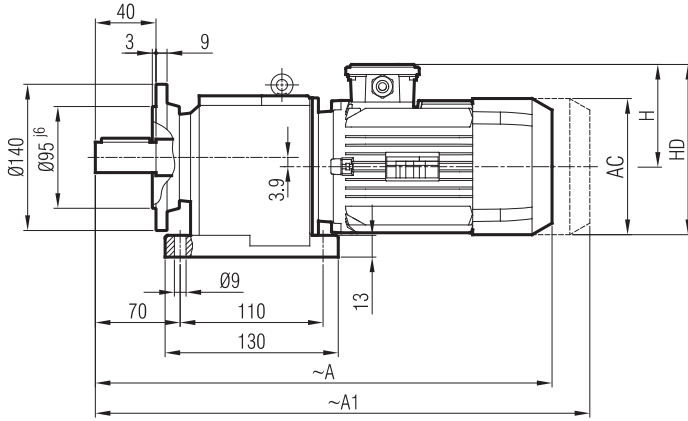
İRF 42
İRF 43



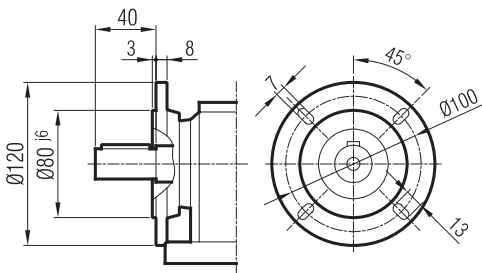
DIN 332
DR M6



İRAFM 42
İRAFM 43

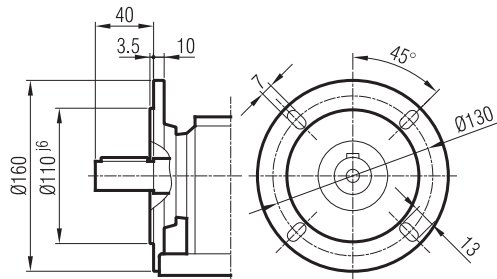
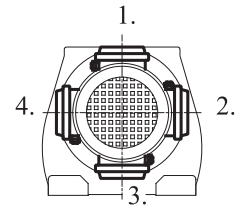
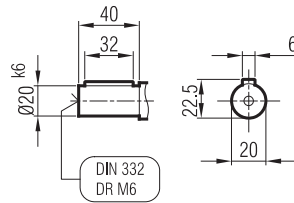


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø120

Opsiyonel / Option



Ø160

Opsiyonel / Option

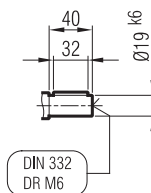
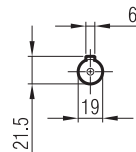
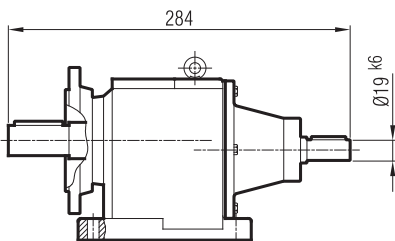
	63 M	71 M	80 M	90 S	90 L			
A	352	396	469	462	526			
A1	406	450	530	529	593			
H	108	123	136	141	141			
HD	171	194	216	231	231			
AC	125	138.5	158	176	176			
X	-	-	8	17	17			

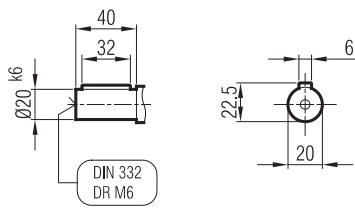
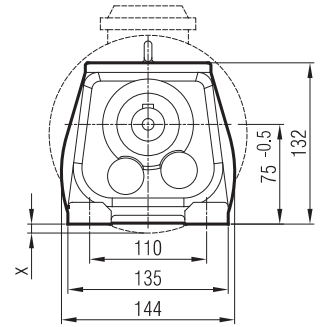
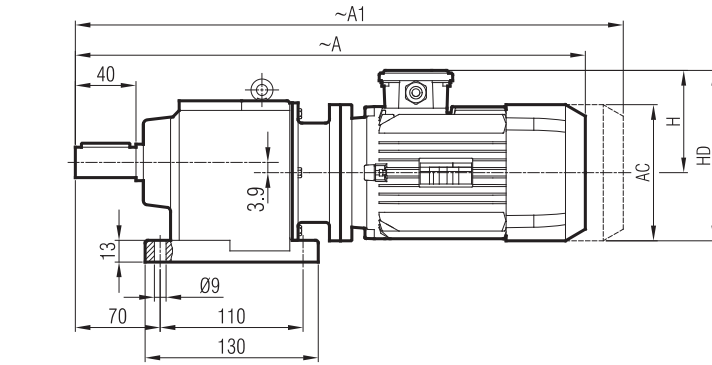
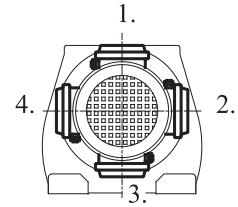
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

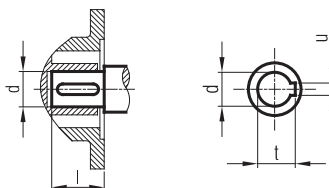
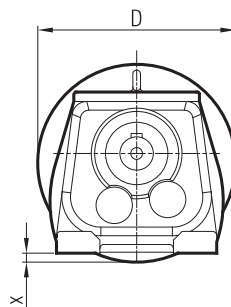
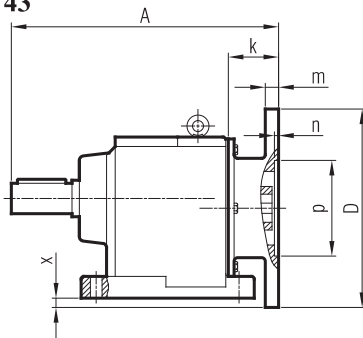
İRAF 42
İRAF 43




İRAPM 42
İRAPM 43

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5		
A	398	439	504	513	551		
A1	452	493	565	580	618		
H	108	123	136	141	141		
HD	171	194	216	231	231		
AC	125	138.5	158	176	176		
X	-	9	29	29	29		

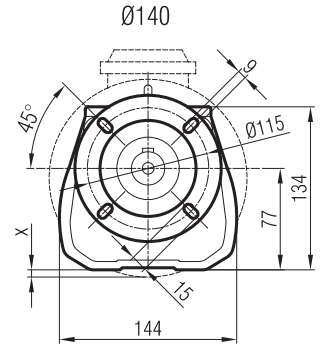
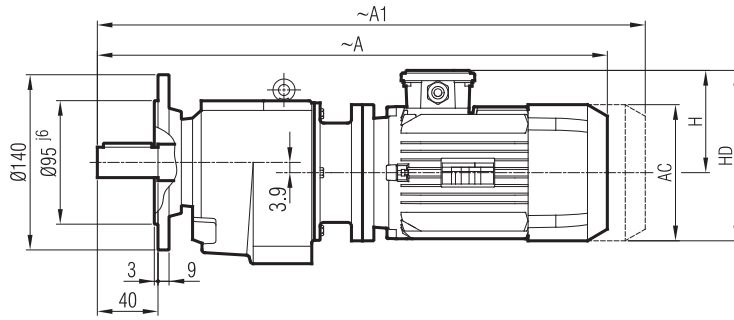
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspondent aux moteurs équipés de freins.

İRAP 42
İRAP 43


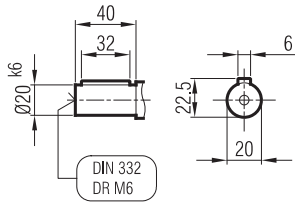
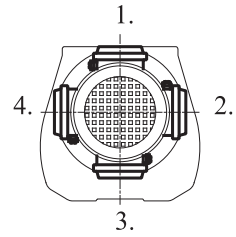
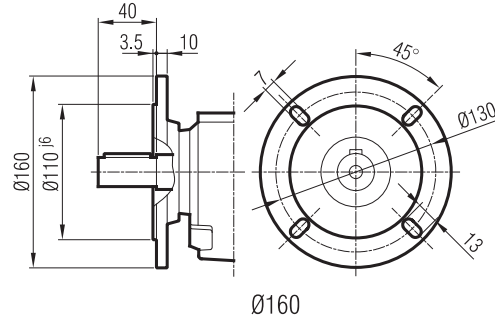
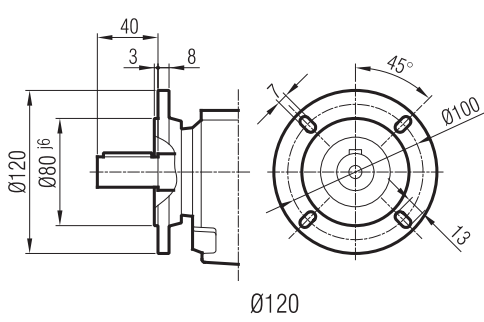
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	201	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	209	110	130	160	M8	44	9	4	14	16.3	5	9
80	201	130	165	200	M10	46	12	5	19	21.8	6	29
90	211	130	165	200	M10	46	12	5	24	27.3	8	29
63	201	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4	-
71	210	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	211	80	100	120	Ø7	46	8	4	19	21.8	6	-
90	211	95	115	140	Ø9	46	10	4	24	27.3	8	-



İRFP 42
İRFP 43



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



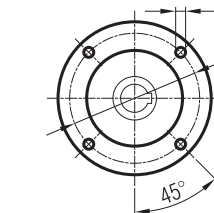
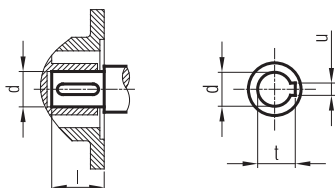
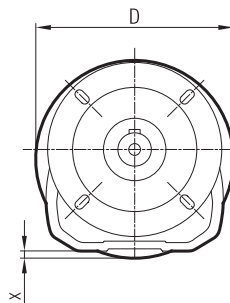
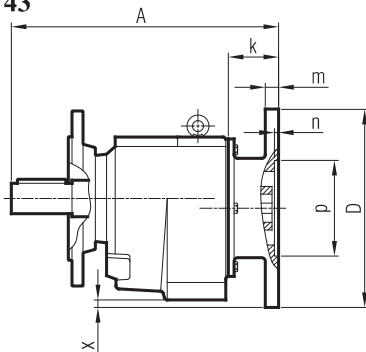
IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5		
A	398	439	504	513	551		
A1	452	493	565	580	618		
H	108	123	136	141	141		
HD	171	194	216	231	231		
AC	125	138.5	158	176	176		
X	-	9	29	29	29		

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

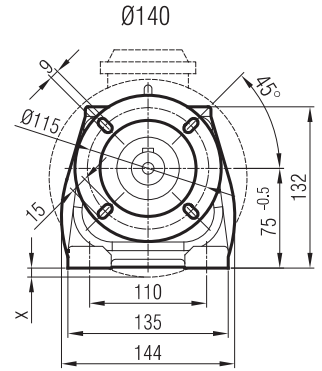
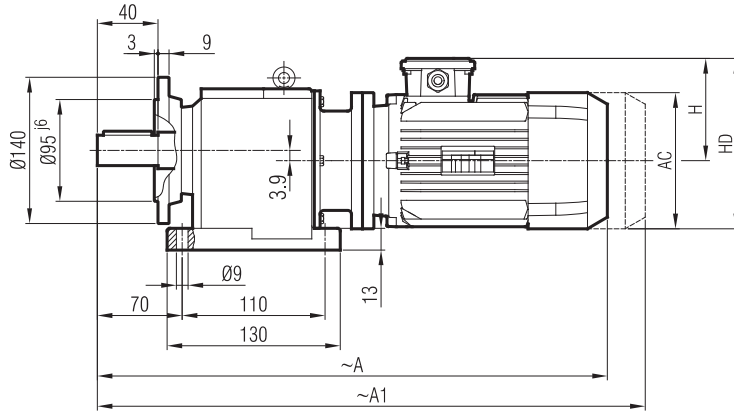
İRFP 42
İRFP 43



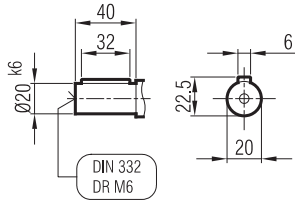
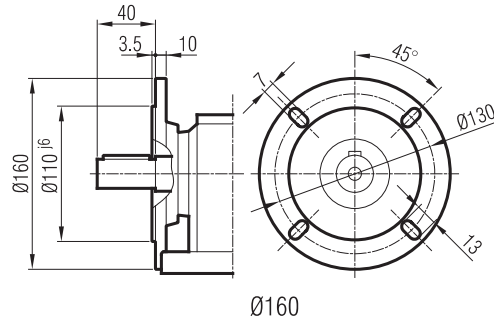
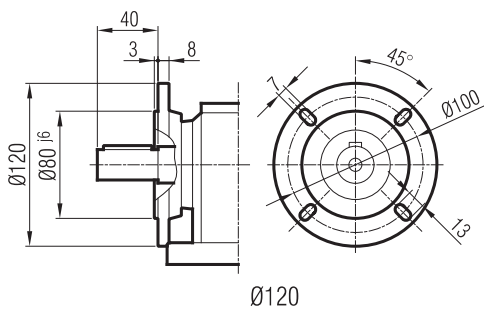
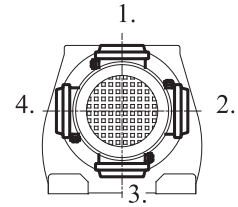
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	201	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	209	110	130	160	M8	44	9	4	14	16.3	5	9
80	201	130	165	200	M10	46	12	5	19	21.8	6	29
90	211	130	165	200	M10	46	12	5	24	27.3	8	29
63	201	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4	-
71	210	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	211	80	100	120	Ø7	46	8	4	19	21.8	6	-
90	211	95	115	140	Ø9	46	10	4	24	27.3	8	-



İRAFPM 42
İRAFPM 43



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes

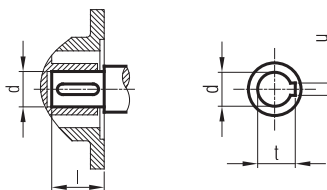
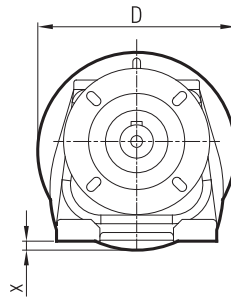
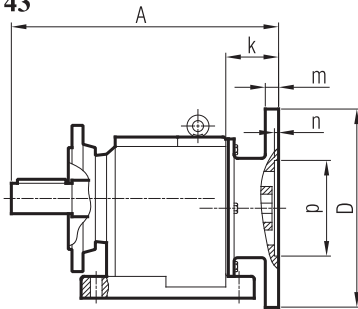


Opsiyonel / Option

IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5		
A	398	439	504	513	551		
A1	452	493	565	580	618		
H	108	123	136	141	141		
HD	171	194	216	231	231		
AC	125	138.5	158	176	176		
X	-	9	29	29	29		

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

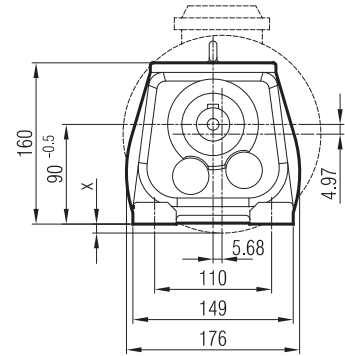
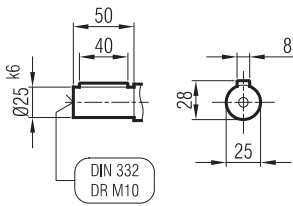
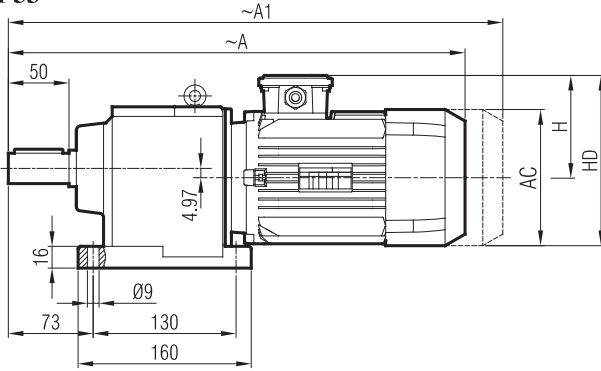
İRAFP 42
İRAFP 43



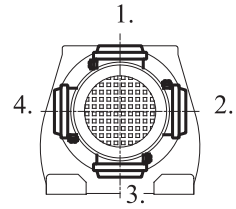
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	201	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	209	110	130	160	M8	44	9	4	14	16.3	5	9
80	201	130	165	200	M10	46	12	5	19	21.8	6	29
90	211	130	165	200	M10	46	12	5	24	27.3	8	29
63	201	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4	-
71	210	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	211	80	100	120	Ø7	46	8	4	19	21.8	6	-
90	211	95	115	140	Ø9	46	10	4	24	27.3	8	-



İRAM 52
İRAM 53



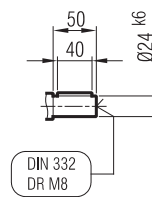
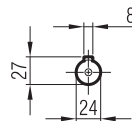
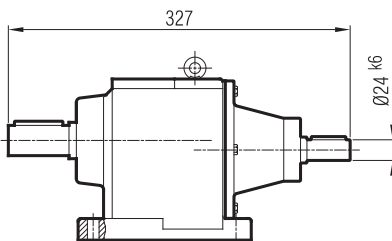
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M	90 S	90 L	100 L			
A	427	497	489	553	593			
A1	481	558	556	620	670			
H	123	136	141	141	161			
HD	194	216	231	231	261			
AC	138.5	158	176	176	195			
X	-	-	3	3	12			

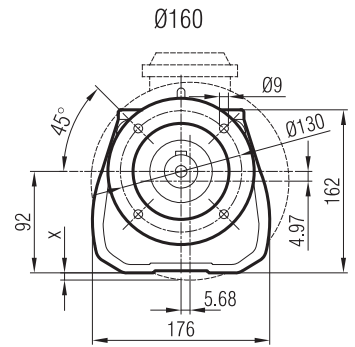
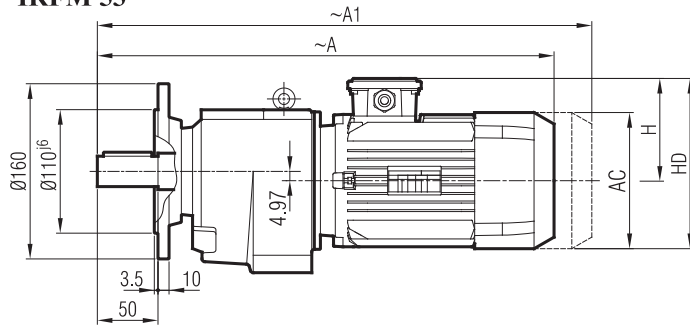
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 52
İRA 53

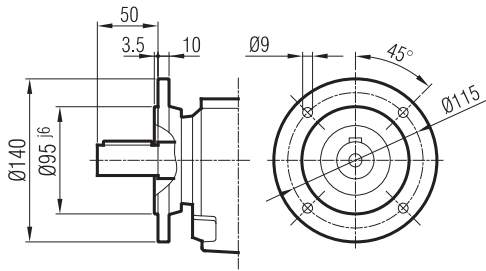
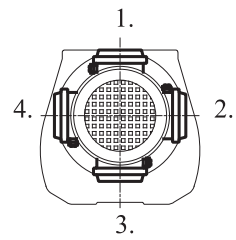




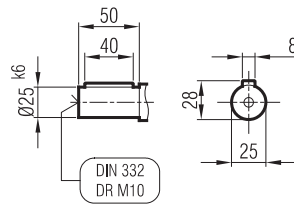
İRFM 52
İRFM 53



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø140
Opsiyonel / Option



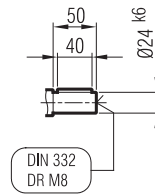
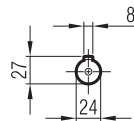
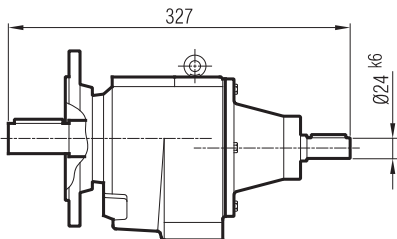
	71 M	80 M	90 S	90 L	100 L			
A	427	497	489	553	593			
A1	481	558	556	620	670			
H	123	136	141	141	161			
HD	194	216	231	231	261			
AC	138.5	158	176	176	195			
X	-	-	3	3	12			

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

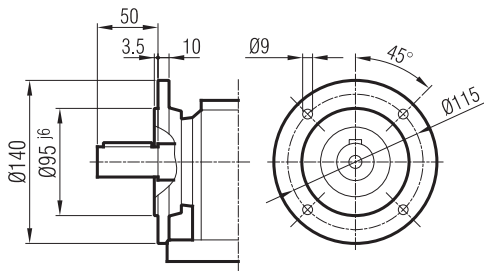
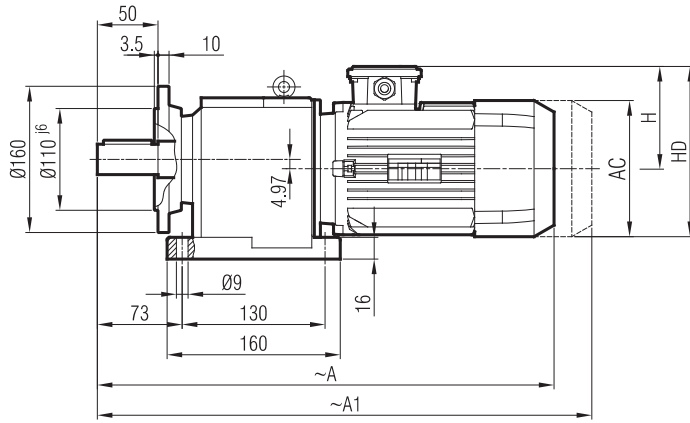
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 52
İRF 53

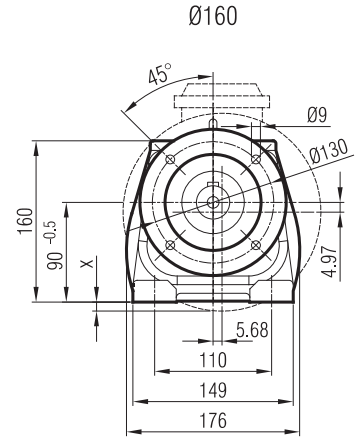
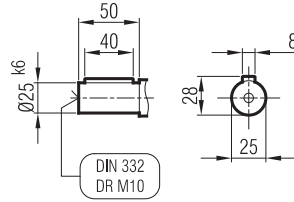




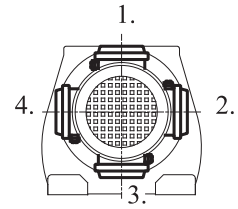
İRAFM 52
İRAFM 53



Ø140
Opsiyonel / Option



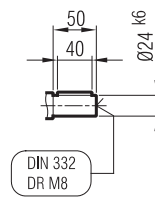
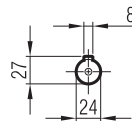
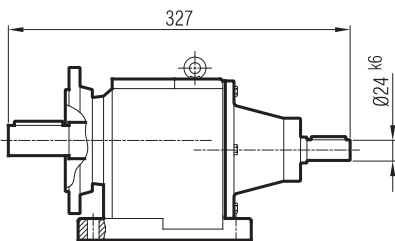
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M	90 S	90 L	100 L			
A	427	497	489	553	593			
A1	481	558	556	620	670			
H	123	136	141	141	161			
HD	194	216	231	231	261			
AC	138.5	158	176	176	195			
X	-	-	3	3	12			

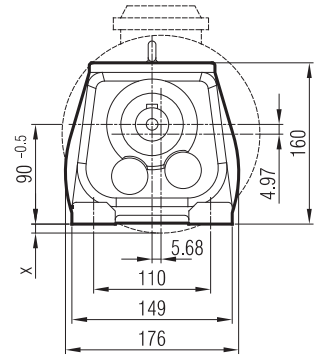
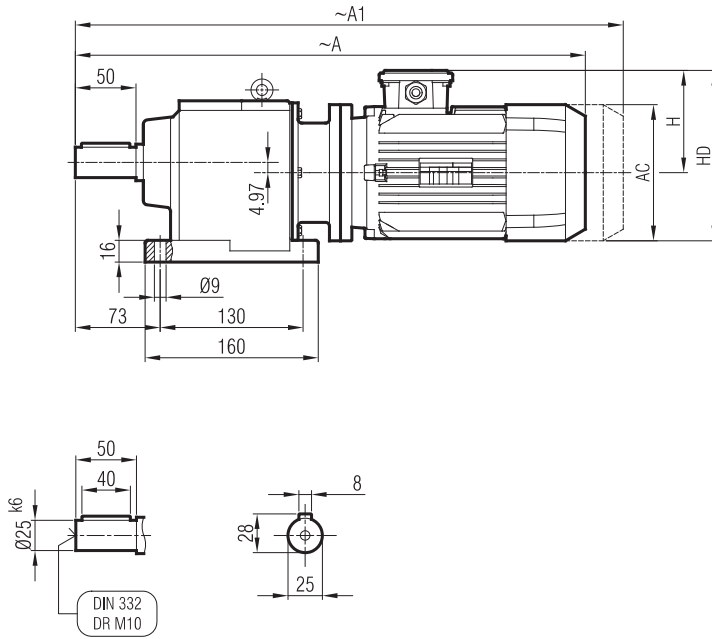
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 52
İRAF 53

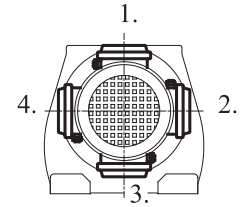




İRAPM 52
İRAPM 53



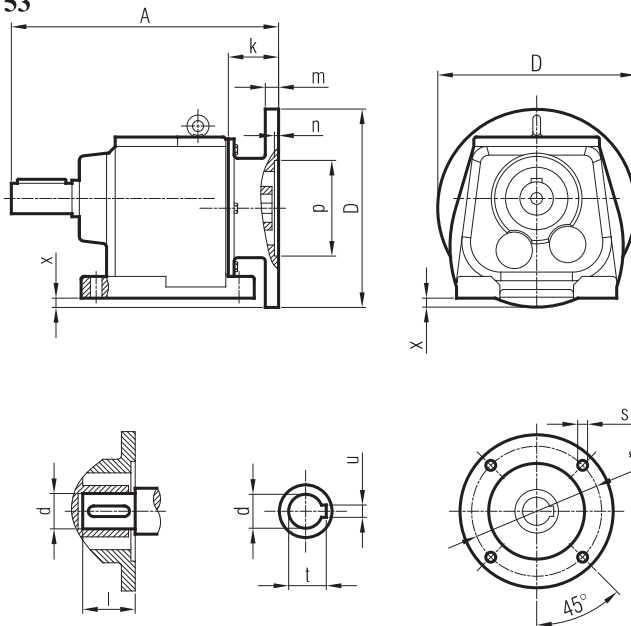
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



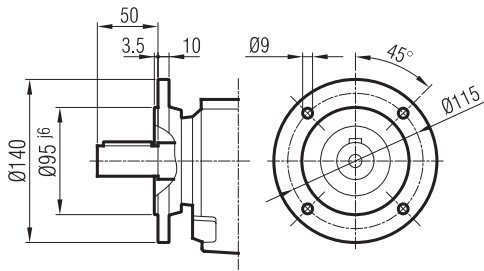
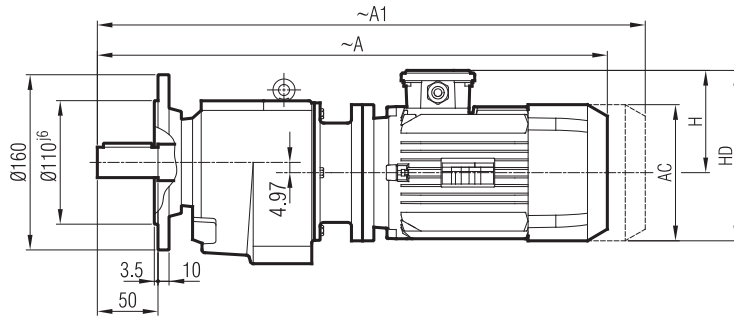
IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	
A	431	472	537	546	584	630	
A1	485	526	598	613	651	707	
H	108	123	136	141	141	161	
HD	171	194	216	231	231	261	
AC	125	138.5	158	176	176	195	
X	-	-	15	15	15	40	

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

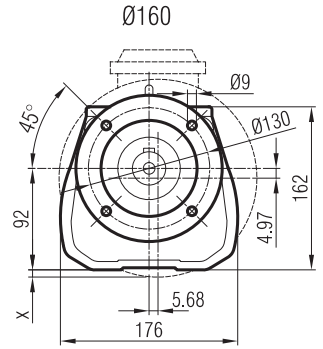
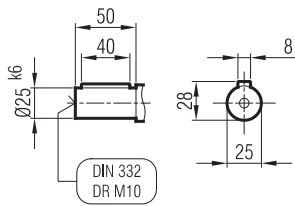
İRAP 52
İRAP 53



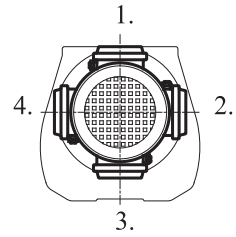
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	234	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	242	110	130	160	M8	44	9	4	14	16.3	5	-
80	244	130	165	200	M10	46	12	5	19	21.8	6	15
90	244	130	165	200	M10	46	12	5	24	27.3	8	15
100	258	180	215	250	M12	60	14	5	28	31.3	8	40
63	234	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4	-
71	246	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	244	80	100	120	Ø7	46	8	4	19	21.8	6	-
90	244	95	115	140	Ø9	46	10	4	24	27.3	8	-
100	258	110	130	160	Ø9	60	10	4.5	28	31.3	8	-


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Ø140
Opsiyonel / Option

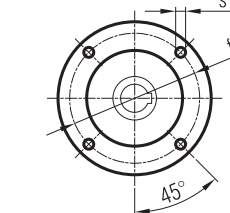
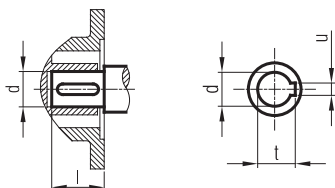
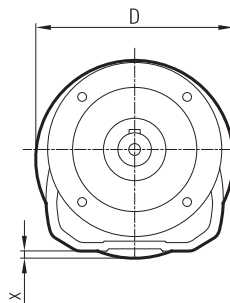
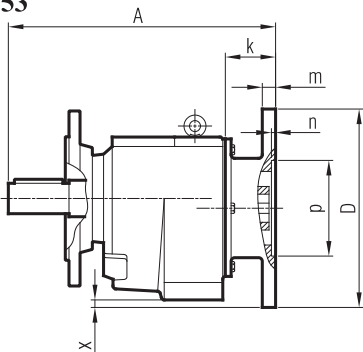


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

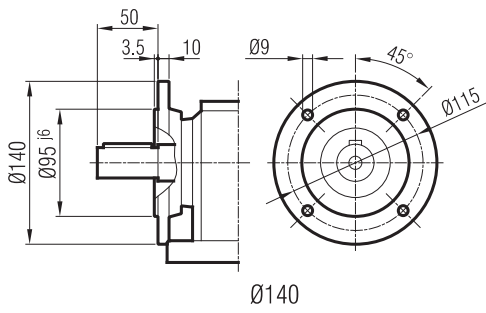
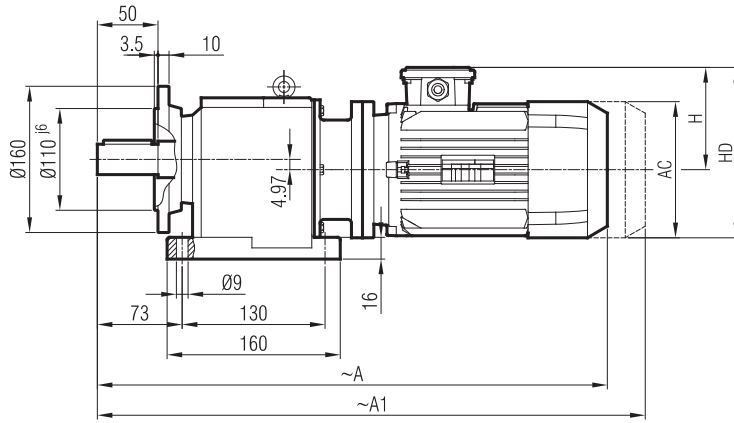


IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	
A	431	472	537	546	584	630	
A1	485	526	598	613	651	707	
H	108	123	136	141	141	161	
HD	171	194	216	231	231	261	
AC	125	138.5	158	176	176	195	
X	-	-	15	15	15	40	

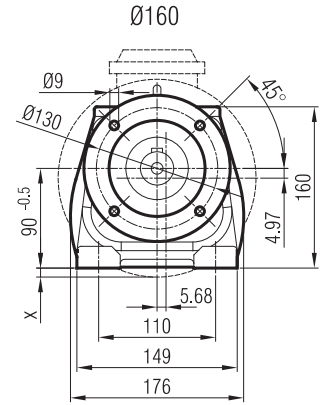
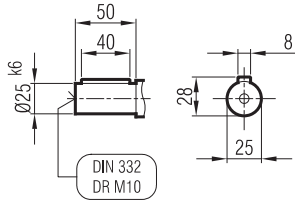
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 52
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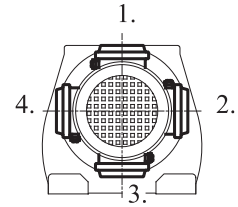
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	234	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	242	110	130	160	M8	44	9	4	14	16.3	5	-
80	244	130	165	200	M10	46	12	5	19	21.8	6	15
90	244	130	165	200	M10	46	12	5	24	27.3	8	15
100	258	180	215	250	M12	60	14	5	28	31.3	8	40
63	234	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4	-
71	246	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	244	80	100	120	Ø7	46	8	4	19	21.8	6	-
90	244	95	115	140	Ø9	46	10	4	24	27.3	8	-
100	258	110	130	160	Ø9	60	10	4.5	28	31.3	8	-


İRAFPM 52
İRAFPM 53


Ø140
Opsiyonel / Option

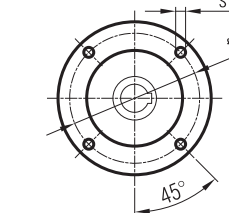
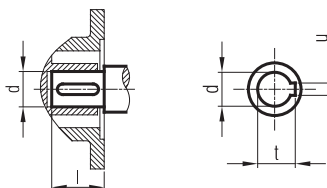
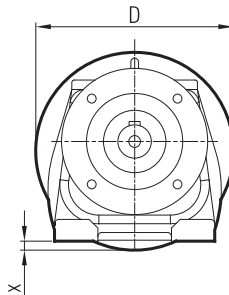
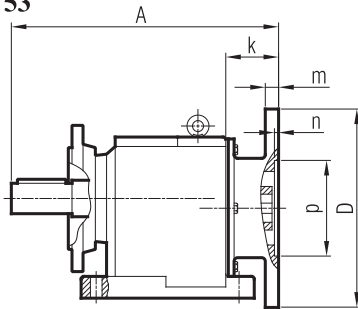


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	
A	431	472	537	546	584	630	
A1	485	526	598	613	651	707	
H	108	123	136	141	141	161	
HD	171	194	216	231	231	261	
AC	125	138.5	158	176	176	195	
X	-	-	15	15	15	40	

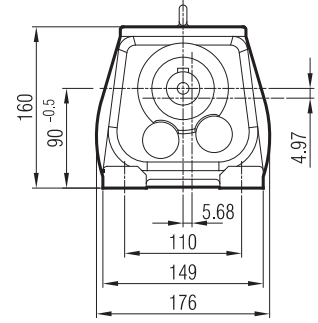
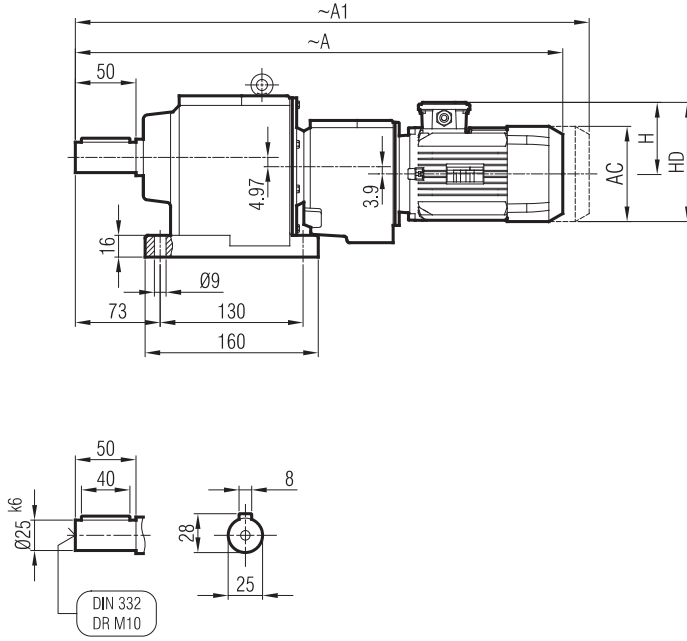
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspondent aux moteurs équipés de freins.

İRAFP 52
İRAFP 53


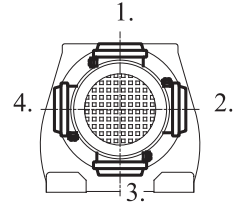
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	234	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	242	110	130	160	M8	44	9	4	14	16.3	5	-
80	244	130	165	200	M10	46	12	5	19	21.8	6	15
90	244	130	165	200	M10	46	12	5	24	27.3	8	15
100	258	180	215	250	M12	60	14	5	28	31.3	8	40
63	234	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4	-
71	246	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	244	80	100	120	Ø7	46	8	4	19	21.8	6	-
90	244	95	115	140	Ø9	46	10	4	24	27.3	8	-
100	258	110	130	160	Ø9	60	10	4.5	28	31.3	8	-



İRAM 53 İR 42



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M	71 M						
A	510	554						
A1	564	608						
H	108	123						
HD	171	194						
AC	125	138.5						

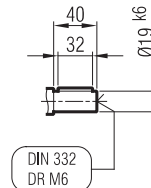
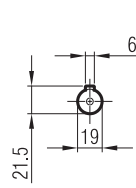
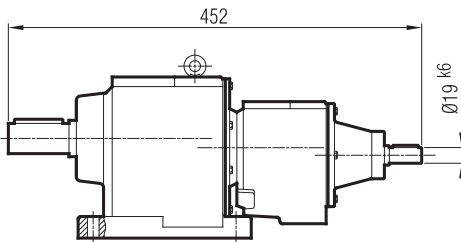
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

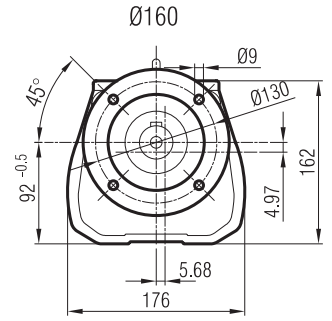
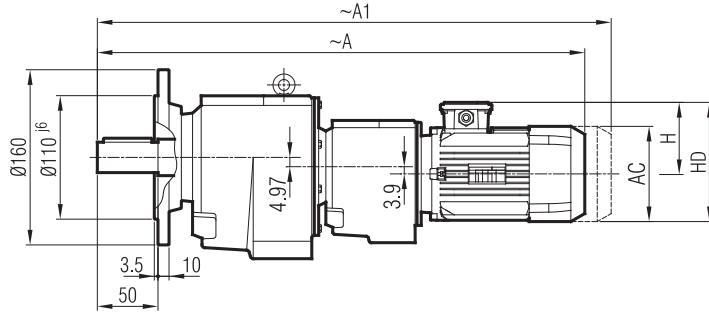
İRA 52 İR 42 / İRA 52 İR 43

İRA 53 İR 42 / İRA 53 İR 43

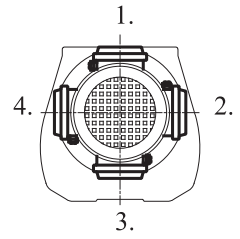
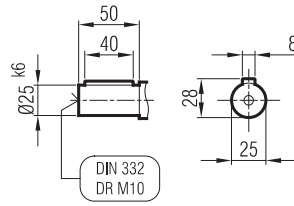
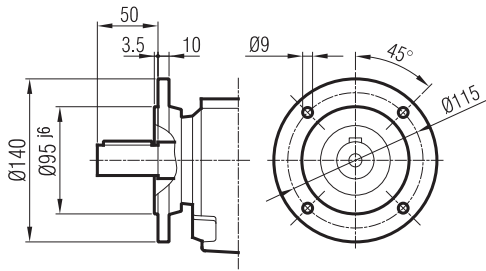




İRFM 53 İR 42



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø140
Opsiyonel / Option

	63 M	71 M						
A	510	554						
A1	564	608						
H	108	123						
HD	171	194						
AC	125	138.5						

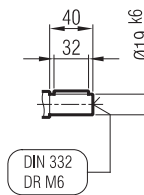
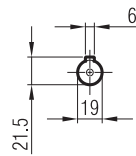
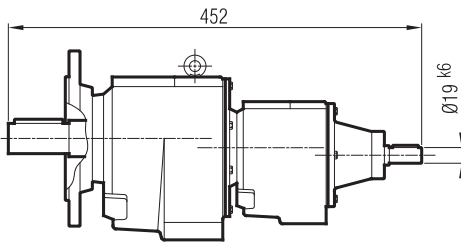
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

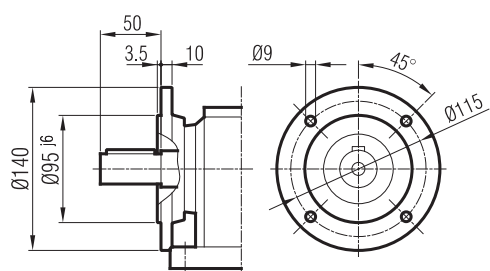
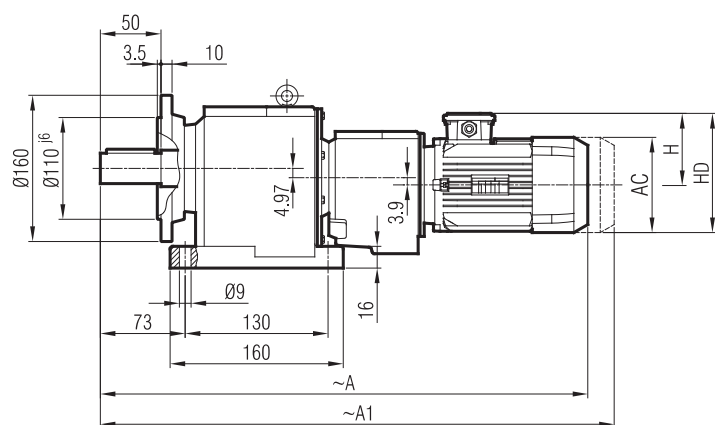
İRF 52 İR 42 / İRF 52 İR 43

İRF 53 İR 42 / İRF 53 İR 43



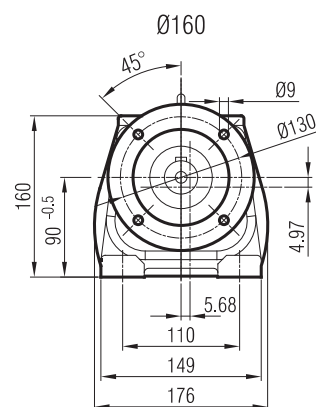


İRAFM 53 İR 42



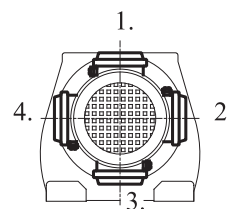
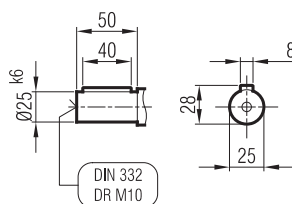
Ø140

Opsiyonel / Option



Klemens Pozisyonları

Positions of Terminal Box
Position de la boîte à bornes



	63 M	71 M						
A	510	554						
A1	564	608						
H	108	123						
HD	171	194						
AC	125	138.5						

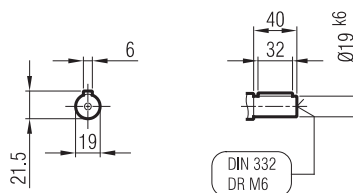
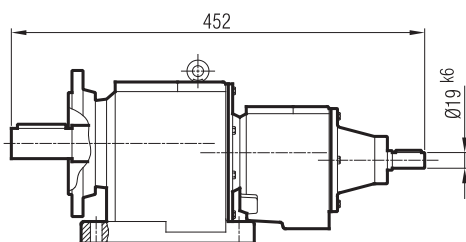
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

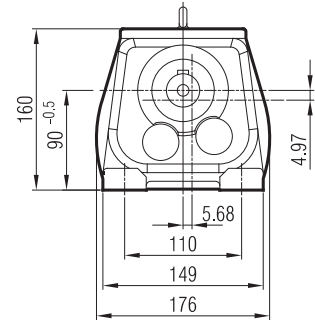
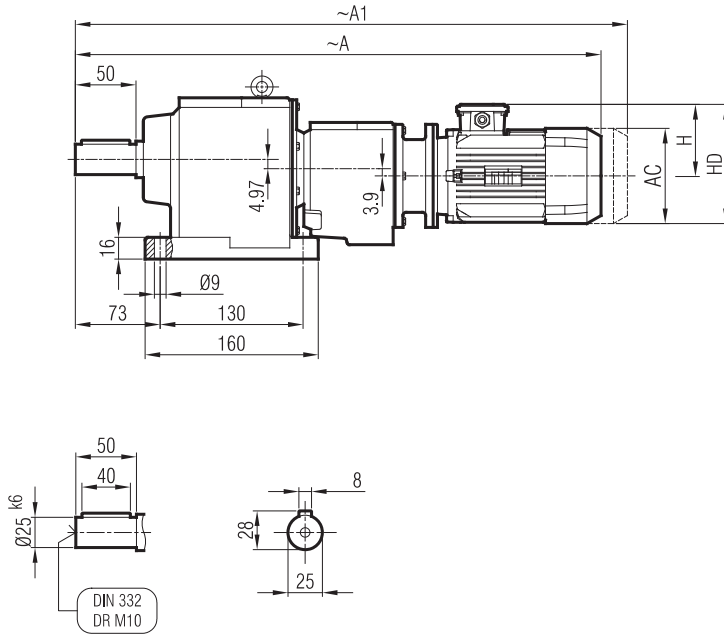
İRAF 52 İR 42 / İRAF 52 İR 43

İRAF 53 İR 42 / İRAF 53 İR 43

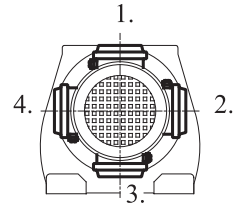




İRAPM 53 İR 42



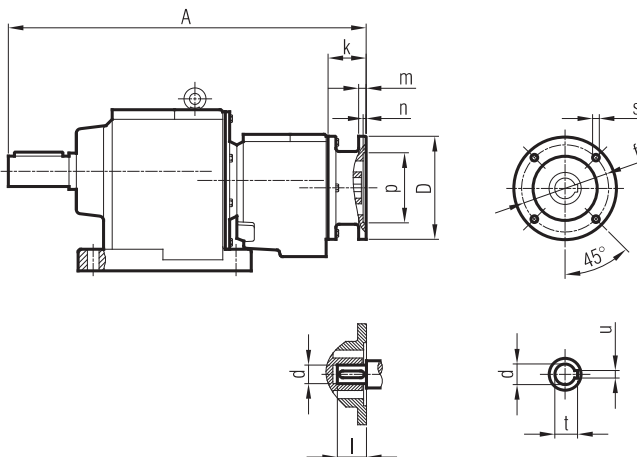
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M/B5	71 M/B5					
A	556	597					
A1	610	651					
H	108	123					
HD	171	194					
AC	125	138.5					

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

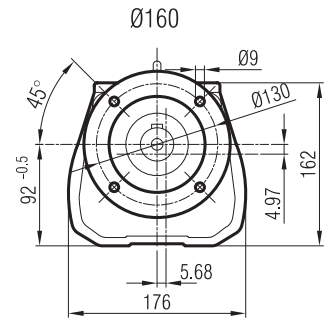
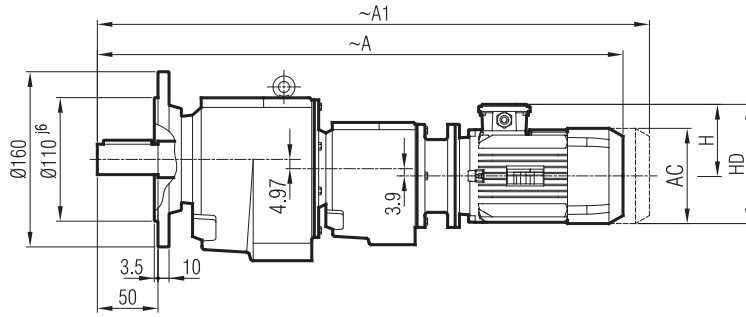
İRAP 52 İR 42 / İRAP 52 İR 43
İRAP 53 İR 42 / İRAP 53 İR 43



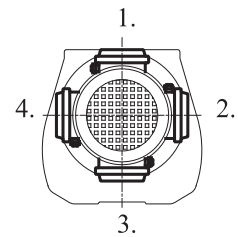
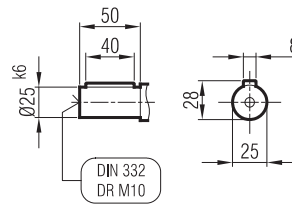
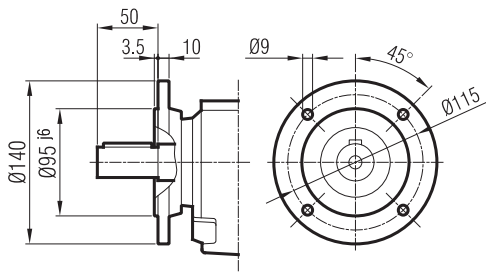
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	359	95	115	140	M8	35.5	8	4	11	12.8	4
71		367	110	130	160	M8	44	9	4	14	16.3	5
63	B14	359	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		368	70	85	105	Ø7	45	10	3	14	16.3	5



İRFPM 53 İR 42



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes

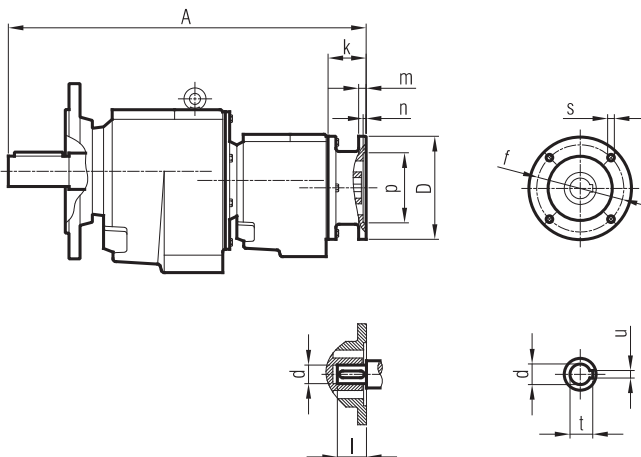


Ø140
Opsiyonel / Option

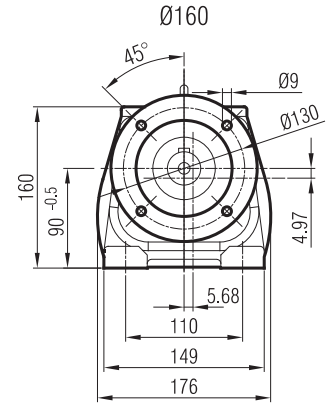
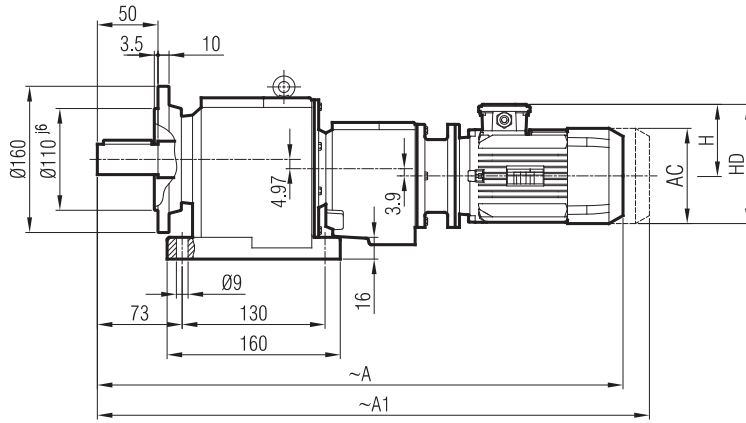
	63 M/B5	71 M/B5					
A	556	597					
A1	610	651					
H	108	123					
HD	171	194					
AC	125	138.5					

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

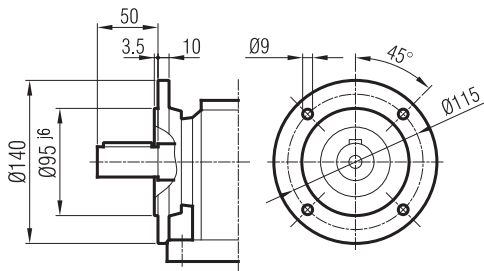
İRFP 52 İR 42 / İRFP 52 İR 43
İRFP 53 İR 42 / İRFP 53 İR 43



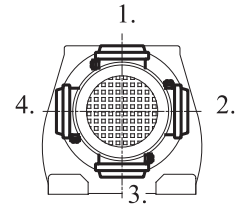
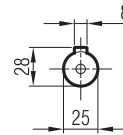
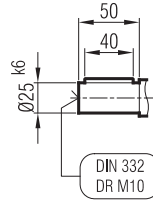
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	359	95	115	140	M8	35.5	8	4	11	12.8	4
71	367	110	130	160	M8	44	9	4	14	16.3	5
63	359	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	368	70	85	105	Ø7	45	10	3	14	16.3	5


İRAFPM 53 İR 42


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

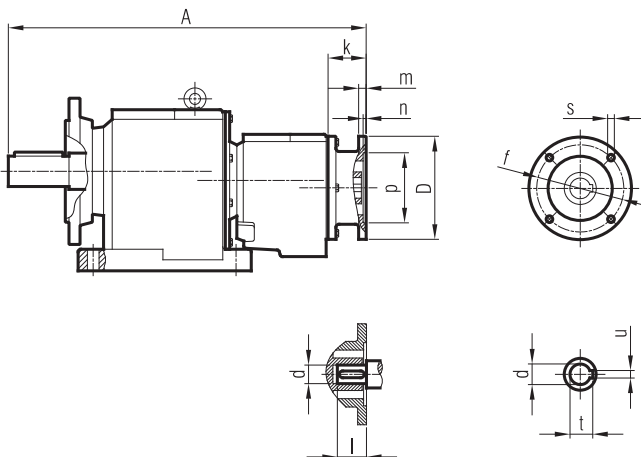


Ø140
Opsiyonel / Option



	63 M/B5	71 M/B5					
A	556	597					
A1	610	651					
H	108	123					
HD	171	194					
AC	125	138.5					

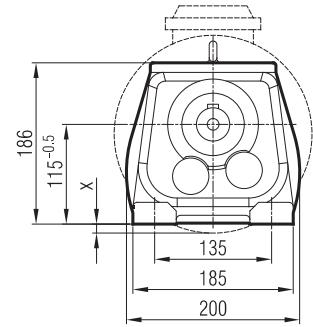
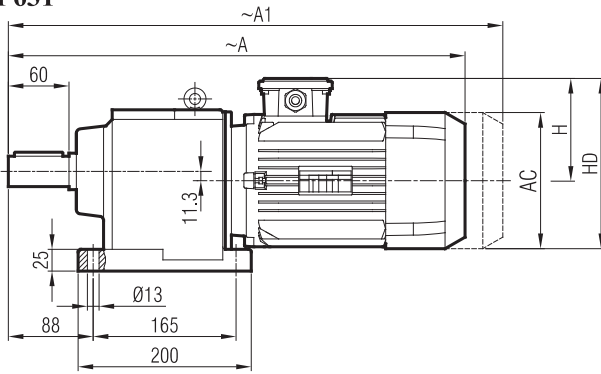
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspondent aux moteurs équipés de freins.

İRAFP 52 İR 42 / İRAFP 52 İR 43
İRAFP 53 İR 42 / İRAFP 53 İR 43


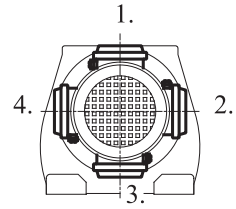
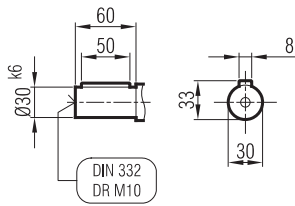
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	359	95	115	140	M8	35,5	8	4	11	12,8	4
71		367	110	130	160	M8	44	9	4	14	16,3	5
63	B14	359	60	75	90	Ø5,5	35,5	7	3,5	11	12,8	4
71		368	70	85	105	Ø7	45	10	3	14	16,3	5



İRAM 621
İRAM 631



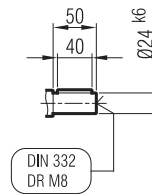
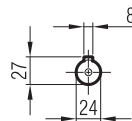
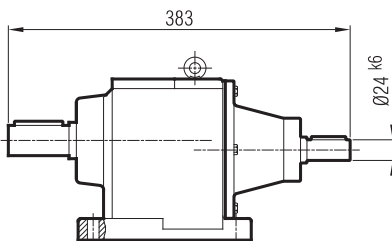
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M	90 S	90 L	100 L	112 M	132 S	
A	462	535	528	592	631	602	658	
A1	516	596	595	659	708	697	762	
H	123	136	141	141	161	170	193	
HD	194	216	231	231	261	282	325	
AC	138.5	158	176	176	195	220	262	
X	-	-	-	-	-	6	27	

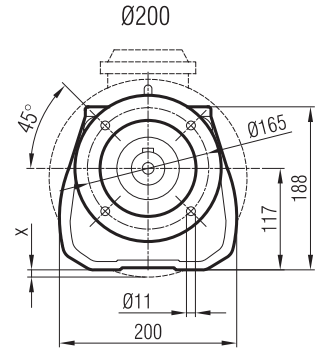
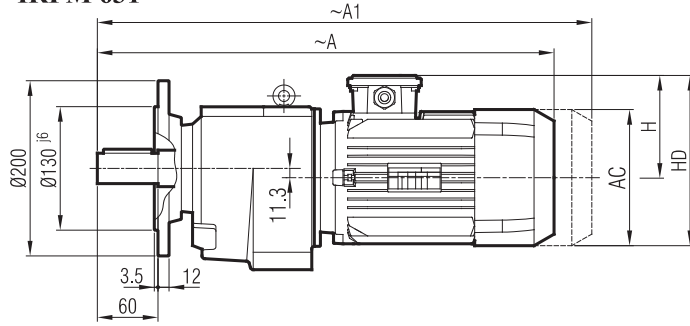
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 621
İRA 631

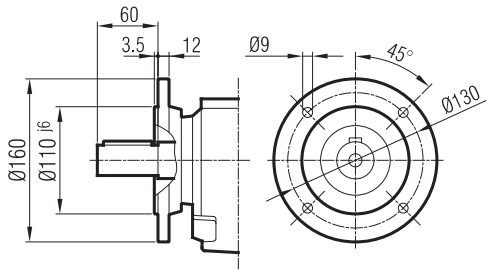




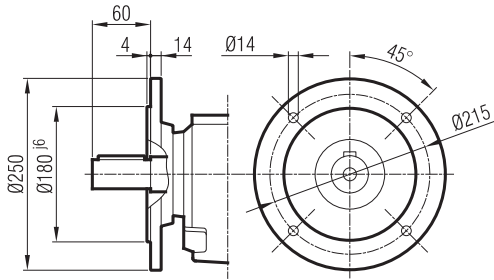
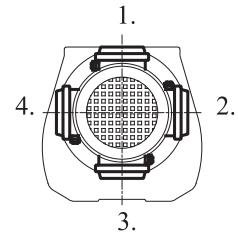
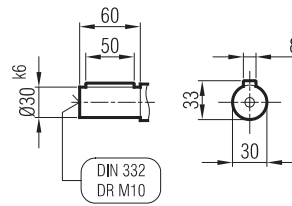
**İRFM 621
İRFM 631**



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



**Ø160
Opsiyonel / Option**

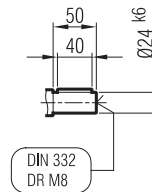
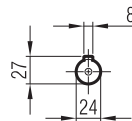
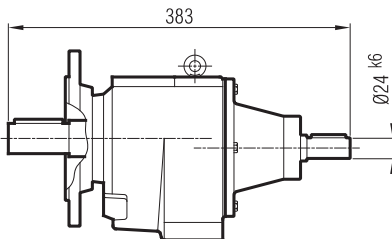


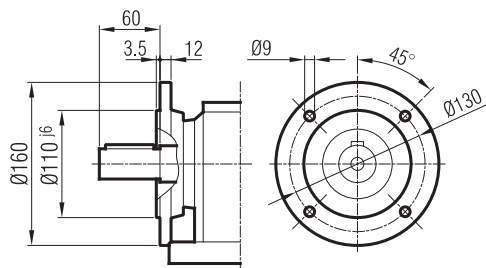
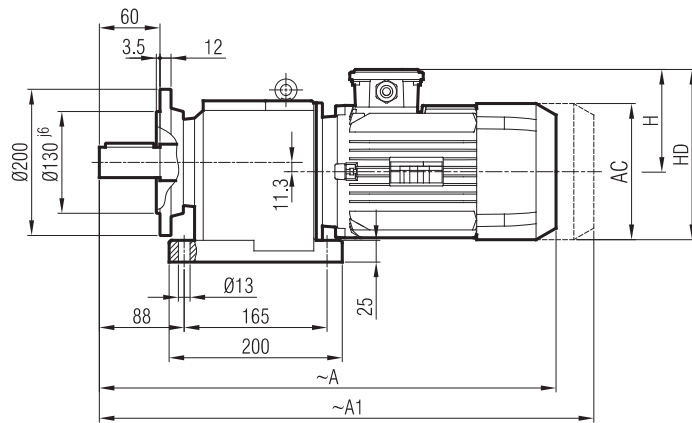
**Ø250
Opsiyonel / Option**

	71 M	80 M	90 S	90 L	100 L	112 M	132 S
A	462	535	528	592	631	602	658
A1	516	596	595	659	708	697	762
H	123	136	141	141	161	170	193
HD	194	216	231	231	261	282	325
AC	138.5	158	176	176	195	220	262
X	-	-	-	-	-	6	27

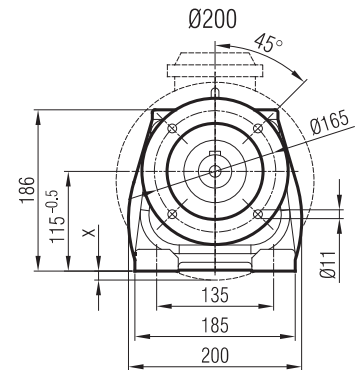
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

**İRF 621
İRF 631**

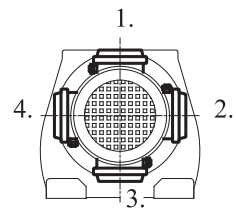


İRAFM 621
İRAFM 631

Ø160
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes

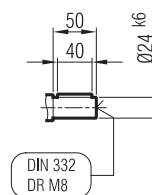
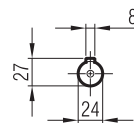
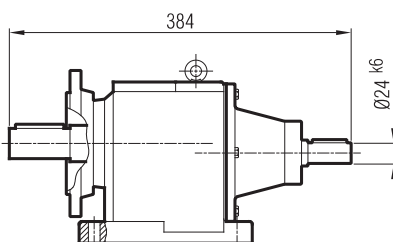


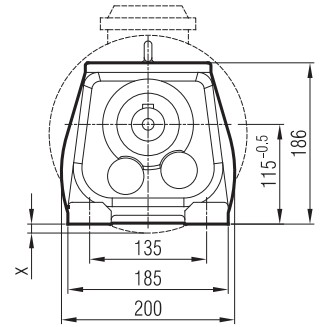
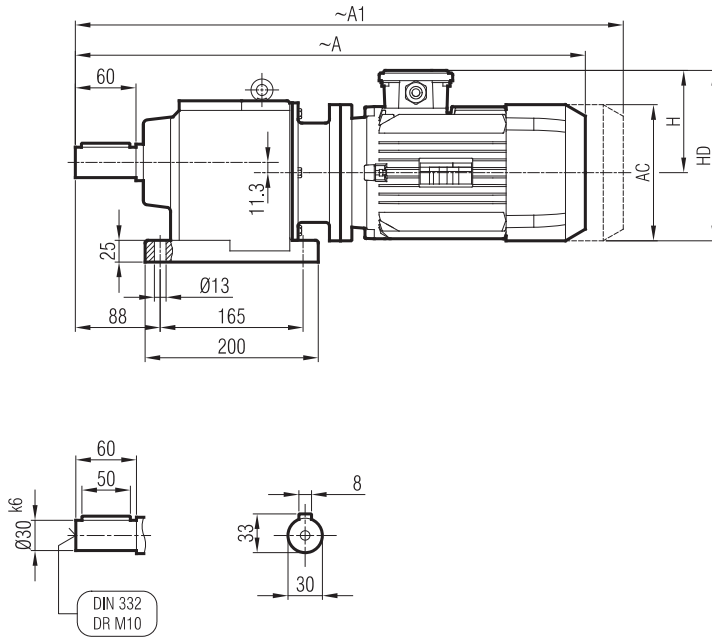
	71 M	80 M	90 S	90 L	100 L	112 M	132 S	
A	462	535	528	592	631	602	658	
A1	516	596	595	659	708	697	762	
H	123	136	141	141	161	170	193	
HD	194	216	231	231	261	282	325	
AC	138.5	158	176	176	195	220	262	
X	-	-	-	-	-	6	27	

"A₁" Ölçüsü Frenli Motorlar içindir.

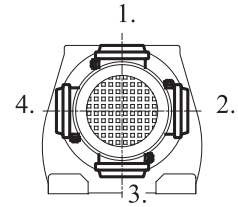
Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 621
İRAF 631

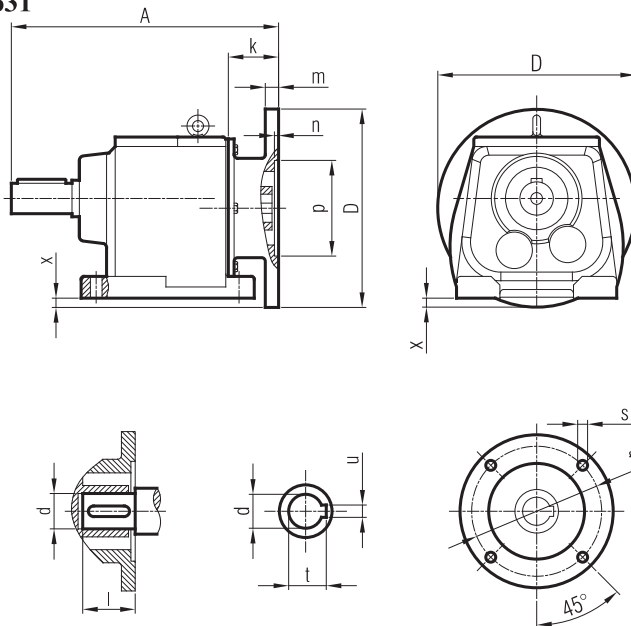

İRAPM 621
İRAPM 631


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

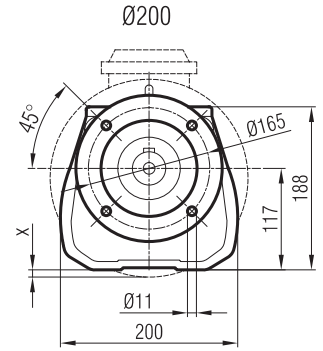
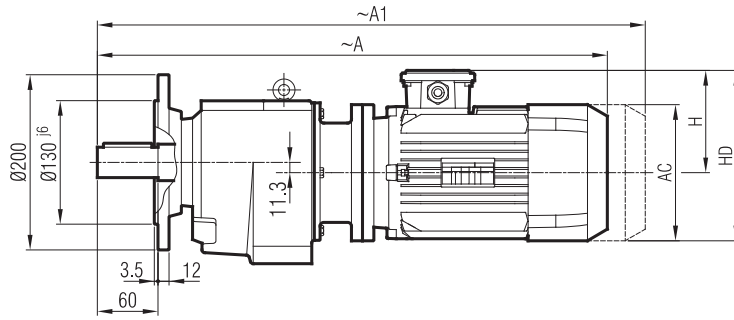
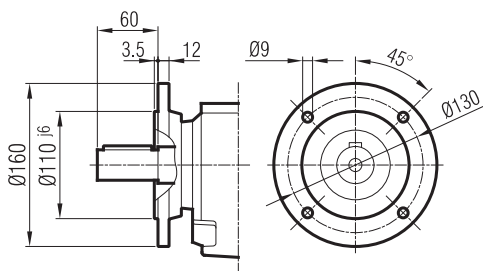
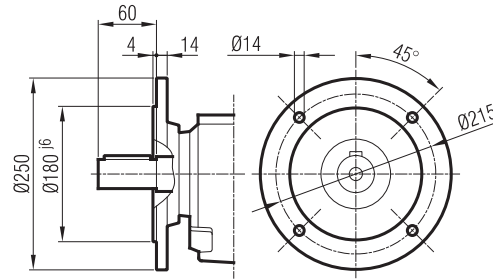
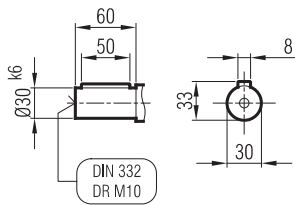
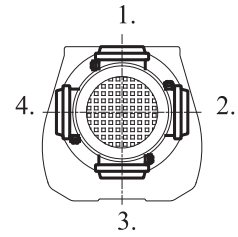


IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	473	516	584	593	631	676	647	721
A1	527	570	645	660	698	753	742	825
H	108	123	136	141	141	161	170	193
HD	171	194	216	231	231	261	282	325
AC	125	138.5	158	176	176	195	220	262
X	-	-	-	-	-	21	21	46

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspondent aux moteurs équipés de freins.

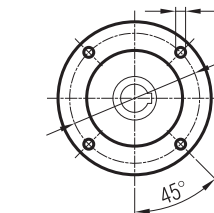
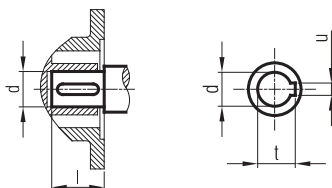
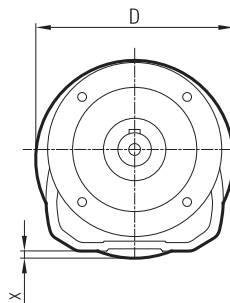
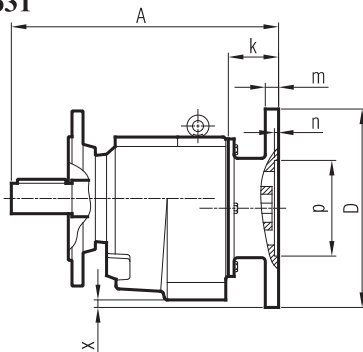
İRAP 621
İRAP 631


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	234	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	242	110	130	160	M8	45	9	4	14	16.3	5	-
80	244	130	165	200	M10	50	12	5	19	21.8	6	-
90	244	130	165	200	M10	50	12	5	24	27.3	8	-
100	258	180	215	250	M12	63	14	5	28	31.3	8	21
112	304	180	215	250	M12	63	14	5	28	31.3	8	21
132	320	230	265	300	M12	79	17	6	38	41.3	10	46
63	276	60	75	90	Ø6	35.5	7	3.5	11	12.8	4	-
71	286	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	291	80	100	120	Ø7	50	8	4	19	21.8	6	-
90	291	95	115	140	Ø9	50	10	4	24	27.3	8	-
100	304	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
112	304	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
132	320	130	165	200	Ø11	79	12	5	38	41.3	10	-


İRFP 621
İRFP 631

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

Ø160
Opsiyonel / Option

Ø250
Opsiyonel / Option


IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	473	516	584	593	631	676	647	721
A1	527	570	645	660	698	753	742	825
H	108	123	136	141	141	161	170	193
HD	171	194	216	231	231	261	282	325
AC	125	138.5	158	176	176	195	220	262
X	-	-	-	-	-	21	21	46

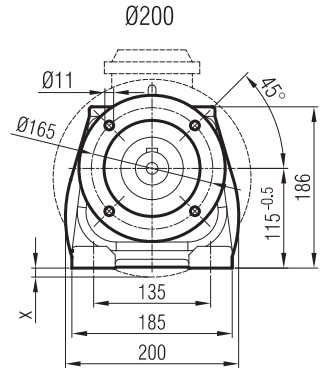
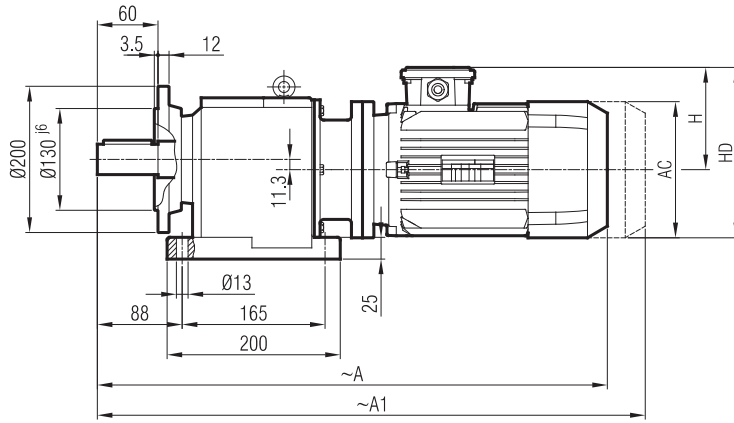
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspondent aux moteurs équipés de freins.

İRFP 621
İRFP 631


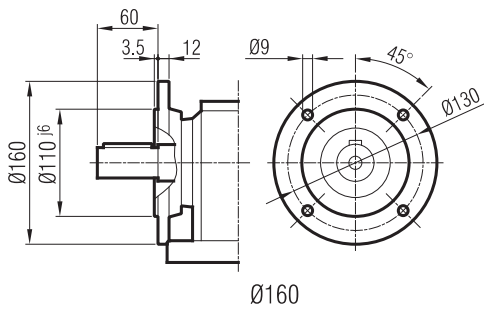
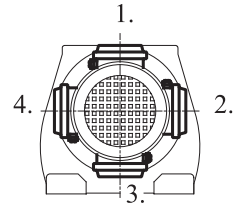
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	234	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	242	110	130	160	M8	45	9	4	14	16.3	5	-
80	244	130	165	200	M10	50	12	5	19	21.8	6	-
90	244	130	165	200	M10	50	12	5	24	27.3	8	-
100	258	180	215	250	M12	63	14	5	28	31.3	8	21
112	304	180	215	250	M12	63	14	5	28	31.3	8	21
132	320	230	265	300	M12	79	17	6	38	41.3	10	46
63	276	60	75	90	Ø6	35.5	7	3.5	11	12.8	4	-
71	286	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	291	80	100	120	Ø7	50	8	4	19	21.8	6	-
90	291	95	115	140	Ø9	50	10	4	24	27.3	8	-
100	304	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
112	304	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
132	320	130	165	200	Ø11	79	12	5	38	41.3	10	-



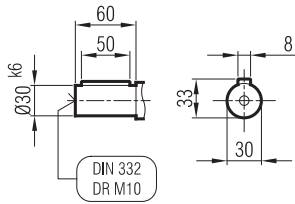
İRAFPM 621
İRAFPM 631



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



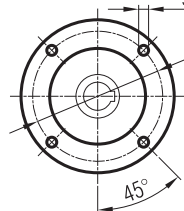
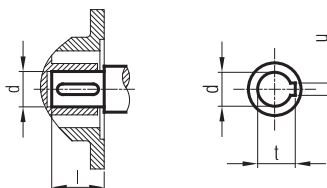
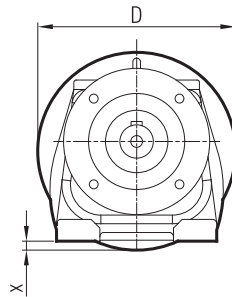
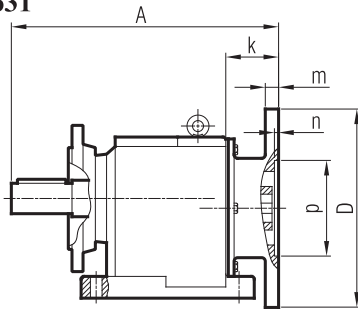
Opsiyonel / Option



IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	473	516	584	593	631	676	647	721
A1	527	570	645	660	698	753	742	825
H	108	123	136	141	141	161	170	193
HD	171	194	216	231	231	261	282	325
AC	125	138.5	158	176	176	195	220	262
X	-	-	-	-	-	21	21	46

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

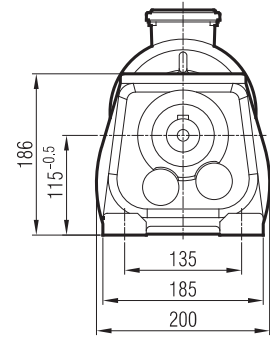
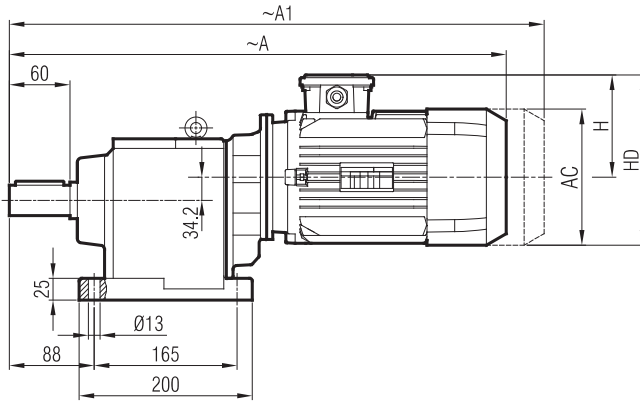
İRAFP 621
İRAFP 631



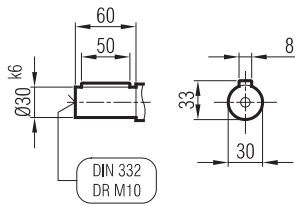
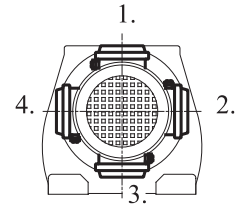
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	234	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	242	110	130	160	M8	45	9	4	14	16.3	5	-
80	244	130	165	200	M10	50	12	5	19	21.8	6	-
90	244	130	165	200	M10	50	12	5	24	27.3	8	-
100	258	180	215	250	M12	63	14	5	28	31.3	8	21
112	304	180	215	250	M12	63	14	5	28	31.3	8	21
132	320	230	265	300	M12	79	17	6	38	41.3	10	46
63	276	60	75	90	Ø6	35.5	7	3.5	11	12.8	4	-
71	286	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	291	80	100	120	Ø7	50	8	4	19	21.8	6	-
90	291	95	115	140	Ø9	50	10	4	24	27.3	8	-
100	304	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
112	304	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
132	320	130	165	200	Ø11	79	12	5	38	41.3	10	-



İRAM 641



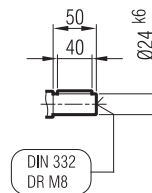
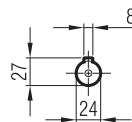
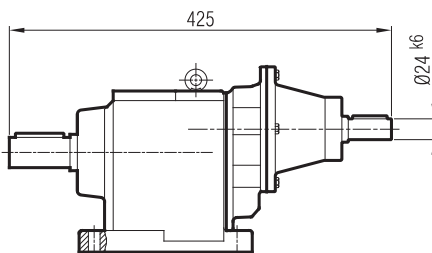
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M						
A	524	568						
A1	578	629						
H	123	136						
HD	194	216						
AC	138.5	158						

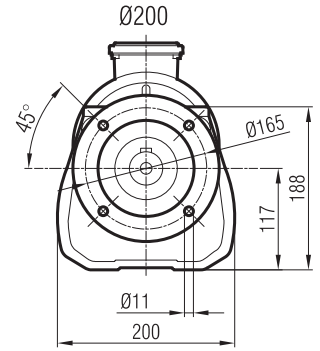
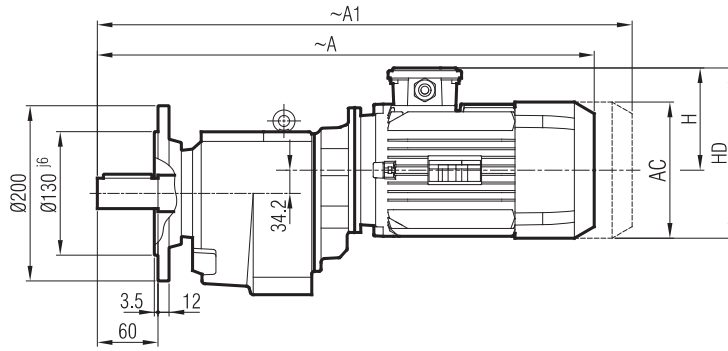
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 641

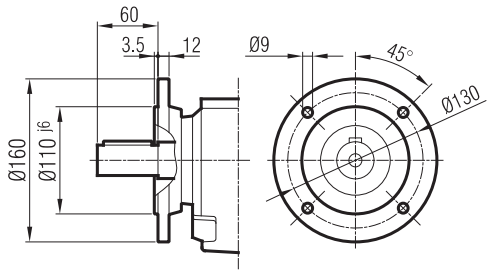




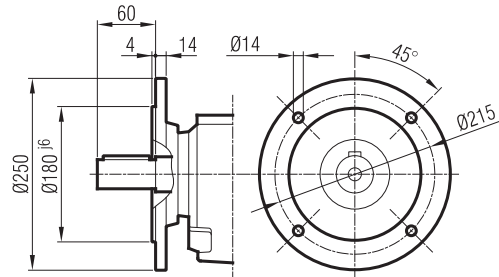
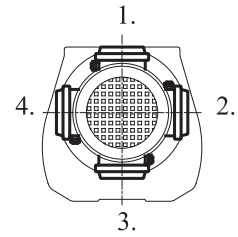
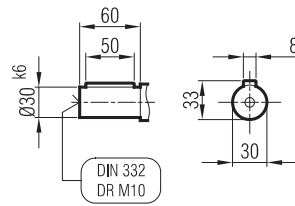
İRFM 641



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø160
Opsiyonel / Option

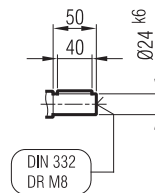
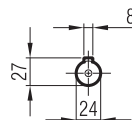
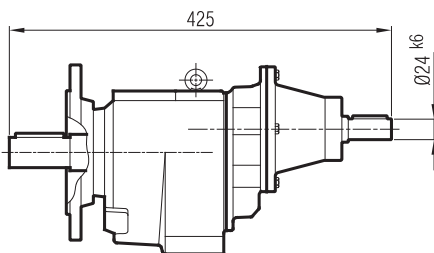


Ø250
Opsiyonel / Option

	71 M	80 M						
A	524	568						
A1	578	629						
H	123	136						
HD	194	216						
AC	138.5	158						

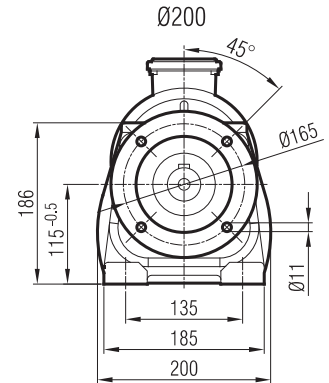
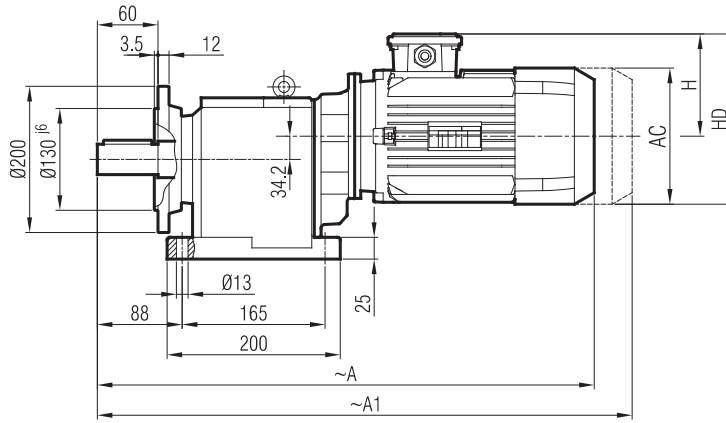
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 641

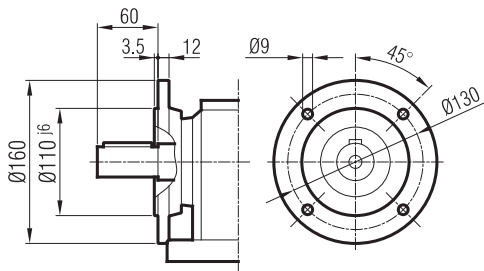




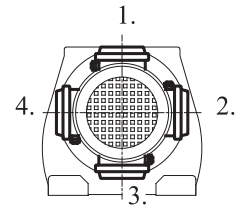
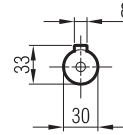
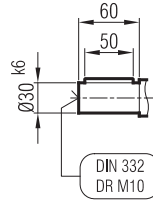
İRAFM 641



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



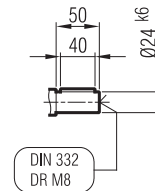
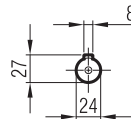
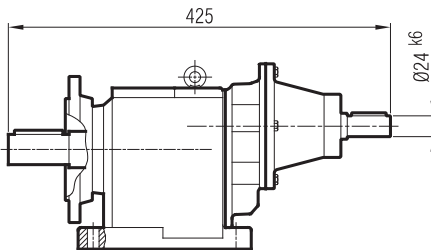
Ø160
Opsiyonel / Option



	71 M	80 M					
A	524	568					
A1	578	629					
H	123	136					
HD	194	216					
AC	138.5	158					

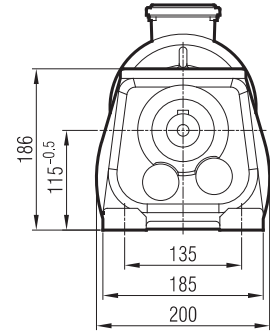
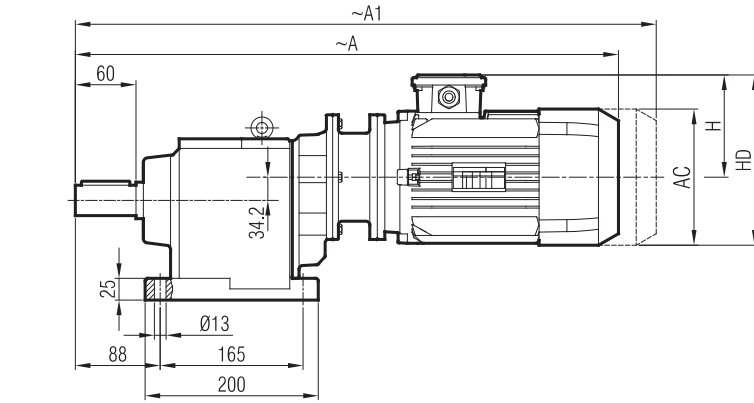
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 641

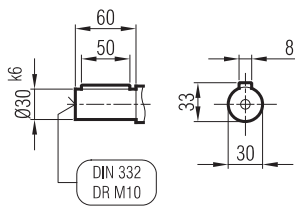
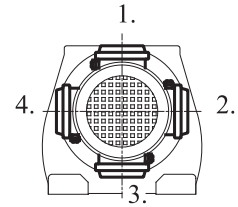




İRAPM 641



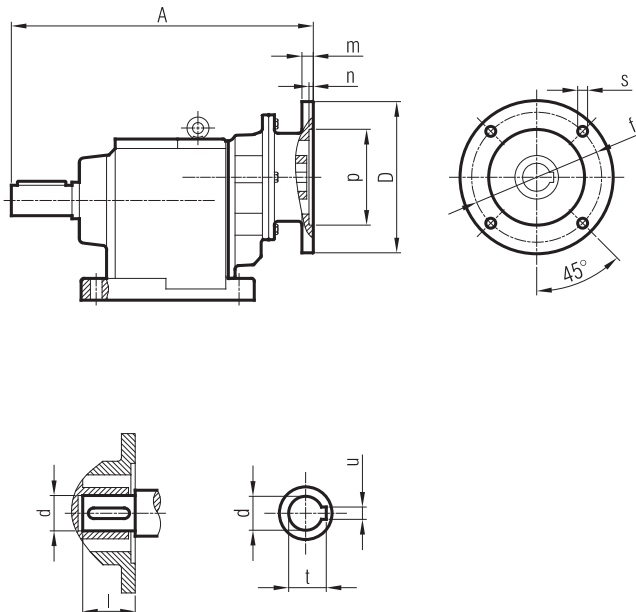
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



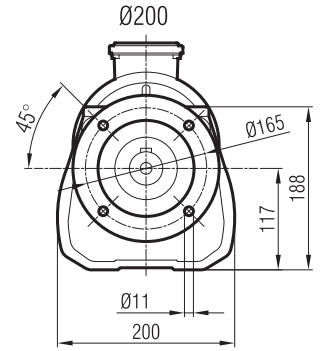
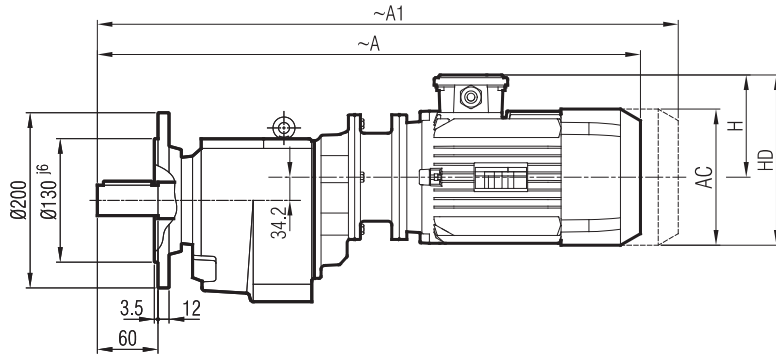
	63 M/B5	71 M/B5	80 M/B5				
A	528	570	608				
A1	582	624	669				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

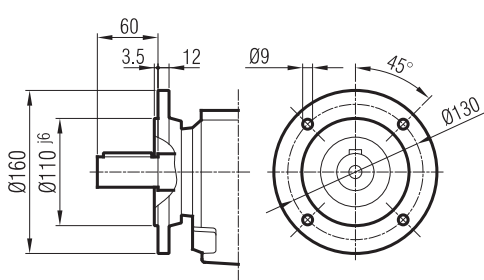
İRAP 641



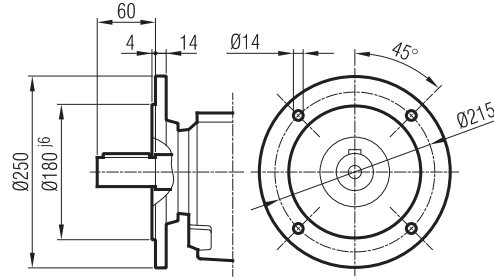
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	331	95	115	140	M8	35.5	8	4	11	12.8	4
71	340	110	130	160	M8	44	9	4	14	16.3	5
80	342	130	165	200	M10	46	12	5	19	21.8	6
63	341	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	340	70	85	105	Ø7	45	10	3	14	16.3	5
80	342	80	100	120	Ø7	46	8	4	19	21.8	6


İRFPM 641


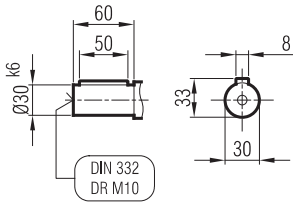
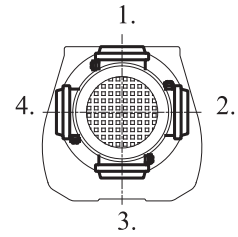
Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



Ø160
Opsiyonel / Option

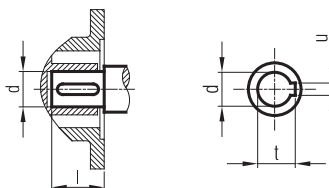
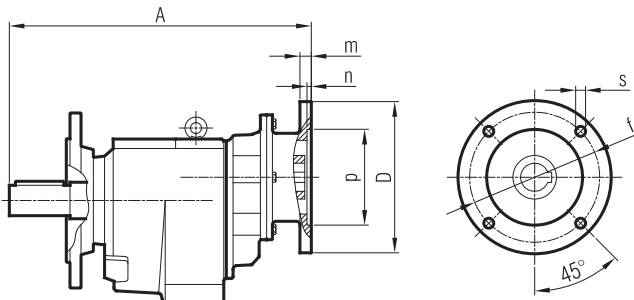


Ø250
Opsiyonel / Option



	63 M/B5	71 M/B5	80 M/B5				
A	528	570	608				
A1	582	624	669				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

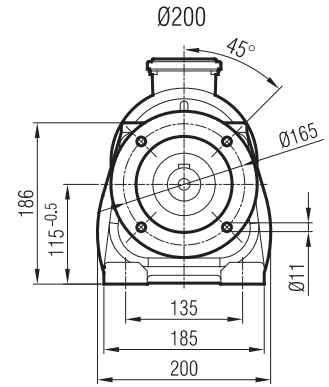
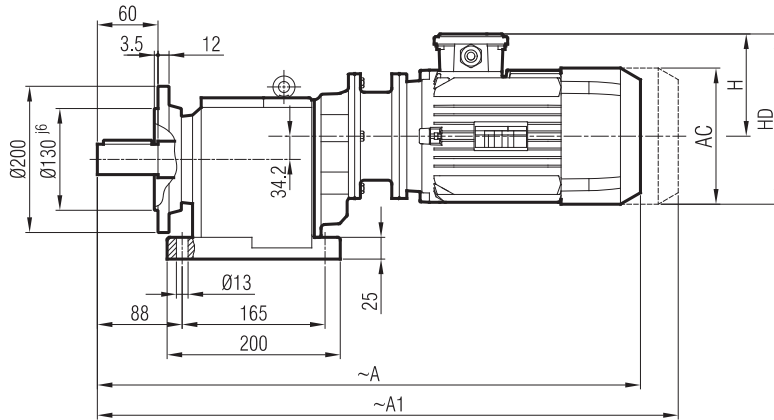
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 641


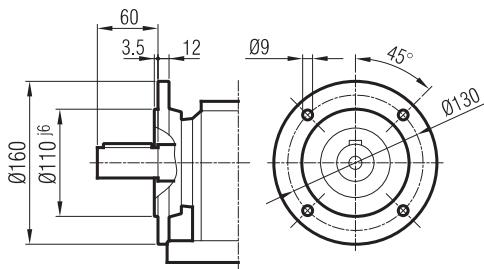
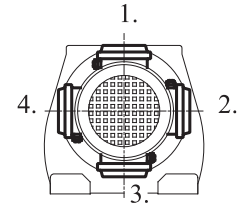
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	331	95	115	140	M8	35.5	8	4	11	12.8	4
71	340	110	130	160	M8	44	9	4	14	16.3	5
80	342	130	165	200	M10	46	12	5	19	21.8	6
63	341	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	340	70	85	105	Ø7	45	10	3	14	16.3	5
80	342	80	100	120	Ø7	46	8	4	19	21.8	6



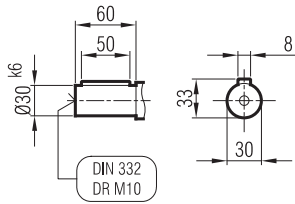
İRAFPM 641



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



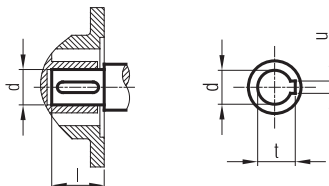
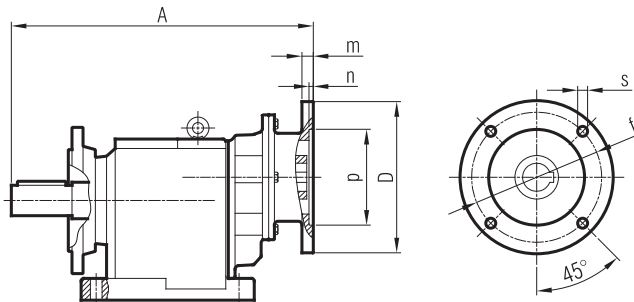
Ø160
Opsiyonel / Option



	63 M/B5	71 M/B5	80 M/B5				
A	528	570	608				
A1	582	624	669				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

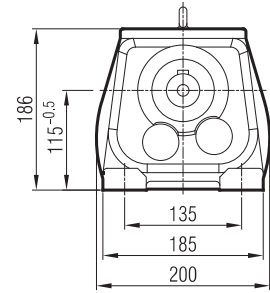
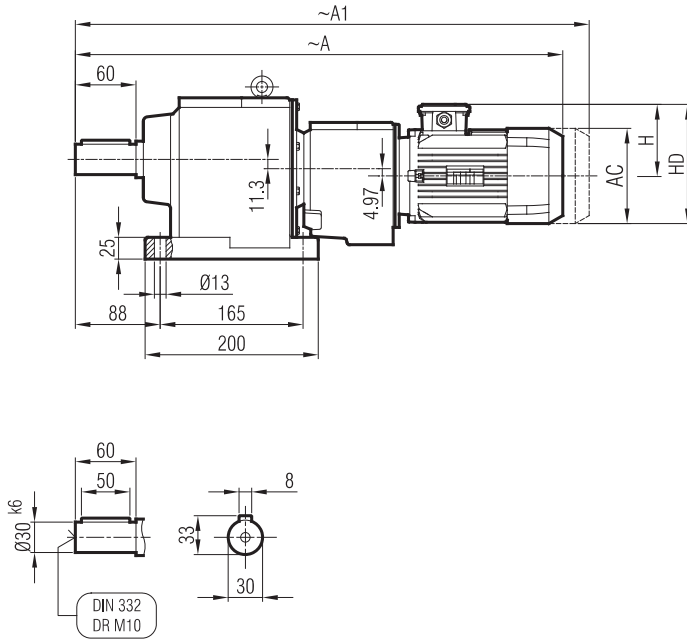
İRAFP 641



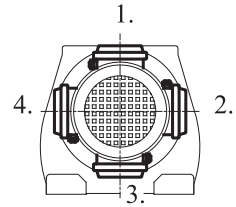
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	331	95	115	140	M8	35.5	8	4	11	12.8	4
71	340	110	130	160	M8	44	9	4	14	16.3	5
80	342	130	165	200	M10	46	12	5	19	21.8	6
63	341	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	340	70	85	105	Ø7	45	10	3	14	16.3	5
80	342	80	100	120	Ø7	46	8	4	19	21.8	6



İRAM 621 İR 52
İRAM 631 İR 52



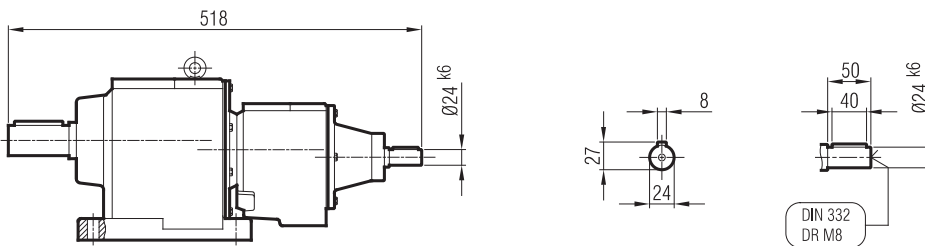
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M							
A	617							
A1	671							
H	123							
HD	194							
AC	138.5							

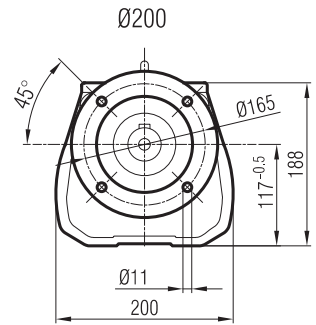
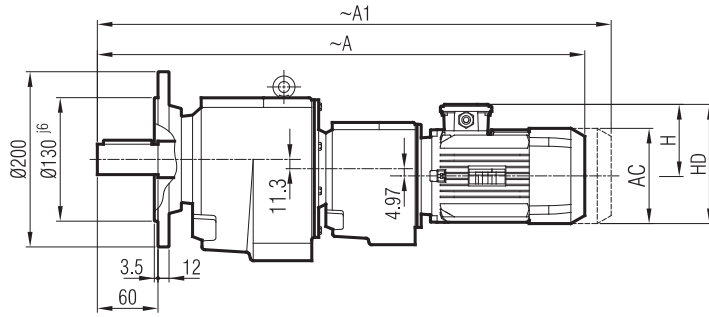
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 621 İR 52 / İRA 621 İR 53
İRA 631 İR 52 / İRA 631 İR 53

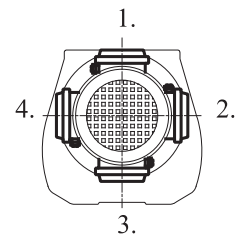
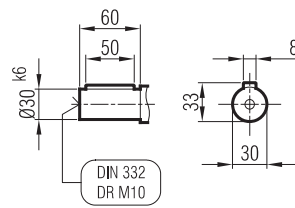
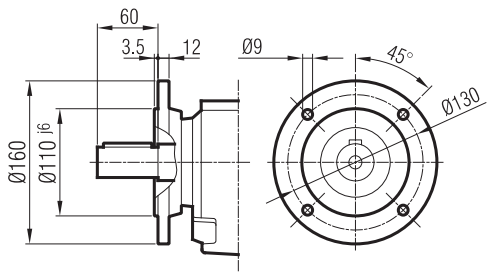




İRFM 621 İR 52
İRFM 631 İR 52

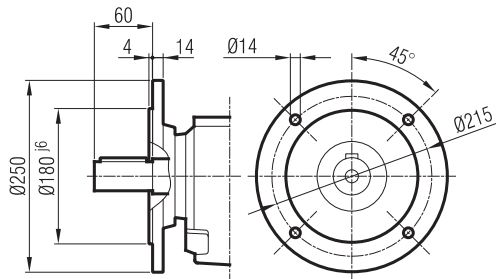


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø160

Opsiyonel / Option



Ø250

Opsiyonel / Option

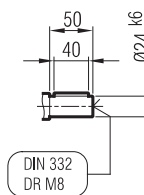
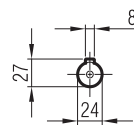
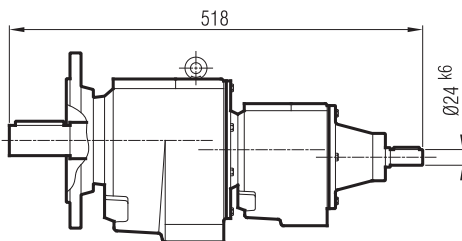
	71 M						
A	617						
A1	671						
H	123						
HD	194						
AC	138.5						

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

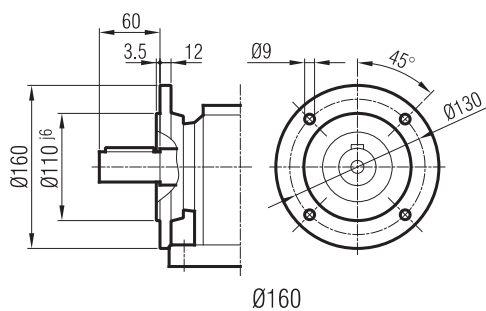
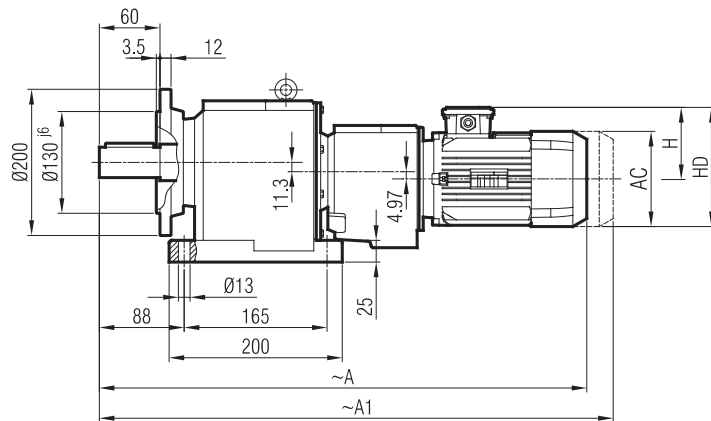
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 621 İR 52 / İRF 621 İR 53
İRF 631 İR 52 / İRF 631 İR 53

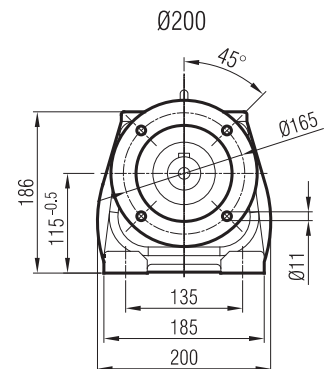




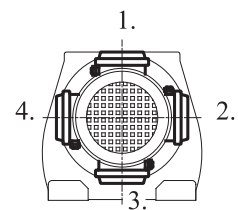
İRAFM 621 İR 52
İRAFM 631 İR 52



Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



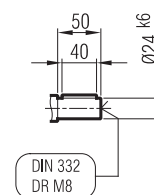
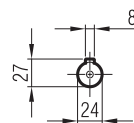
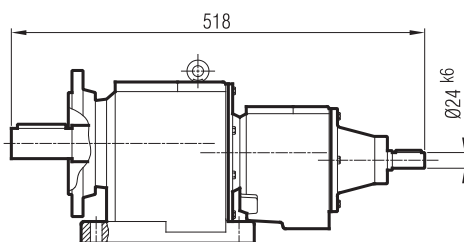
	71 M							
A	617							
A1	671							
H	123							
HD	194							
AC	138.5							

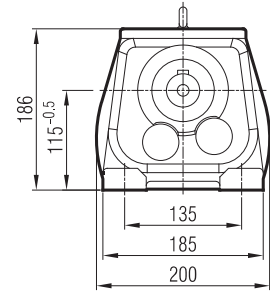
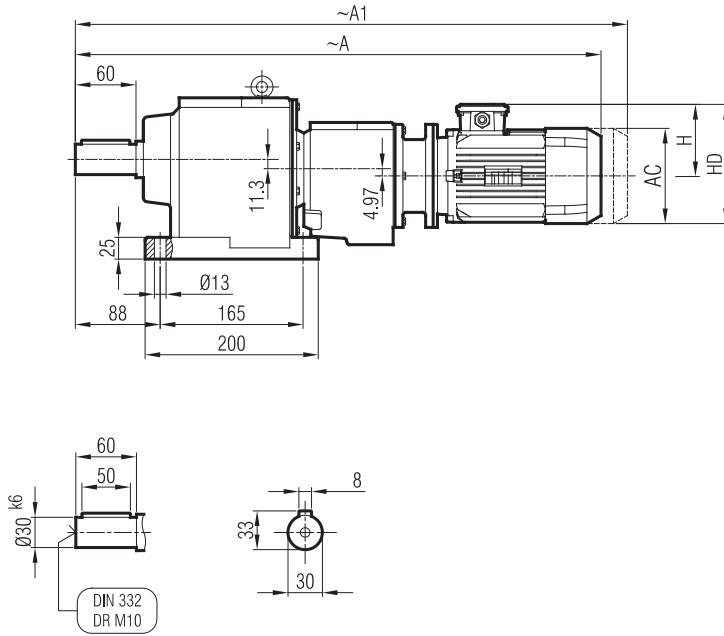
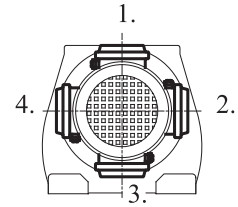
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

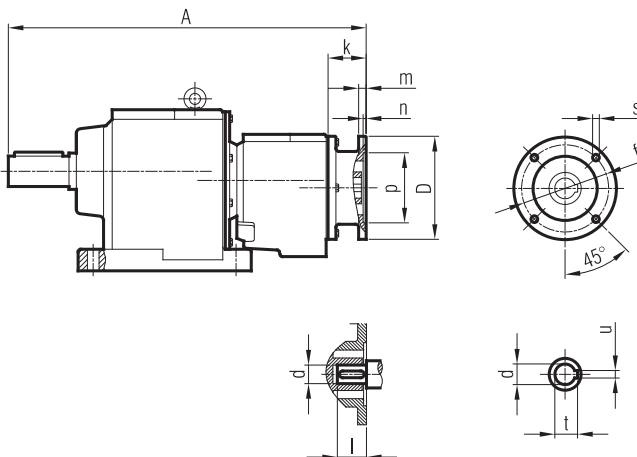
İRAF 621 İR 52 / İRAF 621 İR 53
İRAF 631 İR 52 / İRAF 631 İR 53




İRAPM 621 İR 52
İRAPM 631 İR 52

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


	63 M/B5	71 M/B5					
A	621	663					
A1	675	717					
H	108	123					
HD	171	194					
AC	125	138.5					

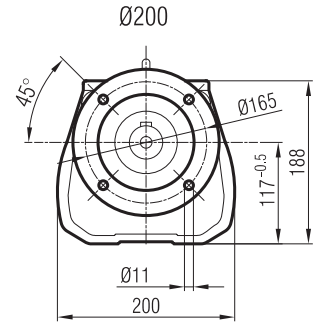
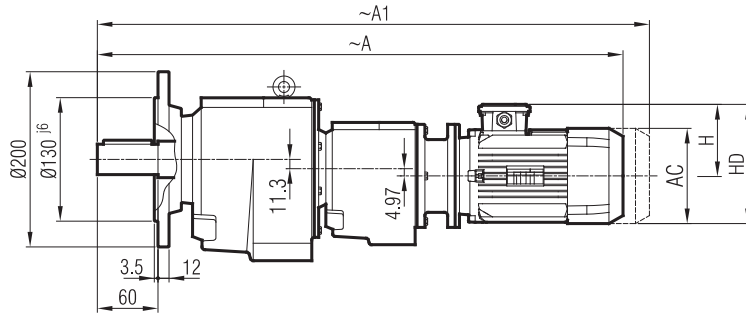
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAP 621 İR 52 / İRAP 621 İR 53
İRAP 631 İR 52 / İRAP 631 İR 53


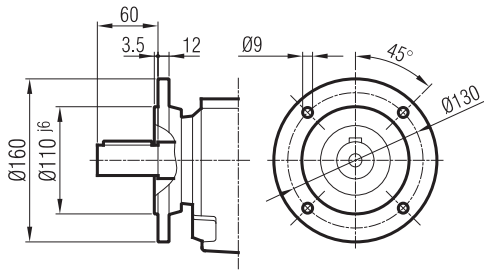
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	424	95	115	140	M8	35.5	8	4	11	12.8	4
71	433	110	130	160	M8	44	9	4	14	16.3	5
63	424	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	434	70	85	105	Ø7	45	10	3	14	16.3	5



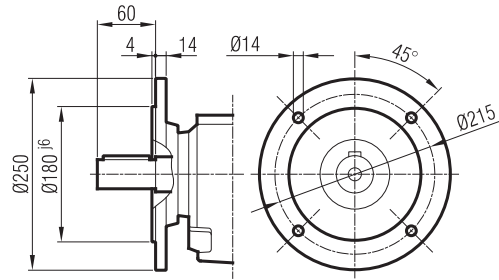
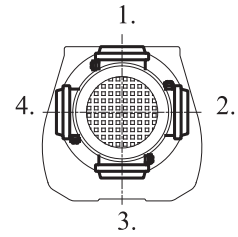
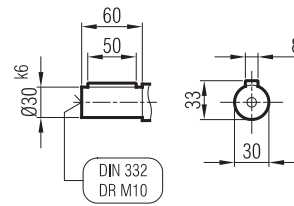
İRFPM 621 İR 52
İRFPM 631 İR 52



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø160
Opsiyonel / Option

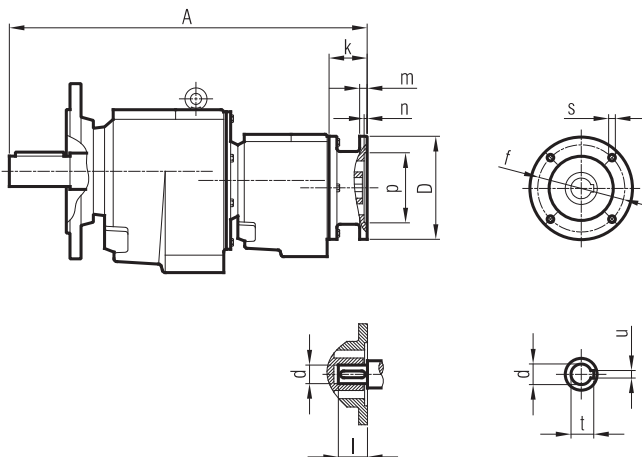


Ø250
Opsiyonel / Option

	63 M/B5	71 M/B5					
A	621	663					
A1	675	717					
H	108	123					
HD	171	194					
AC	125	138.5					

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 621 İR 52 / İRFP 621 İR 53
İRFP 631 İR 52 / İRFP 631 İR 53

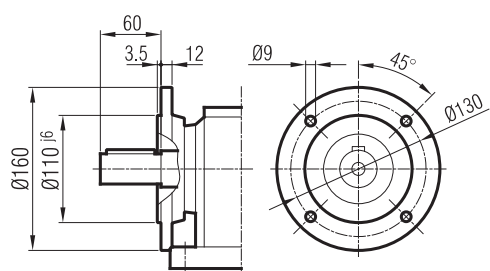
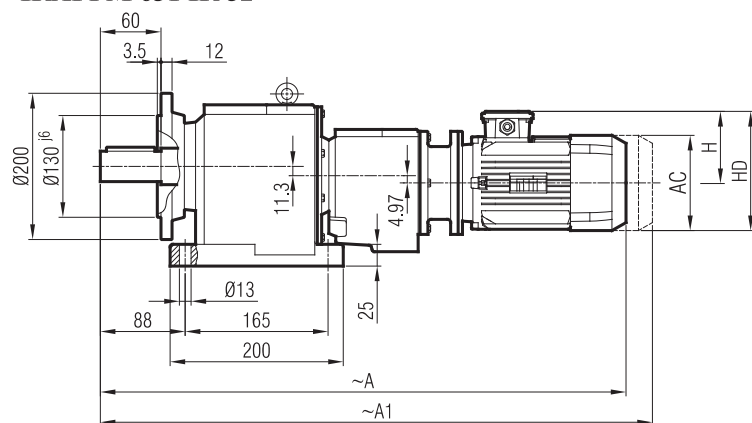


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	424	95	115	140	M8	35.5	8	4	11	12.8	4
71	433	110	130	160	M8	44	9	4	14	16.3	5
63	424	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	434	70	85	105	Ø7	45	10	3	14	16.3	5



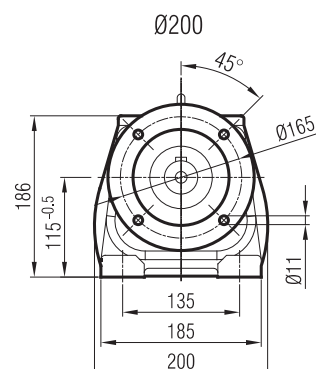
İRAFPM 621 İR 52

İRAFPM 631 İR 52



Ø160

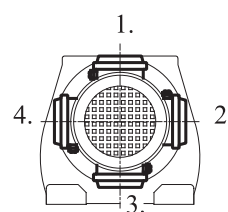
Opsiyonel / Option



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



	63 M/B5	71 M/B5					
A	621	663					
A1	675	717					
H	108	123					
HD	171	194					
AC	125	138.5					

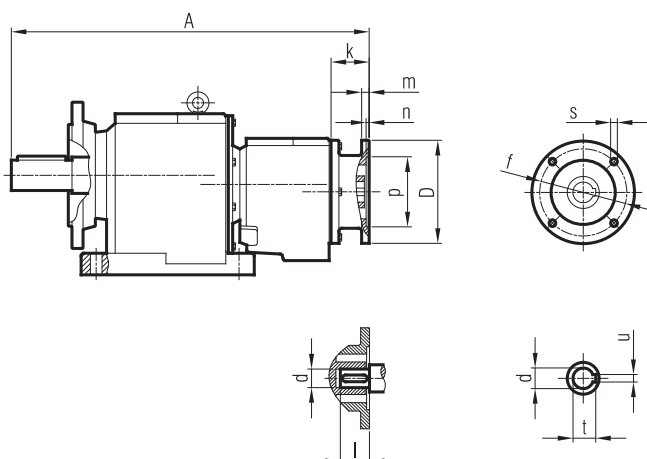
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 621 İR 52 / İRAFP 621 İR 53

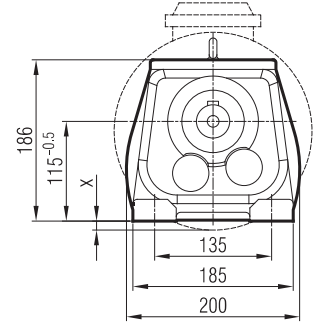
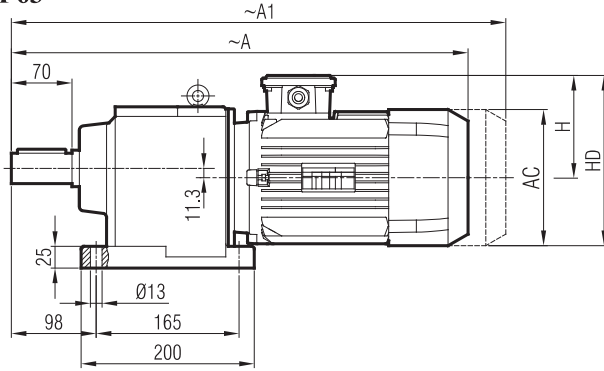
İRAFP 631 İR 52 / İRAFP 631 İR 53



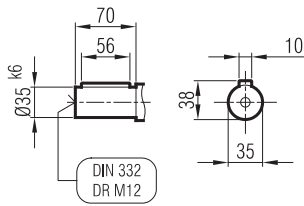
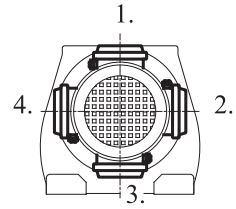
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	424	95	115	140	M8	35.5	8	4	11	12.8	4
71		433	110	130	160	M8	44	9	4	14	16.3	5
63	B14	424	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		434	70	85	105	Ø7	45	10	3	14	16.3	5



İRAM 62
İRAM 63



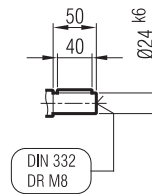
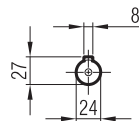
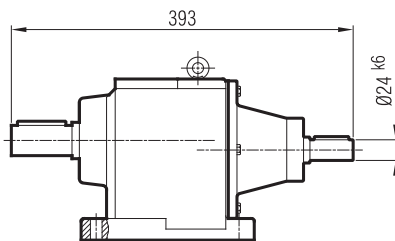
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M	90 S	90 L	100 L	112M	132 S	
A	472	545	538	602	641	612	668	
A1	526	606	605	669	718	707	772	
H	123	136	141	141	161	170	193	
HD	194	216	231	231	261	282	325	
AC	138.5	158	176	176	195	220	262	
X	-	-	-	-	-	6	27	

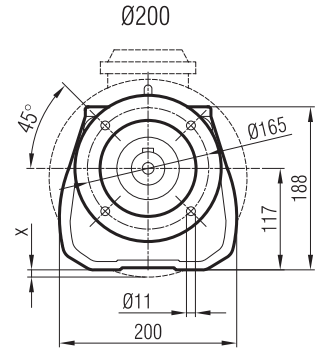
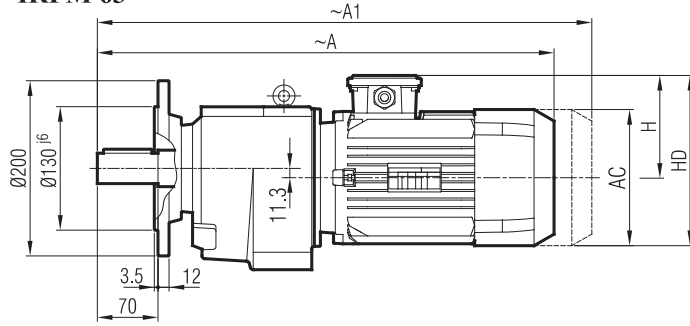
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 62
İRA 63

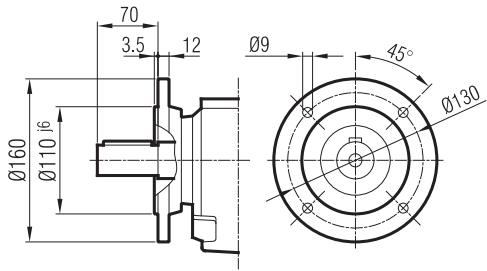




**İRFM 62
İRFM 63**

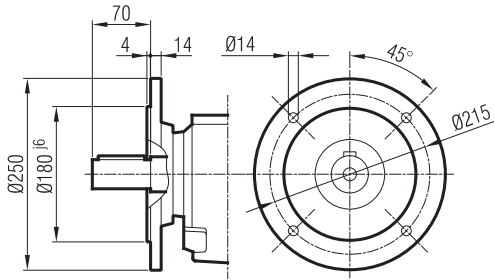
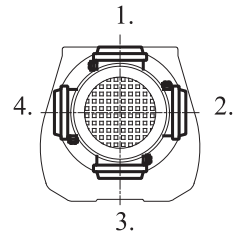
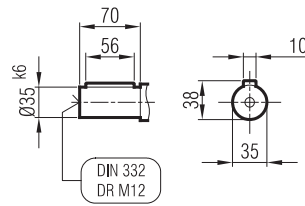


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø160

Opsiyonel / Option



Ø250

Opsiyonel / Option

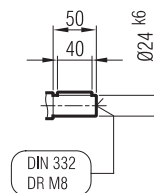
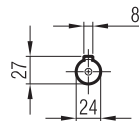
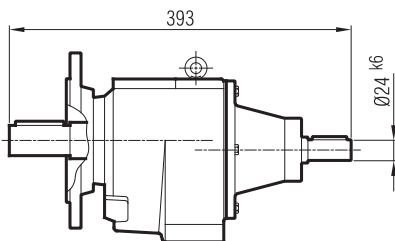
	71 M	80 M	90 S	90 L	100 L	112M	132 S	
A	472	545	538	602	641	612	668	
A1	526	606	605	669	718	707	772	
H	123	136	141	141	161	170	193	
HD	194	216	231	231	261	282	325	
AC	138.5	158	176	176	195	220	262	
X	-	-	-	-	-	6	27	

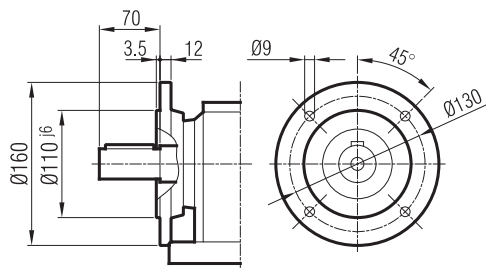
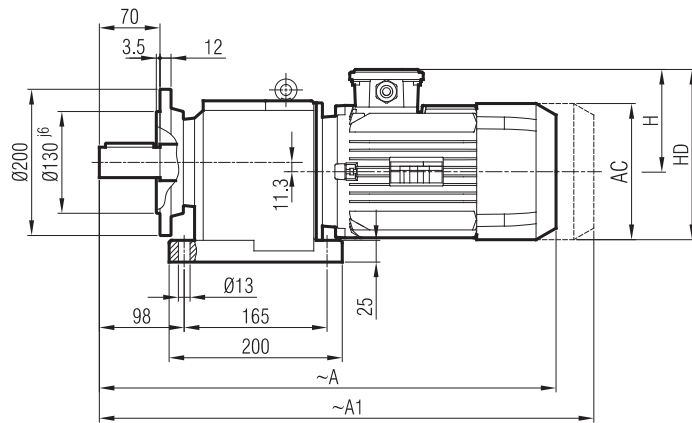
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

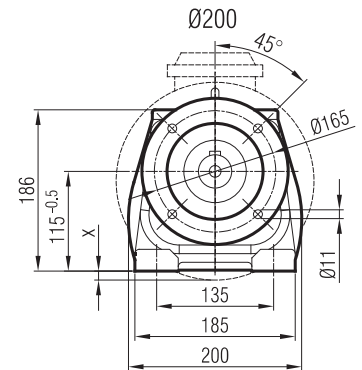
Le dimensions "A1" correspond aux moteurs équipés de freins.

**İRF 62
İRF 63**

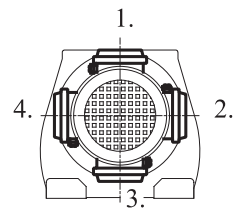


İRAFM 62
İRAFM 63

Ø160
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes

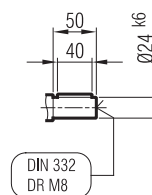
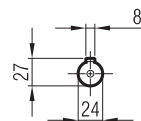
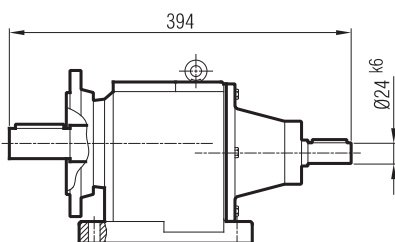


	71 M	80 M	90 S	90 L	100 L	112M	132 S	
A	472	545	538	602	641	612	668	
A1	526	606	605	669	718	707	772	
H	123	136	141	141	161	170	193	
HD	194	216	231	231	261	282	325	
AC	138.5	158	176	176	195	220	262	
X	-	-	-	-	-	6	27	

"A1" Ölçüsü Frenli Motorlar içindir.

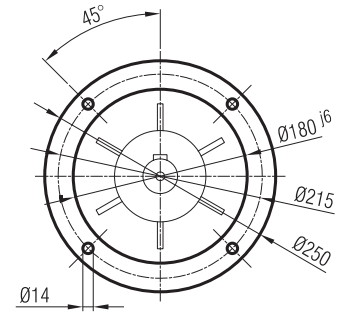
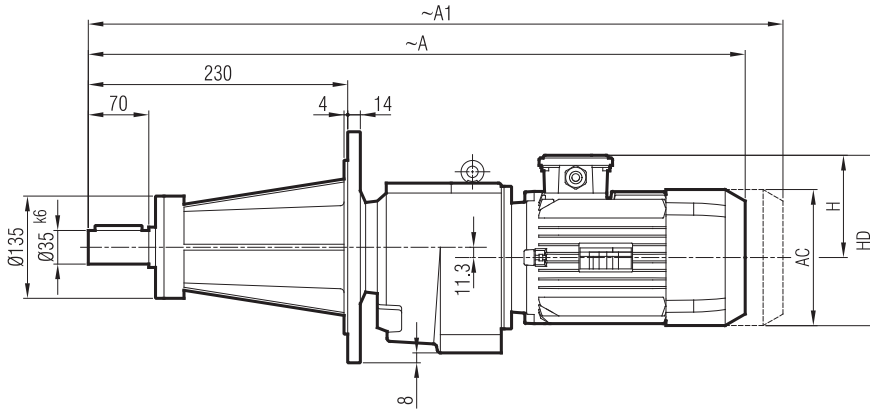
Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

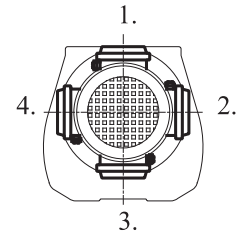
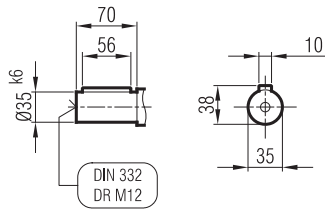
İRAF 62
İRAF 63



İRBM 62
İRBM 63



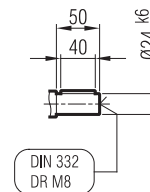
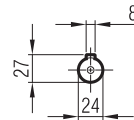
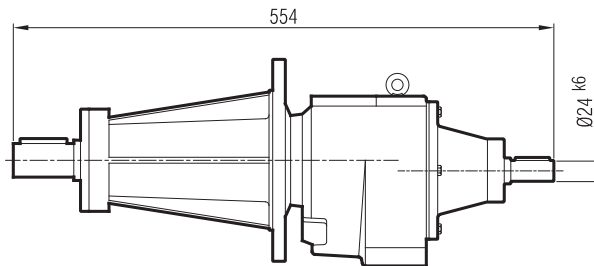
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M	90 S	90 L	100 L	112M	132 S	
A	632	705	698	762	801	772	828	
A1	686	766	765	829	878	867	932	
H	123	136	141	141	161	170	193	
HD	194	216	231	231	261	282	325	
AC	138.5	158	176	176	195	220	262	
X	-	-	-	-	-	4	25	

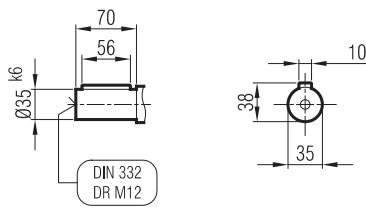
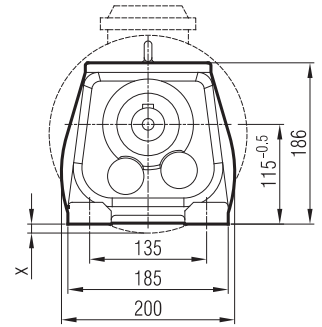
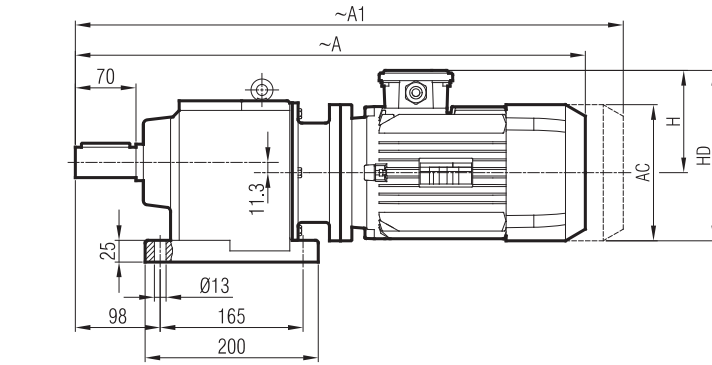
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRB 62
İRB 63

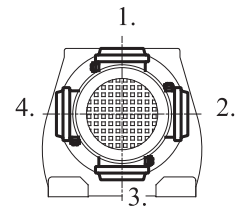




İRAPM 62
İRAPM 63



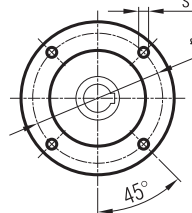
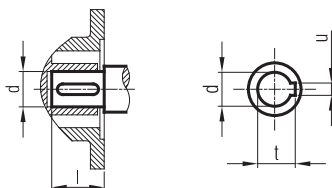
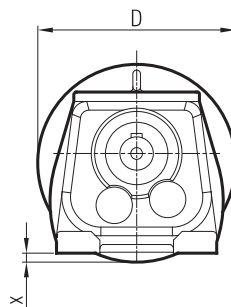
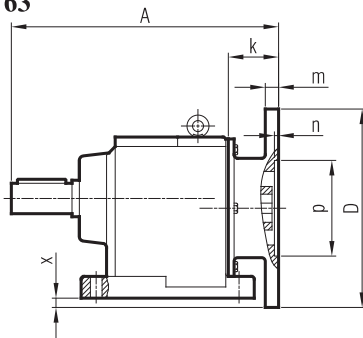
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



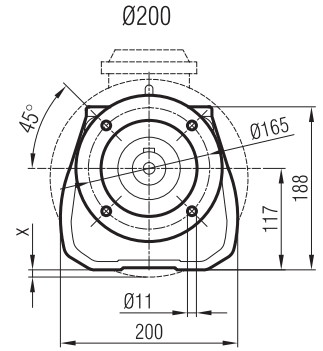
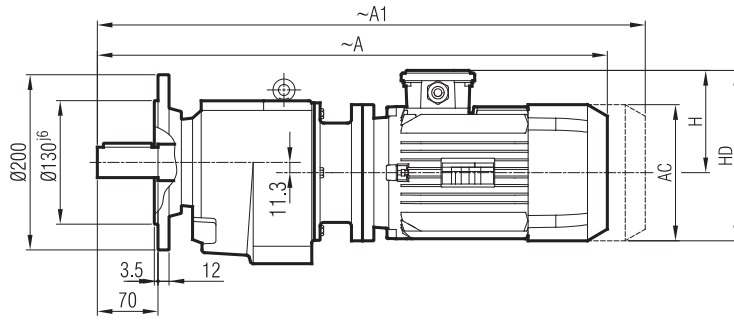
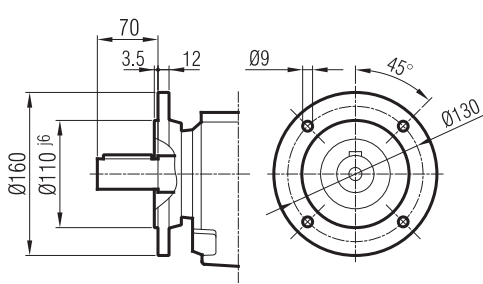
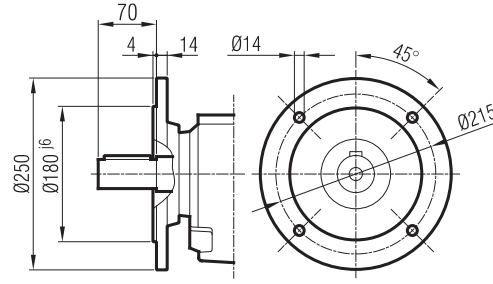
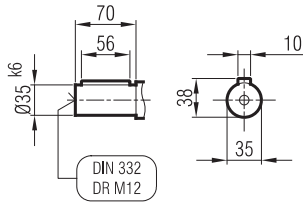
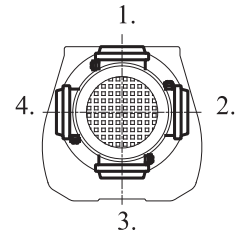
IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	483	526	594	603	641	686	657	731
A1	537	580	655	670	708	763	752	835
H	108	123	136	141	141	161	170	193
HD	171	194	216	231	231	261	282	325
AC	125	138.5	158	176	176	195	220	262
X	-	-	-	-	-	21	21	46

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

İRAP 62
İRAP 63

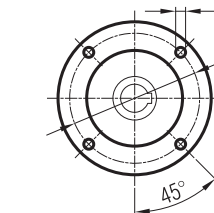
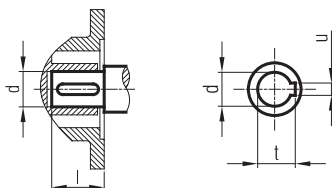
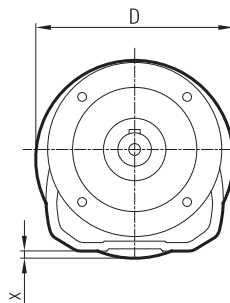
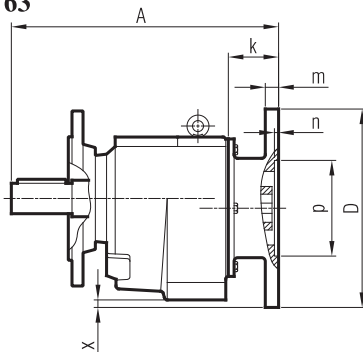


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	286	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	296	110	130	160	M8	45	9	4	14	16.3	5	-
80	301	130	165	200	M10	50	12	5	19	21.8	6	-
90	301	130	165	200	M10	50	12	5	24	27.3	8	-
100	314	180	215	250	M12	63	14	5	28	31.3	8	21
112	314	180	215	250	M12	63	14	5	28	31.3	8	21
132	330	230	265	300	M12	79	17	6	38	41.3	10	46
63	286	60	75	90	Ø6	35.5	7	3.5	11	12.8	4	-
71	296	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	301	80	100	120	Ø7	50	8	4	19	21.8	6	-
90	301	95	115	140	Ø9	50	10	4	24	27.3	8	-
100	314	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
112	314	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
132	330	130	165	200	Ø11	79	12	5	38	41.3	10	-

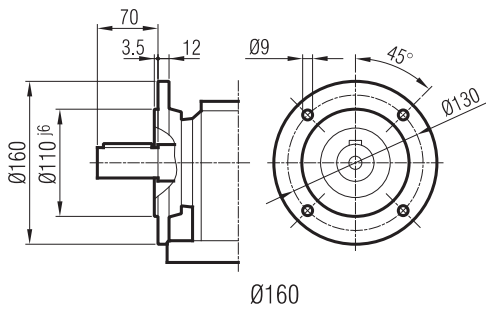
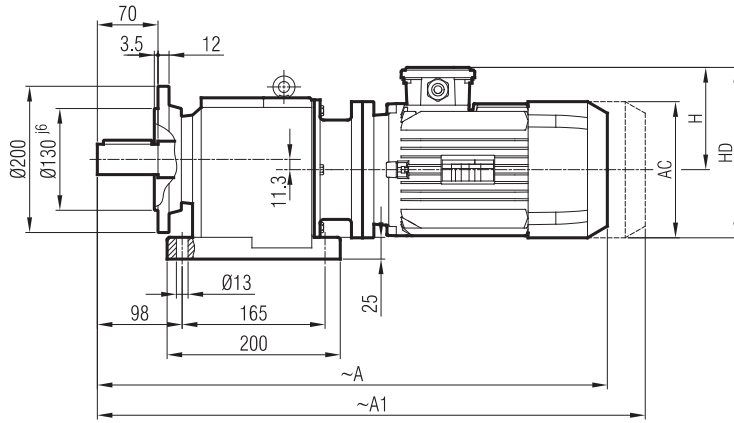
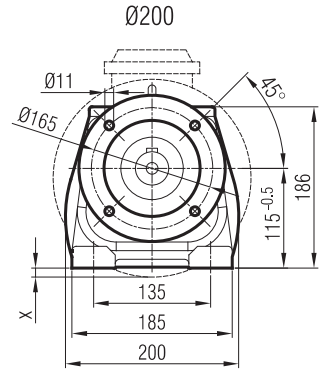
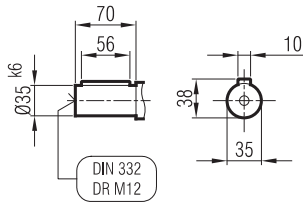
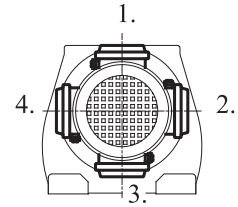

İRFP 62
İRFP 63

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

Ø160
Opsiyonel / Option

Ø250
Opsiyonel / Option


IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	483	526	594	603	641	686	657	731
A1	537	580	655	670	708	763	752	835
H	108	123	136	141	141	161	170	193
HD	171	194	216	231	231	261	282	325
AC	125	138.5	158	176	176	195	220	262
X	-	-	-	-	-	21	21	46

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspondent aux moteurs équipés de freins.

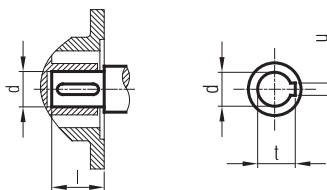
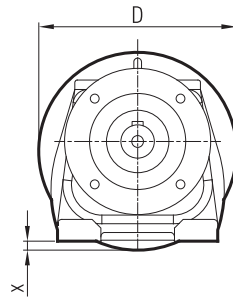
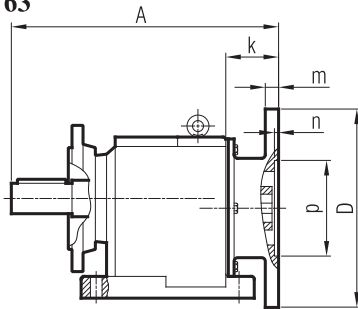
İRFP 62
İRFP 63


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	286	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	296	110	130	160	M8	45	9	4	14	16.3	5	-
80	301	130	165	200	M10	50	12	5	19	21.8	6	-
90	301	130	165	200	M10	50	12	5	24	27.3	8	-
100	314	180	215	250	M12	63	14	5	28	31.3	8	21
112	314	180	215	250	M12	63	14	5	28	31.3	8	21
132	330	230	265	300	M12	79	17	6	38	41.3	10	46
63	286	60	75	90	Ø6	35.5	7	3.5	11	12.8	4	-
71	296	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	301	80	100	120	Ø7	50	8	4	19	21.8	6	-
90	301	95	115	140	Ø9	50	10	4	24	27.3	8	-
100	314	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
112	314	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
132	330	130	165	200	Ø11	79	12	5	38	41.3	10	-

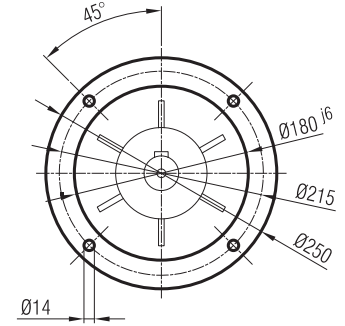
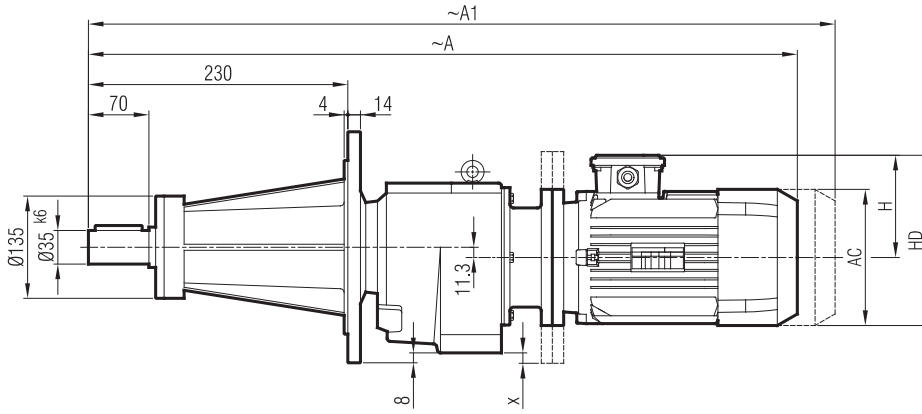
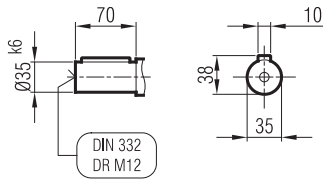
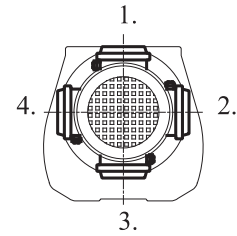

İRAFPM 62
İRAFPM 63

Opsiyonel / Option

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	483	526	594	603	641	686	657	731
A1	537	580	655	670	708	763	752	835
H	108	123	136	141	141	161	170	193
HD	171	194	216	231	231	261	282	325
AC	125	138.5	158	176	176	195	220	262
X	-	-	-	-	-	21	21	46

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspondent aux moteurs équipés de freins.

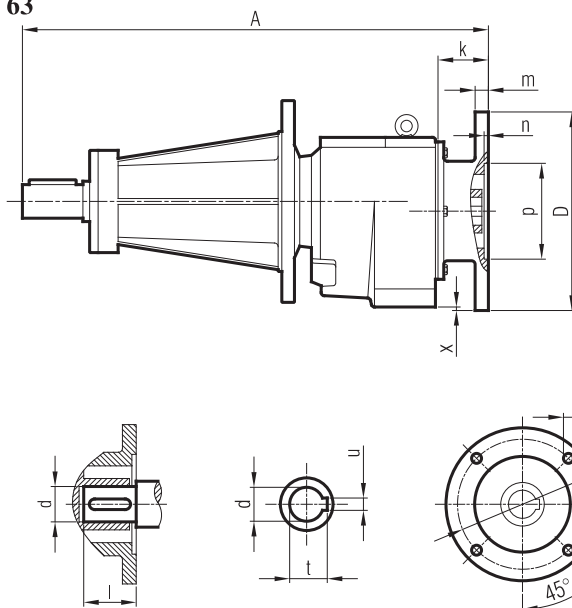
İRAFP 62
İRAFP 63


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	286	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	296	110	130	160	M8	45	9	4	14	16.3	5	-
80	301	130	165	200	M10	50	12	5	19	21.8	6	-
90	301	130	165	200	M10	50	12	5	24	27.3	8	-
100	314	180	215	250	M12	63	14	5	28	31.3	8	21
112	314	180	215	250	M12	63	14	5	28	31.3	8	21
132	330	230	265	300	M12	79	17	6	38	41.3	10	46
63	286	60	75	90	Ø6	35.5	7	3.5	11	12.8	4	-
71	296	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	301	80	100	120	Ø7	50	8	4	19	21.8	6	-
90	301	95	115	140	Ø9	50	10	4	24	27.3	8	-
100	314	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
112	314	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
132	330	130	165	200	Ø11	79	12	5	38	41.3	10	-


İRBPM 62
İRBPM 63

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	643	686	754	763	801	846	817	891
A1	697	740	815	830	868	923	912	995
H	108	123	136	141	141	161	170	193
HD	171	194	216	231	231	261	282	325
AC	125	138.5	158	176	176	195	220	262
X	-	-	-	-	-	19	19	44

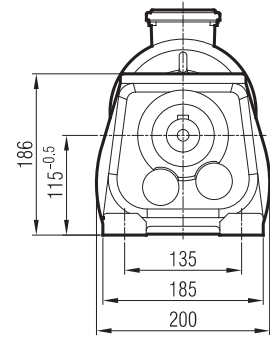
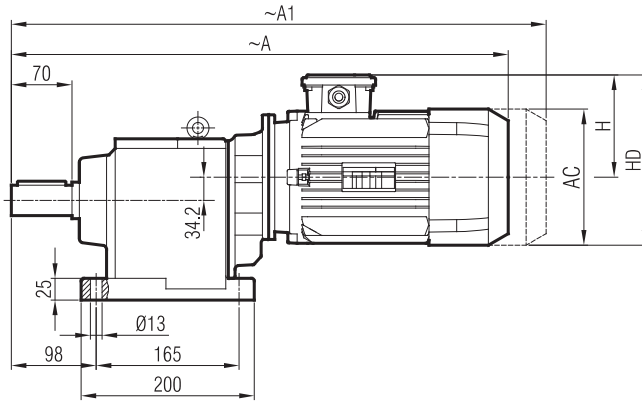
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRBP 62
İRBP 63


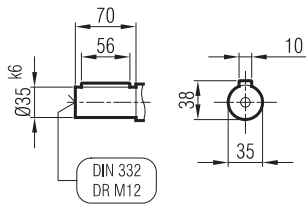
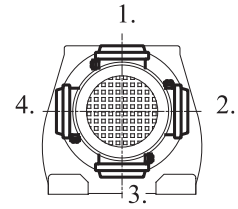
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
63	446	95	115	140	M8	35.5	8	4	11	12.8	4	-
71	456	110	130	160	M8	45	9	4	14	16.3	5	-
80	461	130	165	200	M10	50	12	5	19	21.8	6	-
90	461	130	165	200	M10	50	12	5	24	27.3	8	-
100	474	180	215	250	M12	63	14	5	28	31.3	8	19
112	474	180	215	250	M12	63	14	5	28	31.3	8	19
132	490	230	265	300	M12	79	17	6	38	41.3	10	44
63	446	60	75	90	Ø6	35.5	7	3.5	11	12.8	4	-
71	456	70	85	105	Ø7	45	10	3	14	16.3	5	-
80	461	80	100	120	Ø7	50	8	4	19	21.8	6	-
90	461	95	115	140	Ø9	50	10	4	24	27.3	8	-
100	474	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
112	474	110	130	160	Ø9	63	10	4.5	28	31.3	8	-
132	490	130	165	200	Ø11	79	12	5	38	41.3	10	-



İRAM 64



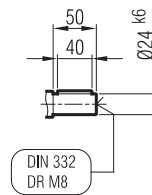
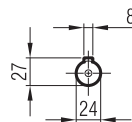
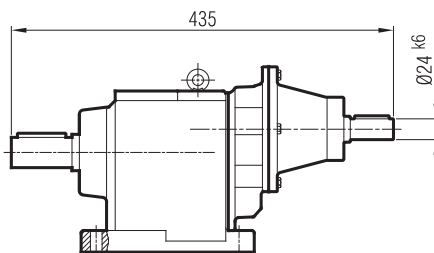
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M						
A	534	578						
A1	588	639						
H	123	136						
HD	194	216						
AC	138.5	158						

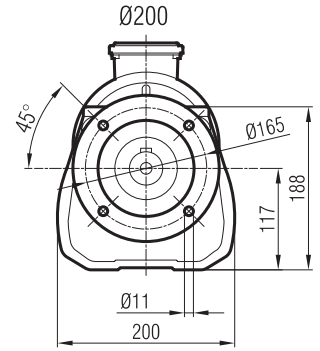
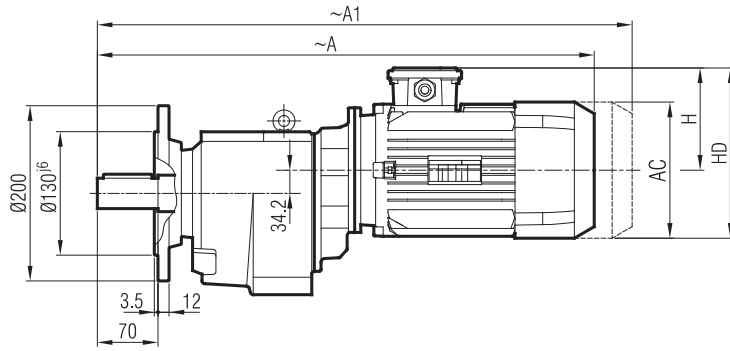
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 64

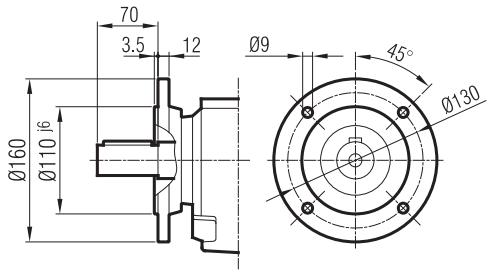
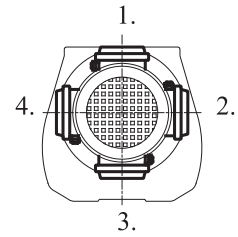




İRFM 64

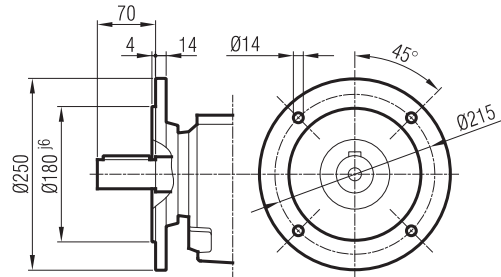
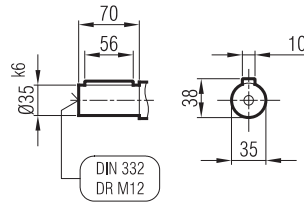


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø160

Opsiyonel / Option



Ø250

Opsiyonel / Option

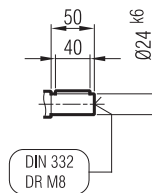
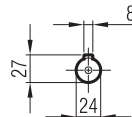
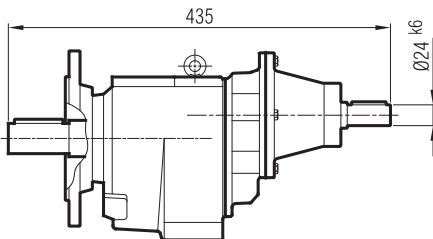
	71 M	80 M						
A	534	578						
A1	588	639						
H	123	136						
HD	194	216						
AC	138.5	158						

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

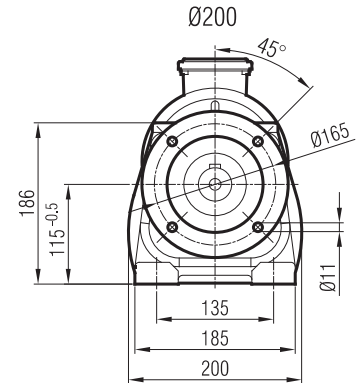
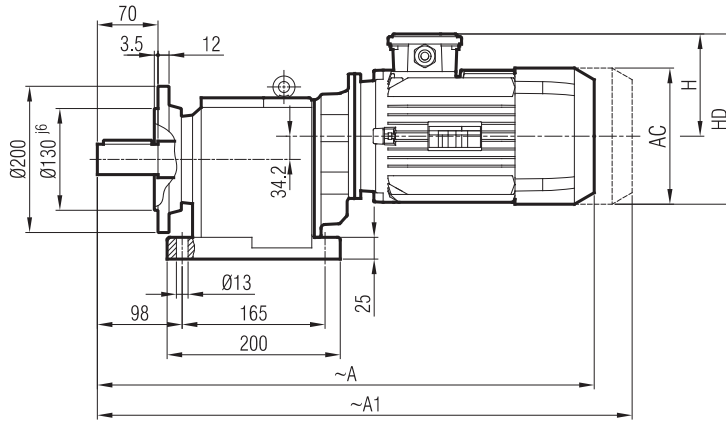
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 64

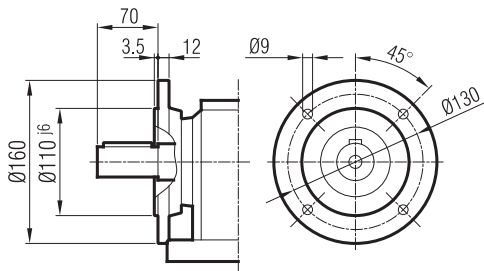




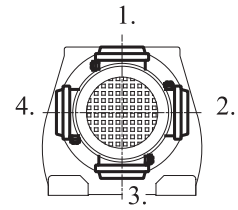
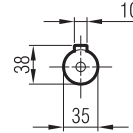
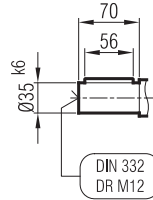
İRAFM 64



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



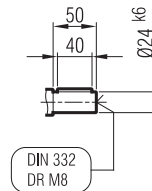
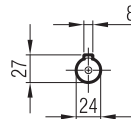
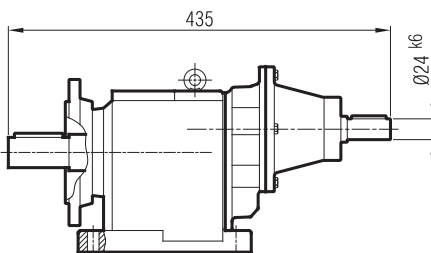
Ø160
Opsiyonel / Option

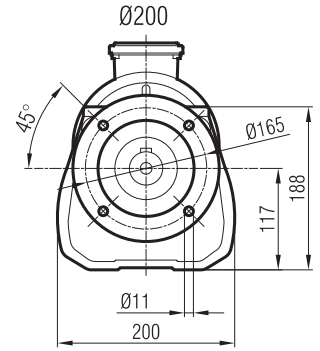
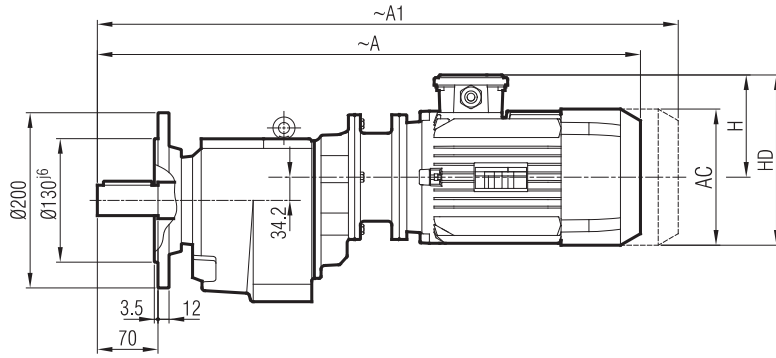


	71 M	80 M					
A	534	578					
A1	588	639					
H	123	136					
HD	194	216					
AC	138.5	158					

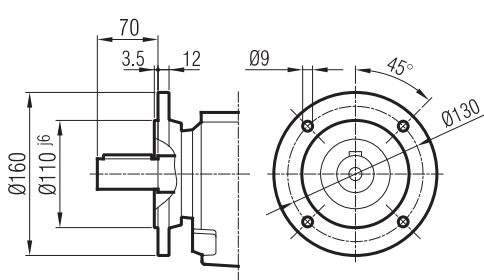
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 64

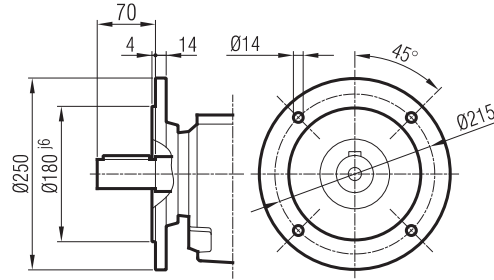



İRFPM 64


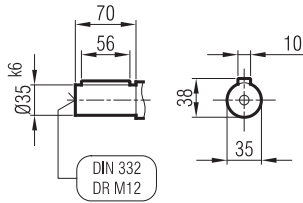
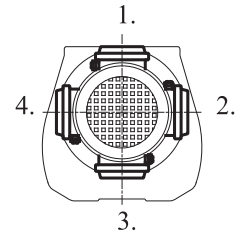
Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



Ø160
Opsiyonel / Option

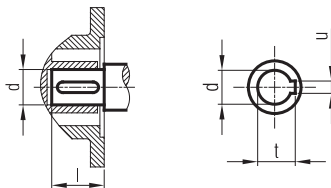
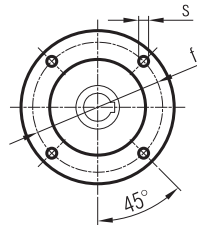
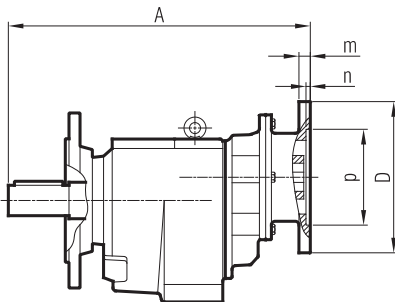


Ø250
Opsiyonel / Option



	63 M/B5	71 M/B5	80 M/B5				
A	538	580	618				
A1	592	634	679				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

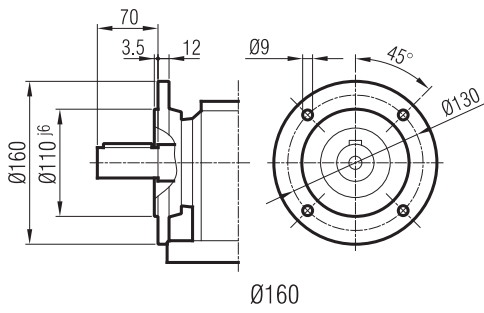
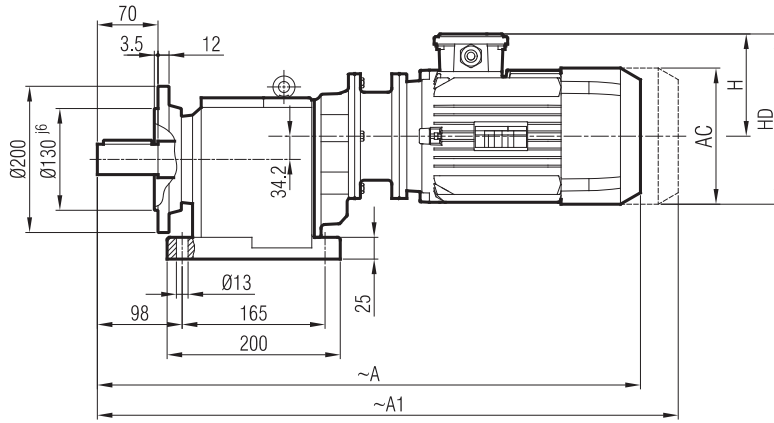
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 64


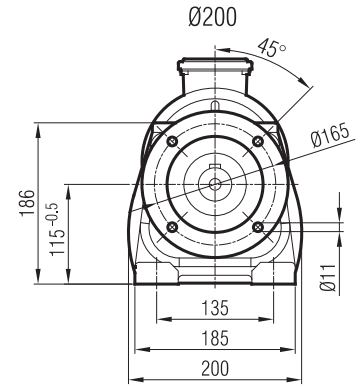
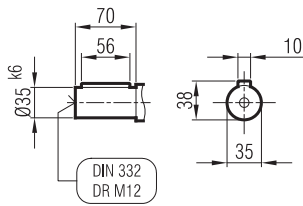
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	341	95	115	140	M8	35.5	8	4	11	12.8	4
71	350	110	130	160	M8	44	9	4	14	16.3	5
80	352	130	165	200	M10	46	12	5	19	21.8	6
63	341	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	351	70	85	105	Ø7	45	10	3	14	16.3	5
80	352	80	100	120	Ø7	46	8	4	19	21.8	6



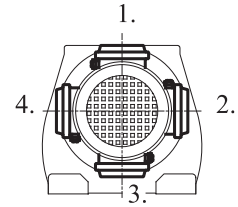
İRAFPM 64



Opsiyonel / Option



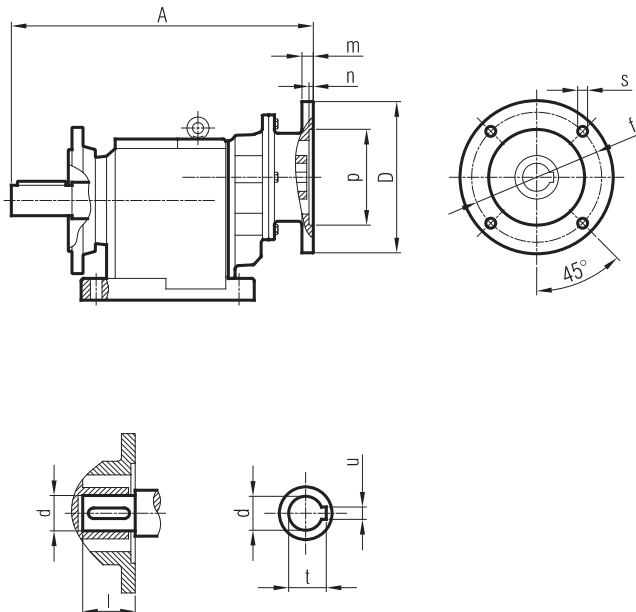
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M/B5	71 M/B5	80 M/B5				
A	538	580	618				
A1	592	634	679				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

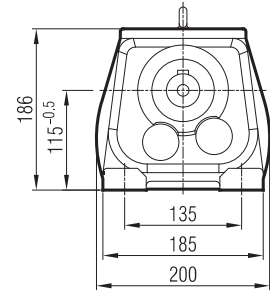
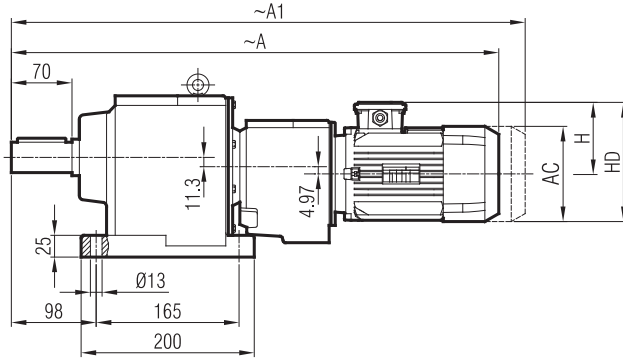
İRAFP 64



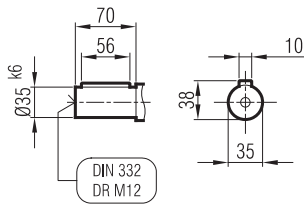
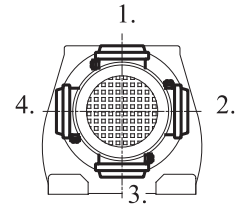
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	341	95	115	140	M8	35.5	8	4	11	12.8	4
71	350	110	130	160	M8	44	9	4	14	16.3	5
80	352	130	165	200	M10	46	12	5	19	21.8	6
63	341	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	351	70	85	105	Ø7	45	10	3	14	16.3	5
80	352	80	100	120	Ø7	46	8	4	19	21.8	6



İRAM 62 İR 52
İRAM 63 İR 52



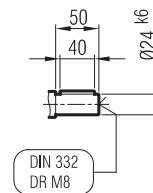
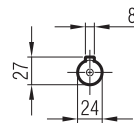
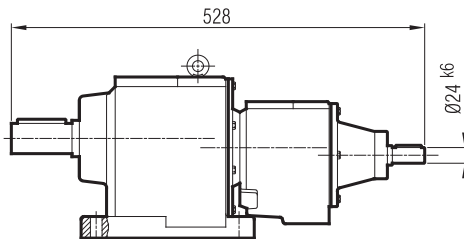
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M							
A	627							
A1	681							
H	123							
HD	194							
AC	138.5							

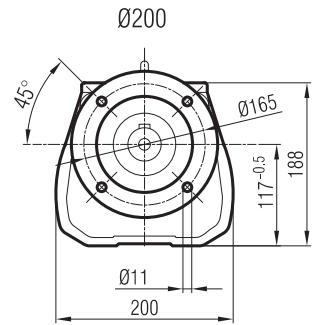
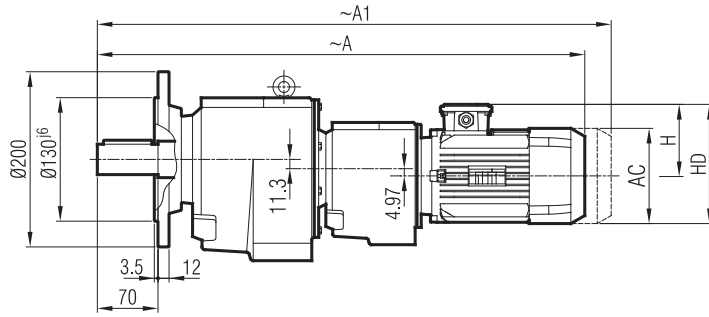
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 62 İR 52 / İRA 62 İR 53
İRA 63 İR 52 / İRA 63 İR 53

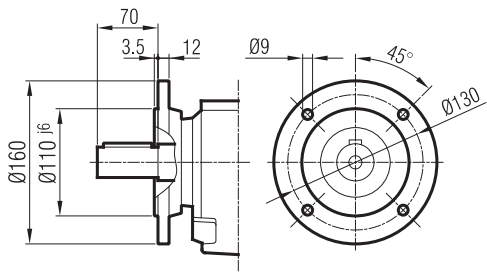




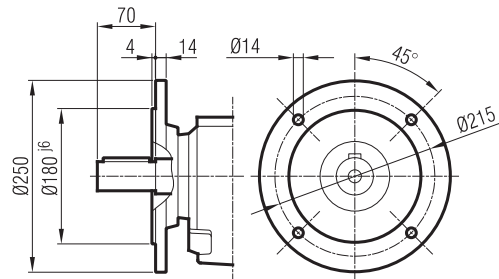
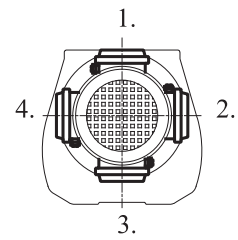
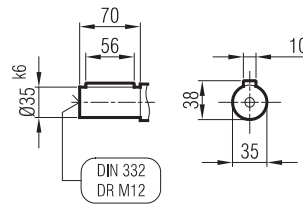
İRFM 62 İR 52
İRFM 63 İR 52



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø160
Opsiyonel / Option

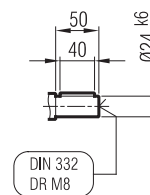
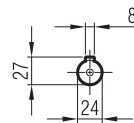
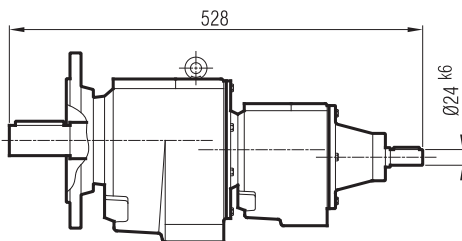


Ø250
Opsiyonel / Option

	71 M						
A	627						
A1	681						
H	123						
HD	194						
AC	138.5						

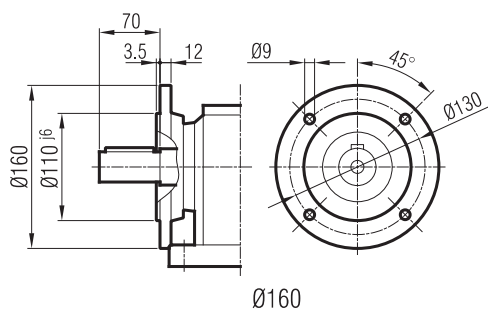
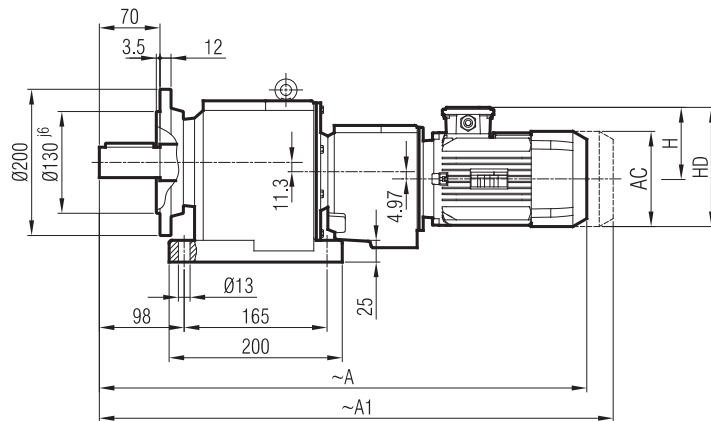
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 62 İR 52 / İRF 62 İR 53
İRF 63 İR 52 / İRF 63 İR 53

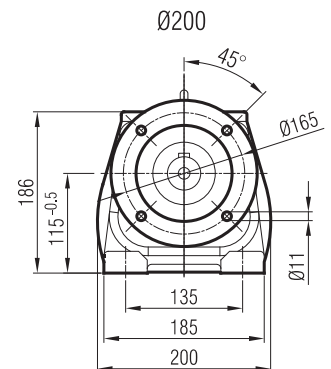




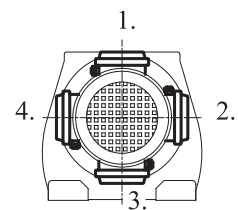
İRAFM 62 İR 52
İRAFM 63 İR 52



Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



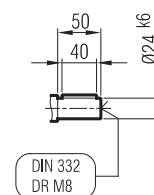
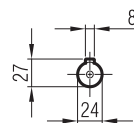
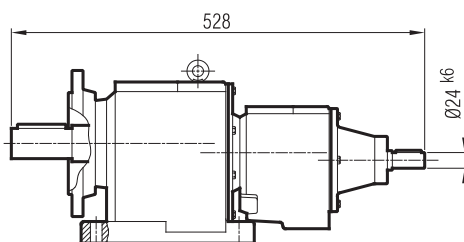
	71 M							
A	627							
A1	681							
H	123							
HD	194							
AC	138.5							

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

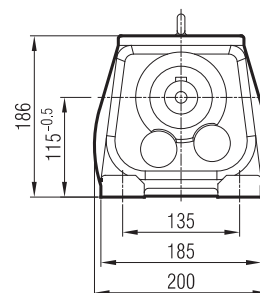
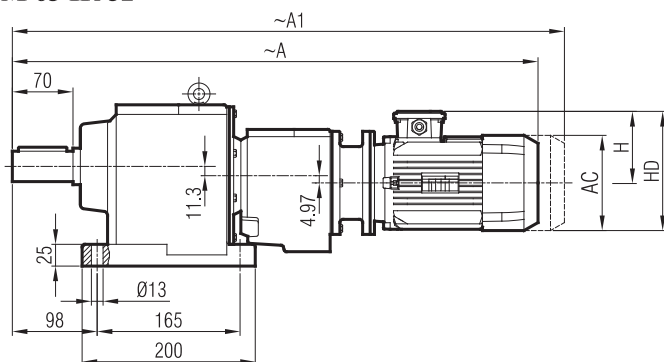
İRAF 62 İR 52 / İRAF 62 İR 53
İRAF 63 İR 52 / İRAF 63 İR 53





İRAPM 62 İR 52

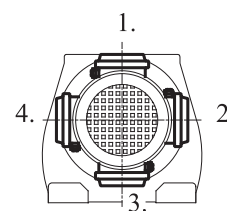
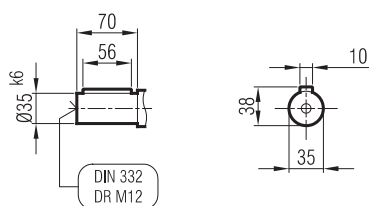
İRAPM 63 İR 52



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



	63 M/B5	71 M/B5					
A	631	673					
A1	658	727					
H	108	123					
HD	171	194					
AC	125	138.5					

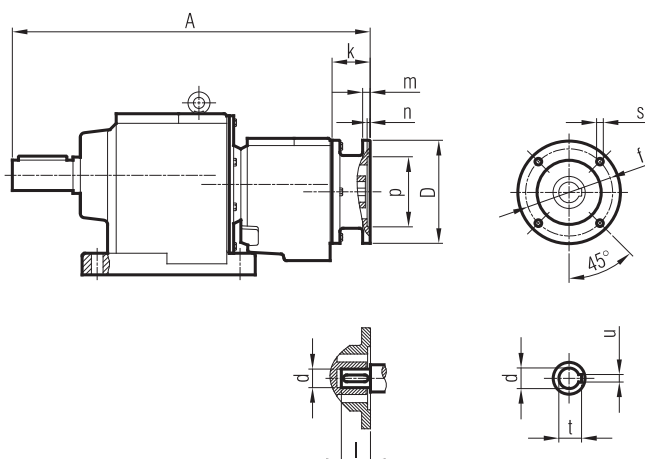
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAP 62 İR 52 / İRAP 62 İR 53

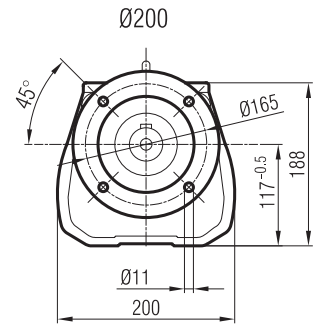
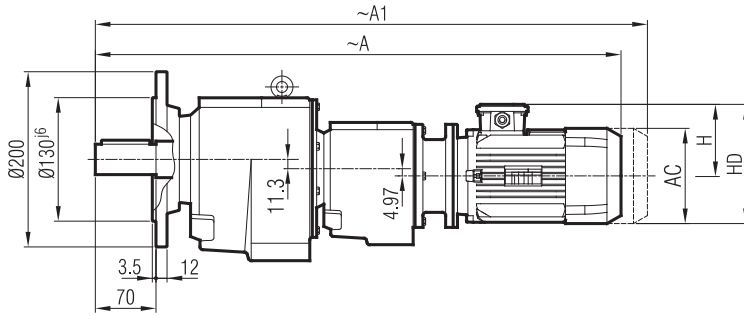
İRAP 63 İR 52 / İRAP 63 İR 53



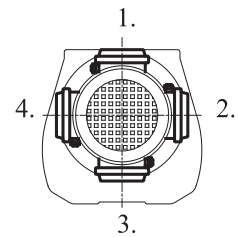
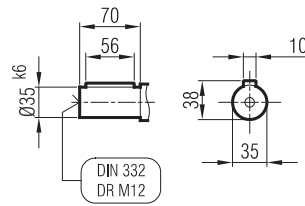
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	424	95	115	140	M8	35.5	8	4	11	12.8	4
71		433	110	130	160	M8	44	9	4	14	16.3	5
63	B14	424	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		434	70	85	105	Ø7	45	10	3	14	16.3	5



İRFP 62 İR 52
İRFP 63 İR 52



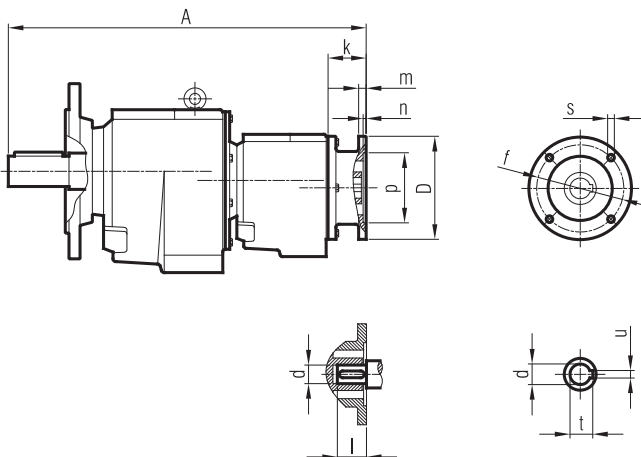
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M/B5	71 M/B5					
A	631	673					
A1	658	727					
H	108	123					
HD	171	194					
AC	125	138.5					

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

İRFP 62 İR 52 / İRFP 62 İR 53
İRFP 63 İR 52 / İRFP 63 İR 53

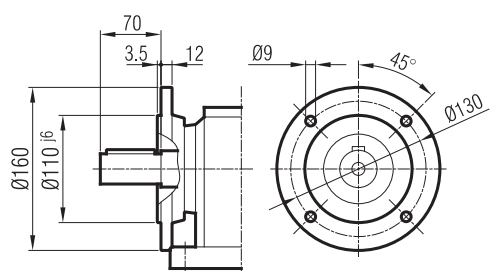
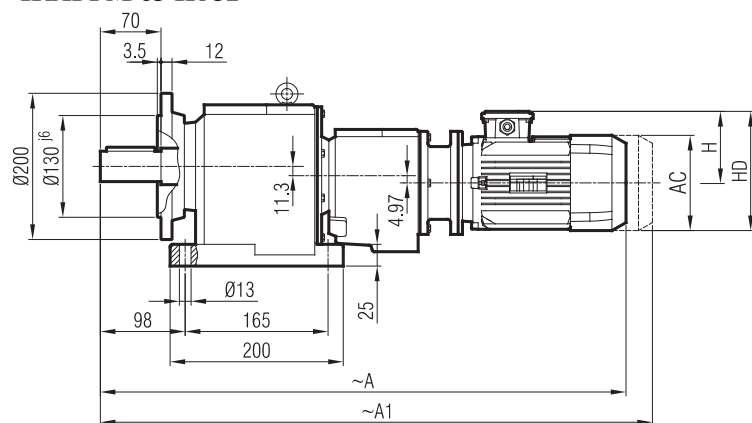


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	424	95	115	140	M8	35.5	8	4	11	12.8	4
71	433	110	130	160	M8	44	9	4	14	16.3	5
63	424	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	434	70	85	105	Ø7	45	10	3	14	16.3	5



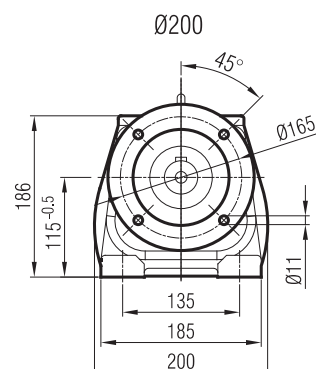
İRAFPM 62 İR 52

İRAFPM 63 İR 52



Ø160

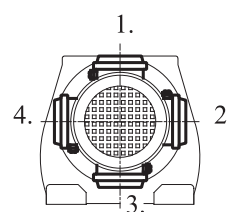
Opsiyonel / Option



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



	63 M/B5	71 M/B5					
A	631	673					
A1	658	727					
H	108	123					
HD	171	194					
AC	125	138.5					

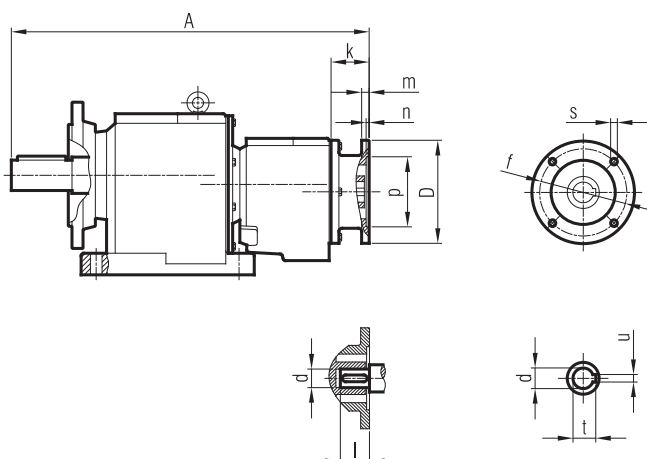
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 62 İR 52 / İRAFP 62 İR 53

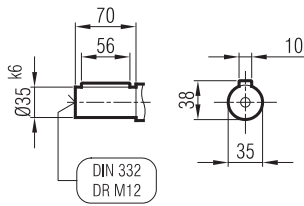
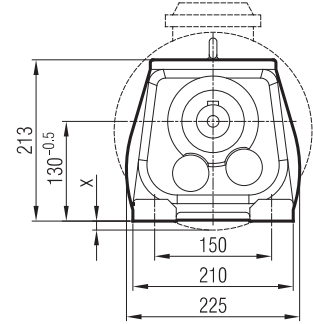
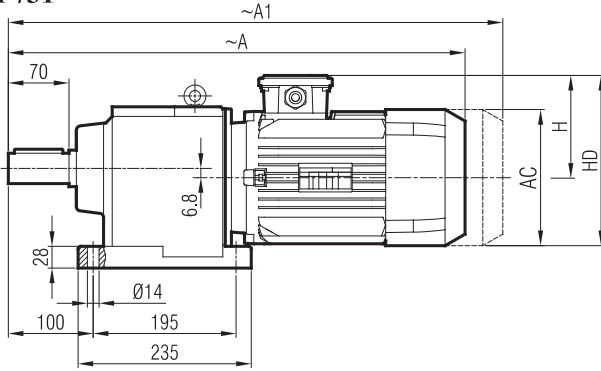
İRAFP 63 İR 52 / İRAFP 63 İR 53



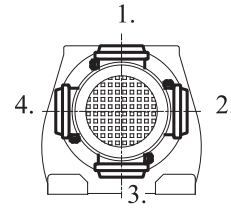
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	424	95	115	140	M8	35.5	8	4	11	12.8	4
71		433	110	130	160	M8	44	9	4	14	16.3	5
63	B14	424	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		434	70	85	105	Ø7	45	10	3	14	16.3	5



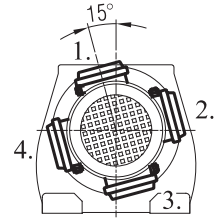
İRAM 721
İRAM 731



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



71-90-100-112-132
Tip/Type/Type



80
Tip/Type/Type

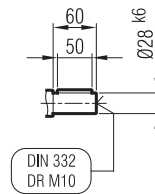
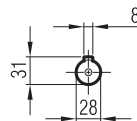
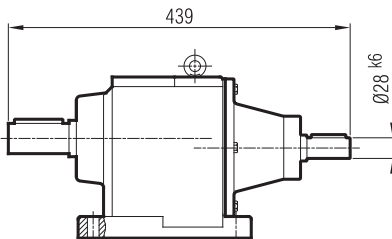
	71 M	80 M	90 S	90 L	100 L	112 M	132 S	132 M
A	487	560	554	618	659	634	690	735
A1	541	621	621	685	736	729	794	839
H	123	136	141	141	161	170	193	193
HD	194	216	231	231	261	282	325	325
AC	138.5	158	176	176	195	220	262	262
X	-	-	-	-	-	-	8	8

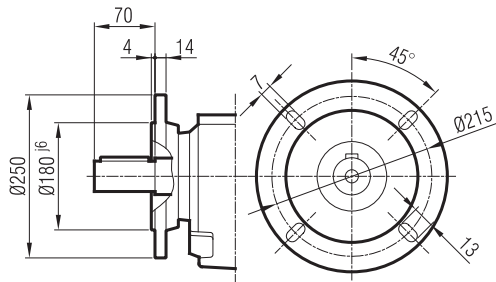
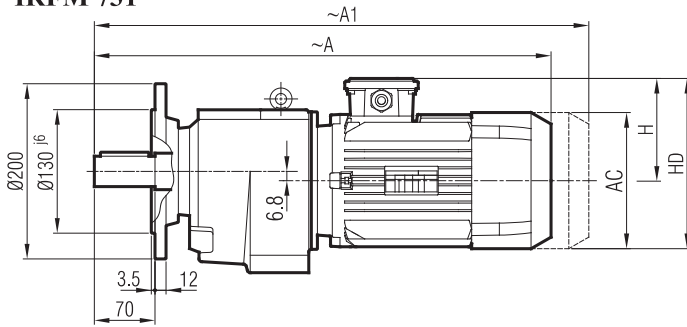
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

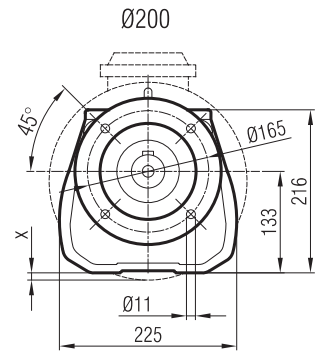
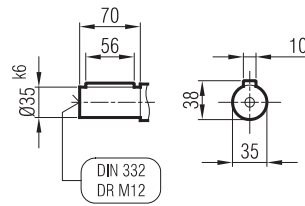
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 721
İRA 731

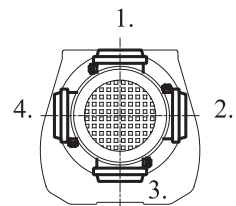



İRFM 721
İRFM 731


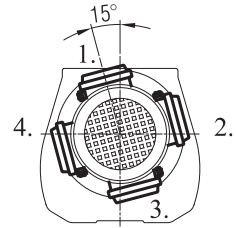
Ø250
Opsiyonel / Option



Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

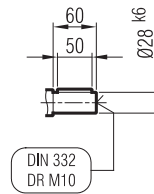
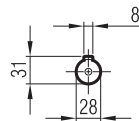
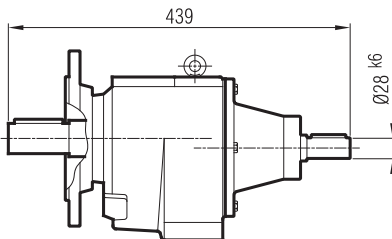


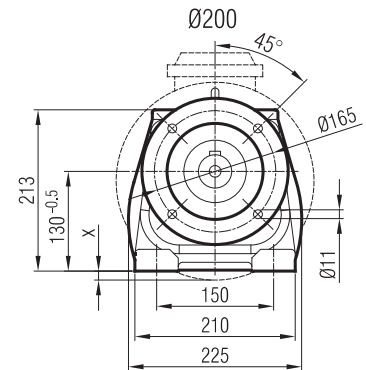
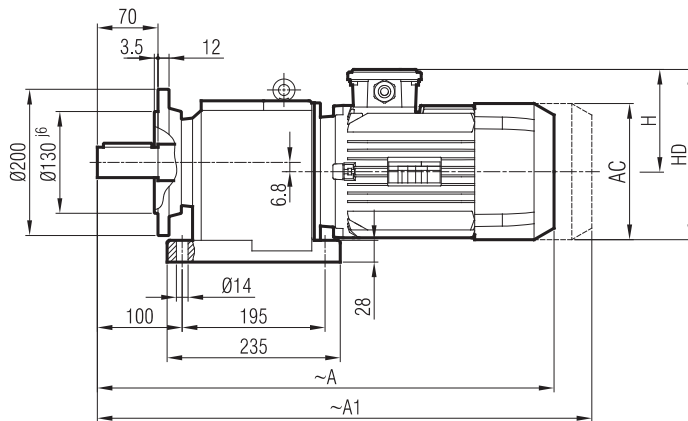
71, 90, 100, 112, 132
Tip/Type/Type



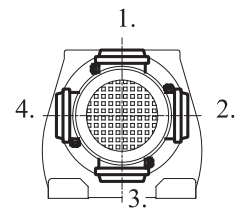
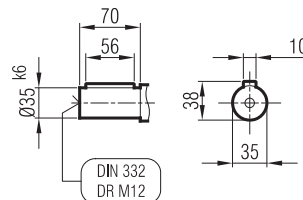
80
Tip/Type/Type

	71 M	80 M	90 S	90 L	100 L	112 M	132 S	132 M
A	487	560	554	618	659	634	690	735
A1	541	621	621	685	736	729	794	839
H	123	136	141	141	161	170	193	193
HD	194	216	231	231	261	282	325	325
AC	138.5	158	176	176	195	220	262	262
X	-	-	-	-	-	-	8	8

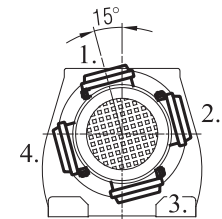
İRF 721
İRF 731


İRAFM 721
İRAFM 731

Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



71, 90, 100, 112, 132
Tip/*Type*/*Type*



80
Tip/Type/Type

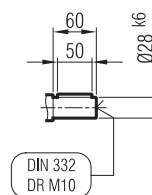
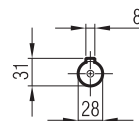
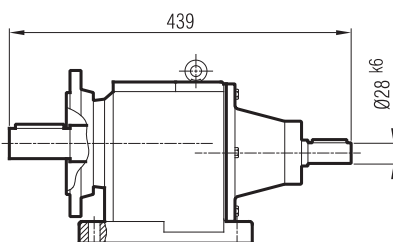
	71 M	80 M	90 S	90 L	100 L	112 M	132 S	132 M
A	487	560	554	618	659	634	690	735
A1	541	621	621	685	736	729	794	839
H	123	136	141	141	161	170	193	193
HD	194	216	231	231	261	282	325	325
AC	138.5	158	176	176	195	220	262	262
X	-	-	-	-	-	-	8	8

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

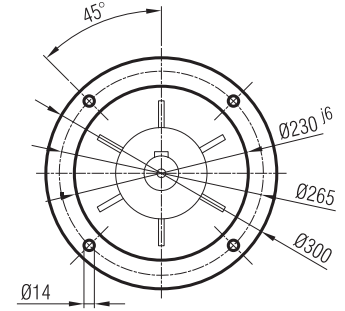
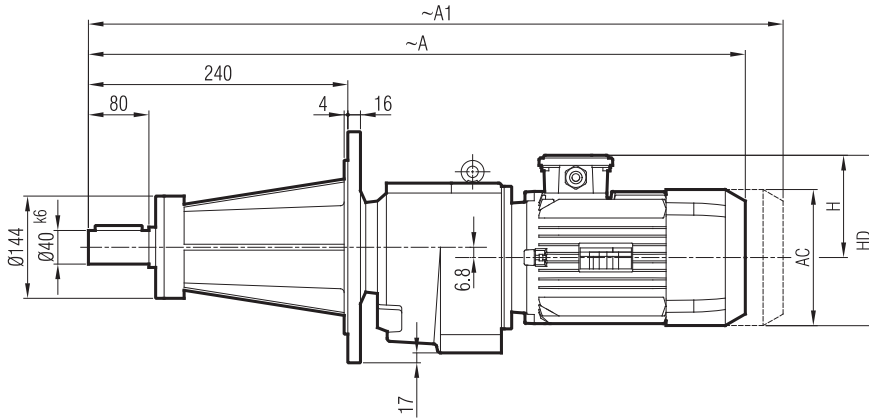
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 721
İRAF 731

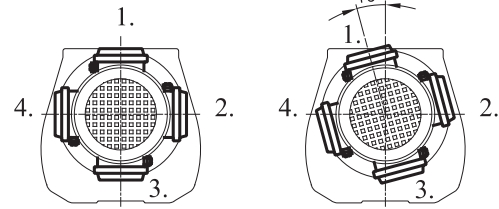
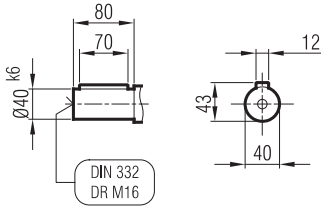




İRBM 721
İRBM 731



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



71-90-100-112-132

80

Tip/Type/Type

Tip/Type/Type

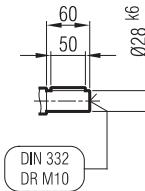
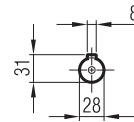
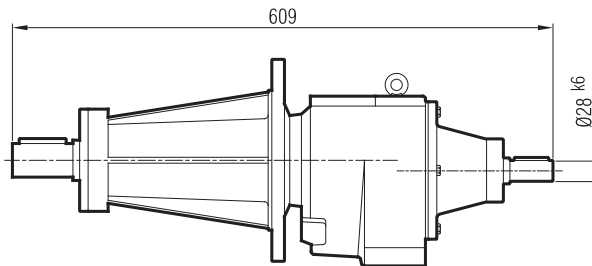
	71 M	80 M	90 S	90 L	100 L	112 M	132 S	132 M
A	657	730	724	788	829	804	860	905
A1	711	791	791	855	906	899	964	1009
H	123	136	141	141	161	170	193	193
HD	194	216	231	231	261	282	325	325
AC	138.5	158	176	176	195	220	262	262
X	-	-	-	-	-	-	5	5

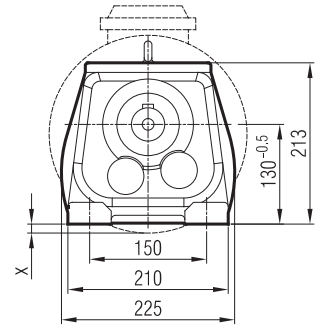
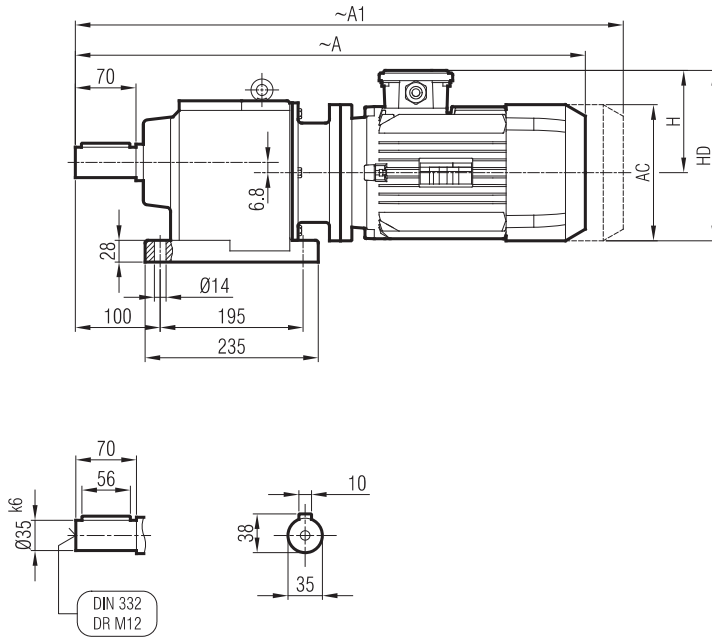
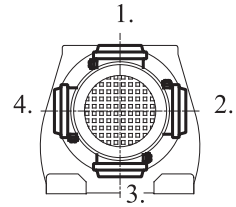
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

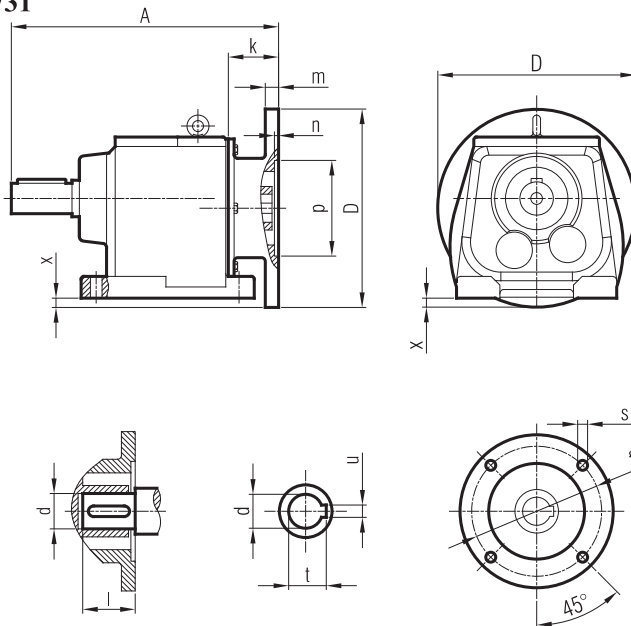
İRB 721
İRB 731



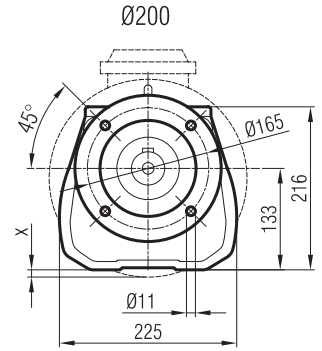
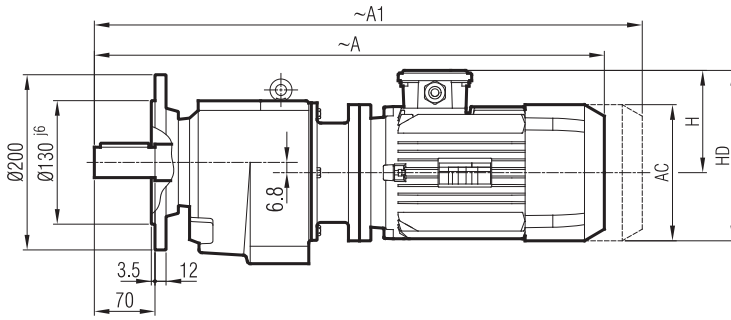
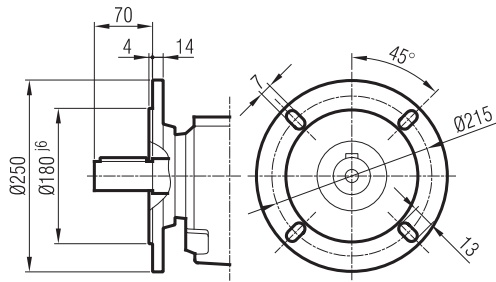
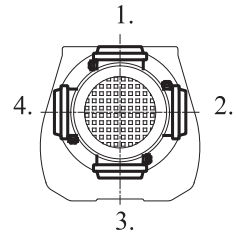
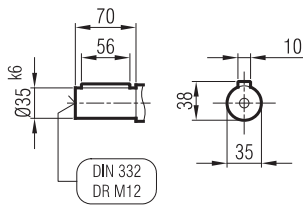

İRAPM 721
İRAPM 731

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5
A	560	635	644	682	719	690	772	812
A1	614	696	711	749	796	785	876	916
H	123	136	141	141	161	170	193	193
HD	194	216	231	231	261	282	325	325
AC	138.5	158	176	176	195	220	262	262
X	-	-	-	-	2	2	27	27

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspondent aux moteurs équipés de freins.

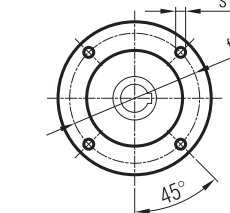
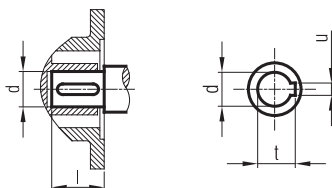
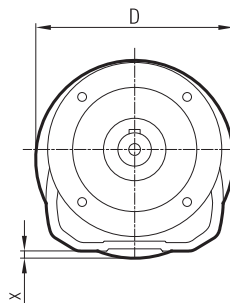
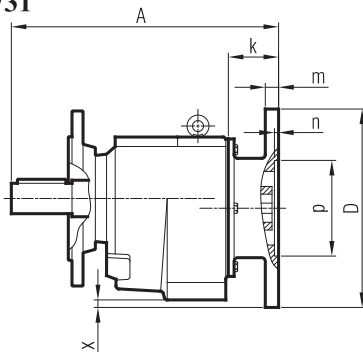
İRAP 721
İRAP 731


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
71	330	110	130	160	M8	55	10	4	14	16.3	5	-
80	342	130	165	200	M10	67	12	5	19	21.8	6	-
90	342	130	165	200	M10	67	12	5	24	27.3	8	-
100	347	180	215	250	M12	71.5	14	5	28	31.3	8	2
112	347	180	215	250	M12	71.5	14	5	28	31.3	8	2
132	371	230	265	300	M12	95.5	17	5	38	41.3	10	27
71	330	70	85	105	Ø7	55	10	3	14	16.3	5	-
80	342	80	100	120	Ø7	67	12	4	19	21.8	6	-
90	342	95	115	140	Ø9	67	12	5	24	27.3	8	-
100	351	110	130	160	Ø9	76	12	5	28	31.3	8	-
112	351	110	130	160	Ø9	76	12	5	28	31.3	8	-
132	354	130	165	200	Ø11	79	13	5	38	41.3	10	-


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İRFP 731

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

Ø250
Opsiyonel / Option


IEC	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5
A	560	635	644	682	719	690	772	812
A1	614	696	711	749	796	785	876	916
H	123	136	141	141	161	170	193	193
HD	194	216	231	231	261	282	325	325
AC	138.5	158	176	176	195	220	262	262
X	-	-	-	-	2	2	27	27

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

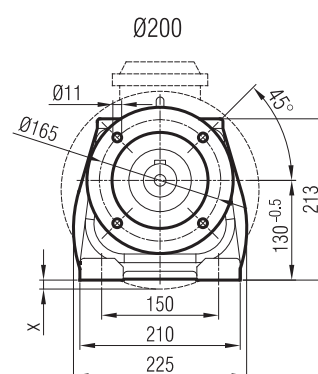
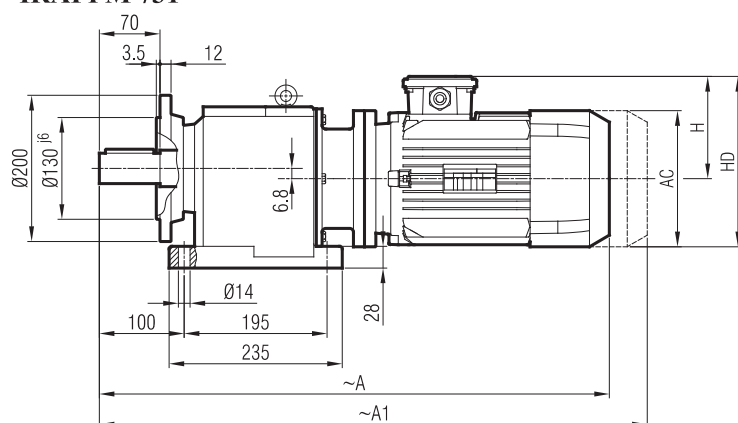
İRFP 721
İRFP 731


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
71	330	110	130	160	M8	55	10	4	14	16.3	5	-
80	342	130	165	200	M10	67	12	5	19	21.8	6	-
90	342	130	165	200	M10	67	12	5	24	27.3	8	-
100	347	180	215	250	M12	71.5	14	5	28	31.3	8	2
112	347	180	215	250	M12	71.5	14	5	28	31.3	8	2
132	371	230	265	300	M12	95.5	17	5	38	41.3	10	27
71	330	70	85	105	Ø7	55	10	3	14	16.3	5	-
80	342	80	100	120	Ø7	67	12	4	19	21.8	6	-
90	342	95	115	140	Ø9	67	12	5	24	27.3	8	-
100	351	110	130	160	Ø9	76	12	5	28	31.3	8	-
112	351	110	130	160	Ø9	76	12	5	28	31.3	8	-
132	354	130	165	200	Ø11	79	13	5	38	41.3	10	-



İRAFPM 721

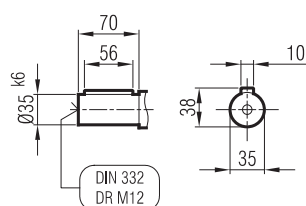
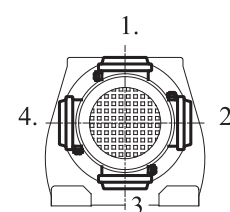
İRAFPM 731



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



IEC	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5
A	560	635	644	682	719	690	772	812
A1	614	696	711	749	796	785	876	916
H	123	136	141	141	161	170	193	193
HD	194	216	231	231	261	282	325	325
AC	138.5	158	176	176	195	220	262	262
X	-	-	-	-	2	2	27	27

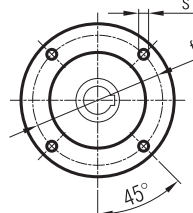
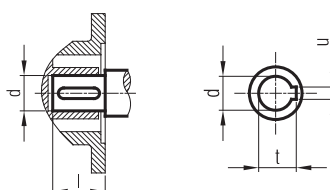
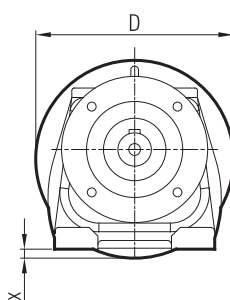
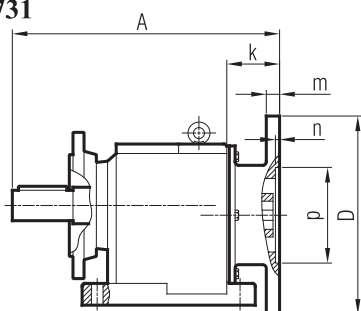
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 721

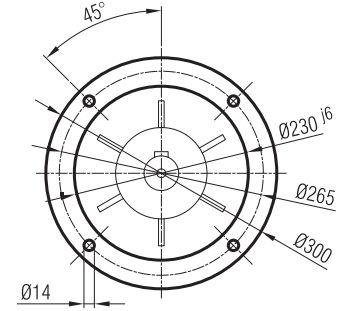
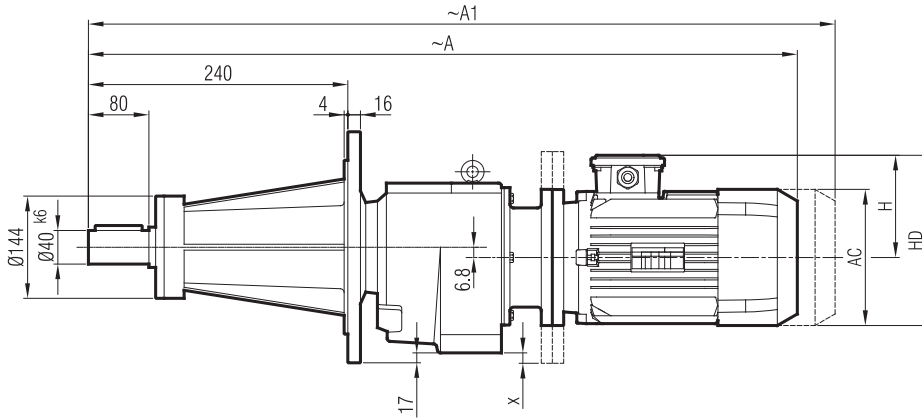
İRAFP 731



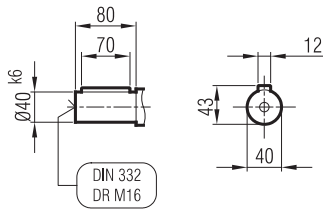
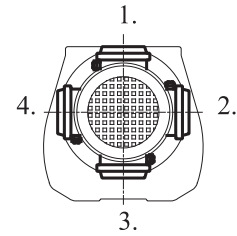
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
71	B5	330	110	130	160	M8	55	10	4	14	16.3	5	-
80		342	130	165	200	M10	67	12	5	19	21.8	6	-
90		342	130	165	200	M10	67	12	5	24	27.3	8	-
100		347	180	215	250	M12	71.5	14	5	28	31.3	8	2
112		347	180	215	250	M12	71.5	14	5	28	31.3	8	2
132		371	230	265	300	M12	95.5	17	5	38	41.3	10	27
71	B14	330	70	85	105	Ø7	55	10	3	14	16.3	5	-
80		342	80	100	120	Ø7	67	12	4	19	21.8	6	-
90		342	95	115	140	Ø9	67	12	5	24	27.3	8	-
100		351	110	130	160	Ø9	76	12	5	28	31.3	8	-
112		351	110	130	160	Ø9	76	12	5	28	31.3	8	-
132		354	130	165	200	Ø11	79	13	5	38	41.3	10	-



İRBPM 721
İRBPM 731



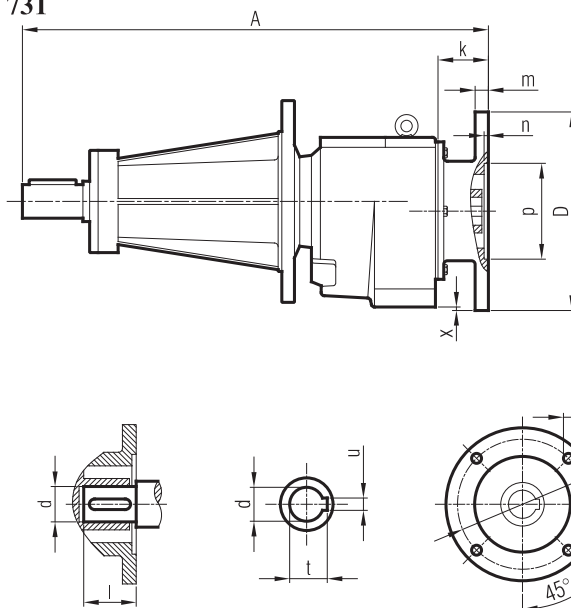
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



IEC	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5
A	730	805	814	852	889	860	942	982
A1	784	866	881	919	966	955	1046	1086
H	123	136	141	141	161	170	193	193
HD	194	216	231	231	261	282	325	325
AC	138.5	158	176	176	195	220	262	262
X	-	-	-	-	-	-	24	24

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

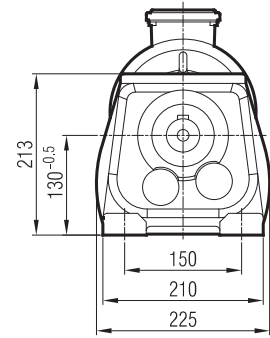
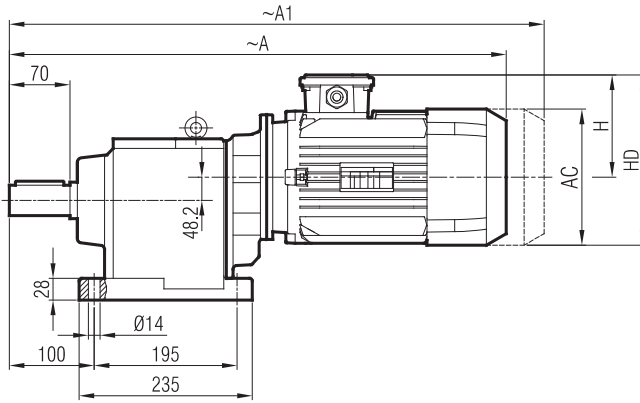
İRBP 721
İRBP 731



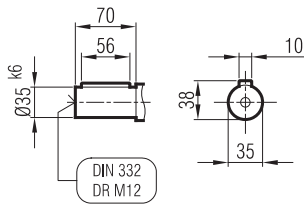
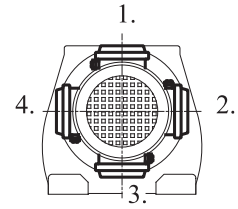
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
71	B5	500	110	130	160	M8	55	10	4	14	16.3	5	-
80		512	130	165	200	M10	67	12	5	19	21.8	6	-
90		512	130	165	200	M10	67	12	5	24	27.3	8	-
100		517	180	215	250	M12	71.5	14	5	28	31.3	8	-
112		517	180	215	250	M12	71.5	14	5	28	31.3	8	-
132		541	230	265	300	M12	95.5	17	5	38	41.3	10	24
71	B14	500	70	85	105	Ø7	55	10	3	14	16.3	5	-
80		512	80	100	120	Ø7	67	12	4	19	21.8	6	-
90		512	95	115	140	Ø9	67	12	5	24	27.3	8	-
100		521	110	130	160	Ø9	76	12	5	28	31.3	8	-
112		521	110	130	160	Ø9	76	12	5	28	31.3	8	-
132		524	130	165	200	Ø11	79	13	5	38	41.3	10	-



İRAM 741



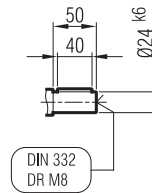
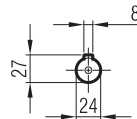
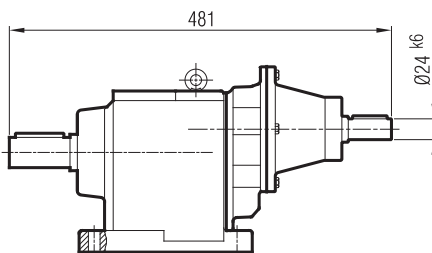
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M						
A	560	632						
A1	614	693						
H	123	136						
HD	194	216						
AC	138.5	158						

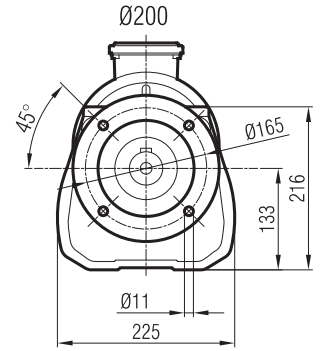
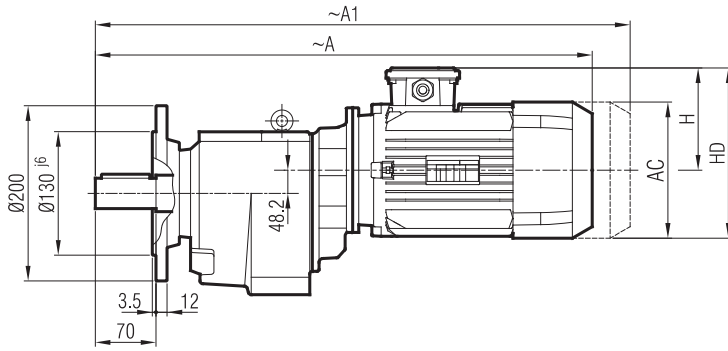
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 741

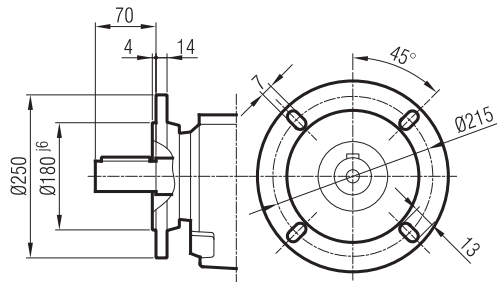
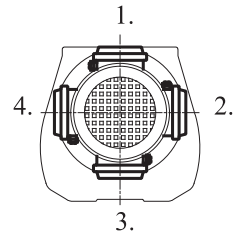




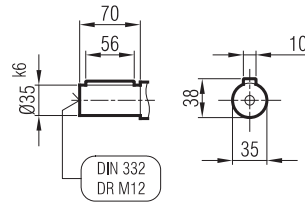
İRFM 741



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



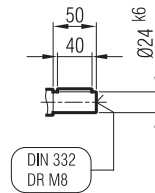
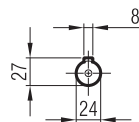
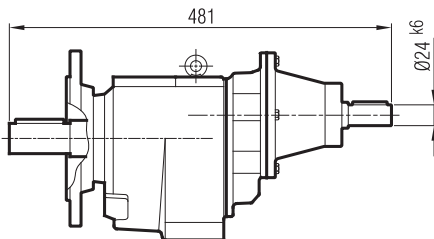
Ø250
Opsiyonel / Option



	71 M	80 M						
A	560	632						
A1	614	693						
H	123	136						
HD	194	216						
AC	138.5	158						

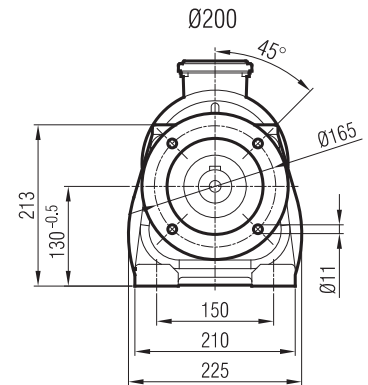
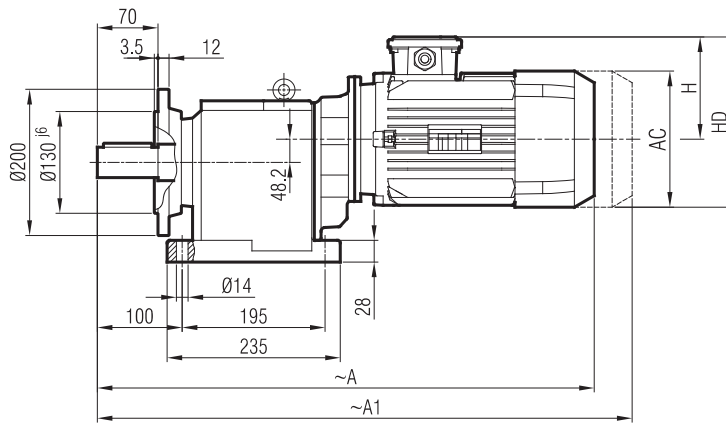
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 741

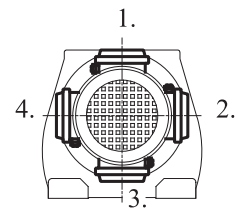
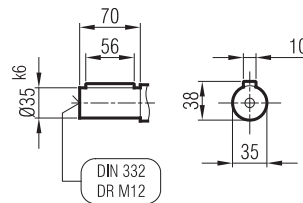




İRAFM 741



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



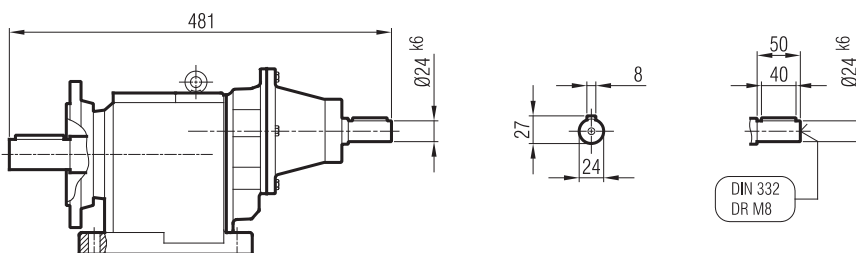
	71 M	80 M						
A	560	632						
A1	614	693						
H	123	136						
HD	194	216						
AC	138.5	158						

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

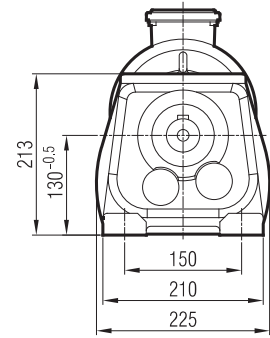
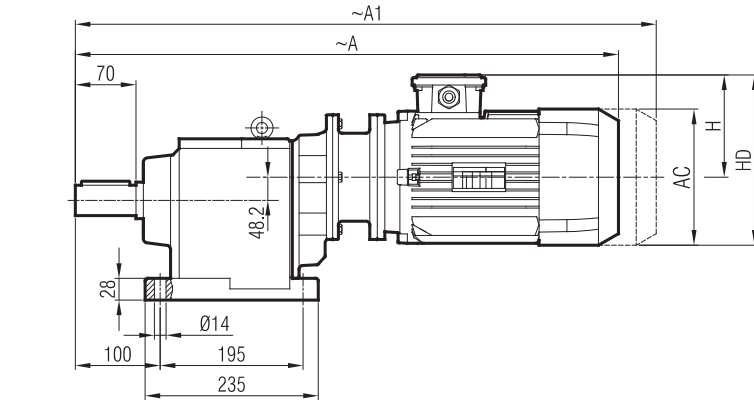
Le dimensions "A1" correspond aux moteurs équipés de freins.

IRAF 741

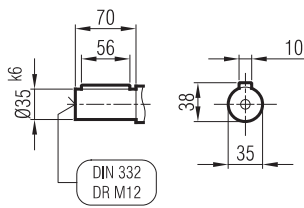
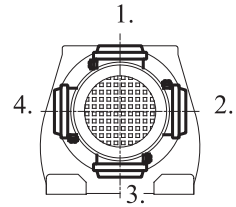




İRAPM 741



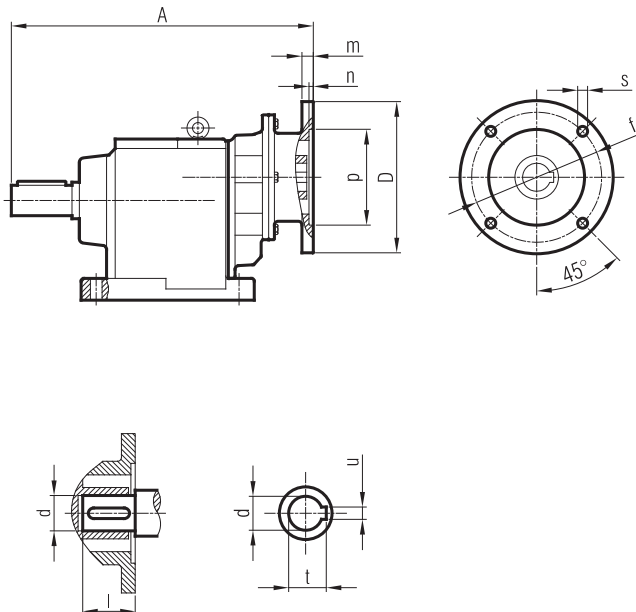
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M/B5	71 M/B5	80 M/B5				
A	571	613	681				
A1	625	667	742				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

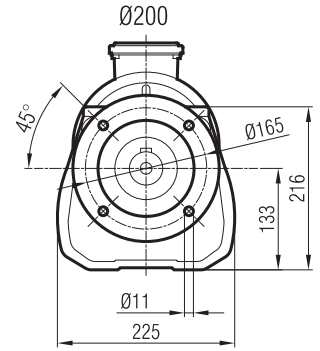
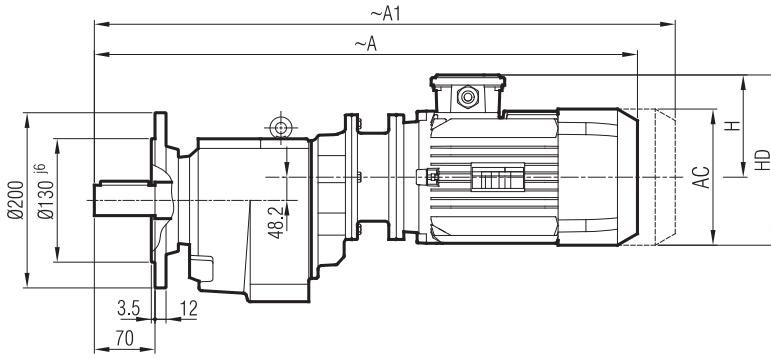
İRAP 741



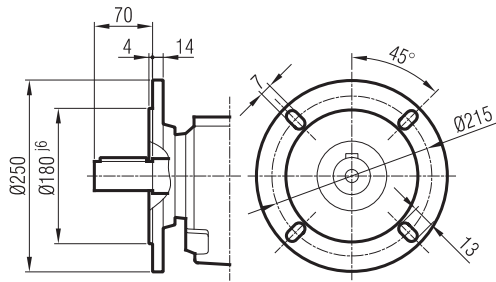
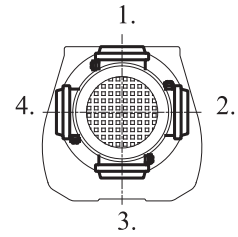
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	374	95	115	140	M8	35.5	8	4	11	12.8	4
71	383	110	130	160	M8	44	9	4	14	16.3	5
80	388	130	165	200	M10	46	12	5	19	21.8	6
63	374	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	383	70	85	105	Ø7	45	10	3	14	16.3	5
80	388	80	100	120	Ø7	46	8	4	19	21.8	6



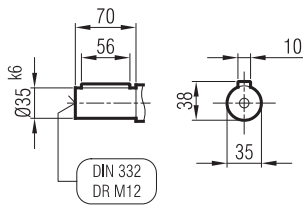
İRFPM 741



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



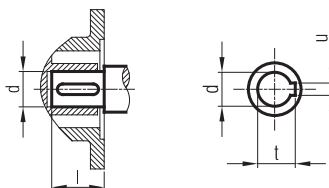
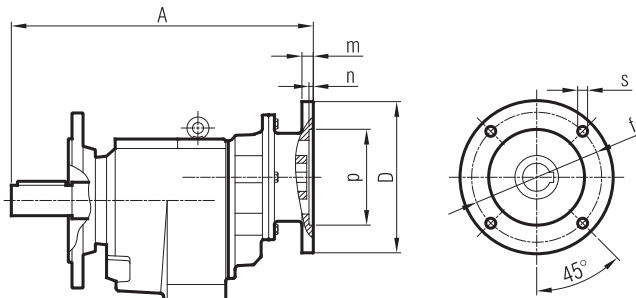
Ø250
Opsiyonel / Option



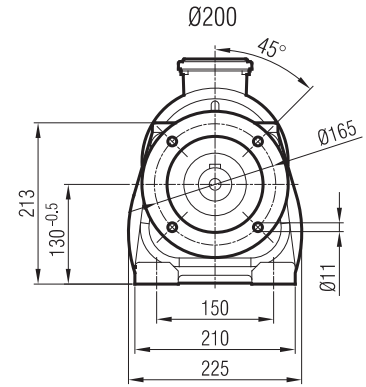
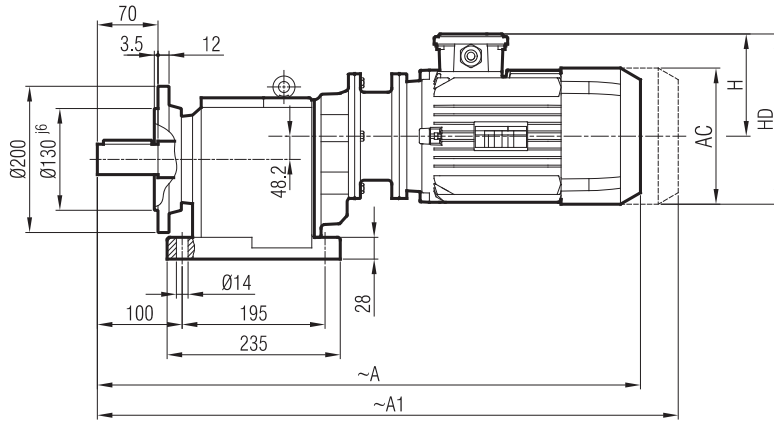
	63 M/B5	71 M/B5	80 M/B5				
A	571	613	681				
A1	625	667	742				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

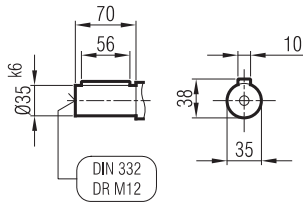
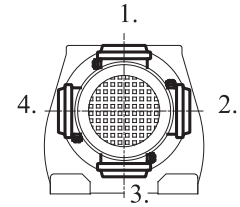
İRFP 741



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	374	95	115	140	M8	35.5	8	4	11	12.8	4
71	383	110	130	160	M8	44	9	4	14	16.3	5
80	388	130	165	200	M10	46	12	5	19	21.8	6
63	374	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	383	70	85	105	Ø7	45	10	3	14	16.3	5
80	388	80	100	120	Ø7	46	8	4	19	21.8	6

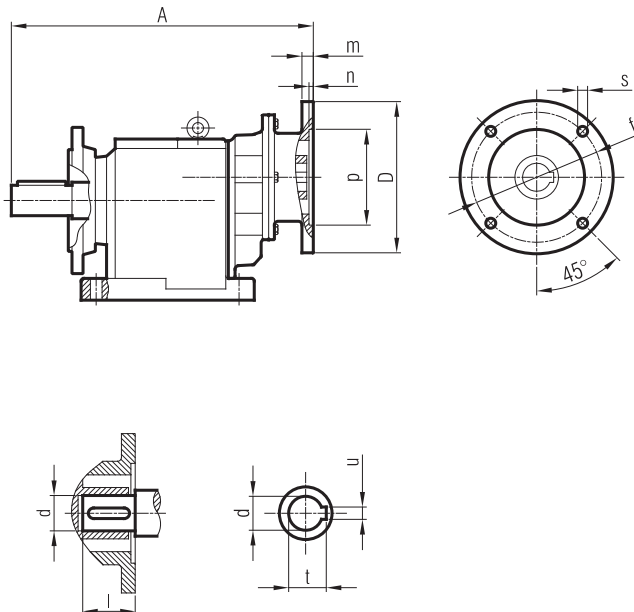

İRAFPM 741


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



	63 M/B5	71 M/B5	80 M/B5				
A	571	613	681				
A1	625	667	742				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

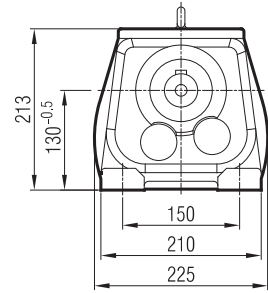
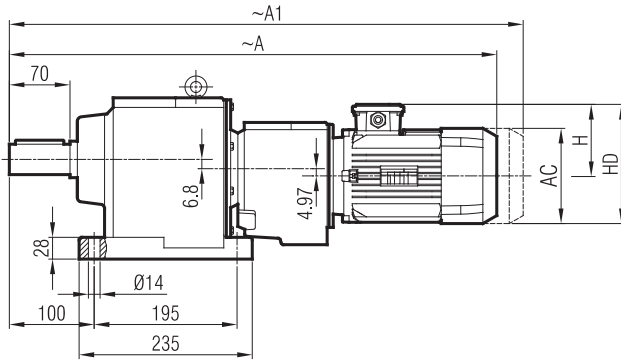
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 741


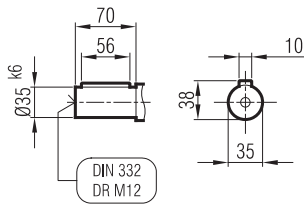
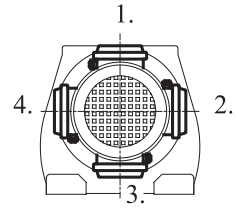
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	374	95	115	140	M8	35.5	8	4	11	12.8	4
71	383	110	130	160	M8	44	9	4	14	16.3	5
80	388	130	165	200	M10	46	12	5	19	21.8	6
63	374	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	383	70	85	105	Ø7	45	10	3	14	16.3	5
80	388	80	100	120	Ø7	46	8	4	19	21.8	6



İRAM 721 İR 53
İRAM 731 İR 52



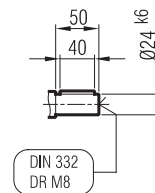
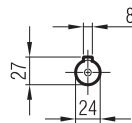
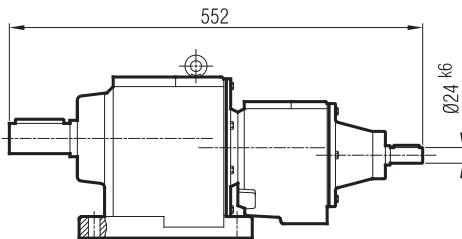
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M						
A	652	695						
A1	706	756						
H	123	136						
HD	194	216						
AC	138.5	158						

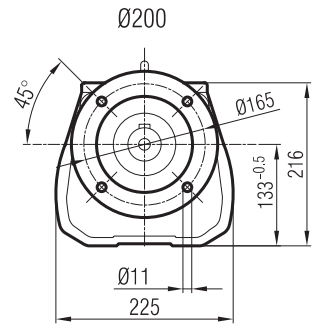
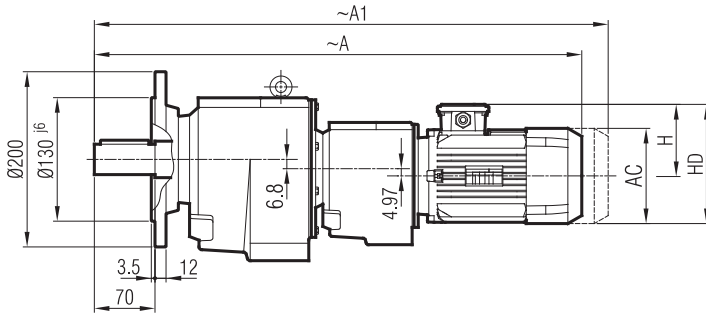
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 721 İR 52 / İRA 721 İR 53
İRA 731 İR 52 / İRA 731 İR 53

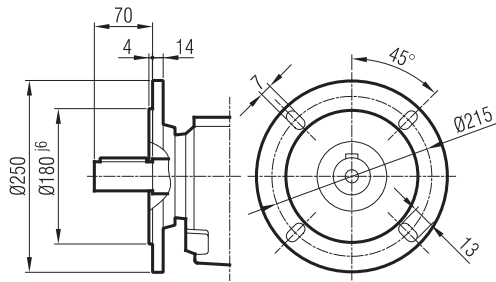
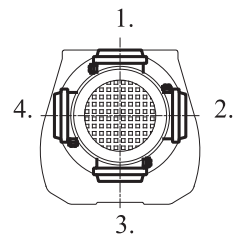




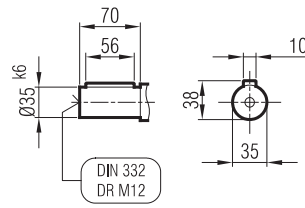
İRFM 721 İR 53
İRFM 731 İR 52



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø250
Opsiyonel / Option



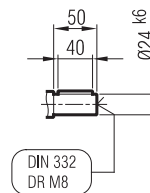
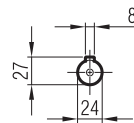
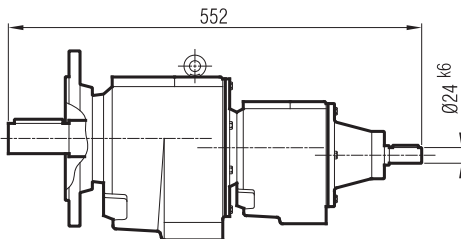
	71 M	80 M						
A	652	695						
A1	706	756						
H	123	136						
HD	194	216						
AC	138.5	158						

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

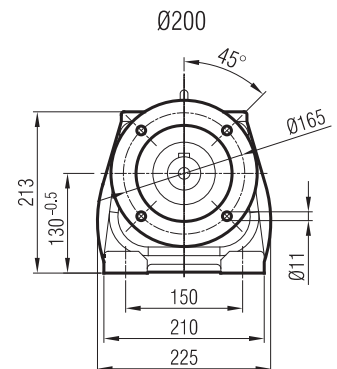
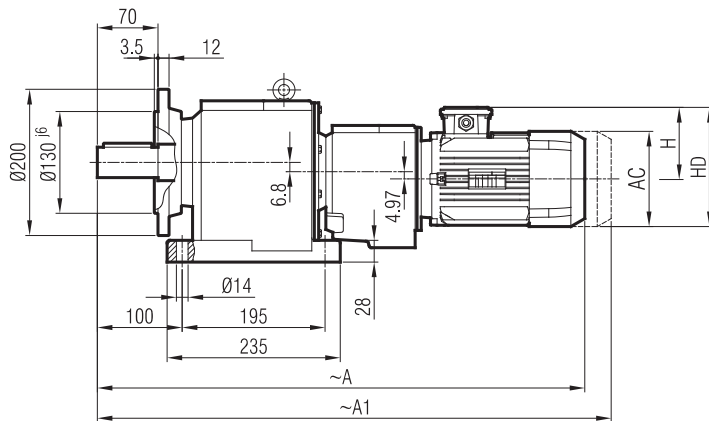
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 721 İR 52 / İRF 721 İR 53
İRF 731 İR 52 / İRF 731 İR 53

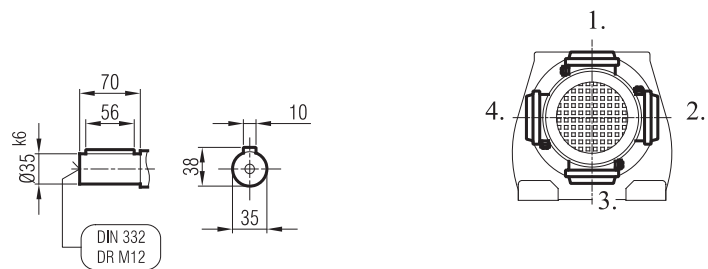




İRAFM 721 İR 53
İRAFM 731 İR 52



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



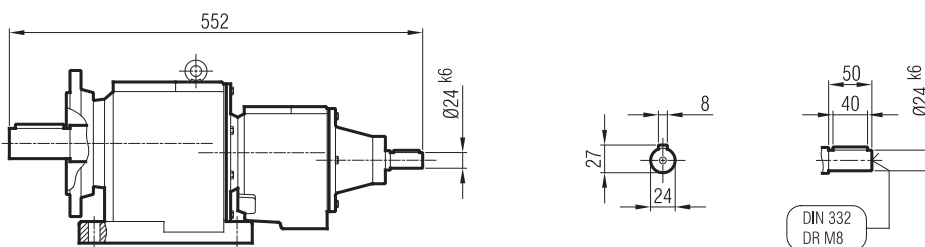
	71 M	80 M						
A	652	695						
A1	706	756						
H	123	136						
HD	194	216						
AC	138.5	158						

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

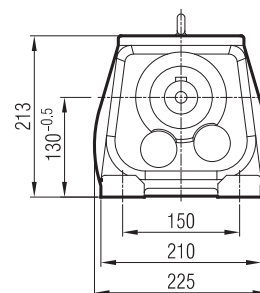
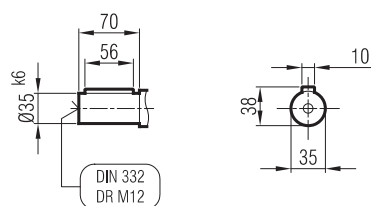
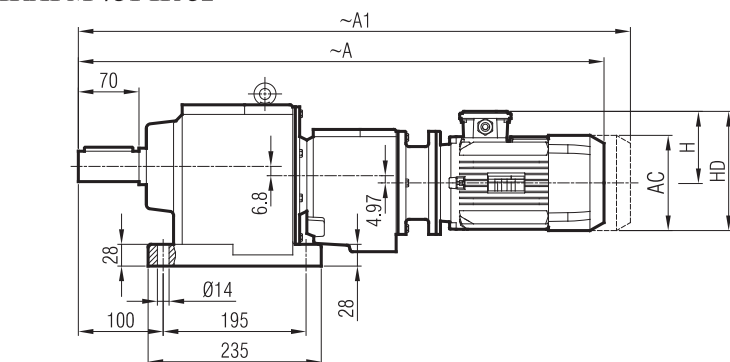
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 721 İR 52 / İRAF 721 İR 53
İRAF 731 İR 52 / İRAF 731 İR 53

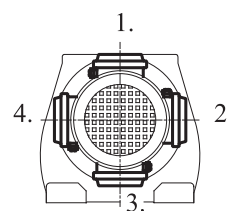




İRAPM 721 İR 53
İRAPM 731 İR 52



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



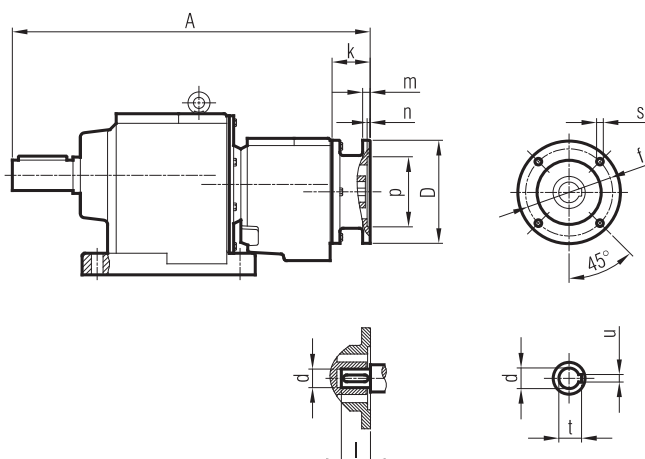
	63 M/B5	71 M/B5	80 M/B5				
A	656	697	735				
A1	710	751	796				
H	108	123	135				
HD	171	194	216				
AC	125	138.5	158				

"A1" Ölçüsü Frenli Motorlar içindir.

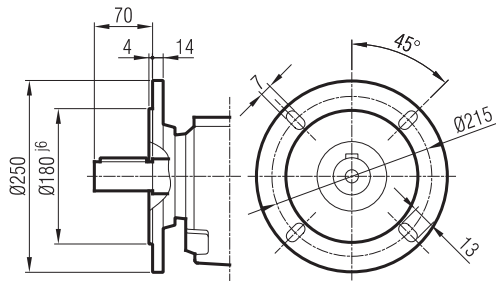
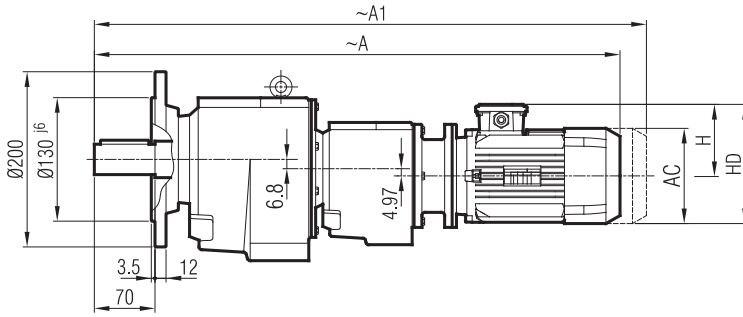
Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

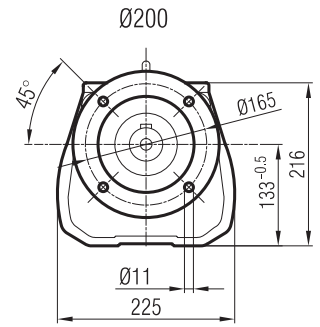
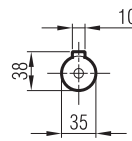
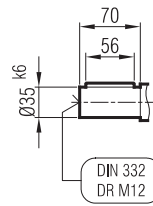
İRAP 721 İR 52 / İRAP 721 İR 53
İRAP 731 İR 52 / İRAP 731 İR 53



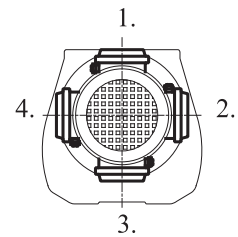
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	459	95	115	140	M8	35.5	8	4	11	12.8	4
71		467	110	130	160	M8	44	9	4	14	16.3	5
80		469	130	165	200	M10	46	12	5	19	21.8	6
63	B14	459	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		468	70	85	105	Ø7	45	10	3	14	16.3	5
80		469	80	100	120	Ø7	46	8	4	19	21.8	6


İRFBPM 721 İR 53
İRFBPM 731 İR 52


Ø250
Opsiyonel / Option

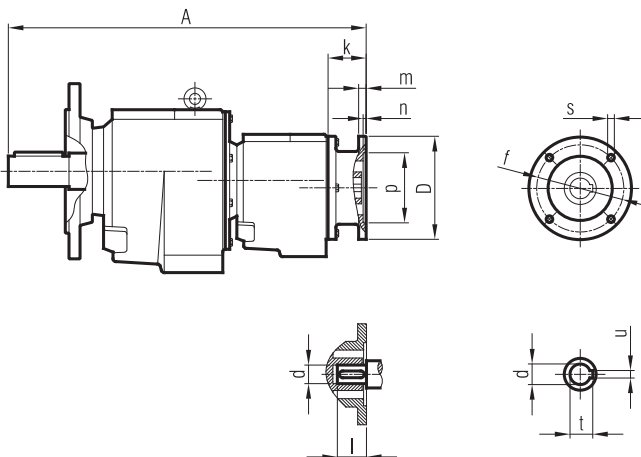


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M/B5	71 M/B5	80 M/B5				
A	656	697	735				
A1	710	751	796				
H	108	123	135				
HD	171	194	216				
AC	125	138.5	158				

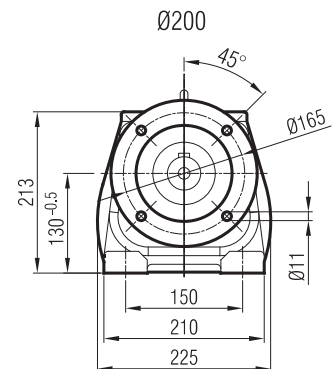
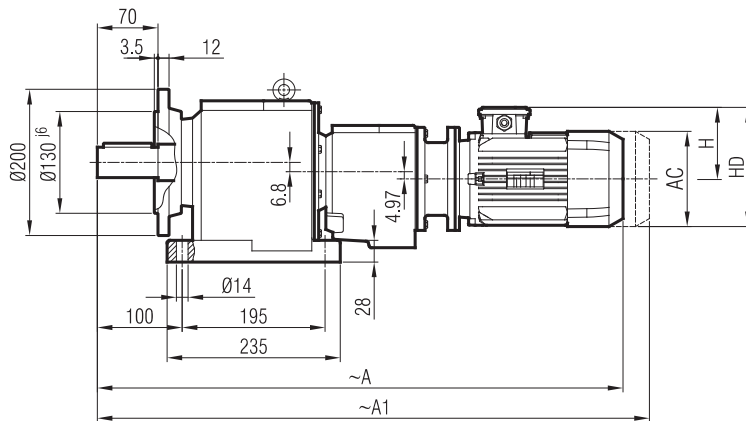
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 721 İR 52 / İRFP 721 İR 53
İRFP 731 İR 52 / İRFP 731 İR 53


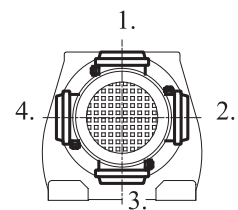
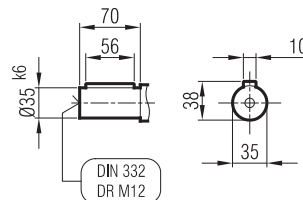
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	459	95	115	140	M8	35.5	8	4	11	12.8	4
71	467	110	130	160	M8	44	9	4	14	16.3	5
80	469	130	165	200	M10	46	12	5	19	21.8	6
63	459	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	468	70	85	105	Ø7	45	10	3	14	16.3	5
80	469	80	100	120	Ø7	46	8	4	19	21.8	6



İRAFPM 721 İR 53
İRAFPM 731 İR 52



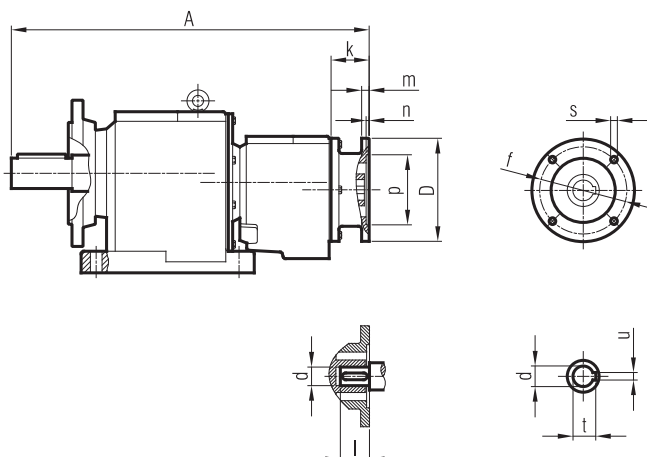
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M/B5	71 M/B5	80 M/B5				
A	656	697	735				
A1	710	751	796				
H	108	123	135				
HD	171	194	216				
AC	125	138.5	158				

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

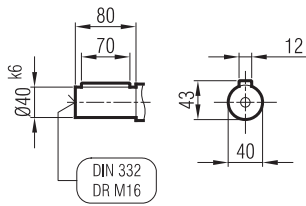
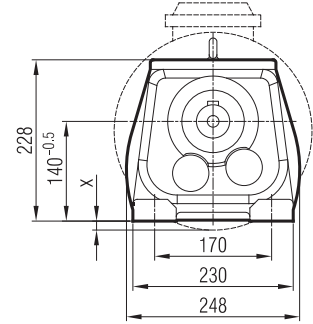
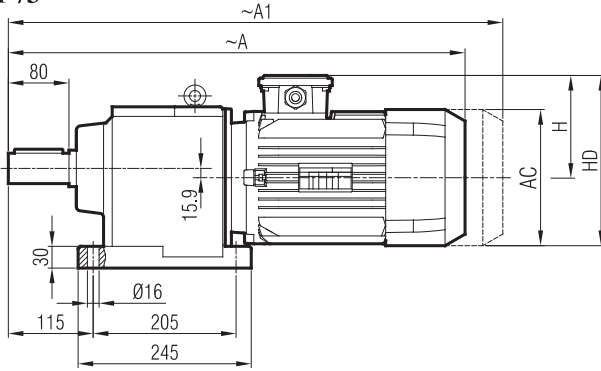
İRAFP 721 İR 52 / İRAFP 721 İR 53
İRAFP 731 İR 52 / İRAFP 731 İR 53



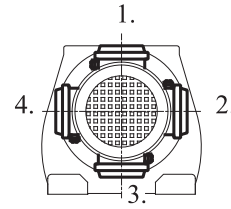
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	459	95	115	140	M8	35.5	8	4	11	12.8	4
71		467	110	130	160	M8	44	9	4	14	16.3	5
80		469	130	165	200	M10	46	12	5	19	21.8	6
63	B14	459	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		468	70	85	105	Ø7	45	10	3	14	16.3	5
80		469	80	100	120	Ø7	46	8	4	19	21.8	6



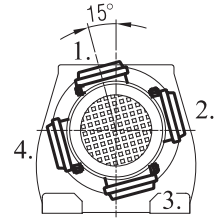
İRAM 72
İRAM 73



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



71-90-100-112-132
Tip/Type/Type



80
Tip/Type/Type

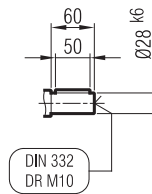
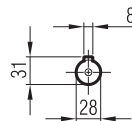
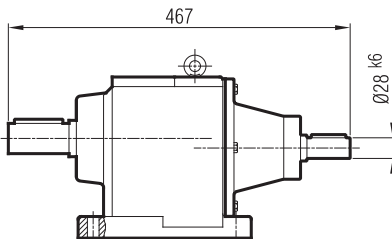
	71 M	80 M	90 S	90 L	100 L	112 M	132 S	132 M	160 M
A	516	589	582	646	687	662	733	778	862
A1	570	650	649	713	764	757	837	882	978
H	123	136	141	141	161	170	193	193	240
HD	194	216	231	231	261	282	325	325	400
AC	138.5	158	176	176	195	220	262	262	315
X	-	-	-	-	-	-	7	7	33

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

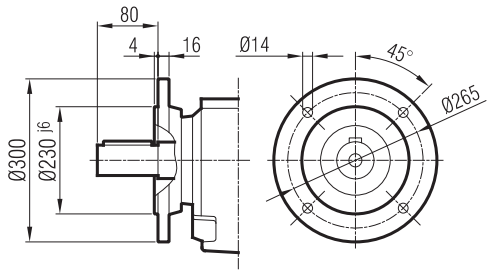
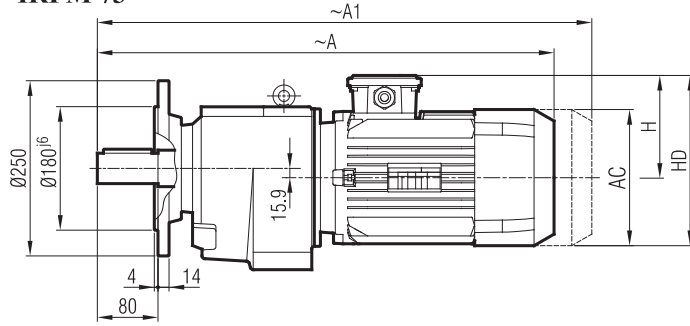
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 72
İRA 73

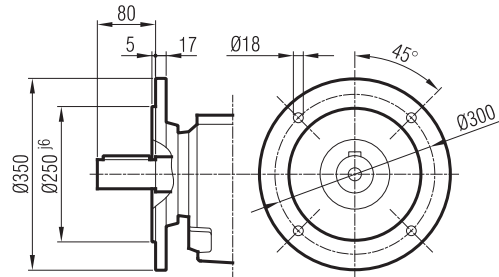




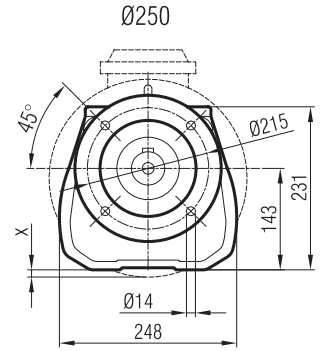
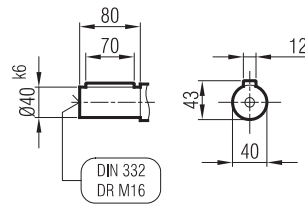
İRFM 72
İRFM 73



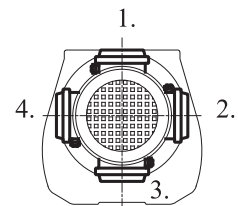
Ø300
Opsiyonel / Option



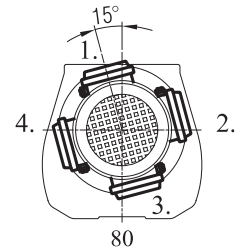
Ø350
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



71-90-100-112-132
Tip/Type/Type

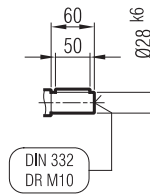
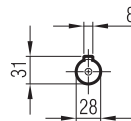
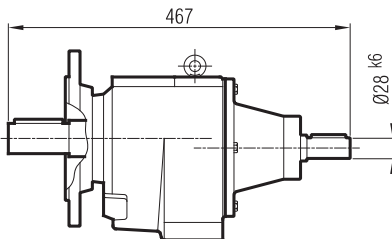


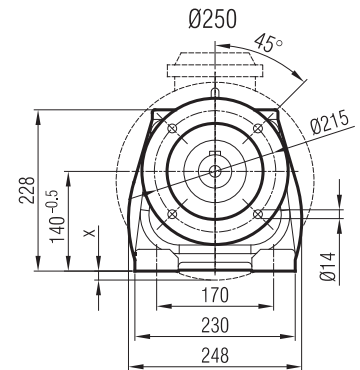
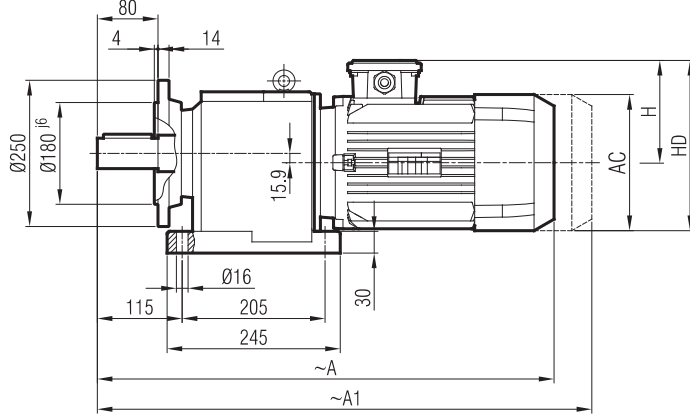
80
Tip/Type/Type

	71 M	80 M	90 S	90 L	100 L	112 M	132 S	132 M	160 M
A	516	589	582	646	687	662	733	778	862
A1	570	650	649	713	764	757	837	882	978
H	123	136	141	141	161	170	193	193	240
HD	194	216	231	231	261	282	325	325	400
AC	138.5	158	176	176	195	220	262	262	315
X	-	-	-	-	-	-	7	7	33

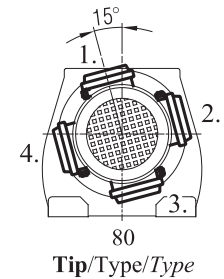
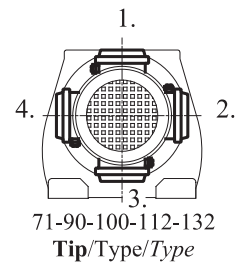
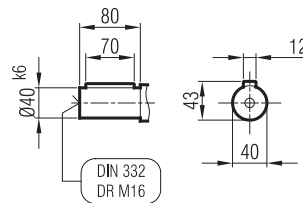
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 72
İRF 73



İRAFM 72
İRAFM 73

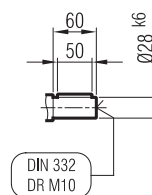
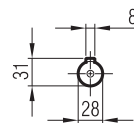
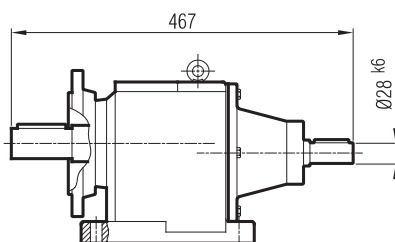
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes

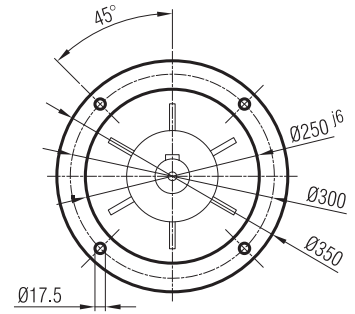
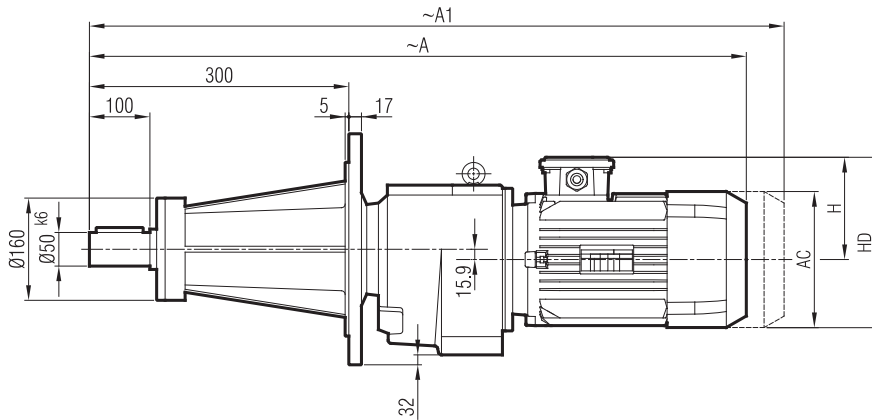
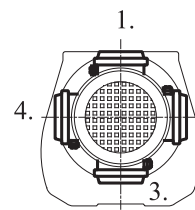
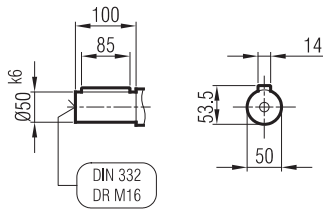
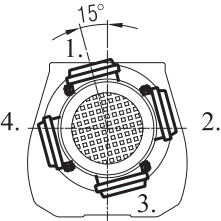
[illegible]

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

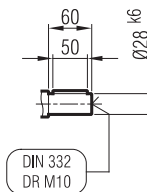
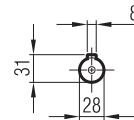
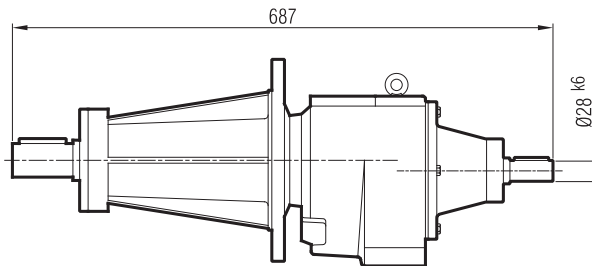
Le dimensions "A1" correspond aux moteurs équipés de freins.

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İRAF 73


İRBM 72
İRBM 73

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

 71-90-100-112-132
 Tip/Type/Type

 80
 Tip/Type/Type

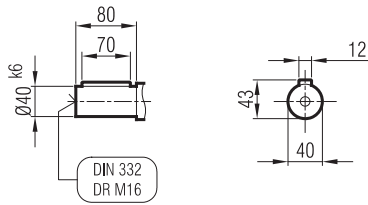
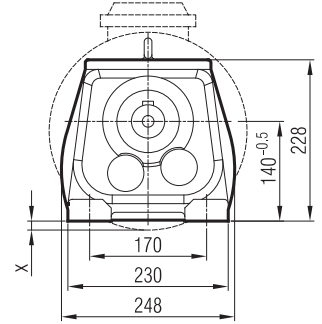
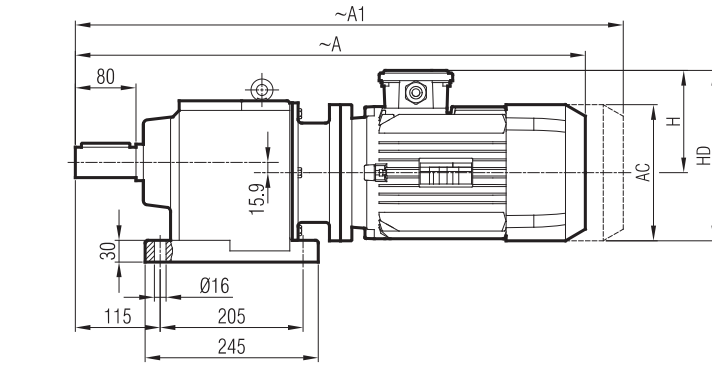
	71 M	80 M	90 S	90 L	100 L	112 M	132 S	132 M	160 M
A	736	809	802	866	907	882	953	998	1081
A1	790	870	869	933	984	977	1057	1102	1198
H	123	136	141	141	161	170	193	193	240
HD	194	216	231	231	261	282	325	325	400
AC	138.5	158	176	176	195	220	262	262	315
X	-	-	-	-	-	-	4	4	30

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

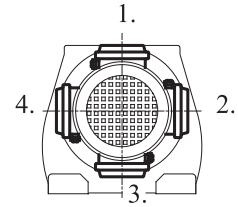
İRB 72
İRB 73




İRAPM 72
İRAPM 73



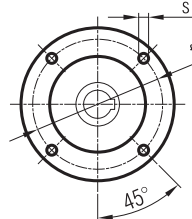
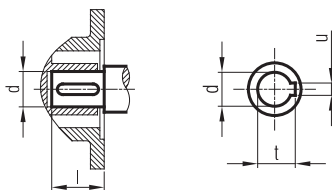
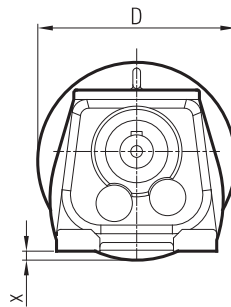
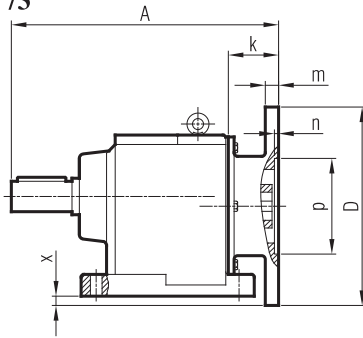
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



IEC	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	588	663	672	710	747	718	800	840	934
A1	642	724	739	777	824	813	904	944	1051
H	123	136	141	141	161	170	193	193	240
HD	194	216	231	231	261	282	325	325	400
AC	138.5	158	176	176	195	220	262	262	315
X	-	-	-	-	1	1	26	26	51

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

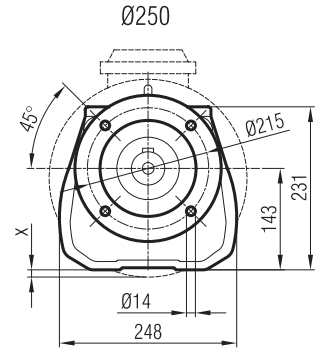
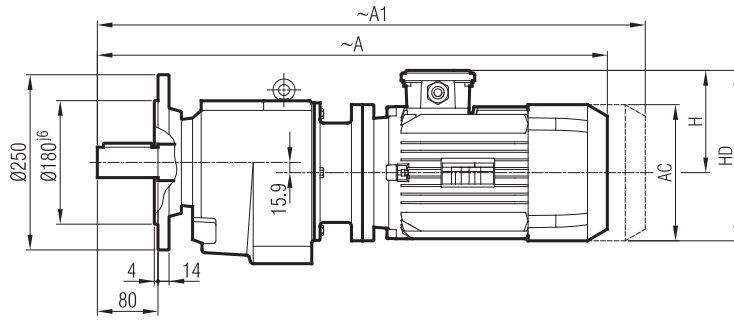
İRAP 72
İRAP 73



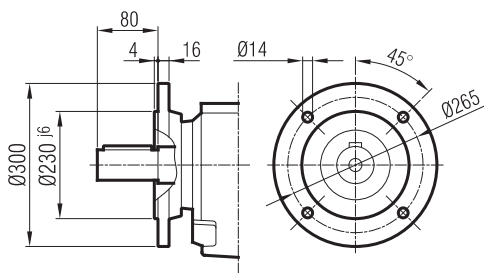
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
71	358	110	130	160	M8	55	10	4	14	16.3	5	-
80	370	130	165	200	M10	67	12	5	19	21.8	6	-
90	370	130	165	200	M10	67	12	5	24	27.3	8	-
100	375	180	215	250	M12	71.5	14	5	28	31.3	8	1
112	375	180	215	250	M12	71.5	14	5	28	31.3	8	1
132	399	230	265	300	M12	95.5	17	5	38	41.3	10	26
160	414	250	300	350	M16	111	18	6.5	42	45.3	12	51
71	358	70	85	105	Ø7	55	10	3	14	16.3	5	-
80	370	80	100	120	Ø7	67	12	4	19	21.8	6	-
90	370	95	115	140	Ø9	67	12	5	24	27.3	8	-
100	379	110	130	160	Ø9	76	12	5	28	31.3	8	-
112	379	110	130	160	Ø9	76	12	5	28	31.3	8	-
132	382	130	165	200	Ø11	79	13	5	38	41.3	10	-
160	414	180	215	250	Ø13	111	16	6	42	45.3	12	1



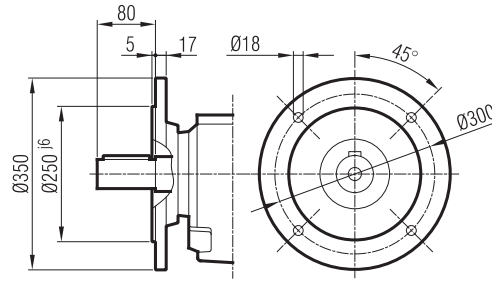
İRFPM 72
İRFPM 73



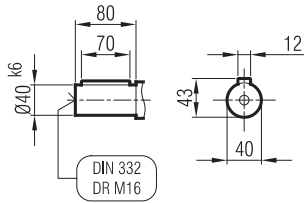
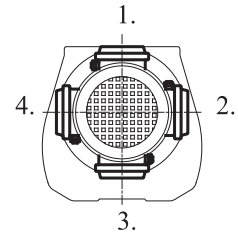
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø300
Opsiyonel / Option



Ø350
Opsiyonel / Option



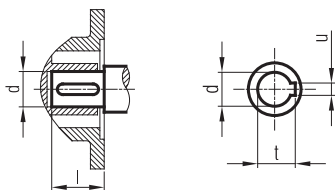
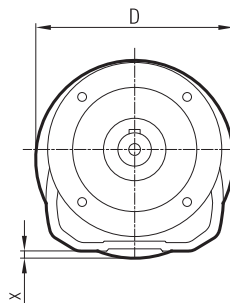
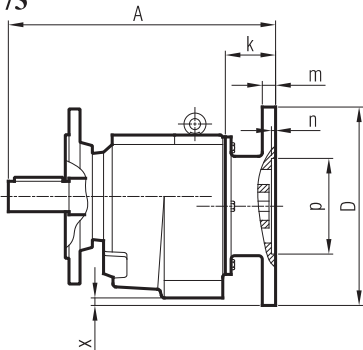
IEC	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	588	663	672	710	747	718	800	840	934
A1	642	724	739	777	824	813	904	944	1051
H	123	136	141	141	161	170	193	193	240
HD	194	216	231	231	261	282	325	325	400
AC	138.5	158	176	176	195	220	262	262	315
X	-	-	-	-	1	1	26	26	51

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

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İRFP 73

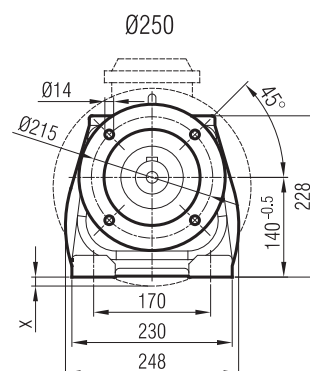
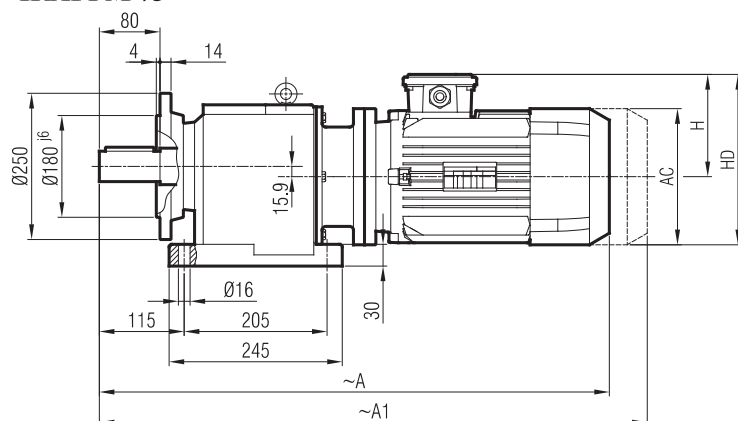


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
71	358	110	130	160	M8	55	10	4	14	16.3	5	-
80	370	130	165	200	M10	67	12	5	19	21.8	6	-
90	370	130	165	200	M10	67	12	5	24	27.3	8	-
100	375	180	215	250	M12	71.5	14	5	28	31.3	8	1
112	375	180	215	250	M12	71.5	14	5	28	31.3	8	1
132	399	230	265	300	M12	95.5	17	5	38	41.3	10	26
160	414	250	300	350	M16	111	18	6.5	42	45.3	12	51
71	358	70	85	105	Ø7	55	10	3	14	16.3	5	-
80	370	80	100	120	Ø7	67	12	4	19	21.8	6	-
90	370	95	115	140	Ø9	67	12	5	24	27.3	8	-
100	379	110	130	160	Ø9	76	12	5	28	31.3	8	-
112	379	110	130	160	Ø9	76	12	5	28	31.3	8	-
132	382	130	165	200	Ø11	79	13	5	38	41.3	10	-
160	414	180	215	250	Ø13	111	16	6	42	45.3	12	1



İRAFPM 72

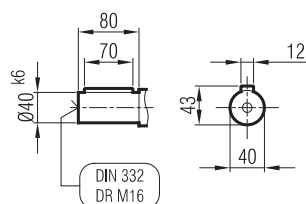
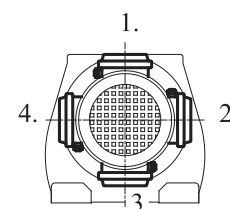
İRAFPM 73



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



IEC	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	588	663	672	710	747	718	800	840	934
A1	642	724	739	777	824	813	904	944	1051
H	123	136	141	141	161	170	193	193	240
HD	194	216	231	231	261	282	325	325	400
AC	138.5	158	176	176	195	220	262	262	315
X	-	-	-	-	1	1	26	26	51

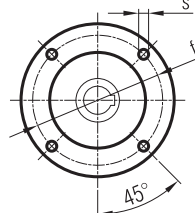
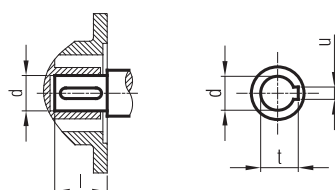
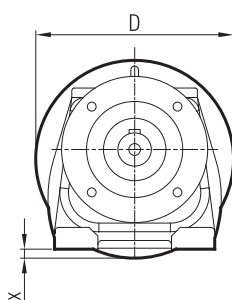
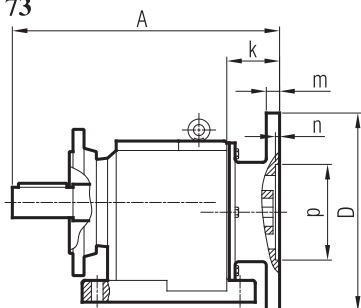
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 72

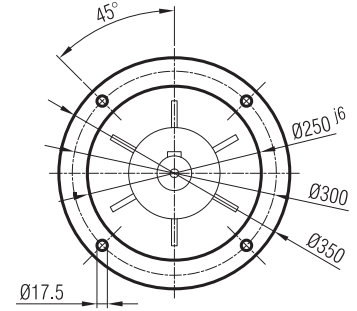
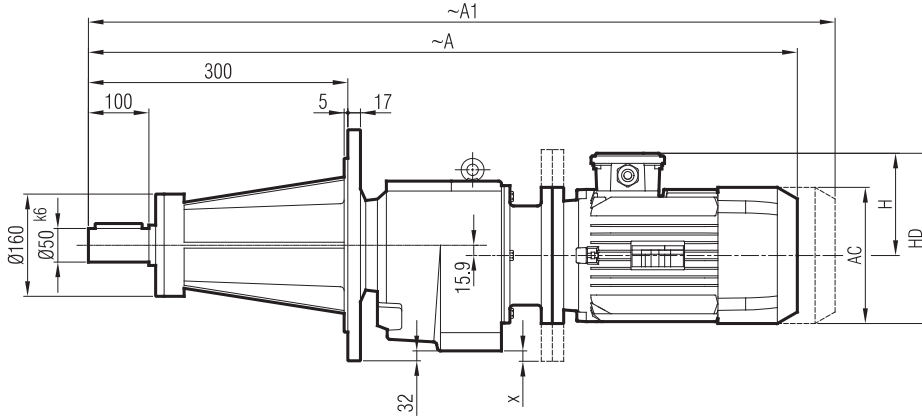
İRAFP 73



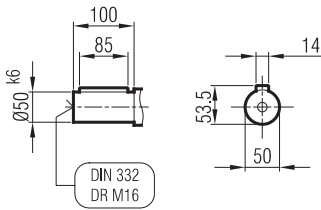
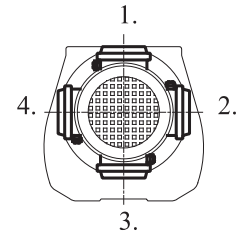
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
71	B5	358	110	130	160	M8	55	10	4	14	16.3	5	-
80		370	130	165	200	M10	67	12	5	19	21.8	6	-
90		370	130	165	200	M10	67	12	5	24	27.3	8	-
100		375	180	215	250	M12	71.5	14	5	28	31.3	8	1
112		375	180	215	250	M12	71.5	14	5	28	31.3	8	1
132		399	230	265	300	M12	95.5	17	5	38	41.3	10	26
160		414	250	300	350	M16	111	18	6.5	42	45.3	12	51
71	B14	358	70	85	105	Ø7	55	10	3	14	16.3	5	-
80		370	80	100	120	Ø7	67	12	4	19	21.8	6	-
90		370	95	115	140	Ø9	67	12	5	24	27.3	8	-
100		379	110	130	160	Ø9	76	12	5	28	31.3	8	-
112		379	110	130	160	Ø9	76	12	5	28	31.3	8	-
132		382	130	165	200	Ø11	79	13	5	38	41.3	10	-
160		414	180	215	250	Ø13	111	16	6	42	45.3	12	1



İRBPM 72
İRBPM 73



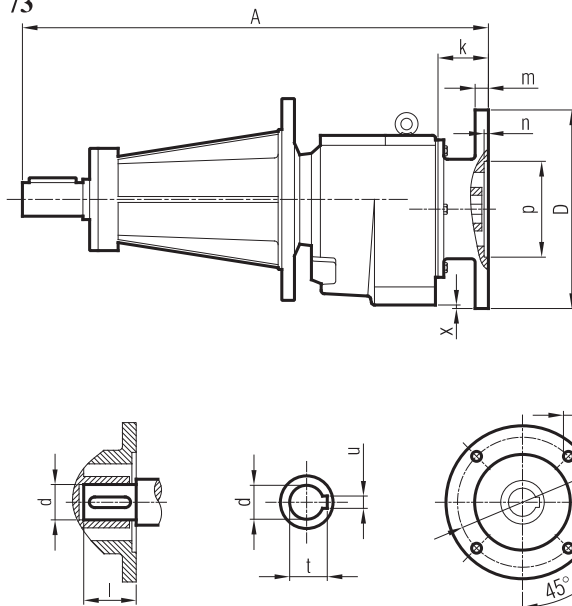
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



IEC	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	808	883	892	930	967	938	1020	1060	1154
A1	862	944	959	997	1044	1033	1124	1164	1271
H	123	136	141	141	161	170	193	193	240
HD	194	216	231	231	261	282	325	325	400
AC	138.5	158	176	176	195	220	262	262	315
X	-	-	-	-	-	-	23	23	48

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

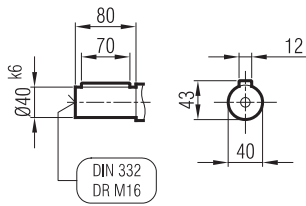
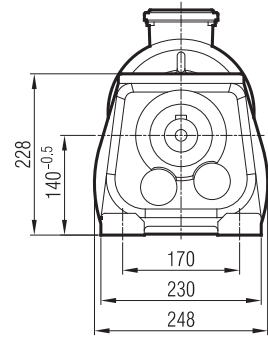
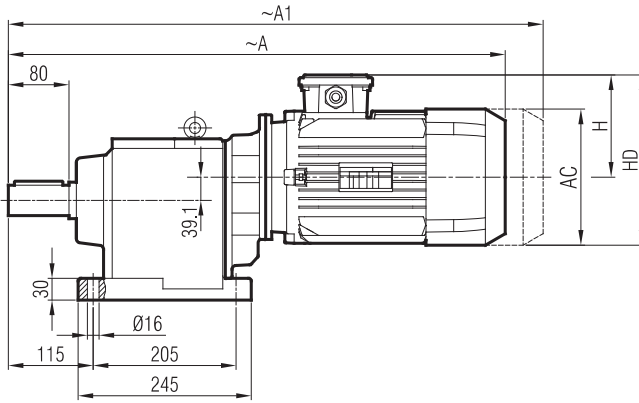
İRBP 72
İRBP 73



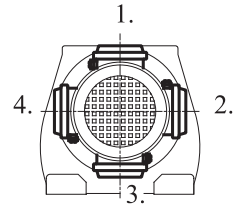
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
71	578	110	130	160	M8	55	10	4	14	16.3	5	-
80	590	130	165	200	M10	67	12	5	19	21.8	6	-
90	590	130	165	200	M10	67	12	5	24	27.3	8	-
100	595	180	215	250	M12	71.5	14	5	28	31.3	8	-
112	595	180	215	250	M12	71.5	14	5	28	31.3	8	-
132	619	230	265	300	M12	95.5	17	5	38	41.3	10	23
160	634	250	300	350	M14	111	18	6.5	42	45.3	12	48
71	578	70	85	105	Ø7	55	10	3	14	16.3	5	-
80	590	80	100	120	Ø7	67	12	4	19	21.8	6	-
90	590	95	115	140	Ø9	67	12	5	24	27.3	8	-
100	599	110	130	160	Ø9	76	12	5	28	31.3	8	-
112	599	110	130	160	Ø9	76	12	5	28	31.3	8	-
132	602	130	165	200	Ø11	79	13	5	38	41.3	10	-
160	634	180	215	250	Ø13	111	16	6	42	45.3	12	1



İRAM 74



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



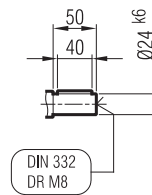
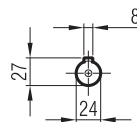
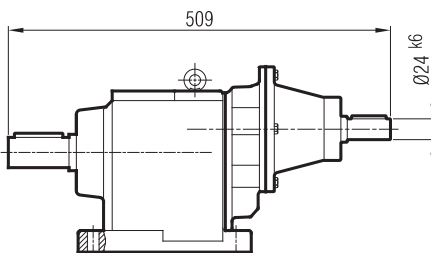
	71 M	80 M						
A	588	660						
A1	642	721						
H	123	136						
HD	194	216						
AC	138.5	158						

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

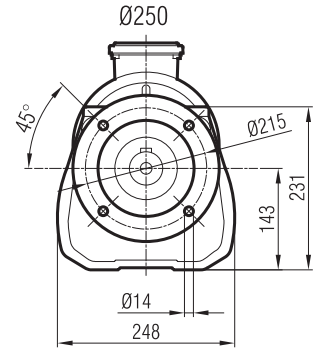
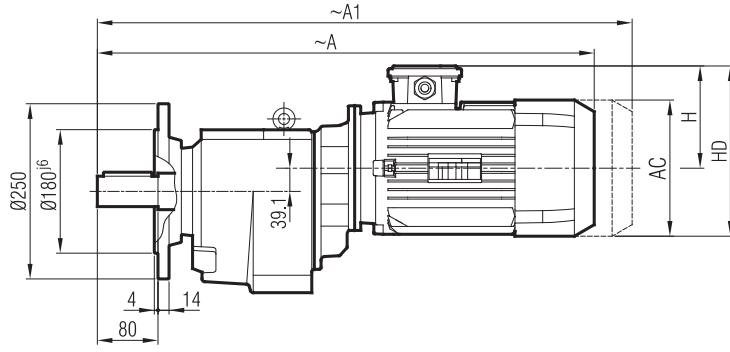
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 74

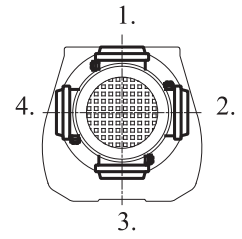
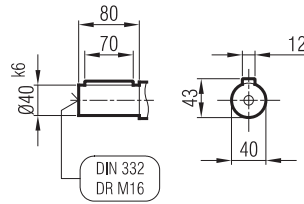
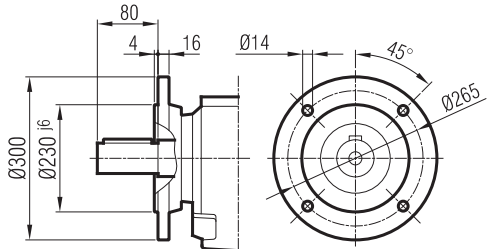




İRFM 74

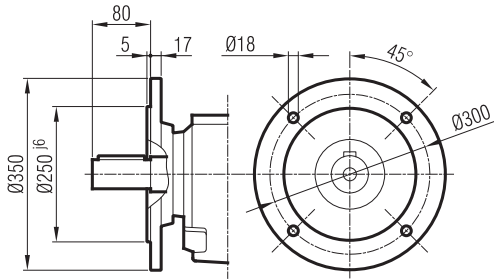


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø300

Opsiyonel / Option



Ø350

Opsiyonel / Option

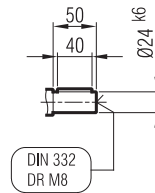
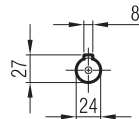
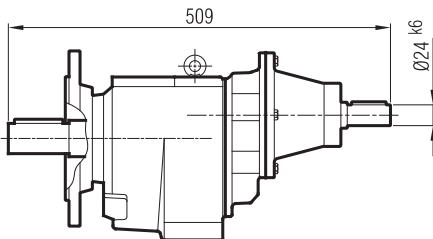
	71 M	80 M						
A	588	660						
A1	642	721						
H	123	136						
HD	194	216						
AC	138.5	158						

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

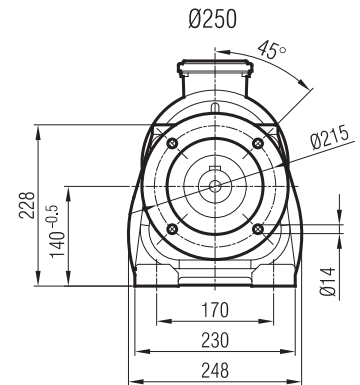
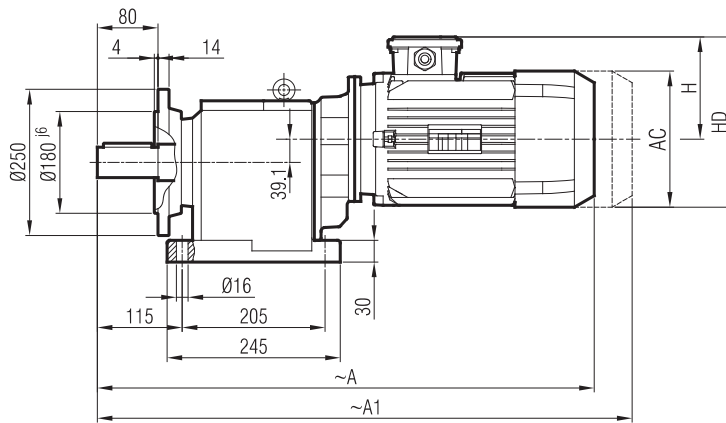
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 74

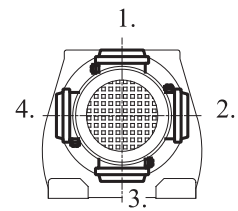
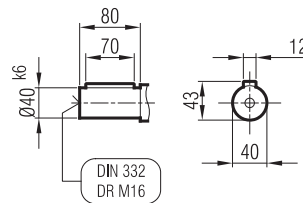




İRAFM 74



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



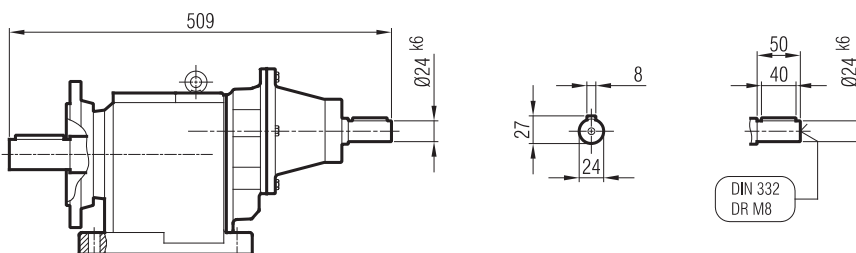
	71 M	80 M						
A	588	660						
A1	642	721						
H	123	136						
HD	194	216						
AC	138.5	158						

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

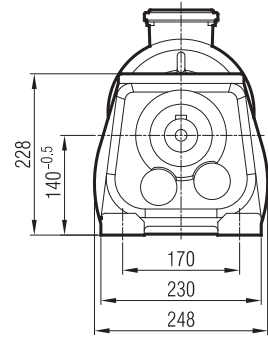
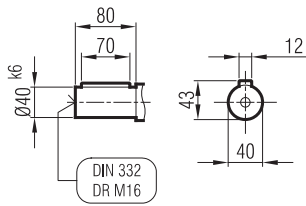
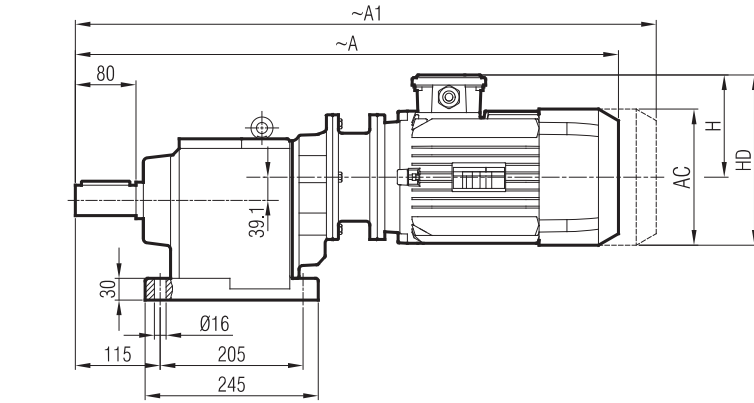
Le dimensions "A1" correspond aux moteurs équipés de freins.

IRAF 74

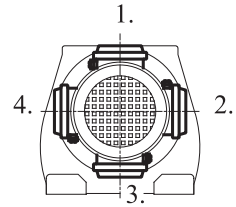




İRAPM 74



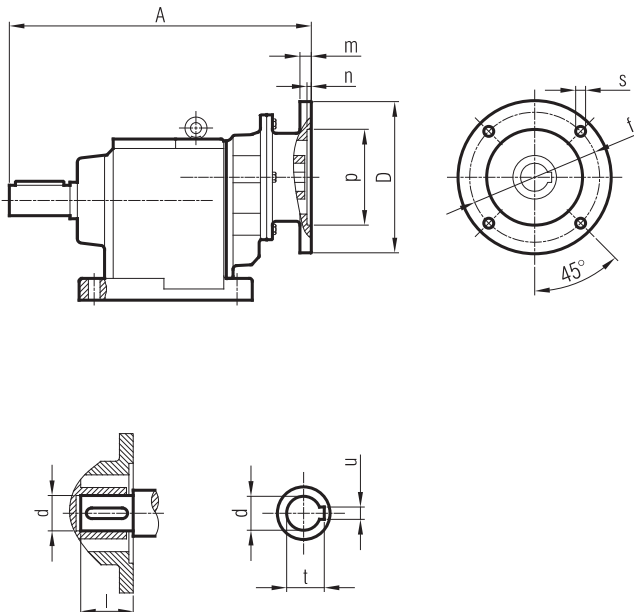
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



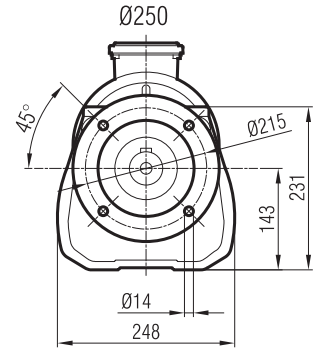
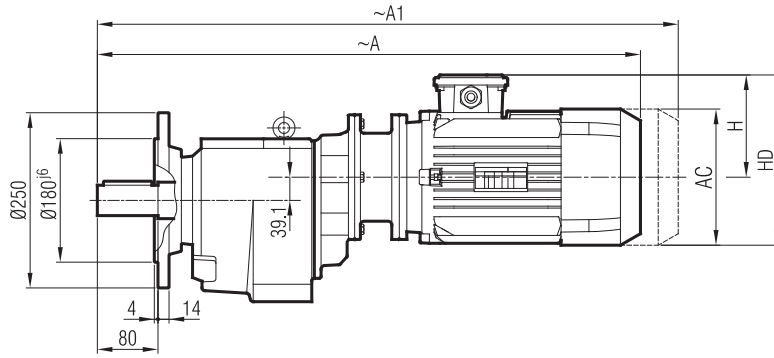
	63 M/B5	71 M/B5	80 M/B5				
A	599	641	709				
A1	653	695	770				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

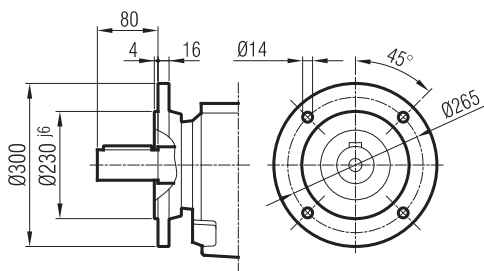
İRAP 74



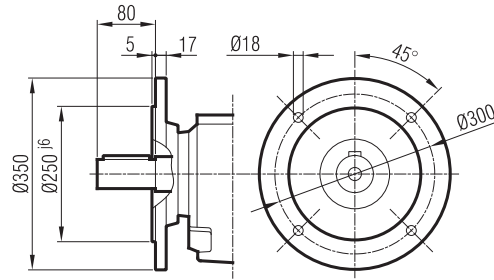
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	402	95	115	140	M8	35.5	8	4	11	12.8	4
71	411	110	130	160	M8	45	9	4	14	16.3	5
80	416	130	165	200	M10	50	12	5	19	21.8	6
63	402	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	411	70	85	105	Ø7	45	10	3	14	16.3	5
80	416	80	100	120	Ø7	46	8	4	19	21.8	6


İRFP 74


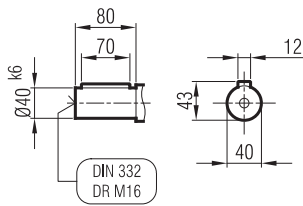
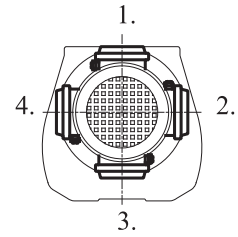
Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



Ø300
Opsiyonel / Option

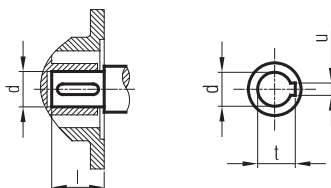
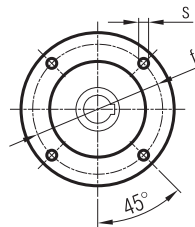
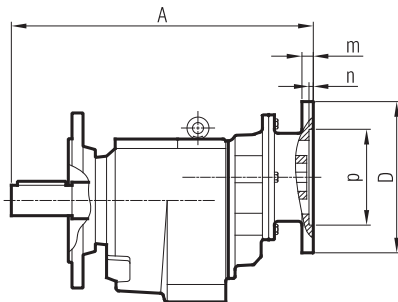


Ø350
Opsiyonel / Option



	63 M/B5	71 M/B5	80 M/B5				
A	599	641	709				
A1	653	695	770				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

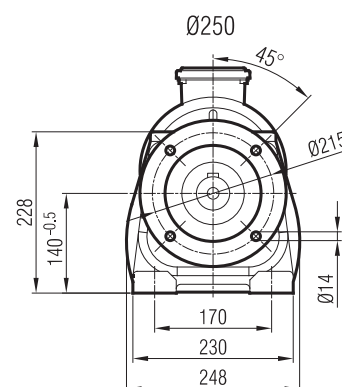
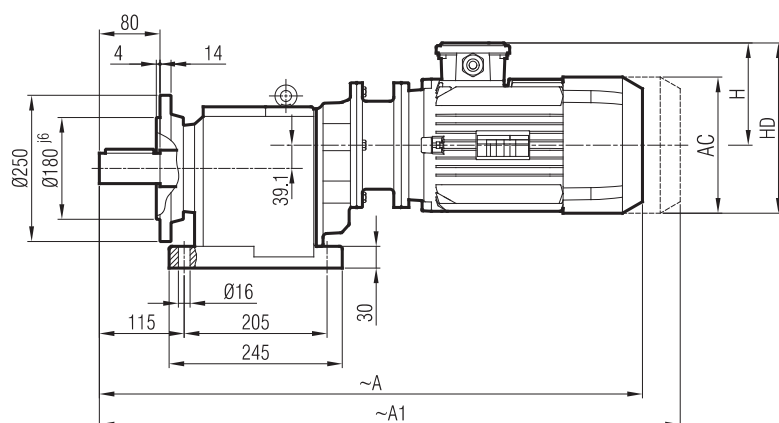
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 74


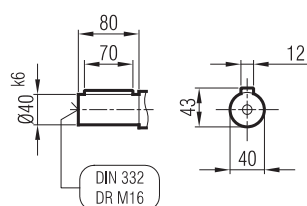
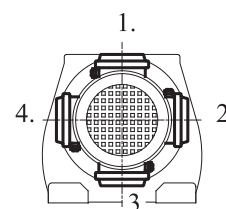
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	402	95	115	140	M8	35.5	8	4	11	12.8	4
71	411	110	130	160	M8	45	9	4	14	16.3	5
80	416	130	165	200	M10	50	12	5	19	21.8	6
63	402	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	411	70	85	105	Ø7	45	10	3	14	16.3	5
80	416	80	100	120	Ø7	46	8	4	19	21.8	6



İRAFPM 74



Klemens Pozisyonlari
Positions of Terminal Box
Position de la boîte à bornes



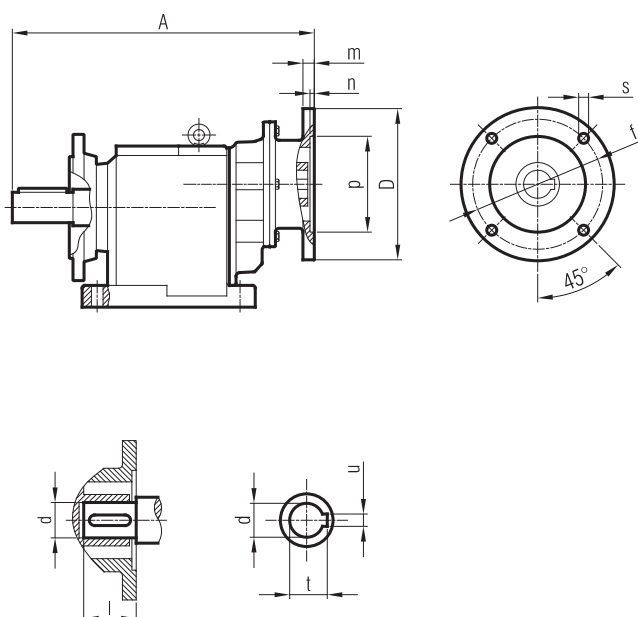
	63 M/B5	71 M/B5	80 M/B5				
A	599	641	709				
A1	653	695	770				
H	108	123	136				
HD	171	194	216				
AC	125	138.5	158				

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

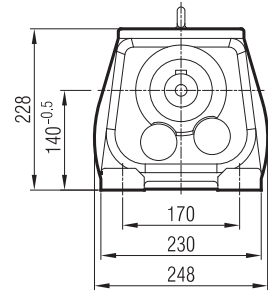
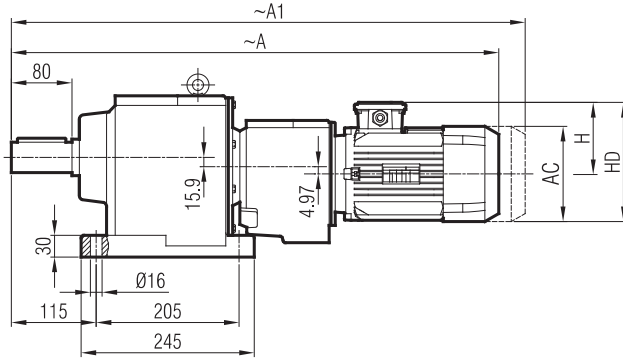
İRAFP 74



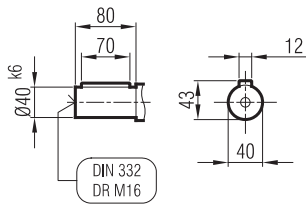
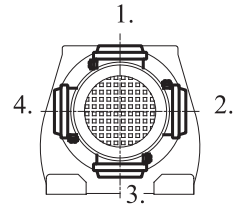
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	402	95	115	140	M8	35.5	8	4	11	12.8	4
71		411	110	130	160	M8	45	9	4	14	16.3	5
80		416	130	165	200	M10	50	12	5	19	21.8	6
63	B14	402	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		411	70	85	105	Ø7	45	10	3	14	16.3	5
80		416	80	100	120	Ø7	46	8	4	19	21.8	6



İRAM 72 İR 52
İRAM 73 İR 52



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



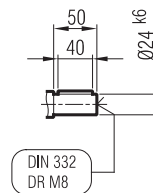
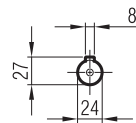
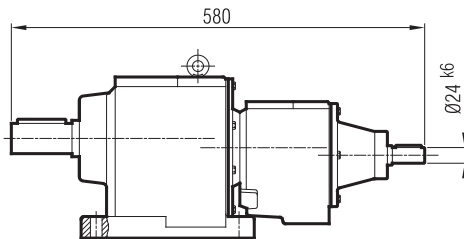
	71 M	80 M						
A	680	723						
A1	734	784						
H	123	136						
HD	194	216						
AC	138.5	158						

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

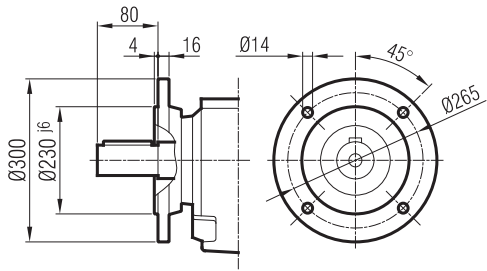
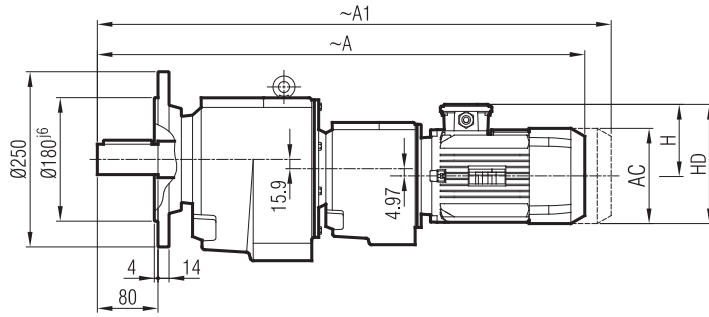
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 72 İR 52 / İRA 72 İR 53
İRA 73 İR 52 / İRA 73 İR 53



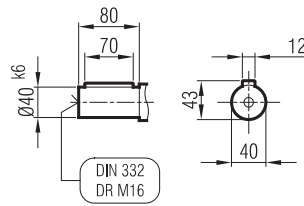


İRFM 72 İR 52
İRFM 73 İR 52

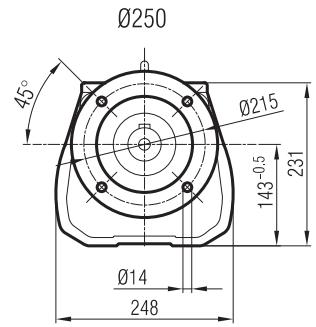


Ø300

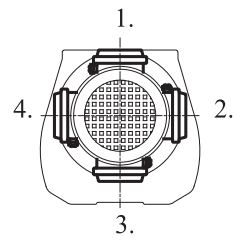
Opsiyonel / Option



DIN 332
DR M16



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



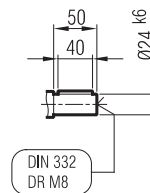
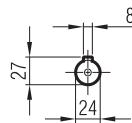
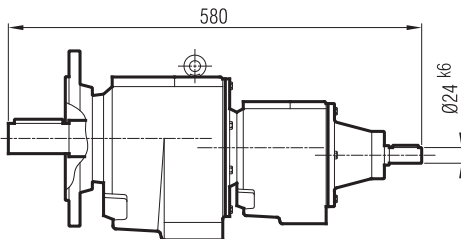
	71 M	80 M						
A	680	723						
A1	734	784						
H	123	136						
HD	194	216						
AC	138.5	158						

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

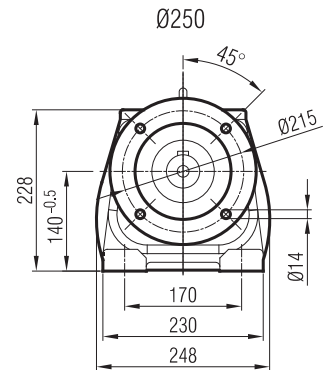
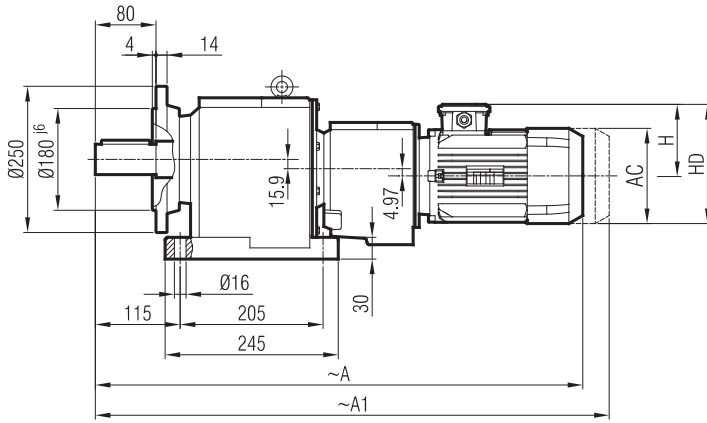
İRF 72 İR 52 / İRF 72 İR 53
İRF 73 İR 52 / İRF 73 İR 53



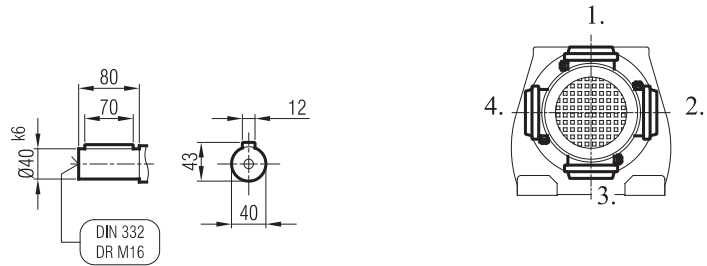
DIN 332
DR M8



İRAFM 72 İR 52
İRAFM 73 İR 52

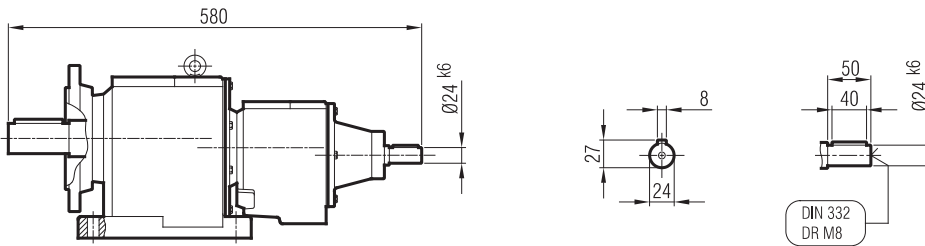


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M					
A	680	723					
A1	734	784					
H	123	136					
HD	194	216					
AC	138.5	158					

İRAF 72 İR 52 / İRAF 72 İR 53
İRAF 73 İR 52 / İRAF 73 İR 53

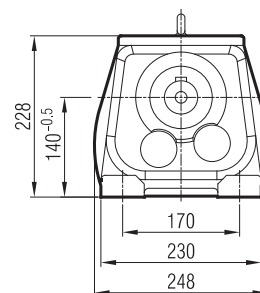
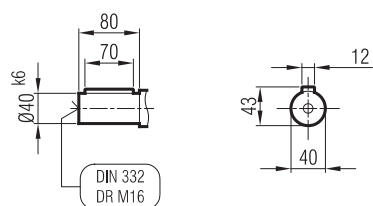
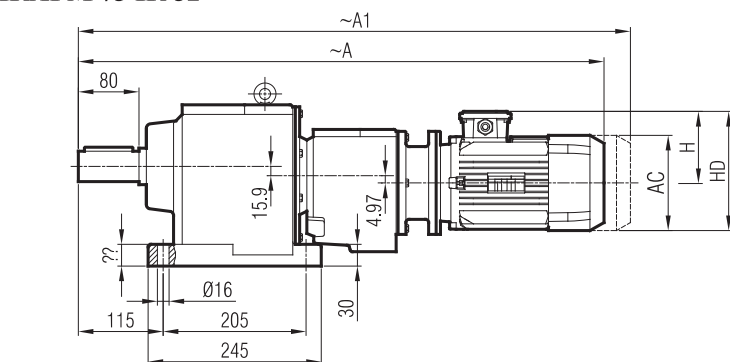


"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.



İRAPM 72 İR 52

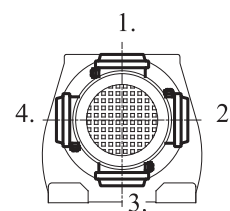
İRAPM 73 İR 52



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



	63 M/B5	71 M/B5	80 M/B5				
A	684	725	763				
A1	738	779	824				
H	108	123	135				
HD	171	194	216				
AC	125	138.5	158				

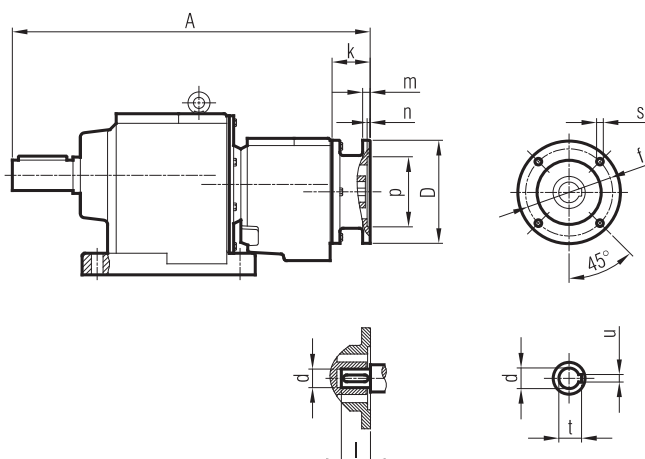
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAP 72 İR 52 / İRAP 72 İR 53

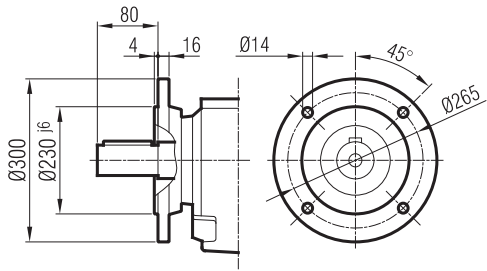
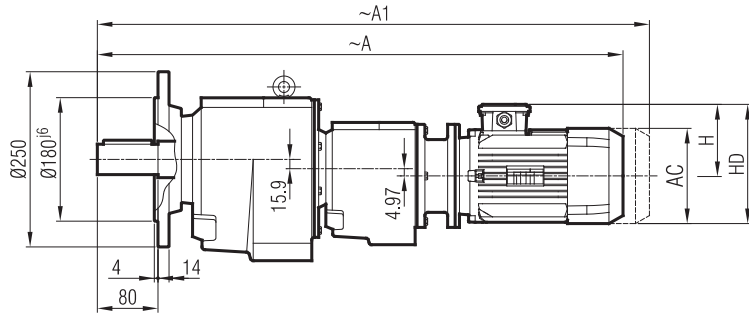
İRAP 73 İR 52 / İRAP 73 İR 53



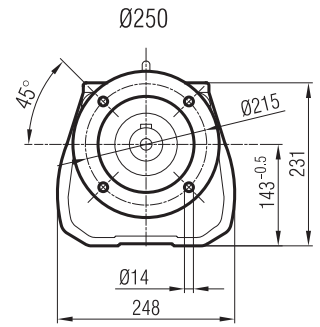
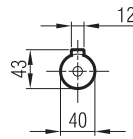
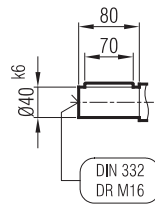
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	487	95	115	140	M8	35.5	8	4	11	12.8	4
71		495	110	130	160	M8	44	9	4	14	16.3	5
80		497	130	165	200	M10	46	12	5	19	21.8	6
63	B14	487	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		496	70	85	105	Ø7	45	10	3	14	16.3	5
80		497	80	100	120	Ø7	46	8	4	19	21.8	6



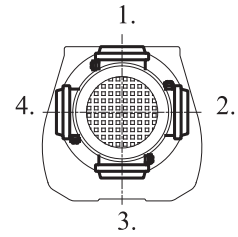
İRFP 72 İR 52
İRFP 73 İR 52



Ø300
Opsiyonel / Option



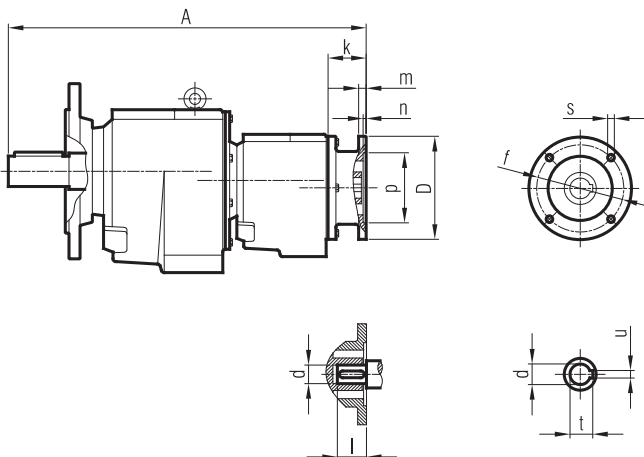
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M/B5	71 M/B5	80 M/B5				
A	684	725	763				
A1	738	779	824				
H	108	123	135				
HD	171	194	216				
AC	125	138.5	158				

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 72 İR 52 / İRFP 72 İR 53
İRFP 73 İR 52 / İRFP 73 İR 53

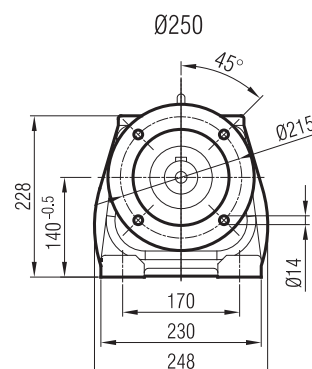
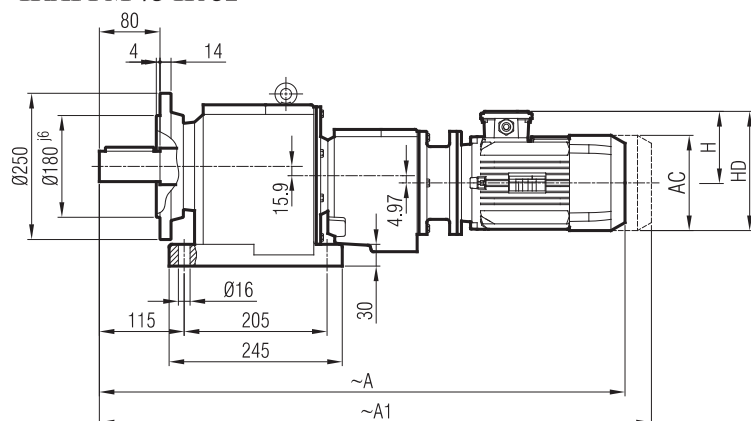


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	487	95	115	140	M8	35.5	8	4	11	12.8	4
71	495	110	130	160	M8	44	9	4	14	16.3	5
80	497	130	165	200	M10	46	12	5	19	21.8	6
63	487	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	496	70	85	105	Ø7	45	10	3	14	16.3	5
80	497	80	100	120	Ø7	46	8	4	19	21.8	6

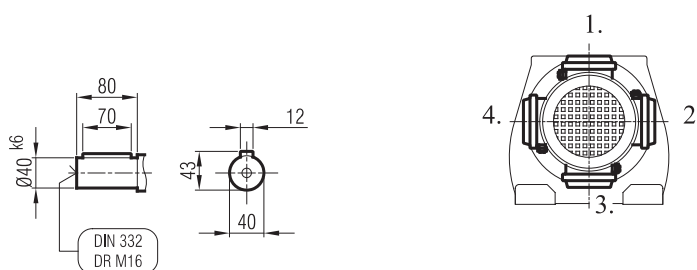


İRAFPM 72 İR 52

İRAFPM 73 İR 52



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	63 M/B5	71 M/B5	80 M/B5				
A	684	725	763				
A1	738	779	824				
H	108	123	135				
HD	171	194	216				
AC	125	138.5	158				

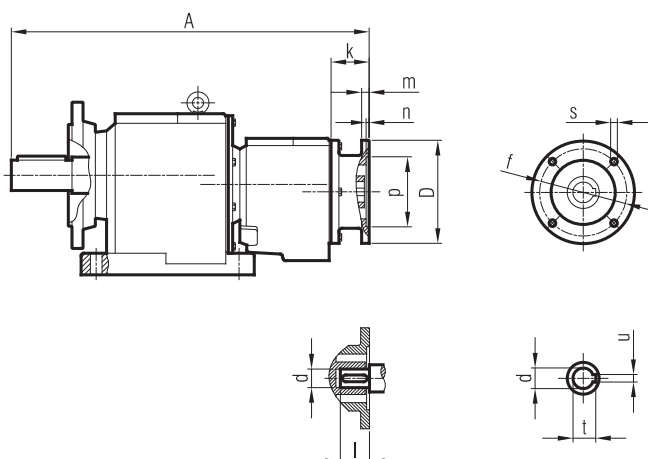
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 72 İR 52 / İRAFP 72 İR 53

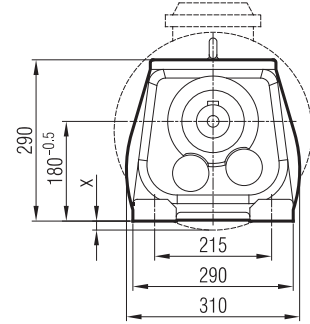
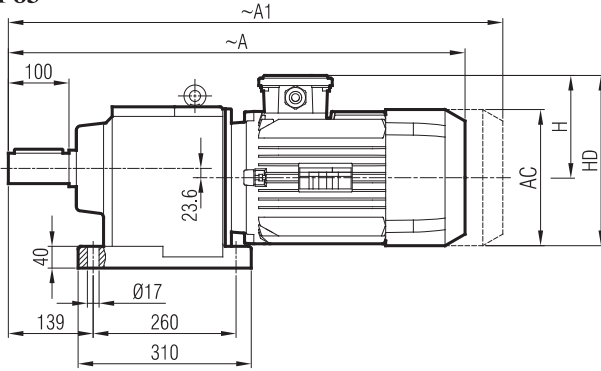
İRAFP 73 İR 52 / İRAFP 73 İR 53



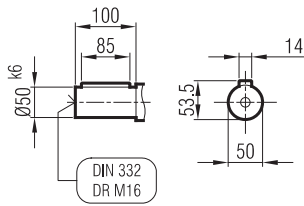
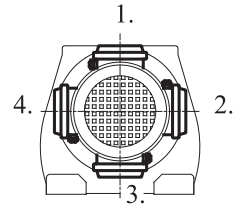
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	487	95	115	140	M8	35.5	8	4	11	12.8	4
71		495	110	130	160	M8	44	9	4	14	16.3	5
80		497	130	165	200	M10	46	12	5	19	21.8	6
63	B14	487	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		496	70	85	105	Ø7	45	10	3	14	16.3	5
80		497	80	100	120	Ø7	46	8	4	19	21.8	6



İRAM 82
İRAM 83



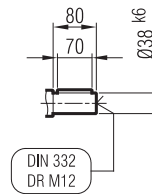
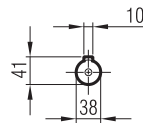
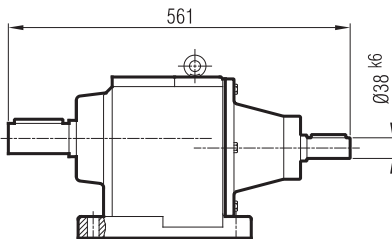
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	80 M	90 S	90 L	100 L	112 M	132 S	132 M	160 M	160 L	180 M	180 L
A	658	649	713	753	727	797	842	950	995	1007	1044
A1	719	716	780	830	822	901	946	1067	1112	1143	1180
H	136	141	141	161	170	193	193	240	240	260	260
HD	216	231	231	261	282	325	325	400	400	440	440
AC	158	176	176	195	220	262	262	315	315	357	357
X	-	-	-	-	-	-	-	1	1	22	22

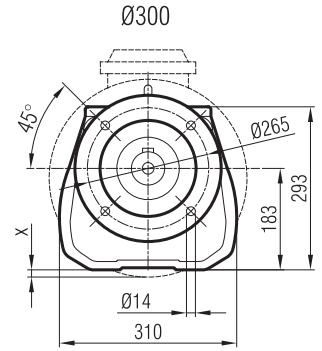
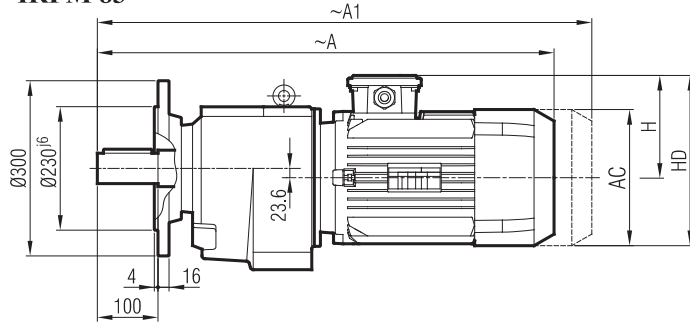
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 82
İRA 83

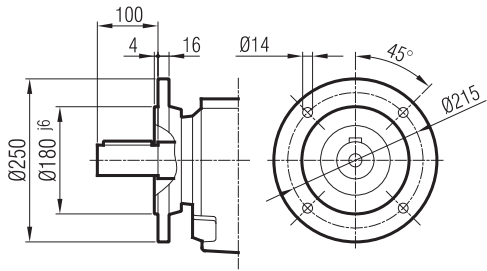




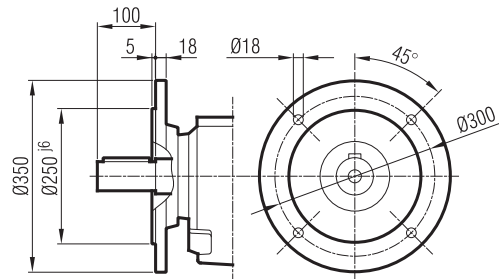
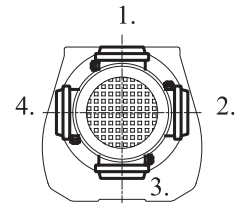
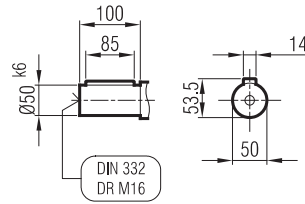
İRFM 82
İRFM 83



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø250
Opsiyonel / Option

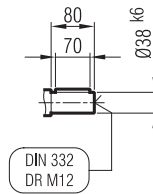
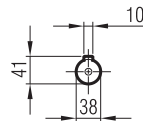
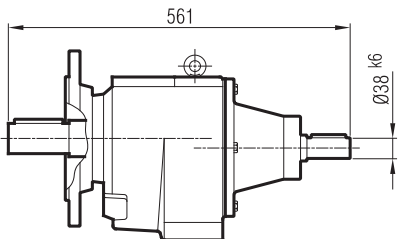


Ø350
Opsiyonel / Option

	80 M	90 S	90 L	100 L	112 M	132 S	132 M	160 M	160 L	180 M	180 L
A	658	649	713	753	727	797	842	950	995	1007	1044
A1	719	716	780	830	822	901	946	1067	1112	1143	1180
H	136	141	141	161	170	193	193	240	240	260	260
HD	216	231	231	261	282	325	325	400	400	440	440
AC	158	176	176	195	220	262	262	315	315	357	357
X	-	-	-	-	-	-	-	1	1	22	22

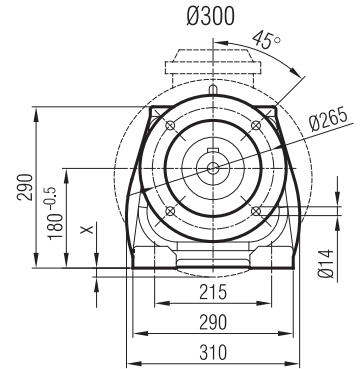
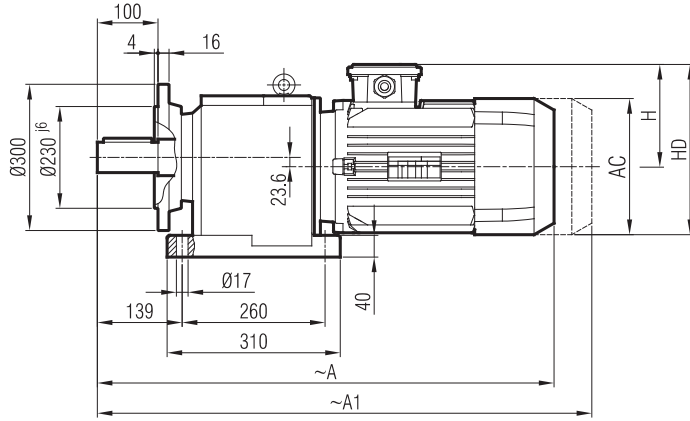
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 82
İRF 83

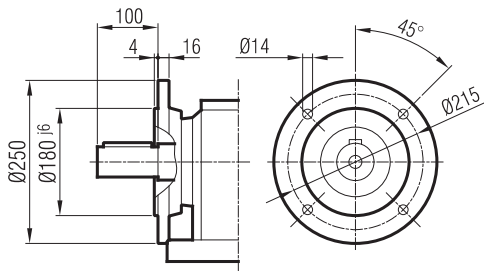




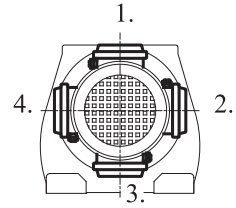
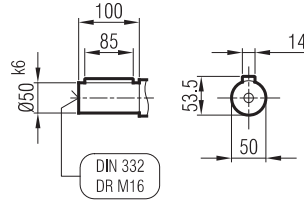
İRAFM 82
İRAFM 83



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



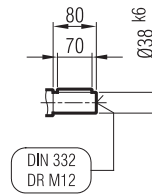
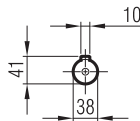
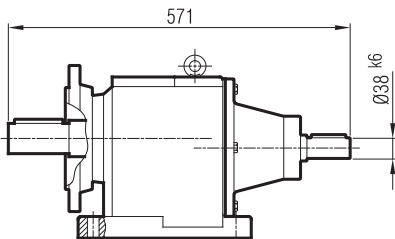
Ø250
Opsiyonel / Option

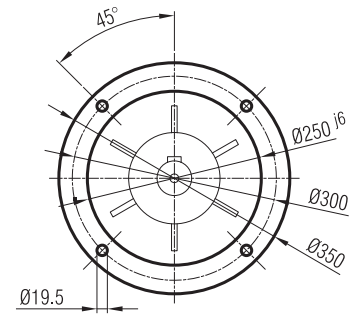
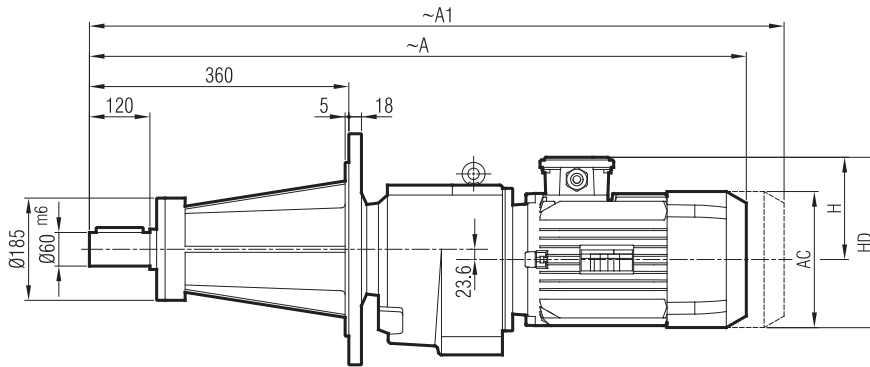


	80 M	90 S	90 L	100 L	112 M	132 S	132 M	160 M	160 L	180 M	180 L
A	658	649	713	753	727	797	842	950	995	1007	1044
A1	719	716	780	830	822	901	946	1067	1112	1143	1180
H	136	141	141	161	170	193	193	240	240	260	260
HD	216	231	231	261	282	325	325	400	400	440	440
AC	158	176	176	195	220	262	262	315	315	357	357
X	-	-	-	-	-	-	-	1	1	22	22

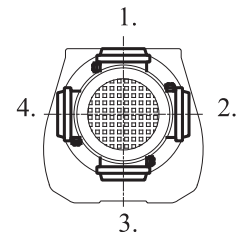
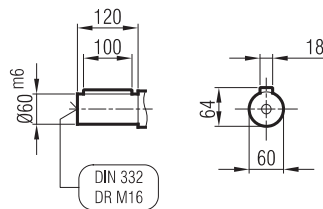
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 82
İRAF 83



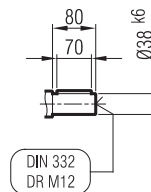
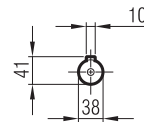
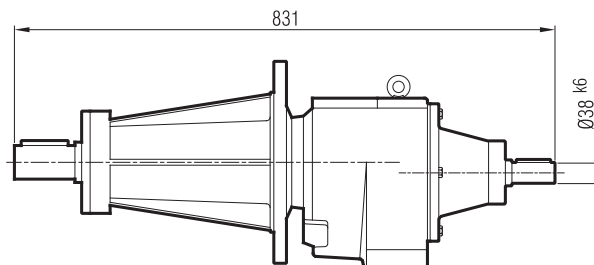
İRBİM 82
İRBİM 83

Klemens Pozisyonlari
Positions of Terminal Box
Position de la boîte à bornes

[illegible]

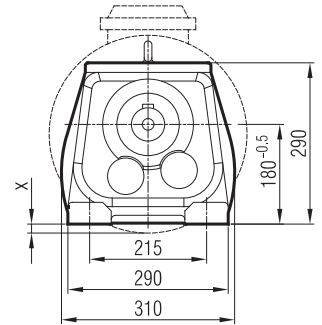
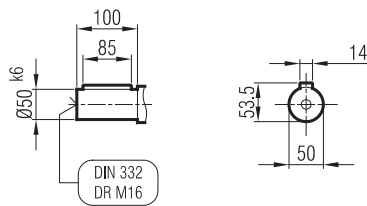
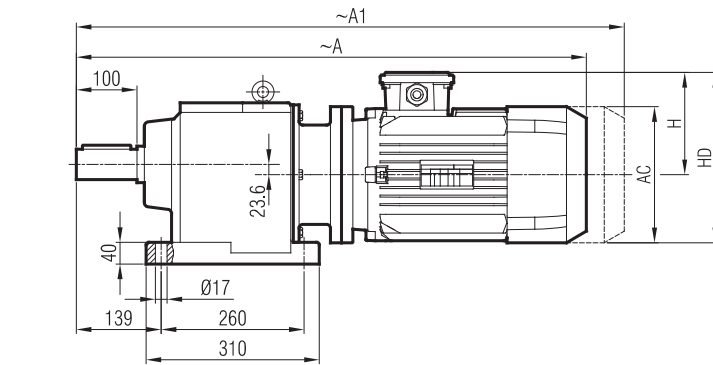
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRB 82
İRB 83

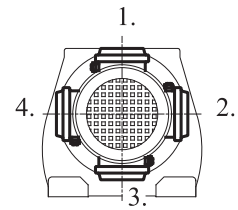




İRAPM 82
İRAPM 83



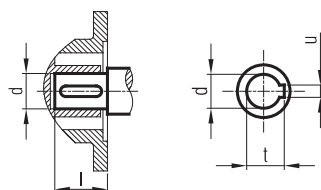
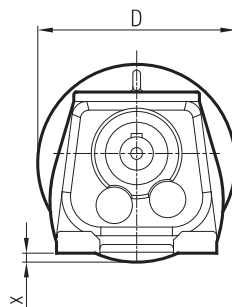
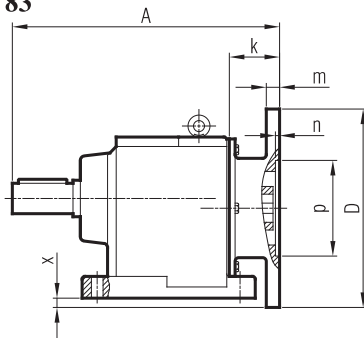
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



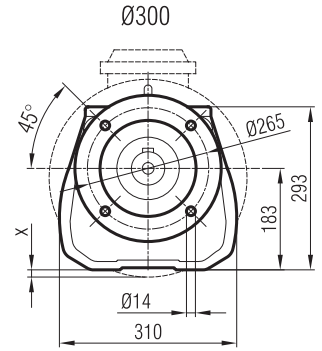
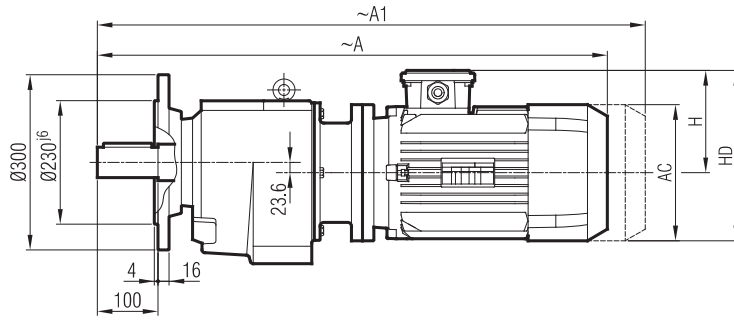
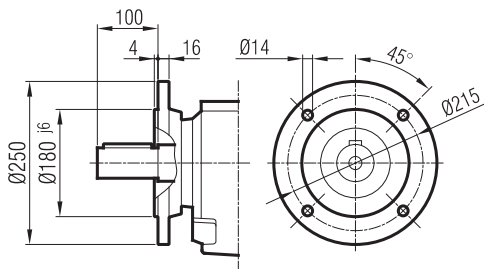
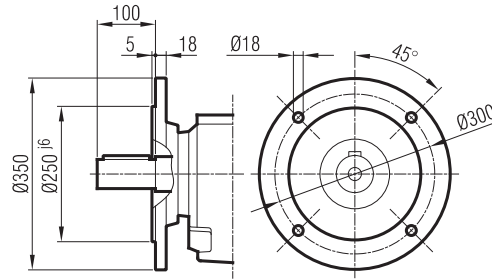
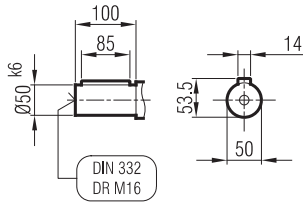
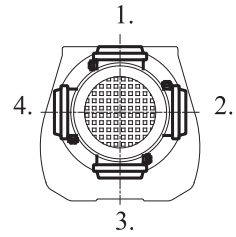
IEC	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5
A	741	750	788	828	800	878	919	1013	1058	1134	1134
A1	802	817	855	905	895	982	1023	1130	1175	1270	1270
H	136	141	141	161	170	193	193	240	240	260	260
HD	216	231	231	261	282	325	325	400	400	440	440
AC	158	176	176	195	220	262	262	315	315	357	357
X	-	-	-	-	-	-	-	19	19	22	22

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

İRAP 82
İRAP 83



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
80	448	130	165	200	M10	66	12	5	19	21.8	6	-
90	448	130	165	200	M10	66	12	5	24	27.3	8	-
100	456	180	215	250	M12	74	14	5	28	31.3	8	-
112	456	180	215	250	M12	74	14	5	28	31.3	8	-
132	477	230	265	300	M12	95	17	5	38	41.3	10	-
160	493	250	300	350	M16	111	18	6.5	42	45.3	12	19
180	493	250	300	350	M16	111	18	6.5	48	51.8	14	19
80	448	80	100	120	Ø7	66	11	5	19	21.8	6	-
90	448	95	115	140	Ø9	66	12	5	24	27.3	8	-
100	449	110	130	160	Ø9	67	11	5	28	31.3	8	-
112	449	110	130	160	Ø9	67	11	5	28	31.3	8	-
132	477	130	165	200	Ø11	95	13	5	38	41.3	10	-
160	493	180	215	250	Ø13	111	16	6	42	45.3	12	-

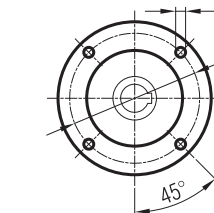
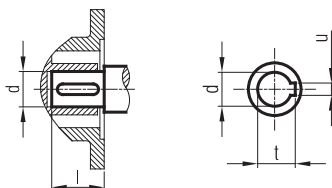
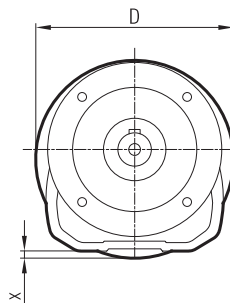
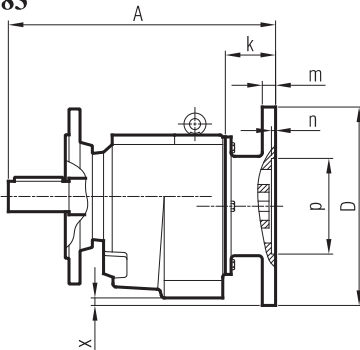

İRFP 82
İRFP 83

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

Ø250
Opsiyonel / Option

Ø350
Opsiyonel / Option


IEC	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5
A	741	750	788	828	800	878	919	1013	1058	1134	1134
A1	802	817	855	905	895	982	1023	1130	1175	1270	1270
H	136	141	141	161	170	193	193	240	240	260	260
HD	216	231	231	261	282	325	325	400	400	440	440
AC	158	176	176	195	220	262	262	315	315	357	357
X	-	-	-	-	-	-	-	19	19	22	22

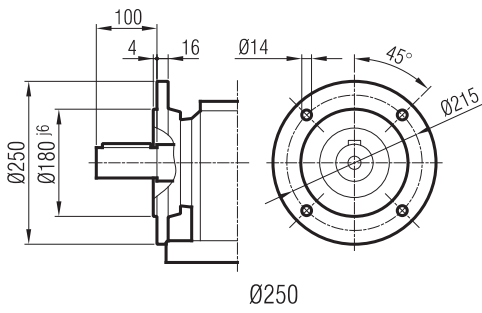
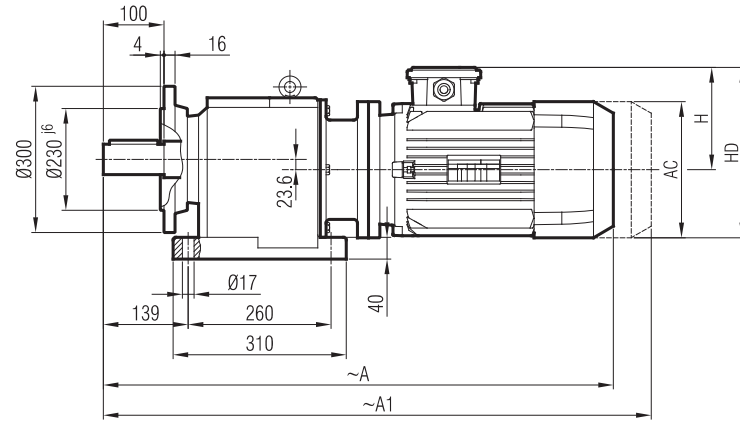
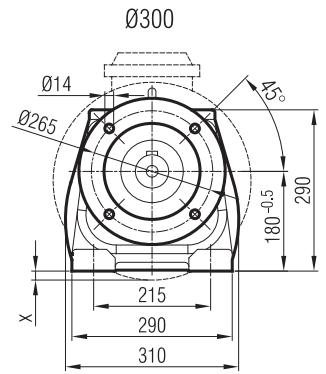
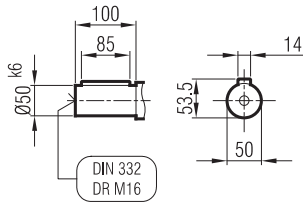
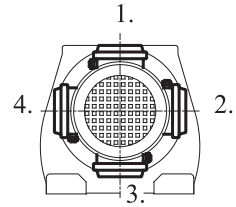
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 82
İRFP 83


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
80	448	130	165	200	M10	66	12	5	19	21.8	6	-
90	448	130	165	200	M10	66	12	5	24	27.3	8	-
100	456	180	215	250	M12	74	14	5	28	31.3	8	-
112	456	180	215	250	M12	74	14	5	28	31.3	8	-
132	477	230	265	300	M12	95	17	5	38	41.3	10	-
160	493	250	300	350	M16	111	18	6.5	42	45.3	12	19
180	493	250	300	350	M16	111	18	6.5	48	51.8	14	19
80	448	80	100	120	Ø7	66	11	5	19	21.8	6	-
90	448	95	115	140	Ø9	66	12	5	24	27.3	8	-
100	449	110	130	160	Ø9	67	11	5	28	31.3	8	-
112	449	110	130	160	Ø9	67	11	5	28	31.3	8	-
132	477	130	165	200	Ø11	95	13	5	38	41.3	10	-
160	493	180	215	250	Ø13	111	16	6	42	45.3	12	-

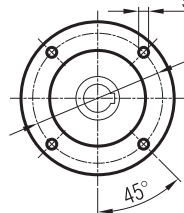
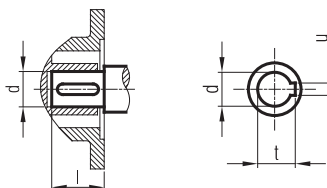
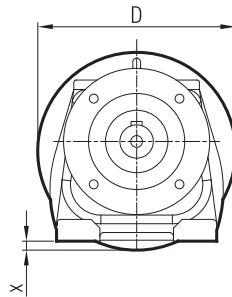
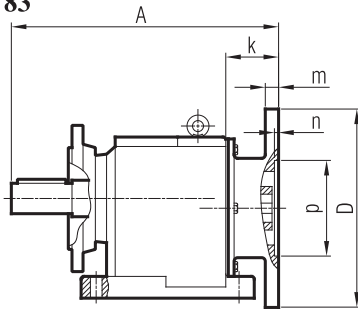

İRAFPM 82
İRAFPM 83

Opsiyonel / Option

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5
A	741	750	788	828	800	878	919	1013	1058	1134	1134
A1	802	817	855	905	895	982	1023	1130	1175	1270	1270
H	136	141	141	161	170	193	193	240	240	260	260
HD	216	231	231	261	282	325	325	400	400	440	440
AC	158	176	176	195	220	262	262	315	315	357	357
X	-	-	-	-	-	-	-	19	19	22	22

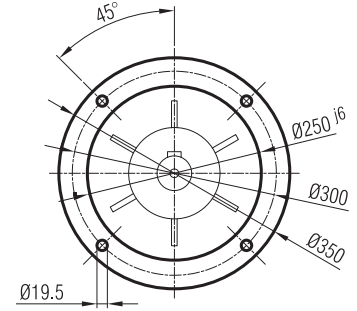
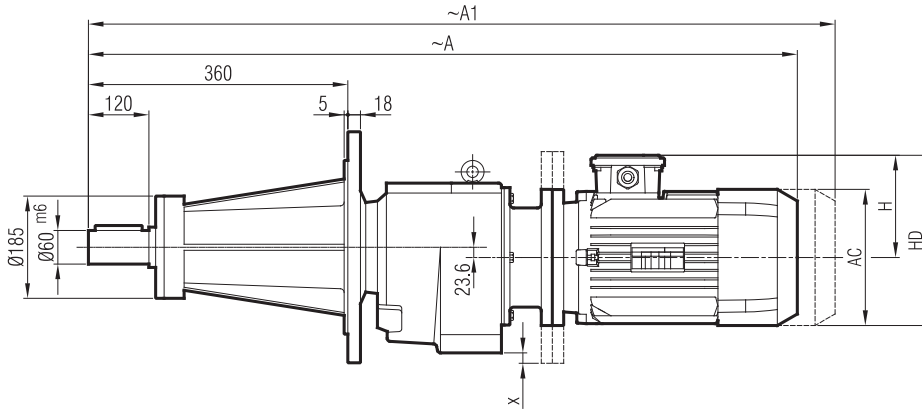
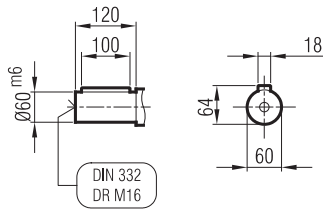
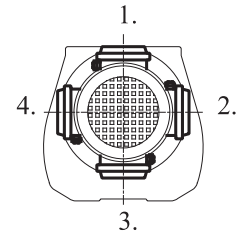
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspondent aux moteurs équipés de freins.

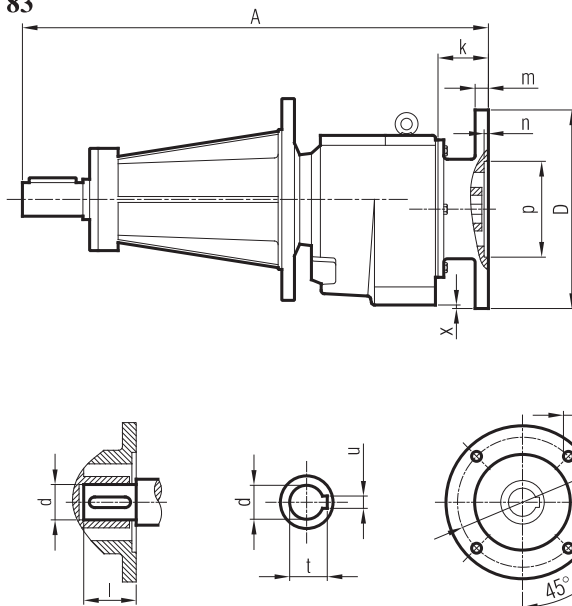
İRAFP 82
İRAFP 83


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
80	448	130	165	200	M10	66	12	5	19	21.8	6	-
90	448	130	165	200	M10	66	12	5	24	27.3	8	-
100	456	180	215	250	M12	74	14	5	28	31.3	8	-
112	456	180	215	250	M12	74	14	5	28	31.3	8	-
132	477	230	265	300	M12	95	17	5	38	41.3	10	-
160	493	250	300	350	M16	111	18	6.5	42	45.3	12	19
180	493	250	300	350	M16	111	18	6.5	48	51.8	14	19
80	448	80	100	120	Ø7	66	11	5	19	21.8	6	-
90	448	95	115	140	Ø9	66	12	5	24	27.3	8	-
100	449	110	130	160	Ø9	67	11	5	28	31.3	8	-
112	449	110	130	160	Ø9	67	11	5	28	31.3	8	-
132	477	130	165	200	Ø11	95	13	5	38	41.3	10	-
160	493	180	215	250	Ø13	111	16	6	42	45.3	12	-


İRBPM 82
İRBPM 83

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5
A	1001	1010	1048	1088	1060	1138	1179	1273	1318	1394	1394
A1	1062	1077	1115	1165	1155	1242	1283	1390	1435	1530	1530
H	136	141	141	161	170	193	193	240	240	260	260
HD	216	231	231	261	282	325	325	400	400	440	440
AC	158	176	176	195	220	262	262	315	315	357	357
X	-	-	-	-	-	-	-	16	16	19	19

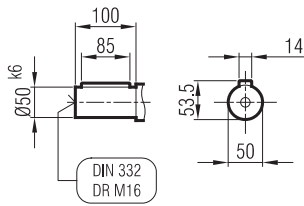
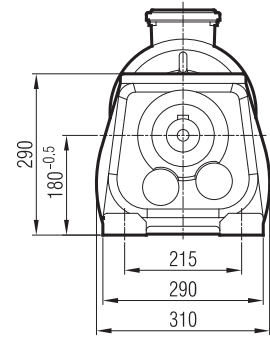
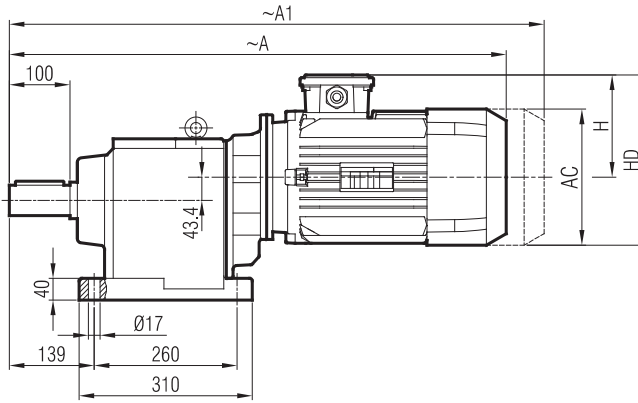
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRBP 82
İRBP 83


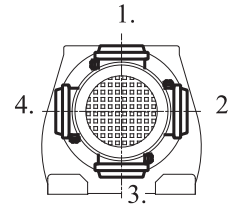
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u	x
80	708	130	165	200	M10	66	12	5	19	21.8	6	-
90	708	130	165	200	M10	66	12	5	24	27.3	8	-
100	716	180	215	250	M12	74	14	5	28	31.3	8	-
112	716	180	215	250	M12	74	14	5	28	31.3	8	-
132	737	230	265	300	M12	95	17	5	38	41.3	10	-
160	753	250	300	350	M14	111	18	6.5	42	45.3	12	16
180	753	250	300	350	M14	111	18	6.5	48	51.8	14	16
80	708	80	100	120	Ø7	66	11	5	19	21.8	6	-
90	708	95	115	140	Ø9	66	12	5	24	27.3	8	-
100	709	110	130	160	Ø9	67	11	5	28	31.3	8	-
112	709	110	130	160	Ø9	67	11	5	28	31.3	8	-
132	737	130	165	200	Ø11	95	13	5	38	41.3	10	-
160	753	180	215	250	Ø13	111	16	6	42	45.3	12	-



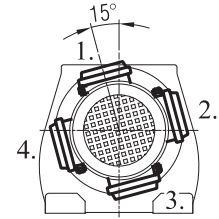
İRAM 84



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



71-90-100-112-132
Tip/Type/Type



80
Tip/Type/Type

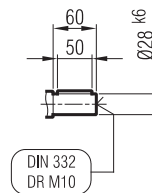
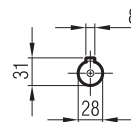
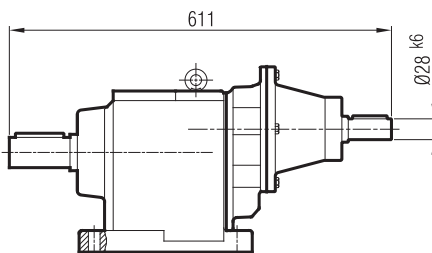
	71 M	80 M	90 S	90 L				
A	659	732	726	790				
A1	713	793	793	857				
H	123	136	141	141				
HD	194	216	231	231				
AC	138.5	158	176	176				

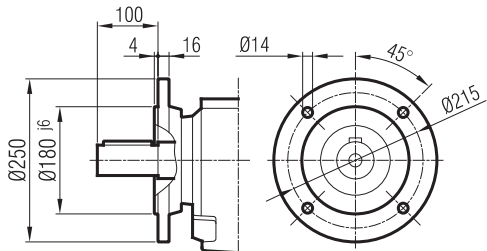
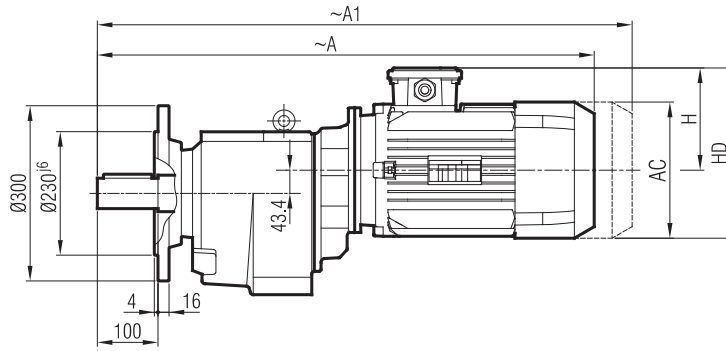
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

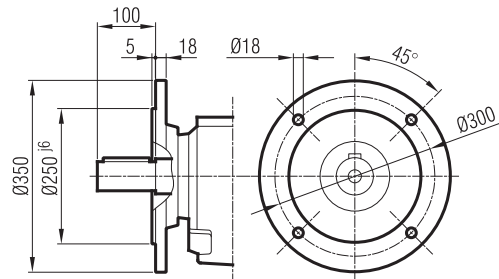
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 84

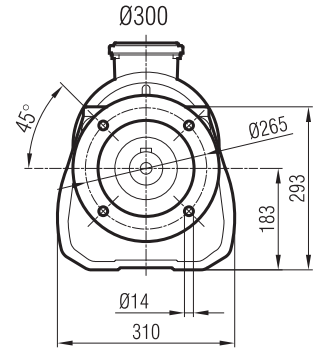
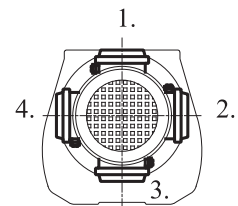



İRFM 84


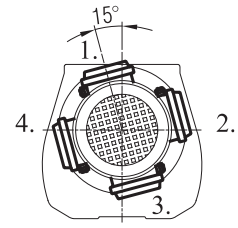
Ø250

Opsiyonel / Option


Ø350

Opsiyonel / Option

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


71-90-100-112-132

Tip/Type/Type


80

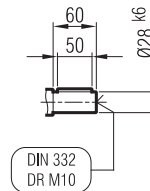
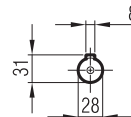
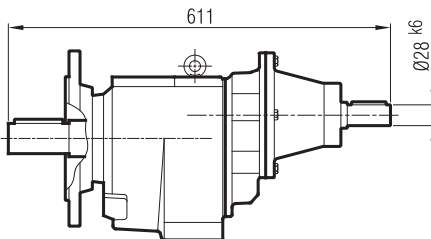
Tip/Type/Type

	71 M	80 M	90 S	90 L				
A	659	732	726	790				
A1	713	793	793	857				
H	123	136	141	141				
HD	194	216	231	231				
AC	138.5	158	176	176				

"A1" Ölçüsü Frenli Motorlar içindir.

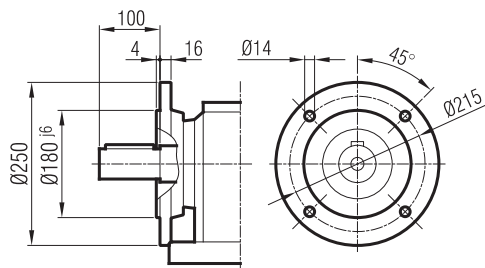
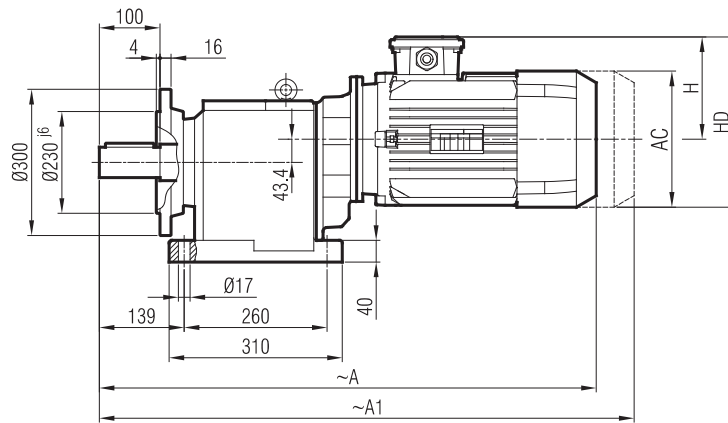
Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

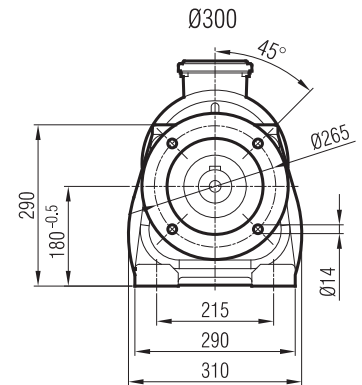
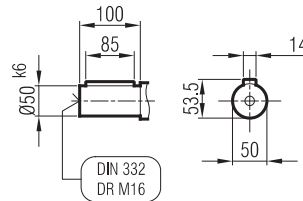
İRF 84




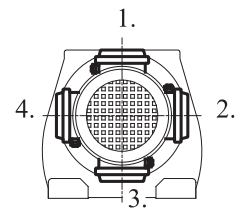
İRAFM 84



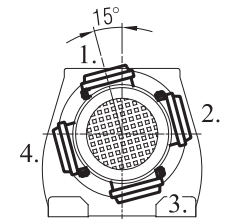
Ø250
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



71-90-100-112-132
Tip/Type/*Type*



Tip/Type/Type

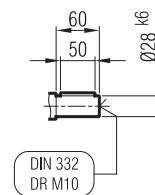
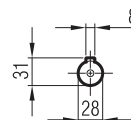
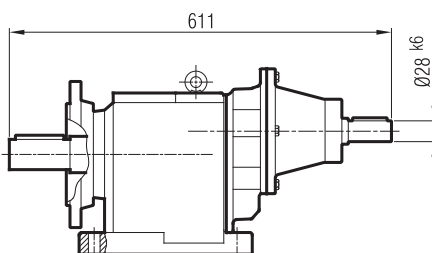
	71 M	80 M	90 S	90 L				
A	659	732	726	790				
A1	713	793	793	857				
H	123	136	141	141				
HD	194	216	231	231				
AC	138.5	158	176	176				

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

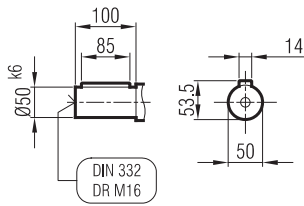
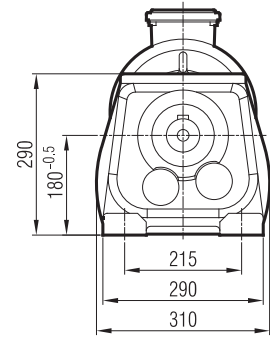
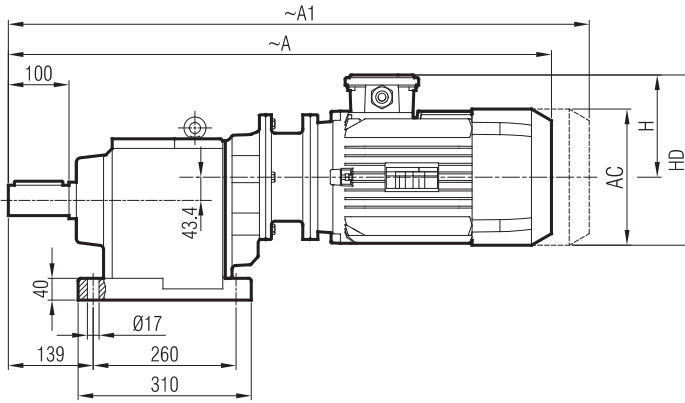
Le dimensions "A1" correspond aux moteurs équipés de freins.

IRAF 84

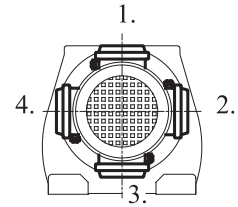




İRAPM 84



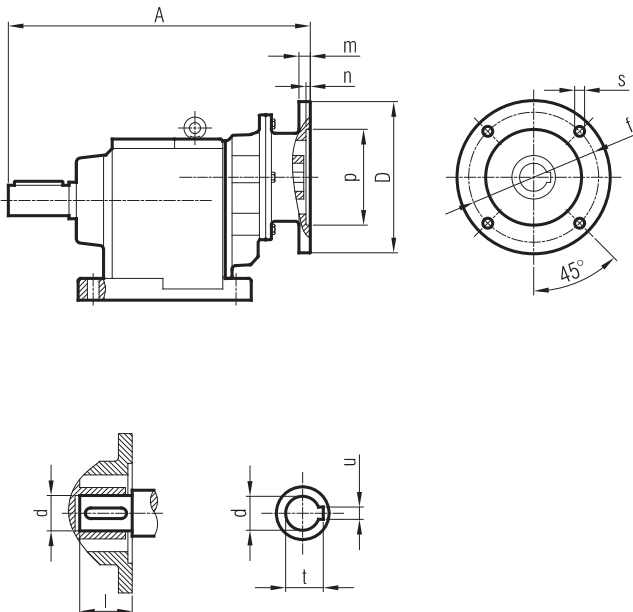
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



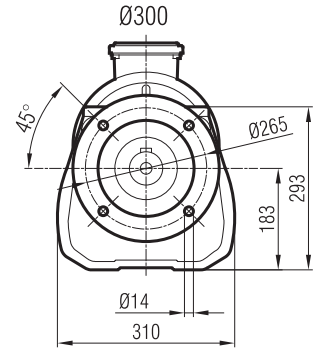
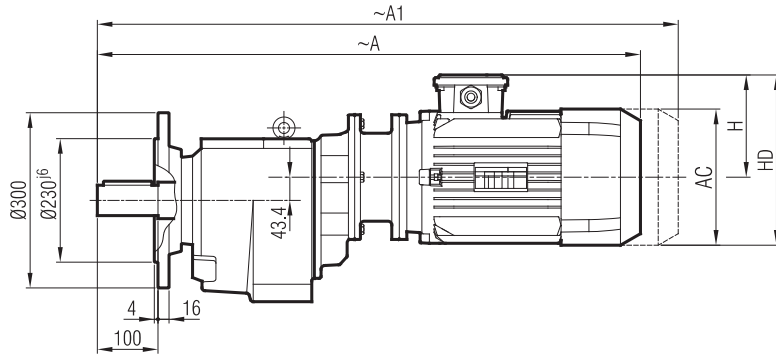
	71 M/B5	80 M/B5	90 S/B5	90 L/B5			
A	732	807	816	854			
A1	786	868	883	921			
H	123	136	141	141			
HD	194	216	231	231			
AC	138.5	158	176	176			

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

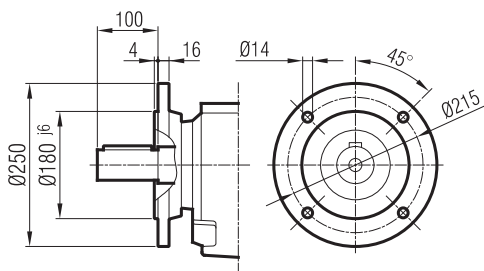
İRAP 84



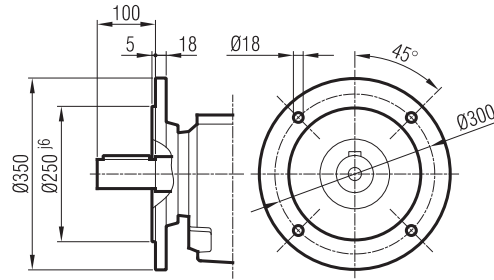
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	502	110	130	160	M8	55	10	4	14	16.3	5
80	514	130	165	200	M10	67	12	5	19	21.8	6
90	514	130	165	200	M10	67	12	5	24	27.3	8
71	502	70	85	105	Ø7	55	10	3	14	16.3	5
80	514	80	100	120	Ø7	67	8	4	19	21.8	6
90	514	95	115	140	Ø9	67	12	5	24	27.3	8


İRFPM 84


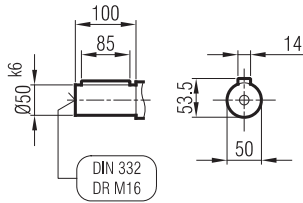
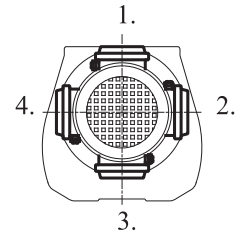
Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



Ø250
Opsiyonel / Option

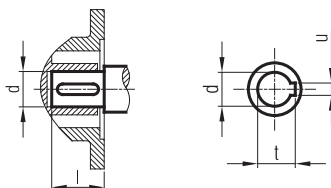
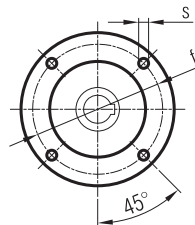
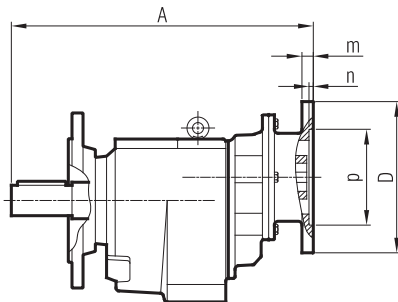


Ø350
Opsiyonel / Option



	71 M/B5	80 M/B5	90 S/B5	90 L/B5			
A	732	807	816	854			
A1	786	868	883	921			
H	123	136	141	141			
HD	194	216	231	231			
AC	138.5	158	176	176			

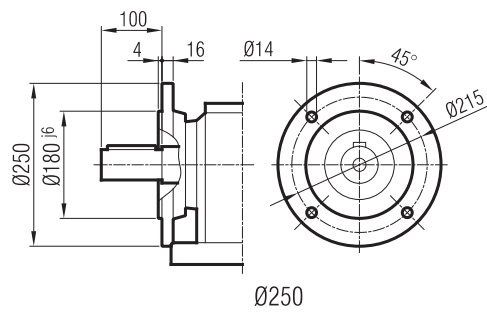
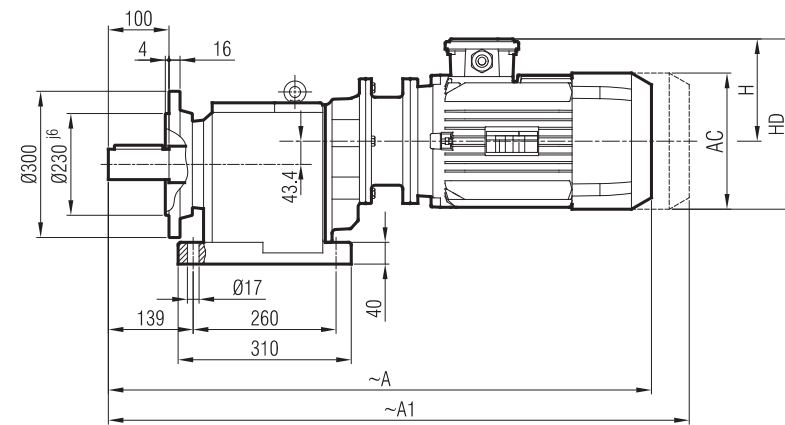
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 84


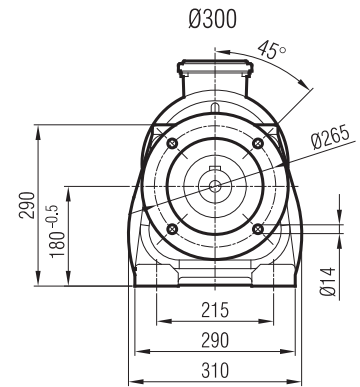
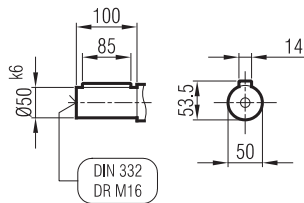
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	502	110	130	160	M8	55	10	4	14	16.3	5
80	514	130	165	200	M10	67	12	5	19	21.8	6
90	514	130	165	200	M10	67	12	5	24	27.3	8
71	502	70	85	105	Ø7	55	10	3	14	16.3	5
80	514	80	100	120	Ø7	67	8	4	19	21.8	6
90	514	95	115	140	Ø9	67	12	5	24	27.3	8



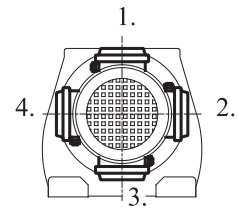
İRAFPM 84



Opsiyonel / Option



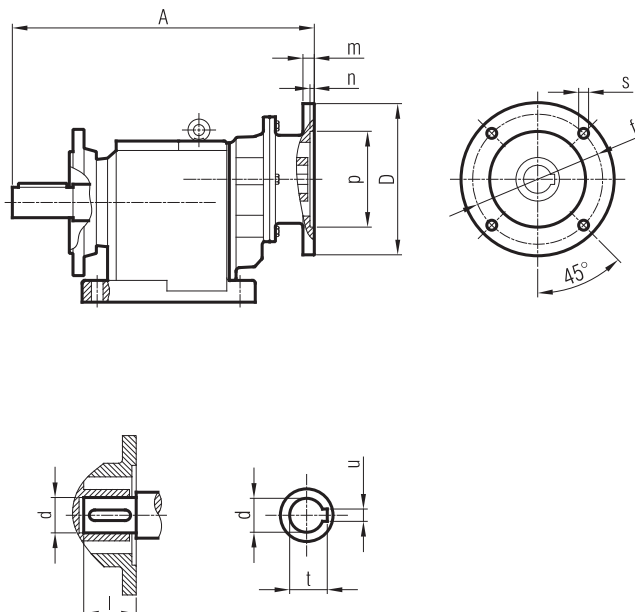
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M/B5	80 M/B5	90 S/B5	90 L/B5			
A	732	807	816	854			
A1	786	868	883	921			
H	123	136	141	141			
HD	194	216	231	231			
AC	138.5	158	176	176			

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

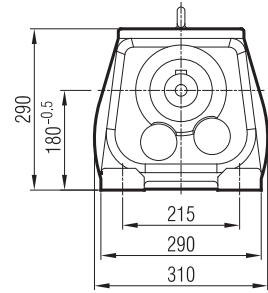
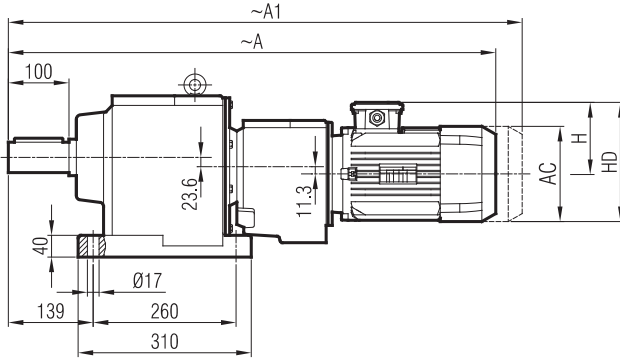
İRAFP 84



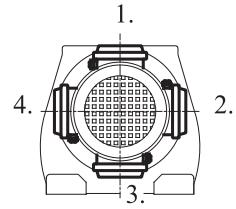
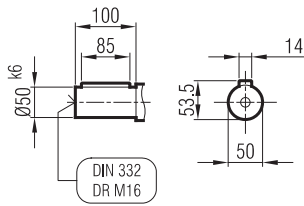
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	B5	502	110	130	160	M8	55	10	4	14	16.3	5
80		514	130	165	200	M10	67	12	5	19	21.8	6
90		514	130	165	200	M10	67	12	5	24	27.3	8
71	B14	502	70	85	105	Ø7	55	10	3	14	16.3	5
80		514	80	100	120	Ø7	67	8	4	19	21.8	6
90		514	95	115	140	Ø9	67	12	5	24	27.3	8



İRAM 82 İR 63
İRAM 83 İR 63



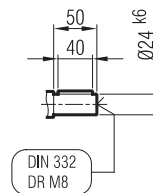
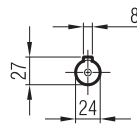
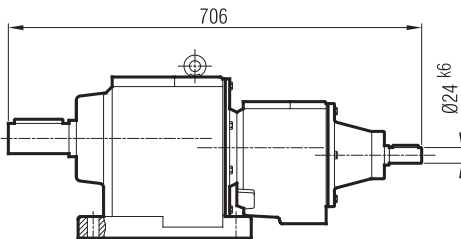
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M	90 S					
A	784	857	850					
A1	838	918	917					
H	123	136	141					
HD	194	216	231					
AC	138.5	158	176					

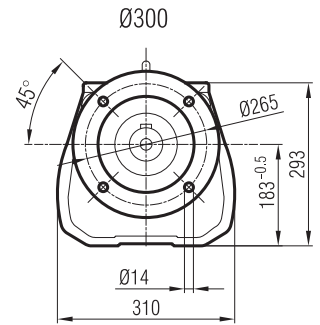
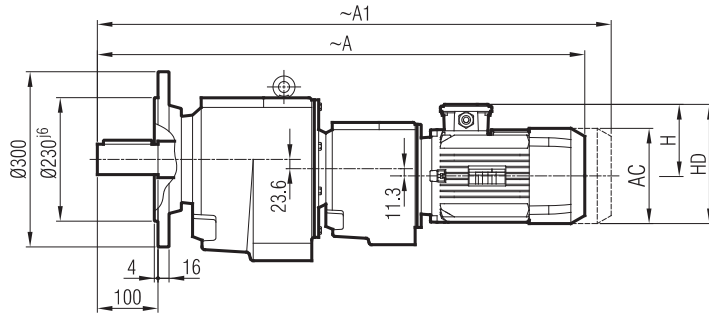
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 82 İR 62 / İRA 82 İR 63
İRA 83 İR 62 / İRA 83 İR 63

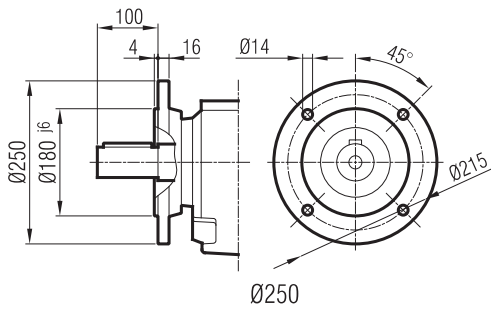




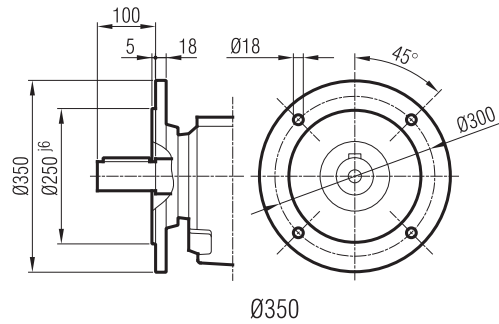
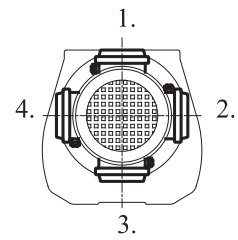
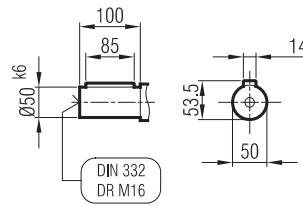
İRFM 82 İR 63
İRFM 83 İR 63



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø250
Opsiyonel / Option

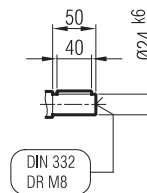
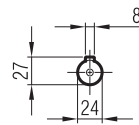
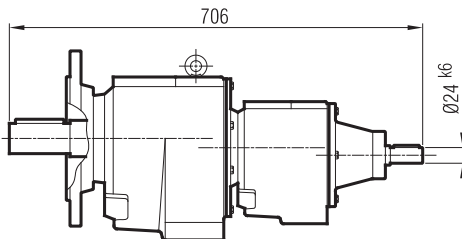


Ø350
Opsiyonel / Option

	71 M	80 M	90 S					
A	784	857	850					
A1	838	918	917					
H	123	136	141					
HD	194	216	231					
AC	138.5	158	176					

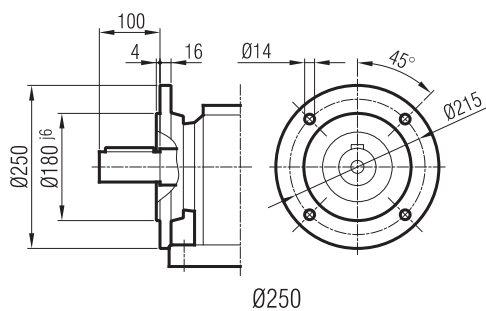
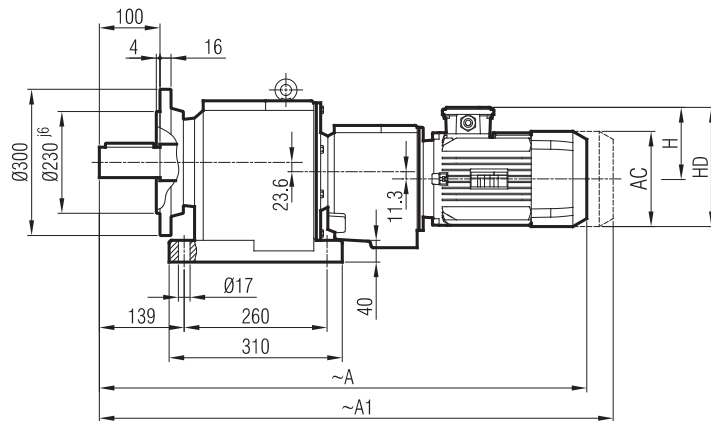
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 82 İR 62 / İRF 82 İR 63
İRF 83 İR 62 / İRF 83 İR 63

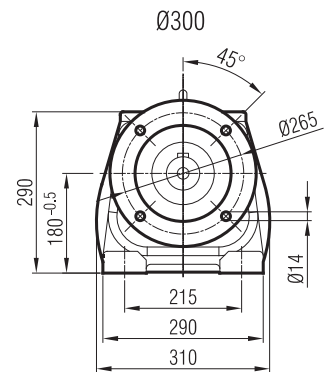




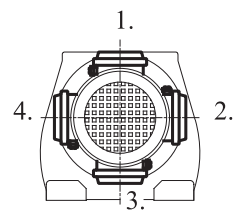
İRAFM 82 İR 63
İRAFM 83 İR 63



Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



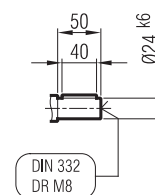
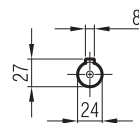
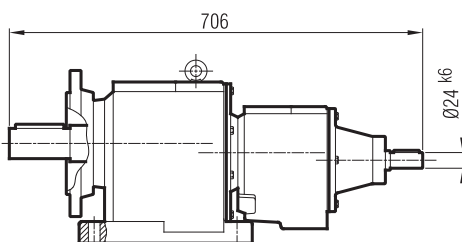
	71 M	80 M	90 S					
A	784	857	850					
A1	838	918	917					
H	123	136	141					
HD	194	216	231					
AC	138.5	158	176					

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

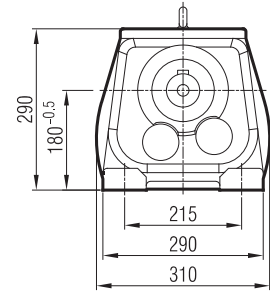
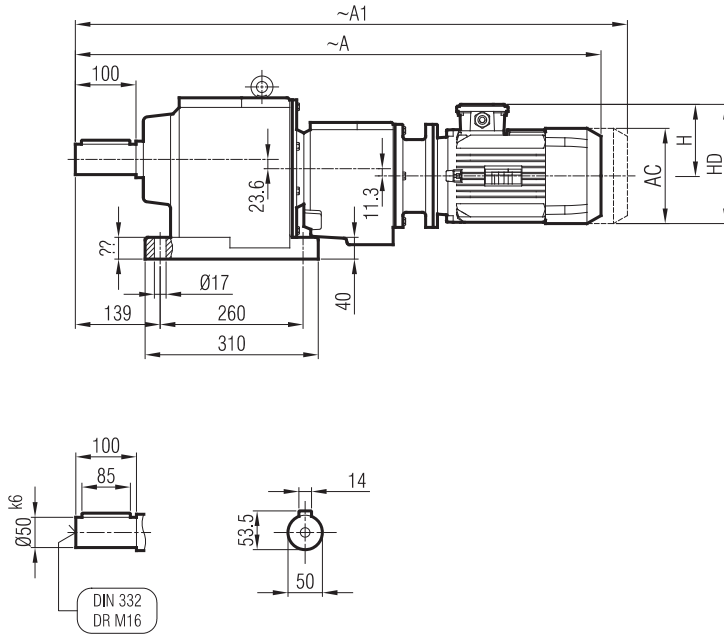
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 82 İR 62 / İRAF 82 İR 63
İRAF 83 İR 62 / İRAF 83 İR 63

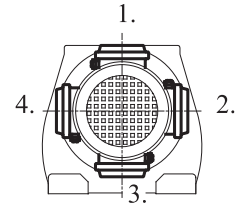




İRAPM 82 İR 63
İRAPM 83 İR 63



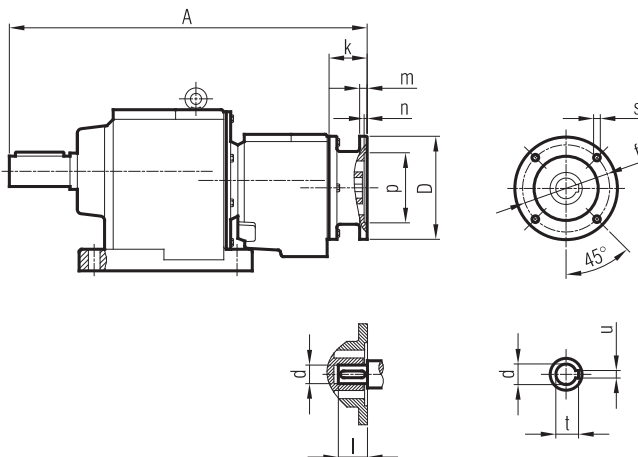
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



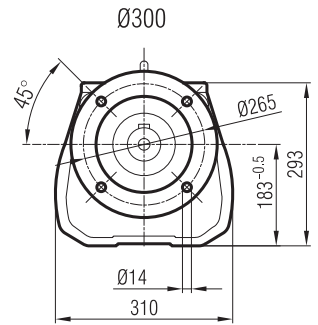
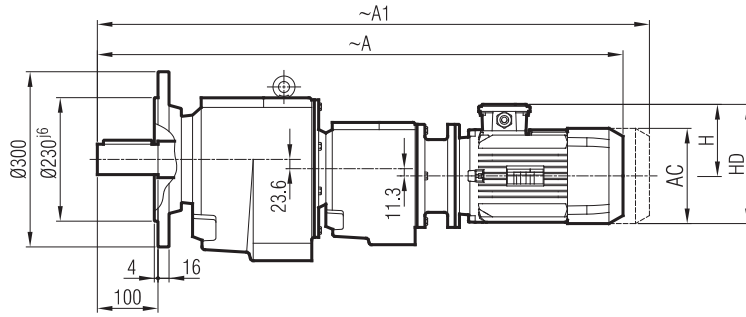
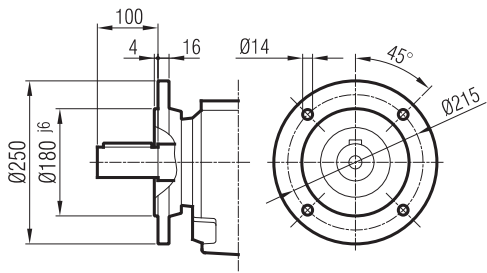
	63 M/B5	71 M/B5	80 M/B5	90 S/B5			
A	795	838	906	915			
A1	849	892	967	982			
H	108	123	135	141			
HD	171	194	216	231			
AC	125	138.5	158	176			

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

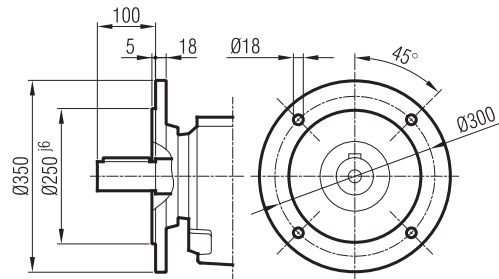
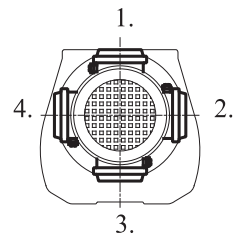
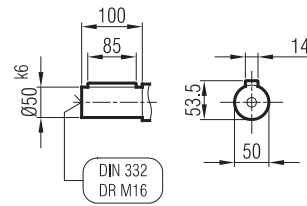
İRAP 82 İR 62 / İRAP 82 İR 63
İRAP 83 İR 62 / İRAP 83 İR 63



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	598	95	115	140	M8	35.5	8	4	11	12.8	4
71	608	110	130	160	M8	45	9	4	14	16.3	5
80	613	130	165	200	M10	50	12	5	19	21.8	6
90	613	130	165	200	M10	50	12	5	24	27.3	8
63	598	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	608	70	85	105	Ø7	45	10	3	14	16.3	5
80	613	80	100	120	Ø7	50	8	4	19	21.8	6
90	613	95	115	140	Ø7	50	8	4	24	27.3	8


İRFP 82 İR 63
İRFP 83 İR 63

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


Ø250

Opsiyonel / Option


Ø350

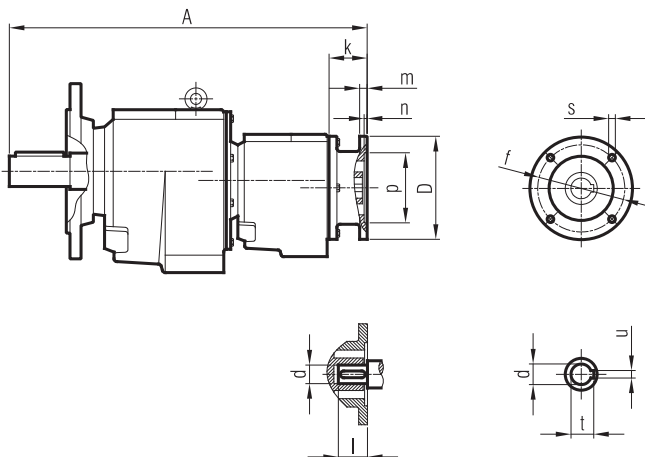
Opsiyonel / Option

	63 M/B5	71 M/B5	80 M/B5	90 S/B5			
A	795	838	906	915			
A1	849	892	967	982			
H	108	123	135	141			
HD	171	194	216	231			
AC	125	138.5	158	176			

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

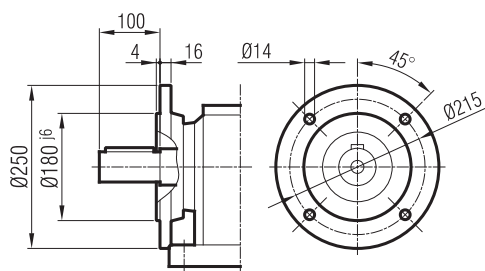
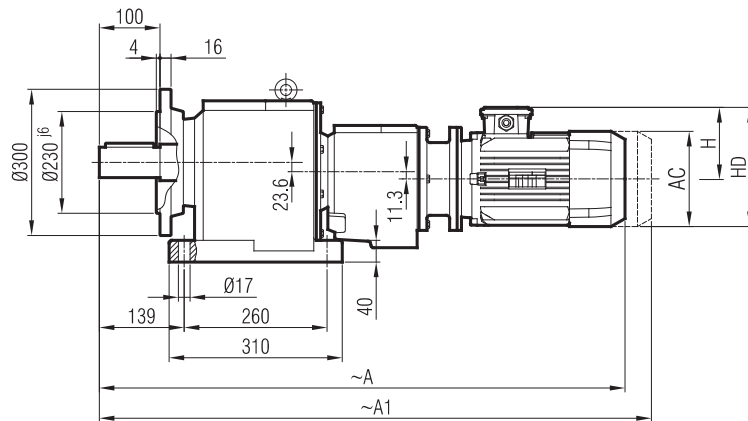
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 82 İR 62 / İRFP 82 İR 63
İRFP 83 İR 62 / İRFP 83 İR 63


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	598	95	115	140	M8	35.5	8	4	11	12.8	4
71	608	110	130	160	M8	45	9	4	14	16.3	5
80	613	130	165	200	M10	50	12	5	19	21.8	6
90	613	130	165	200	M10	50	12	5	24	27.3	8
63	598	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	608	70	85	105	Ø7	45	10	3	14	16.3	5
80	613	80	100	120	Ø7	50	8	4	19	21.8	6
90	613	95	115	140	Ø7	50	8	4	24	27.3	8

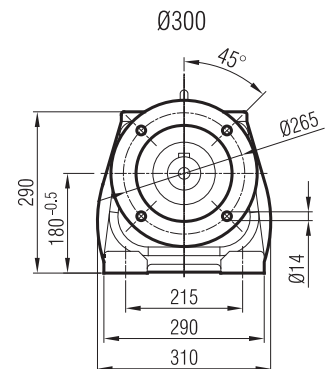


İRAFFPM 82 İR 63
İRAFFPM 83 İR 63

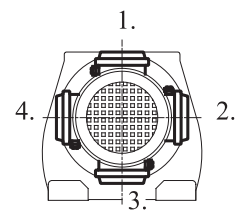


Ø250

Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



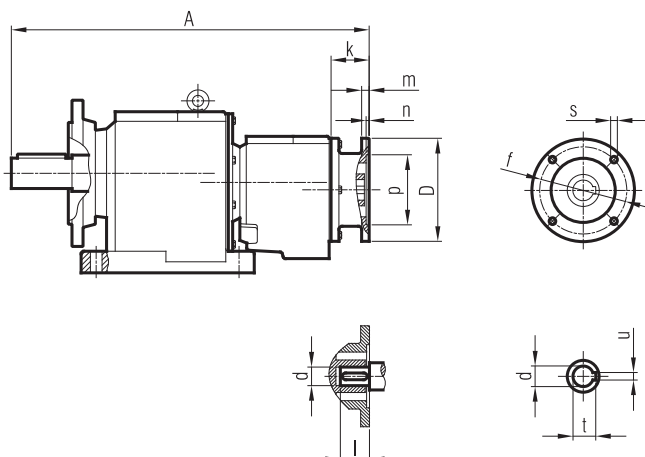
	63 M/B5	71 M/B5	80 M/B5	90 S/B5			
A	795	838	906	915			
A1	849	892	967	982			
H	108	123	135	141			
HD	171	194	216	231			
AC	125	138.5	158	176			

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

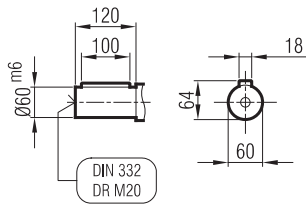
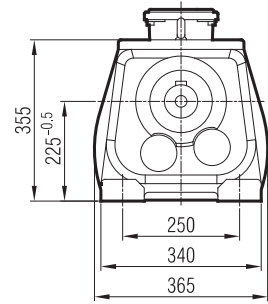
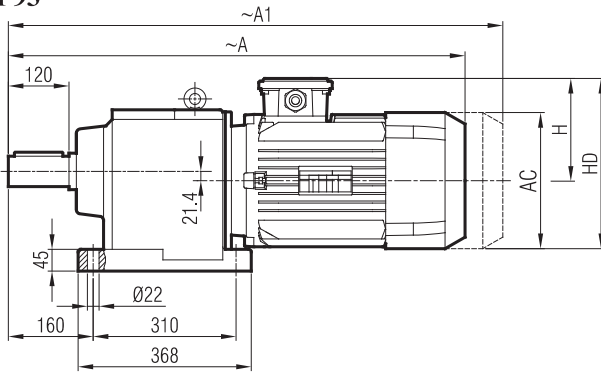
İRAFP 82 İR 62 / İRAFP 82 İR 63
İRAFP 83 İR 62 / İRAFP 83 İR 63



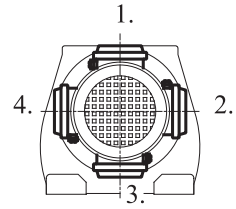
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	598	95	115	140	M8	35.5	8	4	11	12.8	4
71		608	110	130	160	M8	45	9	4	14	16.3	5
80		613	130	165	200	M10	50	12	5	19	21.8	6
90		613	130	165	200	M10	50	12	5	24	27.3	8
63	B14	598	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		608	70	85	105	Ø7	45	10	3	14	16.3	5
80		613	80	100	120	Ø7	50	8	4	19	21.8	6
90		613	95	115	140	Ø7	50	8	4	24	27.3	8



İRAM 92
İRAM 93



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



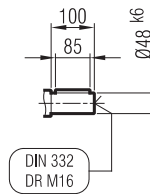
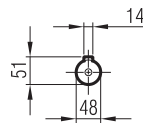
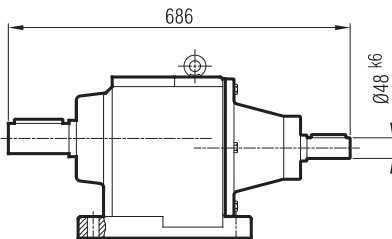
	100 L	112 M	132 S	132 M	160 M	160 L	180 M	180 L	200 L
A	813	787	849	894	989	1034	1046	1083	1168
A1	890	882	953	998	1106	1151	1182	1219	1315
H	161	170	193	193	240	240	260	260	300
HD	261	282	325	325	400	400	440	440	500
AC	195	220	262	262	315	315	357	357	394

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

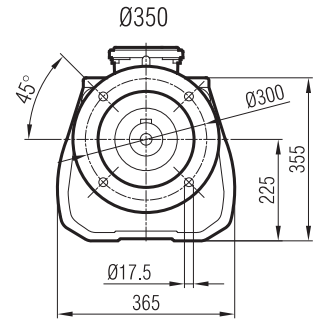
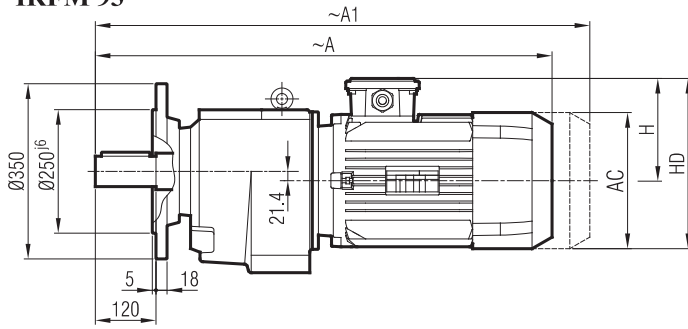
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 92
İRA 93

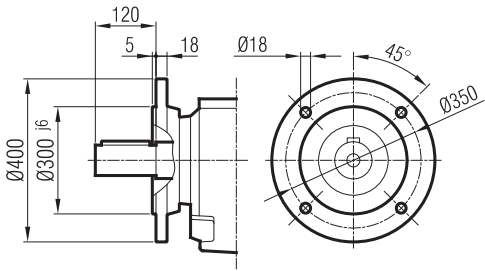




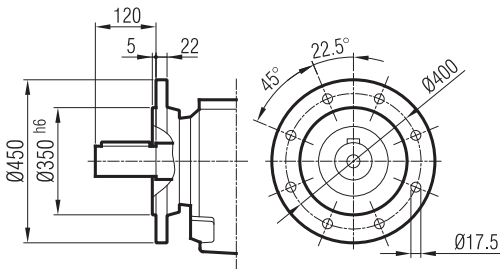
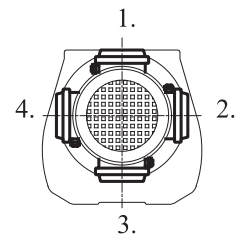
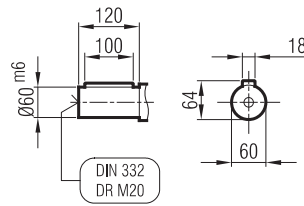
İRFM 92
İRFM 93



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø400
Opsiyonel / Option

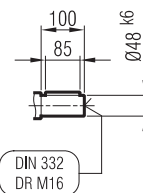
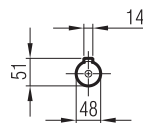
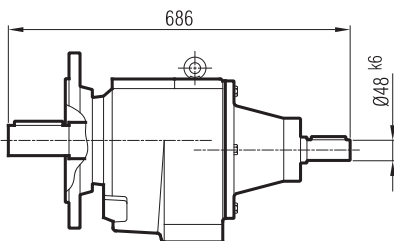


Ø450
Opsiyonel / Option

	100 L	112 M	132 S	132 M	160 M	160 L	180 M	180 L	200 L
A	813	787	849	894	989	1034	1046	1083	1168
A1	890	882	953	998	1106	1151	1182	1219	1315
H	161	170	193	193	240	240	260	260	300
HD	261	282	325	325	400	400	440	440	500
AC	195	220	262	262	315	315	357	357	394

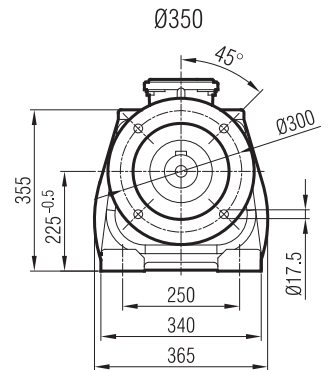
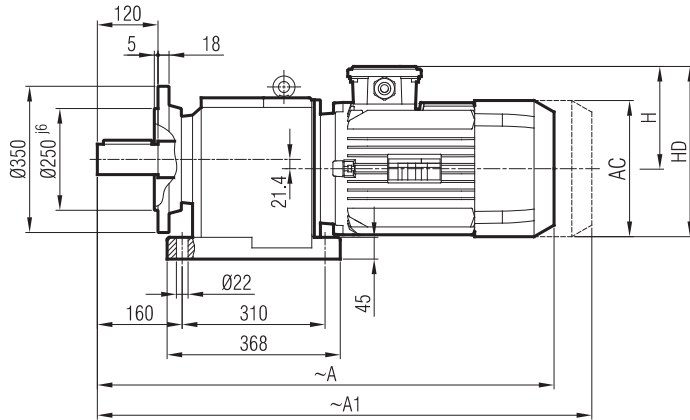
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 92
İRF 93

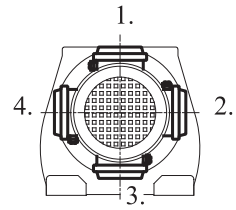
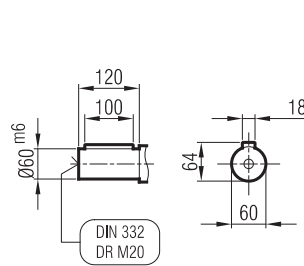




İRAFM 92
İRAFM 93



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



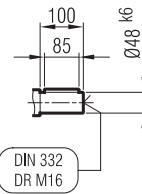
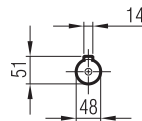
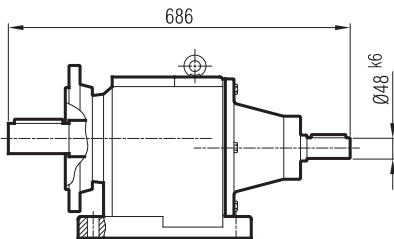
	100 L	112 M	132 S	132 M	160 M	160 L	180 M	180 L	200 L
A	813	787	849	894	989	1034	1046	1083	1168
A1	890	882	953	998	1106	1151	1182	1219	1315
H	161	170	193	193	240	240	260	260	300
HD	261	282	325	325	400	400	440	440	500
AC	195	220	262	262	315	315	357	357	394

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

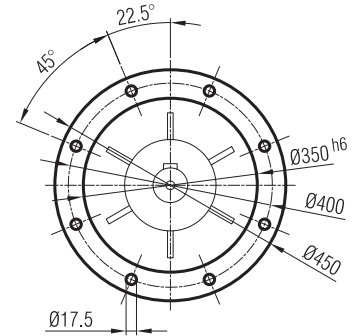
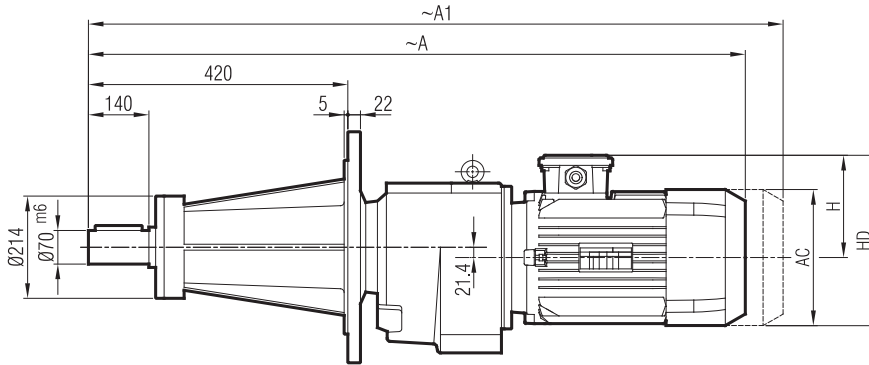
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 92
İRAF 93

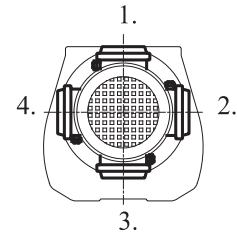
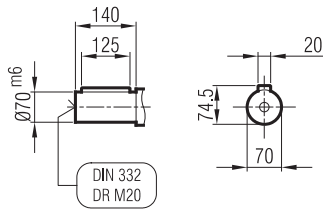




İRBM 92
İRBM 93



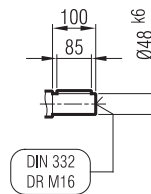
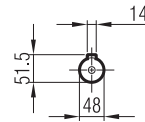
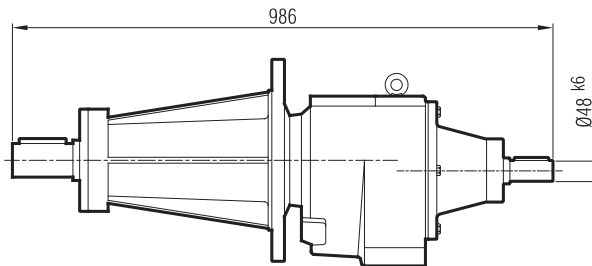
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	100 L	112 M	132 S	132 M	160 M	160 L	180 M	180 L	200 L
A	1113	1087	1149	1194	1289	1334	1346	1383	1468
A1	1190	1182	1253	1298	1406	1451	1482	1519	1615
H	161	170	193	193	240	240	260	260	300
HD	261	282	325	325	400	400	440	440	500
AC	195	220	262	262	315	315	357	357	394

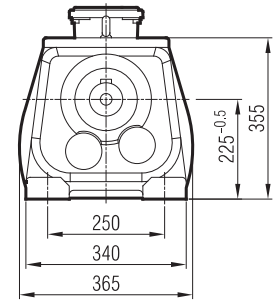
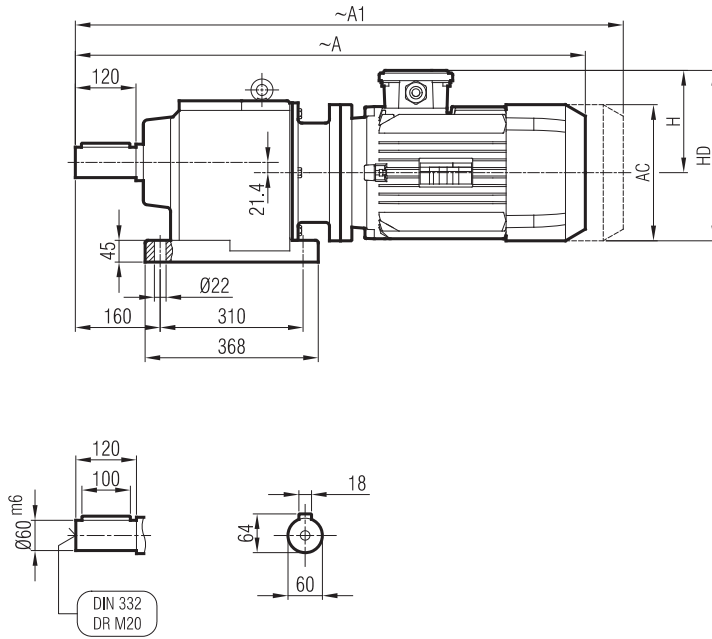
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRB 92
İRB 93

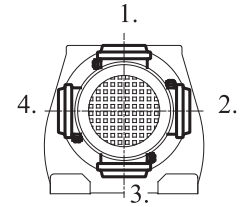




İRAPM 92
İRAPM 93



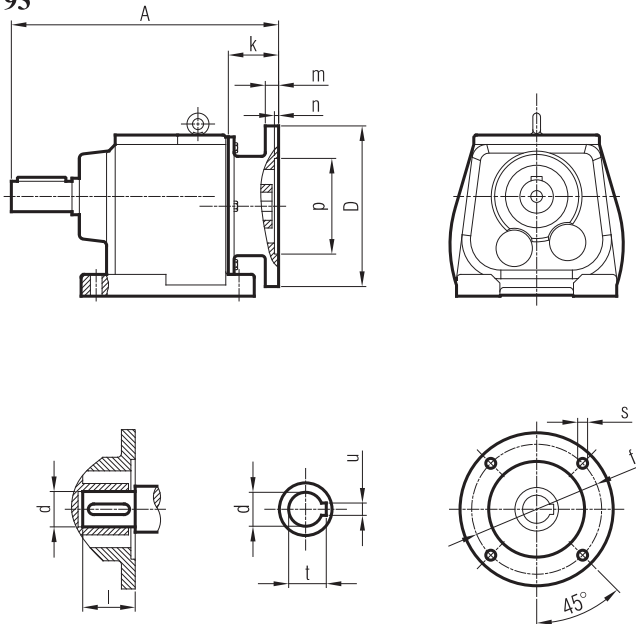
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



IEC	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5
A	794	803	841	882	854	948	989	1083	1128	1204	1204	1320
A1	855	870	908	959	949	1052	1093	1200	1245	1340	1340	1467
H	136	141	141	161	170	193	193	240	240	260	260	300
HD	216	231	231	261	282	325	325	400	400	440	440	500
AC	158	176	176	195	220	262	262	315	315	357	357	394

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

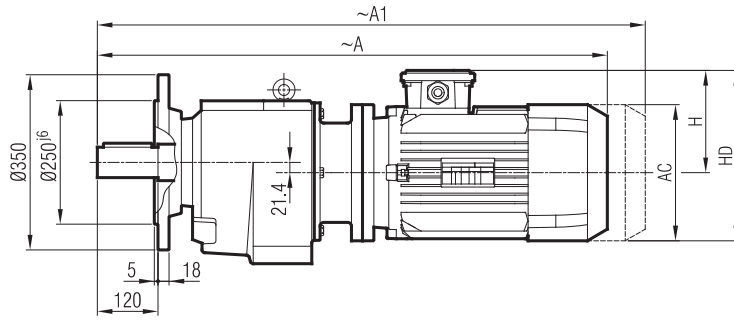
İRAP 92
İRAP 93



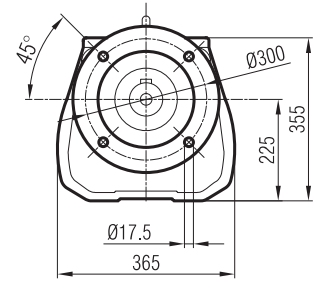
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	501	130	165	200	M10	49	12	5	19	21.8	6
90	501	130	165	200	M10	49	12	5	24	27.3	8
100	510	180	215	250	M12	58	14	5	28	31.3	8
112	510	180	215	250	M12	58	14	5	28	31.3	8
132	547	230	265	300	M12	95	17	5	38	41.3	10
160	563	250	300	350	M16	111	18	6.5	42	45.3	12
180	563	250	300	350	M16	111	18	6.5	48	51.8	14
200	611	300	350	400	M16	159	20	6.5	55	59.3	16
80	501	80	100	120	Ø7	49	11	5	19	21.8	6
90	501	95	115	140	Ø9	49	12	5	24	27.3	8
100	510	110	130	160	Ø9	58	11	5	28	31.3	8
112	510	110	130	160	Ø9	58	11	5	28	31.3	8
132	547	130	165	200	Ø11	95	13	5	38	41.3	10
160	547	180	215	250	Ø13	95	16	6	42	45.3	12



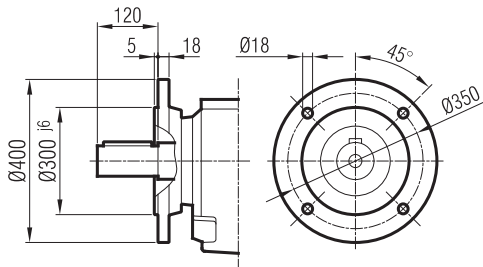
İRFPM 92
İRFPM 93



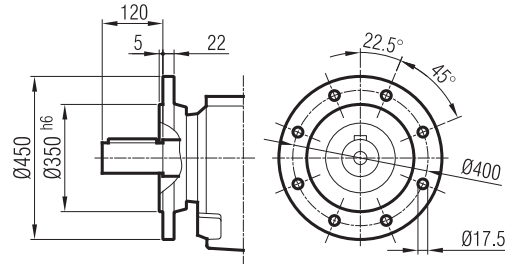
Ø350



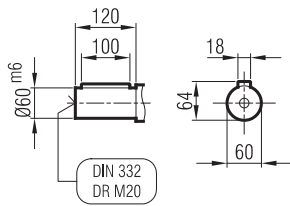
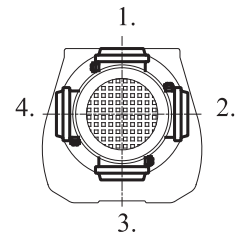
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø400
Opsiyonel / Option



Ø450
Opsiyonel / Option



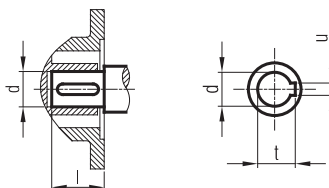
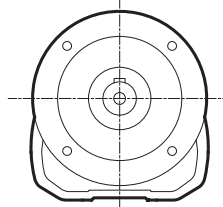
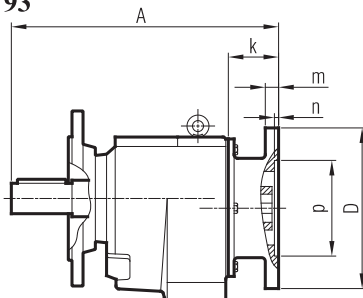
IEC	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5
A	794	803	841	882	854	948	989	1083	1128	1204	1204	1320
A1	855	870	908	959	949	1052	1093	1200	1245	1340	1340	1467
H	136	141	141	161	170	193	193	240	240	260	260	300
HD	216	231	231	261	282	325	325	400	400	440	440	500
AC	158	176	176	195	220	262	262	315	315	357	357	394

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

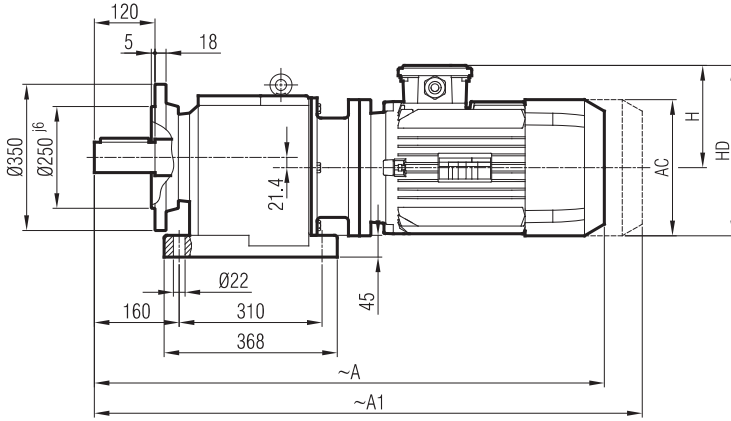
İRFP 92
İRFP 93



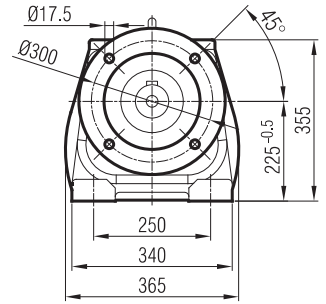
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	501	130	165	200	M10	49	12	5	19	21.8	6
90	501	130	165	200	M10	49	12	5	24	27.3	8
100	510	180	215	250	M12	58	14	5	28	31.3	8
112	510	180	215	250	M12	58	14	5	28	31.3	8
132	547	230	265	300	M12	95	17	5	38	41.3	10
160	563	250	300	350	M16	111	18	6.5	42	45.3	12
180	563	250	300	350	M16	111	18	6.5	48	51.8	14
200	611	300	350	400	M16	159	20	6.5	55	59.3	16
80	501	80	100	120	Ø7	49	11	5	19	21.8	6
90	501	95	115	140	Ø9	49	12	5	24	27.3	8
100	510	110	130	160	Ø9	58	11	5	28	31.3	8
112	510	110	130	160	Ø9	58	11	5	28	31.3	8
132	547	130	165	200	Ø11	95	13	5	38	41.3	10
160	547	180	215	250	Ø13	95	16	6	42	45.3	12



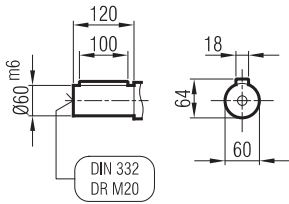
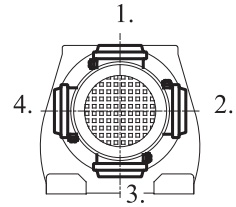
İRAFPM 92
İRAFPM 93



Ø350



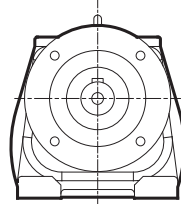
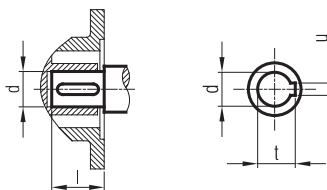
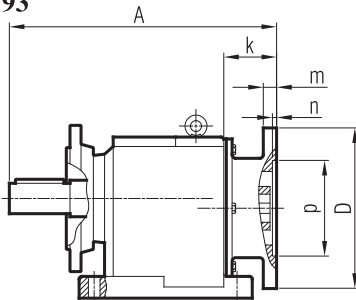
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



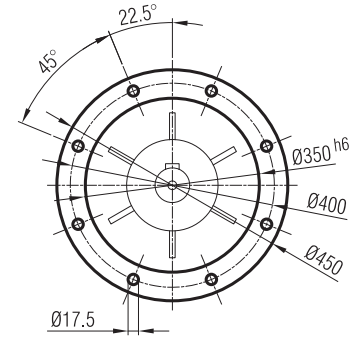
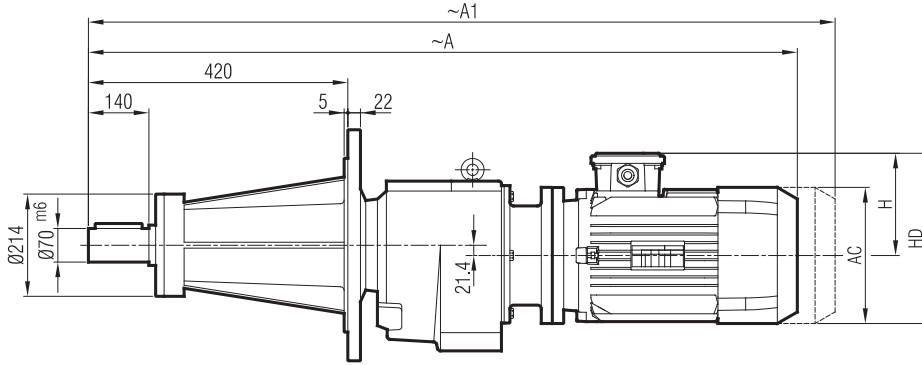
IEC	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5
A	794	803	841	882	854	948	989	1083	1128	1204	1204	1320
A1	855	870	908	959	949	1052	1093	1200	1245	1340	1340	1467
H	136	141	141	161	170	193	193	240	240	260	260	300
HD	216	231	231	261	282	325	325	400	400	440	440	500
AC	158	176	176	195	220	262	262	315	315	357	357	394

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

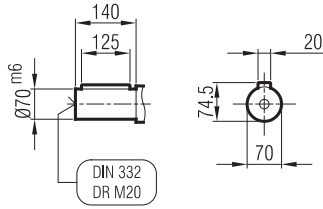
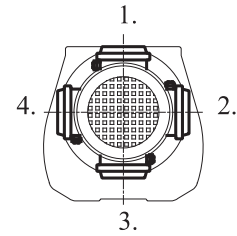
İRAFP 92
İRAFP 93



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	501	130	165	200	M10	49	12	5	19	21.8	6
90	501	130	165	200	M10	49	12	5	24	27.3	8
100	510	180	215	250	M12	58	14	5	28	31.3	8
112	510	180	215	250	M12	58	14	5	28	31.3	8
132	547	230	265	300	M12	95	17	5	38	41.3	10
160	563	250	300	350	M16	111	18	6.5	42	45.3	12
180	563	250	300	350	M16	111	18	6.5	48	51.8	14
200	611	300	350	400	M16	159	20	6.5	55	59.3	16
80	501	80	100	120	Ø7	49	11	5	19	21.8	6
90	501	95	115	140	Ø9	49	12	5	24	27.3	8
100	510	110	130	160	Ø9	58	11	5	28	31.3	8
112	510	110	130	160	Ø9	58	11	5	28	31.3	8
132	547	130	165	200	Ø11	95	13	5	38	41.3	10
160	547	180	215	250	Ø13	95	16	6	42	45.3	12

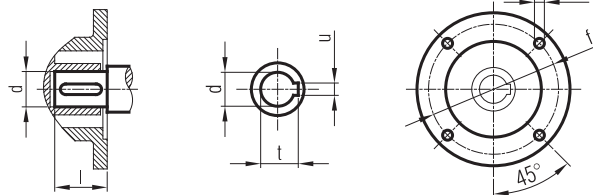
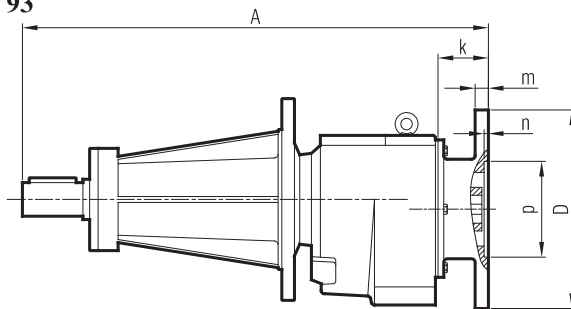

İRBPM 92
İRBPM 93


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



IEC	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5
A	1094	1103	1141	1182	1154	1248	1289	1383	1428	1504	1504	1620
A1	1155	1170	1208	1259	1249	1352	1393	1500	1545	1640	1640	1767
H	136	141	141	161	170	193	193	240	240	260	260	300
HD	216	231	231	261	282	325	325	400	400	440	440	500
AC	158	176	176	195	220	262	262	315	315	357	357	394

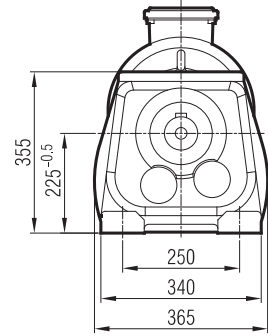
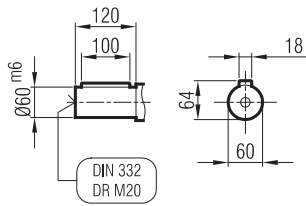
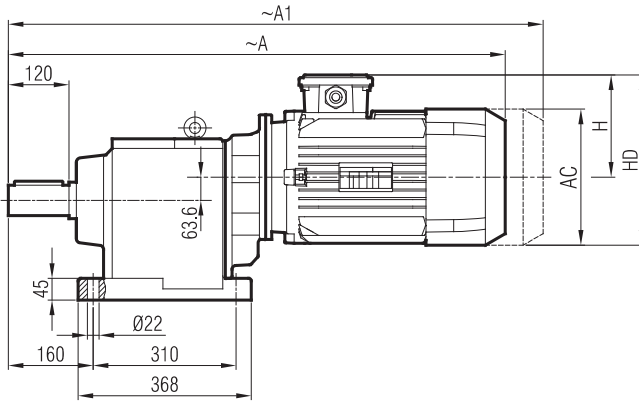
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRBP 92
İRBP 93


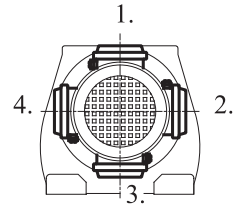
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	801	130	165	200	M10	49	12	5	19	21.8	6
90	801	130	165	200	M10	49	12	5	24	27.3	8
100	810	180	215	250	M12	58	14	5	28	31.3	8
112	810	180	215	250	M12	58	14	5	28	31.3	8
132	847	230	265	300	M12	95	17	5	38	41.3	10
160	863	250	300	350	M14	111	18	6.5	42	45.3	12
180	863	250	300	350	M14	111	18	6.5	48	51.8	14
200	911	300	350	400	M16	159	20	6.5	55	59.3	16
80	801	80	100	120	Ø7	49	11	5	19	21.8	6
90	801	95	115	140	Ø9	49	12	5	24	27.3	8
100	810	110	130	160	Ø9	58	11	5	28	31.3	8
112	810	110	130	160	Ø9	58	11	5	28	31.3	8
132	847	130	165	200	Ø11	95	13	5	38	41.3	10
160	847	180	215	250	Ø13	95	16	6	42	45.3	12



İRAM 94



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



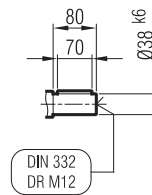
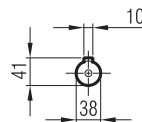
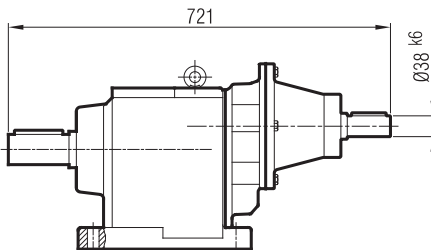
	80 M	90 S	90 L	100 L				
A	808	799	863	903				
A1	869	866	930	980				
H	136	141	141	161				
HD	216	231	231	261				
AC	158	176	176	195				

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

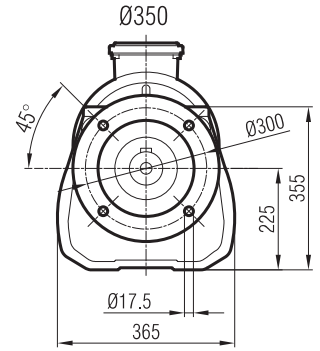
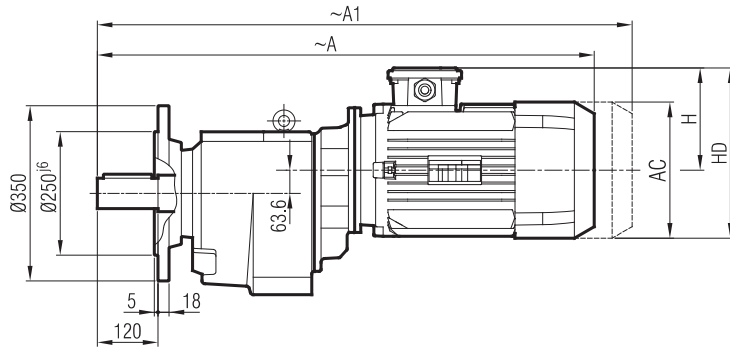
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 94

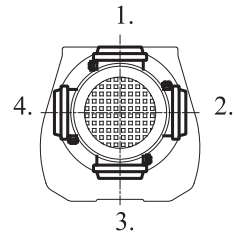
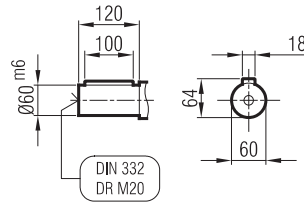
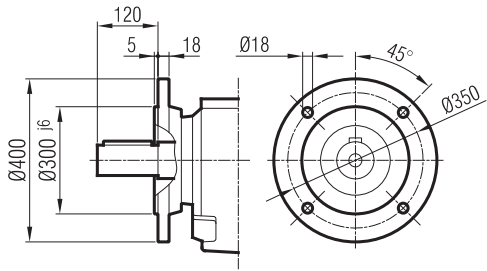




İRFM 94

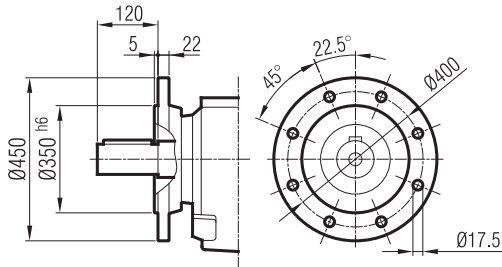


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø400

Opsiyonel / Option



Ø450

Opsiyonel / Option

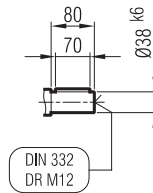
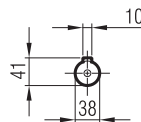
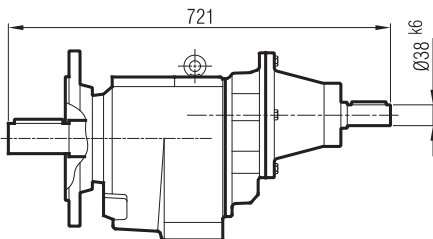
	80 M	90 S	90 L	100 L				
A	808	799	863	903				
A1	869	866	930	980				
H	136	141	141	161				
HD	216	231	231	261				
AC	158	176	176	195				

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

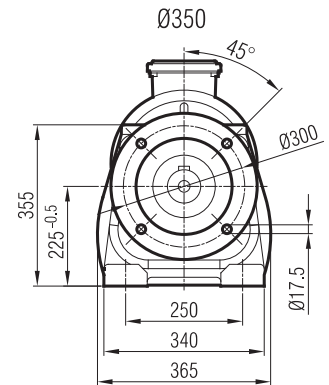
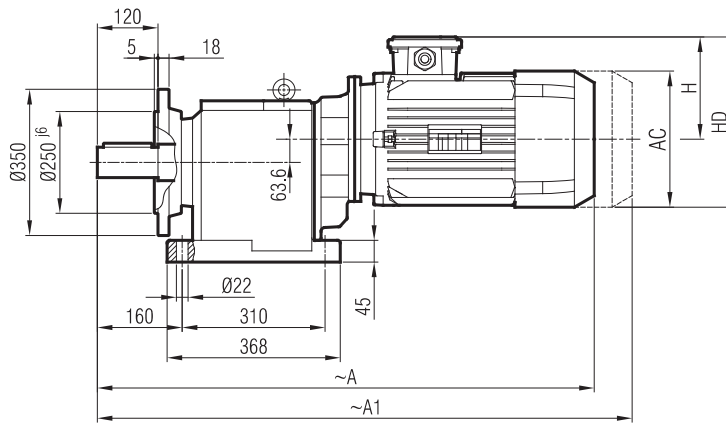
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 94

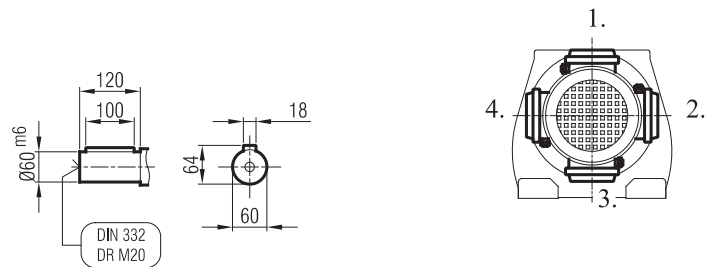




İRAFM 94



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



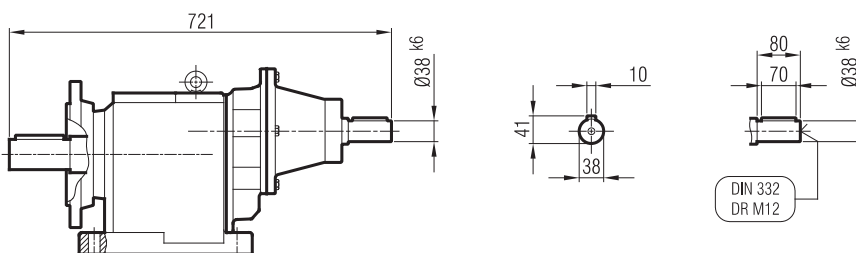
	80 M	90 S	90 L	100 L				
A	808	799	863	903				
A1	869	866	930	980				
H	136	141	141	161				
HD	216	231	231	261				
AC	158	176	176	195				

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

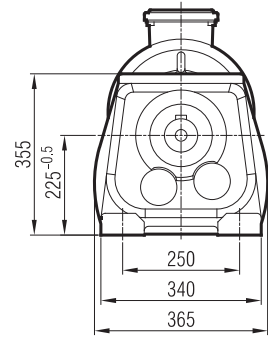
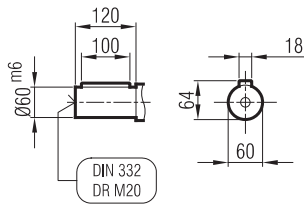
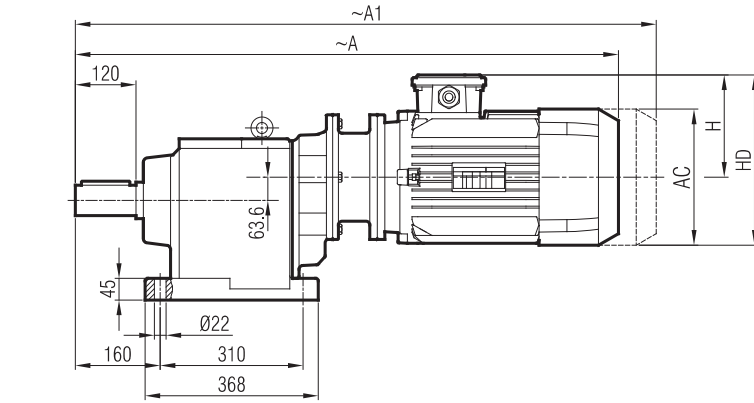
Le dimensions "A1" correspond aux moteurs équipés de freins.

IRAF 94

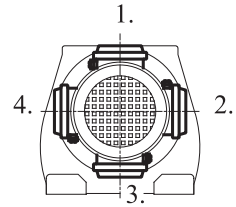




İRAPM 94



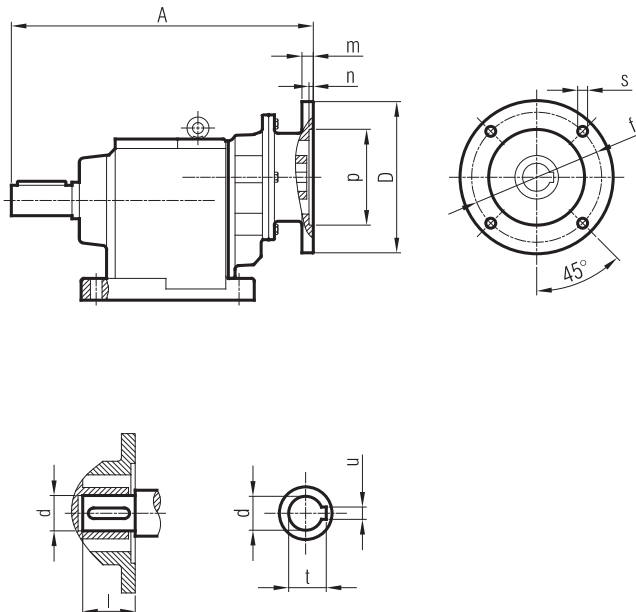
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



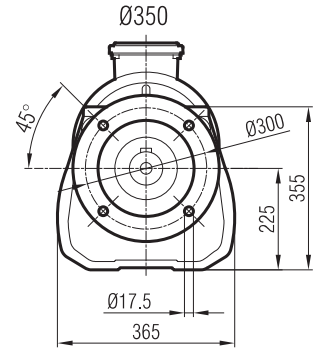
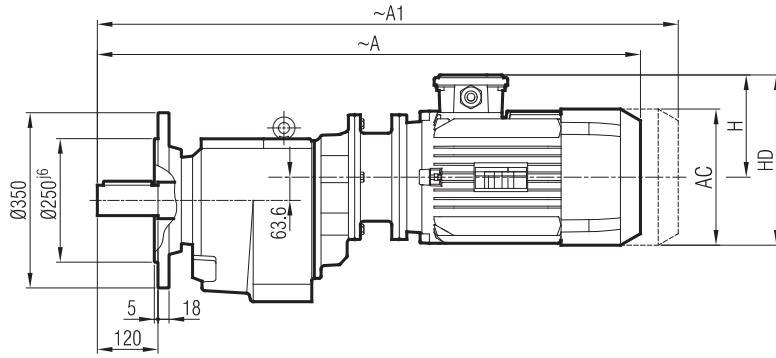
	80 M/B5	90 S/B5	90 L/B5	100 L/B5			
A	891	900	938	978			
A1	952	967	1005	1055			
H	136	141	141	161			
HD	216	231	231	261			
AC	158	176	176	195			

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

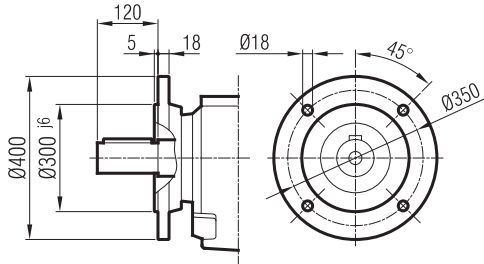
İRAP 94



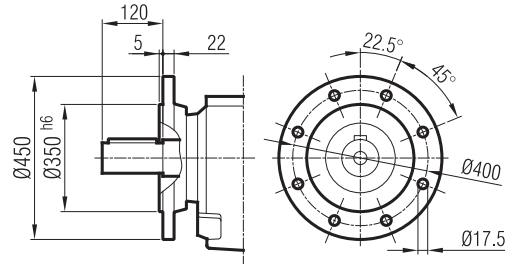
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	B5	598	130	165	200	M10	67	12	5	19	21.8	6
90		598	130	165	200	M10	67	12	5	24	27.3	8
100		606	180	215	250	M12	74	14	5	28	31.3	8
80	B14	598	80	100	120	Ø7	66	11	5	19	21.8	6
90		598	95	115	140	Ø9	66	12	5	24	27.3	8
100		606	110	130	160	Ø9	64	11	5	28	31.3	8


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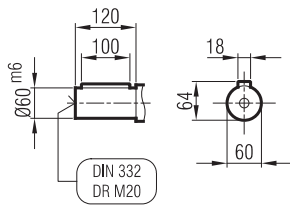
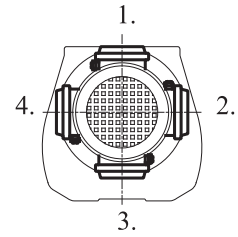
Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



Ø400
Opsiyonel / Option

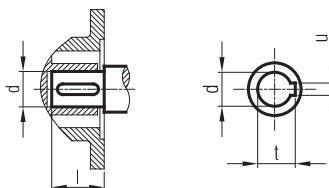
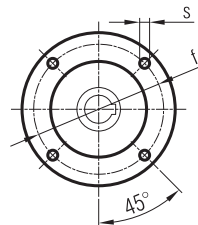
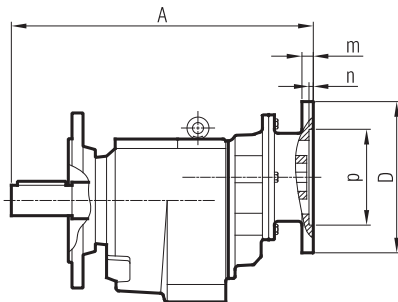


Ø450
Opsiyonel / Option



	80 M/B5	90 S/B5	90 L/B5	100 L/B5			
A	891	900	938	978			
A1	952	967	1005	1055			
H	136	141	141	161			
HD	216	231	231	261			
AC	158	176	176	195			

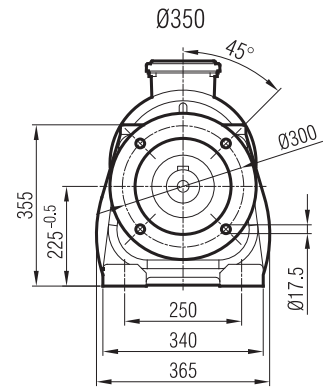
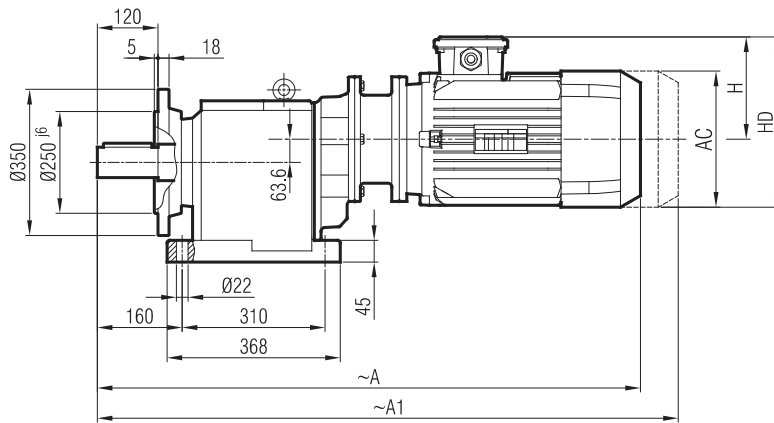
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 94


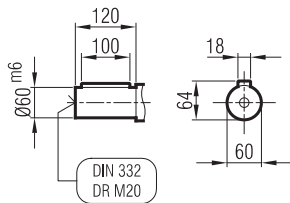
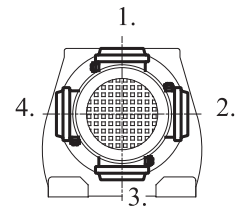
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	B5	598	130	165	200	M10	67	12	5	19	21.8	6
90		598	130	165	200	M10	67	12	5	24	27.3	8
100		606	180	215	250	M12	74	14	5	28	31.3	8
80	B14	598	80	100	120	Ø7	66	11	5	19	21.8	6
90		598	95	115	140	Ø9	66	12	5	24	27.3	8
100		606	110	130	160	Ø9	64	11	5	28	31.3	8



İRAFPM 94



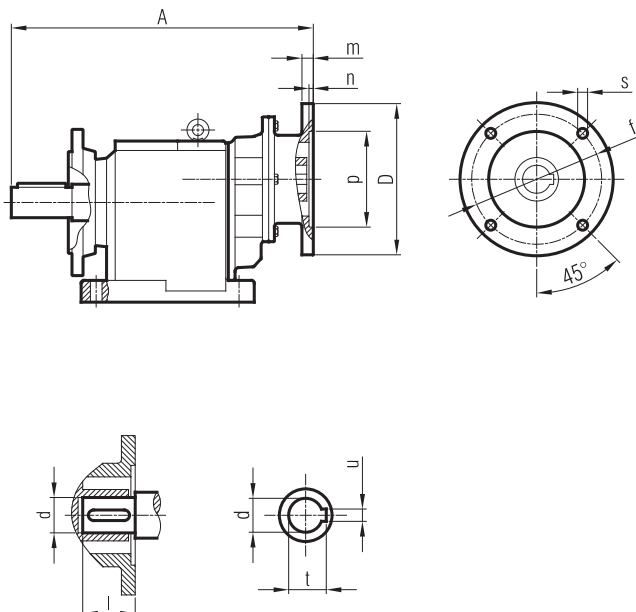
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	80 M/B5	90 S/B5	90 L/B5	100 L/B5			
A	891	900	938	978			
A1	952	967	1005	1055			
H	136	141	141	161			
HD	216	231	231	261			
AC	158	176	176	195			

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

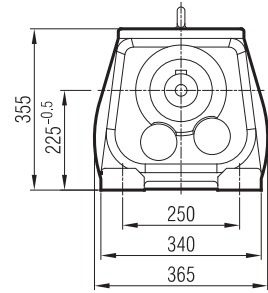
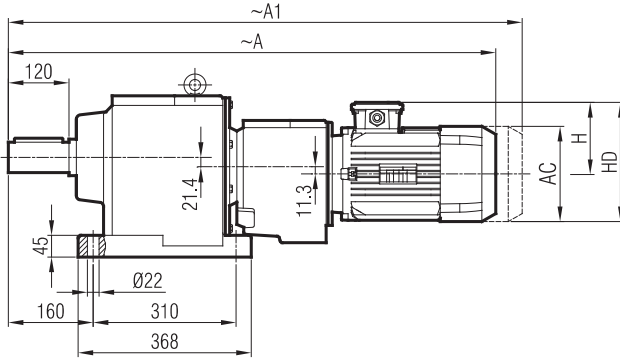
İRAFP 94



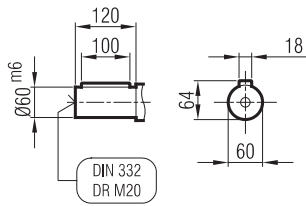
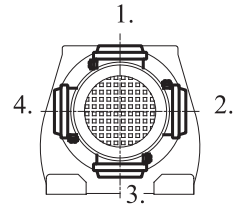
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	B5	598	130	165	200	M10	67	12	5	19	21.8	6
90		598	130	165	200	M10	67	12	5	24	27.3	8
100		606	180	215	250	M12	74	14	5	28	31.3	8
80	B14	598	80	100	120	Ø7	66	11	5	19	21.8	6
90		598	95	115	140	Ø9	66	12	5	24	27.3	8
100		606	110	130	160	Ø9	64	11	5	28	31.3	8



İRAM 92 İR 62 / İRAM 92 İR 63
İRAM 93 İR 62 / İRAM 93 İR 63



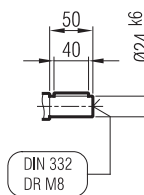
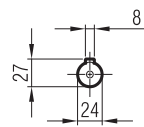
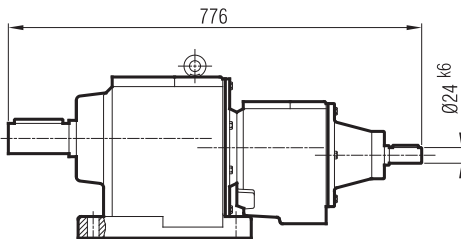
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M	80 M	90 S	90 L				
A	854	927	920	984				
A1	908	988	987	1051				
H	123	136	141	141				
HD	194	216	231	231				
AC	138.5	158	176	176				

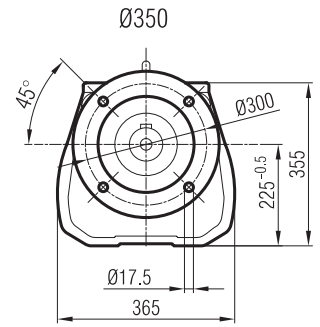
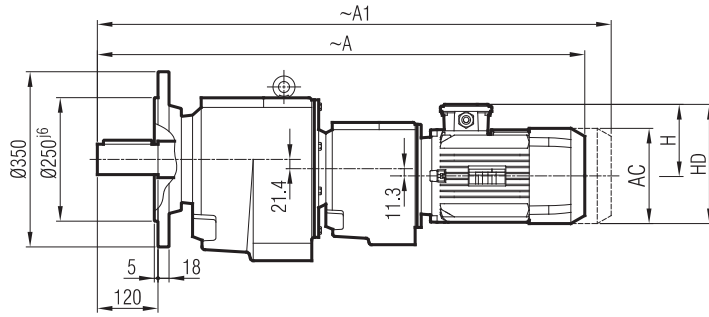
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 92 İR 62 / İRA 92 İR 63
İRA 93 İR 62 / İRA 93 İR 63

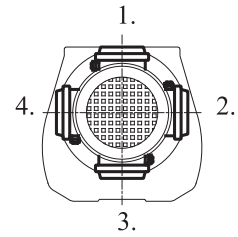
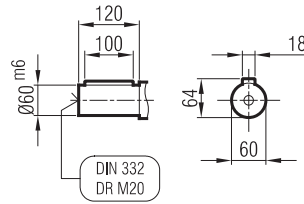
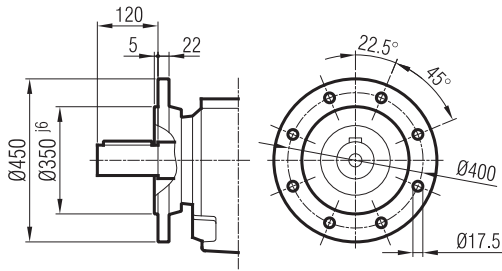




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İRFM 93 İR 62 / İRFM 93 İR 63



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes

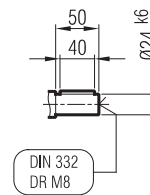
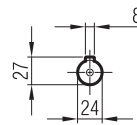
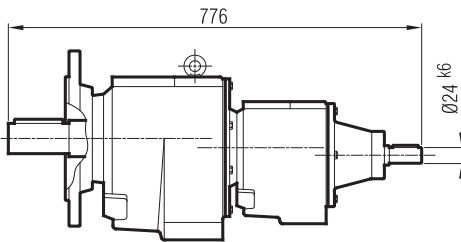


Ø450
Opsiyonel / Option

	71 M	80 M	90 S	90 L				
A	854	927	920	984				
A1	908	988	987	1051				
H	123	136	141	141				
HD	194	216	231	231				
AC	138.5	158	176	176				

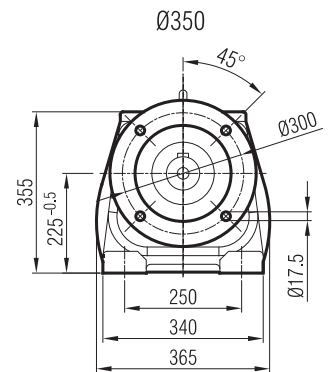
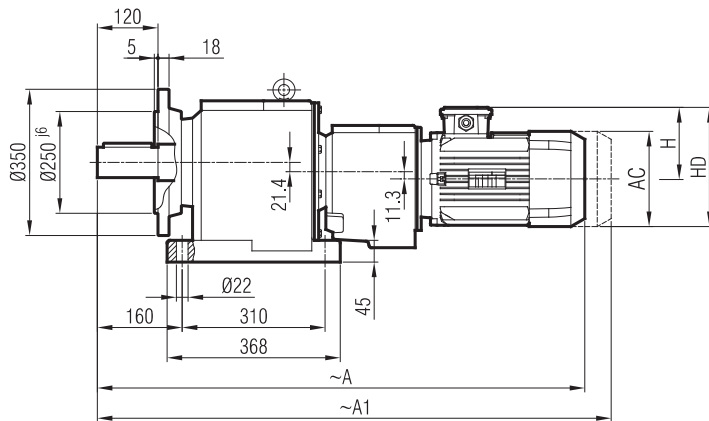
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 92 İR 62 / İRF 92 İR 63
İRF 93 İR 62 / İRF 93 İR 63

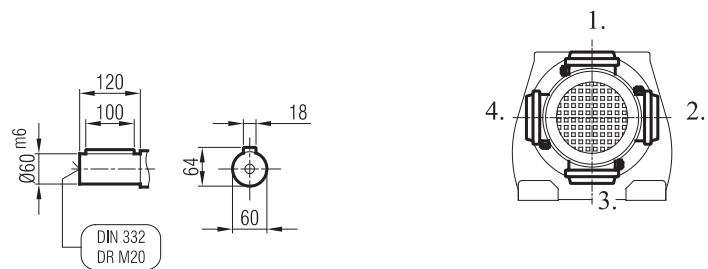




İRAFM 92 İR 62 / İRAFM 92 İR 63
İRAFM 93 İR 62 / İRAFM 93 İR 63



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



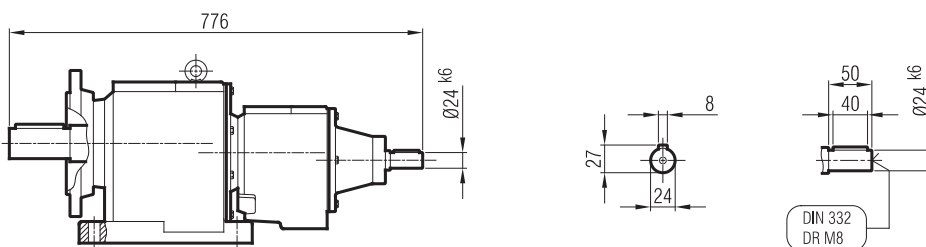
	71 M	80 M	90 S	90 L				
A	854	927	920	984				
A1	908	988	987	1051				
H	123	136	141	141				
HD	194	216	231	231				
AC	138.5	158	176	176				

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

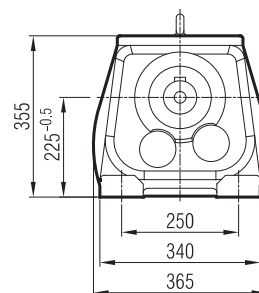
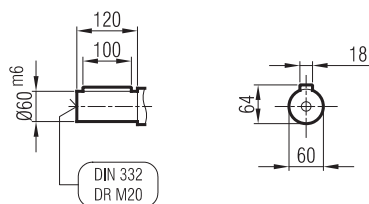
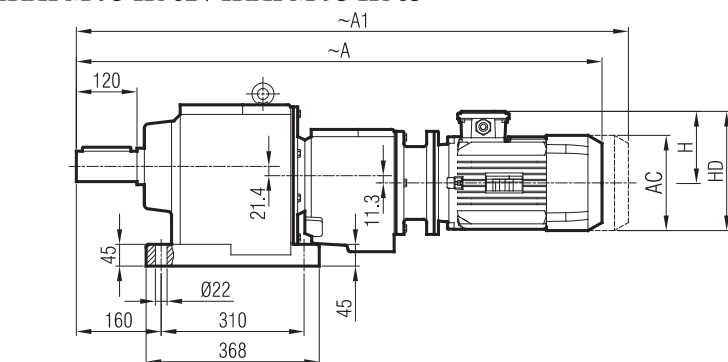
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 92 İR 62 / İRAF 92 İR 63
İRAF 93 İR 62 / İRAF 93 İR 63





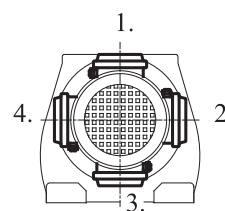
İRAPM 92 İR 62 / İRAPM 92 İR 63
İRAPM 93 İR 62 / İRAPM 93 İR 63



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



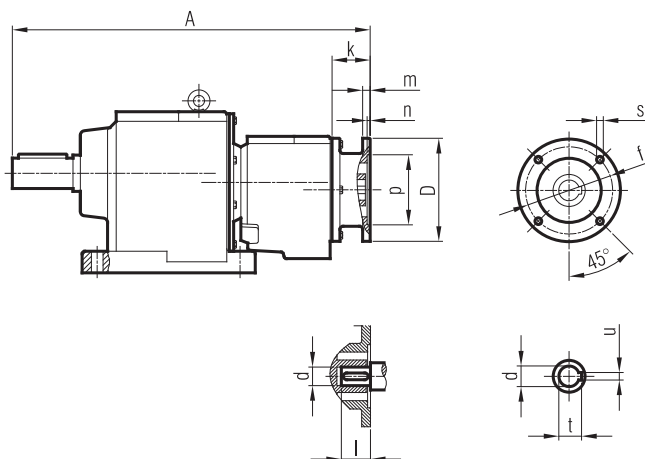
	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5		
A	865	908	976	985	1023		
A1	919	962	1037	1052	1090		
H	108	123	135	141	141		
HD	171	194	216	231	231		
AC	125	138.5	158	176	176		

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

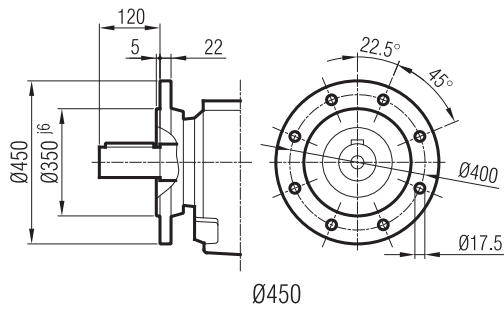
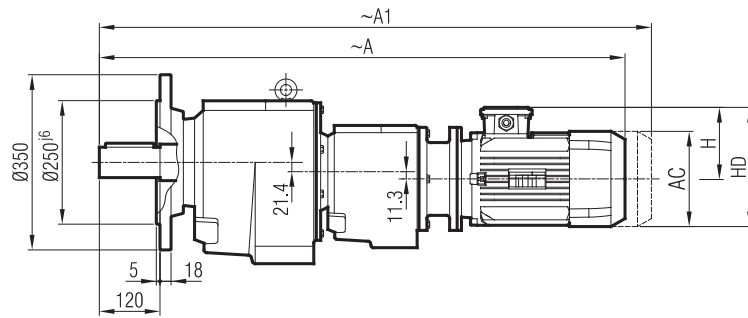
İRAP 92 İR 62 / İRAP 92 İR 63
İRAP 93 İR 62 / İRAP 93 İR 63



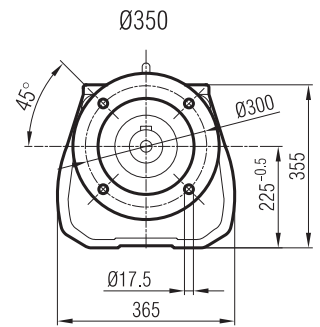
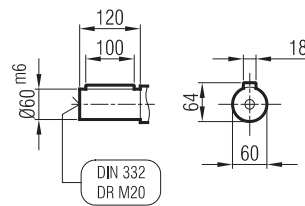
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	668	95	115	140	M8	35.5	8	4	11	12.8	4
71		678	110	130	160	M8	45	9	4	14	16.3	5
80		683	130	165	200	M10	50	12	5	19	21.8	6
90		683	130	165	200	M10	50	12	5	24	27.3	8
63	B14	668	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		678	70	85	105	Ø7	45	10	3	14	16.3	5
80		683	80	100	120	Ø7	50	8	4	19	21.8	6
90		683	95	115	140	Ø7	50	8	4	24	27.3	8



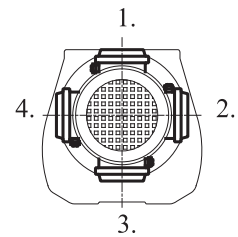
İRFPM 92 İR 62 / İRFPM 92 İR 63
İRFPM 93 İR 62 / İRFPM 93 İR 63



Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



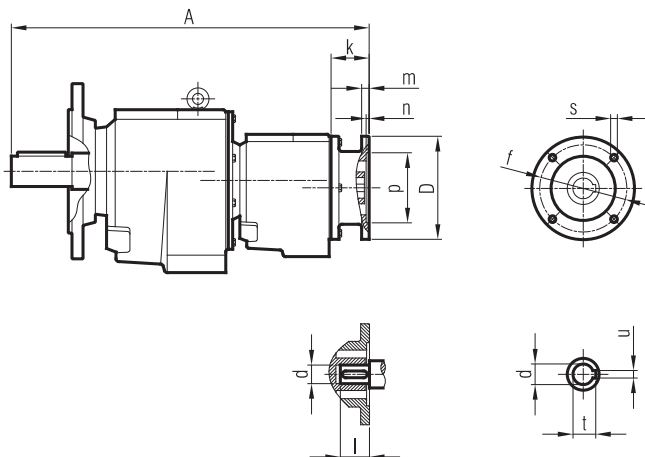
	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5		
A	865	908	976	985	1023		
A1	919	962	1037	1052	1090		
H	108	123	135	141	141		
HD	171	194	216	231	231		
AC	125	138.5	158	176	176		

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

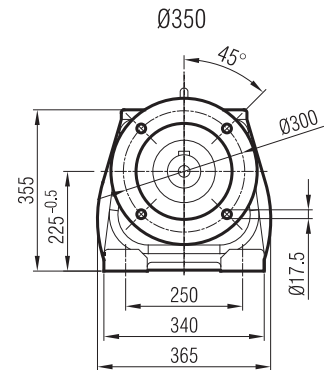
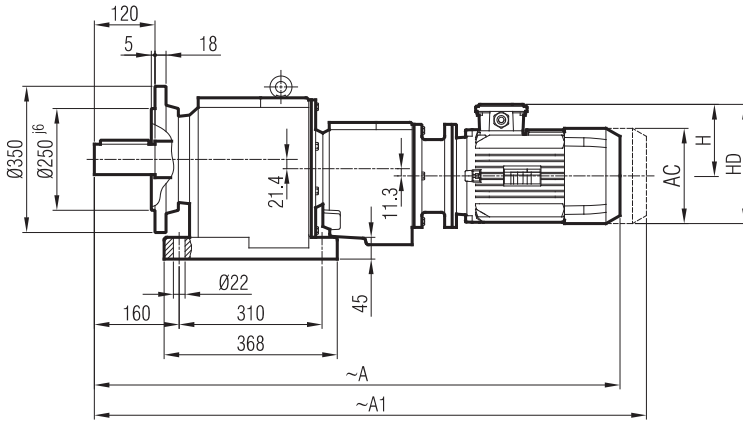
İRFP 92 İR 62 / İRFP 92 İR 63
İRFP 93 İR 62 / İRFP 93 İR 63



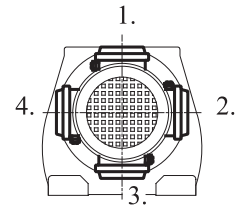
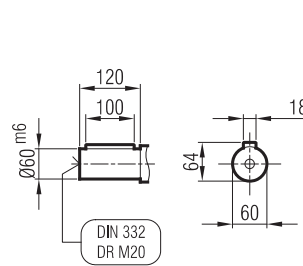
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	B5	668	95	115	140	M8	35.5	8	4	11	12.8	4
71		678	110	130	160	M8	45	9	4	14	16.3	5
80		683	130	165	200	M10	50	12	5	19	21.8	6
90		683	130	165	200	M10	50	12	5	24	27.3	8
63	B14	668	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71		678	70	85	105	Ø7	45	10	3	14	16.3	5
80		683	80	100	120	Ø7	50	8	4	19	21.8	6
90		683	95	115	140	Ø7	50	8	4	24	27.3	8



İRAFPM 92 İR 62 / İRAFPM 92 İR 63
İRAFPM 93 İR 62 / İRAFPM 93 İR 63



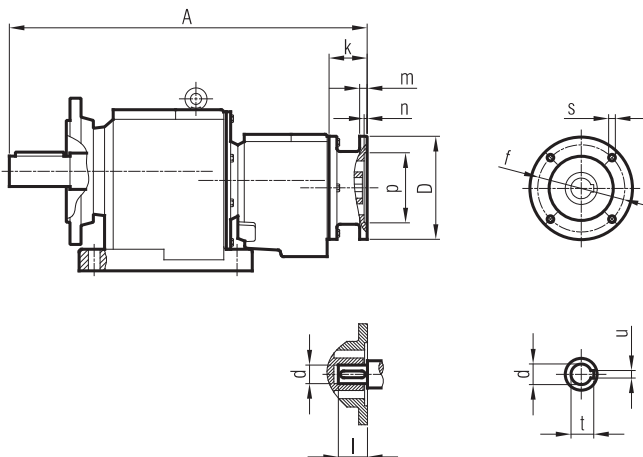
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



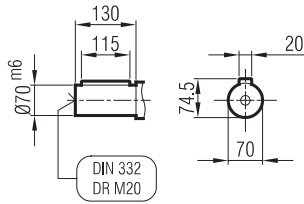
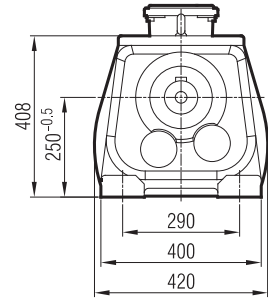
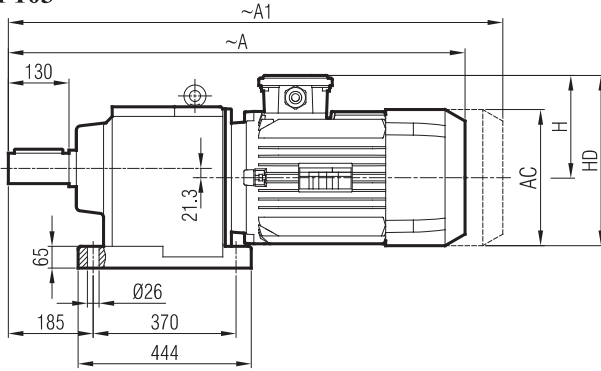
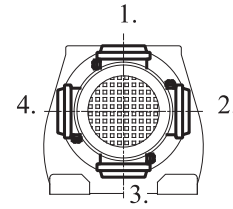
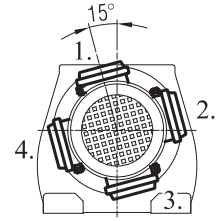
	63 M/B5	71 M/B5	80 M/B5	90 S/B5	90 L/B5		
A	865	908	976	985	1023		
A1	919	962	1037	1052	1090		
H	108	123	135	141	141		
HD	171	194	216	231	231		
AC	125	138.5	158	176	176		

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 92 İR 62 / İRAFP 92 İR 63
İRAFP 93 İR 62 / İRAFP 93 İR 63



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
63	668	95	115	140	M8	35.5	8	4	11	12.8	4
71	678	110	130	160	M8	45	9	4	14	16.3	5
80	683	130	165	200	M10	50	12	5	19	21.8	6
90	683	130	165	200	M10	50	12	5	24	27.3	8
63	668	60	75	90	Ø5.5	35.5	7	3.5	11	12.8	4
71	678	70	85	105	Ø7	45	10	3	14	16.3	5
80	683	80	100	120	Ø7	50	8	4	19	21.8	6
90	683	95	115	140	Ø7	50	8	4	24	27.3	8

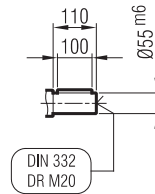
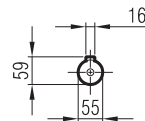
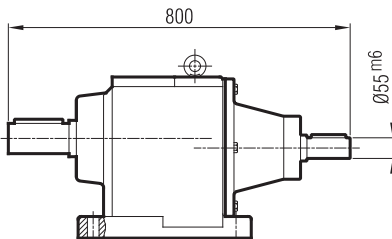

İRAM 102
İRAM 103

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

 100-112-132-180-200-225
Tip/Type/Type

 160
Tip/Type/Type

	132 S	132 M	160 M	160 L	180 M	180 L	200 L	225 S	225 M
A	918	963	1041	1086	1113	1150	1248	1207	1300
A1	1022	1067	1158	1203	1249	1286	1395	1354	1447
H	193	193	240	240	260	260	300	313	313
HD	325	325	400	400	440	440	500	538	538
AC	262	262	315	315	357	357	394	456	456

"A1" Ölçüsü Frenli Motorlar içindir.

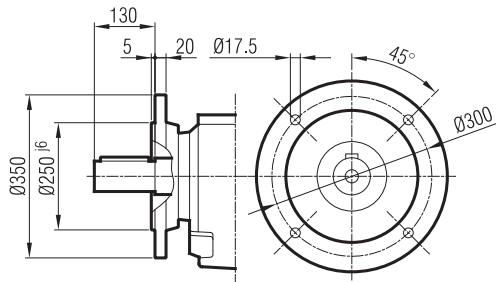
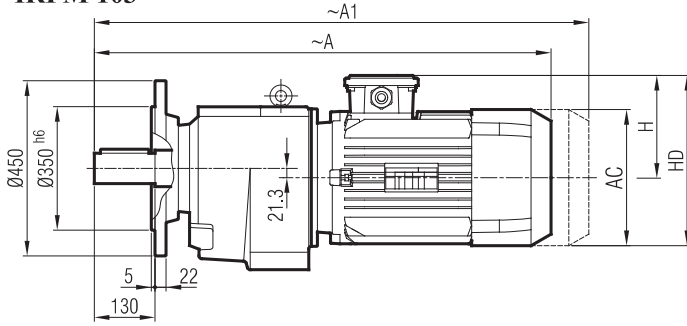
Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

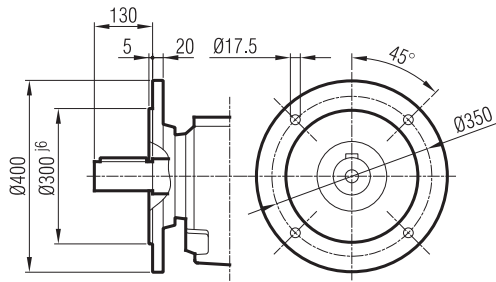
İRA 102
İRA 103




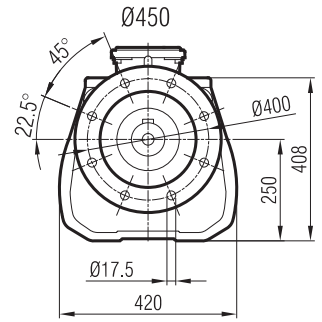
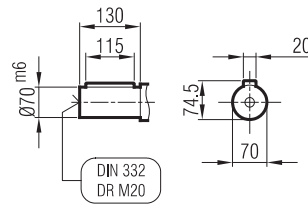
İRFM 102
İRFM 103



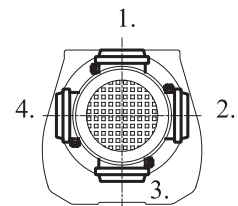
Ø350
Opsiyonel / Option



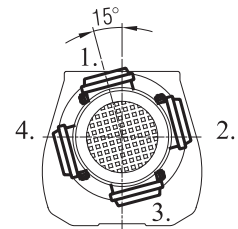
Ø400
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225
Tip/Type/Type



160
Tip/Type/Type

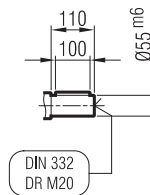
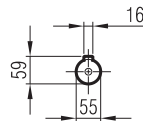
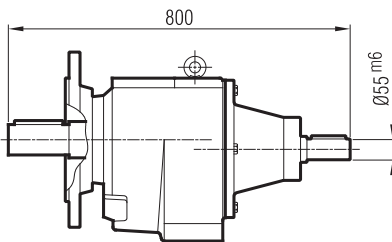
	132 S	132 M	160 M	160 L	180 M	180 L	200 L	225 S	225 M
A	918	963	1041	1086	1113	1150	1248	1207	1300
A1	1022	1067	1158	1203	1249	1286	1395	1354	1447
H	193	193	240	240	260	260	300	313	313
HD	325	325	400	400	440	440	500	538	538
AC	262	262	315	315	357	357	394	456	456

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

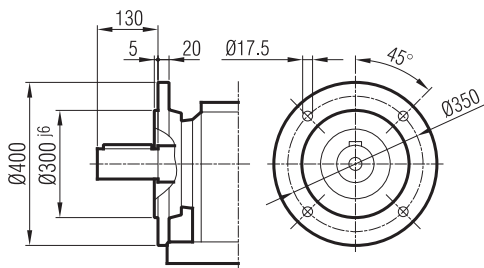
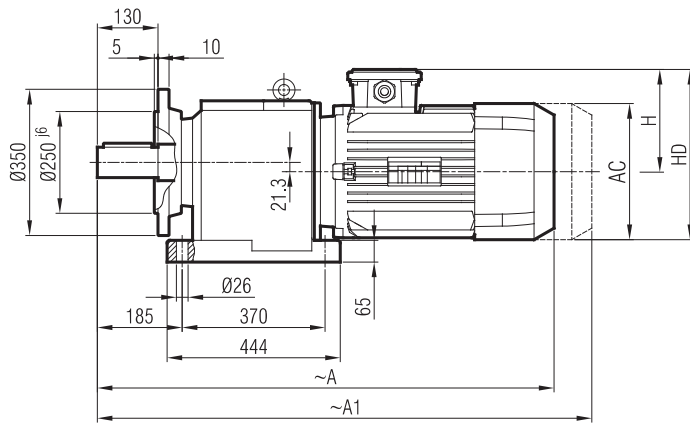
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 102
İRF 103

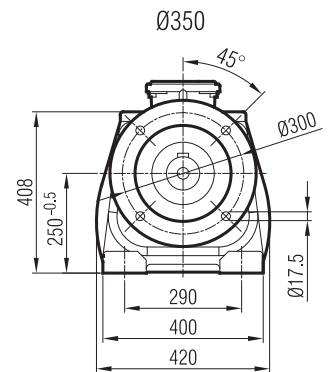
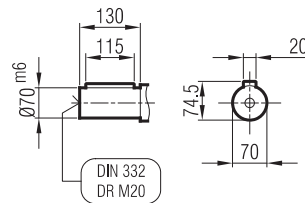




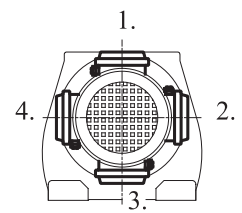
İRAFM 102
İRAFM 103



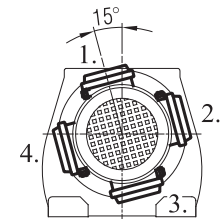
Ø400
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225
Tip/Type/Type



160
Tip/Type/Type

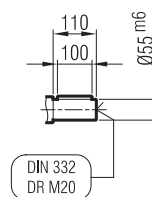
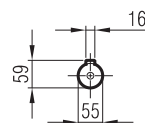
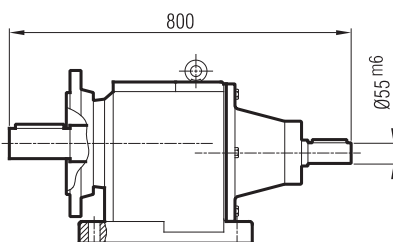
	132 S	132 M	160 M	160 L	180 M	180 L	200 L	225 S	225 M
A	918	963	1041	1086	1113	1150	1248	1207	1300
A1	1022	1067	1158	1203	1249	1286	1395	1354	1447
H	193	193	240	240	260	260	300	313	313
HD	325	325	400	400	440	440	500	538	538
AC	262	262	315	315	357	357	394	456	456

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

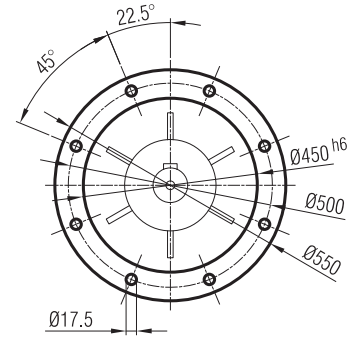
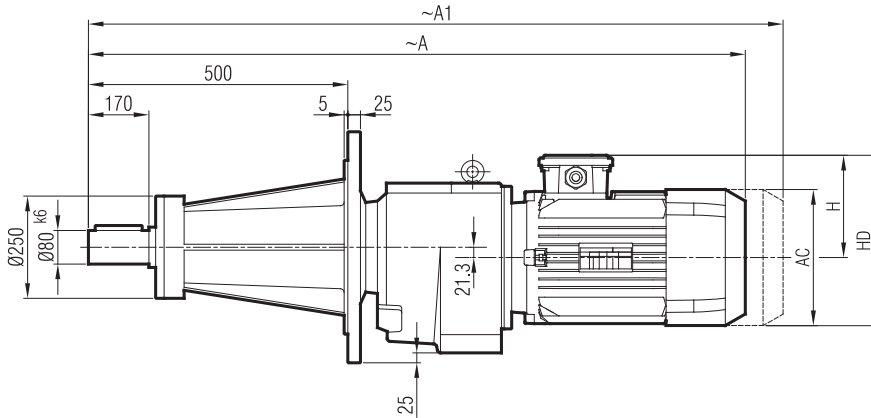
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 102
İRAF 103

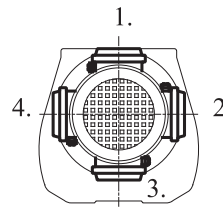
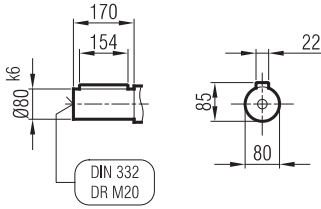




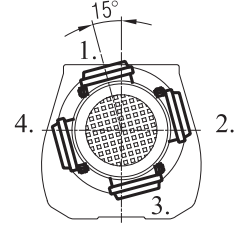
İRBM 102
İRBM 103



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200
225 Tip/Type/Type

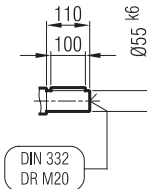
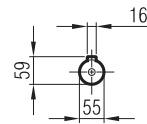
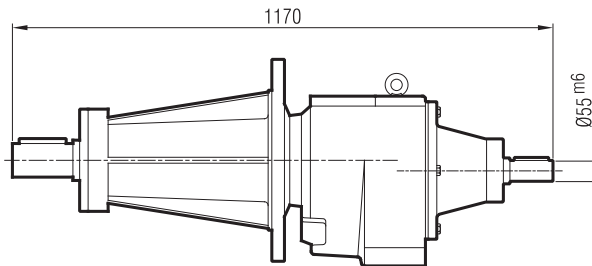


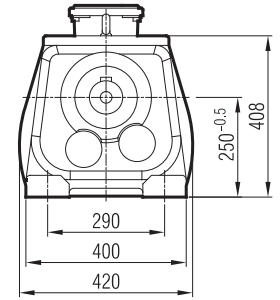
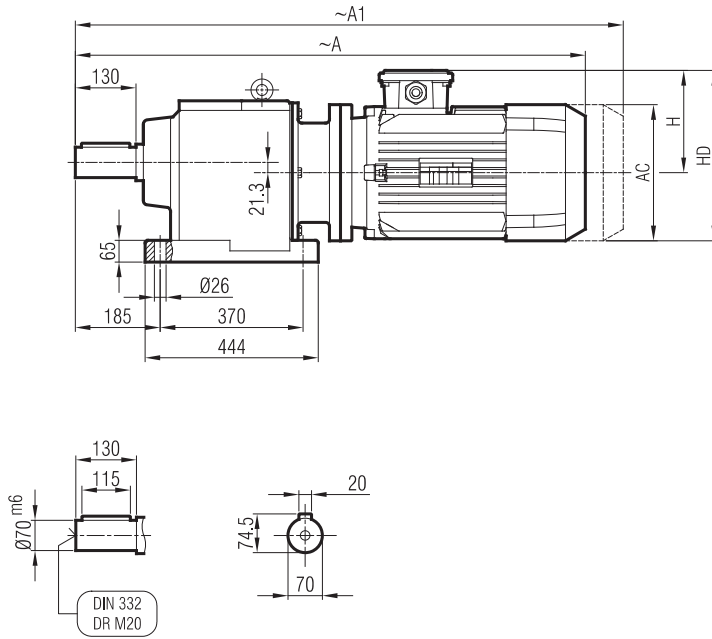
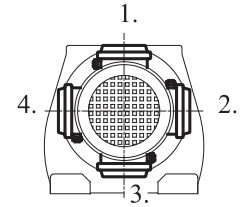
160
Tip/Type/Type

	100 L	112 M	132 S	132 M	160 M	160 L	180 M	180 L	200 L	225 S	225 M
A	1267	1238	1288	1333	1411	1456	1483	1520	1618	1577	1670
A1	1344	1333	1392	1437	1528	1573	1619	1656	1765	1724	1817
H	161	170	193	193	240	240	260	260	300	313	313
HD	261	282	325	325	400	400	440	440	500	538	538
AC	195	220	262	262	315	315	357	357	394	456	456

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

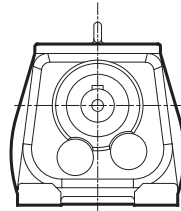
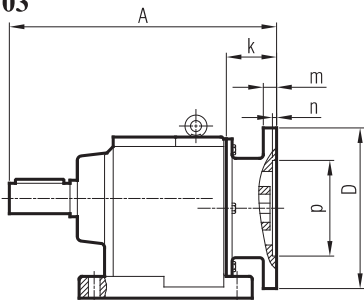
İRB 102
İRB 103




İRAPM 102
İRAPM 103

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


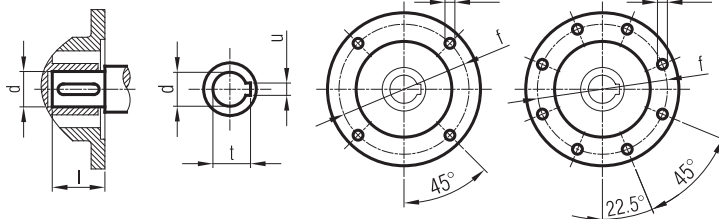
IEC	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5
A	959	931	1015	1056	1141	1186	1262	1262	1398	1381	1441
A1	1036	1026	1119	1160	1258	1303	1398	1398	1545	1528	1588
H	161	170	193	193	240	240	260	260	300	313	313
HD	261	282	325	325	400	400	440	440	500	538	538
AC	195	220	262	262	315	315	357	357	394	456	456

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

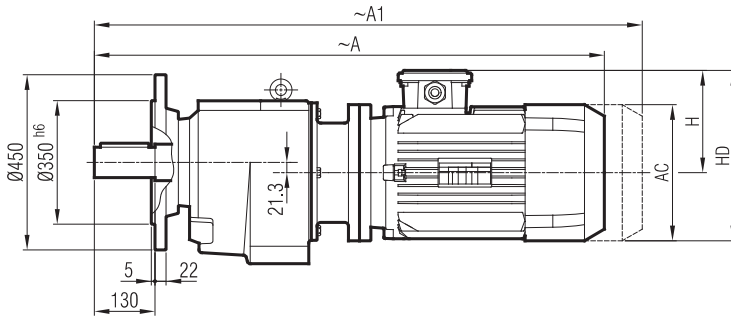
İRAP 102
İRAP 103


B14 & ≤ 200 B5
 Tip/Type/Typ

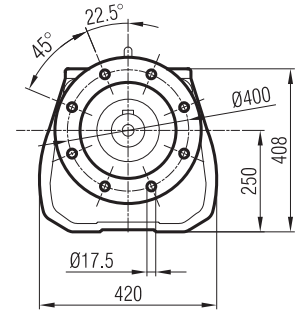
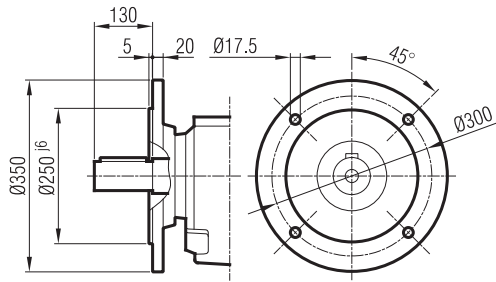
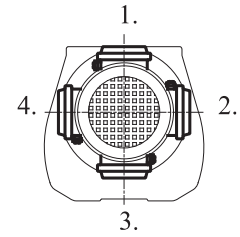
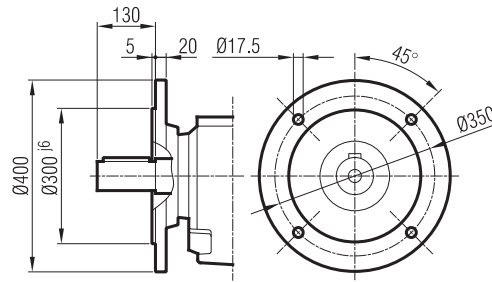
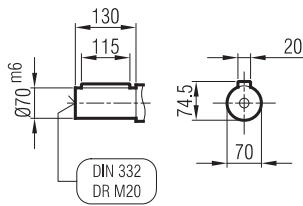
≥ 225 B5
 Tip/Type/Typ



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	587	180	215	250	M12	57	15	5	28	31.3	8
112	587	180	215	250	M12	57	15	5	28	31.3	8
132	614	230	265	300	M12	84	17	6	38	41.3	10
160	621	250	300	350	M16	91	18	6.5	42	45.3	12
180	621	250	300	350	M16	91	18	6.5	48	51.8	14
200	689	300	350	400	M16	159	20	6.5	55	59.3	16
225	696	350	400	450	M16	166	24	6.5	60	64.4	18
100	587	110	130	160	Ø9	57	11	5	28	31.3	8
112	587	110	130	160	Ø9	57	11	5	28	41.3	8
132	614	130	165	200	Ø11	84	13	5	38	45.3	10
160	625	180	215	250	Ø14	95	16	6	42	45.3	12


İRFPM 102
İRFPM 103


Ø450

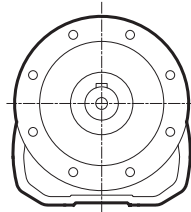
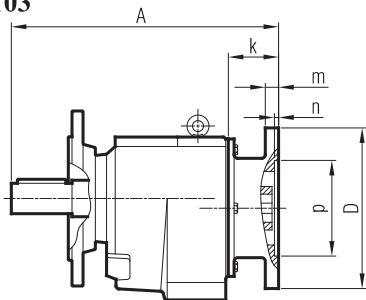

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

 Ø350
Opsiyonel / Option

 Ø400
Opsiyonel / Option


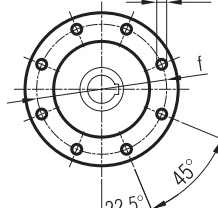
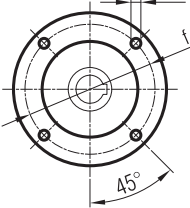
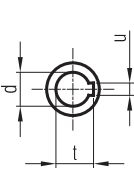
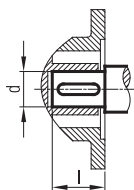
IEC	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5
A	959	931	1015	1056	1141	1186	1262	1262	1398	1381	1441
A1	1036	1026	1119	1160	1258	1303	1398	1398	1545	1528	1588
H	161	170	193	193	240	240	260	260	300	313	313
HD	261	282	325	325	400	400	440	440	500	538	538
AC	195	220	262	262	315	315	357	357	394	456	456

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

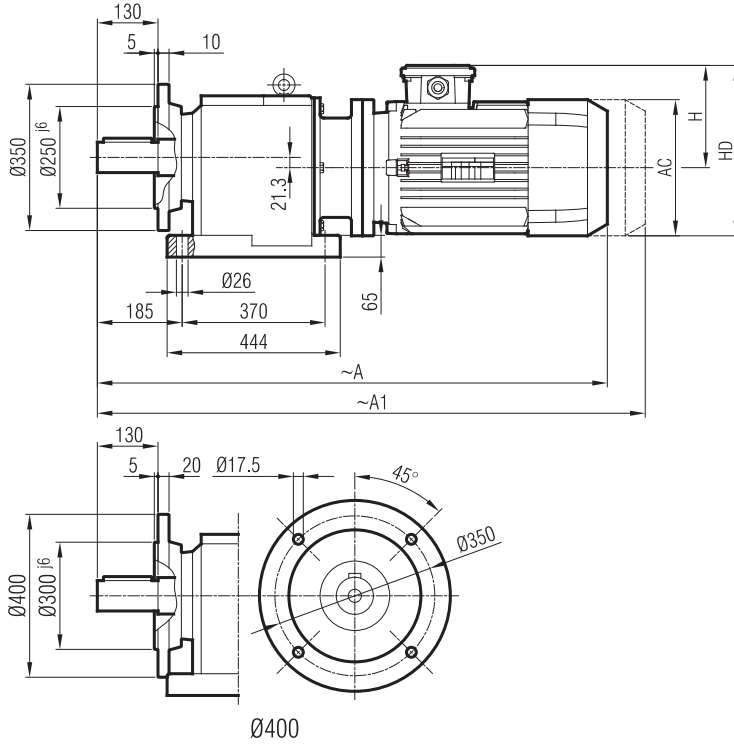
İRFP 102
İRFP 103

 B14 & ≤ 200 B5
 Tip/Type/Typ

 ≥ 225 B5
 Tip/Type/Typ


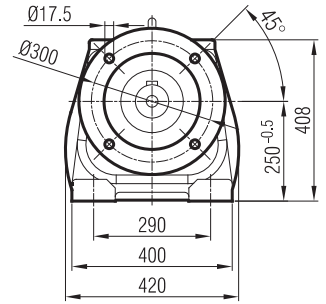
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	587	180	215	250	M12	57	15	5	28	31.3	8
112	587	180	215	250	M12	57	15	5	28	31.3	8
132	614	230	265	300	M12	84	17	6	38	41.3	10
160	621	250	300	350	M16	91	18	6.5	42	45.3	12
180	621	250	300	350	M16	91	18	6.5	48	51.8	14
200	689	300	350	400	M16	159	20	6.5	55	59.3	16
225	696	350	400	450	M16	166	24	6.5	60	64.4	18
100	587	110	130	160	Ø9	57	11	5	28	31.3	8
112	587	110	130	160	Ø9	57	11	5	28	41.3	8
132	614	130	165	200	Ø11	84	13	5	38	45.3	10
160	625	180	215	250	Ø14	95	16	6	42	45.3	12



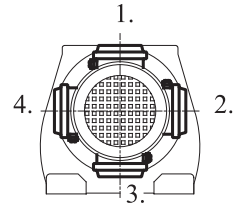
İRAFPM 102
İRAFPM 103



Ø350



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



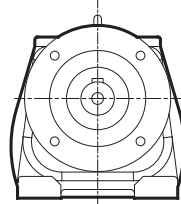
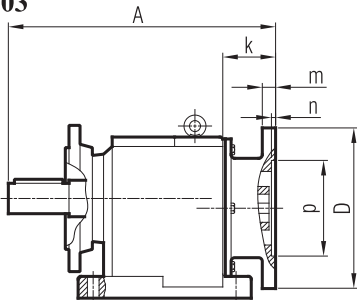
IEC	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5
A	959	931	1015	1056	1141	1186	1262	1262	1398	1381	1441
A1	1036	1026	1119	1160	1258	1303	1398	1398	1545	1528	1588
H	161	170	193	193	240	240	260	260	300	313	313
HD	261	282	325	325	400	400	440	440	500	538	538
AC	195	220	262	262	315	315	357	357	394	456	456

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

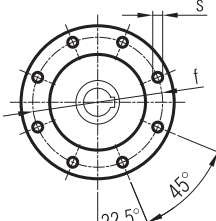
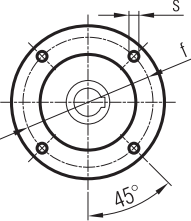
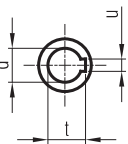
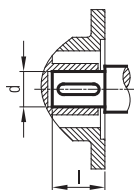
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 102
İRAFP 103

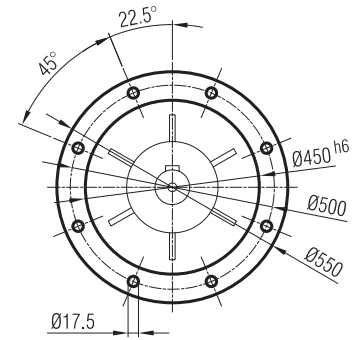
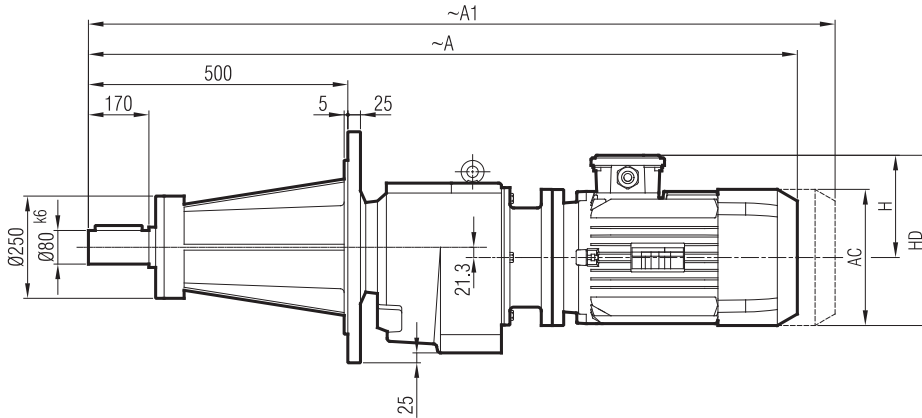


B14 & ≤ 200 B5
Tip/Type/Typ

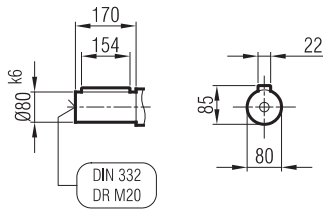
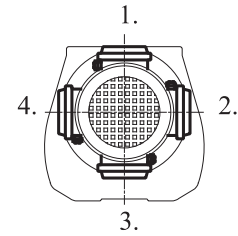
≥ 225 B5
Tip/Type/Typ



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	587	180	215	250	M12	57	15	5	28	31.3	8
112	587	180	215	250	M12	57	15	5	28	31.3	8
132	614	230	265	300	M12	84	17	6	38	41.3	10
160	621	250	300	350	M16	91	18	6.5	42	45.3	12
180	621	250	300	350	M16	91	18	6.5	48	51.8	14
200	689	300	350	400	M16	159	20	6.5	55	59.3	16
225	696	350	400	450	M16	166	24	6.5	60	64.4	18
100	587	110	130	160	Ø9	57	11	5	28	31.3	8
112	587	110	130	160	Ø9	57	11	5	28	41.3	8
132	614	130	165	200	Ø11	84	13	5	38	45.3	10
160	625	180	215	250	Ø14	95	16	6	42	45.3	12

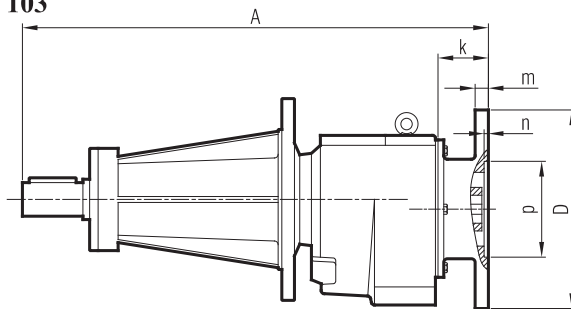

İRBPM 102
İRBPM 103


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



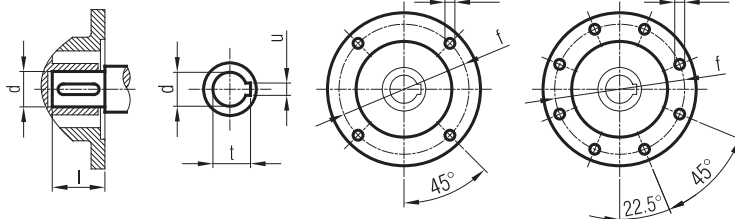
IEC	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5
A	1329	1301	1385	1426	1511	1556	1632	1632	1768	1751	1811
A1	1406	1396	1489	1530	1628	1673	1768	1768	1915	1898	1958
H	161	170	193	193	240	240	260	260	300	313	313
HD	261	282	325	325	400	400	440	440	500	538	538
AC	195	220	262	262	315	315	357	357	394	456	456

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRBP 102
İRBP 103


B14 & ≤ 200 B5
 Tip/Type/Typ

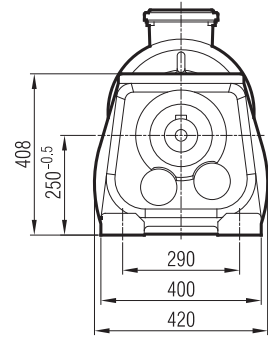
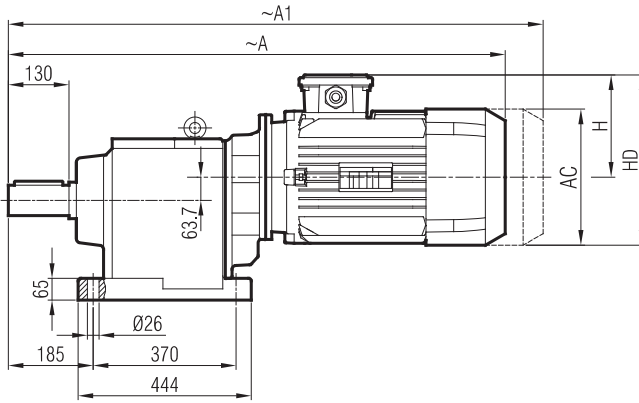
≥ 225 B5
 Tip/Type/Typ



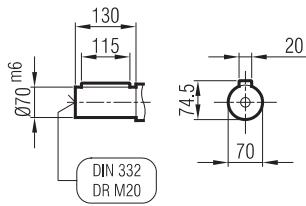
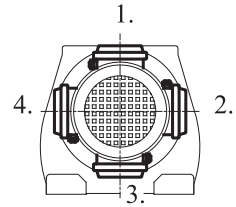
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	957	180	215	250	M12	57	15	5	28	31.3	8
112	957	180	215	250	M12	57	15	5	28	31.3	8
132	984	230	265	300	M12	84	17	5	38	41.3	10
160	991	250	300	350	M14	91	18	6.5	42	45.3	12
180	991	250	300	350	M14	91	18	6.5	48	51.8	14
200	1059	300	350	400	M16	159	20	6.5	55	59.3	16
225	1066	350	400	450	M16	166	24	6.5	60	64.4	18
100	957	110	130	160	Ø9	57	11	5	28	31.3	8
112	957	110	130	160	Ø9	57	11	5	28	41.3	8
132	984	130	165	200	Ø11	84	13	5	38	45.3	10
160	995	180	215	250	14	95	16	6	42	45.3	12



İRAM 104



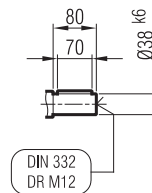
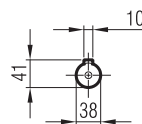
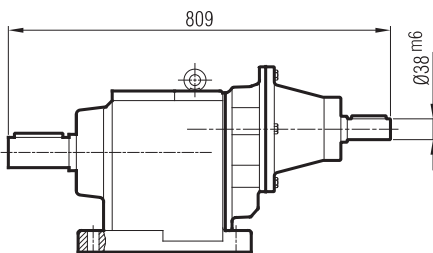
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	80 M	90 S	90 L	100 L				
A	896	889	951	958				
A1	957	956	1018	1035				
H	136	141	141	161				
HD	216	231	231	261				
AC	158	176	176	195				

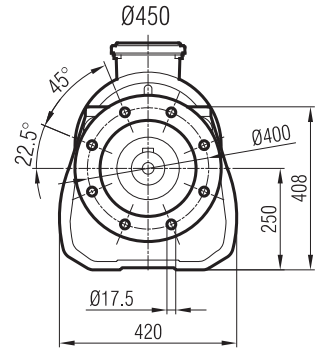
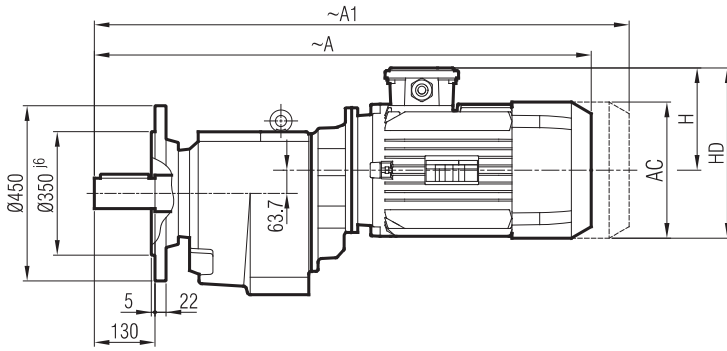
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 104

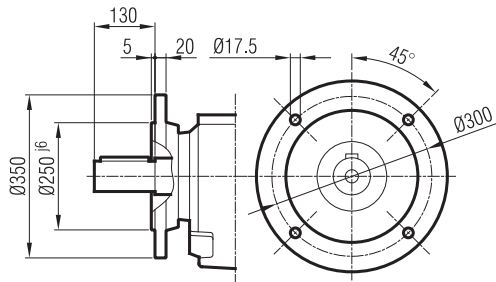
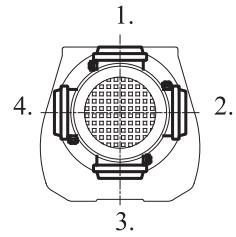




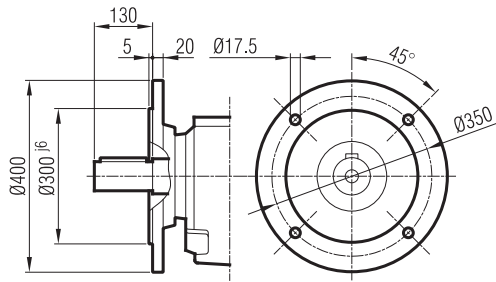
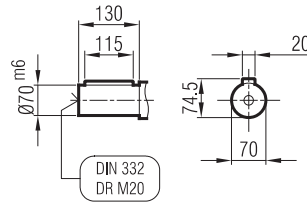
İRFM 104



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø350
Opsiyonel / Option

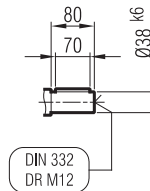
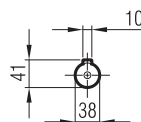
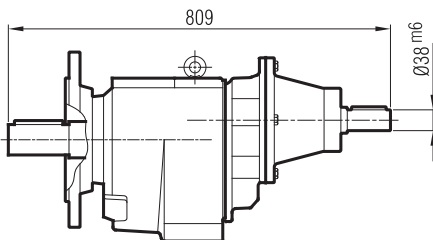


Ø400
Opsiyonel / Option

	80 M	90 S	90 L	100 L				
A	896	889	951	958				
A1	957	956	1018	1035				
H	136	141	141	161				
HD	216	231	231	261				
AC	158	176	176	195				

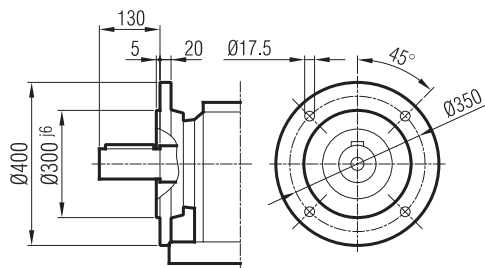
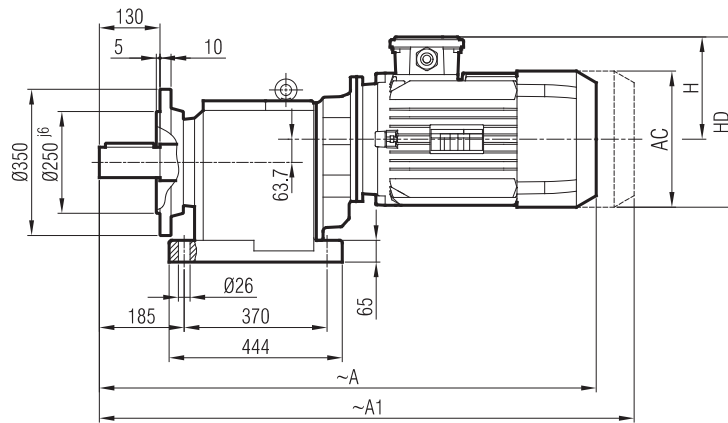
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 104

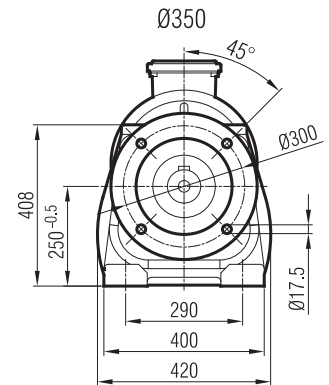




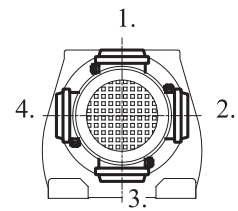
İRAFM 104



Ø400
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



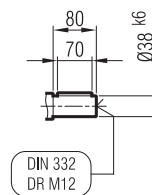
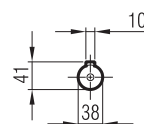
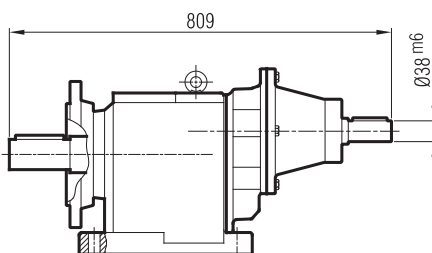
	80 M	90 S	90 L	100 L				
A	896	889	951	958				
A1	957	956	1018	1035				
H	136	141	141	161				
HD	216	231	231	261				
AC	158	176	176	195				

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

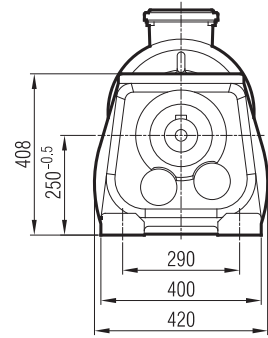
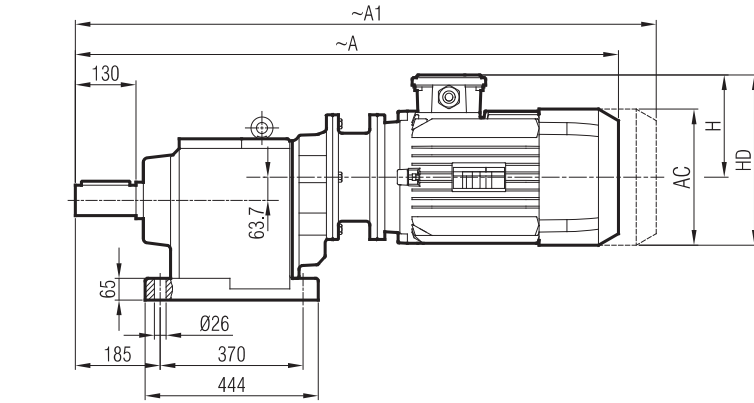
Le dimensions "A1" correspond aux moteurs équipés de freins.

IRAF 104

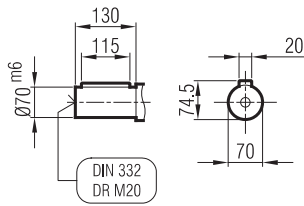
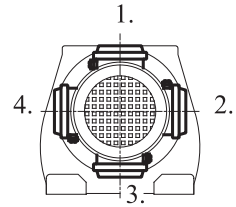




İRAPM 104



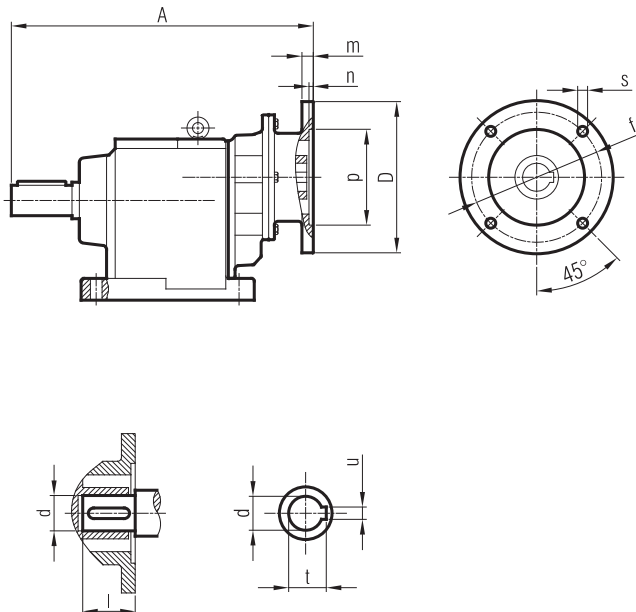
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	80 M/B5	90 S/B5	90 L/B5	100 L/B5			
A	979	988	1026	1023			
A1	1040	1055	1093	1100			
H	136	141	141	161			
HD	216	231	231	261			
AC	158	176	176	195			

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

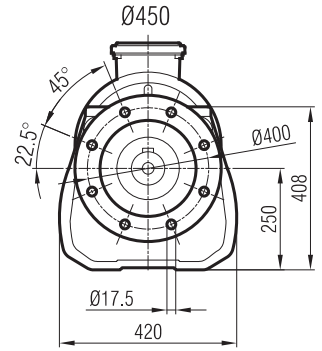
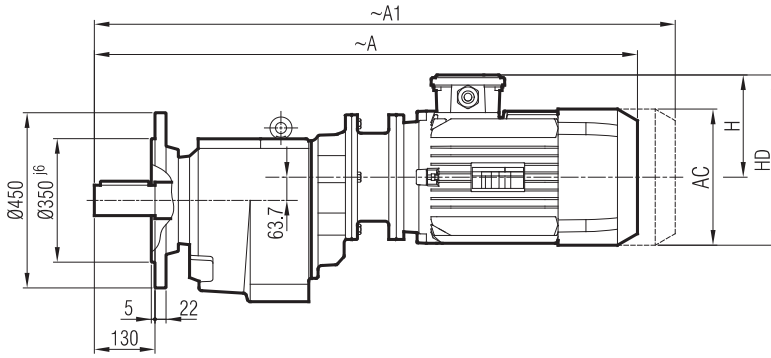
İRAP 104



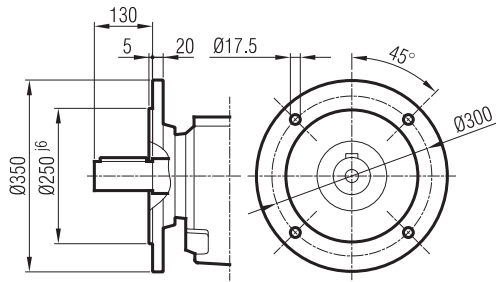
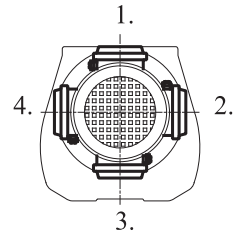
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	B5	686	130	165	200	M10	67	12	5	19	21.8	6
90		686	130	165	200	M10	67	12	5	24	27.3	8
100		686	180	215	250	M12	74	14	5	28	31.3	8
80	B14	686	80	100	120	Ø7	66	11	5	19	21.8	6
90		686	95	115	140	Ø9	66	12	5	24	27.3	8
100		687	110	130	160	Ø9	64	11	5	28	31.3	8



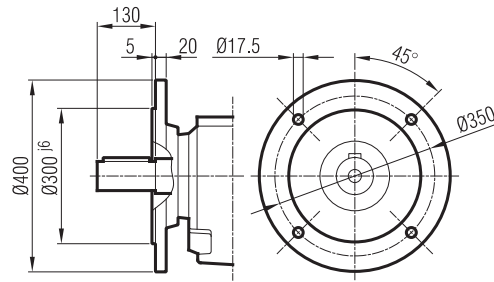
İRFPM 104



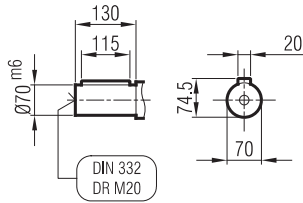
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø350
Opsiyonel / Option



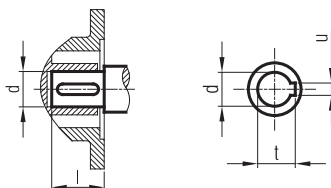
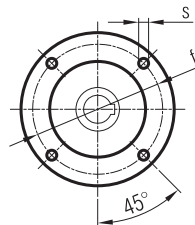
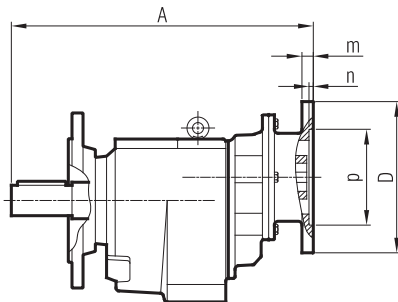
Ø400
Opsiyonel / Option



	80 M/B5	90 S/B5	90 L/B5	100 L/B5			
A	979	988	1026	1023			
A1	1040	1055	1093	1100			
H	136	141	141	161			
HD	216	231	231	261			
AC	158	176	176	195			

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

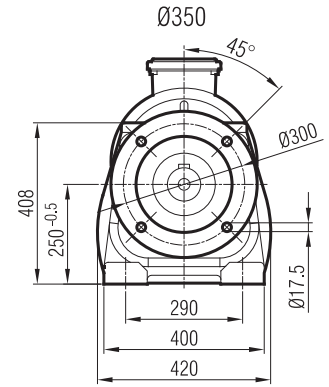
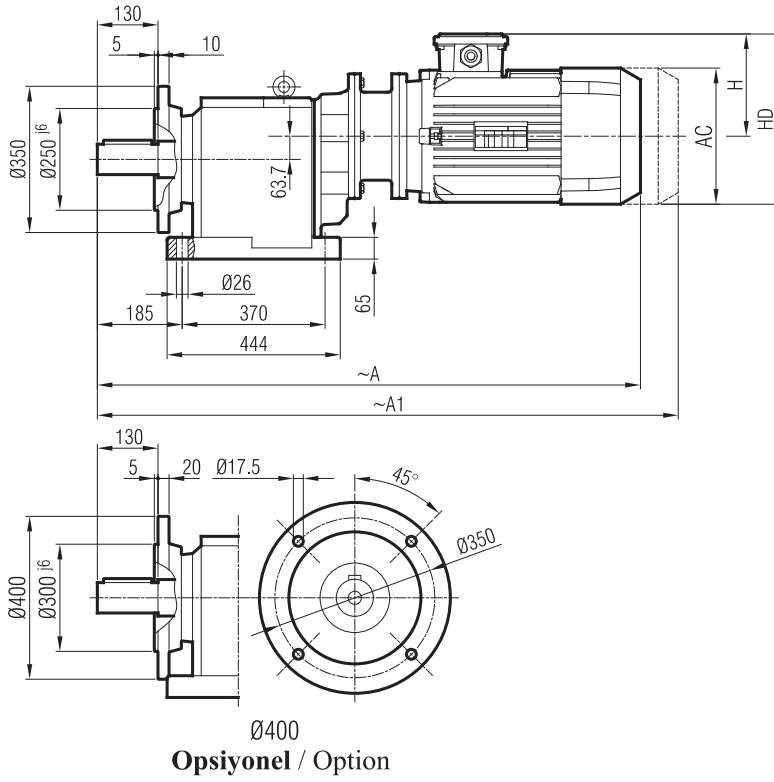
İRFP 104



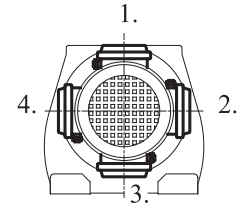
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	B5	686	130	165	200	M10	67	12	5	19	21.8	6
90		686	130	165	200	M10	67	12	5	24	27.3	8
100		686	180	215	250	M12	74	14	5	28	31.3	8
80	B14	686	80	100	120	Ø7	66	11	5	19	21.8	6
90		686	95	115	140	Ø9	66	12	5	24	27.3	8
100		687	110	130	160	Ø9	64	11	5	28	31.3	8



İRAFPM 104



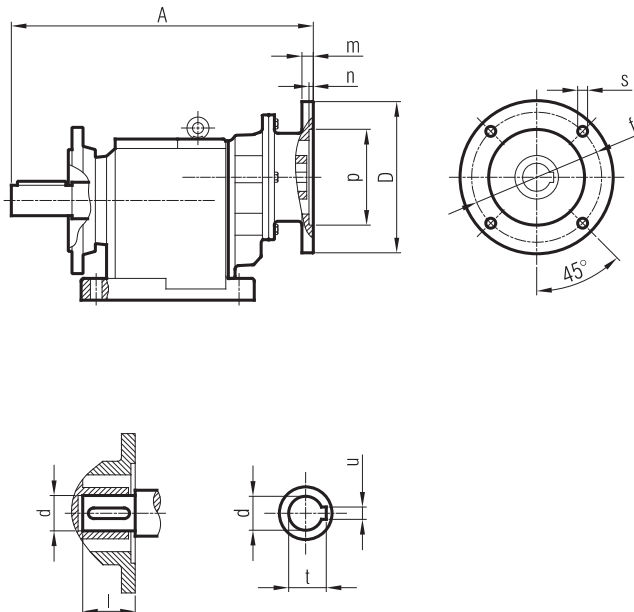
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	80 M/B5	90 S/B5	90 L/B5	100 L/B5			
A	979	988	1026	1023			
A1	1040	1055	1093	1100			
H	136	141	141	161			
HD	216	231	231	261			
AC	158	176	176	195			

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspondent aux moteurs équipés de freins.

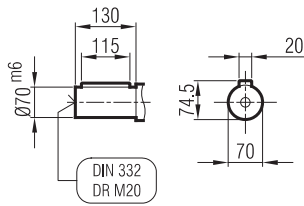
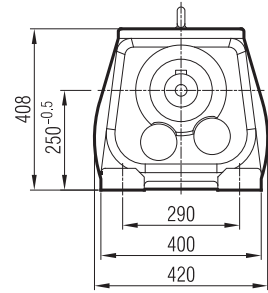
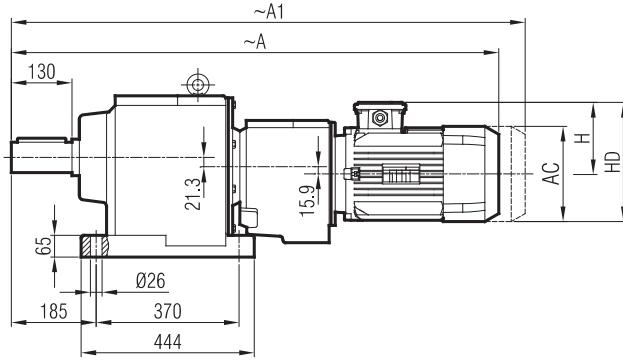
İRAFP 104



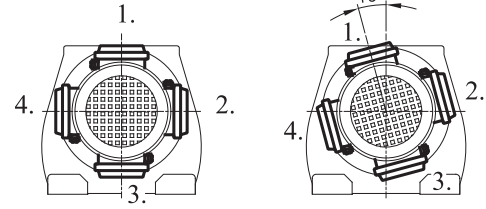
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	B5	686	130	165	200	M10	67	12	5	19	21.8	6
90		686	130	165	200	M10	67	12	5	24	27.3	8
100		686	180	215	250	M12	74	14	5	28	31.3	8
80	B14	686	80	100	120	Ø7	66	11	5	19	21.8	6
90		686	95	115	140	Ø9	66	12	5	24	27.3	8
100		687	110	130	160	Ø9	64	11	5	28	31.3	8



İRAM 102 İR 72 / İRAM 102 İR 73
İRAM 103 İR 72 / İRAM 103 İR 73



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



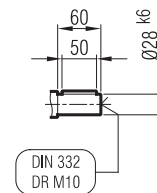
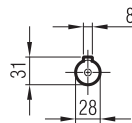
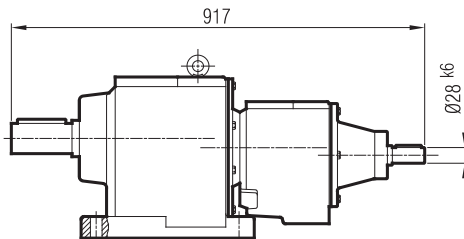
	71 M	80 M	90 S	90 L	100 L			
A	966	1039	1032	1096	1102			
A1	1020	1100	1099	1163	1179			
H	123	136	141	141	161			
HD	194	216	231	231	261			
AC	138.5	158	176	176	195			

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

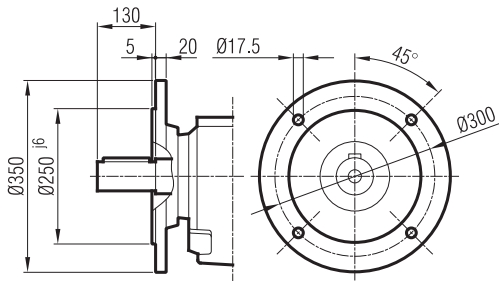
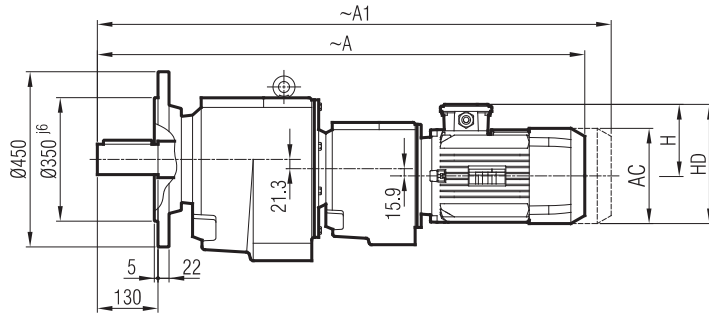
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 102 İR 72 / İRA 102 İR 73
İRA 103 İR 72 / İRA 103 İR 73



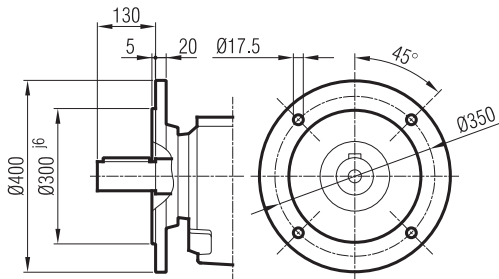


İRFM 102 İR 72 / İRFM 102 İR 73
İRFM 103 İR 72 / İRFM 103 İR 73



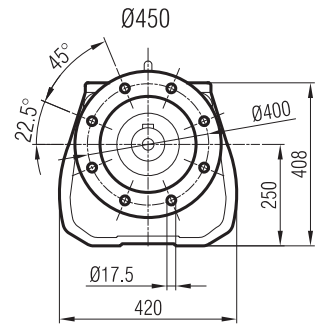
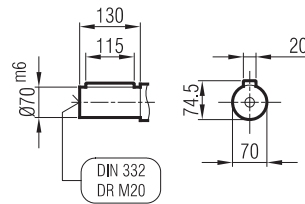
Ø350

Opsiyonel / Option

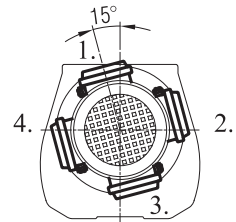
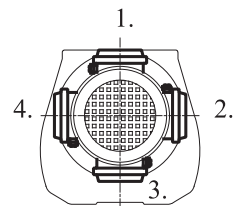


Ø400

Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



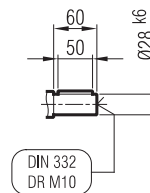
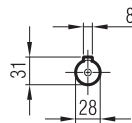
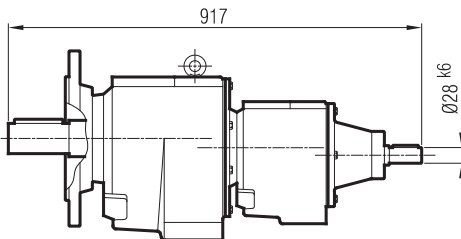
	71 M	80 M	90 S	90 L	100 L			
A	966	1039	1032	1096	1102			
A1	1020	1100	1099	1163	1179			
H	123	136	141	141	161			
HD	194	216	231	231	261			
AC	138.5	158	176	176	195			

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

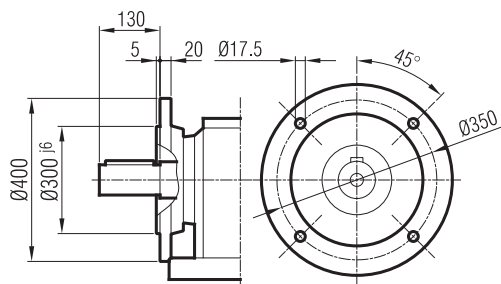
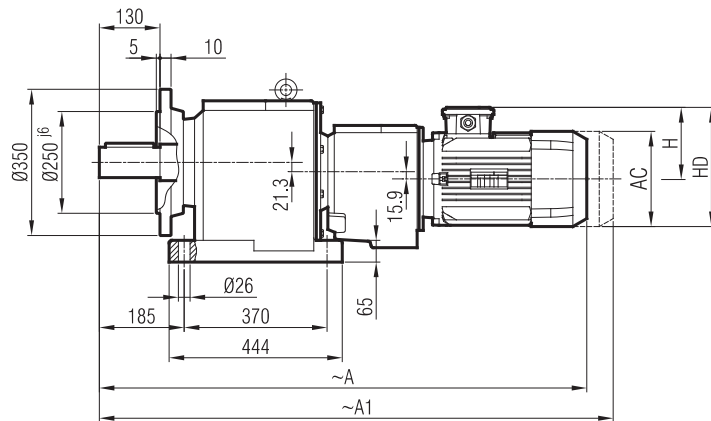
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 102 İR 72 / İRF 102 İR 73
İRF 103 İR 72 / İRF 103 İR 73



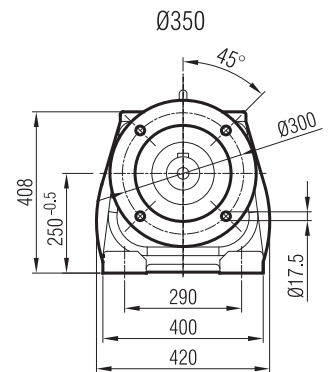


İRAFM 102 İR 72 / İRAFM 102 İR 73
İRAFM 103 İR 72 / İRAFM 103 İR 73



Ø400

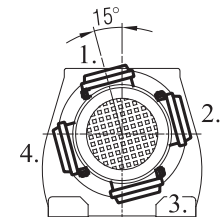
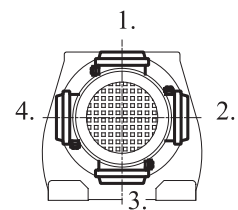
Opsiyonel / Option



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



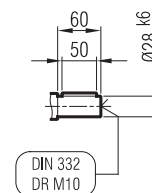
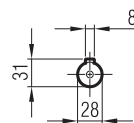
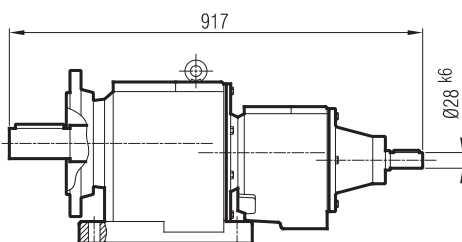
	71 M	80 M	90 S	90 L	100 L			
A	966	1039	1032	1096	1102			
A1	1020	1100	1099	1163	1179			
H	123	136	141	141	161			
HD	194	216	231	231	261			
AC	138.5	158	176	176	195			

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

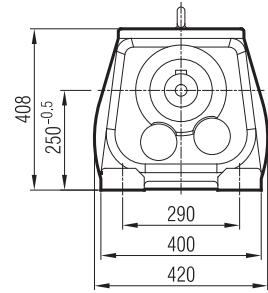
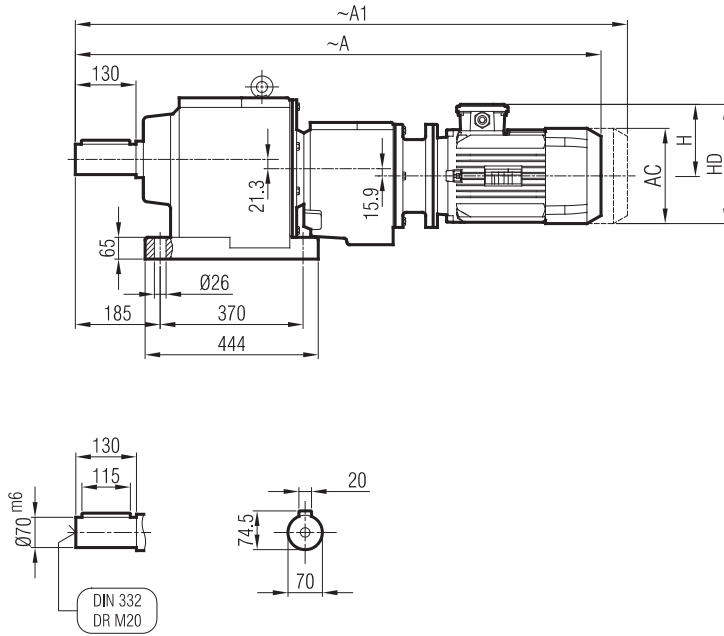
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 102 İR 72 / İRAF 102 İR 73
İRAF 103 İR 72 / İRAF 103 İR 73

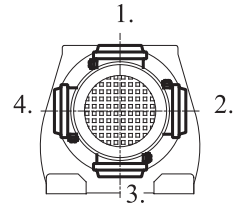




İRAPM 102 İR 72 / İRAPM 102 İR 73
İRAPM 103 İR 72 / İRAPM 103 İR 73



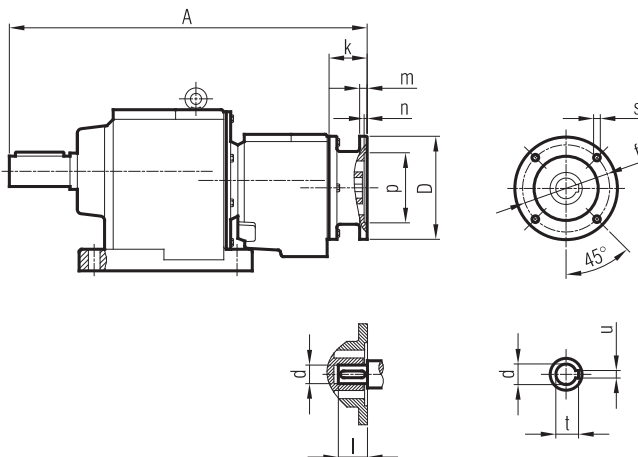
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5		
A	1038	1113	1122	1160	1161		
A1	1092	1174	1189	1227	1238		
H	123	135	141	141	161		
HD	194	216	231	231	261		
AC	138.5	158	176	176	195		

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

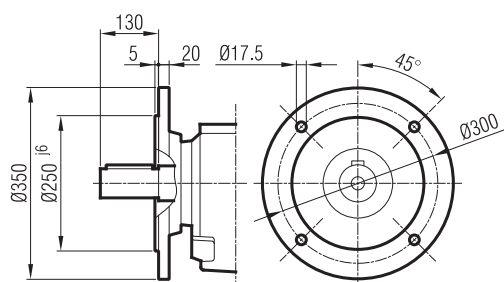
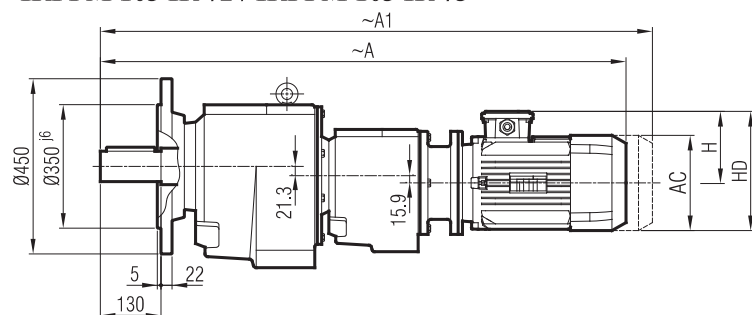
İRAP 102 İR 72 / İRAP 102 İR 73
İRAP 103 İR 72 / İRAP 103 İR 73



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	808	110	130	160	M8	55	9	4	14	16.3	5
80	820	130	165	200	M10	67	12	5	19	21.8	6
90	820	130	165	200	M10	67	12	5	24	27.3	8
100	825	180	215	250	M12	71.5	14	5	28	31.3	8
71	808	70	85	105	Ø7	55	10	3	14	16.3	5
80	820	80	100	120	Ø7	67	8	4	19	21.8	6
90	820	95	115	140	Ø7	67	8	4	24	27.3	8
100	829	110	130	160	Ø9	76	12	5	28	31.3	8

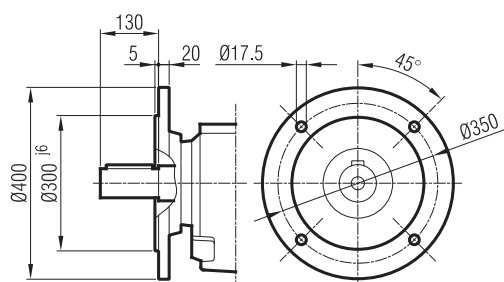


İRFPM 102 İR 72 / İRFPM 102 İR 73
İRFPM 103 İR 72 / İRFPM 103 İR 73



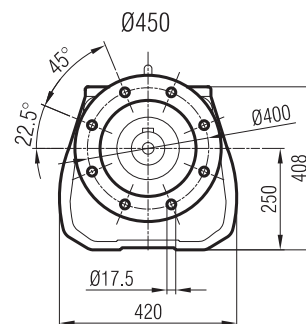
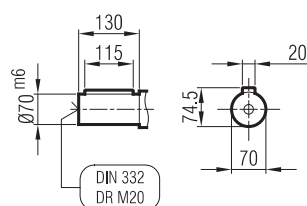
Ø350

Opsiyonel / Option



Ø400

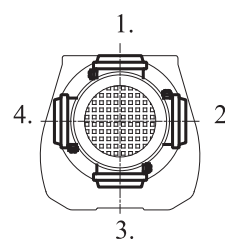
Opsiyonel / Option



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



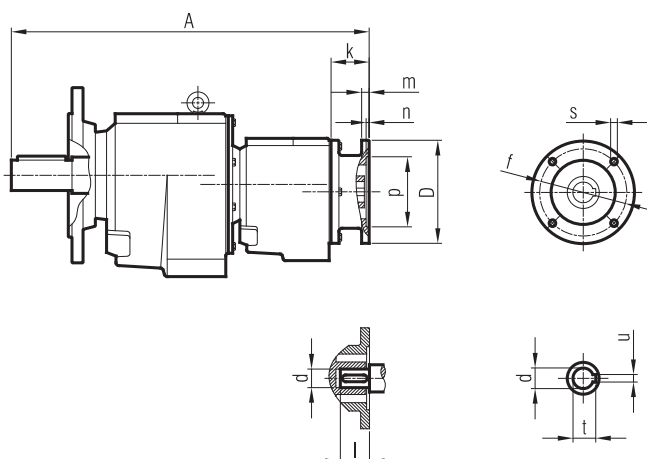
	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5		
A	1038	1113	1122	1160	1161		
A1	1092	1174	1189	1227	1238		
H	123	135	141	141	161		
HD	194	216	231	231	261		
AC	138.5	158	176	176	195		

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

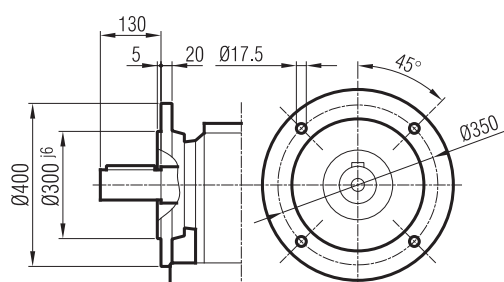
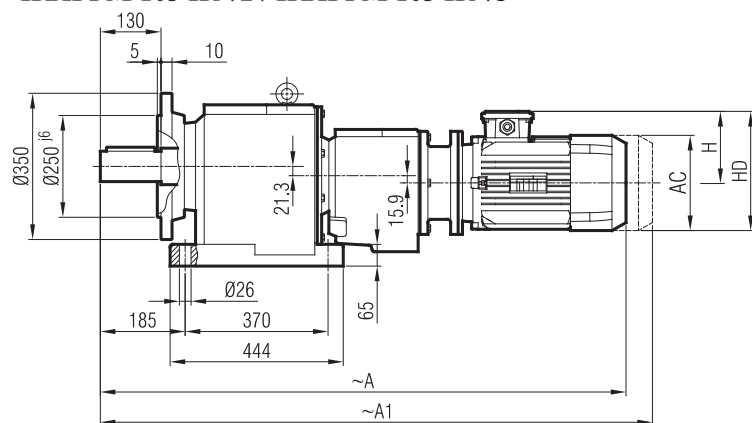
İRFP 102 İR 72 / İRFP 102 İR 73
İRFP 103 İR 72 / İRFP 103 İR 73



IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	B5	808	110	130	160	M8	55	9	4	14	16.3	5
80		820	130	165	200	M10	67	12	5	19	21.8	6
90		820	130	165	200	M10	67	12	5	24	27.3	8
100		825	180	215	250	M12	71.5	14	5	28	31.3	8
71	B14	808	70	85	105	Ø7	55	10	3	14	16.3	5
80		820	80	100	120	Ø7	67	8	4	19	21.8	6
90		820	95	115	140	Ø7	67	8	4	24	27.3	8
100		829	110	130	160	Ø9	76	12	5	28	31.3	8

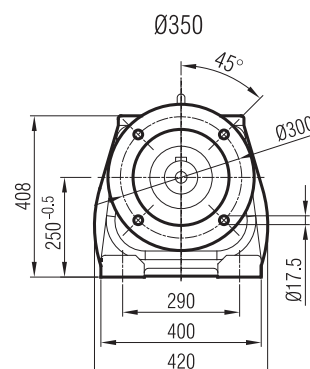


İRAFPM 102 İR 72 / İRAFPM 102 İR 73
İRAFPM 103 İR 72 / İRAFPM 103 İR 73



Ø400

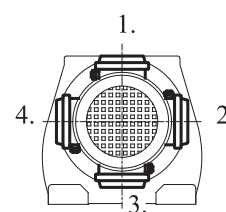
Opsiyonel / Option



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



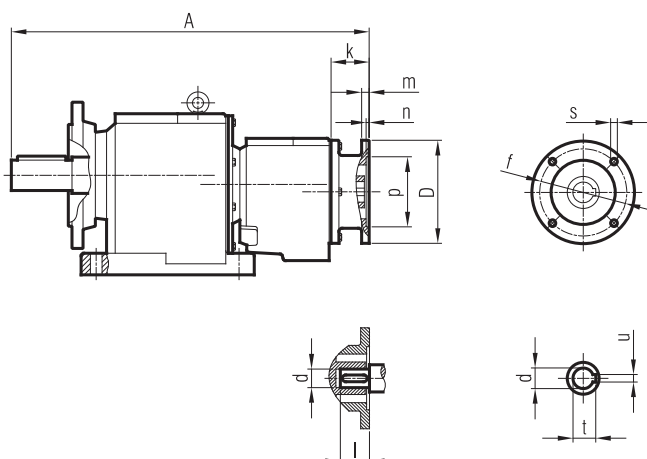
	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5		
A	1038	1113	1122	1160	1161		
A1	1092	1174	1189	1227	1238		
H	123	135	141	141	161		
HD	194	216	231	231	261		
AC	138.5	158	176	176	195		

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

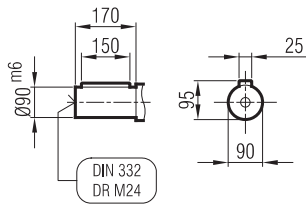
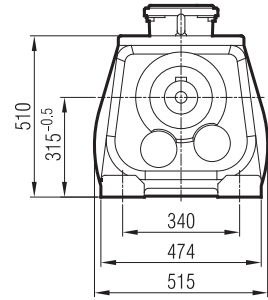
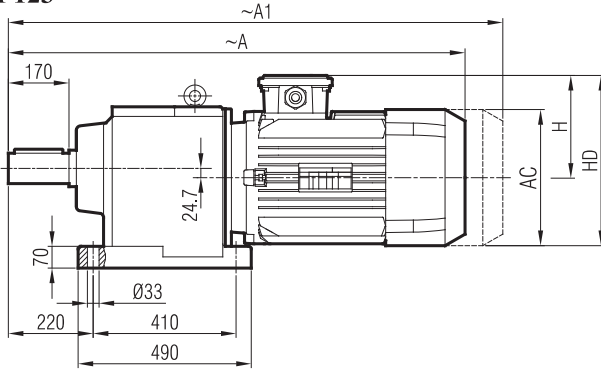
İRAFP 102 İR 72 / İRAFP 102 İR 73
İRAFP 103 İR 72 / İRAFP 103 İR 73



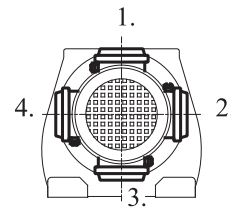
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	B5	808	110	130	160	M8	55	9	4	14	16.3	5
80		820	130	165	200	M10	67	12	5	19	21.8	6
90		820	130	165	200	M10	67	12	5	24	27.3	8
100		825	180	215	250	M12	71.5	14	5	28	31.3	8
71	B14	808	70	85	105	Ø7	55	10	3	14	16.3	5
80		820	80	100	120	Ø7	67	8	4	19	21.8	6
90		820	95	115	140	Ø7	67	8	4	24	27.3	8
100		829	110	130	160	Ø9	76	12	5	28	31.3	8



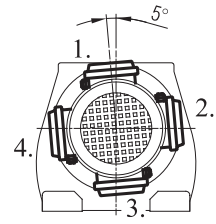
İRAM 122
İRAM 123



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



132-160-180-225-250
Tip/Type/Type



200
Tip/Type/Type

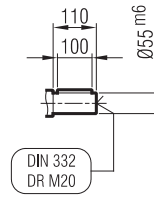
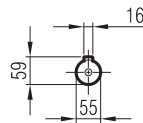
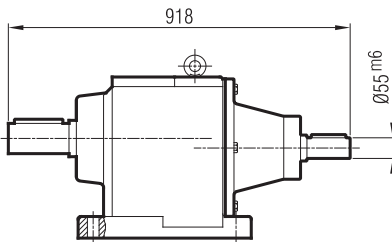
	132 S	132 M	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M
A	978	1023	1109	1154	1168	1205	1300	1258	1351	1364
A1	1082	1127	1226	1271	1304	1341	1447	1405	1498	1511
H	193	193	240	240	260	260	300	313	313	366
HD	325	325	400	400	440	440	500	538	538	616
AC	262	262	315	315	357	357	394	456	456	489

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

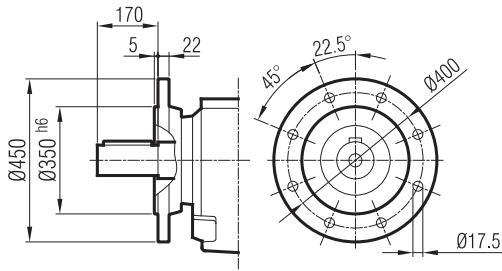
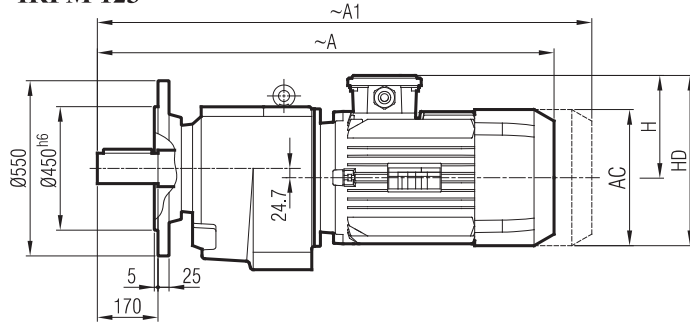
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 122
İRA 123

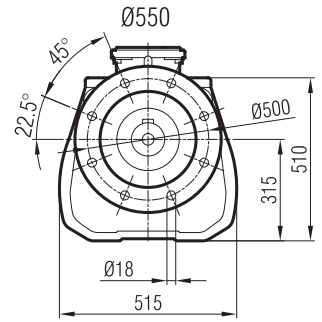
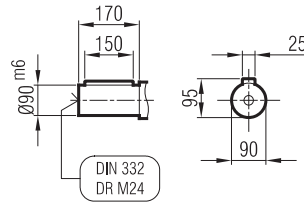




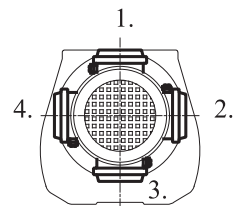
İRFM 122
İRFM 123



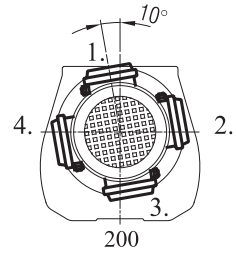
Ø450
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



132-160-180-225-250
Tip/Type/Type



200
Tip/Type/Type

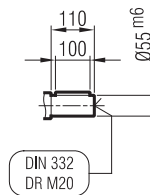
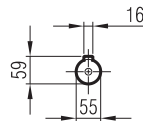
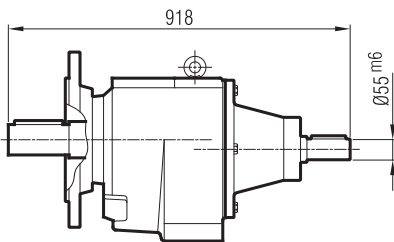
	132 S	132 M	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M
A	978	1023	1109	1154	1168	1205	1300	1258	1351	1364
A1	1082	1127	1226	1271	1304	1341	1447	1405	1498	1511
H	193	193	240	240	260	260	300	313	313	366
HD	325	325	400	400	440	440	500	538	538	616
AC	262	262	315	315	357	357	394	456	456	489

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

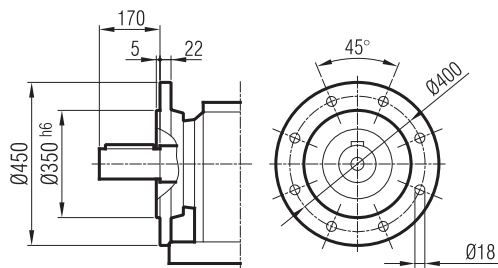
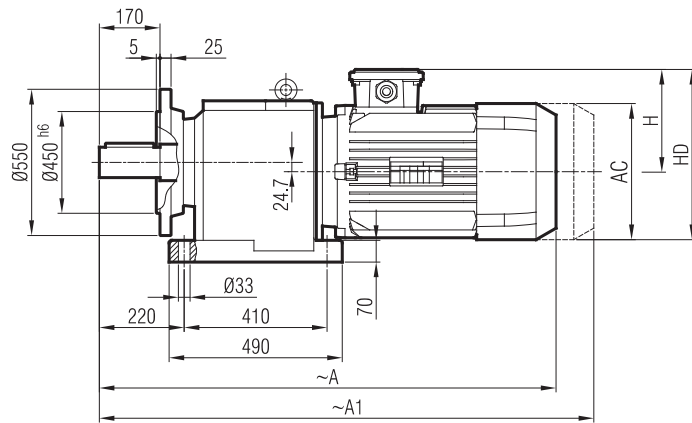
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 122
İRF 123

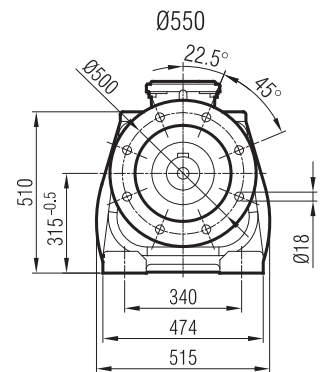
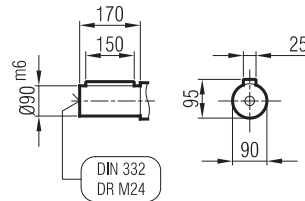




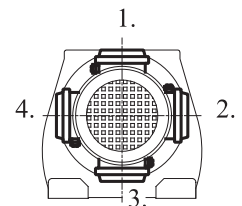
İRAFM 122
İRAFM 123



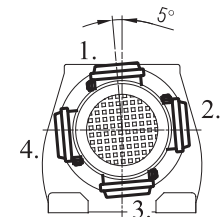
Ø450
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



132-160-180-225-250
Tip/*Type*/*Type*



200
Tip/Type/Type

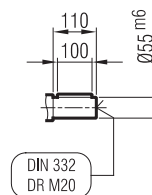
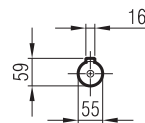
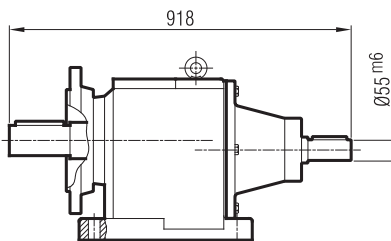
	132 S	132 M	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M
A	978	1023	1109	1154	1168	1205	1300	1258	1351	1364
A1	1082	1127	1226	1271	1304	1341	1447	1405	1498	1511
H	193	193	240	240	260	260	300	313	313	366
HD	325	325	400	400	440	440	500	538	538	616
AC	262	262	315	315	357	357	394	456	456	489

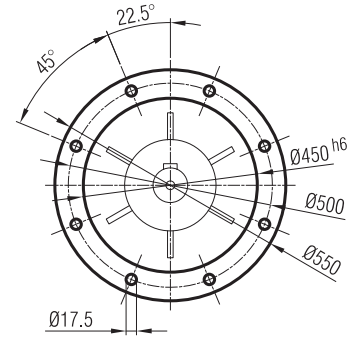
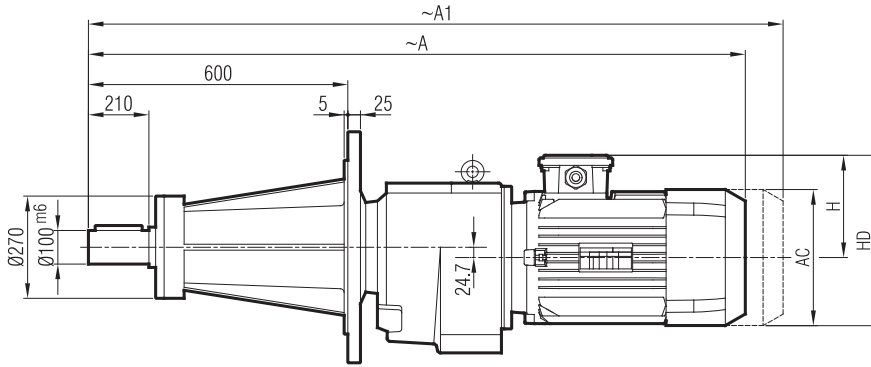
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

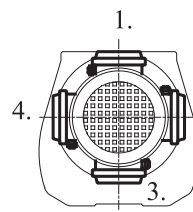
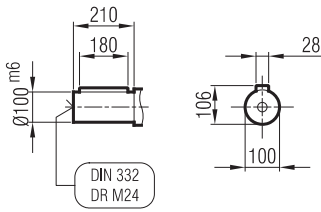
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 122
İRAF 123

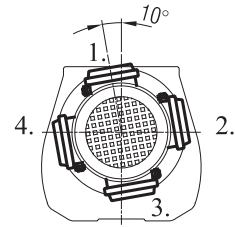



İRBM 122
İRBM 123


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



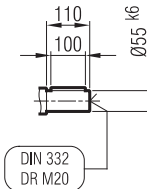
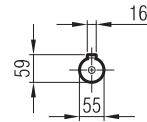
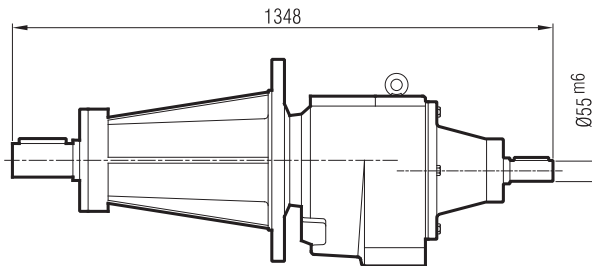
132-160-180-225
 250 Tip/Type/Type

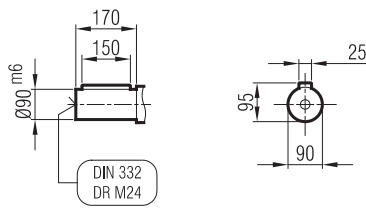
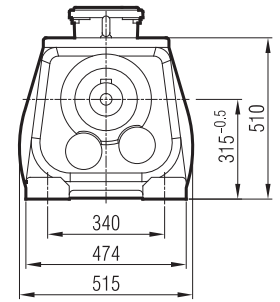
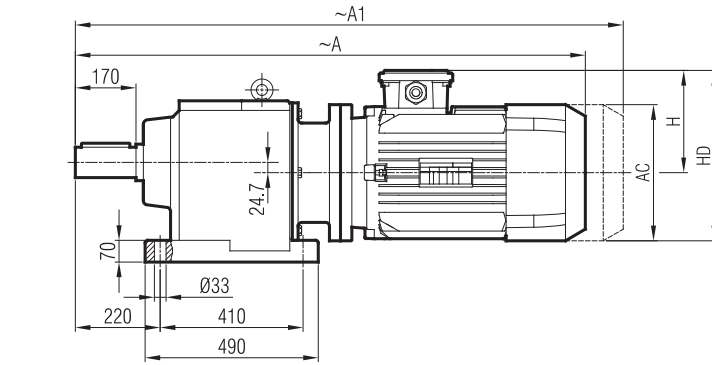
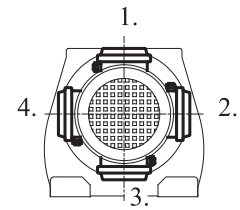


200
 Tip/Type/Type

	132 S	132 M	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M
A	1408	1453	1539	1584	1598	1635	1730	1688	1781	1794
A1	1512	1557	1656	1701	1734	1771	1877	1835	1928	1941
H	193	193	240	240	260	260	300	313	313	366
HD	325	325	400	400	440	440	500	538	538	616
AC	262	262	315	315	357	357	394	456	456	489

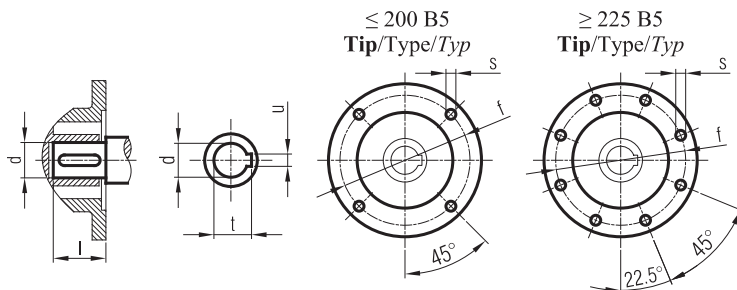
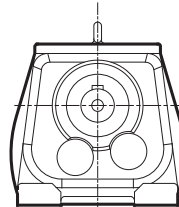
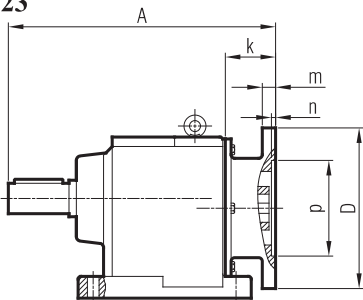
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRB 122
İRB 123



İRAPM 122
İRAPM 123

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5
A	1069	1110	1213	1258	1334	1334	1470	1455	1515	1565
A1	1173	1214	1330	1375	1470	1470	1617	1602	1662	1712
H	193	193	240	240	260	260	300	313	313	366
HD	325	325	400	400	440	440	500	538	538	616
AC	262	262	315	315	357	357	394	456	456	489

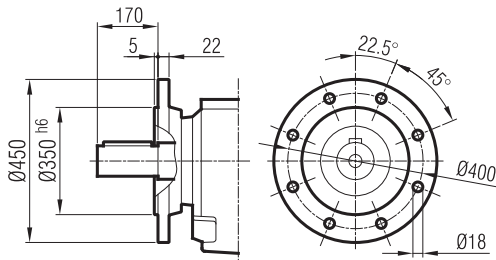
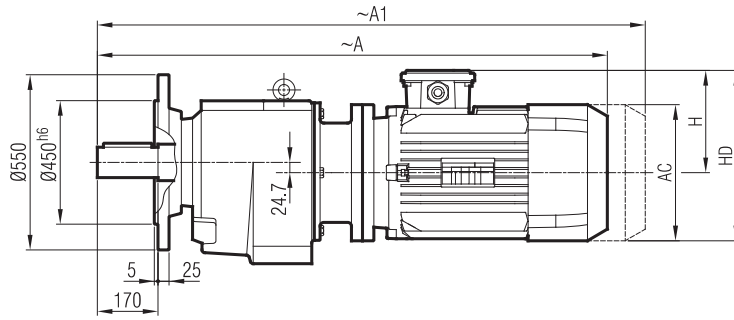
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAP 122
İRAP 123


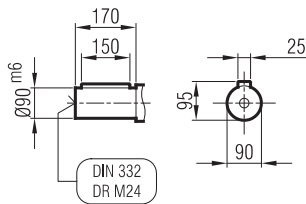
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
132	668	230	265	300	M12	66	17	6	38	41.3	10
160	693	250	300	350	M16	91	18	6.5	42	45.3	12
180	693	250	300	350	M16	91	18	6.5	48	51.8	14
200	761	300	350	400	M16	159	20	6.5	55	59.3	16
225	770	350	400	450	M16	166	22	6.5	60	64.4	18
250	770	450	500	550	M16	168	22	6.5	65	69.4	18



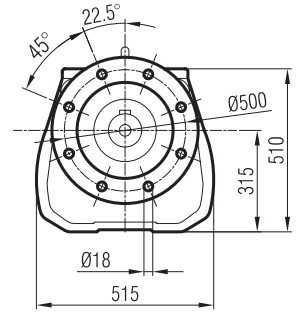
İRFPM 122
İRFPM 123



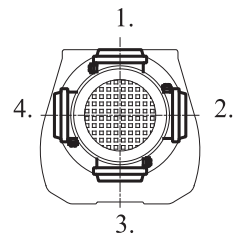
Ø450
Opsiyonel / Option



Ø550



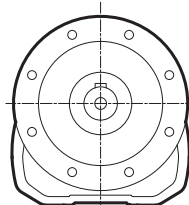
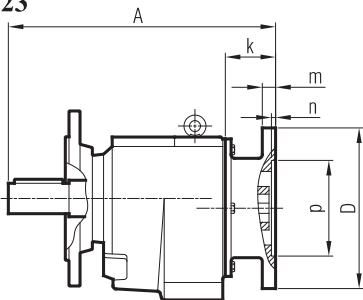
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



IEC	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5
A	1069	1110	1213	1258	1334	1334	1470	1455	1515	1565
A1	1173	1214	1330	1375	1470	1470	1617	1602	1662	1712
H	193	193	240	240	260	260	300	313	313	366
HD	325	325	400	400	440	440	500	538	538	616
AC	262	262	315	315	357	357	394	456	456	489

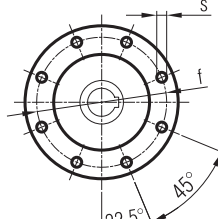
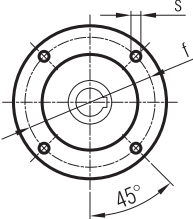
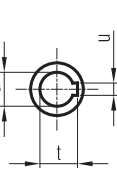
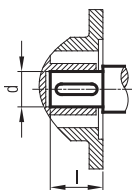
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 122
İRFP 123

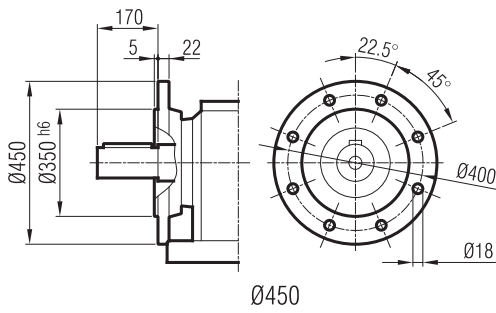
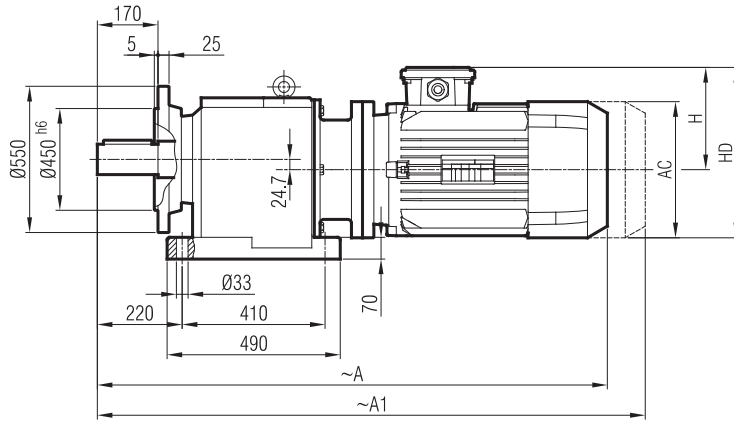
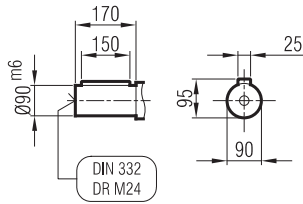
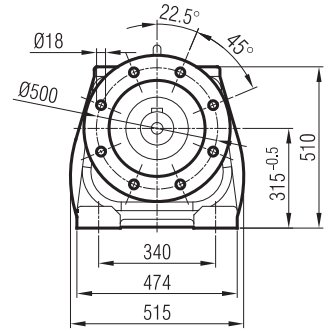
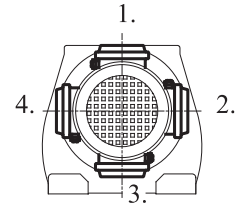


≤ 200 B5
Tip/Type/Typ

≥ 225 B5
Tip/Type/Typ



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
132	668	230	265	300	M12	66	17	6	38	41.3	10
160	693	250	300	350	M16	91	18	6.5	42	45.3	12
180	693	250	300	350	M16	91	18	6.5	48	51.8	14
200	761	300	350	400	M16	159	20	6.5	55	59.3	16
225	770	350	400	450	M16	166	22	6.5	60	64.4	18
250	770	450	500	550	M16	168	22	6.5	65	69.4	18

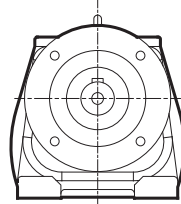
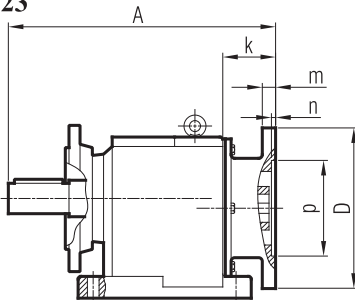
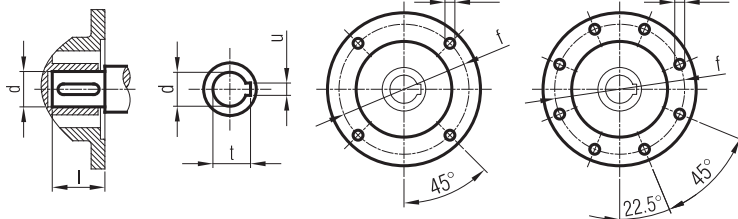

İRAFPM 122
İRAFPM 123

Opsiyonel / Option

Ø550

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5
A	1069	1110	1213	1258	1334	1334	1470	1455	1515	1565
A1	1173	1214	1330	1375	1470	1470	1617	1602	1662	1712
H	193	193	240	240	260	260	300	313	313	366
HD	325	325	400	400	440	440	500	538	538	616
AC	262	262	315	315	357	357	394	456	456	489

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

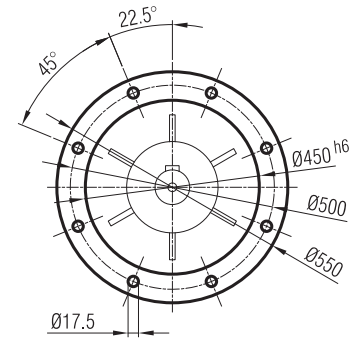
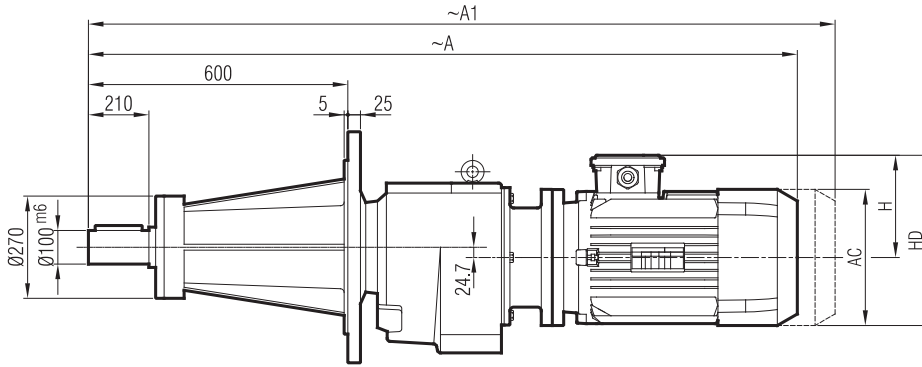
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 122
İRAFP 123

≤ 200 B5
Tip/Type/Typ
≥ 225 B5
Tip/Type/Typ


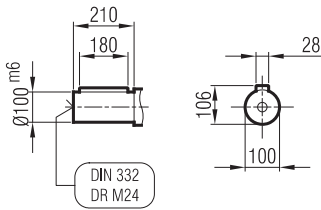
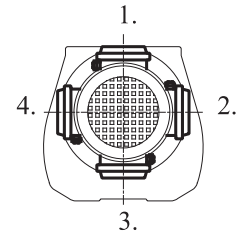
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
132	668	230	265	300	M12	66	17	6	38	41.3	10
160	693	250	300	350	M16	91	18	6.5	42	45.3	12
180	693	250	300	350	M16	91	18	6.5	48	51.8	14
200	761	300	350	400	M16	159	20	6.5	55	59.3	16
225	770	350	400	450	M16	166	22	6.5	60	64.4	18
250	770	450	500	550	M16	168	22	6.5	65	69.4	18



İRBPM 122
İRBPM 123



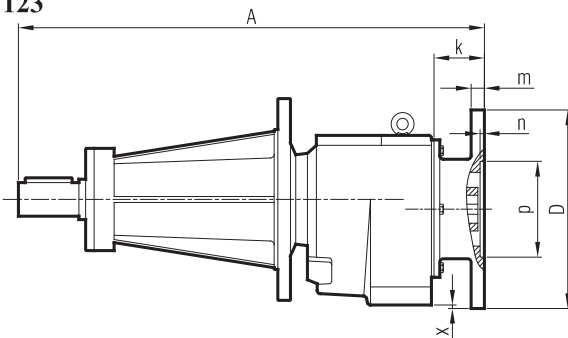
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



IEC	132 S/B5	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5
A	1499	1540	1643	1688	1764	1764	1900	1885	1945	1995
A1	1603	1644	1760	1805	1900	1900	2047	2032	2092	2141
H	193	193	240	240	260	260	300	313	313	366
HD	325	325	400	400	440	440	500	538	538	616
AC	262	262	315	315	357	357	394	456	456	489

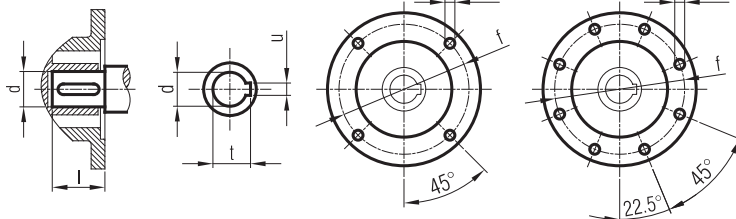
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRBP 122
İRBP 123



≤ 200 B5
Tip/Type/Typ

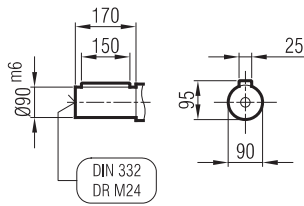
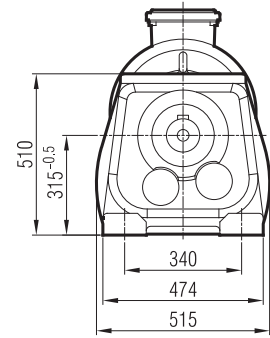
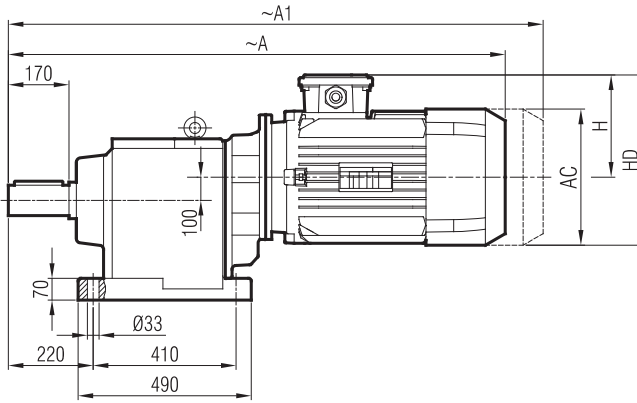
≥ 225 B5
Tip/Type/Typ



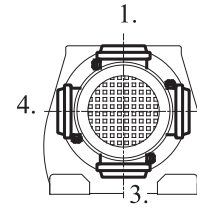
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
132	1098	230	265	300	M12	66	17	6	38	41.3	10
160	1123	250	300	350	M14	91	18	6.5	42	45.3	12
180	1123	250	300	350	M14	91	18	6.5	48	51.8	14
200	1191	300	350	400	M16	159	20	6.5	55	59.3	16
225	1200	350	400	450	M16	166	22	6.5	60	64.4	18
250	1200	450	500	550	M16	168	22	6.5	65	69.4	18



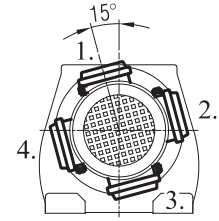
İRAM 124



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225
Tip/Type/Type

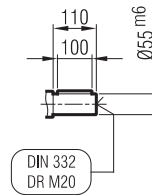
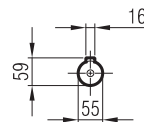
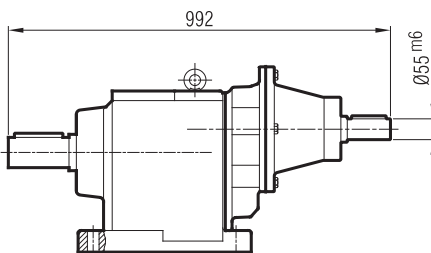


160
Tip/Type/Type

	132 S	132 M				
A	1110	1155				
A1	1214	1259				
H	193	193				
HD	325	325				
AC	262	262				

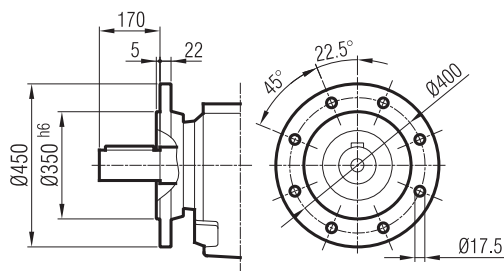
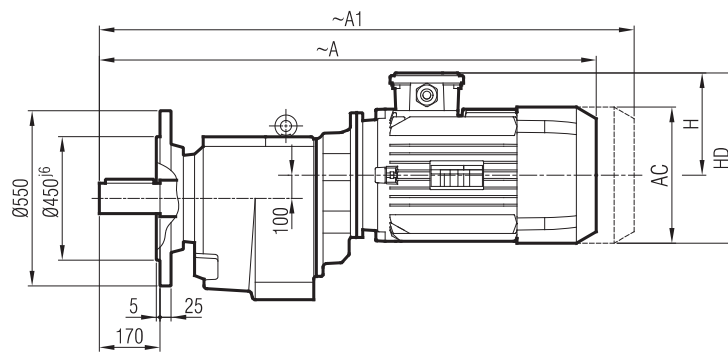
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 124



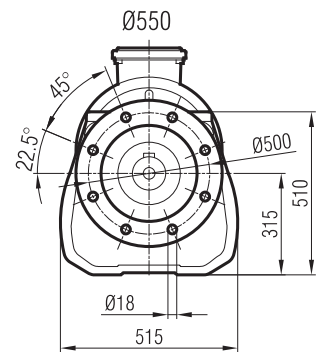
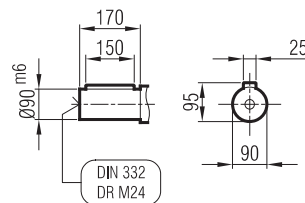


İRFM 124



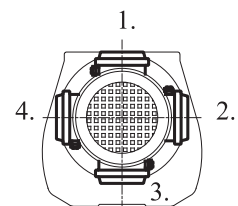
Ø450

Opsiyonel / Option



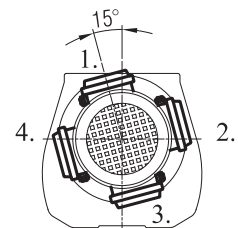
Klemens Pozisyonları

Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225

Tip/Type/Type



160

Tip/Type/Type

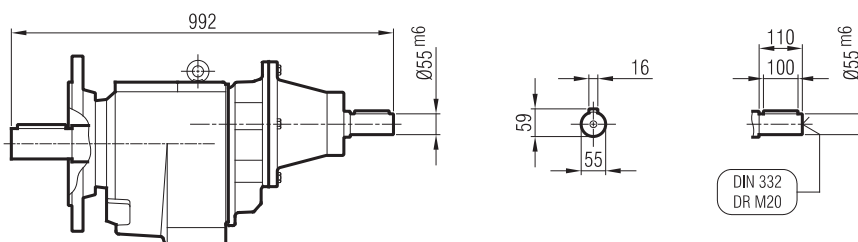
	132 S	132 M				
A	1110	1155				
A1	1214	1259				
H	193	193				
HD	325	325				
AC	262	262				

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

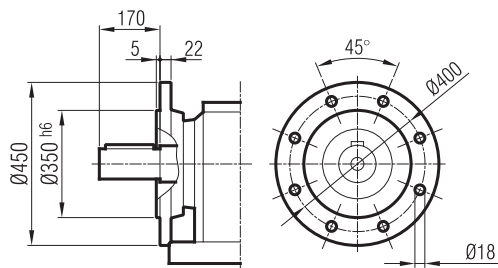
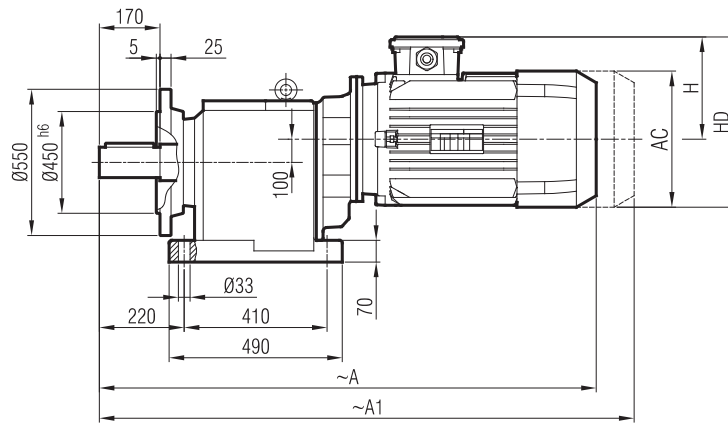
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 124

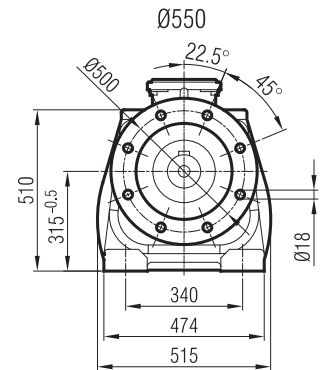
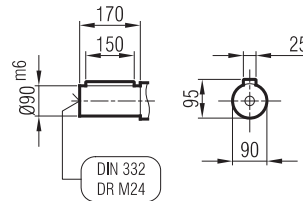




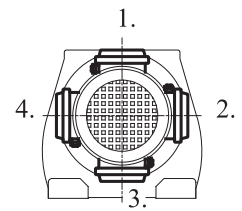
İRAFM 124



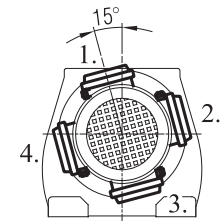
Ø450
Opsiyonel / Option



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225
Tip/Type/Type



160
Tip/Type/Type

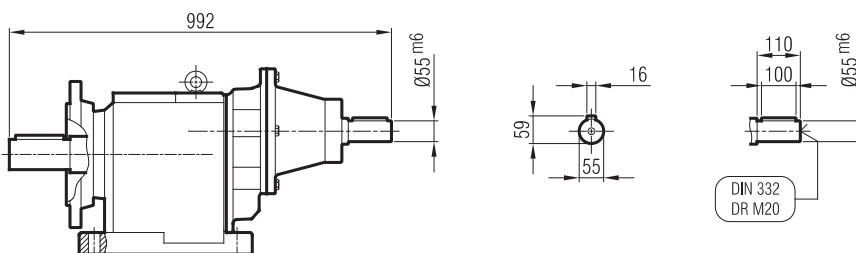
	132 S	132 M				
A	1110	1155				
A1	1214	1259				
H	193	193				
HD	325	325				
AC	262	262				

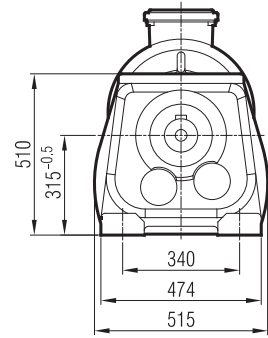
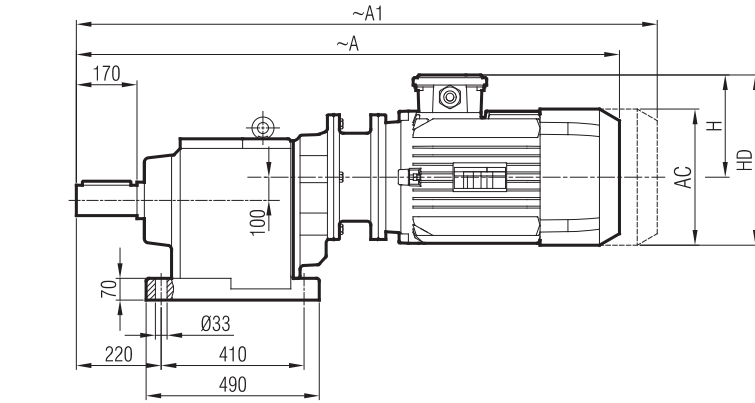
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

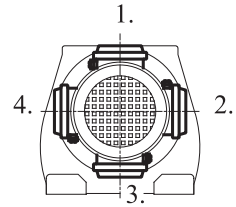
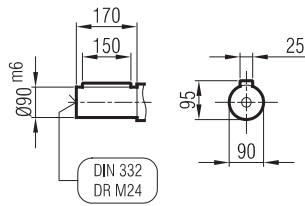
Le dimensions "A1" correspond aux moteurs équipés de freins.

IRAF 124



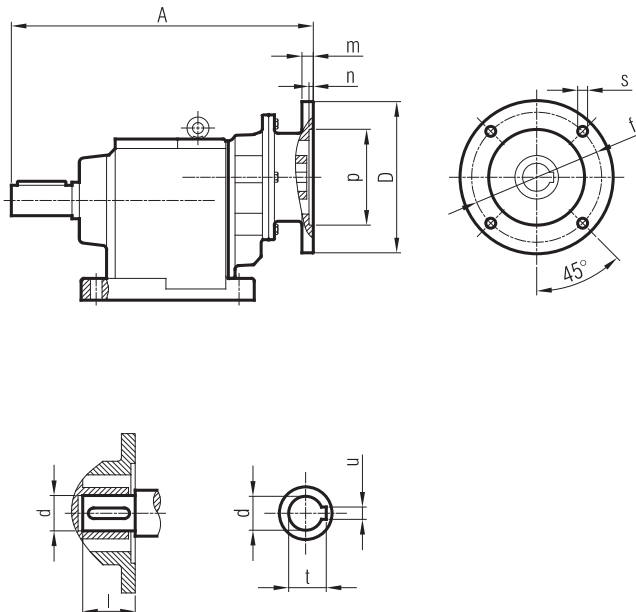

İRAPM 124


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

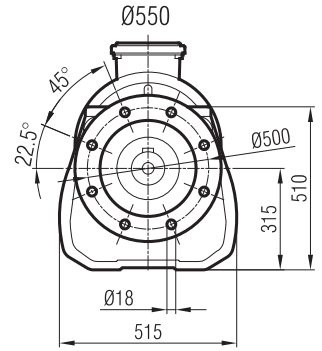
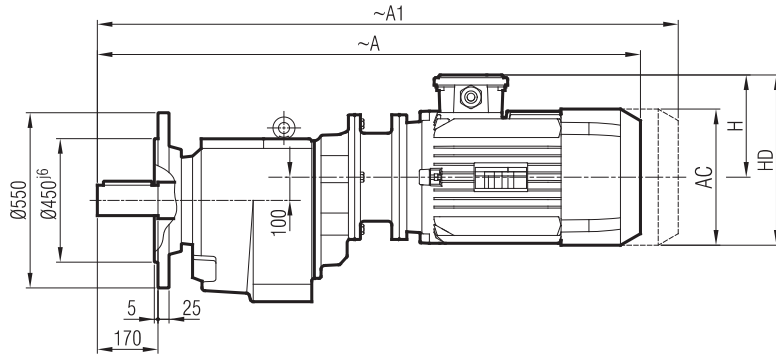


	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	
A	1076	1114	1151	1123	1207	1248	
A1	1143	1181	1228	1218	1311	1352	
H	141	141	161	170	193	193	
HD	231	231	261	282	325	325	
AC	176	176	195	220	262	262	

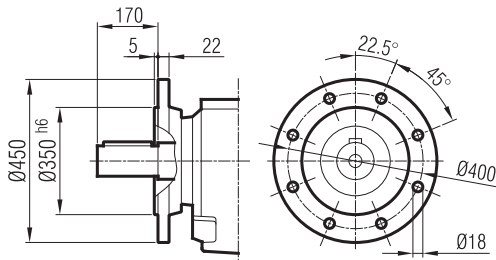
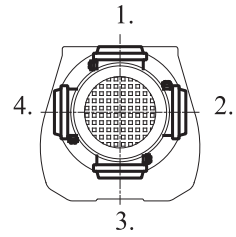
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAP 124


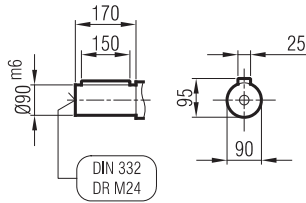
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
90	B5	774	130	165	200	M10	52	12	5	24	27.3	8
100		779	180	215	250	M12	57	14	5	28	31.3	8
112		779	180	215	250	M12	57	14	5	28	31.3	8
132		806	230	265	300	M12	84	17	6	38	41.3	10
90	B14	774	95	115	140	Ø9	52	12	5	24	27.3	8
100		779	110	130	160	Ø9	57	11	5	28	31.3	8
112		779	110	130	160	Ø9	57	11	5	28	31.3	8
132		806	130	165	200	Ø11	84	13	5	38	41.3	10


İRFPM 124


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

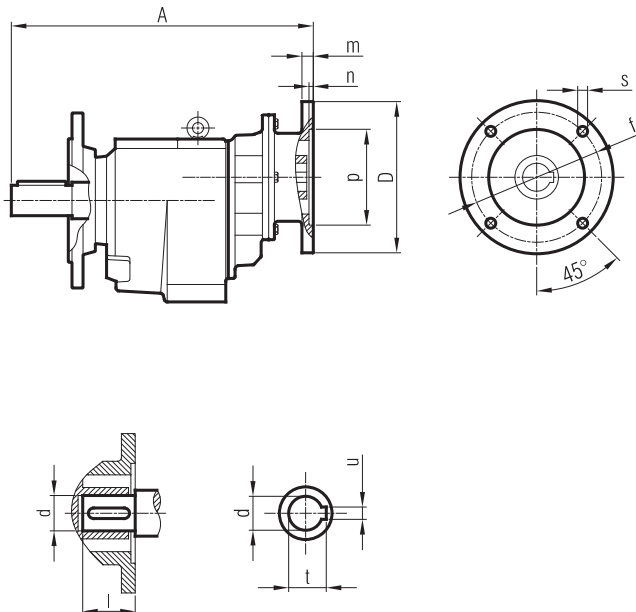


Ø450
Opsiyonel / Option



	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	
A	1076	1114	1151	1123	1207	1248	
A1	1143	1181	1228	1218	1311	1352	
H	141	141	161	170	193	193	
HD	231	231	261	282	325	325	
AC	176	176	195	220	262	262	

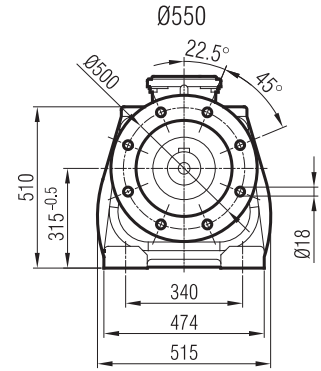
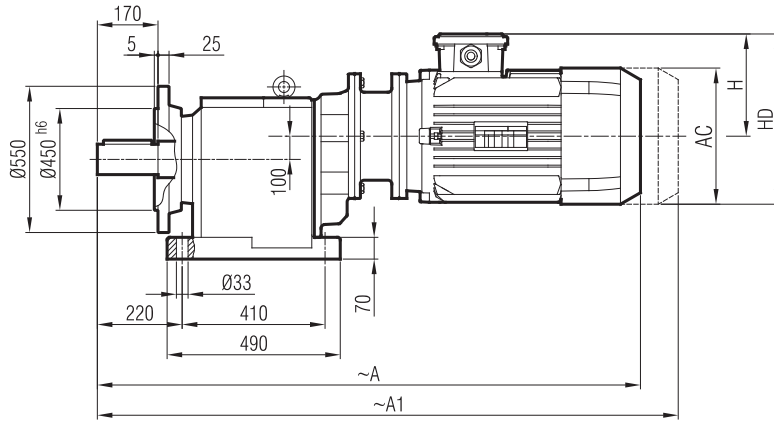
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 124


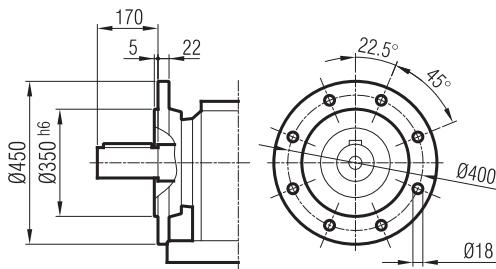
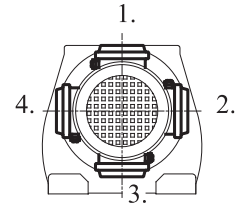
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
90	B5	774	130	165	200	M10	52	12	5	24	27.3	8
100		779	180	215	250	M12	57	14	5	28	31.3	8
112		779	180	215	250	M12	57	14	5	28	31.3	8
132		806	230	265	300	M12	84	17	6	38	41.3	10
90	B14	774	95	115	140	Ø9	52	12	5	24	27.3	8
100		779	110	130	160	Ø9	57	11	5	28	31.3	8
112		779	110	130	160	Ø9	57	11	5	28	31.3	8
132		806	130	165	200	Ø11	84	13	5	38	41.3	10



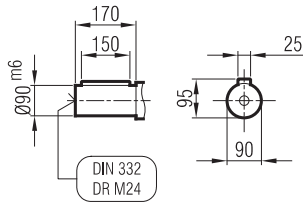
İRAFPM 124



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



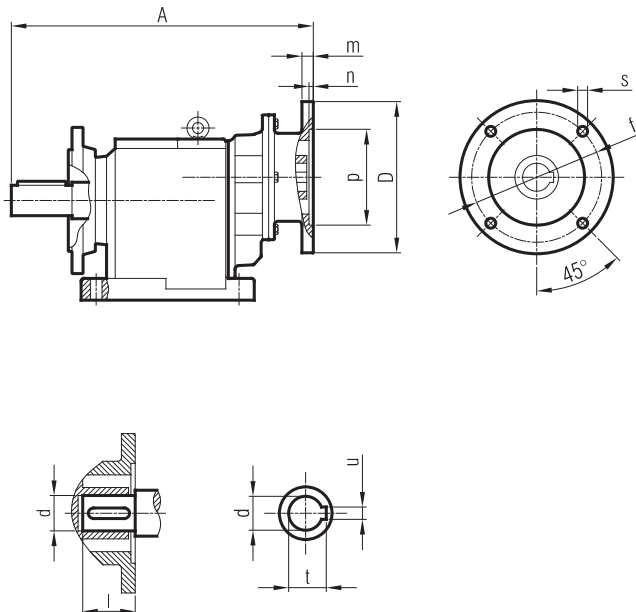
Ø450
Opsiyonel / Option



	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	
A	1076	1114	1151	1123	1207	1248	
A1	1143	1181	1228	1218	1311	1352	
H	141	141	161	170	193	193	
HD	231	231	261	282	325	325	
AC	176	176	195	220	262	262	

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

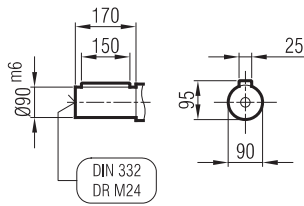
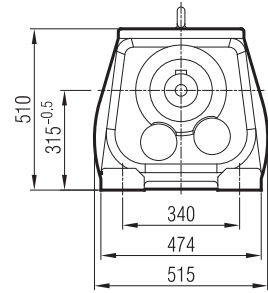
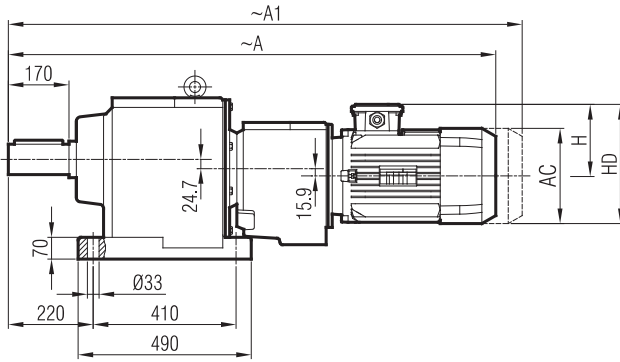
İRAFP 124



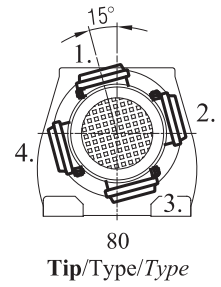
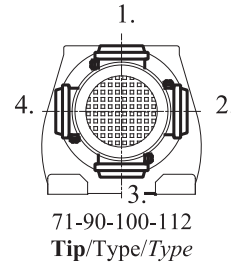
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
90	B5	774	130	165	200	M10	52	12	5	24	27.3	8
100		779	180	215	250	M12	57	14	5	28	31.3	8
112		779	180	215	250	M12	57	14	5	28	31.3	8
132		806	230	265	300	M12	84	17	6	38	41.3	10
90	B14	774	95	115	140	Ø9	52	12	5	24	27.3	8
100		779	110	130	160	Ø9	57	11	5	28	31.3	8
112		779	110	130	160	Ø9	57	11	5	28	31.3	8
132		806	130	165	200	Ø11	84	13	5	38	41.3	10



İRAM 122 İR 73
İRAM 123 İR 72 / İRAM 123 İR 73



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



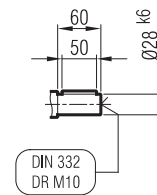
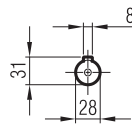
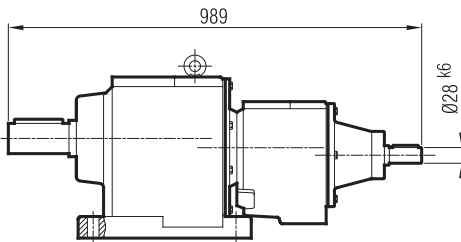
	71 M	80 M	90 S	90 L	100 L	112 M		
A	1038	1111	1104	1168	1209	1209		
A1	1092	1172	1171	1235	1286	1286		
H	123	136	141	141	161	170		
HD	194	216	231	231	261	282		
AC	138.5	158	176	176	195	220		

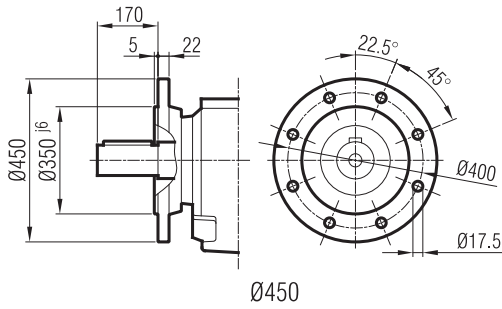
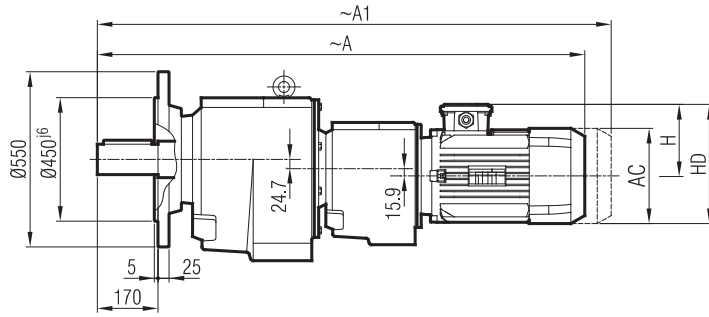
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

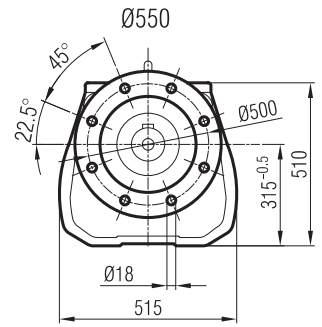
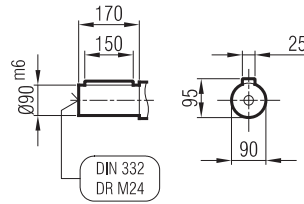
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 122 İR 72 / İRA 122 İR 73
İRA 123 İR 72 / İRA 123 İR 73

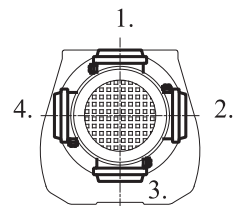



İRFM 122 İR 73
İRFM 123 İR 72 / İRFM 123 İR 73


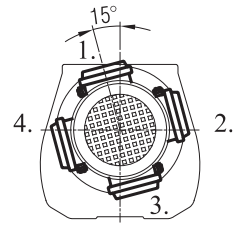
Ø450
Opsiyonel / Option



Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



71-90-100-112-132
Tip/Type/Type



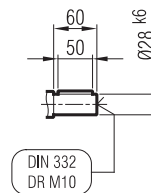
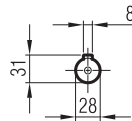
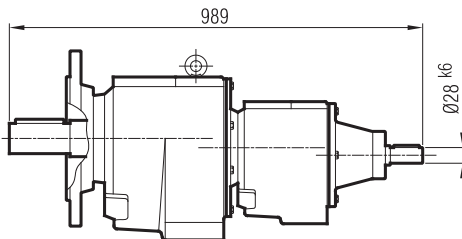
80
Tip/Type/Type

	71 M	80 M	90 S	90 L	100 L	112 M		
A	1038	1111	1104	1168	1209	1209		
A1	1092	1172	1171	1235	1286	1286		
H	123	136	141	141	161	170		
HD	194	216	231	231	261	282		
AC	138.5	158	176	176	195	220		

"A1" Ölçüsü Frenli Motorlar içindir.

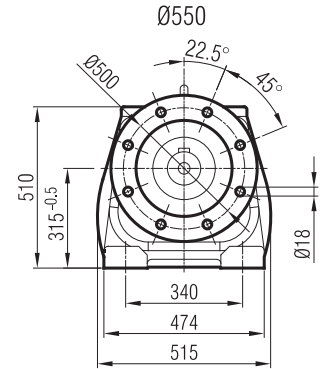
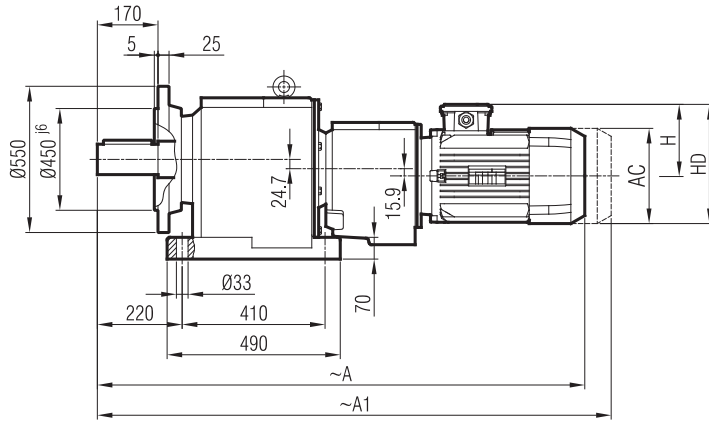
Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

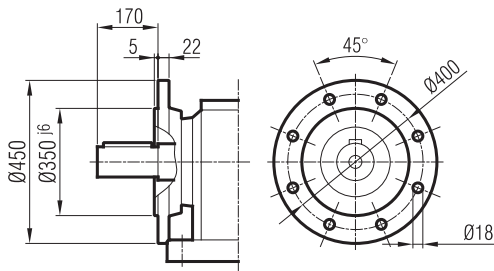
İRF 122 İR 72 / İRF 122 İR 73
İRF 123 İR 72 / İRF 123 İR 73




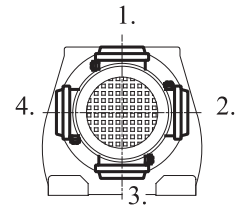
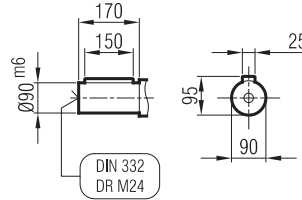
İRAFM 122 İR 73
İRAFM 123 İR 72 / İRAFM 123 İR 73



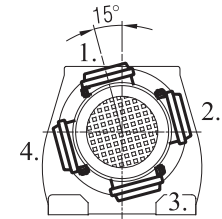
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Ø450
Opsiyonel / Option



71-90-100-112
Tip/Type/Type

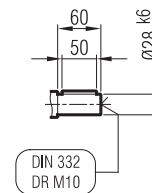
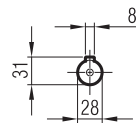
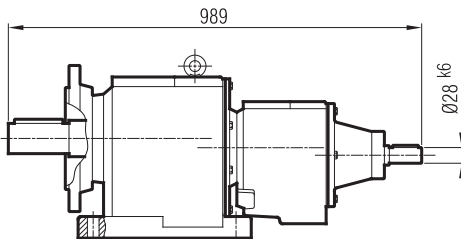


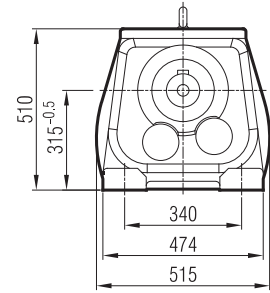
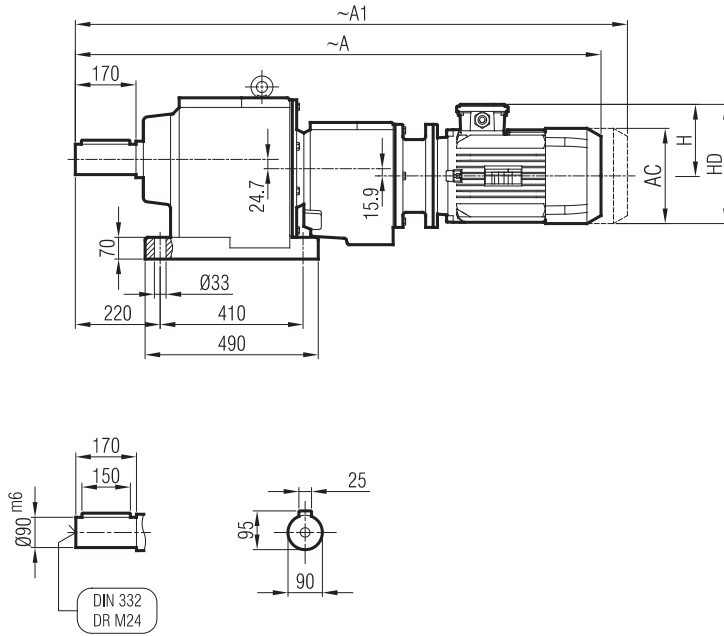
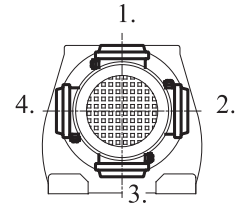
80
Tip/Type/Type

	71 M	80 M	90 S	90 L	100 L	112 M		
A	1038	1111	1104	1168	1209	1209		
A1	1092	1172	1171	1235	1286	1286		
H	123	136	141	141	161	170		
HD	194	216	231	231	261	282		
AC	138.5	158	176	176	195	220		

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

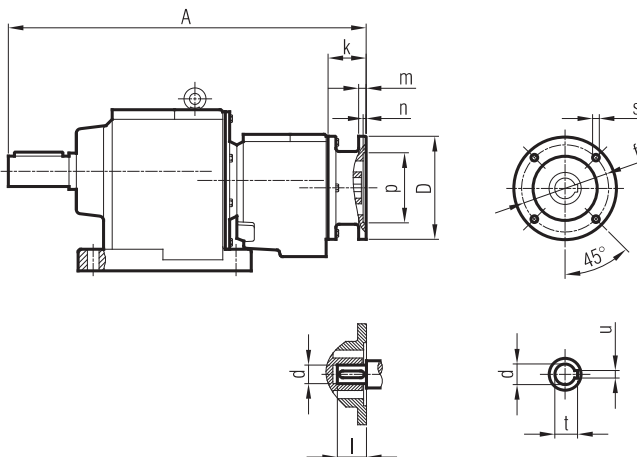
İRAF 122 İR 72 / İRAF 122 İR 73
İRAF 123 İR 72 / İRAF 123 İR 73



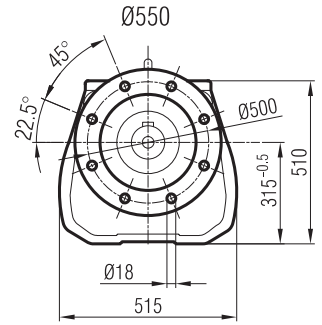
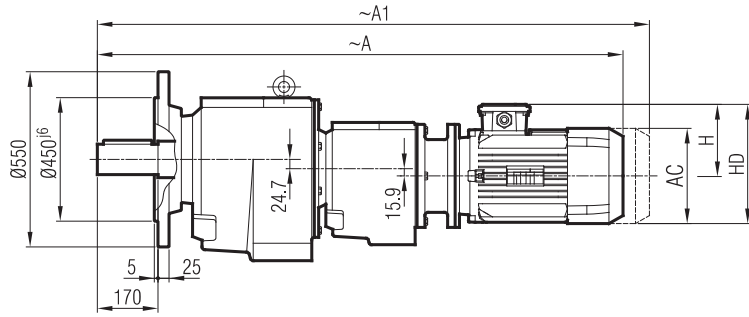
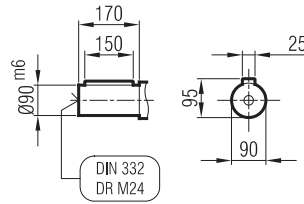
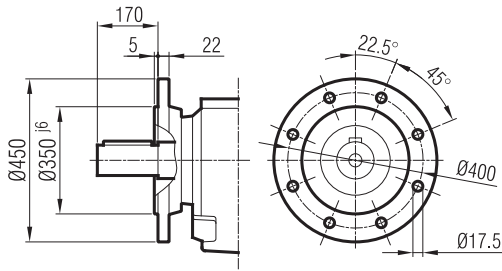
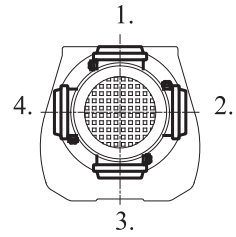

İRAPM 122 İR 73
İRAPM 123 İR 72 / İRAPM 123 İR 73

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	
A	1110	1185	1194	1232	1269	1240	
A1	1164	1246	1261	1299	1346	1335	
H	123	135	141	141	161	170	
HD	194	216	231	231	261	282	
AC	138.5	158	176	176	195	220	

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

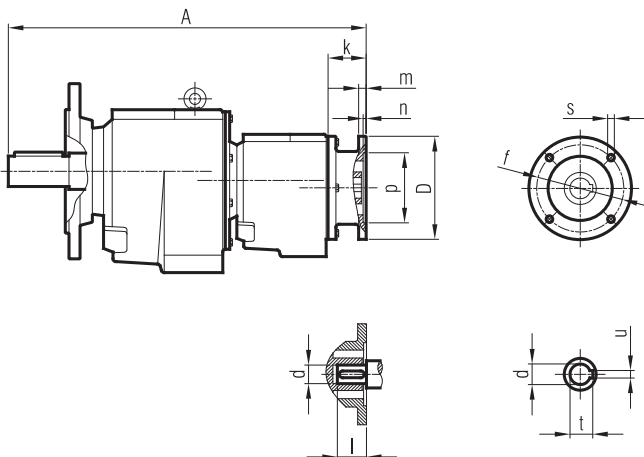
İRAP 122 İR 72 / İRAP 122 İR 73
İRAP 123 İR 72 / İRAP 123 İR 73


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	880	110	130	160	M8	55	10	4	14	16.3	5
80	892	130	165	200	M10	67	12	5	19	21.8	6
90	892	130	165	200	M10	67	12	5	24	27.3	8
100	897	180	215	250	M12	71.5	14	5	28	31.3	8
112	897	180	215	250	M12	71.5	14	5	28	31.3	8
71	880	70	85	105	Ø5.5	55	10	3	14	16.3	5
80	892	80	100	120	Ø7	67	12	4	19	21.8	6
90	82	95	115	140	Ø9	67	12	5	24	27.3	8
100	901	110	130	160	Ø9	76	12	5	28	31.3	8
112	901	110	130	160	Ø9	76	12	5	28	31.3	8


İRFP 122 İR 73
İRFP 123 İR 72 / İRFP 123 İR 73

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

 DIN 332
 DR M24

 Ø450
Opsiyonel / Option

	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	
A	1110	1185	1194	1232	1269	1240	
A1	1164	1246	1261	1299	1346	1335	
H	123	135	141	141	161	170	
HD	194	216	231	231	261	282	
AC	138.5	158	176	176	195	220	

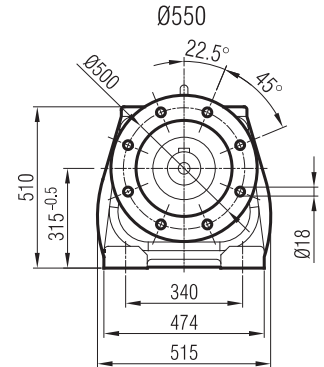
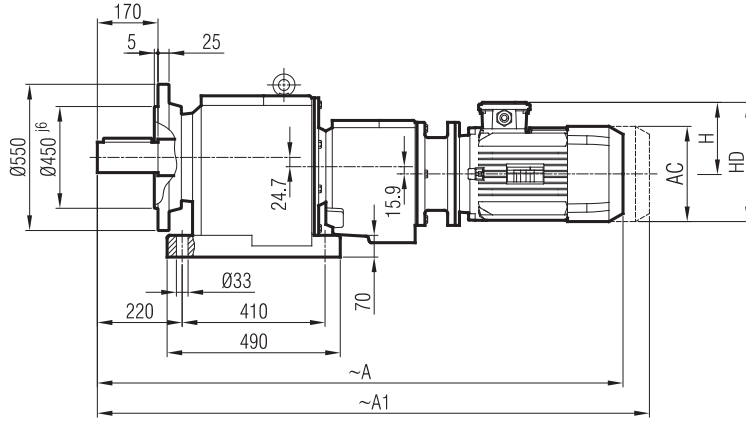
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 122 İR 72 / İRFP 122 İR 73
İRFP 123 İR 72 / İRFP 123 İR 73


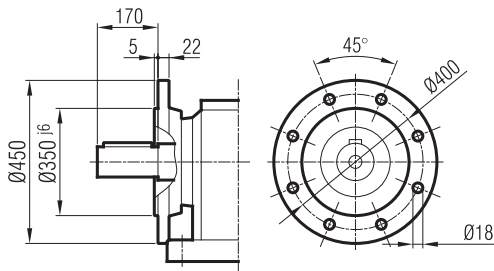
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	880	110	130	160	M8	55	10	4	14	16.3	5
80	892	130	165	200	M10	67	12	5	19	21.8	6
90	892	130	165	200	M10	67	12	5	24	27.3	8
100	897	180	215	250	M12	71.5	14	5	28	31.3	8
112	897	180	215	250	M12	71.5	14	5	28	31.3	8
71	880	70	85	105	Ø5.5	55	10	3	14	16.3	5
80	892	80	100	120	Ø7	67	12	4	19	21.8	6
90	82	95	115	140	Ø9	67	12	5	24	27.3	8
100	901	110	130	160	Ø9	76	12	5	28	31.3	8
112	901	110	130	160	Ø9	76	12	5	28	31.3	8



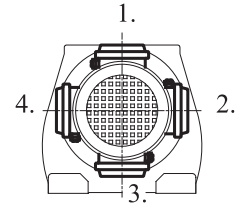
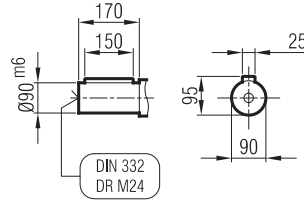
İRAFPM 122 İR 73
İRAFPM 123 İR 72 / İRAFPM 123 İR 73



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



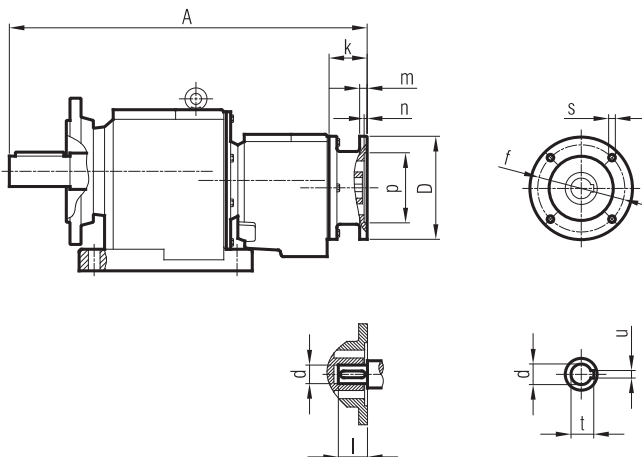
Ø450
Opsiyonel / Option



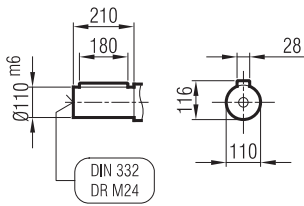
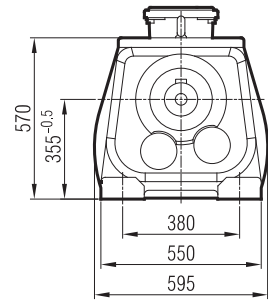
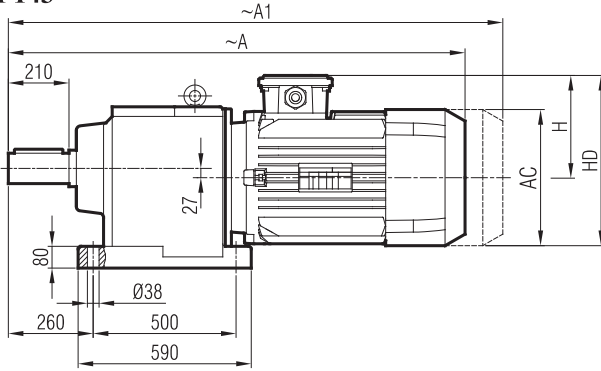
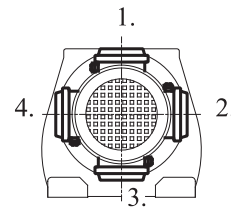
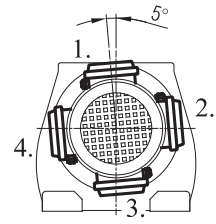
	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	
A	1110	1185	1194	1232	1269	1240	
A1	1164	1246	1261	1299	1346	1335	
H	123	135	141	141	161	170	
HD	194	216	231	231	261	282	
AC	138.5	158	176	176	195	220	

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 122 İR 72 / İRAFP 122 İR 73
İRAFP 123 İR 72 / İRAFP 123 İR 73



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	880	110	130	160	M8	55	10	4	14	16.3	5
80	892	130	165	200	M10	67	12	5	19	21.8	6
90	892	130	165	200	M10	67	12	5	24	27.3	8
100	897	180	215	250	M12	71.5	14	5	28	31.3	8
112	897	180	215	250	M12	71.5	14	5	28	31.3	8
71	880	70	85	105	Ø5.5	55	10	3	14	16.3	5
80	892	80	100	120	Ø7	67	12	4	19	21.8	6
90	82	95	115	140	Ø9	67	12	5	24	27.3	8
100	901	110	130	160	Ø9	76	12	5	28	31.3	8
112	901	110	130	160	Ø9	76	12	5	28	31.3	8

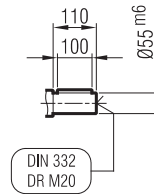
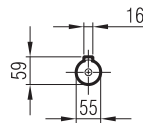
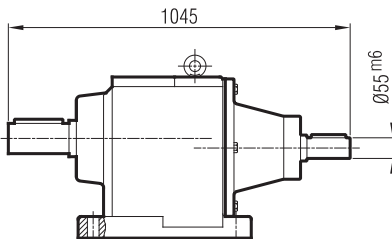

İRAM 142
İRAM 143

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

 160-180-225-250-280
Tip/Type/Type

 200
Tip/Type/Type

	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M	280 S	280 M
A	1235	1280	1295	1332	1427	1385	1478	1491	1552	1552
A1	1352	1397	1431	1468	1574	1532	1625	1638	1800	1800
H	240	240	260	260	300	313	313	366	398	398
HD	400	400	440	440	500	538	538	616	678	678
AC	315	315	357	357	394	456	456	489	547.5	547.5

"A1" Ölçüsü Frenli Motorlar içindir.

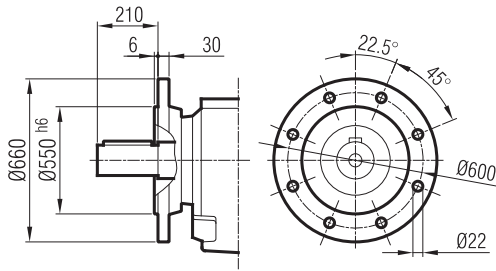
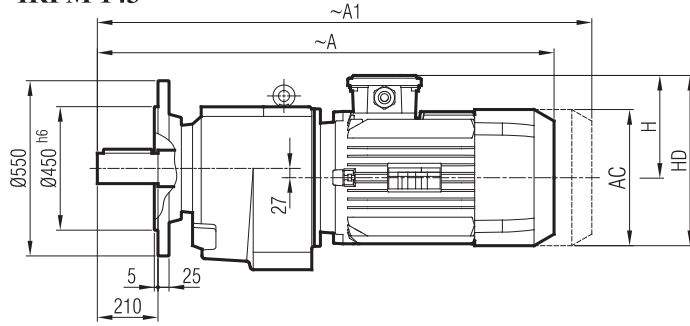
Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 142
İRA 143


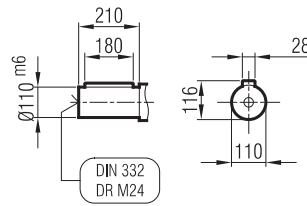


İRFM 142
İRFM 143

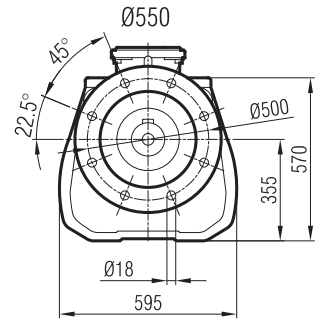


Ø660

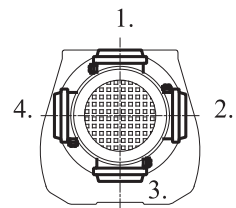
Opsiyonel / Option



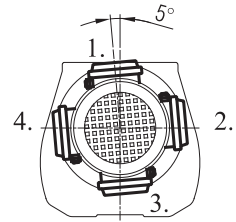
DIN 332
DR M24



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



160-180-225-250-280
Tip/Type/Type



200
Tip/Type/Type

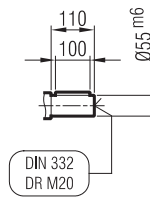
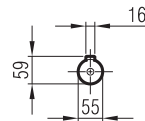
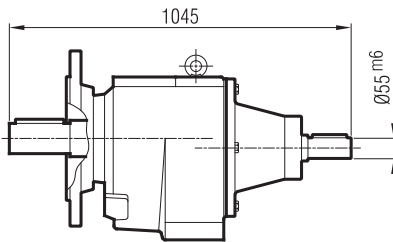
	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M	280 S	280 M
A	1235	1280	1295	1332	1427	1385	1478	1491	1552	1552
A1	1352	1397	1431	1468	1574	1532	1625	1638	1800	1800
H	240	240	260	260	300	313	313	366	398	398
HD	400	400	440	440	500	538	538	616	678	678
AC	315	315	357	357	394	456	456	489	547.5	547.5

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

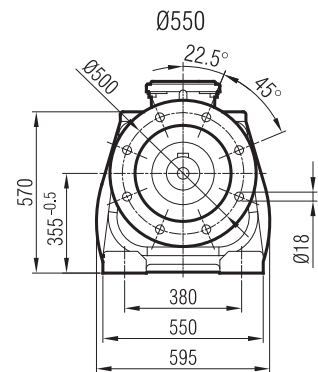
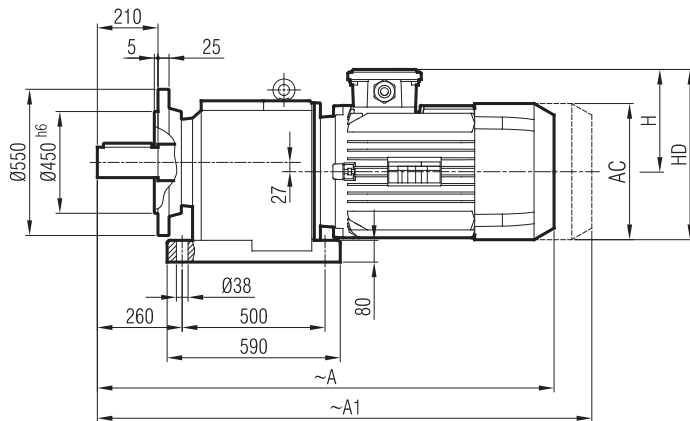
İRF 142
İRF 143



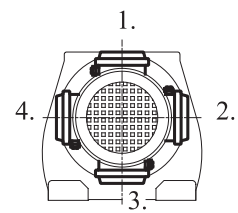
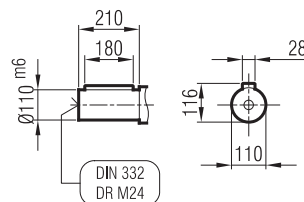
DIN 332
DR M20



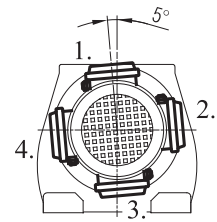
İRAFM 142
İRAFM 143



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



160-180-225-250-280
Tip/Type/*Type*



200
Tip/Type/*Type*

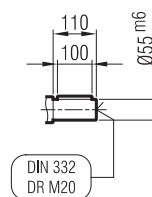
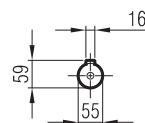
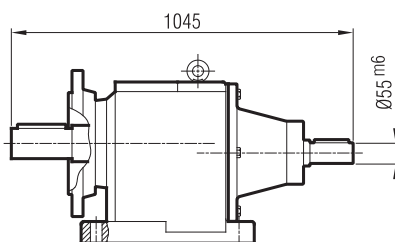
	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M	280 S	280 M
A	1235	1280	1295	1332	1427	1385	1478	1491	1552	1552
A1	1352	1397	1431	1468	1574	1532	1625	1638	1800	1800
H	240	240	260	260	300	313	313	366	398	398
HD	400	400	440	440	500	538	538	616	678	678
AC	315	315	357	357	394	456	456	489	547.5	547.5

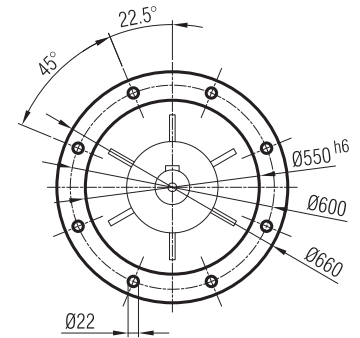
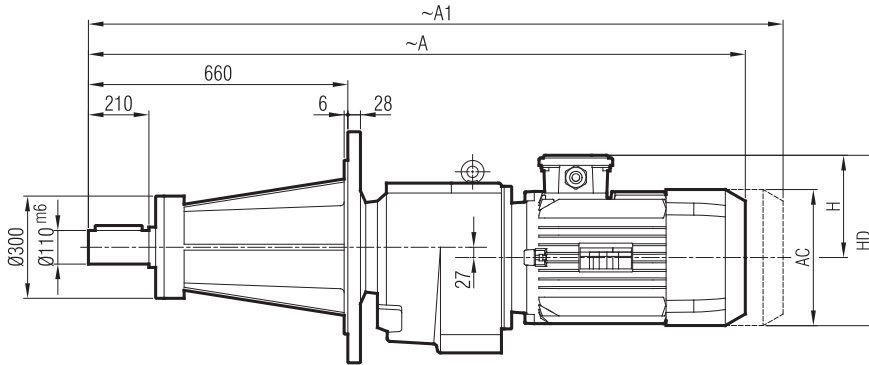
"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

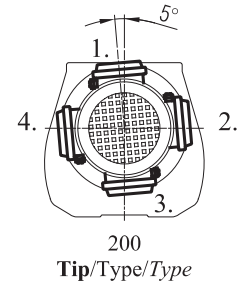
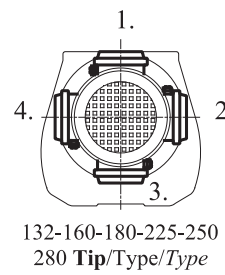
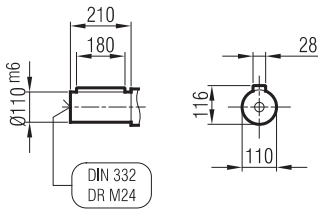
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 142
İRAF 143



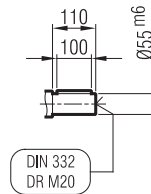
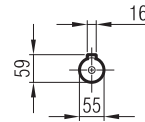
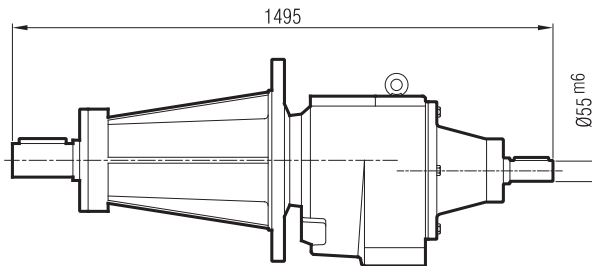

İRBM 142
İRBM 143


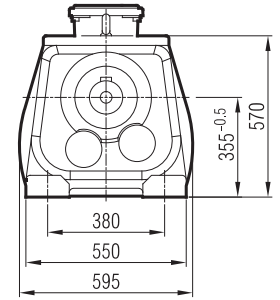
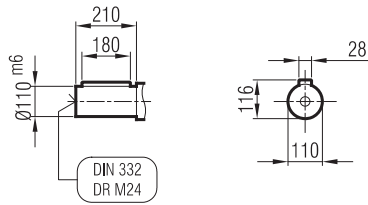
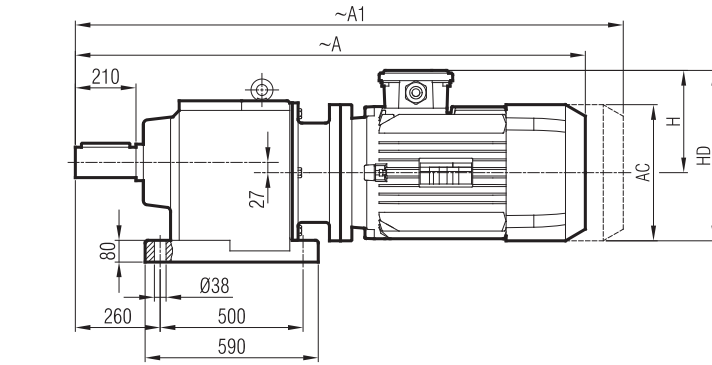
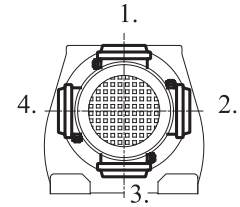
Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M	280 S	280 M
A	1685	1730	1745	1782	1877	1835	1928	1941	2002	2002
A1	1802	1847	1881	1918	2024	1982	2075	2088	2250	2250
H	240	240	260	260	300	313	313	366	398	398
HD	400	400	440	440	500	538	538	616	678	678
AC	315	315	357	357	394	456	456	489	547.5	547.5

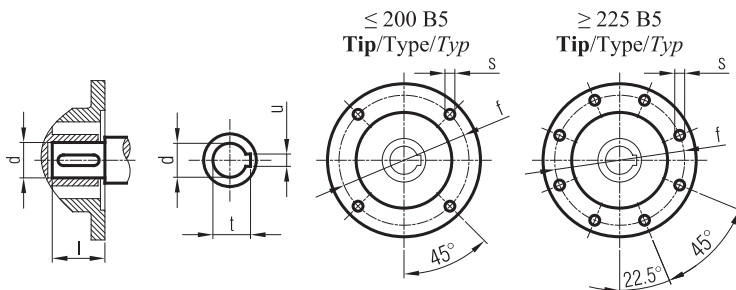
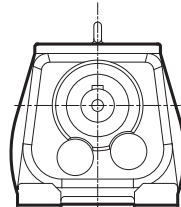
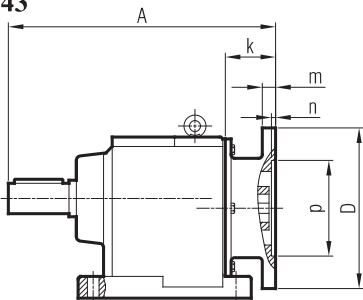
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRB 142
İRB 143


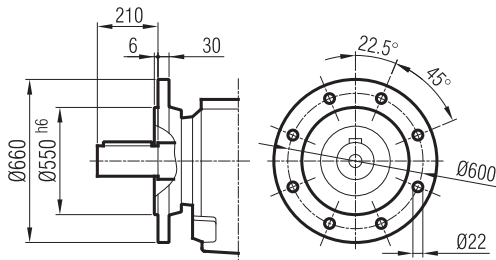
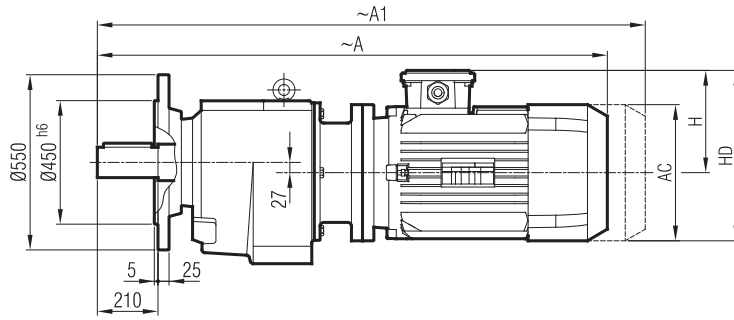

İRAPM 142
İRAPM 143

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5
A	1237	1340	1385	1461	1461	1597	1582	1642	1692	1782	1782
A1	1341	1457	1502	1597	1597	1744	1729	1789	1839	2030	2030
H	193	240	240	260	260	300	313	313	366	398	398
HD	325	400	400	440	440	500	538	538	616	678	678
AC	262	315	315	357	357	394	456	456	489	547.5	547.5

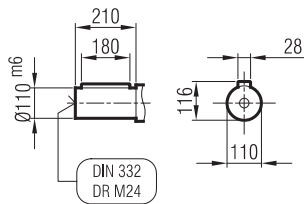
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAP 142
İRAP 143


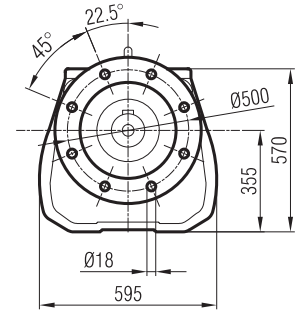
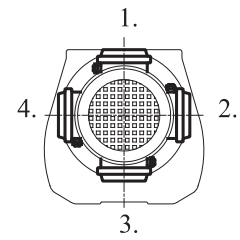
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
132	795	230	265	300	M12	66	17	6	38	41.3	10
160	820	250	300	350	M16	91	18	6.5	42	45.3	12
180	820	250	300	350	M16	91	18	6.5	48	51.8	14
200	888	300	350	400	M16	159	20	6.5	55	59.3	16
225	897	350	400	450	M16	166	22	6.5	60	64.4	18
250	897	450	500	550	M16	168	22	6.5	65	69.4	18
280	897	450	500	550	M16	168	22	6.5	75	79.9	20


İRFPM 142
İRFPM 143


Ø660

Opsiyonel / Option


Ø550

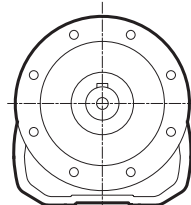
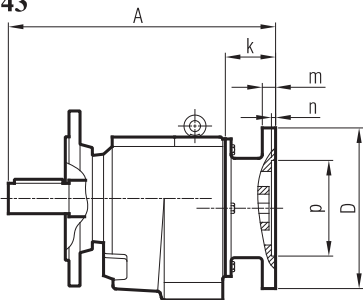

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


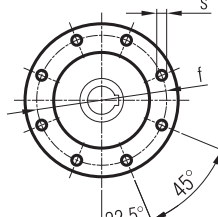
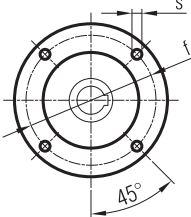
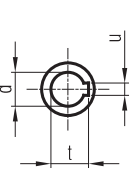
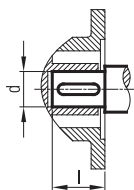
IEC	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5
A	1237	1340	1385	1461	1461	1597	1582	1642	1692	1782	1782
A1	1341	1457	1502	1597	1597	1744	1729	1789	1839	2030	2030
H	193	240	240	260	260	300	313	313	366	398	398
HD	325	400	400	440	440	500	538	538	616	678	678
AC	262	315	315	357	357	394	456	456	489	547.5	547.5

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

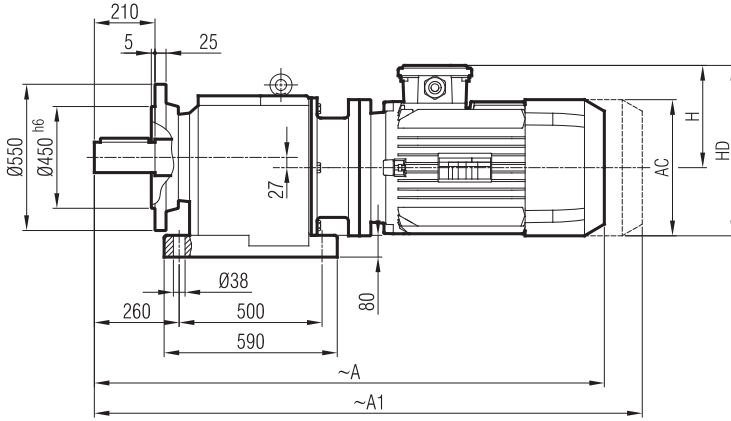
İRFP 142
İRFP 143

 ≤ 200 B5
 Tip/Type/Typ

 ≥ 225 B5
 Tip/Type/Typ


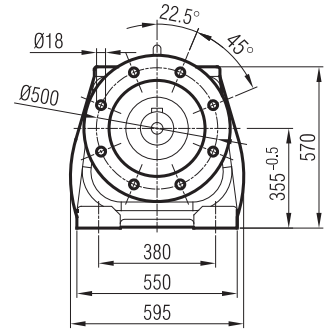
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
132	795	230	265	300	M12	66	17	6	38	41.3	10
160	820	250	300	350	M16	91	18	6.5	42	45.3	12
180	820	250	300	350	M16	91	18	6.5	48	51.8	14
200	888	300	350	400	M16	159	20	6.5	55	59.3	16
225	897	350	400	450	M16	166	22	6.5	60	64.4	18
250	897	450	500	550	M16	168	22	6.5	65	69.4	18
280	897	450	500	550	M16	168	22	6.5	75	79.9	20



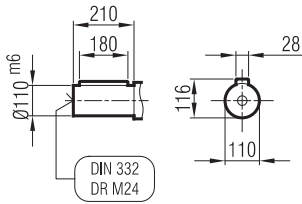
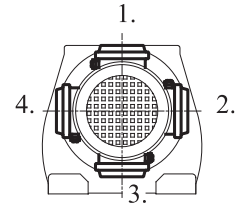
İRAFPM 142
İRAFPM 143



Ø550



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



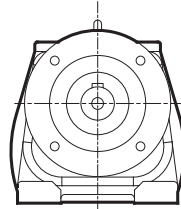
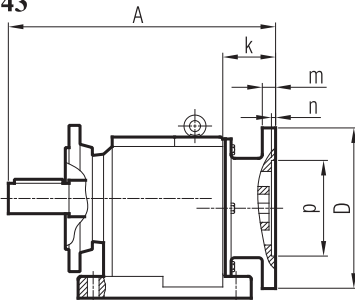
IEC	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5
A	1237	1340	1385	1461	1461	1597	1582	1642	1692	1782	1782
A1	1341	1457	1502	1597	1597	1744	1729	1789	1839	2030	2030
H	193	240	240	260	260	300	313	313	366	398	398
HD	325	400	400	440	440	500	538	538	616	678	678
AC	262	315	315	357	357	394	456	456	489	547.5	547.5

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

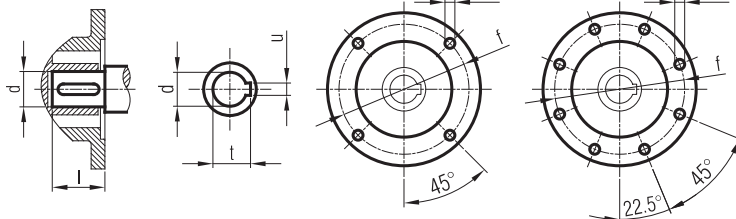
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 142
İRAFP 143



≤ 200 B5
Tip/Type/Typ

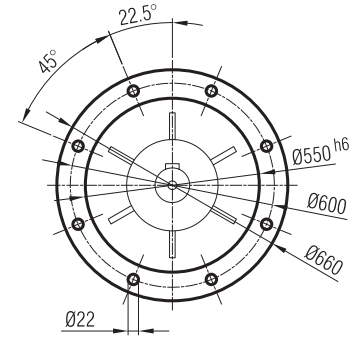
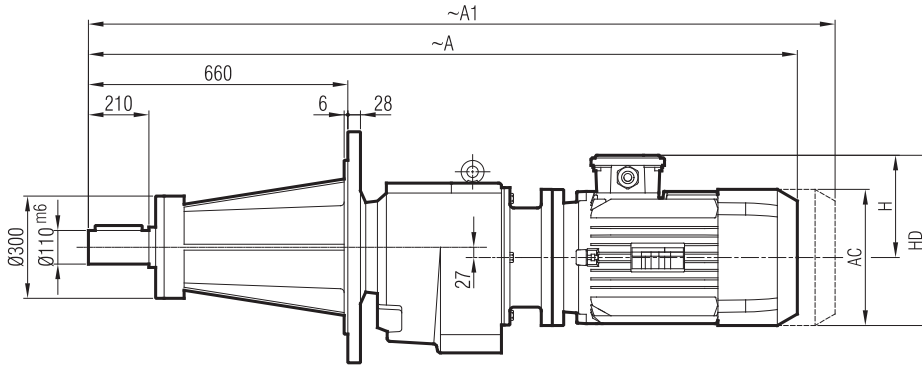
≥ 225 B5
Tip/Type/Typ



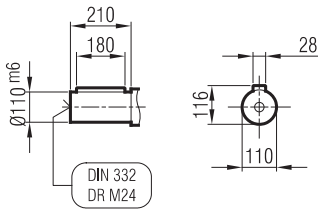
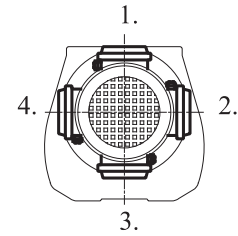
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
132	795	230	265	300	M12	66	17	6	38	41.3	10
160	820	250	300	350	M16	91	18	6.5	42	45.3	12
180	820	250	300	350	M16	91	18	6.5	48	51.8	14
200	888	300	350	400	M16	159	20	6.5	55	59.3	16
225	897	350	400	450	M16	166	22	6.5	60	64.4	18
250	897	450	500	550	M16	168	22	6.5	65	69.4	18
280	897	450	500	550	M16	168	22	6.5	75	79.9	20



İRBPM 142
İRBPM 143



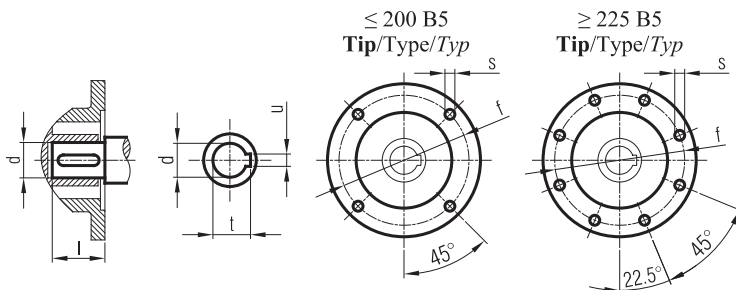
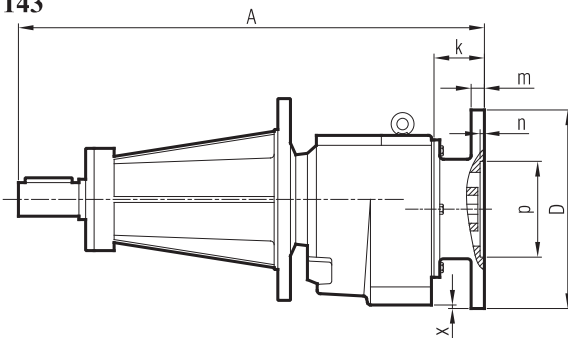
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



IEC	132 M/B5	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5
A	1687	1790	1835	1911	1911	2047	2032	2092	2142	2232	2232
A1	1791	1907	1952	2047	2047	2194	2179	2239	2289	2480	2480
H	193	240	240	260	260	300	313	313	366	398	398
HD	325	400	400	440	440	500	538	538	616	678	678
AC	262	315	315	357	357	394	456	456	489	547.5	547.5

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

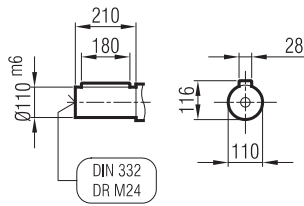
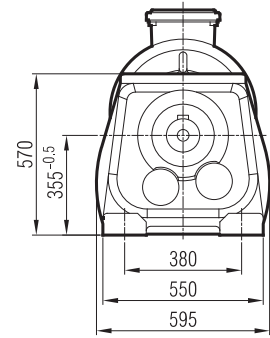
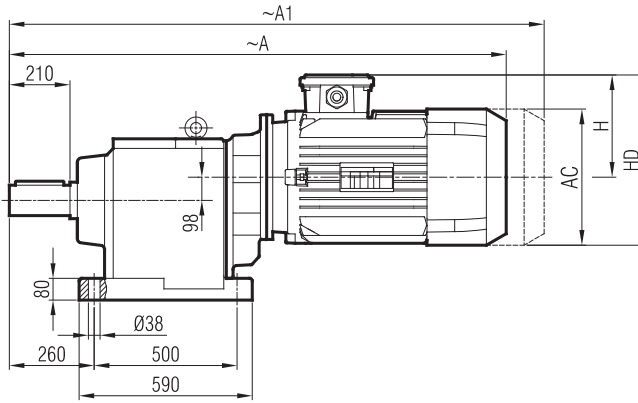
İRBP 142
İRBP 143



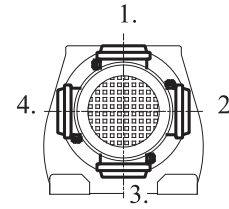
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
132	1245	230	265	300	M12	66	17	6	38	41.3	10
160	1270	250	300	350	M14	91	18	6.5	42	45.3	12
180	1270	250	300	350	M14	91	18	6.5	48	51.8	14
200	1338	300	350	400	M16	159	20	6.5	55	59.3	16
225	1347	350	400	450	M16	166	22	6.5	60	64.4	18
250	1347	450	500	550	M16	168	22	6.5	65	69.4	18
280	1347	450	500	550	M16	168	22	6.5	75	79.9	20



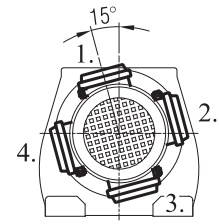
İRAM 144



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225
Tip/Type/Type

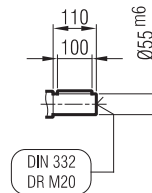
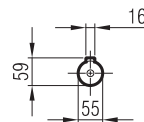
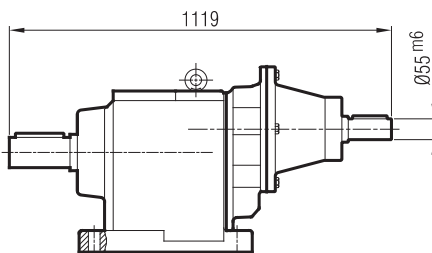


160
Tip/Type/Type

	132 S	132 M	160 M			
A	1237	1282	1360			
A1	1341	1386	1477			
H	193	193	240			
HD	325	325	400			
AC	262	262	315			

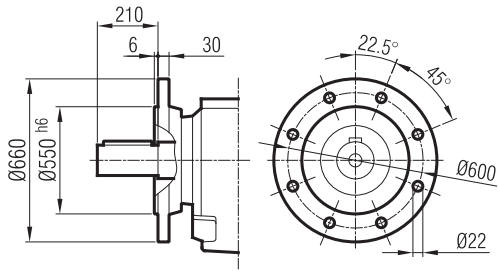
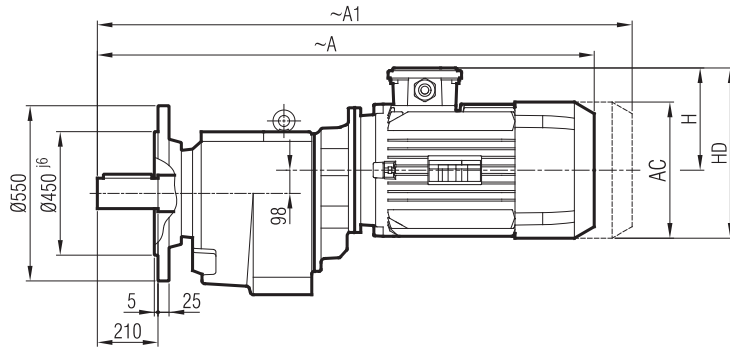
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 144



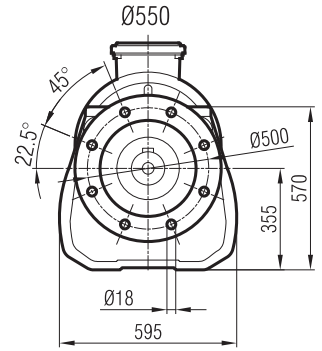
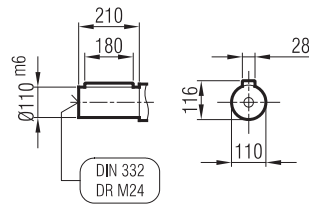


İRFM 144

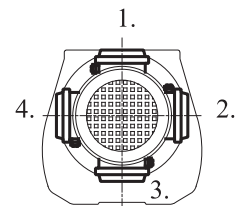


Ø660

Opsiyonel / Option

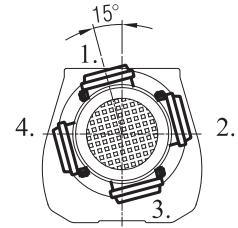


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225

Tip/Type/Type



160

Tip/Type/Type

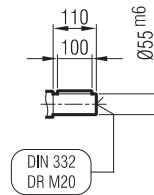
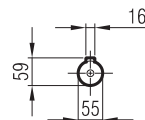
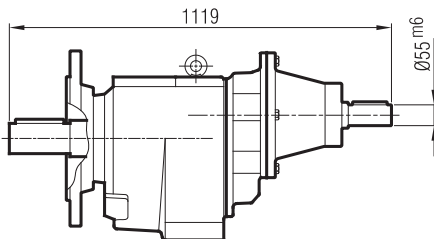
	132 S	132 M	160 M			
A	1237	1282	1360			
A1	1341	1386	1477			
H	193	193	240			
HD	325	325	400			
AC	262	262	315			

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

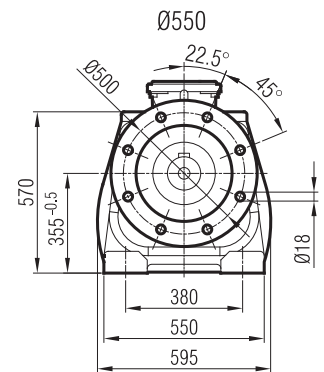
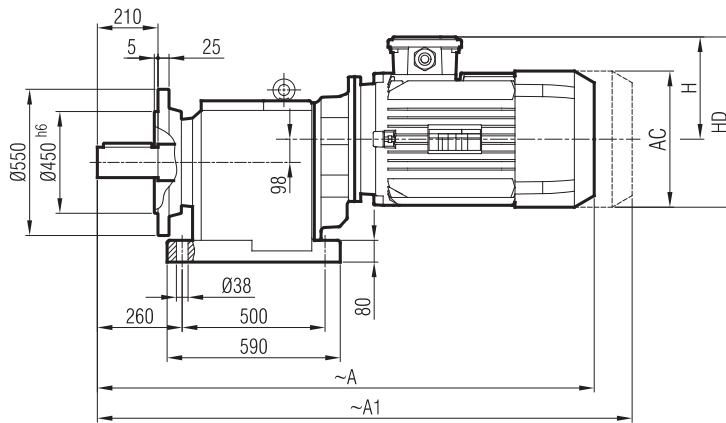
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 144

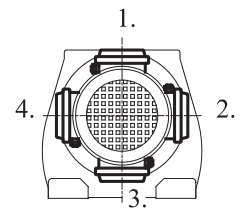
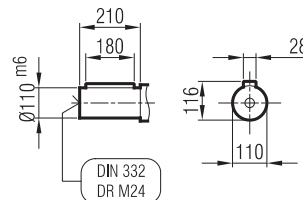




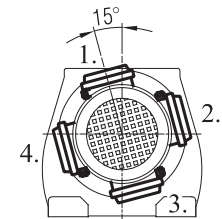
İRAFM 144



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225
Tip/Type/Type



160
Tip/Type/Type

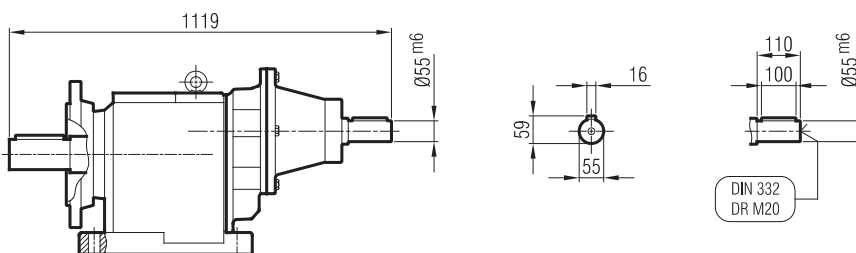
	132 S	132 M	160 M			
A	1237	1282	1360			
A1	1341	1386	1477			
H	193	193	240			
HD	325	325	400			
AC	262	262	315			

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

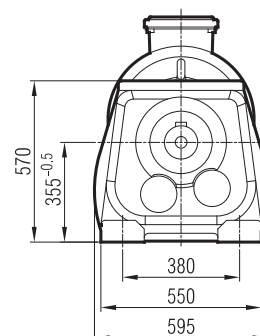
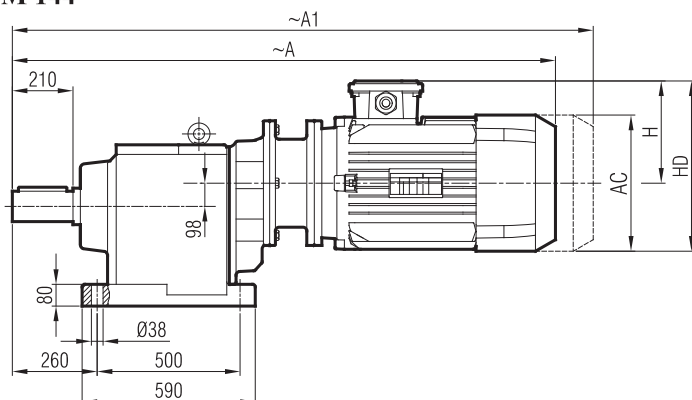
Le dimensions "A1" correspond aux moteurs équipés de freins.

IRAF 144





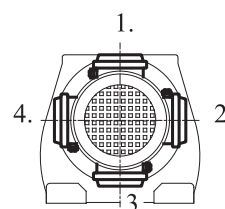
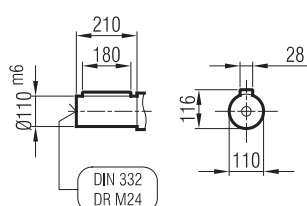
İRAPM 144



Klemens Pozisyonları

Positions of Terminal Box

Position de la boîte à bornes



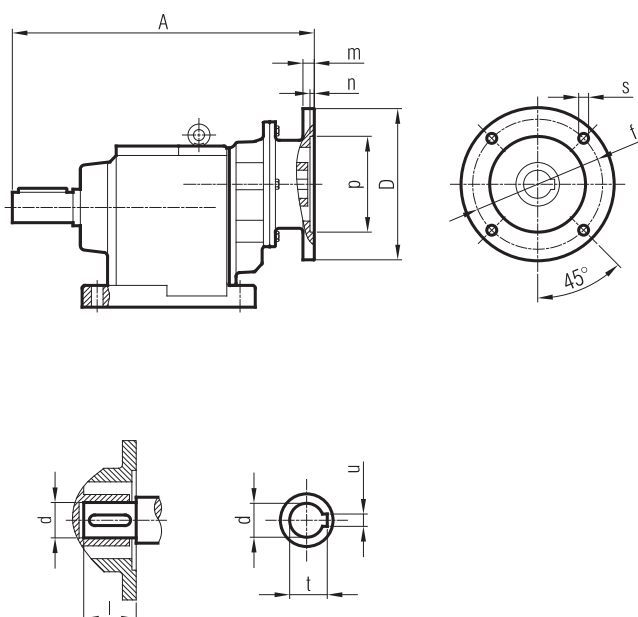
	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	
A	1241	1278	1250	1334	1375	1460	
A1	1308	1355	1345	1438	1479	1577	
H	141	161	170	193	193	240	
HD	231	261	282	325	325	400	
AC	176	195	220	262	262	315	

"A₁" Ölçüsü Frenli Motorlar içindir.

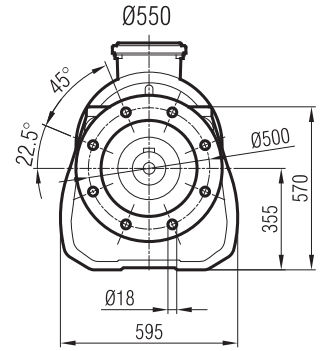
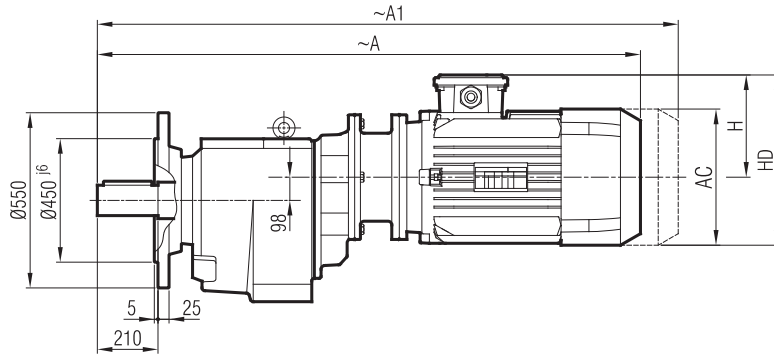
Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

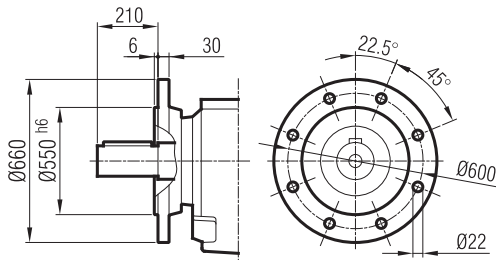
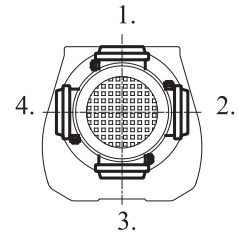
İRAP 144



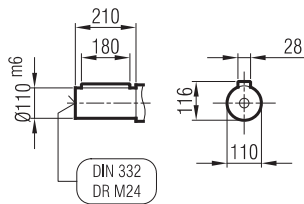
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
90	B5	901	130	165	200	M10	49	12	5	24	27.3	8
100		906	180	215	250	M12	57	14	5	28	31.3	8
112		906	180	215	250	M12	57	14	5	28	31.3	8
132		933	230	265	300	M12	84	17	6	38	41.3	10
160		940	250	300	350	M16	91	18	6.5	42	45.3	12
90	B14	901	95	115	140	Ø9	52	12	5	24	27.3	8
100		906	110	130	160	Ø9	57	11	5	28	31.3	8
112		906	110	130	160	Ø9	57	11	5	28	31.3	8
132		933	130	165	200	Ø11	84	13	5	38	41.3	10
160		944	180	215	250	Ø14	95	16	6	42	45.3	12


İRFPM 144


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

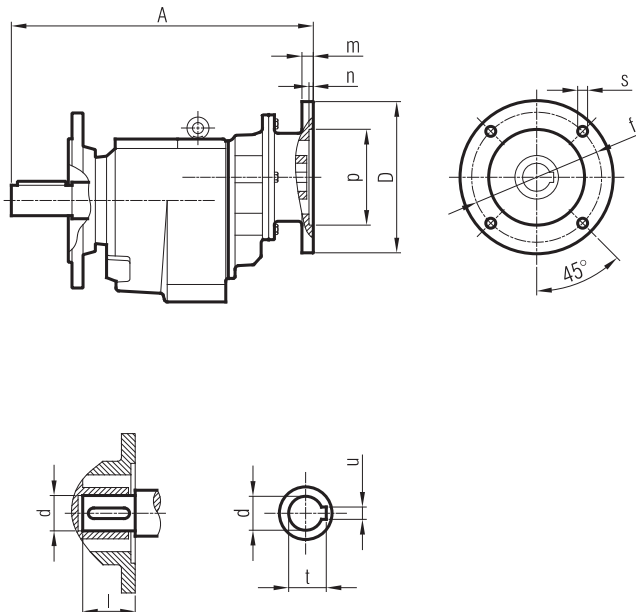


Ø660
Opsiyonel / Option



	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	
A	1241	1278	1250	1334	1375	1460	
A1	1308	1355	1345	1438	1479	1577	
H	141	161	170	193	193	240	
HD	231	261	282	325	325	400	
AC	176	195	220	262	262	315	

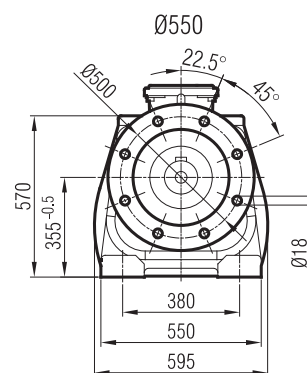
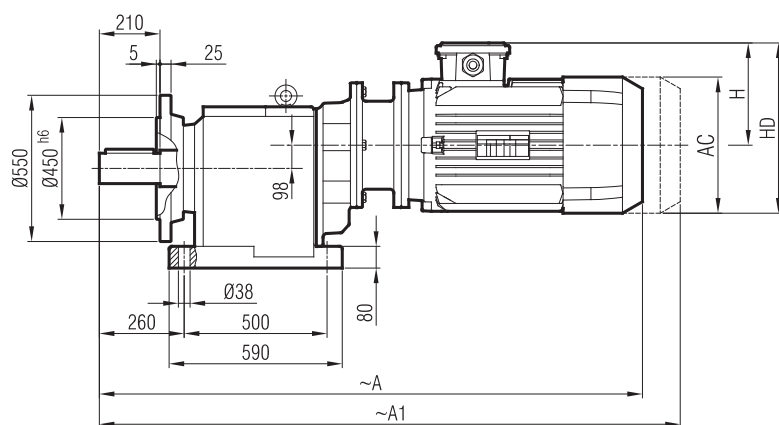
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 144


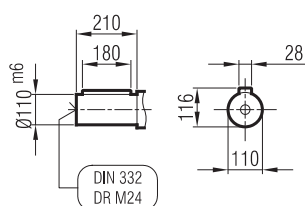
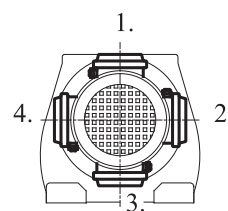
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
90	901	130	165	200	M10	49	12	5	24	27.3	8
100	906	180	215	250	M12	57	14	5	28	31.3	8
112	906	180	215	250	M12	57	14	5	28	31.3	8
132	933	230	265	300	M12	84	17	6	38	41.3	10
160	940	250	300	350	M16	91	18	6.5	42	45.3	12
90	901	95	115	140	Ø9	52	12	5	24	27.3	8
100	906	110	130	160	Ø9	57	11	5	28	31.3	8
112	906	110	130	160	Ø9	57	11	5	28	31.3	8
132	933	130	165	200	Ø11	84	13	5	38	41.3	10
160	944	180	215	250	Ø14	95	16	6	42	45.3	12



İRAFPM 144



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



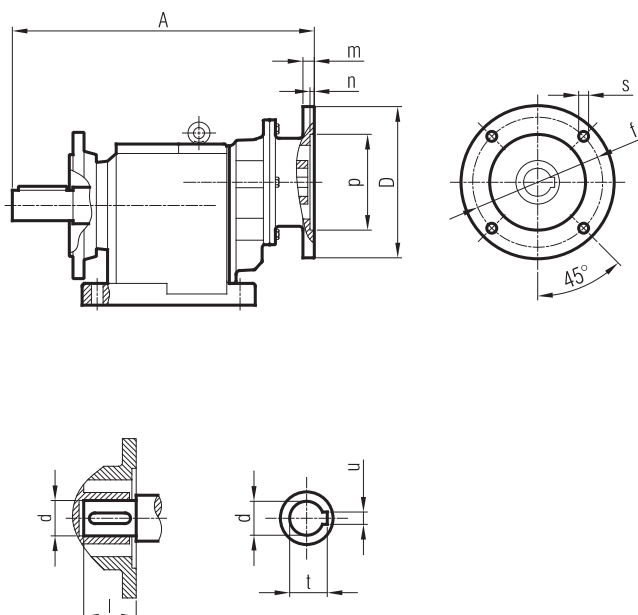
	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	
A	1241	1278	1250	1334	1375	1460	
A1	1308	1355	1345	1438	1479	1577	
H	141	161	170	193	193	240	
HD	231	261	282	325	325	400	
AC	176	195	220	262	262	315	

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

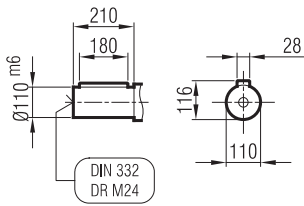
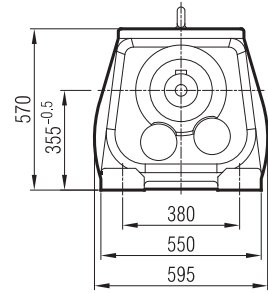
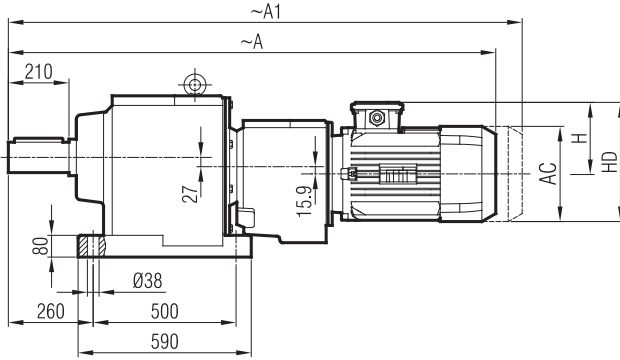
İRAFP 144



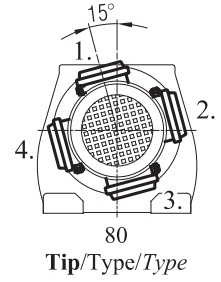
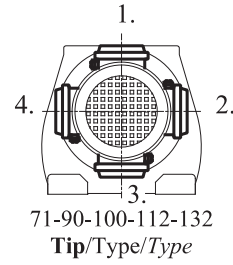
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
90	B5	901	130	165	200	M10	49	12	5	24	27.3	8
100		906	180	215	250	M12	57	14	5	28	31.3	8
112		906	180	215	250	M12	57	14	5	28	31.3	8
132		933	230	265	300	M12	84	17	6	38	41.3	10
160		940	250	300	350	M16	91	18	6.5	42	45.3	12
90	B14	901	95	115	140	Ø9	52	12	5	24	27.3	8
100		906	110	130	160	Ø9	57	11	5	28	31.3	8
112		906	110	130	160	Ø9	57	11	5	28	31.3	8
132		933	130	165	200	Ø11	84	13	5	38	41.3	10
160		944	180	215	250	Ø14	95	16	6	42	45.3	12



İRAM 143 İR 72
İRAM 143 İR 73



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



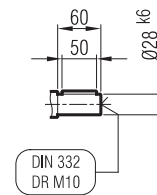
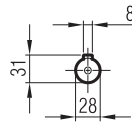
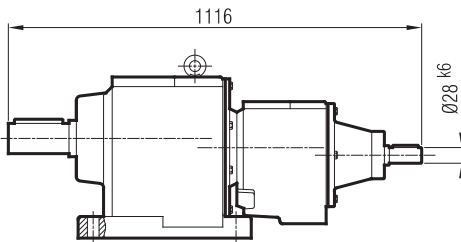
	71 M	80 M	90 S	90 L	100 L	112 M	132 S	
A	1165	1238	1231	1295	1336	1311	1382	
A1	1219	1299	1298	1362	1413	1406	1486	
H	123	136	141	141	161	170	193	
HD	194	216	231	231	261	282	325	
AC	138.5	158	176	176	195	220	262	

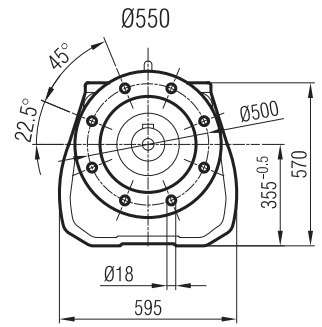
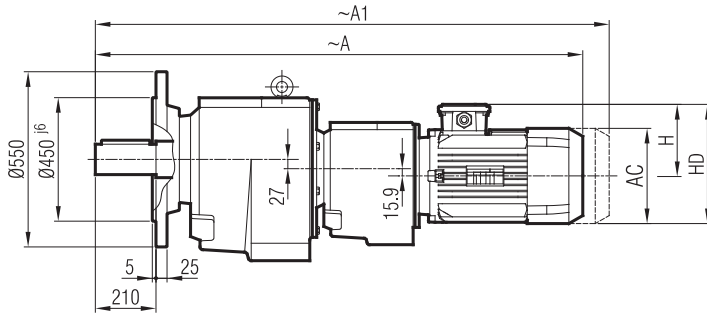
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

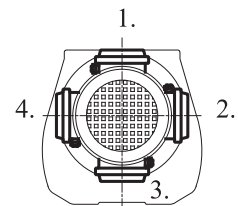
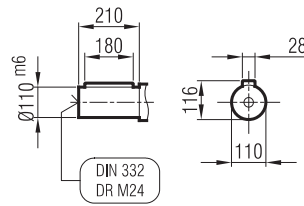
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 142 İR 72 / İRA 142 İR 73
İRA 143 İR 72 / İRA 143 İR 73

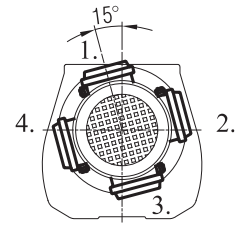



İRFM 143 İR 72
İRFM 143 İR 73


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



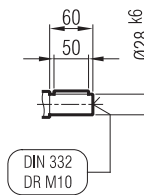
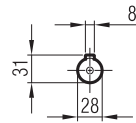
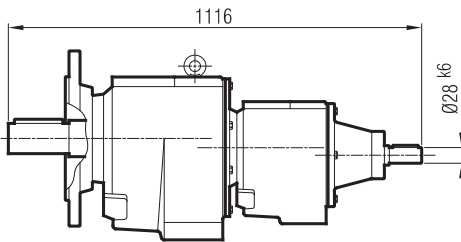
71-90-100-112-132
Tip/Type/Type



80
Tip/Type/Type

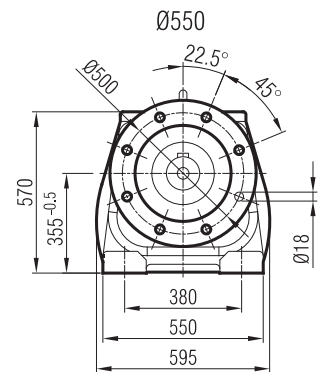
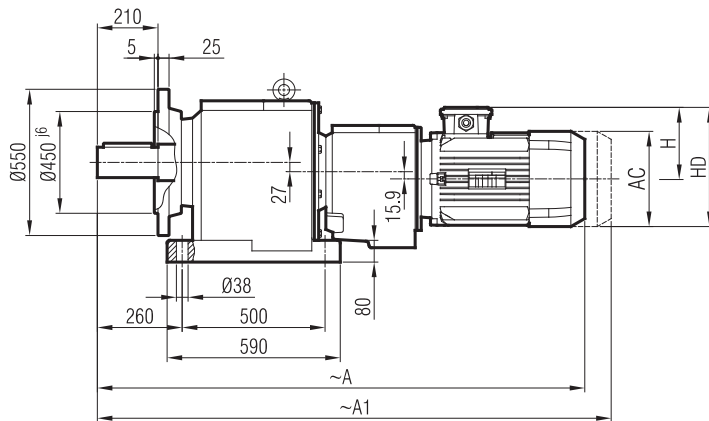
	71 M	80 M	90 S	90 L	100 L	112 M	132 S	
A	1165	1238	1231	1295	1336	1311	1382	
A1	1219	1299	1298	1362	1413	1406	1486	
H	123	136	141	141	161	170	193	
HD	194	216	231	231	261	282	325	
AC	138.5	158	176	176	195	220	262	

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

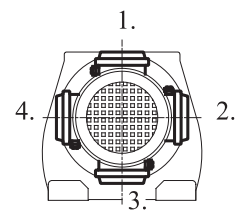
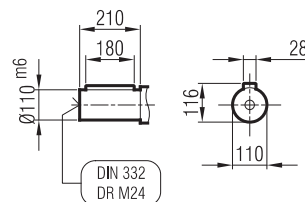
İRF 142 İR 72 / İRF 143 İR 73
İRF 143 İR 72 / İRF 143 İR 73




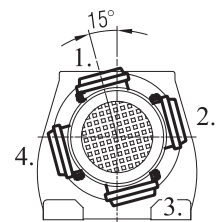
İRAFM 143 İR 72
İRAFM 143 İR 73



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



71-90-100-112-132
Tip/Type/*Type*



80
Tip/Type/Type

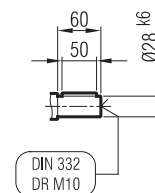
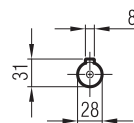
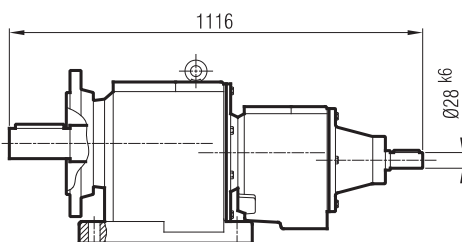
	71 M	80 M	90 S	90 L	100 L	112 M	132 S	
A	1165	1238	1231	1295	1336	1311	1382	
A1	1219	1299	1298	1362	1413	1406	1486	
H	123	136	141	141	161	170	193	
HD	194	216	231	231	261	282	325	
AC	138.5	158	176	176	195	220	262	

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

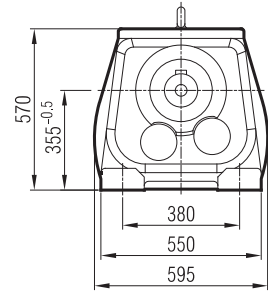
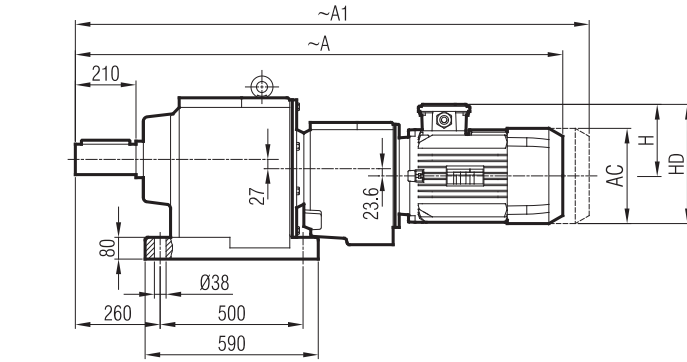
Le dimensions "A1" correspond aux moteurs équipés de freins.

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İRAF 143 İR 72 / İRAF 143 İR 73

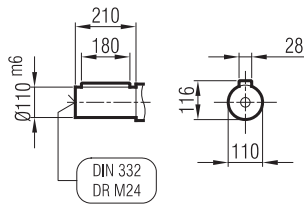
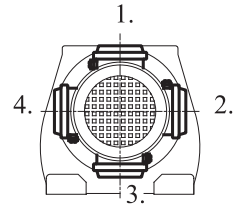




İRAM 143 İR 82



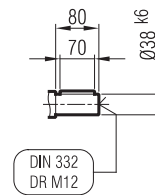
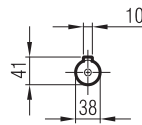
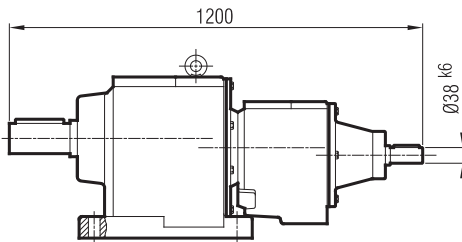
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	90 S	90 L	100 L	112 M	132 S	132 M	160 M	
A	1278	1342	1382	1356	1426	1471	1579	
A1	1345	1409	1459	1451	1530	1575	1696	
H	141	141	161	170	193	193	240	
HD	231	231	261	282	325	325	400	
AC	176	176	195	220	262	262	315	

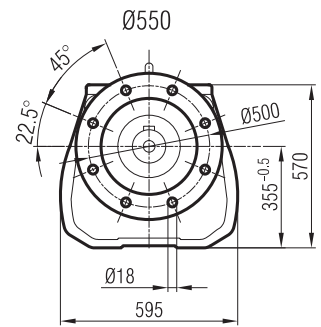
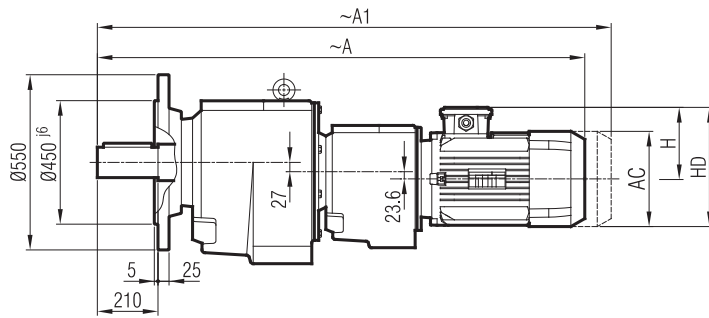
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 143 İR 82

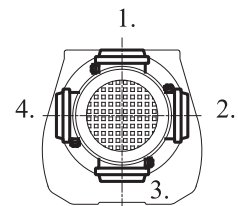
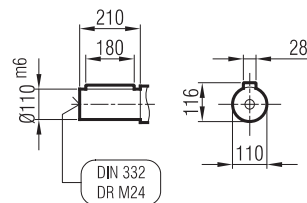




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Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



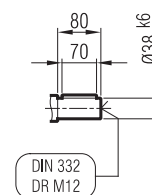
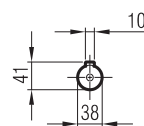
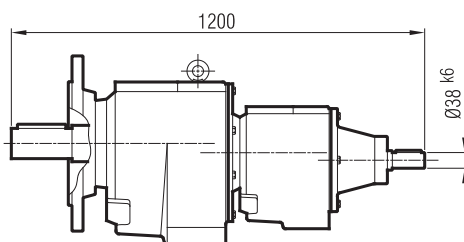
	90 S	90 L	100 L	112 M	132 S	132 M	160 M	
A	1278	1342	1382	1356	1426	1471	1579	
A1	1345	1409	1459	1451	1530	1575	1696	
H	141	141	161	170	193	193	240	
HD	231	231	261	282	325	325	400	
AC	176	176	195	220	262	262	315	

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

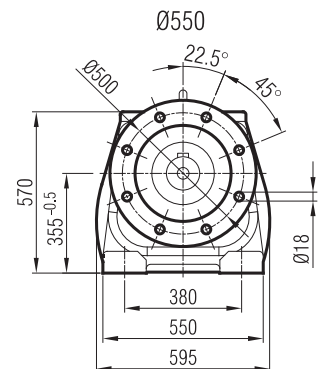
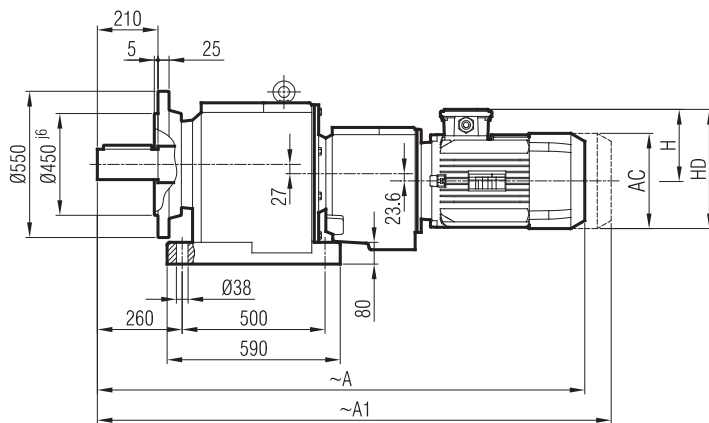
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 143 İR 82

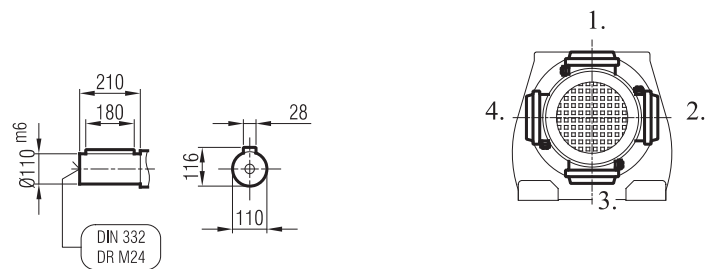




İRAFM 143 İR 82



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



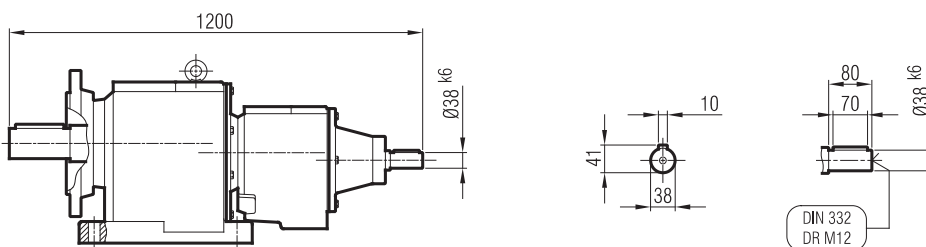
	90 S	90 L	100 L	112 M	132 S	132 M	160 M	
A	1278	1342	1382	1356	1426	1471	1579	
A1	1345	1409	1459	1451	1530	1575	1696	
H	141	141	161	170	193	193	240	
HD	231	231	261	282	325	325	400	
AC	176	176	195	220	262	262	315	

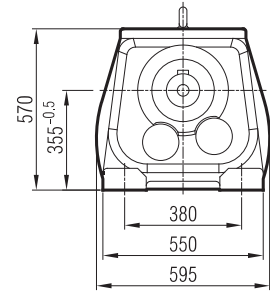
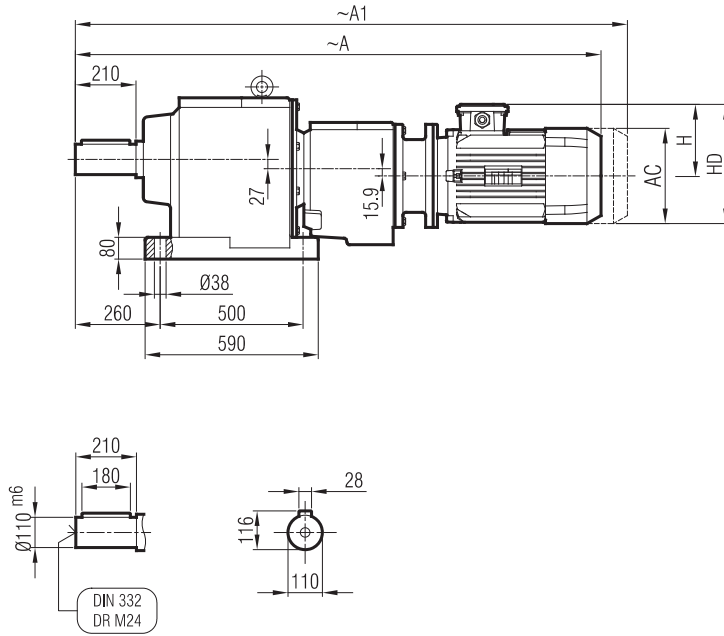
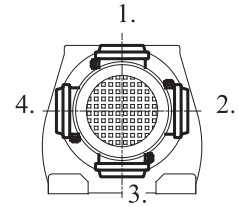
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

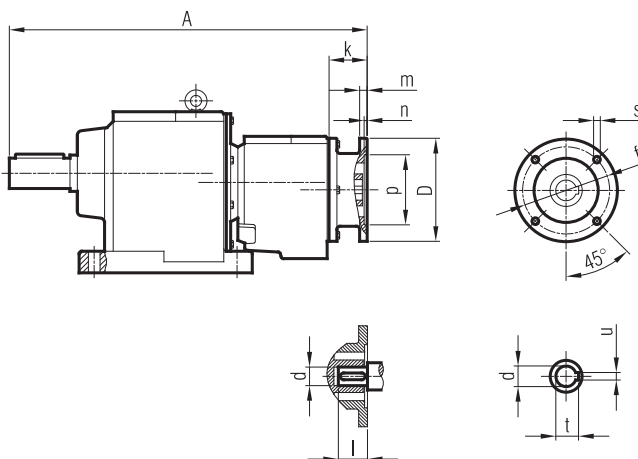
İRAF 143 İR 82



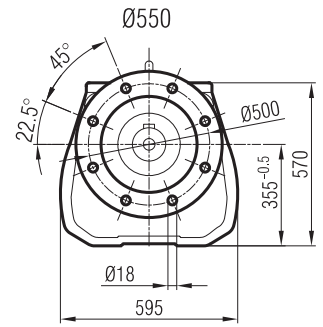
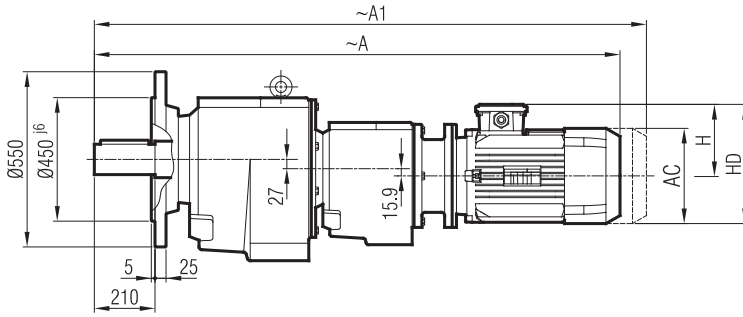

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Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	1237	1312	1321	1359	1396	1367	1449
A1	1291	1373	1388	1426	1473	1462	1553
H	123	135	141	141	161	170	193
HD	194	216	231	231	261	282	325
AC	138.5	158	176	176	195	220	262

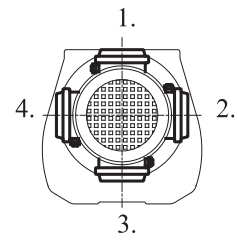
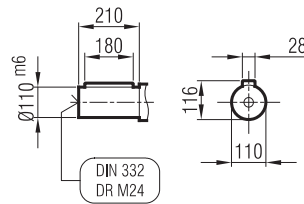
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

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IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	1007	110	130	160	M8	55	10	4	14	16.3	5
80	1019	130	165	200	M10	67	12	5	19	21.8	6
90	1019	130	165	200	M10	67	12	5	24	27.3	8
100	1024	180	215	250	M12	72	14	5	28	31.3	8
112	1024	180	215	250	M12	72	14	5	28	31.3	8
132	1048	230	265	300	M12	96	17	5	38	41.3	10
71	1007	70	85	105	Ø5.5	55	10	3	14	16.3	5
80	1019	80	100	120	Ø7	67	12	4	19	21.8	6
90	1019	95	115	140	Ø9	67	12	5	24	27.3	8
100	1028	110	130	160	Ø9	76	12	5	28	31.3	8
112	1028	110	130	160	Ø9	76	12	5	28	31.3	8
132	1031	130	165	200	Ø11	79	13	5	38	41.3	10

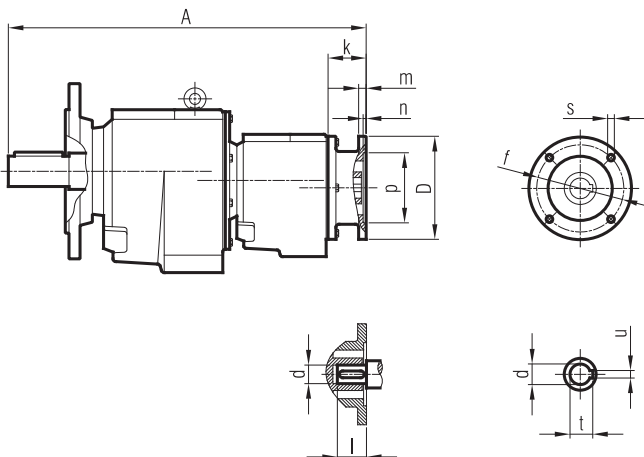

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İRFBM 143 İR 73


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

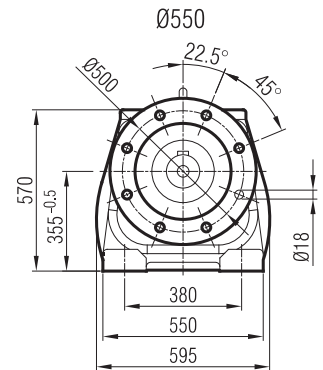
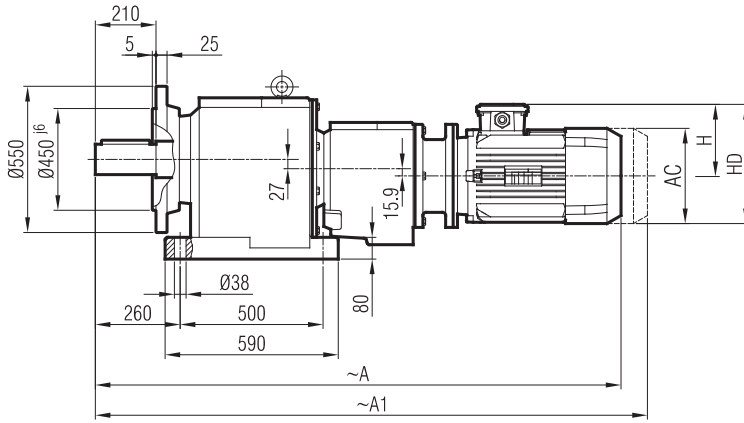


	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	1237	1312	1321	1359	1396	1367	1449
A1	1291	1373	1388	1426	1473	1462	1553
H	123	135	141	141	161	170	193
HD	194	216	231	231	261	282	325
AC	138.5	158	176	176	195	220	262

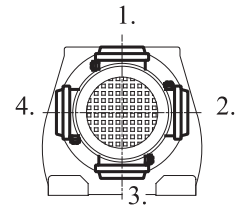
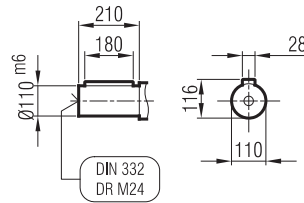
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

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IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	1007	110	130	160	M8	55	10	4	14	16.3	5
80	1019	130	165	200	M10	67	12	5	19	21.8	6
90	1019	130	165	200	M10	67	12	5	24	27.3	8
100	1024	180	215	250	M12	72	14	5	28	31.3	8
112	1024	180	215	250	M12	72	14	5	28	31.3	8
132	1048	230	265	300	M12	96	17	5	38	41.3	10
71	1007	70	85	105	Ø5.5	55	10	3	14	16.3	5
80	1019	80	100	120	Ø7	67	12	4	19	21.8	6
90	1019	95	115	140	Ø9	67	12	5	24	27.3	8
100	1028	110	130	160	Ø9	76	12	5	28	31.3	8
112	1028	110	130	160	Ø9	76	12	5	28	31.3	8
132	1031	130	165	200	Ø11	79	13	5	38	41.3	10

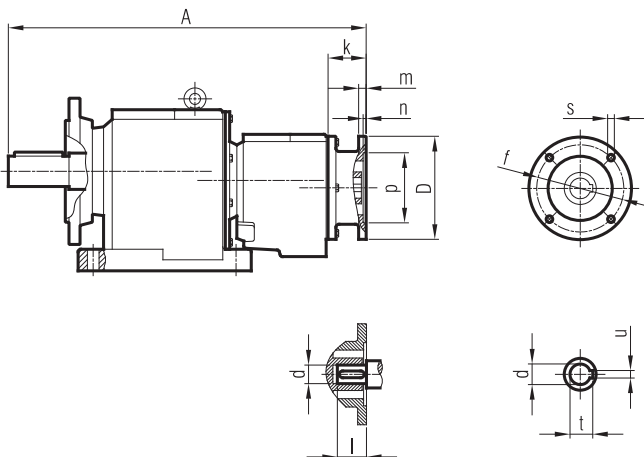

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Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

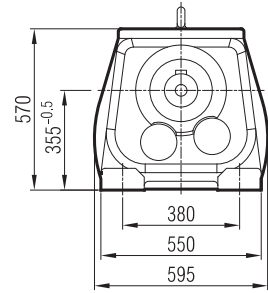
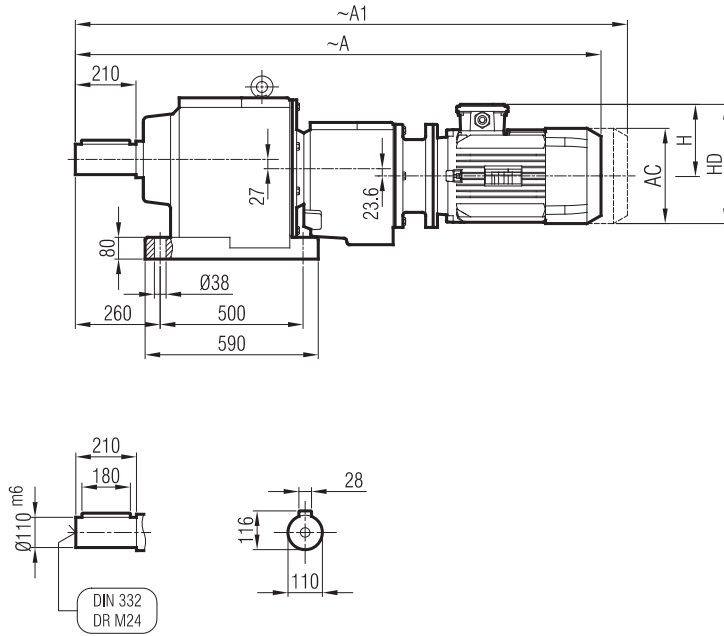


	71 M/B5	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5
A	1237	1312	1321	1359	1396	1367	1449
A1	1291	1373	1388	1426	1473	1462	1553
H	123	135	141	141	161	170	193
HD	194	216	231	231	261	282	325
AC	138.5	158	176	176	195	220	262

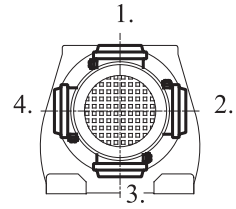
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

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İRAFP 143 İR 72 / İRAFP 143 İR 73


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
71	1007	110	130	160	M8	55	10	4	14	16.3	5
80	1019	130	165	200	M10	67	12	5	19	21.8	6
90	1019	130	165	200	M10	67	12	5	24	27.3	8
100	1024	180	215	250	M12	72	14	5	28	31.3	8
112	1024	180	215	250	M12	72	14	5	28	31.3	8
132	1048	230	265	300	M12	96	17	5	38	41.3	10
71	1007	70	85	105	Ø5.5	55	10	3	14	16.3	5
80	1019	80	100	120	Ø7	67	12	4	19	21.8	6
90	1019	95	115	140	Ø9	67	12	5	24	27.3	8
100	1028	110	130	160	Ø9	76	12	5	28	31.3	8
112	1028	110	130	160	Ø9	76	12	5	28	31.3	8
132	1031	130	165	200	Ø11	79	13	5	38	41.3	10

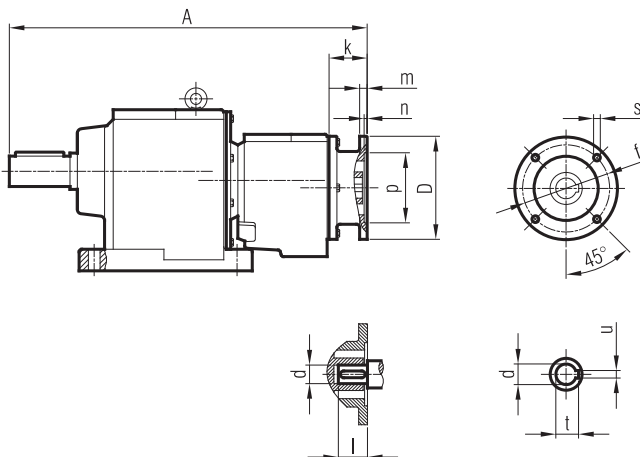

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Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	1379	1417	1457	1429	1507	1548	1642
A1	1446	1446	1499	1499	1524	1611	1652
H	141	141	161	170	193	193	240
HD	231	231	261	282	325	325	400
AC	176	176	195	220	262	262	315

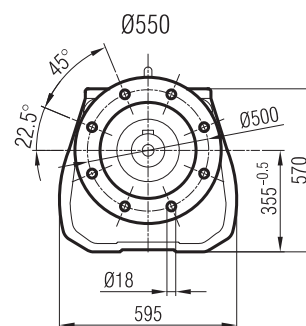
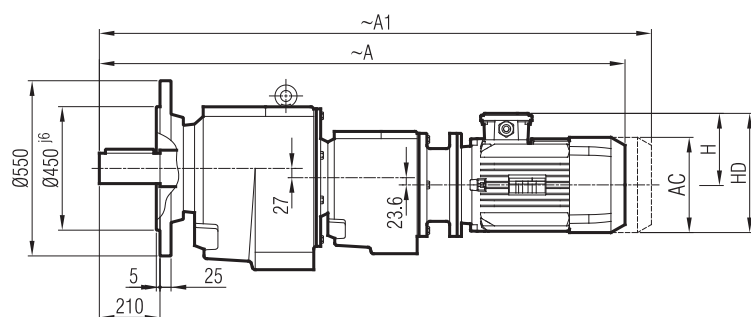
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

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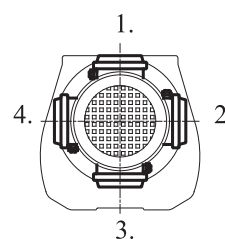
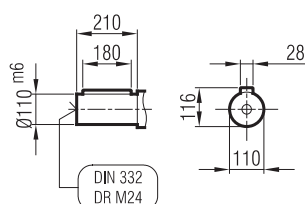
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
90	1077	130	165	200	M10	66	12	5	24	27.3	8
100	1085	180	215	250	M12	74	14	5	28	31.3	8
112	1085	180	215	250	M12	74	14	5	28	31.3	8
132	1106	230	265	300	M12	95	17	5	38	41.3	10
160	1122	250	300	350	M16	111	18	6.5	42	45.3	12
90	1077	95	115	140	Ø9	66	12	5	24	27.3	8
100	1078	110	130	160	Ø9	67	11	5	28	31.3	8
112	1078	110	130	160	Ø9	67	11	5	28	31.3	8
132	1106	130	165	200	Ø11	95	13	5	38	41.3	10
160	1122	180	215	250	Ø13	111	16	6	42	45.3	12



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Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



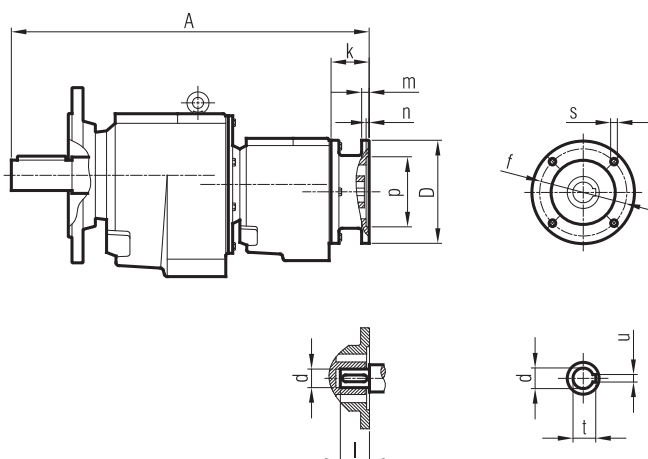
	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	1379	1417	1457	1429	1507	1548	1642
A1	1446	1446	1499	1499	1524	1611	1652
H	141	141	161	170	193	193	240
HD	231	231	261	282	325	325	400
AC	176	176	195	220	262	262	315

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

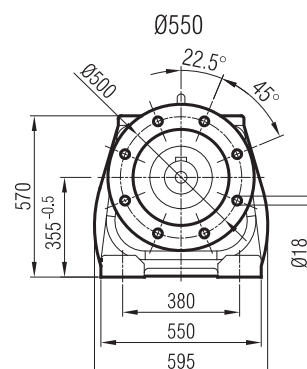
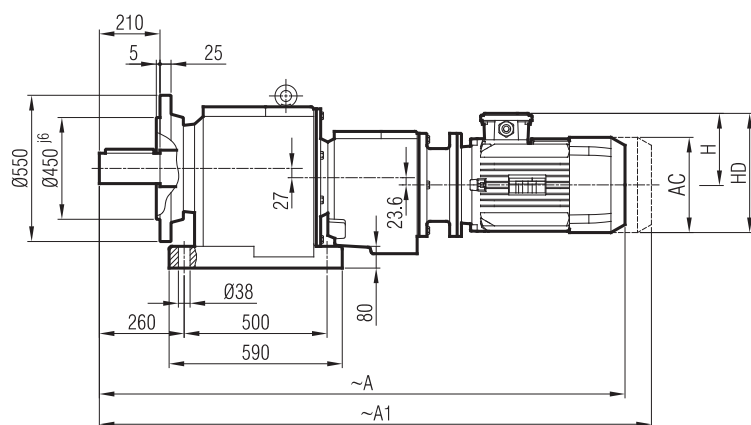
İRFP 143 İR 82



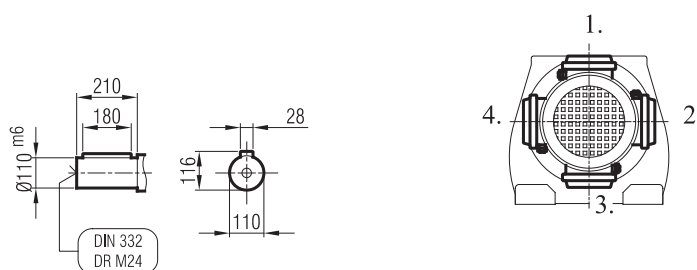
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
90	B5	1077	130	165	200	M10	66	12	5	24	27.3	8
100		1085	180	215	250	M12	74	14	5	28	31.3	8
112		1085	180	215	250	M12	74	14	5	28	31.3	8
132		1106	230	265	300	M12	95	17	5	38	41.3	10
160		1122	250	300	350	M16	111	18	6.5	42	45.3	12
90	B14	1077	95	115	140	Ø9	66	12	5	24	27.3	8
100		1078	110	130	160	Ø9	67	11	5	28	31.3	8
112		1078	110	130	160	Ø9	67	11	5	28	31.3	8
132		1106	130	165	200	Ø11	95	13	5	38	41.3	10
160		1122	180	215	250	Ø13	111	16	6	42	45.3	12



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Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



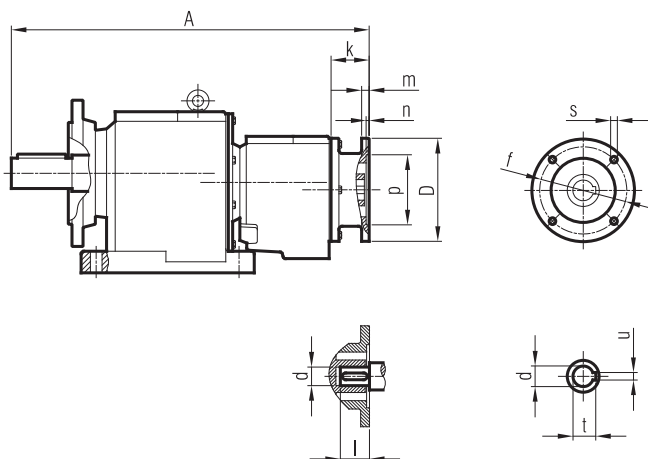
	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	1379	1417	1457	1429	1507	1548	1642
A1	1446	1446	1499	1499	1524	1611	1652
H	141	141	161	170	193	193	240
HD	231	231	261	282	325	325	400
AC	176	176	195	220	262	262	315

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

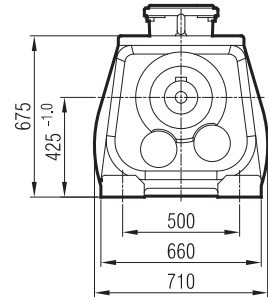
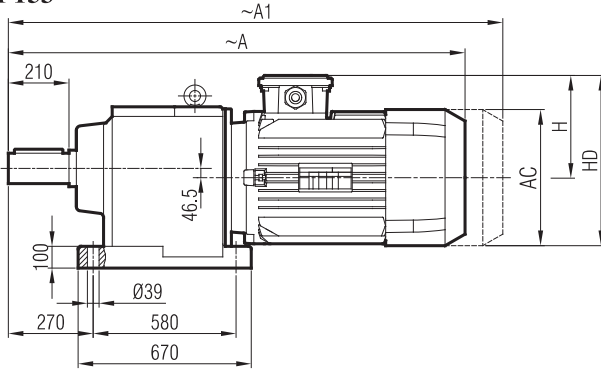
İRAFP 143 İR 82



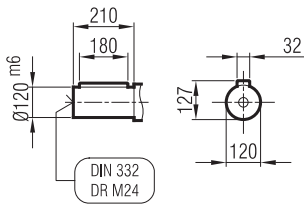
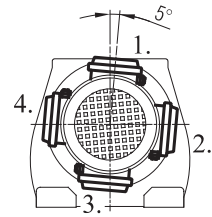
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
90	B5	1077	130	165	200	M10	66	12	5	24	27.3	8
100		1085	180	215	250	M12	74	14	5	28	31.3	8
112		1085	180	215	250	M12	74	14	5	28	31.3	8
132		1106	230	265	300	M12	95	17	5	38	41.3	10
160		1122	250	300	350	M16	111	18	6.5	42	45.3	12
90	B14	1077	95	115	140	Ø9	66	12	5	24	27.3	8
100		1078	110	130	160	Ø9	67	11	5	28	31.3	8
112		1078	110	130	160	Ø9	67	11	5	28	31.3	8
132		1106	130	165	200	Ø11	95	13	5	38	41.3	10
160		1122	180	215	250	Ø13	111	16	6	42	45.3	12



İRAM 152
İRAM 153



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



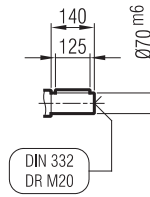
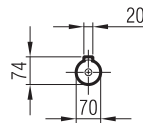
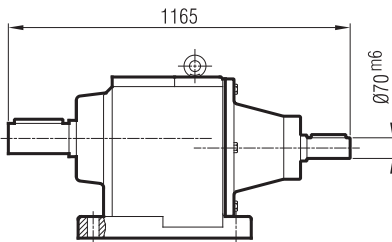
	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M	280 S	280 M	315 S	315 M	315 M
A	1295	1340	1352	1389	1484	1442	1535	1548	1609	1609	1814	1814	1814
A1	1412	1457	1488	1525	1631	1589	1682	1695	1857	1857	2062	2062	2062
H	240	240	260	260	300	313	313	366	398	398	518	518	518
HD	400	400	440	440	500	538	538	616	678	678	833	833	833
AC	315	315	357	357	394	456	456	489	547.5	547.5	652	652	652

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

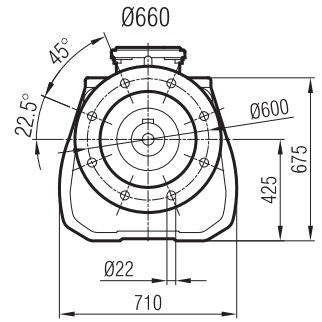
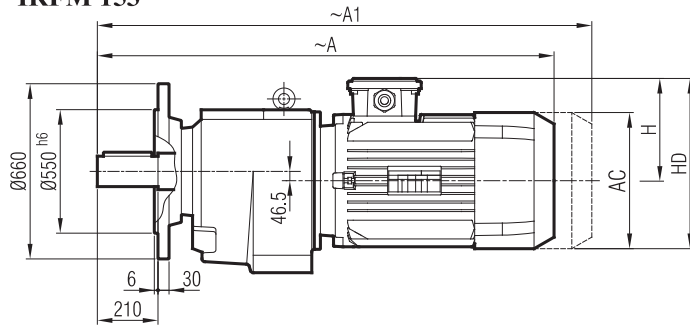
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 152
İRA 153

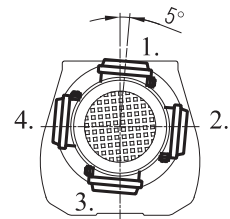
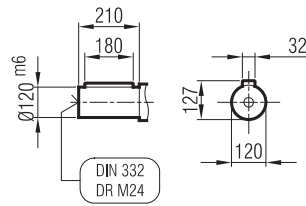




İRFM 152
İRFM 153



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



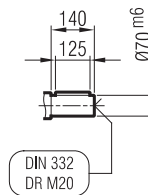
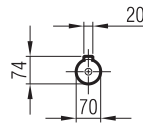
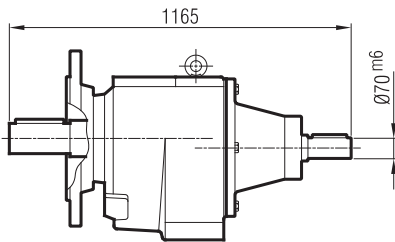
	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M	280 S	280 M	315 S	315 M	315 M
A	1295	1340	1352	1389	1484	1442	1535	1548	1609	1609	1814	1814	1814
A1	1412	1457	1488	1525	1631	1589	1682	1695	1857	1857	2062	2062	2062
H	240	240	260	260	300	313	313	366	398	398	518	518	518
HD	400	400	440	440	500	538	538	616	678	678	833	833	833
AC	315	315	357	357	394	456	456	489	547.5	547.5	652	652	652

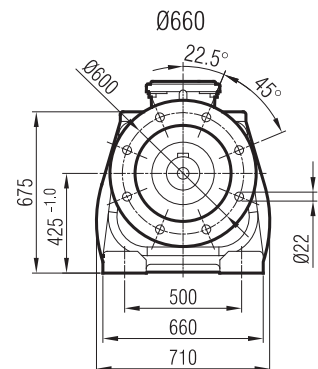
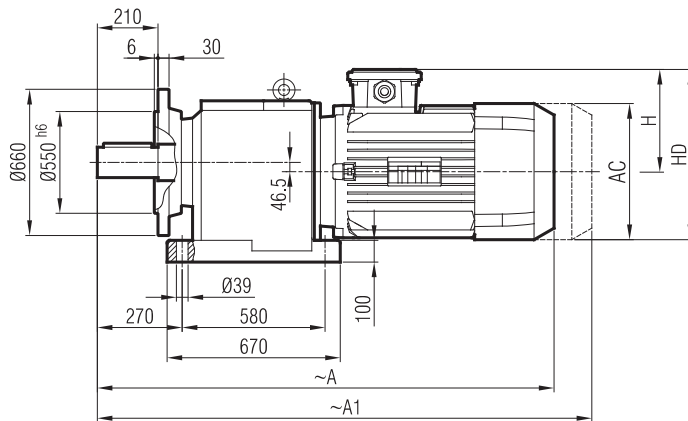
"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

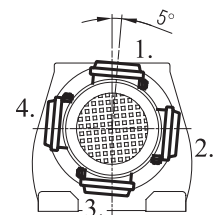
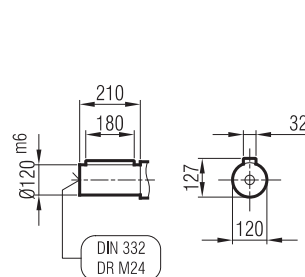
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 152
İRF 153



İRAFM 152
İRAFM 153

Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



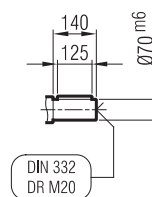
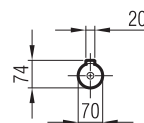
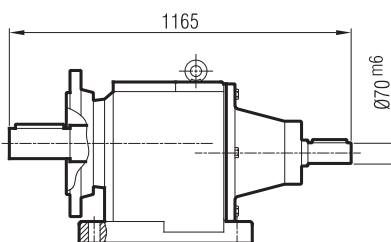
	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M	280 S	280 M	315 S	315 M	315 M
A	1295	1340	1352	1389	1484	1442	1535	1548	1609	1609	1814	1814	1814
A1	1412	1457	1488	1525	1631	1589	1682	1695	1857	1857	2062	2062	2062
H	240	240	260	260	300	313	313	366	398	398	518	518	518
HD	400	400	440	440	500	538	538	616	678	678	833	833	833
AC	315	315	357	357	394	456	456	489	547.5	547.5	652	652	652

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A₁" is for motors with brake.

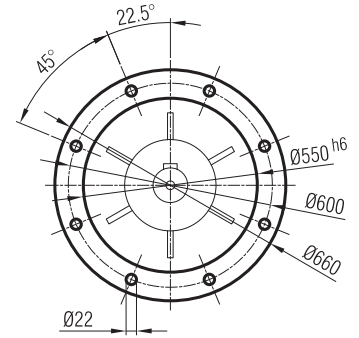
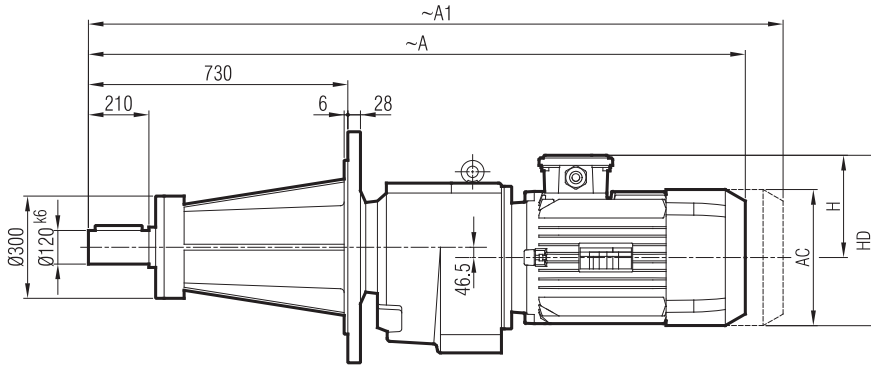
Le dimensions "A1" correspond aux moteurs équipés de freins.

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IRAF 153

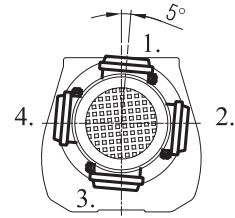




İRBM 152
İRBM 153



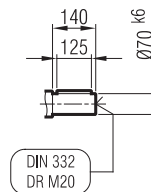
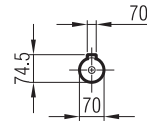
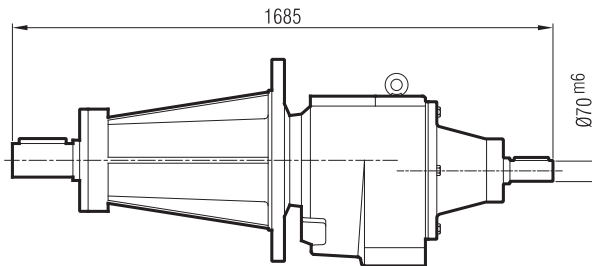
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes

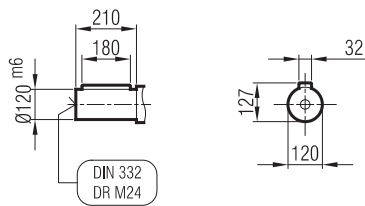
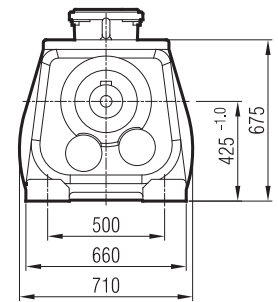
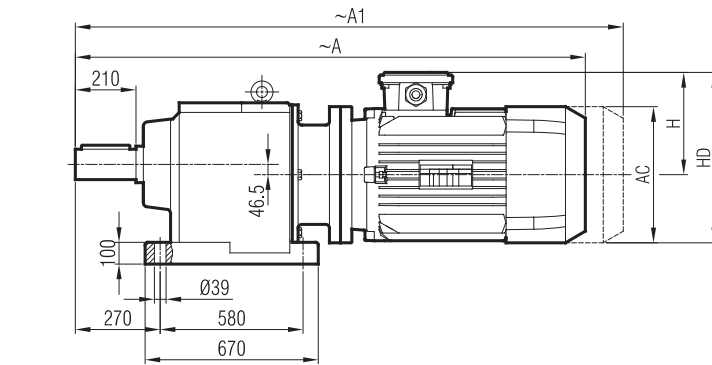
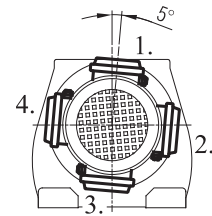


	160 M	160 L	180 M	180 L	200 L	225 S	225 M	250 M	280 S	280 M	315 S	315 M	315 M
A	1815	1860	1872	1909	2004	1962	2055	2068	2129	2129	2334	2334	2334
A1	1932	1977	2008	2045	2151	2109	2202	2215	2377	2377	2582	2582	2592
H	240	240	260	260	300	313	313	366	398	398	518	518	518
HD	400	400	440	440	500	538	538	616	678	678	833	833	833
AC	315	315	357	357	394	456	456	489	547.5	547.5	652	652	652

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRB 152
İRB 153



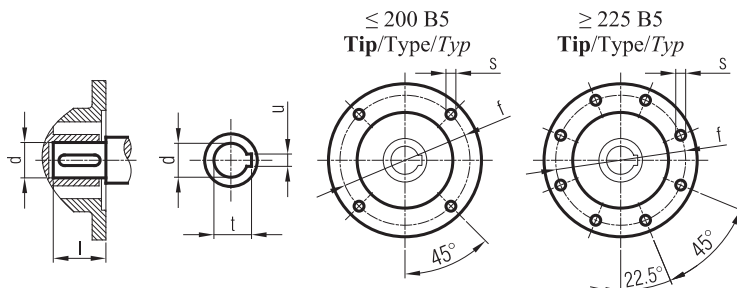
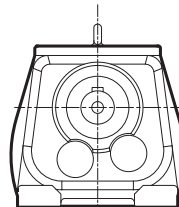
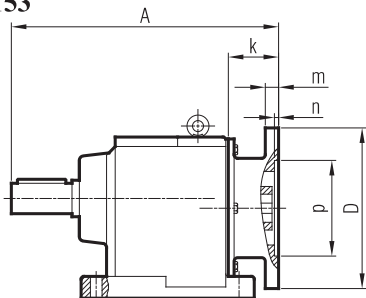

İRAPM 152
İRAPM 153

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5	315 M/B5
A	1397	1442	1518	1518	1654	1639	1699	1749	1839	1839	2060	2060	2171
A1	1514	1559	1654	1654	1801	1786	1846	1896	2087	2087	2308	2308	2429
H	240	240	260	260	300	313	313	366	398	398	518	518	518
HD	400	400	440	440	500	538	538	616	678	678	833	833	833
AC	315	315	357	357	394	456	456	489	547.5	547.5	652	652	652

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

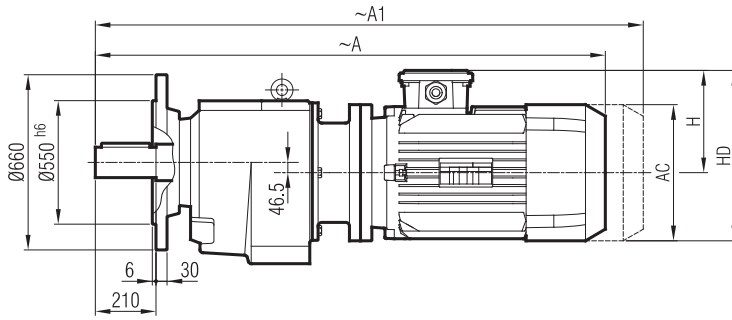
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAP 152
İRAP 153


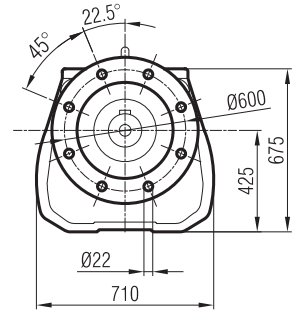
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
160	877	250	300	350	M16	91	18	6.5	42	45.3	12
180	877	250	300	350	M16	91	18	6.5	48	51.8	14
200	945	300	350	400	M16	159	20	6.5	55	59.3	16
225	954	350	400	450	M16	166	22	6.5	60	64.4	18
250	954	450	500	550	M16	168	22	6.5	65	69.4	18
280	954	450	500	550	M16	168	22	6.5	75	79.9	20
315	1024	550	600	650	M20	238	24	7.5	85	90.4	22



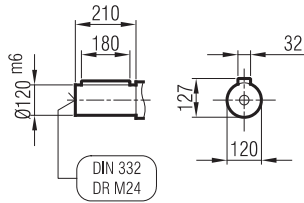
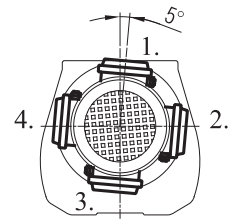
İRFPM 152
İRFPM 153



Ø660



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



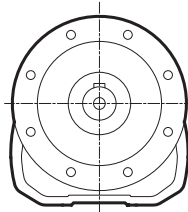
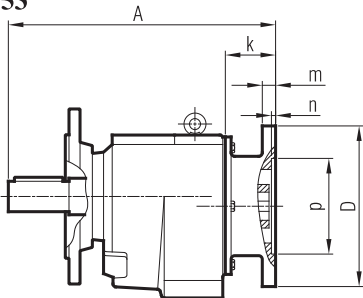
IEC	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5	315 M/B5
A	1397	1442	1518	1518	1654	1639	1699	1749	1839	1839	2060	2060	2171
A1	1514	1559	1654	1654	1801	1786	1846	1896	2087	2087	2308	2308	2429
H	240	240	260	260	300	313	313	366	398	398	518	518	518
HD	400	400	440	440	500	538	538	616	678	678	833	833	833
AC	315	315	357	357	394	456	456	489	547.5	547.5	652	652	652

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

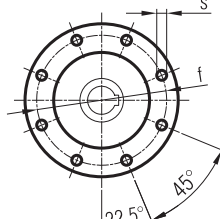
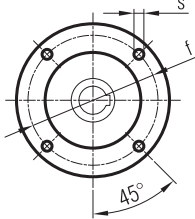
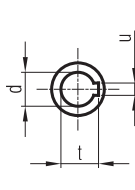
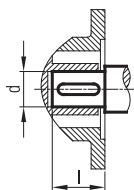
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 152
İRFP 153



≤ 200 B5
Tip/Type/Typ

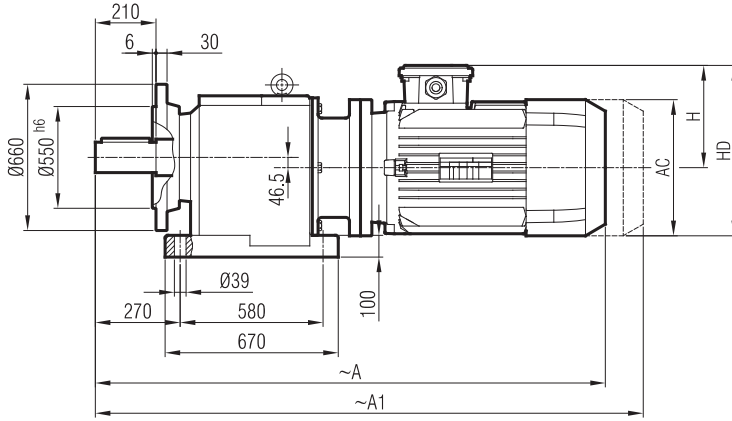
≥ 225 B5
Tip/Type/Typ



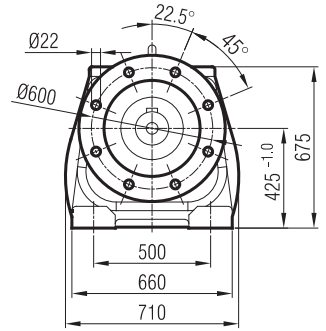
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
160	877	250	300	350	M16	91	18	6.5	42	45.3	12
180	877	250	300	350	M16	91	18	6.5	48	51.8	14
200	945	300	350	400	M16	159	20	6.5	55	59.3	16
225	954	350	400	450	M16	166	22	6.5	60	64.4	18
250	954	450	500	550	M16	168	22	6.5	65	69.4	18
280	954	450	500	550	M16	168	22	6.5	75	79.9	20
315	1024	550	600	650	M20	238	24	7.5	85	90.4	22



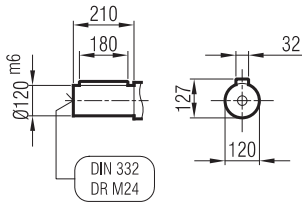
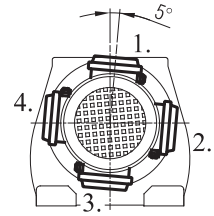
İRAFPM 152
İRAFPM 153



Ø660



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



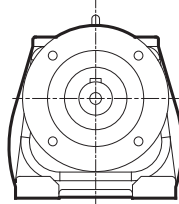
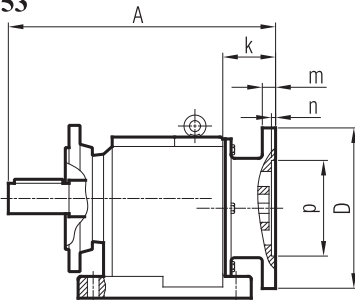
IEC	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5	315 M/B5
A	1397	1442	1518	1518	1654	1639	1699	1749	1839	1839	2060	2060	2171
A1	1514	1559	1654	1654	1801	1786	1846	1896	2087	2087	2308	2308	2429
H	240	240	260	260	300	313	313	366	398	398	518	518	518
HD	400	400	440	440	500	538	538	616	678	678	833	833	833
AC	315	315	357	357	394	456	456	489	547.5	547.5	652	652	652

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

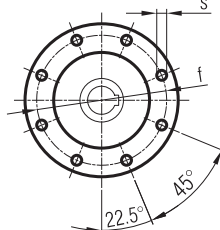
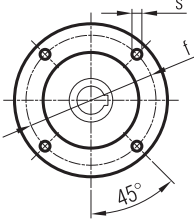
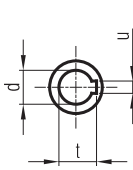
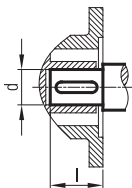
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 152
İRAFP 153

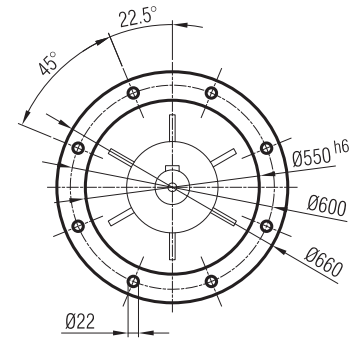
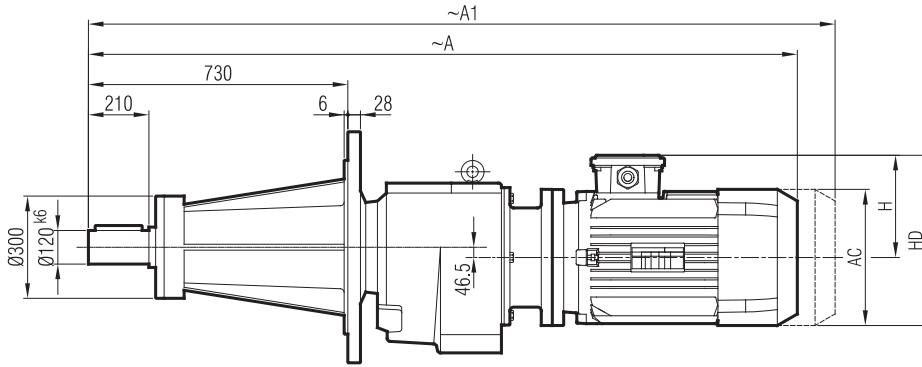
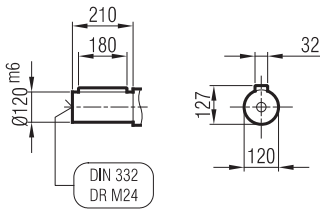
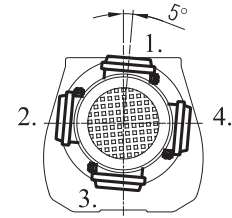


≤ 200 B5
Tip/Type/Typ

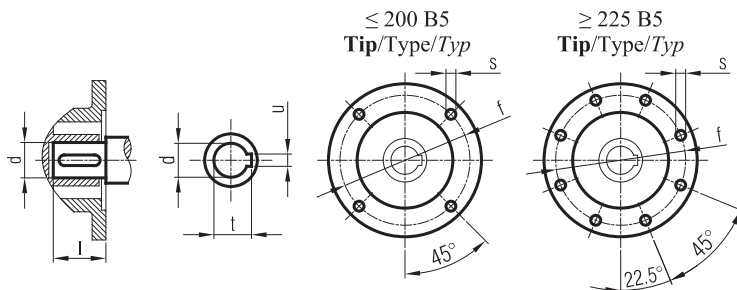
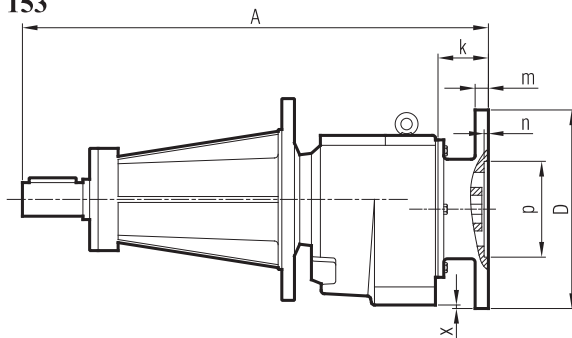
≥ 225 B5
Tip/Type/Typ



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
160	877	250	300	350	M16	91	18	6.5	42	45.3	12
180	877	250	300	350	M16	91	18	6.5	48	51.8	14
200	945	300	350	400	M16	159	20	6.5	55	59.3	16
225	954	350	400	450	M16	166	22	6.5	60	64.4	18
250	954	450	500	550	M16	168	22	6.5	65	69.4	18
280	954	450	500	550	M16	168	22	6.5	75	79.9	20
315	1024	550	600	650	M20	238	24	7.5	85	90.4	22

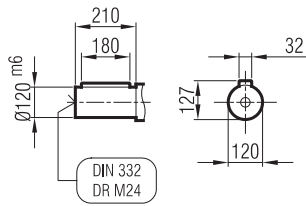
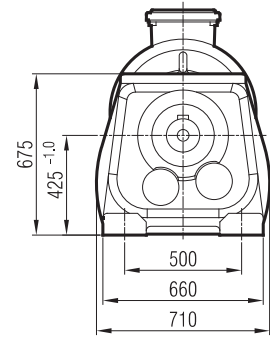
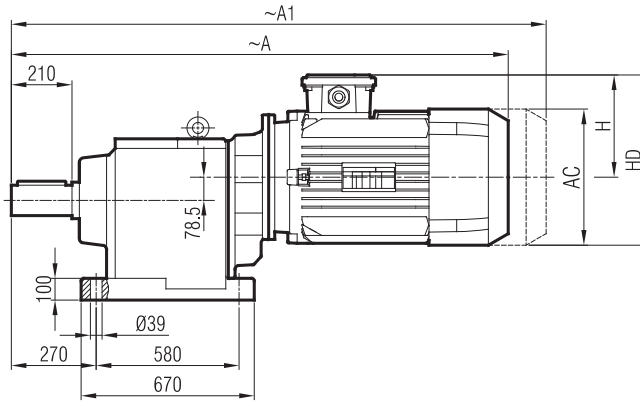
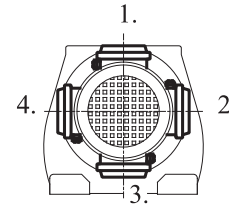
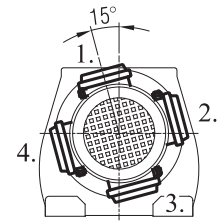

İRBPM 152
İRBPM 153

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


IEC	160 M/B5	160 L/B5	180 M/B5	180 L/B5	200 L/B5	225 S/B5	225 M/B5	250 M/B5	280 S/B5	280 M/B5	315 S/B5	315 M/B5
A	1917	1962	2038	2038	2174	2159	2219	2269	2359	2359	2580	2580
A1	2034	2079	2174	2174	2321	2306	2366	2416	2607	2607	2828	2828
H	240	240	260	260	300	313	313	366	398	398	518	518
HD	400	400	440	440	500	538	538	616	678	678	833	833
AC	315	315	357	357	394	456	456	489	547.5	547.5	652	652

İRBP 152
İRBP 153


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
160	1397	250	300	350	M14	91	18	6.5	42	45.3	12
180	1397	250	300	350	M14	91	18	6.5	48	51.8	14
200	1465	300	350	400	M16	159	20	6.5	55	59.3	16
225	1474	350	400	450	M16	166	22	6.5	60	64.4	18
250	1474	450	500	550	M16	168	22	6.5	65	69.4	18
280	1474	450	500	550	M16	168	22	6.5	75	79.9	20
315	1544	550	600	650	M20	238	24	7.5	85	90.4	22

"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

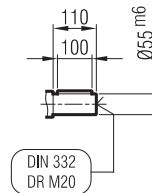
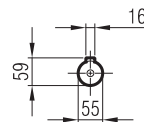
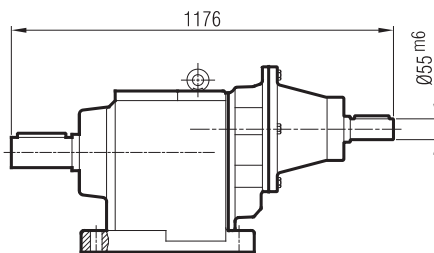

İRAM 154

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

 100-112-132-180-200-225
Tip/Type/Type

 160
Tip/Type/Type

	132 S	132 M	160 M	160 L		
A	1294	1339	1417	1462		
A1	1398	1443	1534	1579		
H	193	193	240	240		
HD	325	325	400	400		
AC	262	262	315	315		

"A1" Ölçüsü Frenli Motorlar içindir.

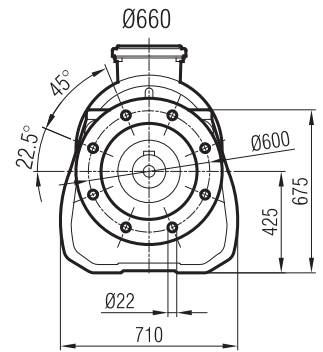
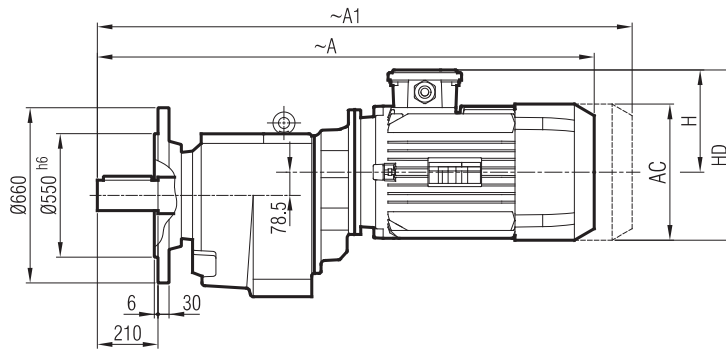
Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 154


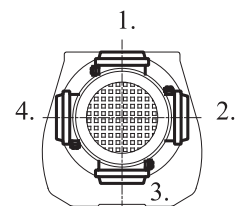
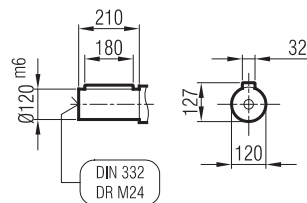


İRFM 154



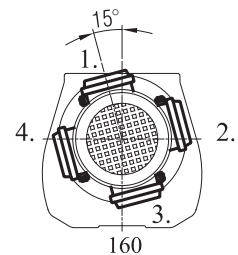
Klemens Pozisyonları

Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225

Tip/Type/Type



Tip/Type/Type

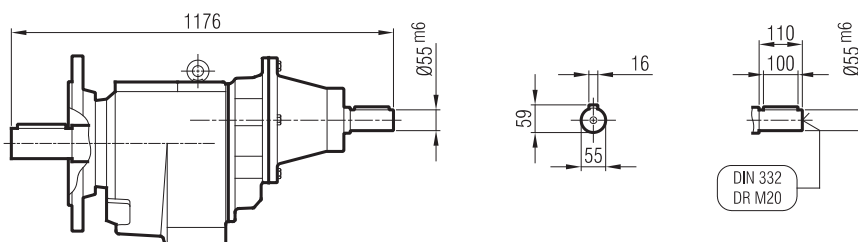
	132 S	132 M	160 M	160 L		
A	1294	1339	1417	1462		
A1	1398	1443	1534	1579		
H	193	193	240	240		
HD	325	325	400	400		
AC	262	262	315	315		

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

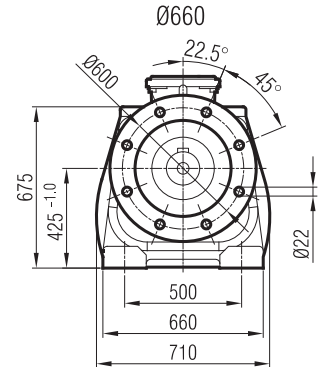
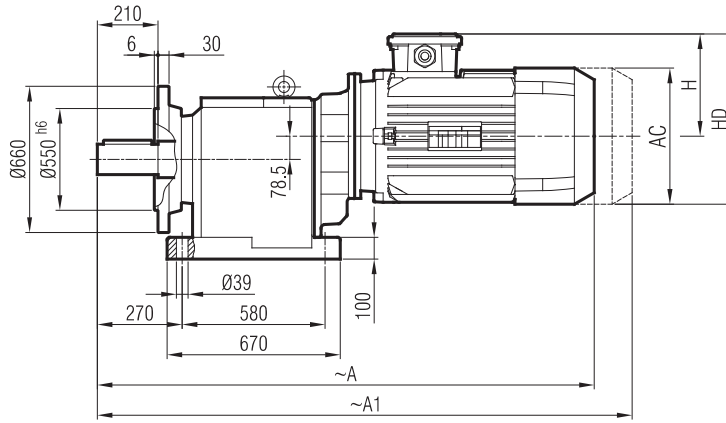
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 154

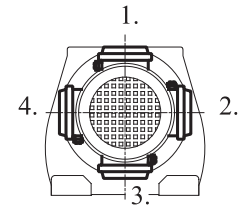
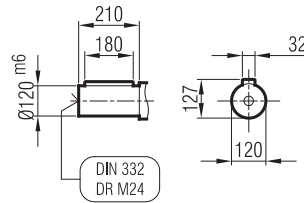




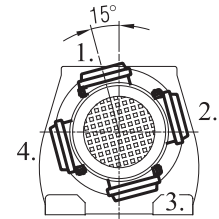
İRAFM 154



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



Tip/Type/Type

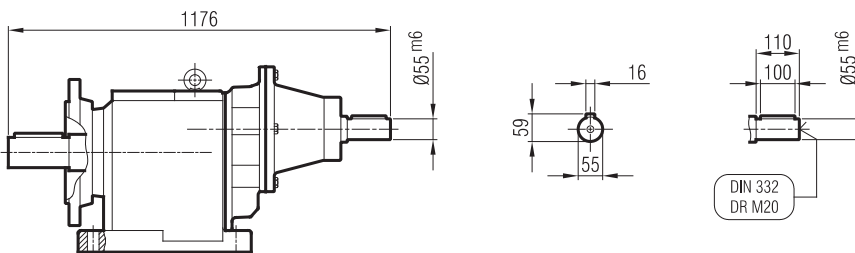


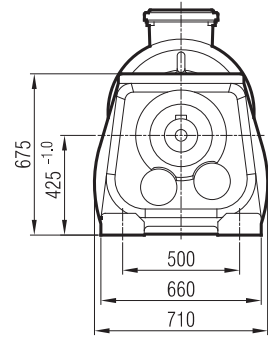
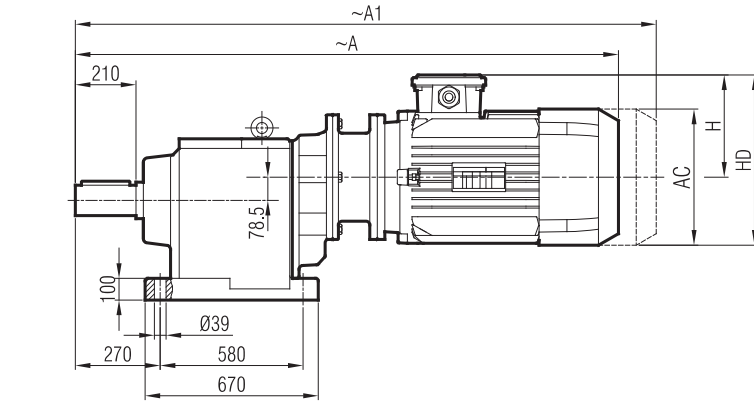
Tip/Type/Type

	132 S	132 M	160 M	160 L		
A	1294	1339	1417	1462		
A1	1398	1443	1534	1579		
H	193	193	240	240		
HD	325	325	400	400		
AC	262	262	315	315		

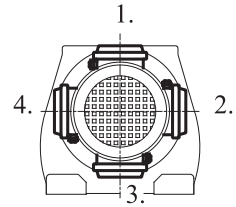
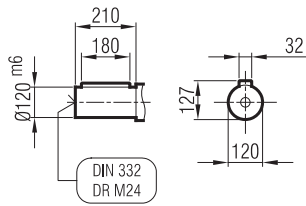
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 154



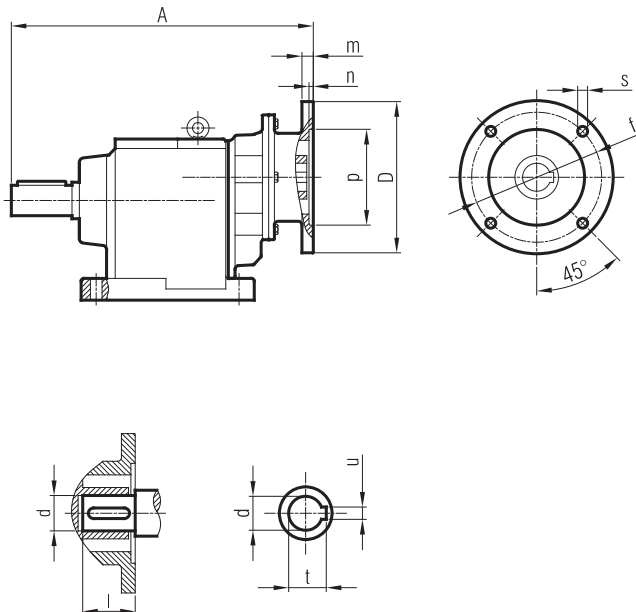

İRAPM 154


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes

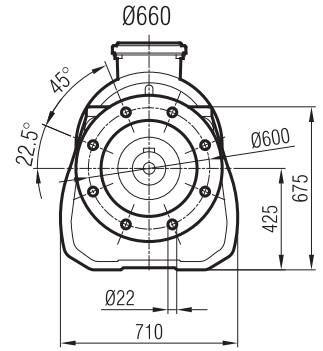
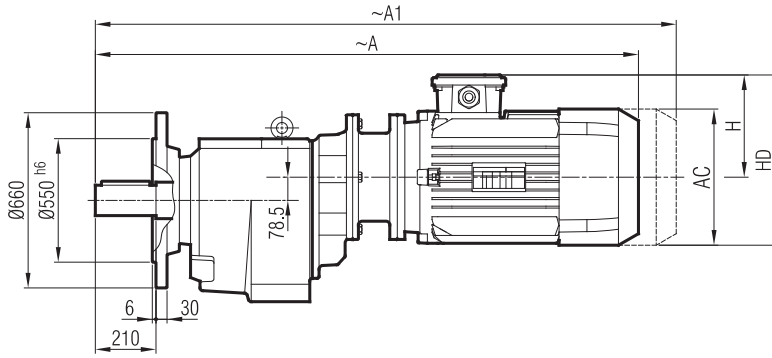


	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	
A	1335	1307	1391	1432	1517	1562	
A1	1412	1402	1495	1536	1634	1679	
H	161	170	193	193	240	240	
HD	261	282	325	325	400	400	
AC	195	220	262	262	315	315	

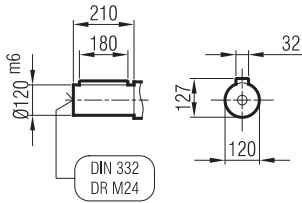
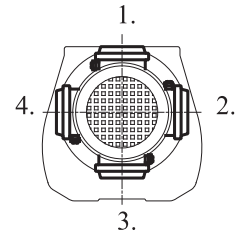
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAP 154


IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	963	180	215	250	M12	57	15	5	28	31.3	8
112	963	180	215	250	M12	57	15	5	28	31.3	8
132	990	230	265	300	M12	84	17	5	38	41.3	10
160	997	250	300	350	M16	91	18	6.5	42	45.3	12
100	963	110	130	160	Ø9	57	11	5	28	31.3	8
112	963	110	130	160	Ø9	57	11	5	28	31.3	8
132	990	130	165	200	Ø11	84	13	5	38	41.3	10
160	1001	180	215	250	Ø14	95	16	6	42	45.3	12

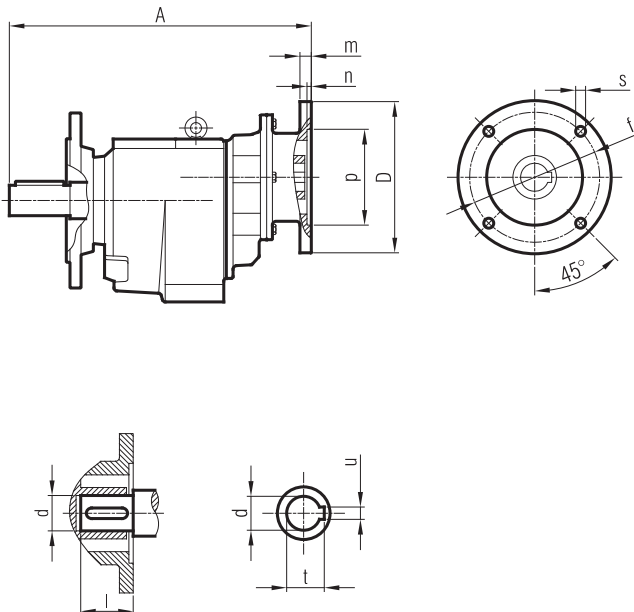

İRFPM 154


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	
A	1335	1307	1391	1432	1517	1562	
A1	1412	1402	1495	1536	1634	1679	
H	161	170	193	193	240	240	
HD	261	282	325	325	400	400	
AC	195	220	262	262	315	315	

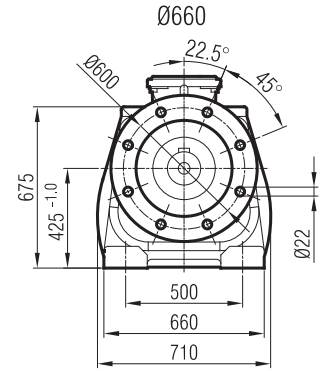
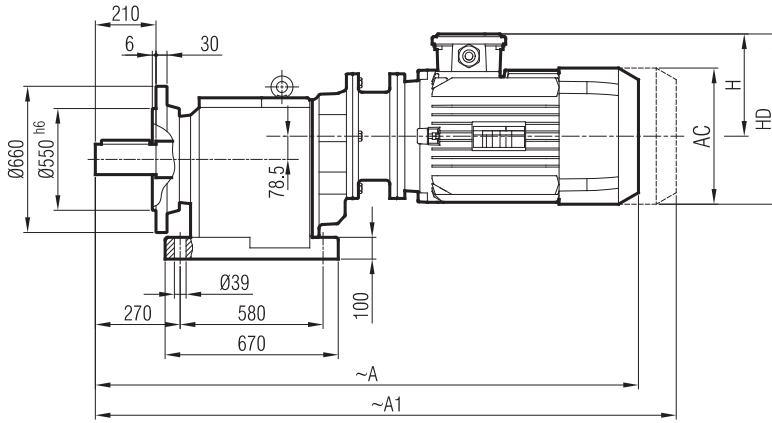
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRFP 154


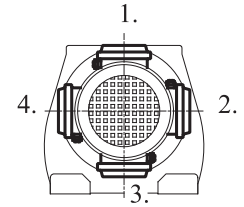
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	963	180	215	250	M12	57	15	5	28	31.3	8
112	963	180	215	250	M12	57	15	5	28	31.3	8
132	990	230	265	300	M12	84	17	5	38	41.3	10
160	997	250	300	350	M16	91	18	6.5	42	45.3	12
100	963	110	130	160	Ø9	57	11	5	28	31.3	8
112	963	110	130	160	Ø9	57	11	5	28	31.3	8
132	990	130	165	200	Ø11	84	13	5	38	41.3	10
160	1001	180	215	250	Ø14	95	16	6	42	45.3	12



İRAFPM 154



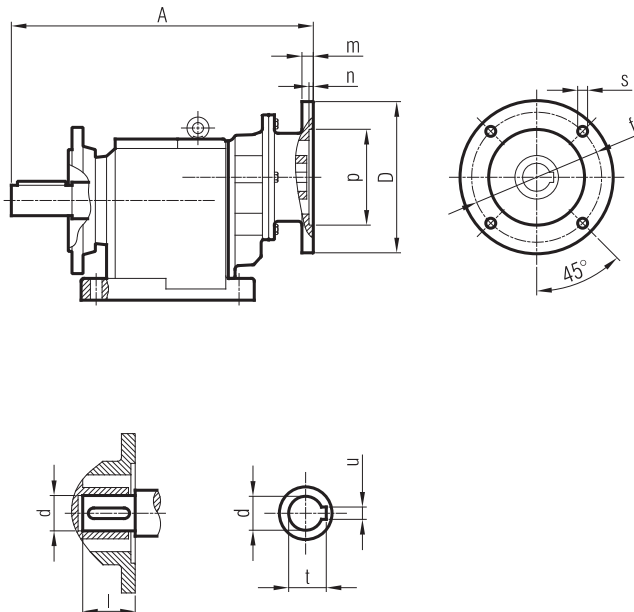
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



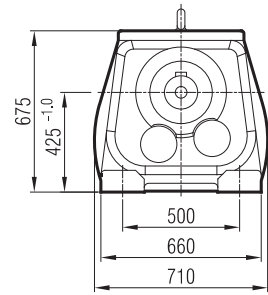
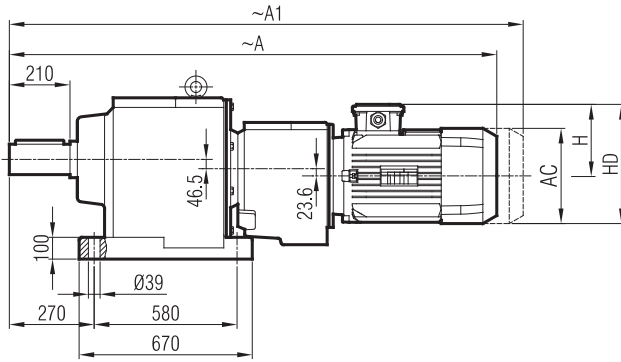
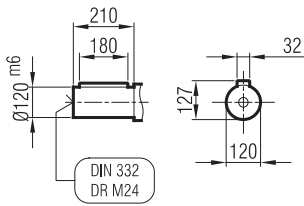
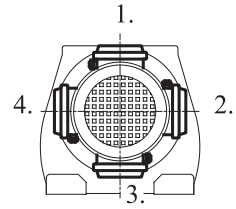
	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5	
A	1335	1307	1391	1432	1517	1562	
A1	1412	1402	1495	1536	1634	1679	
H	161	170	193	193	240	240	
HD	261	282	325	325	400	400	
AC	195	220	262	262	315	315	

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAFP 154



IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	963	180	215	250	M12	57	15	5	28	31.3	8
112	963	180	215	250	M12	57	15	5	28	31.3	8
132	990	230	265	300	M12	84	17	5	38	41.3	10
160	997	250	300	350	M16	91	18	6.5	42	45.3	12
100	963	110	130	160	Ø9	57	11	5	28	31.3	8
112	963	110	130	160	Ø9	57	11	5	28	31.3	8
132	990	130	165	200	Ø11	84	13	5	38	41.3	10
160	1001	180	215	250	Ø14	95	16	6	42	45.3	12

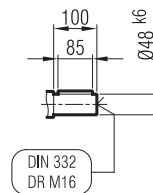
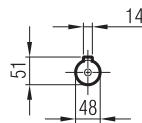
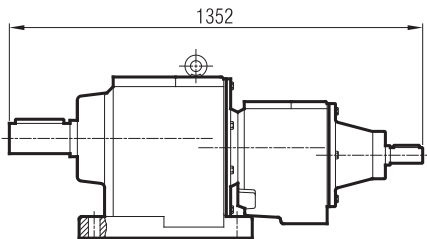

İRAM 153 İR 92
İRAM 153 İR 93

Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes


	100 L	112 M	132 S	132 M	160 M			
A	1479	1453	1515	1560	1655			
A1	1556	1548	1619	1664	1772			
H	161	170	193	193	240			
HD	261	282	325	325	400			
AC	195	220	262	262	315			

"A1" Ölçüsü Frenli Motorlar içindir.

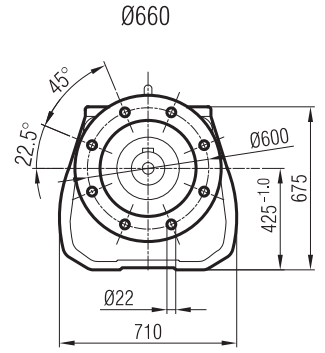
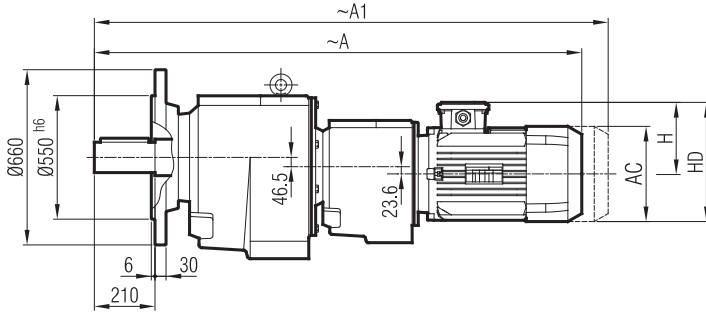
Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

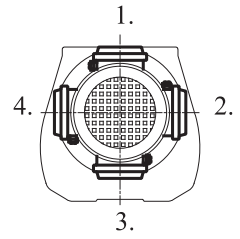
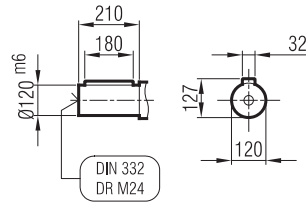
İRA 152 İR 92 / İRA 152 İR 93
İRA 153 İR 92 / İRA 153 İR 93




İRFM 153 İR 92
İRFM 153 İR 93



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



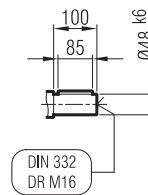
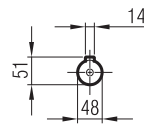
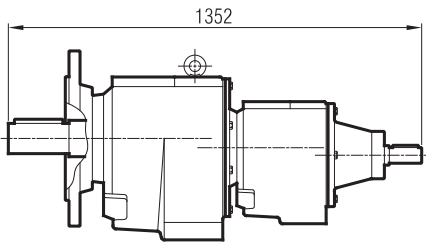
	100 L	112 M	132 S	132 M	160 M			
A	1479	1453	1515	1560	1655			
A1	1556	1548	1619	1664	1772			
H	161	170	193	193	240			
HD	261	282	325	325	400			
AC	195	220	262	262	315			

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

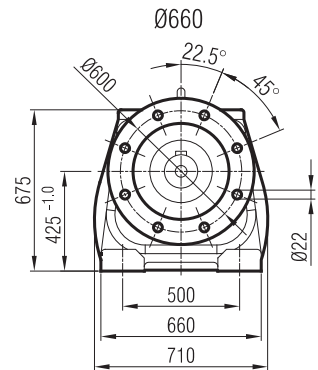
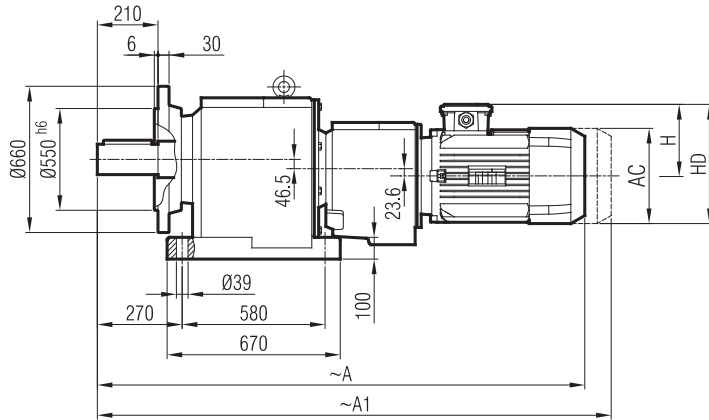
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 152 İR 92 / İRF 153 İR 93
İRF 153 İR 92 / İRF 153 İR 93

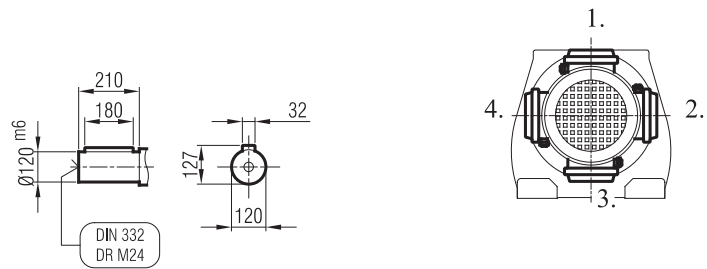




İRAFM 153 İR 92
İRAFM 153 İR 93



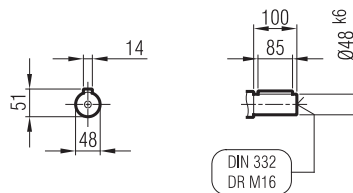
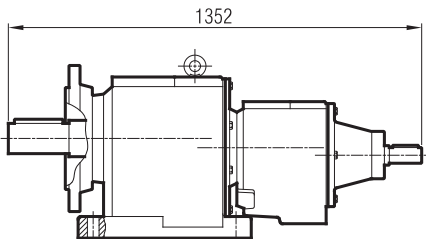
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	100 L	112 M	132 S	132 M	160 M			
A	1479	1453	1515	1560	1655			
A1	1556	1548	1619	1664	1772			
H	161	170	193	193	240			
HD	261	282	325	325	400			
AC	195	220	262	262	315			

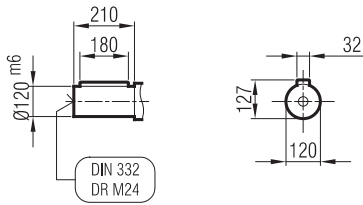
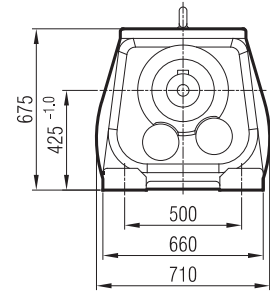
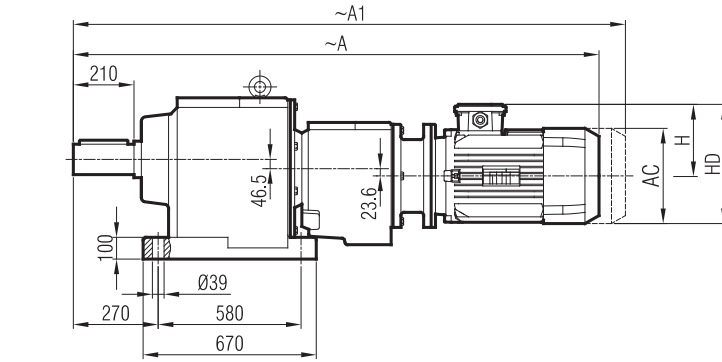
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 152 İR 92 / İRAF 152 İR 93
İRAF 153 İR 92 / İRAF 153 İR 93

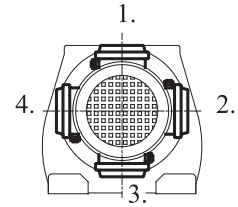




**İRAPM 153 İR 92
İRAPM 153 İR 93**



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



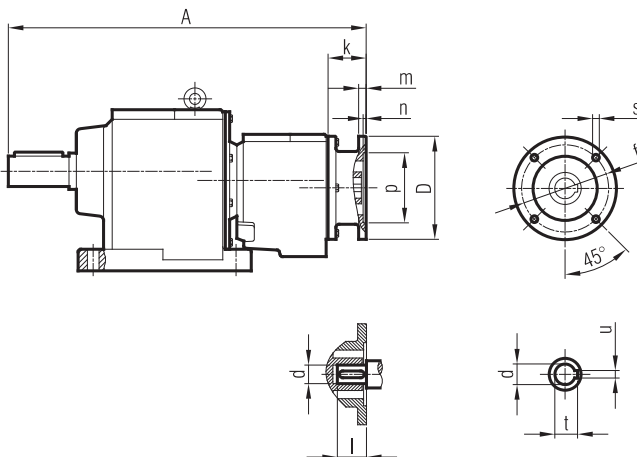
	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	1460	1469	1507	1548	1520	1614	1655	1749
A1	1521	1536	1574	1625	1615	1718	1759	1866
H	136	141	141	161	170	193	193	240
HD	216	231	231	261	282	325	325	400
AC	158	176	176	195	220	262	262	315

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

Le dimensions "A1" correspond aux moteurs équipés de freins.

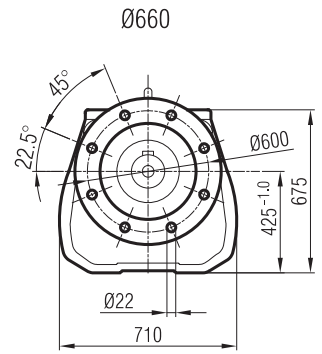
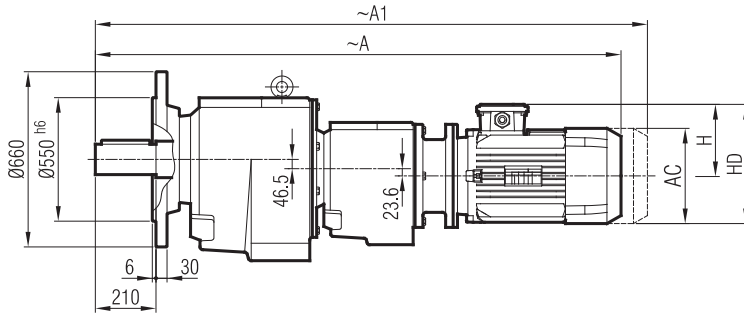
**İRAP 152 İR 92 / İRAP 152 İR 93
İRAP 153 İR 92 / İRAP 153 İR 93**



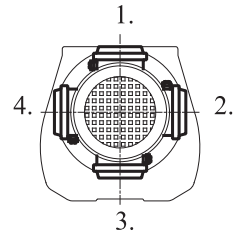
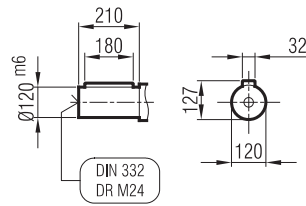
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	1167	130	165	200	M10	49	12	5	19	21.8	6
90	1167	130	165	200	M10	49	12	5	24	27.3	8
100	1176	180	215	250	M12	58	14	5	28	31.3	8
112	1176	180	215	250	M12	58	14	5	28	31.3	8
132	1213	230	265	300	M12	95	17	6	38	41.3	10
160	1229	250	300	350	M16	111	18	6.5	42	45.3	12
80	1167	80	100	120	Ø7	49	11	5	19	21.8	6
90	1167	95	115	140	Ø9	49	12	5	24	27.3	8
100	1176	110	130	160	Ø9	58	11	5	28	31.3	8
112	1176	110	130	160	Ø9	58	11	5	28	31.3	8
132	1213	130	165	200	Ø11	95	13	5	38	41.3	10
160	1213	180	215	250	Ø13	95	16	6	42	45.3	12



İRFPM 153 İR 92
İRFPM 153 İR 93



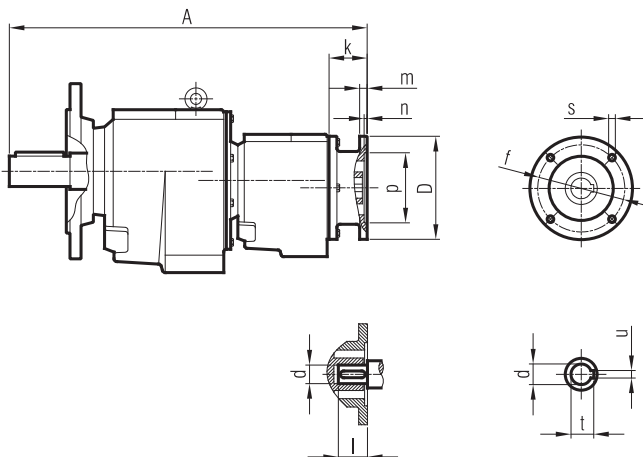
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	1460	1469	1507	1548	1520	1614	1655	1749
A1	1521	1536	1574	1625	1615	1718	1759	1866
H	136	141	141	161	170	193	193	240
HD	216	231	231	261	282	325	325	400
AC	158	176	176	195	220	262	262	315

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

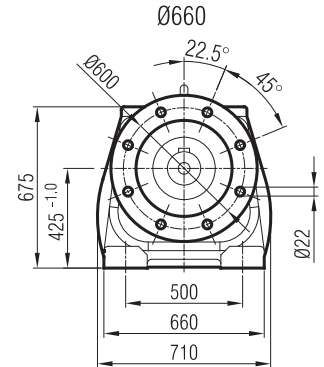
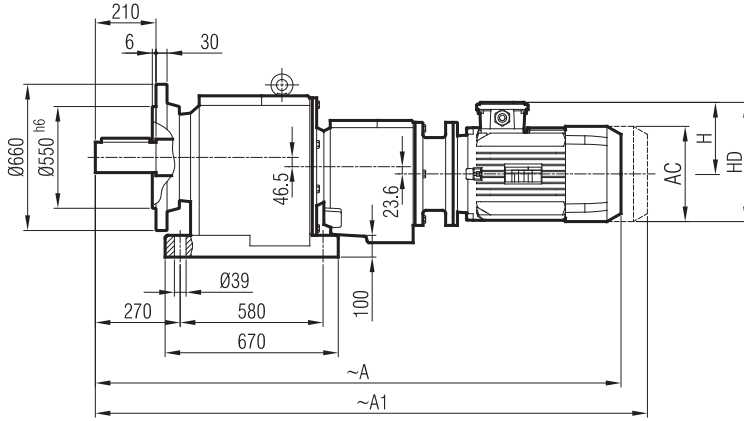
İRFP 152 İR 92 / İRFP 153 İR 93
İRFP 153 İR 92 / İRFP 153 İR 93



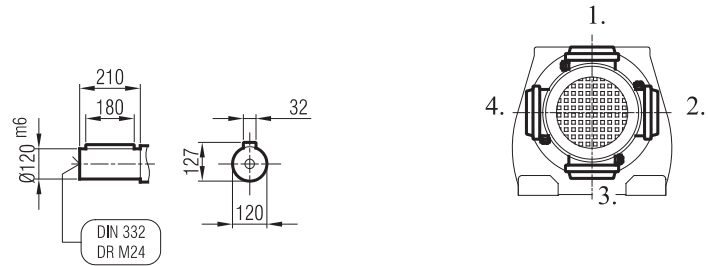
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	1167	130	165	200	M10	49	12	5	19	21.8	6
90	1167	130	165	200	M10	49	12	5	24	27.3	8
100	1176	180	215	250	M12	58	14	5	28	31.3	8
112	1176	180	215	250	M12	58	14	5	28	31.3	8
132	1213	230	265	300	M12	95	17	6	38	41.3	10
160	1229	250	300	350	M16	111	18	6.5	42	45.3	12
80	1167	80	100	120	Ø7	49	11	5	19	21.8	6
90	1167	95	115	140	Ø9	49	12	5	24	27.3	8
100	1176	110	130	160	Ø9	58	11	5	28	31.3	8
112	1176	110	130	160	Ø9	58	11	5	28	31.3	8
132	1213	130	165	200	Ø11	95	13	5	38	41.3	10
160	1213	180	215	250	Ø13	95	16	6	42	45.3	12



**İRAFPM 153 İR 92
İRAFPM 153 İR 93**



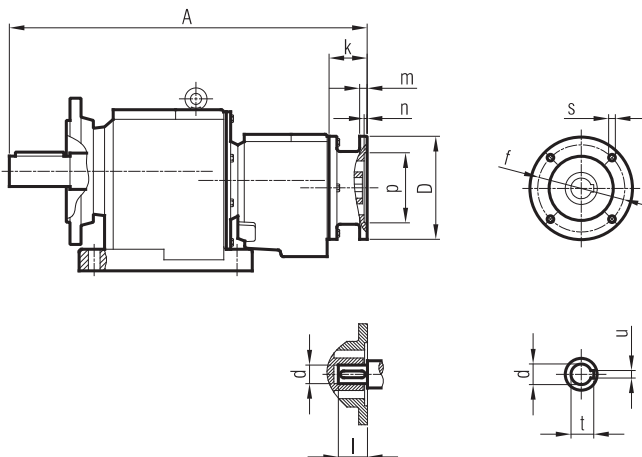
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	80 M/B5	90 S/B5	90 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5
A	1460	1469	1507	1548	1520	1614	1655	1749
A1	1521	1536	1574	1625	1615	1718	1759	1866
H	136	141	141	161	170	193	193	240
HD	216	231	231	261	282	325	325	400
AC	158	176	176	195	220	262	262	315

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

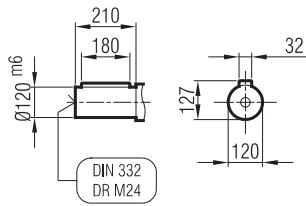
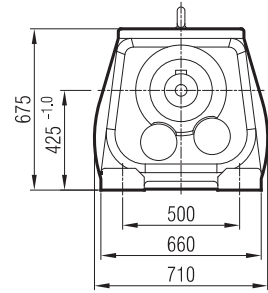
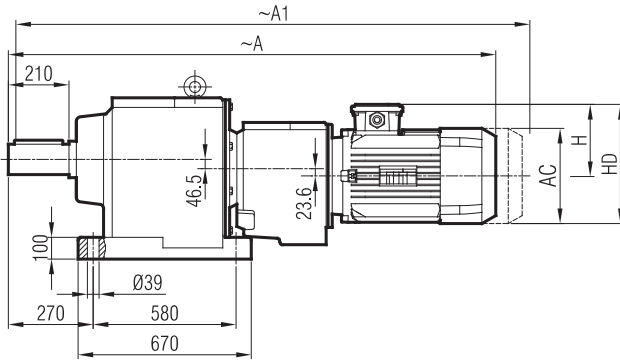
**İRAFP 152 İR 92 / İRAFP 152 İR 93
İRAFP 153 İR 92 / İRAFP 153 İR 93**



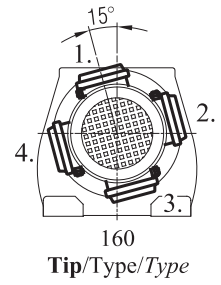
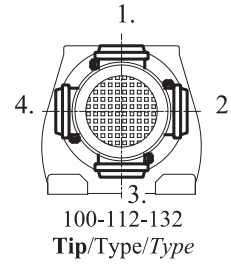
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
80	1167	130	165	200	M10	49	12	5	19	21.8	6
90	1167	130	165	200	M10	49	12	5	24	27.3	8
100	1176	180	215	250	M12	58	14	5	28	31.3	8
112	1176	180	215	250	M12	58	14	5	28	31.3	8
132	1213	230	265	300	M12	95	17	6	38	41.3	10
160	1229	250	300	350	M16	111	18	6.5	42	45.3	12
80	1167	80	100	120	Ø7	49	11	5	19	21.8	6
90	1167	95	115	140	Ø9	49	12	5	24	27.3	8
100	1176	110	130	160	Ø9	58	11	5	28	31.3	8
112	1176	110	130	160	Ø9	58	11	5	28	31.3	8
132	1213	130	165	200	Ø11	95	13	5	38	41.3	10
160	1213	180	215	250	Ø13	95	16	6	42	45.3	12



İRAM 153 İR 103



Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



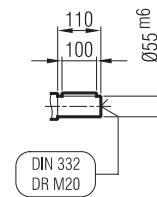
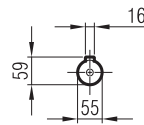
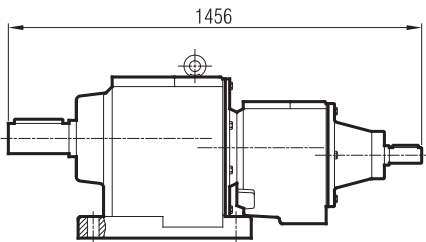
	100 L	112 M	132 S	132 M	160 M	160 L		
A	1553	1524	1574	1619	1697	1742		
A1	1630	1619	1678	1723	1814	1859		
H	161	170	193	193	240	240		
HD	261	282	325	325	400	400		
AC	195	220	262	262	315	315		

"A1" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

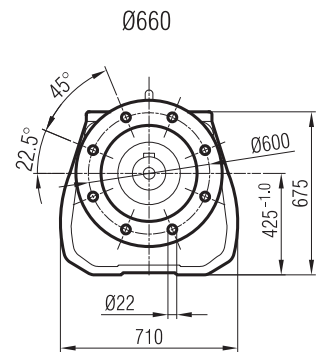
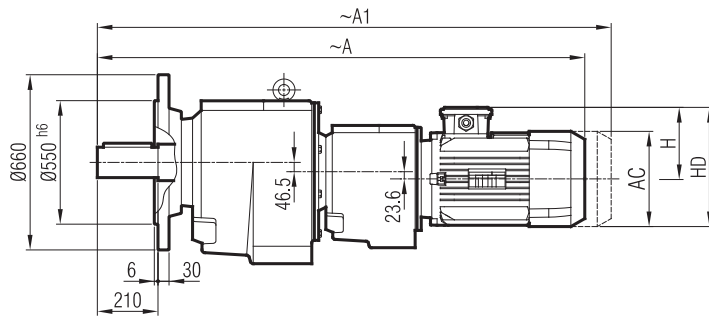
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRA 153 İR 103

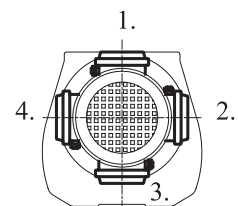
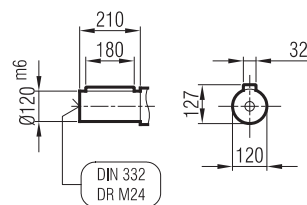




İRFM 153 İR 103

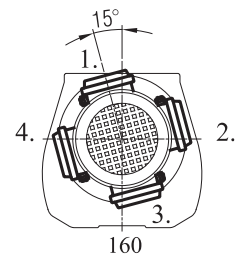


Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



100-112-132-180-200-225

Tip/Type/Type



Tip/Type/Type

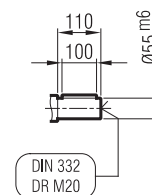
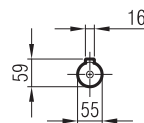
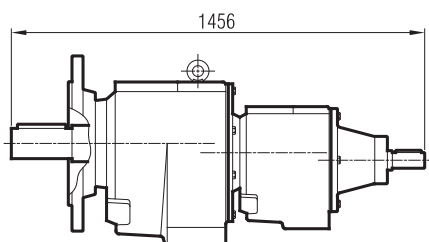
	100 L	112 M	132 S	132 M	160 M	160 L		
A	1553	1524	1574	1619	1697	1742		
A1	1630	1619	1678	1723	1814	1859		
H	161	170	193	193	240	240		
HD	261	282	325	325	400	400		
AC	195	220	262	262	315	315		

"A₁" Ölçüsü Frenli Motorlar içindir.

Dimension "A1" is for motors with brake.

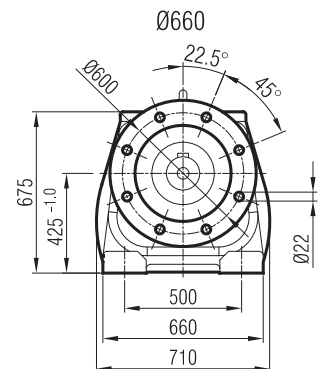
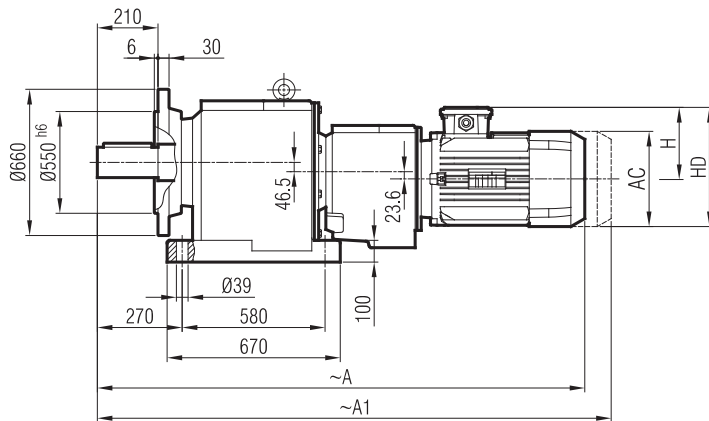
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRF 153 İR 103

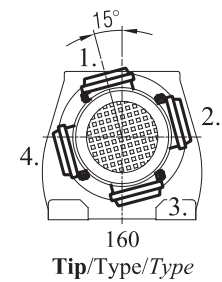
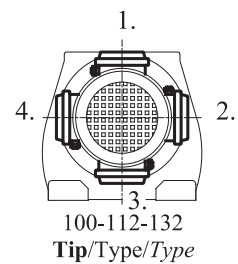
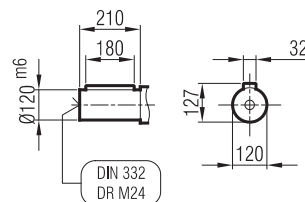




İRAFM 153 İR 103



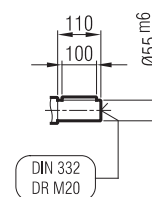
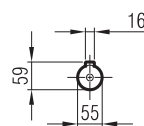
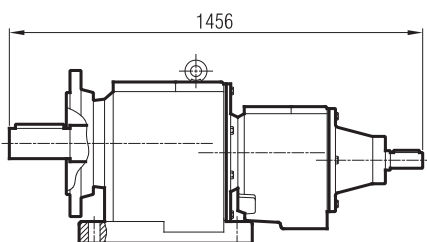
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes

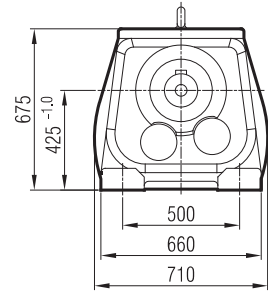
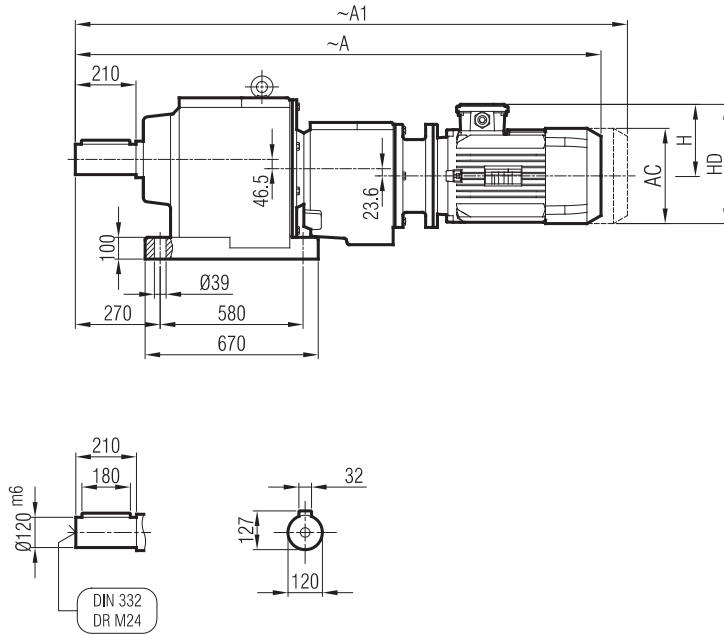


	100 L	112 M	132 S	132 M	160 M	160 L		
A	1553	1524	1574	1619	1697	1742		
A1	1630	1619	1678	1723	1814	1859		
H	161	170	193	193	240	240		
HD	261	282	325	325	400	400		
AC	195	220	262	262	315	315		

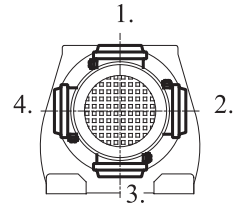
"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAF 153 İR 103



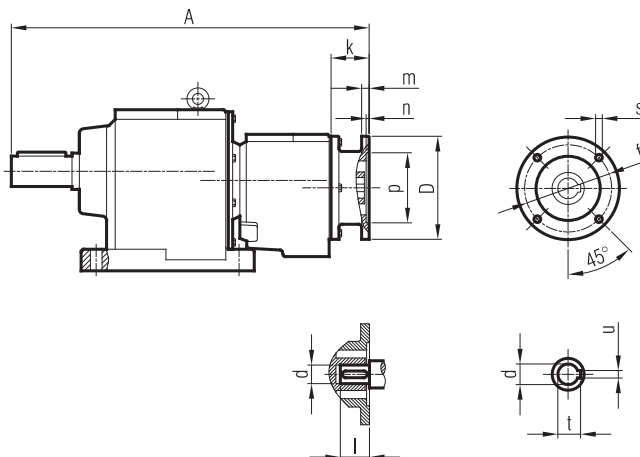

İRAPM 153 İR 103


Klemens Pozisyonları
 Positions of Terminal Box
 Position de la boîte à bornes



	100 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5
A	1615	1615	1587	1671	1712	1797	1842
A1	1692	1692	1682	1775	1816	1914	1656
H	161	161	170	193	193	240	240
HD	261	261	282	325	325	400	400
AC	195	195	220	262	262	315	315

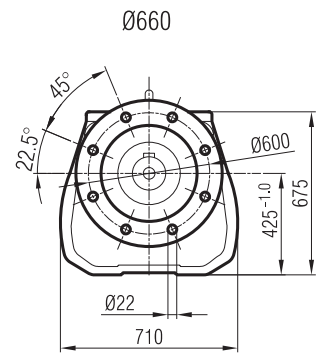
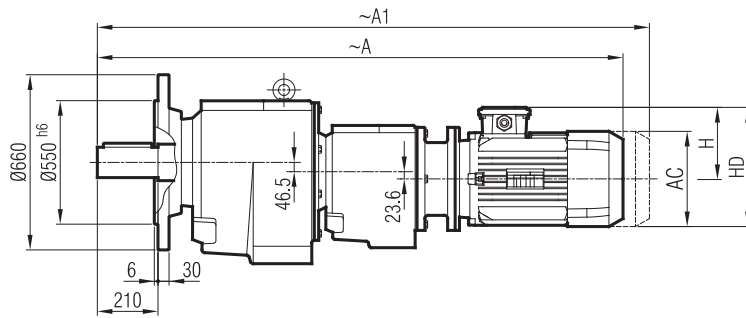
"A1" Ölçüsü Frenli Motorlar içindir.
 Dimension "A1" is for motors with brake.
 Le dimensions "A1" correspond aux moteurs équipés de freins.

İRAP 153 İR 103


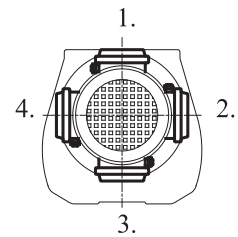
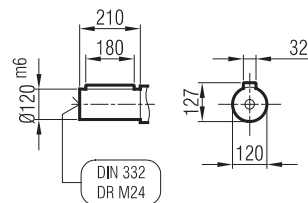
IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	1243	180	215	250	M12	57	14	5	28	31.3	8
112	1243	180	215	250	M12	57	14	5	28	31.3	8
132	1270	230	265	300	M12	84	17	6	38	41.3	10
160	1277	250	300	350	M16	91	18	6.5	42	45.3	12
100	1243	110	130	160	Ø9	57	11	5	28	31.3	8
112	1243	110	130	160	Ø9	57	11	5	28	31.3	8
132	1270	130	165	200	Ø11	84	13	5	38	41.3	10
160	1281	180	215	250	Ø14	95	16	6	42	45.3	12



İRFPM 153 İR 103



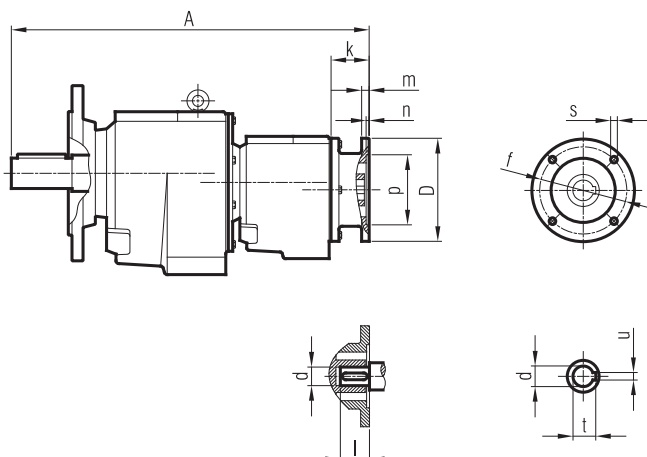
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	100 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5
A	1615	1615	1587	1671	1712	1797	1842
A1	1692	1692	1682	1775	1816	1914	1656
H	161	161	170	193	193	240	240
HD	261	261	282	325	325	400	400
AC	195	195	220	262	262	315	315

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

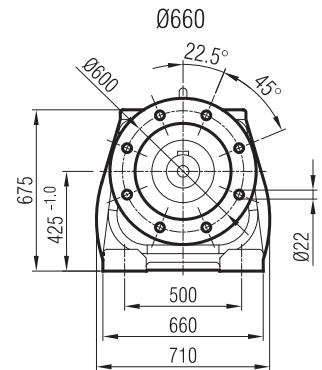
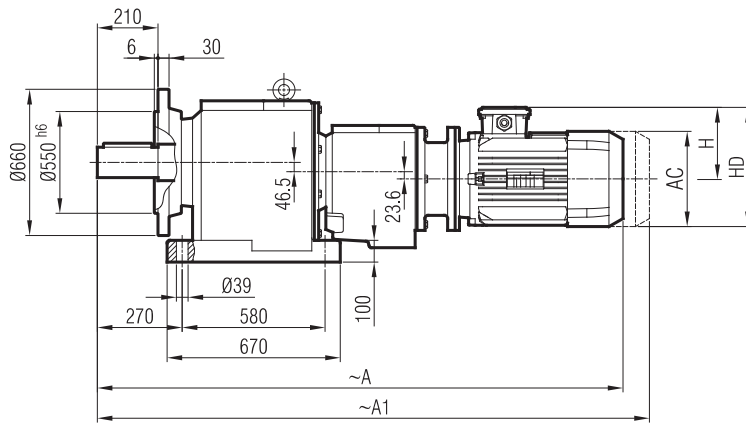
İRFP 153 İR 103



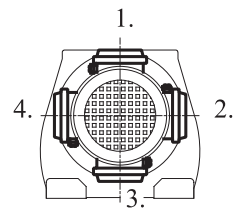
IEC		A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	B5	1243	180	215	250	M12	57	14	5	28	31.3	8
112		1243	180	215	250	M12	57	14	5	28	31.3	8
132		1270	230	265	300	M12	84	17	6	38	41.3	10
160		1277	250	300	350	M16	91	18	6.5	42	45.3	12
100	B14	1243	110	130	160	Ø9	57	11	5	28	31.3	8
112		1243	110	130	160	Ø9	57	11	5	28	31.3	8
132		1270	130	165	200	Ø11	84	13	5	38	41.3	10
160		1281	180	215	250	Ø14	95	16	6	42	45.3	12



İRAFPM 153 İR 103



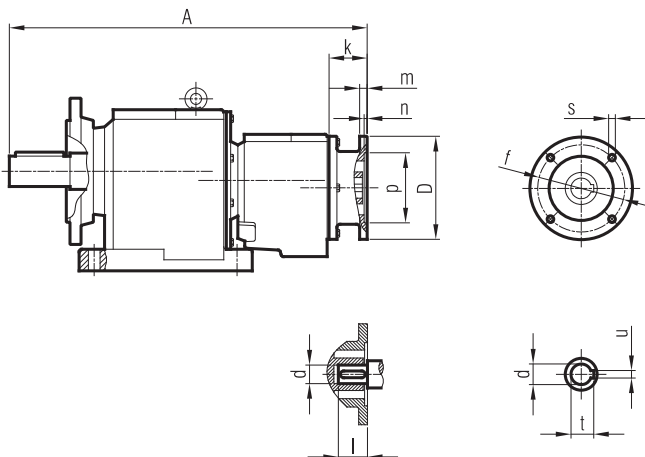
Klemens Pozisyonları
Positions of Terminal Box
Position de la boîte à bornes



	100 L/B5	100 L/B5	112 M/B5	132 S/B5	132 M/B5	160 M/B5	160 L/B5
A	1615	1615	1587	1671	1712	1797	1842
A1	1692	1692	1682	1775	1816	1914	1656
H	161	161	170	193	193	240	240
HD	261	261	282	325	325	400	400
AC	195	195	220	262	262	315	315

"A1" Ölçüsü Frenli Motorlar içindir.
Dimension "A1" is for motors with brake.
Le dimensions "A1" correspond aux moteurs équipés de freins.

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IEC	A	Øp	Øf	ØD	s	k	m	n	Ød	t	u
100	1243	180	215	250	M12	57	14	5	28	31.3	8
112	1243	180	215	250	M12	57	14	5	28	31.3	8
132	1270	230	265	300	M12	84	17	6	38	41.3	10
160	1277	250	300	350	M16	91	18	6.5	42	45.3	12
100	1243	110	130	160	Ø9	57	11	5	28	31.3	8
112	1243	110	130	160	Ø9	57	11	5	28	31.3	8
132	1270	130	165	200	Ø11	84	13	5	38	41.3	10
160	1281	180	215	250	Ø14	95	16	6	42	45.3	12



Monoblok Helisel Dişlili Redüktörler Yedek Parça Listeleri

General Parts List

Liste des pièces détachées



TİP / TYPE / TYP

İRAM - İRAPM - İRA - İRAP

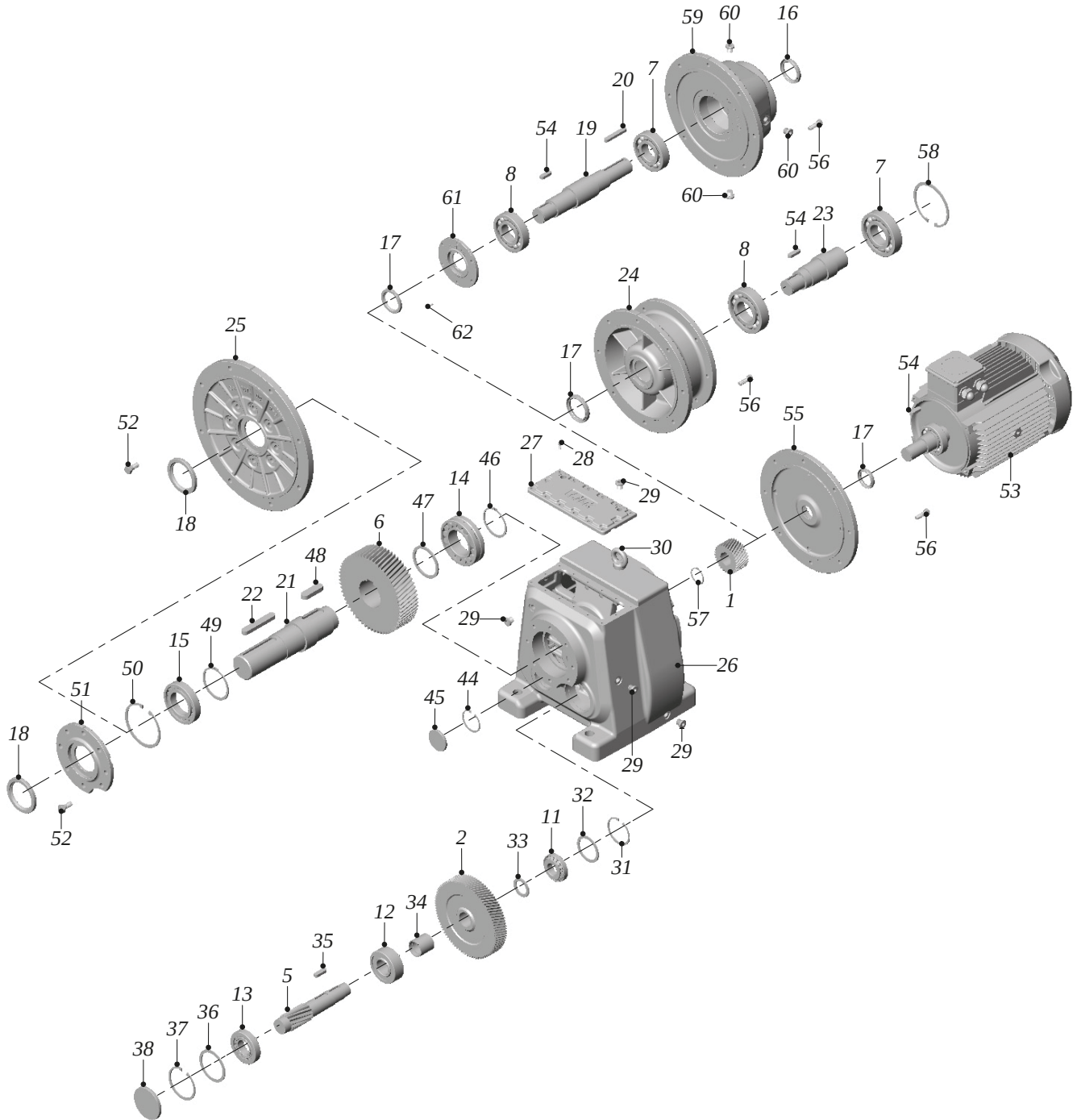
İRFM - İRFPM - İRF - İRFP

İRAFM - İRAFP - İRAF - İRAFP

42-52-62-62-72-72-82-92-102-122-142-152

İki Kademeli / Double Reduction

Doppel Reduzierung





TİP / TYPE / TYP

İRAM / İRFM / İRAFM / İRAPM / İRFPM / İRAFP

İRA / İRF / İRAF / İRAP / İRF / İRAF

} 42-52-621-62-721-72-82-92-102-122-142-152

1 - Dişli Z1	1 - Gear Z1	1 - Rad Z1
2 - Dişli Z2	2 - Gear Z2	2 - Rad Z2
5 - Milli Dişli Z3	5 - Gear Z3	5 - Ritzelwelle Z3
6 - Dişli Z4	6 - Gear Z4	6 - Rad Z4
7 - Rulman	7 - Bearing	7 - Lager
8 - Rulman	8 - Bearing	8 - Lager
11 - Rulman	11 - Bearing	11 - Lager
12 - Rulman	12 - Bearing	12 - Lager
13 - Rulman	13 - Bearing	13 - Lager
14 - Rulman	14 - Bearing	14 - Lager
15 - Rulman	15 - Bearing	15 - Lager
16 - Keçe	16 - Seal	16 - Wellendichtring
17 - Keçe	17 - Seal	17 - Wellendichtring
18 - Keçe	18 - Seal	18 - Wellendichtring
19 - Giriş Mili	19 - Input Shaft	19 - Antriebswelle
20 - Kama	20 - Key	20 - Passfeder
21 - Çıkış Mili	21 - Output Shaft	21 - Abtriebswelle
22 - Kama	22 - Key	22 - Passfeder
23 - Ara Bağlantı Mili	23 - Connection Shaft	23 - Verbindungswelle
24 - Pam Flanş (IEC)	24 - IEC Flange	24 - IEC Flansch
25 - Flanş	25 - Flange	25 - Abtriebsflansch
26 - Gövde	26 - Gear Case	26 - Getriebegehäuse
27 - Kapak	27 - Cover	27 - Deckel
28 - Çivata	28 - Bolt	28 - Sechskantschraube
29 - Yağ Tapası	29 - Oil Plug	29 - Ölschraube
30 - Taşıma Kancası	30 - Lifting Eye Bolt	30 - Ringschraube
31 - Segman	31 - Circlip	31 - Sicherungsring
32 - Pul	32 - Washer	32 - Unterlegscheibe
33 - Pul	33 - Washer	33 - Unterlegscheibe
34 - Burç	34 - Spacer	34 - Stützscheibe
35 - Kama	35 - Key	35 - Passfeder
36 - Pul	36 - Washer	36 - Unterlegscheibe
37 - Segman	37 - Circlip	37 - Sicherungsring
38 - Tapa	38 - Locking Cover	38 - Verschlusskappe
44 - Segman	44 - Circlip	44 - Sicherungsring
45 - Tapa	45 - Locking Cover	45 - Verschlusskappe
46 - Segman	46 - Circlip	46 - Sicherungsring
47 - Burç	47 - Spacer	47 - Stützscheibe
48 - Kama	48 - Key	48 - Passfeder
49 - Segman	49 - Circlip	49 - Sicherungsring
50 - Segman	50 - Circlip	50 - Sicherungsring
51 - Keçe Kapağı	51 - Seal Cover	51 - Dichtringflansch
52 - Çivata	52 - Bolt	52 - Sechskantschraube
53 - Motor	53 - Electric Motor	53 - Elektromotor
54 - Kama	54 - Key	54 - Passfeder
55 - Motor Bağlantı Kapağı	55 - Motor Mounting Adapter	55 - Motoranschlussflansch
56 - Çivata	56 - Bolt	56 - Sechskantschraube
57 - Segman	57 - Circlip	57 - Sicherungsring
58 - Segman	58 - Circlip	58 - Sicherungsring
59 - Motorsuz Kapak	59 - Gear Case Cover	59 - Antriebsdeckel
60 - Yağ Tapası	60 - Oil Plug	60 - Ölschraube
61 - Keçe Kapağı	61 - Seal Cover	61 - Dichtringflansch
62 - Çivata	62 - Bolt	62 - Sechskantschraube



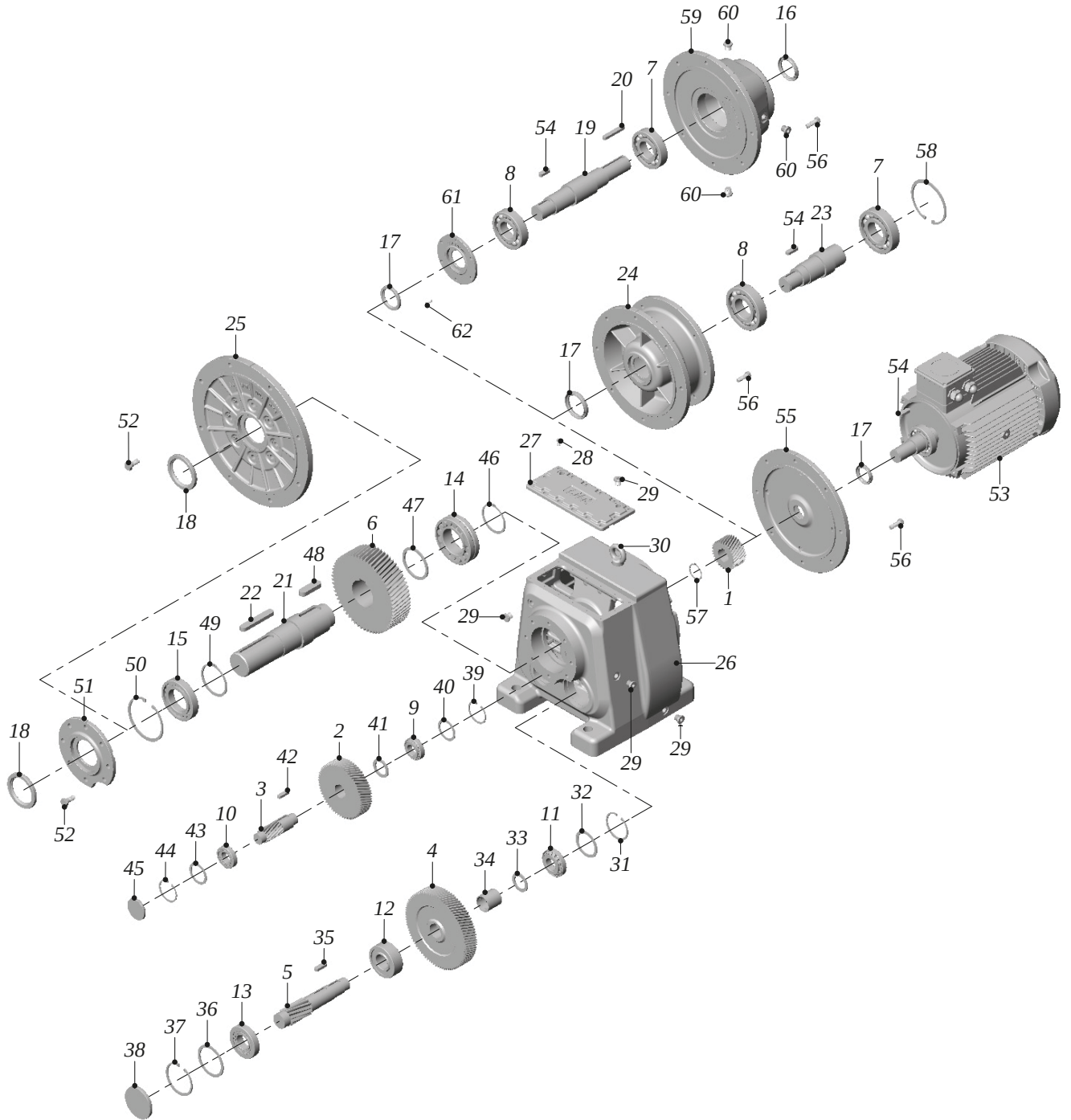
TİP / TYPE / TYP

İRAM - İRAPM - İRA - İRAP

İRFM - İRFPM - İRF - İRFP

İRAFM - İRAFP - İRAF - İRAFP

43-53-631-63-731-73-83-93-103-123-143-153





TİP / TYPE / TYP

İRAM / İRFM / İRAFM / İRAPM / İRFPM / İRAFP

İRA / İRF / İRAF / İRAP / İRFP / İRAFP

43-53-631-63-731-73-83-93-103-123-143-153

1 - Dişli Z1	1 - Gear Z1	1 - Rad Z1
2 - Dişli Z2	2 - Gear Z2	2 - Rad Z2
3 - Milli Dişli Z3	3 - Gear Z3	3 - Ritzelwelle Z3
4 - Dişli Z4	4 - Gear Z4	4 - Rad Z4
5 - Milli Dişli Z5	5 - Gear Z5	5 - Ritzelwelle Z5
6 - Dişli Z6	6 - Gear Z6	6 - Rad Z6
7 - Rulman	7 - Bearing	7 - Lager
8 - Rulman	8 - Bearing	8 - Lager
9 - Rulman	9 - Bearing	9 - Lager
10 - Rulman	10 - Bearing	10 - Lager
11 - Rulman	11 - Bearing	11 - Lager
12 - Rulman	12 - Bearing	12 - Lager
13 - Rulman	13 - Bearing	13 - Lager
14 - Rulman	14 - Bearing	14 - Lager
15 - Rulman	15 - Bearing	15 - Lager
16 - Keçe	16 - Seal	16 - Wellendichtring
17 - Keçe	17 - Seal	17 - Wellendichtring
18 - Keçe	18 - Seal	18 - Wellendichtring
19 - Giriş Mili	19 - Input Shaft	19 - Antriebswelle
20 - Kama	20 - Key	20 - Passfeder
21 - Çıkış Mili	21 - Output Shaft	21 - Abtriebswelle
22 - Kama	22 - Key	22 - Passfeder
23 - Ara Bağlantı Mili	23 - Connection Shaft	23 - Verbindungswelle
24 - Pam Flanş (IEC)	24 - IEC Flange	24 - IEC Flansch
25 - Flanş	25 - Flange	25 - Abtriebsflansch
26 - Gövde	26 - Gear Case	26 - Getriebegehäuse
27 - Kapak	27 - Cover	27 - Deckel
28 - Çıvata	28 - Bolt	28 - Sechskantschraube
29 - Yağ Tapası	29 - Oil Plug	29 - Ölschraube
30 - Taşıma Kancası	30 - Lifting Eye Bolt	30 - Ringschraube
31 - Segman	31 - Circlip	31 - Sicherungsring
32 - Pul	32 - Washer	32 - Unterlegscheibe
33 - Pul	33 - Washer	33 - Unterlegscheibe
34 - Burç	34 - Spacer	34 - Stützscheibe
35 - Kama	35 - Key	35 - Passfeder
36 - Pul	36 - Washer	36 - Unterlegscheibe
37 - Segman	37 - Circlip	37 - Sicherungsring
38 - Tapa	38 - Locking Cover	38 - Verschlusskappe
39 - Segman	39 - Circlip	39 - Sicherungsring
40 - Pul	40 - Washer	40 - Unterlegscheibe
41 - Burç	41 - Spacer	41 - Stützscheibe
42 - Kama	42 - Key	42 - Passfeder
43 - Pul	43 - Washer	43 - Unterlegscheibe
44 - Segman	44 - Circlip	44 - Sicherungsring
45 - Tapa	45 - Locking Cover	45 - Verschlusskappe
46 - Segman	46 - Circlip	46 - Sicherungsring
47 - Burç	47 - Spacer	47 - Stützscheibe
48 - Kama	48 - Key	48 - Passfeder
49 - Segman	49 - Circlip	49 - Sicherungsring
50 - Segman	50 - Circlip	50 - Sicherungsring
51 - Keçe Kapak	51 - Seal Cover	51 - Dichtringflansch
52 - Çıvata	52 - Bolt	52 - Sechskantschraube
53 - Motor	53 - Electric Motor	53 - Elektromotor
54 - Kama	54 - Key	54 - Passfeder
55 - Motor Bağlantı Kapak	55 - Motor Mounting Adapter	55 - Motoranschlussflansch
56 - Çıvata	56 - Bolt	56 - Sechskantschraube
57 - Segman	57 - Circlip	57 - Sicherungsring
58 - Segman	58 - Circlip	58 - Sicherungsring
59 - Motorsuz Kapak	59 - Gear Case Cover	59 - Antriebsdeckel
60 - Yağ Tapası	60 - Oil Plug	60 - Ölschraube
61 - Keçe Kapak	61 - Seal Cover	61 - Dichtringflansch
62 - Çıvata	62 - Bolt	62 - Sechskantschraube



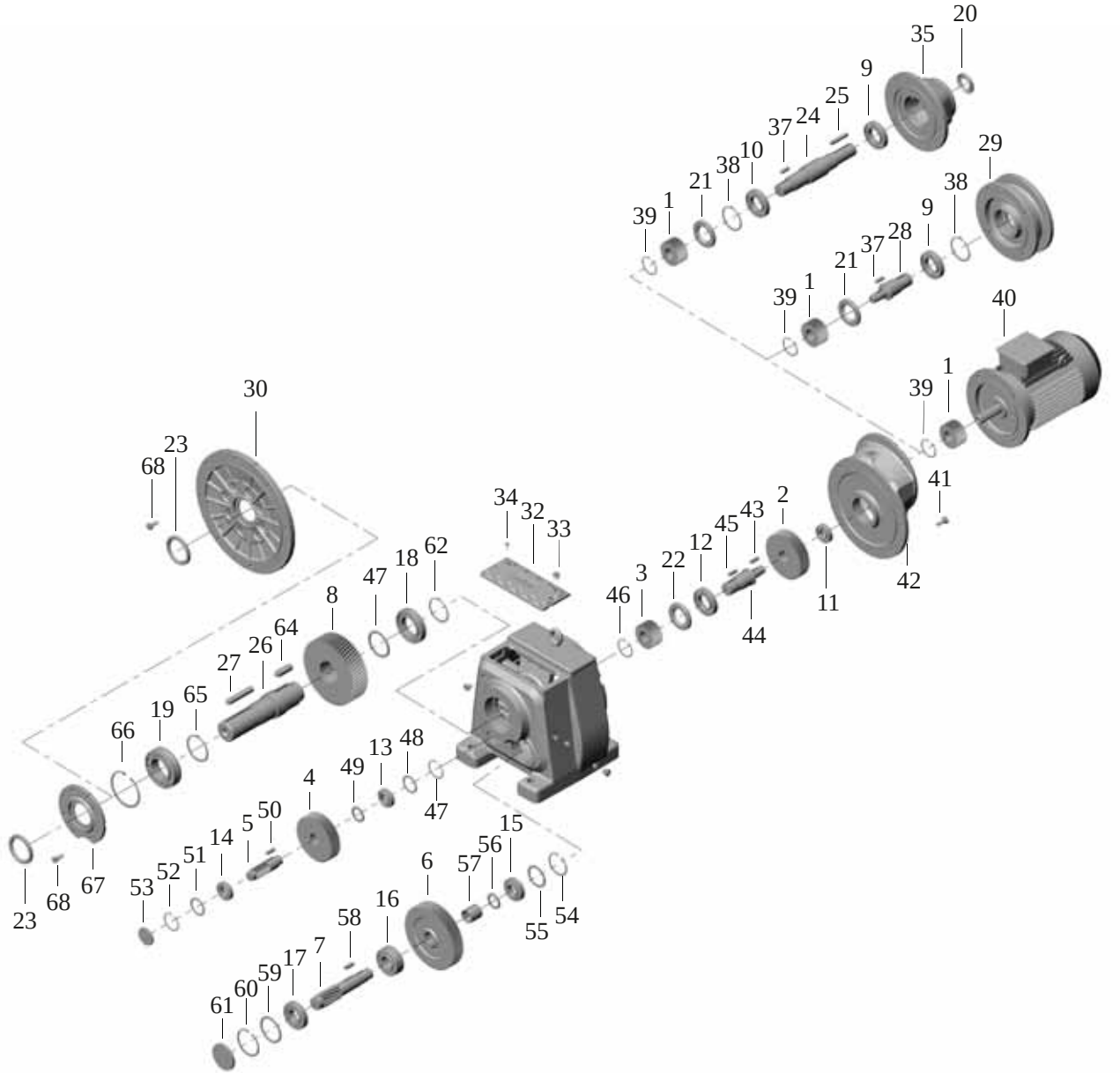
TİP / TYPE / TYP

İRAM - İRAPM - İRA - İRAP

İRFM - İRFPM - İRF - İRFP

İRAFM - İRAFPM - İRAF - İRAFP

64-741-74-84-94-104-124-144-154





TİP / TYPE

İRAM / İRFM / İRAFM / İRAPM / İRFPM / İRAFPM } 64-741-74-84-94-104-124-144-154
İRA / İRF / İRAF / İRAP / İRFP / İRAFP

1 - Dişli Z1	1 - Gear Z1	1 - Pignon Z1
2 - Dişli Z2	2 - Gear Z2	2 - Pignon Z2
3 - Dişli Z3	3 - Gear Z3	3 - Pignon Z3
4 - Dişli Z4	4 - Gear Z4	4 - Pignon Z4
5 - Milli Dişli Z5	5 - Gear Z5	5 - Pignon Z5
6 - Dişli Z6	6 - Gear Z6	6 - Pignon Z6
7 - Milli Dişli Z7	7 - Gear Z7	7 - Pignon Z7
8 - Dişli Z8	8 - Gear Z8	8 - Pignon Z8
9 - Rulman	9 - Bearing	9 - Roulement
10 - Rulman	10 - Bearing	10 - Roulement
11 - Rulman	11 - Bearing	11 - Roulement
12 - Rulman	12 - Bearing	12 - Roulement
13 - Rulman	13 - Bearing	13 - Roulement
14 - Rulman	14 - Bearing	14 - Roulement
15 - Rulman	15 - Bearing	15 - Roulement
16 - Rulman	16 - Bearing	16 - Roulement
17 - Rulman	17 - Bearing	17 - Roulement
18 - Rulman	18 - Bearing	18 - Roulement
19 - Rulman	19 - Bearing	19 - Roulement
20 - Keçe	20 - Seal	20 - Joint
21 - Keçe	21 - Seal	21 - Joint
22 - Keçe	22 - Seal	22 - Joint
23 - Keçe	23 - Seal	23 - Joint
24 - Giriş Mili	24 - Input Shaft	24 - Arbre d'entrée
25 - Kama	25 - Key	25 - Clavette
26 - Çıkış Mili	26 - Output Shaft	26 - Arbre de sortie
27 - Kama	27 - Key	27 - Clavette
28 - Ara Bağlantı Mili	28 - Connection Shaft	28 - Arbre connecteur
29 - Pam Flanş (IEC)	29 - IEC Flange	29 - Bride IEC
30 - Flanş	30 - Flange	30 - Bride
31 - Gövde	31 - Gear Case	31 - Carter
32 - Kapak	32 - Cover	32 - Couvercle
33 - Yağ Tapası	33 - Oil Plug	33 - Bouchon d'huile
34 - Cıvata	34 - Bolt	34 - Vis
35 - Motorsuz Kapak	35 - Gear Case Cover	35 - Bride d'entrée
36 - Taşıma Kancası	36 - Lifting Eye Bolt	36 - Anneau de levage
37 - Kama	37 - Key	37 - Clavette
38 - Segman	38 - Circlip	38 - Circlip
39 - Segman	39 - Circlip	39 - Circlip
40 - Motor	40 - Electric Motor	40 - Moteur électrique
41 - Cıvata	41 - Bolt	41 - Vis
42 - V Gövde	42 - Gear Case V	42 - Carter V
43 - Kama	43 - Key	43 - Clavette
44 - Ara Bağlantı Mili	44 - Connection Shaft	44 - Arbre connecteur
45 - Kama	45 - Key	45 - Clavette
46 - Segman	46 - Circlip	46 - Circlip
47 - Segman	47 - Circlip	47 - Circlip
48 - Pul	48 - Washer	48 - Joint
49 - Pul	49 - Washer	49 - Joint
50 - Kama	50 - Key	50 - Clavette
51 - Pul	51 - Washer	51 - Joint
52 - Segman	52 - Circlip	52 - Circlip
53 - Tapa	53 - Locking Cover	53 - Bouchon
54 - Segman	54 - Circlip	54 - Circlip
55 - Pul	55 - Washer	55 - Joint
56 - Pul	56 - Washer	56 - Joint
57 - Burç	57 - Spacer	57 - Anneau d'espacement
58 - Kama	58 - Key	58 - Clavette
59 - Pul	59 - Washer	59 - Joint
60 - Segman	60 - Circlip	60 - Circlip
61 - Tapa	61 - Locking Cover	61 - Bouchon
62 - Segman	62 - Circlip	62 - Circlip
63 - Pul	63 - Washer	63 - Joint
64 - Kama	64 - Key	64 - Clavette
65 - Segman	65 - Circlip	65 - Circlip
66 - Segman	66 - Circlip	66 - Circlip
67 - Keçe Kapağı	67 - Seal Cover	67 - Joint
68 - Cıvata	68 - Bolt	68 - Vis

Notlar
Notes



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