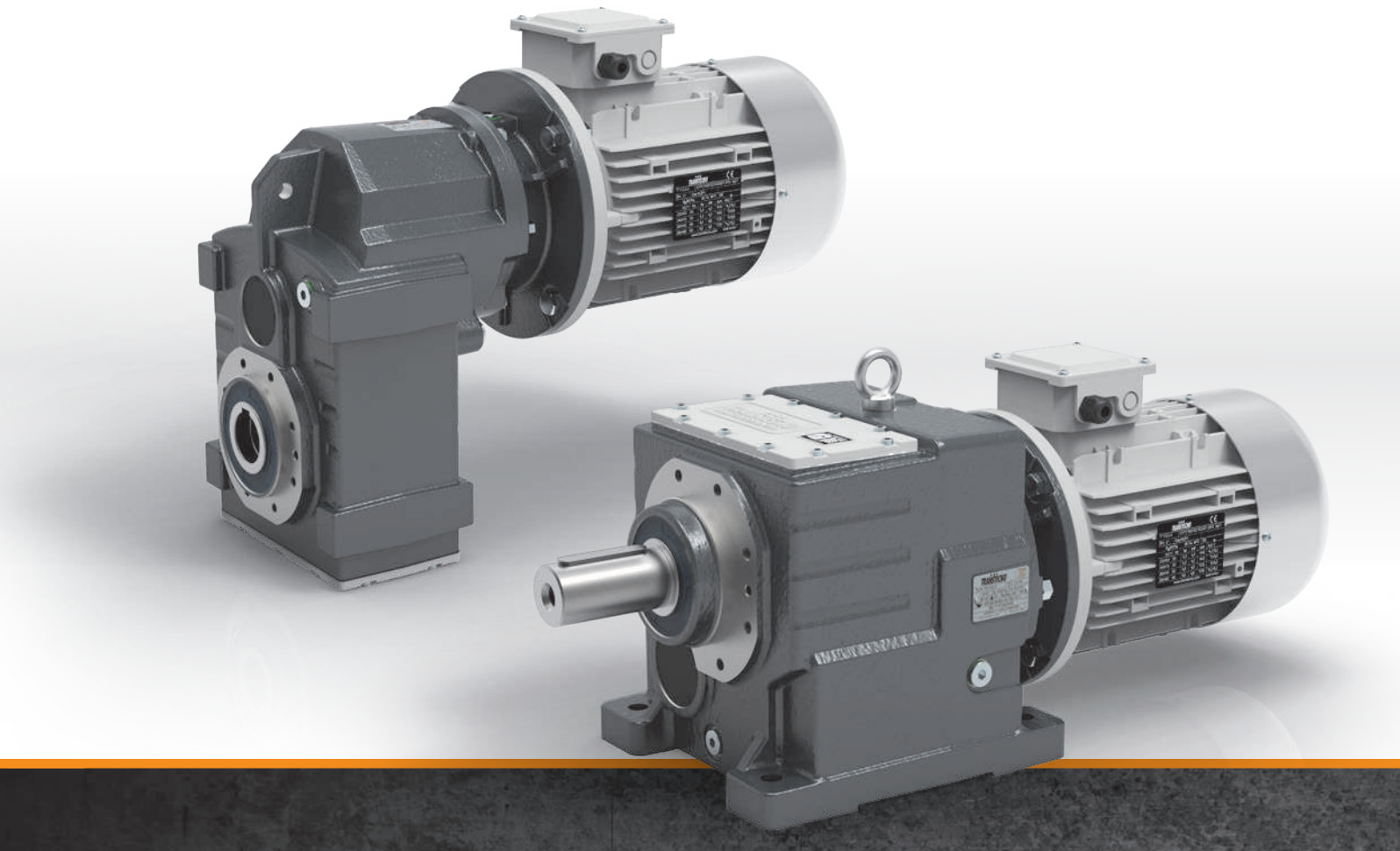
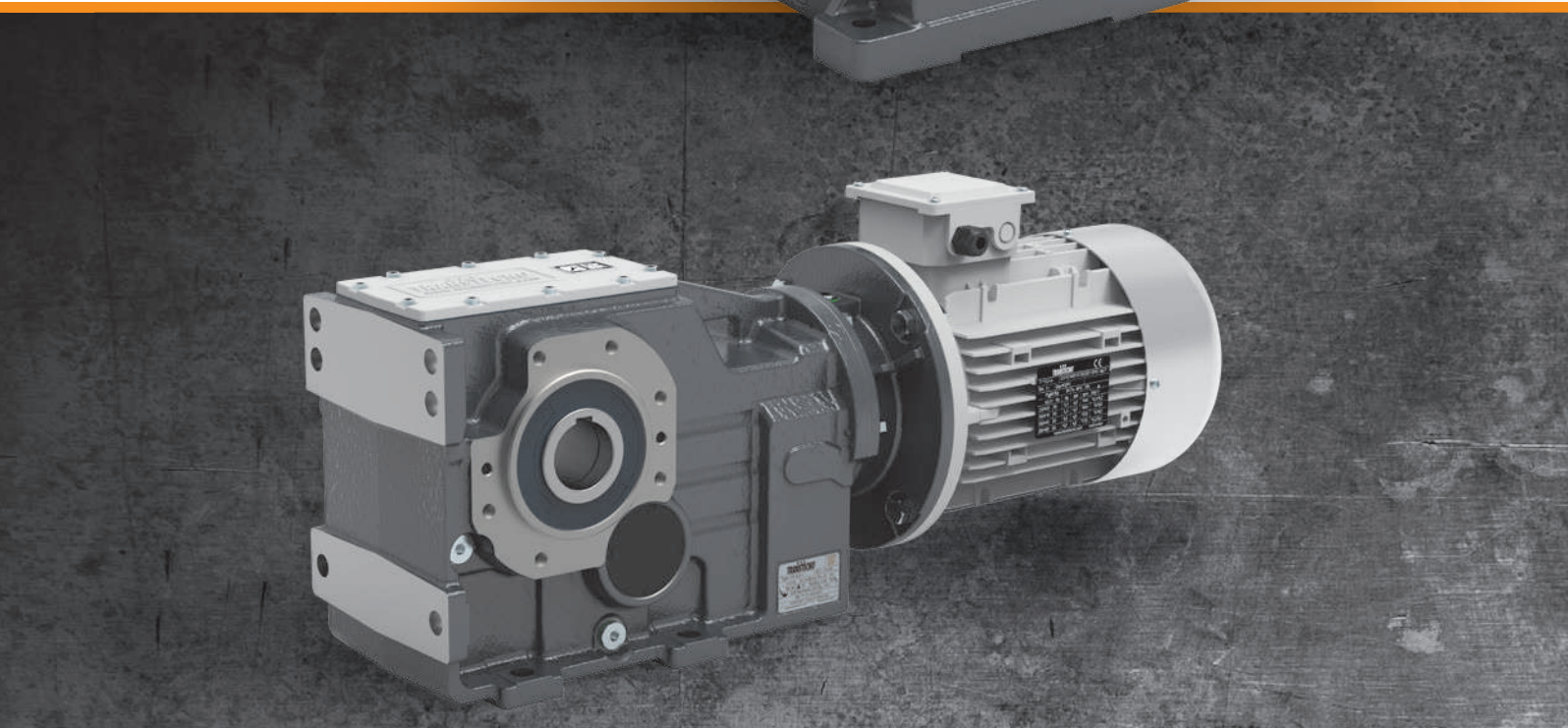
TRANSTECNO®

the modular gearmotor

AC Iron





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Generalità — *General information*

Per avere una migliore comprensione degli argomenti e dei dati esposti in questo catalogo proponiamo la simbologia utilizzata corredandola delle informazioni di base per giungere ad una corretta selezione dei motoriduttori.

Information in this manual is provided with symbols in order to understand the subject matter and data. These symbols are intended to aid the user in selecting the right gearmotors.

Velocità entrata — n_1 [min^{-1}] — *Input speed*

Rappresenta la velocità riferita al tipo di motorizzazione prescelta ed è applicata in entrata al riduttore.

This is the input speed at the gearbox related to the type of drive unit selected.

Per selezioni a velocità diverse da quelle riportate consultare il ns. Servizio Tecnico.

When different speeds are required, contact our Technical Service.

Rapporto di riduzione — i — *Gear ratio*

E' una grandezza adimensionale ed è in funzione del numero dei denti degli ingranaggi interni al riduttore.
Dai dati di catalogo si può ottenere con la relazione:

This value is strictly related to the size and number of teeth gears inside the gearbox.
From the data given in the catalogue, the value can be calculated using the following formula:

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

Velocità in uscita — n_2 [min^{-1}] — *Output speed*

E' la velocità risultante sull' asse di uscita del riduttore e viene ricavata dalla relazione precedente:

This is the gearbox output speed calculated using the formula given above:

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

Coppia richiesta — Mr_2 [Nm] — *Requested torque*

E' la coppia richiesta dall'applicazione ed è indispensabile per la selezione di una motorizzazione.
Essa può essere comunicata dall'utente oppure calcolata in base ai dati di applicazione (se forniti).

This is the torque needed for the application and must be known when selecting a drive system. It can either be provided by the user or calculated according to the application data (if provided).

Coppia nominale — Mn_2 [Nm] — *Nominal torque*

Rappresenta la coppia in uscita trasmissibile dal riduttore in base alla velocità in entrata n_1 e al rapporto di riduzione i.
Essa è calcolata in base ad un servizio con carico continuo uniforme corrispondente ad un fattore di servizio uguale a 1.
Questo valore non è riportato nel presente catalogo ma può essere ricavato approssimativamente con la seguente relazione fra M_2 (coppia trasmessa) e sf (fattore di servizio):

This is the output torque that can be transmitted by the gearbox according to input speed n_1 and gear ratio i. It is calculated based on service with a continuous steady load corresponding to a service factor equal to 1. This value is not given in the catalogue but can be calculated approximately with the following formula between M_2 (output torque) and sf (service factor):

$$Mn_2 = M_2 \cdot sf$$

Coppia Trasmessa — M_2 [Nm] — *Output torque*

E' la coppia trasmessa in uscita al riduttore.
Dipende dalla potenza P_1 del motore installato, dal numero di giri in uscita n_2 e dal rendimento dinamico Rd e può essere calcolata con la relazione:

This is the gearbox's output torque. It is strictly related to power P_1 of the motor installed, output rpm n_2 and dynamic efficiency Rd. It can be calculated with the following formula:

$$M_2 = \frac{9550 \cdot P_1 \cdot Rd}{n_2}$$

oppure: *or:*

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

dove: *where:*

$$P_2 = P_1 \cdot Rd$$

Rendimento — Rd — *Efficiency*

I calcoli delle prestazioni sono stati effettuati in base al rendimento dinamico Rd dei riduttori.

Nei riduttori ad ingranaggi il rendimento medio è del 94%.

Efficiency is calculated based on dynamic efficiency Rd of the gearboxes.

On helical gearboxes the average efficency is 94%.

Potenza in entrata — P_1 [kW] — *Input power*

E' la potenza motore applicata in entrata al riduttore e riferita alla velocità n_1.
Può essere calcolata come segue:

This is the power applied by the motor at the gearbox input in reference to speed n_1.
It can be calculated with the following formula:

$$P_1 = \frac{M_2 \cdot n_2}{9550 \cdot Rd}$$

Fattore di servizio — sf — *Service factor*

E' una grandezza adimensionale che indica il sovradimensionamento da applicare ad una determinata motorizzazione per garantire la resistenza agli urti e la durata richiesta.
Le tabelle di catalogo offrono una vasta scelta di motorizzazioni con fattori di servizio differenziati che possono soddisfare la maggior parte delle applicazioni più o meno gravose.
Per una corretta interpretazione dei valori del fattore di servizio sf riportati a fianco di ogni selezione proposta, riportiamo nelle tabelle seguenti i valori indicativi attribuiti alle classi di carico A, B, C e alla durata di funzionamento giornaliero h/d e al numero di avviamenti/ora.
Definendo la classe di carico a cui riferire l'applicazione, si ricercherà nella tabella il corrispondente valore di sf da utilizzare nella scelta della motorizzazione più idonea.

This value indicates how a certain drive system is to be over-sized in order to assure the requested service and stand up to shocks. The tables given in the catalogue offer a wide range of drive systems with different service factors able to satisfy most types of applications. To correctly understand service factor values sf given for each item, approximate values for load classes A, B and C along with the number of hours of daily operation h/d and number of start-ups/hours need to be known.
Once the load class required for the application has been determined, locate corresponding value sf to be used when selecting the most suitable drive system.

Tipo di carico	**A** - Uniforme	fa ≤ 0.3
	B - Medio	fa ≤ 3
	C - Forte	fa ≤ 10

Type of load	***A*** *- Uniform*	*fa ≤ 0.3*
	B *- Moderate shocks*	*fa ≤ 3*
	C *- Heavy shocks*	*fa ≤ 10*

$$fa = \frac{Je}{Jm}$$

- Je (kgm^2) momento d'inerzia esterno ridotto all'albero motore.
- Jm (kgm^2) momento d'inerzia motore.
  Se fa > 10 interpellare il sn. Servizio Tecnico.

$$fa = \frac{Je}{Jm}$$

- *Je (kgm^2) moment of reduced external inertia at the drive-shaft*
- *Jm (kgm^2) moment of inertia of motor.*
  If fa > 10 call our Technical Service.

A — Classe di carico / *Load class*
Carico uniforme / *Uniform load*

sf									
h/d	n. avviamenti/ora / n. start-up/hour								
	2	**4**	**8**	**16**	**32**	**63**	**125**	**250**	**500**
4	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2
8	1.0	1.0	1.1	1.1	1.3	1.3	1.3	1.3	1.3
16	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5
24	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8

B — Classe di carico / *Load class*
Carico con urti moderati / *Moderate shock load*

sf									
h/d	n. avviamenti/ora / n. start-up/hour								
	2	**4**	**8**	**16**	**32**	**63**	**125**	**250**	**500**
4	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3
8	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5
16	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8
24	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.2	2.2

C — Classe di carico / *Load class*
Carico con urti forti / Heavy *shock load*

sf									
h/d	n. avviamenti/ora / n. start-up/hour								
	2	**4**	**8**	**16**	**32**	**63**	**125**	**250**	**500**
4	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5
8	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8
16	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.2	2.2
24	2.2	2.2	2.2	2.2	2.5	2.5	2.5	2.5	2.5

Esempio applicazione:

Nastro trasportatore attribuibile alla classe di carico B **(carico con urti moderati)** e previsto per una durata di funzionamento giornaliero (h/d) di **16** ore e con **8** avviamenti/ora.
Dalla tabella rileviamo **sf = 1.5**

Application example:

*Conveyor belt assigned to load class B **(moderate shock load)**, to be run **16** hours a day (h/d) with **8** start-ups/hour.*
The following value is obtained from the table
sf = 1.5

Carico radiale — $R; R_2$ [N] — *Radial load*

L'applicazione sull'albero in uscita del riduttore di pignoni, pulegge, ecc. determina delle forze radiali che debbono necessariamente essere considerate per evitare sollecitazioni eccessive con il rischio di danneggiamenti del riduttore stesso.
Il calcolo del carico radiale esterno R agente sull'albero del riduttore può essere determinato come segue:

Pinions, pulleys, etc applied on the output shaft of the gearboxes create radial forces that must be taken into consideration to avoid excessive stress risking damage to the gearbox itself.

External radial load R that acts on the gearbox shaft can be calculated as follows:

$$R = \frac{2000 \cdot M_2 \cdot kr}{d} \leq R_2$$

dove:
d [mm] diametro primitivo del pignone o della puleggia
kr coefficiente riferito al tipo di trasmissione:
kr = 1.4 ruota per catena
kr = 1.1 ingranaggio
kr = 1.5 - 2.5 puleggia per cinghia a V

where:
***d** [mm] diameter of the pinion or pulley*
***kr** coefficient in relation to type of transmission:*
***kr = 1.4** sprocket wheel*
***kr = 1.1** gear*
***kr = 1.5 - 2.5** pulley for V belts*

E' opportuno evidenziare che i valori di R_2 sono riferiti a carichi agenti sulla mezzeria dell'albero lento (considerando l'albero sporgente) per cui il confronto dovrà essere effettuato nelle medesime condizioni.

Keep in mind that values R_2 refer to loads that act on the centerline of the output shaft (considering the shaft protrudes). As a result, the value should be compared under the same conditions.

Carico assiale — $A; A_2$ [N] — *Axial load*

A volte, unitamente al carico radiale, può essere presente anche una forza A che agisce assialmente sull'albero uscita; in questo caso considerare che il carico assiale ammissibile A_2 sull'albero è da considerare:

At times, along with the radial load, force A may be present that acts axially on the output shaft. In this case, keep in mind allowable axial load A_2 that can be applied on the shaft is:

$$A_2 = R_2 \cdot 0.2$$

Nel caso in cui il valore del carico assiale A agente sull'albero risultasse superiore ad A_2 contattate il ns. Servizio Tecnico.

If axial load A that acts on the shaft is greater than A_2, contact our Technical Service.

Scelta dei motoriduttori — *Selecting the gearmotors*

Per la scelta di un motoriduttore è necessario seguire la seguente procedura.

1. Per l'applicazione desiderata ricavare il fattore di servizio sf dalle tabelle a pag. A4 in base alla classe di carico, alle ore di funzionamento giornaliere e al numero di avviamenti orari.

2. Se si conosce la potenza motore P [kW] richiesta, passare al punto 3); se è nota la coppia in uscita M richiesta è necessario calcolare la potenza motore P con le formule:

$$P = \frac{M \cdot n_2}{9550 \cdot Rd}$$

Motoriduttore
Gearmotor

dove Rd è il rendimento dinamico e n_2 il numero di giri richiesti in uscita al motoriduttore.

To select the required gearmotor, perform the procedure below:

1. *Determine the service factor sf for the desired application by referring to the charts given on page A4. This is to be done by considering the class of load, the operational hours/day and the number of start-ups/ hour.*

2. *If the required motor power output P is known, go to item 3); if the required output torque M is known, determine motor output P by using the following formulas:*

where Rd stands for the dynamic efficiency and n_2 indicates the required output rpm of the gearmotor .

Scelta dei motoriduttori

3. Nelle tabelle dei dati tecnici ricercare la motorizzazione in cui sia P_1 maggiore o uguale a P e con riferimento a d una velocità n_2/n_{2max} prossima a quella desiderata, scegliere la motorizzazione in cui il fattore di servizio sf indicato risulti uguale o superiore a quello ricavato al punto 1).

Selecting the gearmotors

3. *Use the specification chart to search for the power unit where P_1 is greater than or equal to P with a speed n_2/n_{2max} that approximates the desired one. Choose a power unit where the indicated service factor sf is equal to or greater than that calculated at point 1).*

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			R_2 [N]
5.5							
132s4 (1400 min^{-1})	**23**	2177	1.6	61.74	**ITH143**	**B5**	22500
	21	2353	1.5	66.73		**B5**	22500
	18	2801	1.2	79.43		**B5**	22500
	16	3028	1.2	85.85		**B5**	22500

Esempio / *Example:*

Applicazione / *Application:*
Nastro trasportatore / *Conveyor belt*

P : 5.5 kW
sf : 1.6
n_2 : 23 rpm

Motorizzazione scelta / *Power unit selected:*

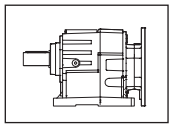
ITH143 i = 61.74, P_1 = 5.5 kW, sf = 1.6

Lubrificazione

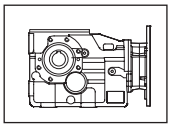
Lubrication

I motoriduttori della serie ITH, ITB e ITS sono forniti completi di lubrificante sintetico viscosità 320 a lunga durata.

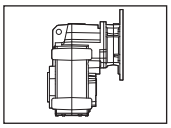
All unit sizes of ITH, ITB and ITS series are complete with a long life synthetic lubricant, viscosity 320.



ITH



ITB



ITS

SHELL	AGIP	KLUBER	CASTROL	ESSO	MOBIL
Shell Omala S4 WE320	Tellium VSF320	Klubersynth GH 6 320	Alphasyn PG320	S320	Mobil Glygoyle HE 320

Nelle sezioni specifiche sono riportate le tabelle con le quantità indicative di lubrificante contenute e/o da immettere.

The tables contain the approximate amount of lubricant held and/or to be put in.

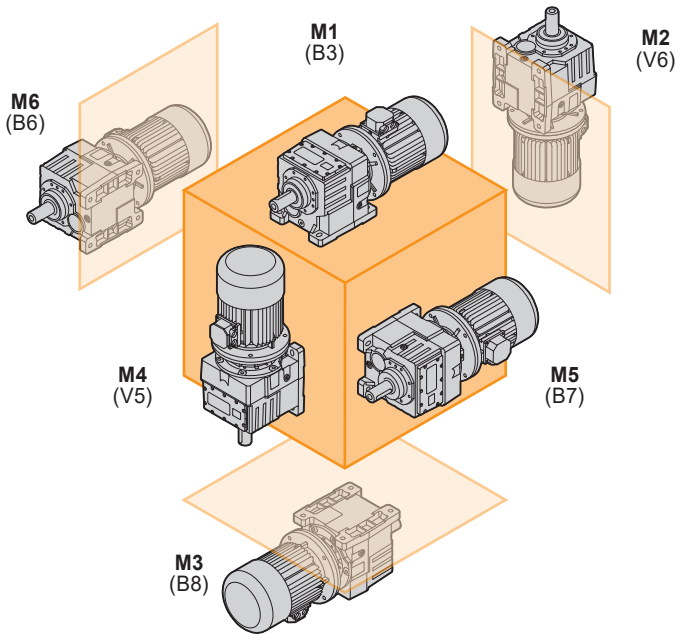
In fase di ordine è necessario specificare sempre la posizione di montaggio desiderata.

Always specify the desired installation position at the time of order.

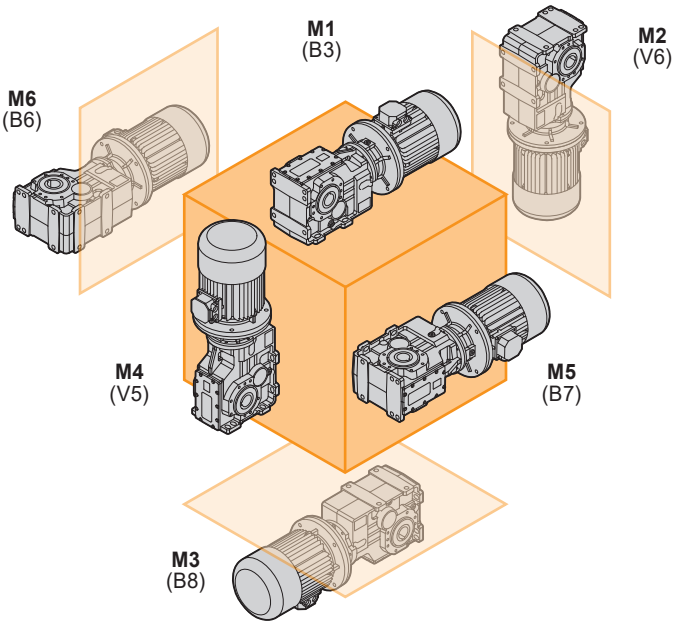
Posizioni di montaggio

Mounting positions

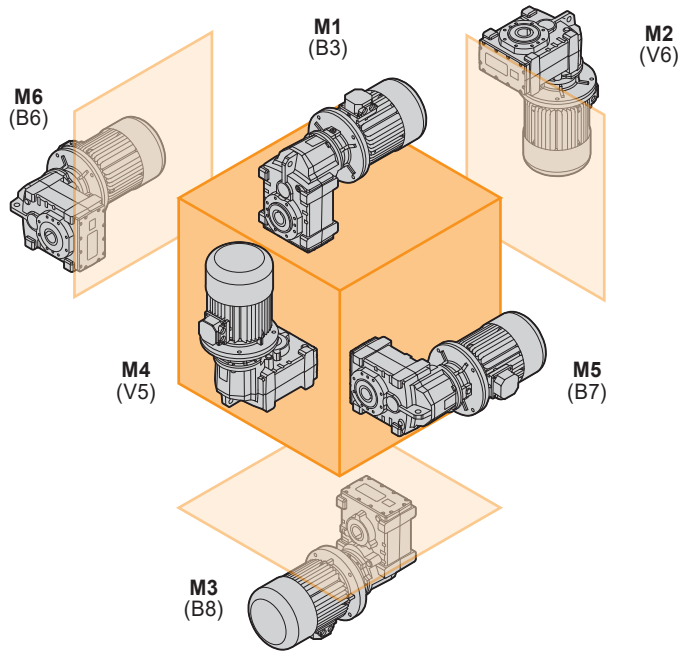
ITH



ITB

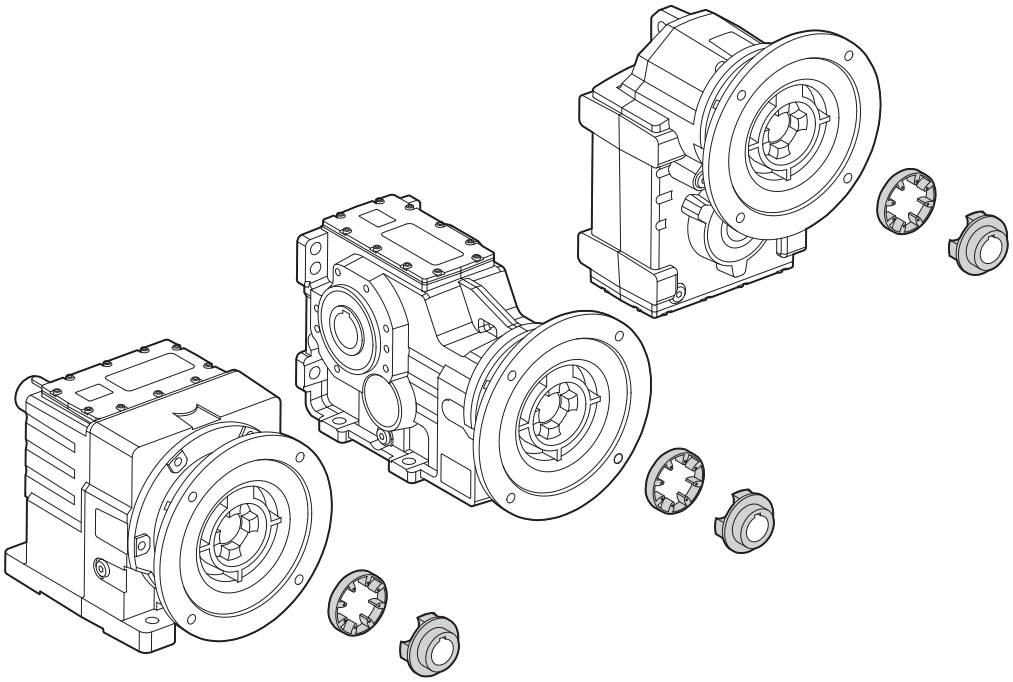


ITS



Giunto elastico

Flexible coupling



L'accoppiamento al motore tramite giunto elastico ha i seguenti vantaggi:
- Maggiore rigidità torsionale;
- Smorzamento delle vibrazioni;
- Smorzamento dei picchi d'inerzia del motore;
- Eliminazione dell'ossidazione tra l'albero motore ed il manicotto per tribocorrosione;
- Temperatura di funzionamento inferiore;
- Facilità di smontaggio del motore anche dopo lunghi periodi di utilizzo;

Motor connection by flexible coupling allows the following benefits:

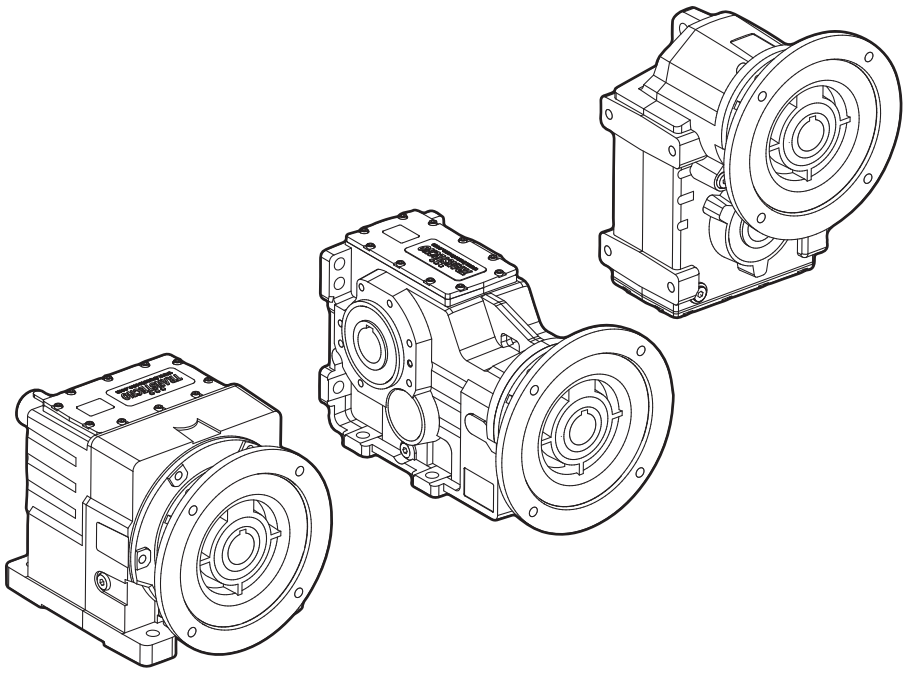
- *Increasing torsional rigidity;*
- *Reducing vibrations;*
- *Cushioning motor start up jerks;*
- *Eliminates fretting corrosion phenomenon between motor sleeve and electric motor shaft;*
- *Lowering operating temperature;*
- *Easy disassembly of the motor after long periods of use;*

Manicotto rigido

Motor sleeve

L'accoppiamento al motore può essere fatto anche in modo tradizionale utilizzando il manicotto rigido.

The motor connection is also available through the more conventional motor sleeve design.



Temperatura di lavoro / *Operating temperature*

La temperatura ambientale influisce sulle specifiche dei riduttori.

The environmental temperature affects specifications of gearboxes.

Campo di temperatura standard / *Standard temperature range*

ITH	-15° C / + 40° C
ITB	
ITS	

Campi di temperatura speciali / *Special temperature range*

	< -15°C	**> +40°C**
ITH	dimezzare i carichi radiali in uscita *halve the output radial loads*	usare paraoli in Viton (FPM) *use Viton (FPM) oil seals* usare lubrificante per alte temperature *use high temperature lubricant*
ITB	dimezzare i carichi radiali in uscita *halve the output radial loads*	
ITS	dimezzare i carichi radiali in uscita *halve the output radial loads*	

Per temperature <0°C riferirsi alle seguenti note:
- verificare che il motore sia idoneo al funzionamento a bassa temperatura;
- assicurarsi che il motore possa fornire maggior coppia di avviamento a causa dell'aumento di viscosità del lubrificante;
- procedere con alcuni minuti di funzionamento a vuoto per garantire l'ottimale lubrificazione;
- contattare il servizio tecnico per valutare un lubrificante con viscosità inferiore.

For temperature <0°C refer to the following notes:
- *check if the motor is suitable for low temperature;*
- *due to the high viscosity of the lubricant, check if the motor can supply high starting torque;*
- *let the group run for a few minutes without load to guarantee good lubrication;*
- *please contect our technical service to consider a lubricant with lower viscosity.*

Installazione e verifiche

In fase di installazione del riduttore è opportuno verificare che:

- i dati riportati in targhetta corrispondano al prodotto che è stato ordinato;
- le superfici di accoppiamento e gli alberi siano accuratamente puliti e privi di ammaccature;
- le superfici su cui verrà installato il riduttore siano perfettamente piane e sufficientemente rigide;
- l'albero macchina e quello del riduttore siano correttamente allineati;
- siano stati installati sistemi di limitazione della coppia se si prevedono urti o blocchi della macchina durante il funzionamento;
- siano state predisposte le necessarie protezioni antinfortunistiche agli organi rotanti;
- siano state create delle opportune coperture a protezione dagli agenti atmosferici se l'installazione è effettuata all'aperto ed è soggetta alle intemperie;
- l'ambiente di lavoro non sia corrosivo (a meno che tale specifica non sia stata dichiarata in fase di ordine al fine di predisporre il riduttore per questo utilizzo);
- gli eventuali pignoni o pulegge montati sull'albero uscita o entrata del riduttore, siano calettati correttamente in modo tale da non generare carichi radiali e/o assiali superiori a quelli ammissibili;
- su tutti gli accoppiamenti sia stato applicato un adeguato protettivo antiossidante per prevenire eventuali ossidazioni da contatto;
- tutte le viti di fissaggio siano state serrate correttamente;
- per tutti i riduttori verificare la corretta quantità di lubrificante in funzione della posizione di montaggio.

Installation and inspection

While installing the gearbox always make sure that:

- *the specifications stamped on the rating plate match those indicated for the unit actually ordered;*
- *the mating surfaces and the shafts are thoroughly clean and free of dents;*
- *the surfaces where the gearbox are to be mounted on are flat and strong enough;*
- *the machine drive shaft and the gearbox shaft are perfectly aligned;*
- *the required torque limiters have been installed if the machine is likely to produce shocks or blockages during operation;*
- *the rotary parts have been provided with the required safety guards;*
- *adequate weatherproof covering has been provided if the machine is to be installed outdoor;*
- *the working environment is not exposed to corrosive agents (unless this has been indicated while placing the order so that the gearbox assembly can be adequately set up);*
- *the pinions or pulleys on the gearbox input/output shafts are properly fitted in order not to produce radial and/or axial loads that exceed the maximum allowable limits;*
- *all the couplings have been treated with adequate rust preventative in order to avoid oxidation provoked by contact;*
- *all the mounting screws have been securely tightened;*
- *check the lubricant quantity depending on the mounting position on all gearboxes.*

Applicazioni critiche

In tutti questi casi consultare il Servizio Tecnico

- utilizzo come moltiplicatore;
- utilizzo come argano di sollevamento;
- utilizzo in posizioni non previste a catalogo;
- utilizzo in ambiente con pressione diversa da quella atmosferica;
- utilizzo in ambiente con temperature <-25°C o >+50°C

Critical applications

In these cases please contact the Technical Service

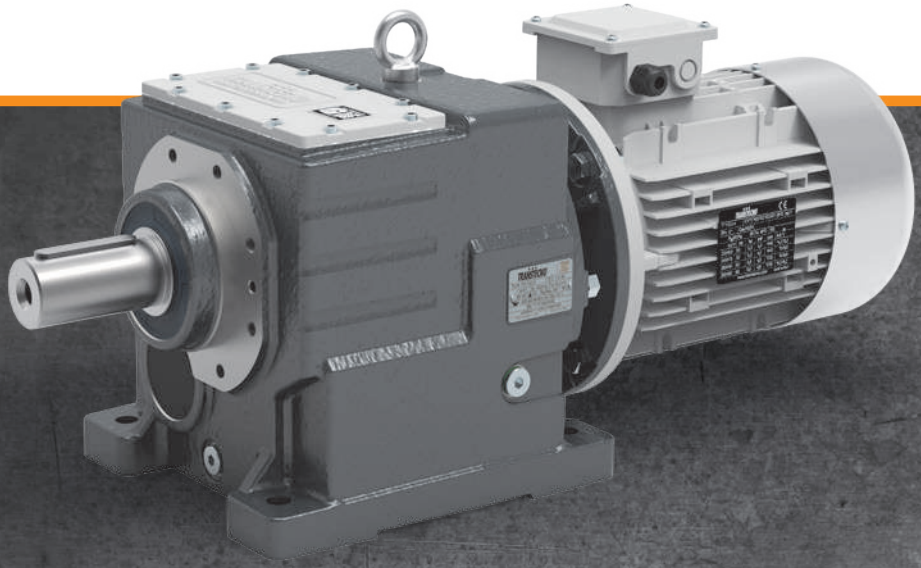
- *used to increase speed ;*
- *used as a hoist;*
- *used in mounting positions not shown in the catalogue;*
- *use in environment pressure other than atmospheric pressure;*
- *use in places with temperature <-25°C or >+50°C*

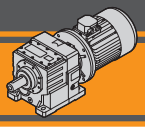
TRANSTECNO®
the modular gearmotor

ITH

ITH Iron

Motoriduttori ad ingranaggi cilindrici
Helical in-line gearmotors





ENERGY SAVING

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Caratteristiche tecniche

I motoriduttori della serie ITH sono dedicati ad applicazioni industriali che presentano carichi particolarmente gravosi. La costruzione robusta con carcassa in ghisa e l'elevata modularità dei diversi kit di entrata e di uscita li rendono adatti ad ogni tipo di applicazione.

Caratteristiche comuni a tutta la serie sono:

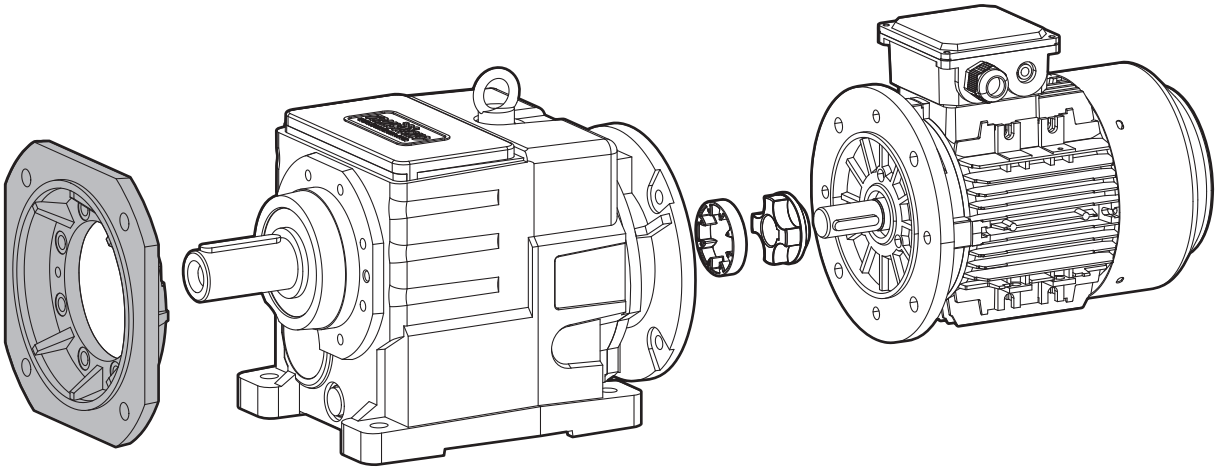
- Costruzione robusta con carcassa in ghisa;
- Elevata modularità;
- Lubrificazione con olio sintetico;
- Accoppiamento al motore tramite giunto elastico o manicotto rigido;
- Verniciatura a polvere epossidica RAL 7016 di spessore medio 0,10 – 0,15 mm.

Technical features

The ITH gearmotors are intended for heavy duty applications. The robust one pieces casing of the main housing and the modular design of input and output sets increase application fexibility.

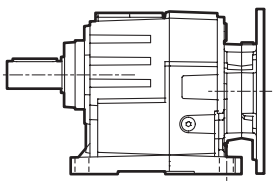
The main features of ITH range are:

- *Robust cast iron housings;*
- *High degree of modularity;*
- *Lubrication with synthetic oil;*
- *Coupled to motor with flexible coupling or motor sleeve*
- *Epoxy powder coating RAL 7016 average thickness 0,10 – 0,15 mm.*

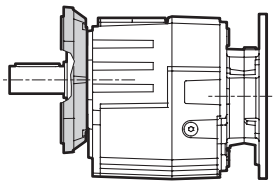


Versioni

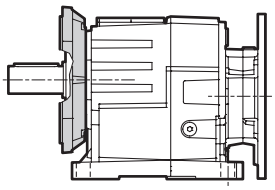
Versions



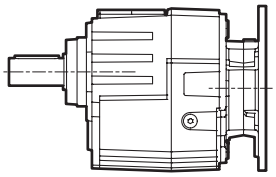
U



F...

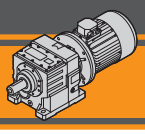


U/F...

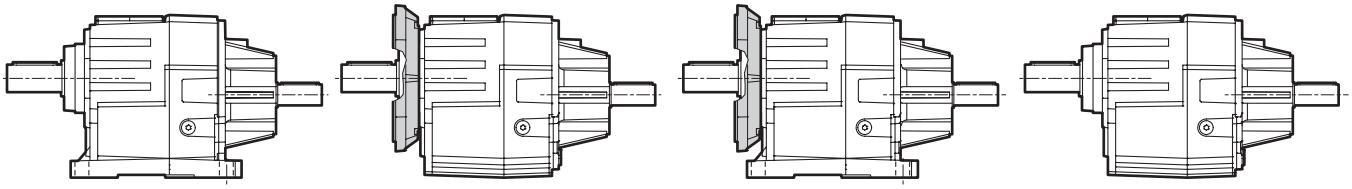


G

RIDUTTORE / *GEARBOX*										
ITH	**12**	**2**	**H**	**26.28**	**D40**	**132**	**B5**	**M1**	**HS**	**CW**
Tipo *Type*	Grandezza *Size*	Stadi *Stages*	Versione *Version*	Rapporto *Ratio*	Albero uscita *Output shaft*	IEC	Forma costruttiva *Version*	Pos. di montaggio *Mounting position*	Manicotto rigido *Motor sleeve*	Dispositivo antiretro *Backstop device*
ITH	**11** **12** **13** **14**	**2** **3**	**U** **F...** **U/F...** **G**	vedi tabelle *see tables*	vedi tabelle *see tables*	**71..** **—** **200..**	**B5** **B14**	**M1 (B3)** **M2 (V6)** **M3 (B8)** **M4 (V5)** **M5 (B7)** **M6 (B6)**	**HS**	**CW** **CCW**

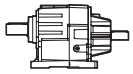


Designazione — *Classification*

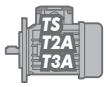


U F... U/F... G

RIDUTTORE / *GEARBOX*

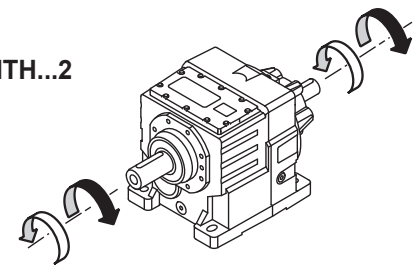
ITHIS	12	2	H	26.28	D40	M1
Tipo *Type*	Grandezza *Size*	Stadi *Stages*	Versione *Version*	Rapporto *Ratio*	Albero uscita *Output shaft*	Pos. di montaggio *Mounting position*
ITHIS 	**11** **12** **13** **14**	**2** **3**	**U** **F...** **U/F...** **G**	vedi tabelle *see tables*	vedi tabelle *see tables*	**M1 (B3)** **M2 (V6)** **M3 (B8)** **M4 (V5)** **M5 (B7)** **M6 (B6)**

MOTORE TRIFASE / *THREE PHASE MOTOR*

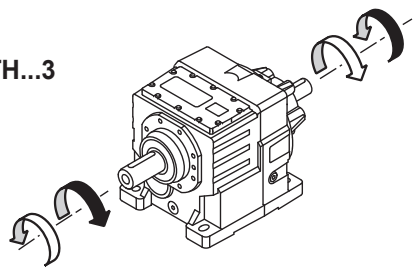
T	2A	63	2	4	0.18 kW	B5	PTO	230-400 V	50 Hz
Tipo *Type*	Efficienza *Efficiency level*	Grandezza *Size*	Indicativo potenza *Power coefficient*	Poli *Poles*	Potenza *Power*	Forma costruttiva *Version*	Protezione termica *Thermal protector*	Tensione *Voltage*	Frequenza *Frequency*
T 	**S** (IE1) **2A** (IE2) **3A** (IE3)	vedi tabelle *see tables*	**1-2-3-S** **L1-L2** **M1-M2**	**2** **4** **6**	**0.06 kW** **...** **11 kW**	**B5** **B14** **B3**	**Null** **PTO**	**230-400 V** **275-480 V** **400-690 V**	**50Hz** **60Hz** **50Hz**

Sensi di rotazione — *Direction of rotation*

ITH...2



ITH...3



Simbologia — *Symbols*

n_1	[min^{-1}]	Velocità in ingresso / *Input speed*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*
i		Rapporto di riduzione / *Ratio*
P_1	[kW]	Potenza in entrata / *Input power*
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / *Output torque referred to* P_1
Pn_1	[kW]	Potenza nominale in entrata / *Nominal input power*
Mn_2	[Nm]	Coppia nominale in uscita in funzione di Pn_1 / *Nominal output torque referred to* Pn_1
sf		Fattore di servizio / *Service factor*
R_1	[N]	Carico radiale ammissibile in entrata / *Permitted input radial load*
A_1	[N]	Carico assiale ammissibile in entrata / *Permitted input axial load*
R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*
A_2	[N]	Carico assiale ammissibile in uscita / *Permitted output axial load*

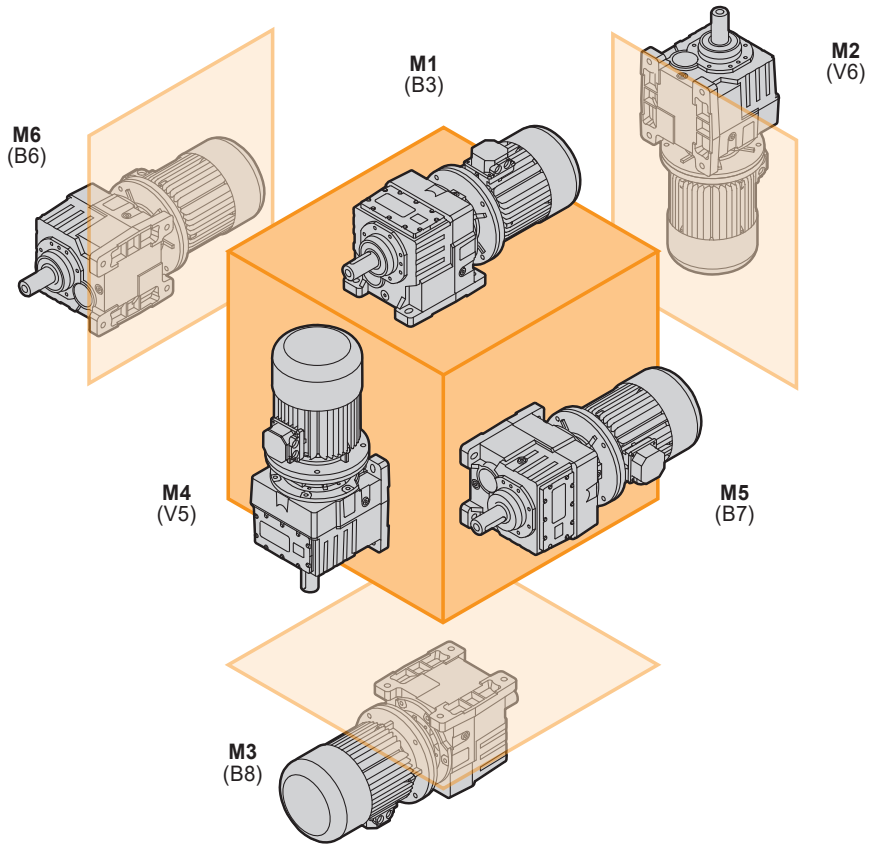
Lubrificazione

Lubrication

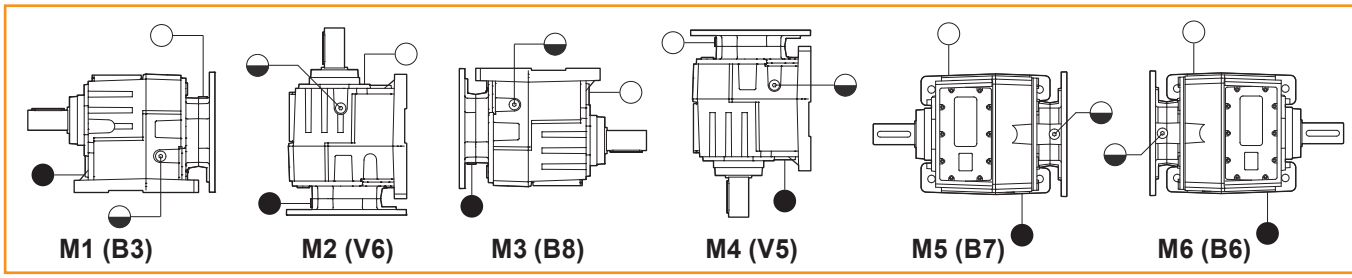
I motoriduttori della serie ITH sono forniti completi di lubrificante sintetico viscosità 320. La quantità di lubrificante dipende dalla posizione di montaggio.

ITH series gearmotors come complete with synthetic lubricant 320 viscosity. The lubricant quantity depends on mounting position.

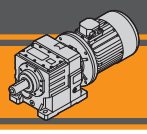
ITH..



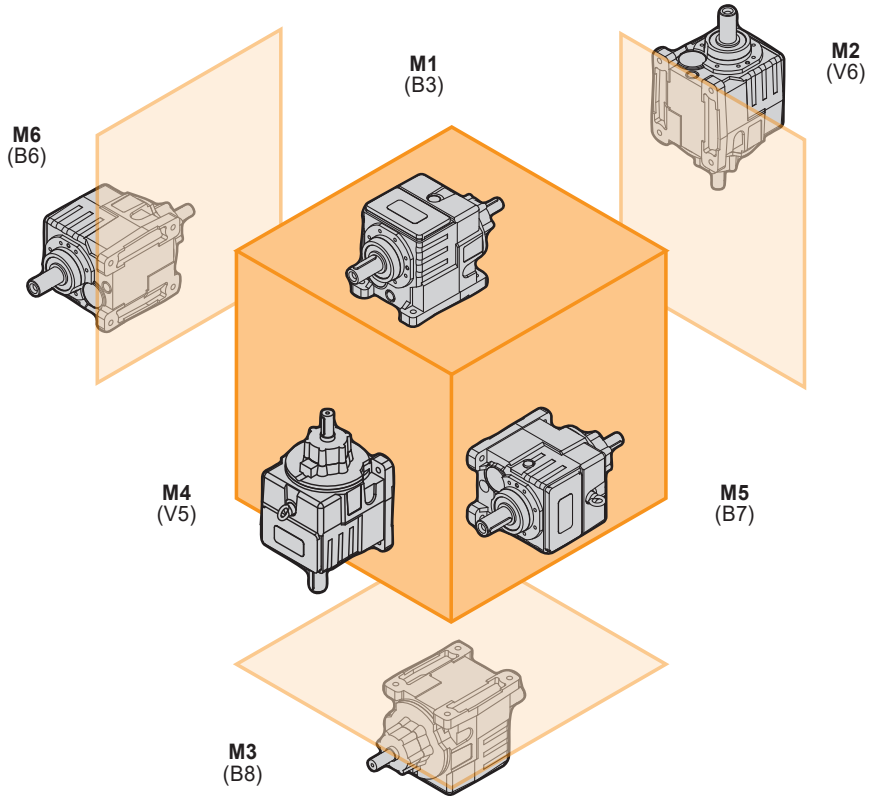
ITH	**Quantità di olio** (litri) / ***Oil quantity*** *(litres)*					
	M1 (B3)	**M2** (V6)	**M3** (B8)	**M4** (V5)	**M5** (B7)	**M6** (B6)
112 **113**	1,1	3,9	3,7	3,4	2,4	2,4
122 **123**	1,7	5,0	4,3	4,3	3,1	2,9
132 **133**	4,5	9,5	8,3	8,6	5,9	5,7
142 **143**	8,1	14,5	11,5	14,4	9,4	9,0



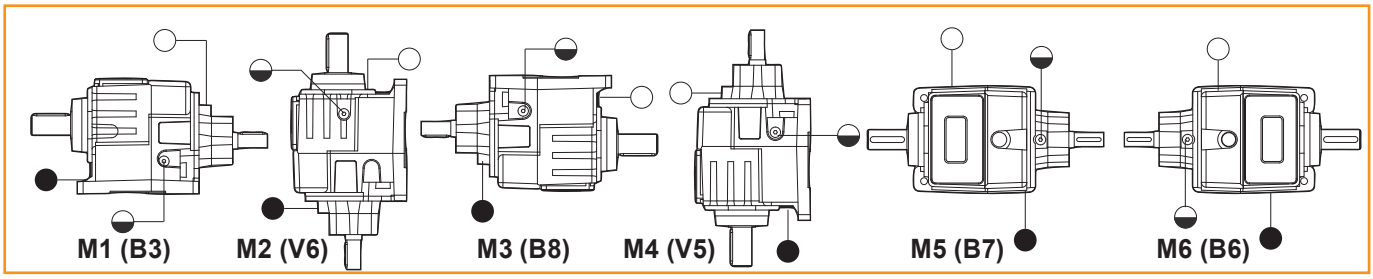
○ Sfiato e tappo di riempimento / *Breather and filling plug*
◒ Livello olio / *Oil level plug*
● Tappo di scarico / *Oil drain plug*



ITHIS..



ITHIS	Quantità di olio (litri) / *Oil quantity (litres)*					
	M1 (B3)	**M2** (V6)	**M3** (B8)	**M4** (V5)	**M5** (B7)	**M6** (B6)
112 **113**	1,3	4,3	3,9	3,4	2,6	2,6
122 **123**	1,9	5,4	4,5	4,3	3,3	3,1
132	3,7	10,2	8,7	8,6	6,3	6,1
133	3,5	9,9	8,5		6,1	5,9
142	7,3	15,2	11,9	14,4	9,8	9,4
143	7,1	14,9	11,7		9,6	9,2



○ Sfiato e tappo di riempimento / *Breather and filling plug*
◒ Livello olio / *Oil level plug*
● Tappo di scarico / *Oil drain plug*

Carichi radiali in entrata — *Input Radial loads*

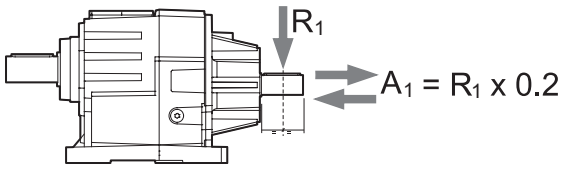
ITH 113	n_1 [min^{-1}]	Potenza motore/ *Motor Power [kW]*		
		1.1	1.5	1.85
R_1 [N]	1400	1250		
	900	1500		500
	500	1750	-	-

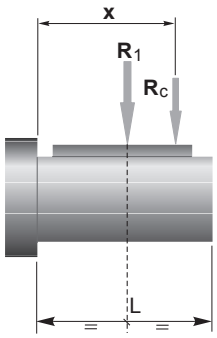
ITH 112 ITH 122 -123 ITH 133 - 143	n_1 [min^{-1}]	Potenza motore/ *Motor Power [kW]*			
		2.2	3.0	4.0	5.5
R_1 [N]	1400	1800			750
	900	2100		1200	-
	500	2500	-	-	-

ITH 132 ITH 142	n_1 [min^{-1}]	Potenza motore/ *Motor Power [kW]*					
		5.5	7.5	9.2	11.0	15.0	18.5
R_1 [N]	1400	3700				2800	1200
	900	4900			3300	650	-
	500	5250	3900	1300	-	-	-

I carichi radiali entrata massimi applicabili sono riportati nelle tabelle precedenti.
Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

The radial loads maximum input applicable are indicated in the previous tables.
When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:





	ITH 112	ITH 113	ITH 122	ITH 123	ITH 132	ITH 133	ITH 142	ITH 143
a	139	134	139		157	139	157	139
b	110	110	110		118	110	118	110

$$R_c = \frac{R_1 \cdot a}{(b+x)} \leq R_1$$

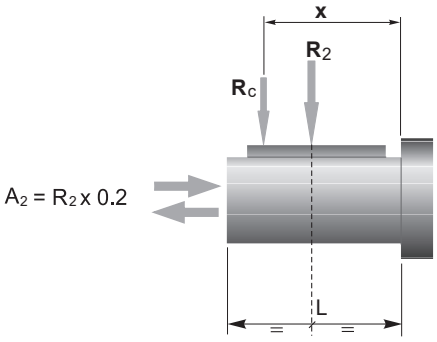
$$R \leq R_c$$

a, b = valori riportati nella tabella
a, b = values given in the table

Carichi radiali in uscita — *Output Radial loads*

I carichi radiali uscita massimi applicabili sono riportati nelle tabelle dati tecnici.
Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

The radial loads maximum output applicable are indicated in the technical data table.
When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:

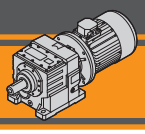


	ITH 112	ITH 113	ITH 122	ITH 123	ITH 132	ITH 133	ITH 142	ITH 143
a	184		208		247		286	
b	149		168		197		226	
R_{2MAX}	8200		12500		18500		22500	

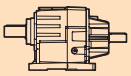
$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

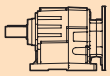
a, b = valori riportati nella tabella
a, b = values given in the table



Dati tecnici — n_1 1400 min^{-1} — *Technical data*



n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 [N]
ITHIS 112				
261	350	9.94	5.38	3437
216	350	8.26	6.47	3829
178	400	7.76	7.88	4111
164	400	7.15	8.54	4311
155	420	7.08	9.06	4381
136	420	6.24	10.28	4717
123	480	6.43	11.39	4734
112	480	5.86	12.52	5001
95	500	5.16	14.80	5408
77	530	4.47	18.10	5903
69	530	4.00	20.25	6302
60	600	3.90	23.52	6389
49	650	3.45	28.77	6794
44	680	3.23	32.18	7003
39	680	2.86	36.35	7519
34	680	2.50	41.57	8130
29	520	1.90	48.27	8200



IEC Motori applicabili
IEC Motor adapters

71 B5	80 B5	90 B5/B14	100 B5/B14	112 B5/B14	132 B5/B14
ITH 112					
					*
				*	
				*	
				*	
				*	
			*	*	

71 B5	80 B5	90 B5/B14
ITH 113		
		*
		*
		*
		*
		*
		*
	*	*
	*	*

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

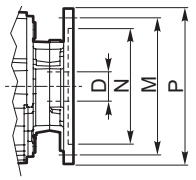
N.B.
Highlighted areas indicate motor inputs available on each size of unit.

*** =** Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

*** =** *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

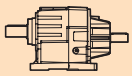
Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. B11 alla pag. B19.

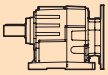
Before selecting any gearbox, please read the performance values shown in the tables on page B11 to B19.



Dimensioni IEC / *IEC Dimensions*								
	71 B5	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
N	110	130	130	95	180	110	230	130
M	130	165	165	115	215	130	265	165
P	160	200	200	140	250	160	300	200
D	14	19	24		28		38	

Dati tecnici — n_1 1400 min^{-1} — *Technical data*

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 [N]
ITHIS 122					
	271	550	16.25	5.17	4751
	209	550	12.56	6.69	5522
	180	600	11.76	7.79	5878
	159	650	11.25	8.82	6149
	139	750	11.36	10.08	6278
	123	750	10.09	11.35	6727
	105	850	9.76	13.30	6946
	88	850	8.15	15.92	7713
	82	850	7.59	17.11	8045
	72	850	6.66	19.50	8683
	65	900	6.41	21.43	8887
	58	980	6.24	24.00	9005
	53	980	5.70	26.28	9494
	48	980	5.09	29.40	10136
	43	980	4.63	32.31	10710
	40	980	4.22	35.47	11309
	34	980	3.58	41.78	12500
	31	980	3.27	45.73	12500
	28	980	2.97	50.40	12500
ITHIS 123					
	25	980	2.73	56.00	12500
	23	980	2.49	61.31	12500
	20	980	2.17	70.53	12500
	17	980	1.89	81.00	12500
	16	980	1.72	88.68	12500
	13	980	1.45	105.23	12500
	12	980	1.33	115.21	12500
	11	980	1.19	128.73	12500
	9.7	980	1.06	144.00	12500
	8.9	980	0.97	157.66	12500
	7.9	980	0.86	178.10	12500
	6.9	980	0.75	203.65	12500
	6.5	980	0.71	216.00	12500
	5.9	980	0.65	236.49	12500
	5.5	980	0.60	256.00	12500
	5.0	980	0.55	280.29	12500



IEC Motori applicabili / ***IEC Motor adapters***

ITH 122				
80 B5	**90 B5/B14**	**100 B5/B14**	**112 B5/B14**	**132 B5/B14**
				*
				*
			*	
			*	

ITH 123				
71 B5	**80 B5**	**90 B5/B14**	**100 B5/B14**	**112 B5/B14**
				*
				*
				*
			*	*
			*	*
			*	*
			*	*
			*	*
			*	*
			*	*
		*	*	*
		*	*	*
		*	*	*
		*	*	*
		*	*	*
		*	*	*

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

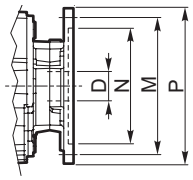
⚠ * = Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. B11 alla pag. B19.

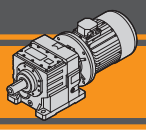
N.B.
Highlighted areas indicate motor inputs available on each size of unit.

⚠ * = *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

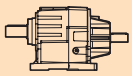
Before selecting any gearbox, please read the performance values shown in the tables on page B11 to B19.

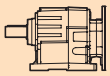


Dimensioni IEC / *IEC Dimensions*								
	71 B5	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
N	110	130	130	95	180	110	230	130
M	130	165	165	115	215	130	265	165
P	160	200	200	140	250	160	300	200
D	14	19	24		28		38	



Dati tecnici — n_1 1400 min^{-1} — *Technical data*





IEC Motori applicabili
IEC Motor adapters

ITHIS 132

ITH 132

n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 [N]	80 B5	90 B5/B14	100 B5/B14	112 B5/B14	132 B5/B14	160 B5	180 B5
278	850	25.8	5.03	10319							
230	850	21.3	6.09	11532							
203	900	19.9	6.91	12142							
186	900	18.3	7.51	12746	*	*	*	*			
167	900	16.4	8.36	13570							*
155	900	15.2	9.03	14195							*
136	950	14.1	10.30	14992							*
127	950	13.2	11.01	15581							*
113	1200	14.8	12.39	14811							*
95	1200	12.4	14.80	16426							*
93	1300	13.1	15.11	15778							*
75	1500	12.3	18.69	15950							*
69	1600	12.0	20.31	15734							*
55	1600	9.5	25.65	18031						*	*
51	1700	9.4	27.48	17571							
46	1700	8.5	30.46	18500							
40	1900	8.4	34.61	17356						*	*
37	1900	7.7	37.71	18247							
33	1900	6.9	41.80	18500							
31	1900	6.4	45.60	18500							
28	1900	5.8	49.88	18500							

ITHIS 133

ITH 133

n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 [N]	80 B5	90 B5/B14	100 B5/B14	112 B5/B14	132 B5/B14
23	1900	4.9	60.92	18500					*
22	1900	4.6	64.74	18500					*
19.8	1900	4.2	70.88	18500					*
17.9	1900	3.8	78.38	18500					*
16.1	1900	3.4	87.14	18500				*	*
14.6	1900	3.1	95.67	18500				*	*
12.7	1900	2.7	109.93	18500				*	*
11.6	1900	2.5	120.36	18500				*	*
10.4	1900	2.2	134.66	18500				*	*
9.5	1900	2.0	147.98	18500			*	*	*
8.6	1900	1.8	162.45	18500			*	*	*
7.3	1900	1.5	191.39	18500			*	*	
6.7	1900	1.4	209.48	18500			*	*	
6.1	1900	1.3	230.85	18500			*	*	

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

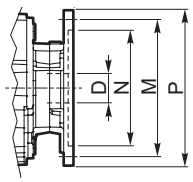
⚠ * = Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. B11 alla pag. B19.

N.B.
Highlighted areas indicate motor inputs available on each size of unit.

⚠ * = *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

Before selecting any gearbox, please read the performance values shown in the tables on page B11 to B19.



Dimensioni IEC / *IEC Dimensions*

	80 B5	90 B5	90 B14	100/112 B5	100/112 B14	132 B5	132 B14	160 B5	180 B5
N	130	130	95	180	110	230	130	250	250
M	165	165	115	215	130	265	165	300	300
P	200	200	140	250	160	300	200	350	350
D	19	24		28		38		42	48

Dati tecnici — n_1 1400 min^{-1} — *Technical data*

n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 [N]	IEC Motori applicabili / *IEC Motor adapters*					
					100 B5/B14	112 B5/B14	132 B5/B14	160 B5	180 B5	200 B5
ITHIS 142					**ITH 142**					
228	1800	44.68	6.15	14955						
190	1800	37.40	7.35	16494						
158	2000	34.38	8.88	17248	*	*				
144	2000	31.34	9.75	18150						
135	2100	30.99	10.35	18181	*	*				
120	2100	27.54	11.65	19402						
110	2200	26.30	12.78	19769						*
99	2300	24.95	14.08	20171						*
85	2300	21.42	16.40	21936						*
79	2800	24.11	17.73	19026						*
69	2800	21.12	20.24	20463						*
54	3200	18.80	25.99	19654						*
50	3200	17.39	28.10	20514					*	*
43	3200	15.11	32.35	22168					*	*
38	3200	13.18	37.09	22500					*	*
32	3200	11.22	43.57	22500					*	*
30	3200	10.32	47.35	22500						
27	3200	9.44	51.76	22500						

n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 [N]	80 B5	90 B5/B14	100 B5/B14	112 B5/B14	132 B5/B14
ITHIS 143					**ITH 143**				
23	3500	8.84	61.74	22500					
21	3500	8.18	66.73	22500					
18	3500	6.87	79.43	22500					
16	3500	6.36	85.85	22500					
13	3500	4.90	111.40	22500					*
12	3500	4.53	120.42	22500					*
11	3500	4.14	131.84	22500					*
9.5	3500	3.70	147.51	22500					*
8.6	3500	3.37	162.10	22500					*
7.9	3500	3.07	177.95	22500					*
7.2	3500	2.81	193.96	22500					
6.7	3500	2.64	209.65	22500					
6.1	3500	2.38	229.46	22500					
5.5	3500	2.16	252.87	22500					

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

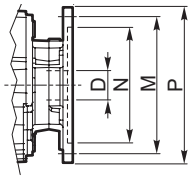
* = Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. B11 alla pag. B19.

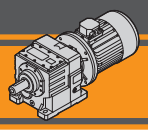
N.B.
Highlighted areas indicate motor inputs available on each size of unit.

* = *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

Before selecting any gearbox, please read the performance values shown in the tables on page B11 to B19.



Dimensioni IEC / *IEC Dimensions*										
	80 B5	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**	**180 B5**	**200 B5**
N	130	130	95	180	110	230	130	250	250	300
M	165	165	115	215	130	265	165	300	300	350
P	200	200	140	250	160	300	200	350	350	400
D	19	24		28		38		42	48	55



Dati tecnici

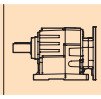
Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
0.25						
TS7114-B5 (1400 min^{-1})	**39**	60	11	36.35	**ITH112**	8200
	34	68	10	41.57		8200
	29	79	6.6	48.27		8200
	31	72	9.7	44.99	**ITH113**	8200
	25	89	7.9	55.27		8200
	21	108	6.5	67.61		8200
	19	120	5.8	74.96		8200
	15	147	4.8	91.70		8200
	13	175	4.0	108.91		8200
	10	219	3.2	136.65		8200
	8.5	263	2.7	163.98		8200
	8.1	278	2.5	173.44		8200
	7.6	297	2.4	185.20		8200
	6.9	323	2.2	201.58		8200
	6.6	340	2.1	212.17		8200
	6.2	363	1.9	226.55		8200
	5.7	395	1.8	246.59		8200
	7.9	285	3.4	178.10	**ITH123**	12500
	6.9	326	3.0	203.65		12500
	6.5	346	2.8	216.00		12500
	5.9	379	2.6	236.49		12500
	5.5	410	2.4	256.00		12500
	5.0	449	2.2	280.29		12500
0.37						
TS7124-B5 T2A7124-B5 (1400 min^{-1})	**39**	88	7.7	36.35	**ITH112**	8200
	34	101	6.8	41.57		8200
	29	117	4.4	48.27		8200
	31	107	6.6	44.99	**ITH113**	8200
	25	131	5.3	55.27		8200
	21	160	4.4	67.61		8200
	19	178	3.9	74.96		8200
	15	218	3.2	91.70		8200
	13	258	2.7	108.91		8200
	10	324	2.2	136.65		8200
	8.5	389	1.8	163.98		8200
	8.1	411	1.7	173.44		8200
	7.6	439	1.6	185.20		8200
	6.9	478	1.5	201.58		8200
	6.6	503	1.4	212.17		8200
	6.2	537	1.3	226.55		8200
	5.7	585	1.2	246.59		8200
	7.9	423	2.3	178.10	**ITH123**	12500
	6.9	483	2.0	203.65		12500
	6.5	512	1.9	216.00		12500
	5.9	561	1.7	236.49		12500
	5.5	607	1.6	256.00		12500
	5.0	665	1.5	280.29		12500

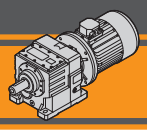
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
0.55						
TS8014-B5 T2A8014-B5 (1400 min^{-1})	**260**	19	18	5.38	**ITH112**	4411
	216	23	15	6.47		4901
	178	28	14	7.88		5479
	164	31	13	8.54		5736
	155	33	13	9.06		5928
	136	37	11	10.28		6363
	123	41	12	11.39		6737
	112	45	11	12.52		7098
	95	53	9.4	14.80		7783
	77	65	8.1	18.10		8200
	69	73	7.3	20.25		8200
	60	85	7.1	23.52		8200
	49	104	6.3	28.77		8200
	44	116	5.9	32.18		8200
	39	131	5.2	36.35		8200
	34	150	4.5	41.57		8200
	29	174	3.0	48.27		8200
TS7134-B5 T2A7134-B5 TS8014-B5 T2A8014-B5 (1400 min^{-1})	**31**	159	4.4	44.99	**ITH113**	8200
	25	195	3.6	55.27		8200
	21	238	2.9	67.61		8200
	19	264	2.6	74.96		8200
	15	323	2.2	91.70		8200
	13	384	1.8	108.91		8200
	10	482	1.5	136.65		8200
	8.5	578	1.2	163.98		8200
	8.1	612	1.1	173.44		8200
	7.6	653	1.1	185.20		8200
	6.9	711	1.0	201.58		8200
	6.6	748	0.9	212.17		8200
TS8014-B5 T2A8014-B5 (1400 min^{-1})	**53**	95	10	26.28	**ITH122**	12500
	48	106	9.3	29.40		12500
	43	116	8.4	32.31		12500
	39	128	7.7	35.47		12500
	34	150	6.5	41.78		12500
	31	165	5.9	45.73		12500
	28	182	5.4	50.40		12500
TS8014-B5 T2A8014-B5 (1400 min^{-1})	**25**	197	5.0	56.00	**ITH123**	12500
	23	216	4.5	61.31		12500
	20	249	3.9	70.53		12500
	17	286	3.4	81.00		12500
	16	313	3.1	88.68		12500
	13	371	2.6	105.23		12500
	12	406	2.4	115.21		12500
	11	454	2.2	128.73		12500
	9.7	508	1.9	144.00		12500
	8.9	556	1.8	157.66		12500
TS7134-B5 T2A7134-B5 TS8014-B5 T2A8014-B5 (1400 min^{-1})	**7.9**	628	1.6	178.10		12500
	6.9	718	1.4	203.65		12500
	6.5	762	1.3	216.00		12500
	5.9	834	1.2	236.49		12500
	5.5	903	1.1	256.00		12500
	5.0	988	1.0	280.29		12500

Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
0.55						
TS8014-B5 T2A8014-B5 (1400 min^{-1})	**23**	215	8.8	60.92	**ITH133**	18500
	22	228	8.3	64.74		18500
	20	250	7.6	70.88		18500
	18	276	6.9	78.38		18500
	16	307	6.2	87.14		18500
	15	337	5.6	95.67		18500
	13	388	4.9	109.93		18500
	12	424	4.5	120.36		18500
	10	475	4.0	134.66		18500
	9.5	522	3.6	147.98		18500
	8.6	573	3.3	162.45		18500
	7.3	675	2.8	191.39		18500
	6.7	739	2.6	209.48		18500
	6.1	814	2.3	230.85		18500
	13	393	8.9	111.40	**ITH143**	22500
	12	425	8.2	120.42		22500
	11	465	7.5	131.84		22500
	9.5	520	6.7	147.51		22500
	8.6	572	6.1	162.10		22500
	7.9	628	5.6	177.95		22500
	7.2	684	5.1	193.96		22500
	6.1	809	4.3	229.46		22500
	5.5	892	3.9	252.87		22500
0.75						
TS8024-B5 T3A8024-B5 (1400 min^{-1})	**260**	26	13	5.38	**ITH112**	4390
	216	32	11	6.47		4874
	178	39	10	7.88		5441
	164	42	9.5	8.54		5693
	155	44	9.4	9.06		5881
	136	50	8.3	10.28		6305
	123	56	8.6	11.39		6669
	112	61	7.8	12.52		7019
	95	73	6.9	14.80		7680
	77	89	6.0	18.10		8200
	69	99	5.3	20.25		8200
	60	116	5.2	23.52		8200
	49	141	4.6	28.77		8200
	44	158	4.3	32.18		8200
	39	179	3.8	36.35		8200
	34	204	3.3	41.57		8200
	29	237	2.2	48.27		8200
	31	216	3.2	44.99	**ITH113**	8200
	25	266	2.6	55.27		8200
	21	325	2.2	67.61		8200
	19	361	1.9	74.96		8200
	15	441	1.6	91.70		8200
	13	524	1.3	108.91		8200
	10	657	1.1	136.65		8200
	82	84	10	17.11	**ITH122**	11895
	72	96	8.9	19.50		12500
	65	105	8.6	21.43		12500
	58	118	8.3	24.00		12500
	53	129	7.6	26.28		12500
	48	144	6.8	29.40		12500
	43	159	6.2	32.31		12500
	39	174	5.6	35.47		12500
	34	205	4.8	41.78		12500
	31	225	4.4	45.73		12500
	28	248	4.0	50.40		12500

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
0.75						
TS8024-B5 T3A8024-B5 (1400 min^{-1})	**25**	269	3.6	56.00	**ITH123**	12500
	23	295	3.3	61.31		12500
	20	339	2.9	70.53		12500
	17	390	2.5	81.00		12500
	16	426	2.3	88.68		12500
	13	506	1.9	105.23		12500
	12	554	1.8	115.21		12500
	11	619	1.6	128.73		12500
	9.7	693	1.4	144.00		12500
	8.9	758	1.3	157.66		12500
	7.9	856	1.1	178.10		12500
	6.9	979	1.0	203.65		12500
	6.5	1039	0.9	216.00		12500
	37	185	10	37.71	**ITH132**	18500
	33	205	9.3	41.80		18500
	31	224	8.5	45.60		18500
	28	245	7.8	49.88		18500
	23	293	6.5	60.92	**ITH133**	18500
	22	311	6.1	64.74		18500
	20	341	5.6	70.88		18500
	18	377	5.0	78.38		18500
	16	419	4.5	87.14		18500
	15	460	4.1	95.67		18500
	13	529	3.6	109.93		18500
	12	579	3.3	120.36		18500
	10	648	2.9	134.66		18500
	9.5	712	2.7	147.98		18500
	8.6	781	2.4	162.45		18500
	7.3	920	2.1	191.39		18500
	6.7	1007	1.9	209.48		18500
	6.1	1110	1.7	230.85		18500
	18	382	9.2	79.43	**ITH143**	22500
	16	413	8.5	85.85		22500
	13	536	6.5	111.40		22500
	12	579	6.0	120.42		22500
	11	634	5.5	131.84		22500
	9.5	709	4.9	147.51		22500
	8.6	780	4.5	162.10		22500
	7.9	856	4.1	177.95		22500
	7.2	933	3.8	193.96		22500
	6.7	1008	3.5	209.65		22500
	6.1	1103	3.2	229.46		22500
	5.5	1216	2.9	252.87		22500



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Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
1.1						
TS8034-B5	**260**	39	9.0	5.38	**ITH112**	4354
T3A8034-B5	**216**	47	7.5	6.47		4825
TS90S4-B5/B14	**178**	57	7.1	7.88		5374
T3A90S4-B5/B14	**164**	62	6.5	8.54		5617
(1400 min^{-1})	**155**	65	6.4	9.06		5798
	136	74	5.7	10.28		6204
	123	82	5.8	11.39		6550
	112	90	5.3	12.52		6881
	95	107	4.7	14.80		7500
	77	130	4.1	18.10		8200
	69	146	3.6	20.25		8200
	60	169	3.5	23.52		8200
	49	207	3.1	28.77		8200
	44	232	2.9	32.18		8200
	39	262	2.6	36.35		8200
	34	299	2.3	41.57		8200
	29	348	1.5	48.27		8200
	31	317	2.2	44.99	**ITH113**	8200
	25	390	1.8	55.27		8200
	21	477	1.5	67.61		8200
	19	529	1.3	74.96		8200
	15	647	1.1	91.70		8200
	13	768	0.9	108.91		8200
	159	64	10	8.82	**ITH122**	8152
	139	73	10	10.08		8778
	123	82	9.2	11.35		9371
	105	96	8.9	13.30		10218
	88	115	7.4	15.92		11257
	82	123	6.9	17.11		11698
	72	140	6.1	19.50		12500
	65	154	5.8	21.43		12500
	58	173	5.7	24.00		12500
	53	189	5.2	26.28		12500
	48	212	4.6	29.40		12500
	43	233	4.2	32.31		12500
	39	255	3.8	35.47		12500
	34	301	3.3	41.78		12500
	31	329	3.0	45.73		12500
	28	363	2.7	50.40		12500
	25	395	2.5	56.00	**ITH123**	12500
	23	432	2.3	61.31		12500
	20	497	2.0	70.53		12500
	17	571	1.7	81.00		12500
	16	626	1.6	88.68		12500
	13	742	1.3	105.23		12500
	12	813	1.2	115.21		12500
	11	908	1.1	128.73		12500
	9.7	1016	1.0	144.00		12500
	8.9	1112	0.9	157.66		12500
	55	185	8.7	25.65	**ITH132**	18500
	51	198	8.6	27.48		18500
	46	219	7.7	30.46		18500
	40	249	7.6	34.61		18500
	37	272	7.0	37.71		18500
	33	301	6.3	41.80		18500
	31	328	5.8	45.60		18500
	28	359	5.3	49.88		18500

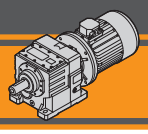
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
1.1						
TS8034-B5	**23**	430	4.4	60.92	**ITH133**	18500
T3A8034-B5	**22**	457	4.2	64.74		18500
TS90S4-B5/B14	**20**	500	3.8	70.88		18500
T3A90S4-B5/B14	**18**	553	3.4	78.38		18500
(1400 min^{-1})	**16**	615	3.1	87.14		18500
	15	675	2.8	95.67		18500
	13	775	2.5	109.93		18500
	12	849	2.2	120.36		18500
	10	950	2.0	134.66		18500
	9.5	1044	1.8	147.98		18500
	8.6	1146	1.7	162.45		18500
	7.3	1350	1.4	191.39		18500
	6.7	1478	1.3	209.48		18500
	6.1	1628	1.2	230.85		18500
	23	435	8.0	61.74	**ITH143**	22500
	21	471	7.4	66.73		22500
	18	560	6.2	79.43		22500
	16	606	5.8	85.85		22500
	13	786	4.5	111.40		22500
	12	849	4.1	120.42		22500
	11	930	3.8	131.84		22500
	9.5	1040	3.4	147.51		22500
	8.6	1143	3.1	162.10		22500
	7.9	1255	2.8	177.95		22500
	7.2	1368	2.6	193.96		22500
	6.7	1479	2.4	209.65		22500
	6.1	1618	2.2	229.46		22500
	5.5	1784	2.0	252.87		22500
1.5						
TS90L14-B5/B14	**260**	53	6.6	5.38	**ITH112**	4313
T3A90L14-B5/B14	**216**	64	5.5	6.47		4769
(1400 min^{-1})	**178**	77	5.2	7.88		5299
	164	84	4.8	8.54		5531
	155	89	4.7	9.06		5703
	136	101	4.2	10.28		6088
	123	112	4.3	11.39		6414
	112	123	3.9	12.52		6723
	95	145	3.4	14.80		7294
	77	178	3.0	18.10		8009
	69	199	2.7	20.25		8200
	60	231	2.6	23.52		8200
	49	283	2.3	28.77		8200
	44	316	2.2	32.18		8200
	39	357	1.9	36.35		8200
	34	408	1.7	41.57		8200
	31	433	1.6	44.99	**ITH113**	8200
	25	532	1.3	55.27		8200
	21	650	1.1	67.61		8200
	19	721	1.0	74.96		8200

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Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
1.5						
TS90L14-B5/B14 T3A90L14-B5/B14 (1400 min^{-1})	**271**	50	11	5.17	**ITH122**	6002
	209	66	8.4	6.69		6929
	180	77	7.8	7.79		7541
	159	87	7.5	8.82		8073
	139	99	7.6	10.08		8681
	123	111	6.7	11.35		9253
	105	131	6.5	13.30		10067
	88	156	5.4	15.92		11056
	82	168	5.1	17.11		11473
	72	192	4.4	19.50		12254
	65	210	4.3	21.43		12500
	58	236	4.2	24.00		12500
	53	258	3.8	26.28		12500
	48	289	3.4	29.40		12500
	43	317	3.1	32.31		12500
	39	348	2.8	35.47		12500
	34	410	2.4	41.78		12500
	31	449	2.2	45.73		12500
	28	495	2.0	50.40		12500
	25	539	1.8	56.00	**ITH123**	12500
	23	590	1.7	61.31		12500
	20	678	1.4	70.53		12500
	17	779	1.3	81.00		12500
	16	853	1.1	88.68		12500
	13	1012	1.0	105.23		12500
	155	89	10	9.03	**ITH132**	18500
	136	101	9.4	10.30		18500
	127	108	8.8	11.01		18500
	113	122	9.9	12.39		18500
	95	145	8.3	14.80		18500
	93	148	8.8	15.11		18500
	75	184	8.2	18.69		18500
	69	199	8.0	20.31		18500
	55	252	6.4	25.65		18500
	51	270	6.3	27.48		18500
	46	299	5.7	30.46		18500
	40	340	5.6	34.61		18500
	37	370	5.1	37.71		18500
	33	411	4.6	41.80		18500
	31	448	4.2	45.60		18500
	28	490	3.9	49.88		18500
	23	586	3.2	60.92	**ITH133**	18500
	22	623	3.1	64.74		18500
	20	682	2.8	70.88		18500
	18	754	2.5	78.38		18500
	16	838	2.3	87.14		18500
	15	920	2.1	95.67		18500
	13	1057	1.8	109.93		18500
	12	1158	1.6	120.36		18500
	10	1295	1.5	134.66		18500
	9.5	1423	1.3	147.98		18500
	8.6	1562	1.2	162.45		18500
	7.3	1841	1.0	191.39		18500

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
1.5						
TS90L14-B5/B14 T3A90L14-B5/B14 (1400 min^{-1})	**23**	594	5.9	61.74	**ITH143**	22500
	21	642	5.5	66.73		22500
	18	764	4.6	79.43		22500
	16	826	4.2	85.85		22500
	13	1072	3.3	111.40		22500
	12	1158	3.0	120.42		22500
	11	1268	2.8	131.84		22500
	9.5	1419	2.5	147.51		22500
	8.6	1559	2.2	162.10		22500
	7.9	1712	2.0	177.95		22500
	7.2	1866	1.9	193.96		22500
	6.7	2016	1.7	209.65		22500
	6.1	2207	1.6	229.46		22500
	5.5	2432	1.4	252.87		22500
1.85						
T3A90L24-B5/B14 (1400 min^{-1})	**260**	65	5.4	5.38	**ITH112**	4276
	216	78	4.5	6.47		4721
	178	95	4.2	7.88		5232
	164	103	3.9	8.54		5455
	155	110	3.8	9.06		5620
	136	125	3.4	10.28		5987
	123	138	3.5	11.39		6295
	112	152	3.2	12.52		6584
	95	179	2.8	14.80		7113
	77	219	2.4	18.10		7761
	69	245	2.2	20.25		8120
	60	285	2.1	23.52		8200
	49	349	1.9	28.77		8200
	44	390	1.7	32.18		8200
	39	440	1.5	36.35		8200
	34	504	1.4	41.57		8200
	31	534	1.3	44.99	**ITH113**	8200
	25	656	1.1	55.27		8200
	271	61	9.0	5.17	**ITH122**	5973
	209	81	6.8	6.69		6884
	180	94	6.4	7.79		7485
	159	107	6.1	8.82		8004
	139	122	6.1	10.08		8595
	123	137	5.5	11.35		9150
	105	161	5.3	13.30		9935
	88	193	4.4	15.92		10880
	82	207	4.1	17.11		11276
	72	236	3.6	19.50		12012
	65	260	3.5	21.43		12500
	58	291	3.4	24.00		12500
	53	318	3.1	26.28		12500
	48	356	2.8	29.40		12500
	43	391	2.5	32.31		12500
	39	430	2.3	35.47		12500
	34	506	1.9	41.78		12500
	31	554	1.8	45.73		12500
	28	611	1.6	50.40		12500
	25	664	1.5	56.00	**ITH123**	12500
	23	727	1.3	61.31		12500
	20	837	1.2	70.53		12500
	17	961	1.0	81.00		12500
	16	1052	0.9	88.68		12500



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Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
1.85						
T3A90L24-B5/B14 (1400 min^{-1})	**155**	109	8.2	9.03	**ITH132**	18500
	136	125	7.6	10.30		18500
	127	133	7.1	11.01		18500
	113	150	8.0	12.39		18500
	95	179	6.7	14.80		18500
	93	183	7.1	15.11		18500
	75	226	6.6	18.69		18500
	69	246	6.5	20.31		18500
	55	311	5.1	25.65		18500
	51	333	5.1	27.48		18500
	46	369	4.6	30.46		18500
	40	419	4.5	34.61		18500
	37	457	4.2	37.71		18500
	33	506	3.8	41.80		18500
	31	552	3.4	45.60		18500
	28	604	3.1	49.88		18500
	23	723	2.6	60.92	**ITH133**	18500
	22	768	2.5	64.74		18500
	20	841	2.3	70.88		18500
	18	930	2.0	78.38		18500
	16	1034	1.8	87.14		18500
	15	1135	1.7	95.67		18500
	13	1304	1.5	109.93		18500
	12	1428	1.3	120.36		18500
	10	1597	1.2	134.66		18500
	9.5	1755	1.1	147.98		18500
	8.6	1927	1.0	162.45		18500
	23	732	4.8	61.74	**ITH143**	22500
	21	792	4.4	66.73		22500
	18	942	3.7	79.43		22500
	16	1018	3.4	85.85		22500
	13	1322	2.6	111.40		22500
	12	1428	2.5	120.42		22500
	11	1564	2.2	131.84		22500
	9.5	1750	2.0	147.51		22500
	8.6	1923	1.8	162.10		22500
	7.9	2111	1.7	177.95		22500
	7.2	2301	1.5	193.96		22500
	6.7	2487	1.4	209.65		22500
	6.1	2722	1.3	229.46		22500
	5.5	3000	1.2	252.87		22500
2.2						
TS90LB4-B14	260	77	4.5	5.38	**ITH112**	4240
T3A90LB4-B14	216	93	3.8	6.47		4672
TS100L14-B5/B14	178	113	3.5	7.88		5166
T3A100L14-B5/B14	164	123	3.3	8.54		5379
(1400 min^{-1})	155	131	3.2	9.06		5537
	136	148	2.8	10.28		5886
	123	164	2.9	11.39		6175
	112	180	2.7	12.52		6446
	95	213	2.3	14.80		6933
	77	261	2.0	18.10		7513
	69	292	1.8	20.25		7823
	60	339	1.8	23.52		8200
	49	414	1.6	28.77		8200
	44	464	1.5	32.18		8200
	39	524	1.3	36.35		8200

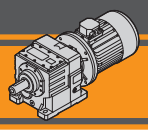
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
2.2						
TS90LB4-B14	271	73	7.5	5.17	**ITH122**	5944
T3A90LB4-B14	209	96	5.7	6.69		6840
TS100L14-B5/B14	180	112	5.3	7.79		7428
T3A100L14-B5/B14	159	127	5.1	8.82		7935
(1400 min^{-1})	139	145	5.2	10.08		8510
	123	164	4.6	11.35		9047
	105	192	4.4	13.30		9803
	88	229	3.7	15.92		10704
	82	247	3.4	17.11		11079
	72	281	3.0	19.50		11770
	65	309	2.9	21.43		12276
	58	346	2.8	24.00		12500
	53	379	2.6	26.28		12500
	48	424	2.3	29.40		12500
	43	465	2.1	32.31		12500
	39	511	1.9	35.47		12500
	34	602	1.6	41.78		12500
	31	659	1.5	45.73		12500
	28	726	1.3	50.40		12500
	25	790	1.2	56.00	**ITH123**	12500
	23	865	1.1	61.31		12500
	20	995	1.0	70.53		12500
	155	130	6.9	9.03	**ITH132**	18500
	136	148	6.4	10.30		18500
	127	159	6.0	11.01		18500
	113	179	6.7	12.39		18500
	95	213	5.6	14.80		18500
	93	218	6.0	15.11		18500
	75	269	5.6	18.69		18500
	69	293	5.5	20.31		18500
	55	370	4.3	25.65		18500
	51	396	4.3	27.48		18500
	46	439	3.9	30.46		18500
	40	499	3.8	34.61		18500
	37	543	3.5	37.71		18500
	33	602	3.2	41.80		18500
	31	657	2.9	45.60		18500
	28	719	2.6	49.88		18500
	23	859	2.2	60.92	**ITH133**	18500
	22	913	2.1	64.74		18500
	20	1000	1.9	70.88		18500
	18	1106	1.7	78.38		18500
	16	1229	1.5	87.14		18500
	15	1350	1.4	95.67		18500
	13	1551	1.2	109.93		18500
	12	1698	1.1	120.36		18500
	10	1900	1.0	134.66		18500
	85	236	9.7	16.40	**ITH142**	22500
	69	292	9.6	20.24		22500
	54	374	8.5	25.99		22500
	43	466	6.9	32.35		22500
	32	628	5.1	43.57		22500
	30	682	4.7	47.35		22500
	27	746	4.3	51.76		22500

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Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
2.2						
TS90LB4-B14	**23**	871	4.0	61.74	**ITH143**	22500
T3A90LB4-B14	**21**	941	3.7	66.73		22500
TS100L14-B5/B14	**18**	1120	3.1	79.43		22500
T3A100L14-B5/B14	**16**	1211	2.9	85.85		22500
(1400 min^{-1})	**13**	1572	2.2	111.40		22500
	12	1699	2.1	120.42		22500
	11	1860	1.9	131.84		22500
	9.5	2081	1.7	147.51		22500
	8.6	2287	1.5	162.10		22500
	7.9	2510	1.4	177.95		22500
	7.2	2736	1.3	193.96		22500
	6.7	2957	1.2	209.65		22500
	6.1	3237	1.1	229.46		22500
	5.5	3567	1.0	252.87		22500
3.0						
T3A100L24-B5	**260**	106	3.3	5.38	**ITH112**	4157
(1400 min^{-1})	**216**	127	2.8	6.47		4561
	178	155	2.6	7.88		5014
	164	168	2.4	8.54		5207
	155	178	2.4	9.06		5348
	136	202	2.1	10.28		5654
	123	224	2.1	11.39		5903
	112	246	2.0	12.52		6130
	95	291	1.7	14.80		6521
	77	356	1.5	18.10		6946
	69	398	1.3	20.25		7146
	60	462	1.3	23.52		7350
	49	565	1.2	28.77		7459
	44	632	1.1	32.18		7402
	271	99	5.5	5.17	**ITH122**	5878
	209	131	4.2	6.69		6738
	180	153	3.9	7.79		7298
	159	173	3.8	8.82		7777
	139	198	3.8	10.08		8315
	123	223	3.4	11.35		8812
	105	261	3.3	13.30		9500
	88	313	2.7	15.92		10302
	82	336	2.5	17.11		10628
	72	383	2.2	19.50		11215
	65	421	2.1	21.43		11633
	58	471	2.1	24.00		12118
	53	516	1.9	26.28		12487
	48	578	1.7	29.40		12500
	43	635	1.5	32.31		12500
	39	697	1.4	35.47		12500
	34	821	1.2	41.78		12500
	31	898	1.1	45.73		12500
	28	990	1.0	50.40		12500
	25	1077	0.9	56.00	**ITH123**	12500

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
3.0						
T3A100L24-B5	**155**	177	5.1	9.03	**ITH132**	18500
(1400 min^{-1})	**136**	202	4.7	10.30		18500
	127	216	4.4	11.01		18500
	113	243	4.9	12.39		18500
	95	291	4.1	14.80		18500
	93	297	4.4	15.11		18500
	75	367	4.1	18.69		18500
	69	399	4.0	20.31		18500
	55	504	3.2	25.65		18500
	51	540	3.1	27.48		18500
	46	598	2.8	30.46		18500
	40	680	2.8	34.61		18500
	37	741	2.6	37.71		18500
	33	821	2.3	41.80		18500
	31	896	2.1	45.60		18500
	28	980	1.9	49.88		18500
	23	1172	1.6	60.92	**ITH133**	18500
	22	1245	1.5	64.74		18500
	20	1363	1.4	70.88		18500
	18	1508	1.3	78.38		18500
	16	1676	1.1	87.14		18500
	15	1840	1.0	95.67		18500
	110	251	8.8	12.78	**ITH142**	22500
	99	277	8.3	14.08		22500
	85	322	7.1	16.40		22500
	69	398	7.0	20.24		22500
	54	511	6.3	25.99		22500
	43	636	5.0	32.35		22500
	32	856	3.7	43.57		22500
	30	930	3.4	47.35		22500
	27	1017	3.1	51.76		22500
	23	1188	2.9	61.74	**ITH143**	22500
	21	1284	2.7	66.73		22500
	18	1528	2.3	79.43		22500
	16	1651	2.1	85.85		22500
	13	2143	1.6	111.40		22500
	12	2316	1.5	120.42		22500
	11	2536	1.4	131.84		22500
	9.5	2838	1.2	147.51		22500
	8.6	3118	1.1	162.10		22500
	7.9	3423	1.0	177.95		22500
4.0						
T3A100L34-B5	**260**	141	2.5	5.38	**ITH112**	4053
T3A112M4-B5	**216**	169	2.1	6.47		4422
(1400 min^{-1})	**178**	206	1.9	7.88		4824
	164	224	1.8	8.54		4991
	155	237	1.8	9.06		5111
	136	269	1.6	10.28		5365
	123	298	1.6	11.39		5563
	112	328	1.5	12.52		5735
	95	388	1.3	14.80		6005
	77	474	1.1	18.10		6237
	60	616	1.0	23.52		6277



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P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
4.0						
T3A100L34-B5	**271**	133	4.1	5.17	**ITH122**	5795
T3A112M4-B5	**209**	175	3.1	6.69		6611
(1400 min^{-1})	**180**	204	2.9	7.79		7136
	159	231	2.8	8.82		7580
	139	264	2.8	10.08		8072
	123	297	2.5	11.35		8518
	105	348	2.4	13.30		9122
	88	417	2.0	15.92		9800
	82	448	1.9	17.11		10065
	72	511	1.7	19.50		10523
	65	561	1.6	21.43		10828
	58	629	1.6	24.00		11156
	53	688	1.4	26.28		11377
	48	770	1.3	29.40		11583
	43	846	1.2	32.31		11683
	39	929	1.1	35.47		11701
	34	1095	0.9	41.78		11474
	155	237	3.8	9.03	**ITH132**	18353
	136	270	3.5	10.30		18500
	127	288	3.3	11.01		18500
	113	325	3.7	12.39		18500
	95	388	3.1	14.80		18500
	93	396	3.3	15.11		18500
	75	490	3.1	18.69		18500
	69	532	3.0	20.31		18500
	55	672	2.4	25.65		18500
	51	720	2.4	27.48		18500
	46	798	2.1	30.46		18500
	40	907	2.1	34.61		18500
	37	988	1.9	37.71		18500
	33	1095	1.7	41.80		18500
	31	1194	1.6	45.60		18500
	28	1306	1.5	49.88		18500
	23	1562	1.2	60.92	**ITH133**	18500
	22	1660	1.1	64.74		18500
	20	1818	1.0	70.88		18500
	18	2010	0.9	78.38		18500
	110	335	6.6	12.78	**ITH142**	22500
	99	369	6.2	14.08		22500
	85	429	5.4	16.40		22500
	69	530	5.3	20.24		22500
	54	681	4.7	25.99		22500
	43	847	3.8	32.35		22500
	32	1141	2.8	43.57		22500
	30	1240	2.6	47.35		22500
	27	1356	2.4	51.76		22500
	23	1583	2.2	61.74	**ITH143**	22500
	21	1712	2.0	66.73		22500
	18	2037	1.7	79.43		22500
	16	2202	1.6	85.85		22500
	13	2857	1.2	111.40		22500
	12	3088	1.1	120.42		22500
	11	3381	1.0	131.84		22500

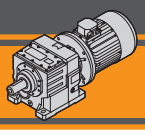
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
5.5						
T3A132S4-B5	**260**	194	1.8	5.38	**ITH112**	3898
(1400 min^{-1})	**216**	233	1.5	6.47		4213
	178	284	1.4	7.88		4539
	164	308	1.3	8.54		4667
	155	326	1.3	9.06		4756
	136	370	1.1	10.28		4930
	123	410	1.2	11.39		5052
	112	451	1.1	12.52		5142
	271	182	3.0	5.17	**ITH122**	5671
	209	241	2.3	6.69		6420
	180	281	2.1	7.79		6893
	159	318	2.0	8.82		7284
	139	363	2.1	10.08		7706
	123	409	1.8	11.35		8077
	105	479	1.8	13.30		8555
	88	573	1.5	15.92		9047
	82	616	1.4	17.11		9220
	72	702	1.2	19.50		9484
	65	772	1.2	21.43		9622
	58	864	1.1	24.00		9712
	53	946	1.0	26.28		9710
	48	1059	0.9	29.40		9593
	278	178	4.8	5.03	**ITH132**	13316
	230	219	3.9	6.09		14674
	203	249	3.6	6.91		15633
	186	270	3.3	7.51		16290
	167	301	3.0	8.36		17159
	155	325	2.8	9.03		17797
	136	371	2.6	10.30		18500
	127	396	2.4	11.01		18500
	113	446	2.7	12.39		18500
	95	533	2.3	14.80		18500
	93	544	2.4	15.11		18500
	75	673	2.2	18.69		18500
	69	731	2.2	20.31		18500
	55	924	1.7	25.65		18500
	51	990	1.7	27.48		18500
	46	1097	1.5	30.46		18500
	40	1246	1.5	34.61		18500
	37	1358	1.4	37.71		18500
	33	1506	1.3	41.80		18500
	31	1642	1.2	45.60		18500
	28	1796	1.1	49.88		18500
	228	217	8.3	6.15	**ITH142**	21811
	190	265	6.8	7.35		22500
	158	320	6.3	8.88		22500
	144	351	5.7	9.75		22500
	135	373	5.6	10.35		22500
	120	419	5.0	11.65		22500
	110	460	4.8	12.78		22500
	99	507	4.5	14.08		22500
	85	591	3.9	16.40		22500
	79	639	4.4	17.73		22500
	69	729	3.8	20.24		22500
	54	936	3.4	25.99		22500
	50	1012	3.2	28.10		22500
	43	1165	2.7	32.35		22500
	38	1336	2.4	37.09		22500
	32	1569	2.0	43.57		22500
	30	1705	1.9	47.35		22500
	27	1864	1.7	51.76		22500

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P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
5.5						
T3A132S4-B5 (1400 min^{-1})	**23**	2177	1.6	61.74	**ITH143**	22500
	21	2353	1.5	66.73		22500
	18	2801	1.2	79.43		22500
	16	3028	1.2	85.85		22500
7.5						
T3A132M4-B5 (1400 min^{-1})	**260**	264	1.3	5.38	**ITH112**	3691
	216	318	1.1	6.47		3935
	178	387	1.0	7.88		4160
	164	420	1.0	8.54		4235
	155	445	0.9	9.06		4282
	271	249	2.2	5.17	**ITH122**	5505
	209	328	1.7	6.69		6166
	180	383	1.6	7.79		6569
	159	433	1.5	8.82		6890
	139	495	1.5	10.08		7219
	123	557	1.3	11.35		7489
	105	653	1.3	13.30		7800
	88	782	1.1	15.92		8042
	82	840	1.0	17.11		8094
	278	242	3.5	5.03	**ITH132**	13028
	230	299	2.8	6.09		14276
	203	339	2.7	6.91		15148
	186	369	2.4	7.51		15736
	167	411	2.2	8.36		16503
	155	444	2.0	9.03		17056
	136	506	1.9	10.30		17997
	127	541	1.8	11.01		18461
	113	609	2.0	12.39		18500
	95	727	1.7	14.80		18500
	93	742	1.8	15.11		18500
	75	918	1.6	18.69		18500
	69	997	1.6	20.31		18500
	55	1260	1.3	25.65		18500
	51	1350	1.3	27.48		18500
	46	1496	1.1	30.46		18500
	40	1700	1.1	34.61		18500
	37	1852	1.0	37.71		18500
	228	296	6.1	6.15	**ITH142**	21469
	190	361	5.0	7.35		22500
	158	436	4.6	8.88		22500
	144	479	4.2	9.75		22500
	135	508	4.1	10.35		22500
	120	572	3.7	11.65		22500
	110	627	3.5	12.78		22500
	99	691	3.3	14.08		22500
	85	805	2.9	16.40		22500
	79	871	3.2	17.73		22500
	69	994	2.8	20.24		22500
	54	1277	2.5	25.99		22500
	50	1380	2.3	28.10		22500
	43	1589	2.0	32.35		22500
	38	1821	1.8	37.09		22500
	32	2140	1.5	43.57		22500
	30	2326	1.4	47.35		22500
	27	2542	1.3	51.76		22500
	23	2969	1.2	61.74	**ITH143**	22500
	21	3209	1.1	66.73		22500

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
9.2						
T3A132M24-B5 (1400 min^{-1})	**260**	324	1.1	5.38	**ITH112**	3514
	271	305	1.8	5.17	**ITH122**	5364
	209	403	1.4	6.69		5949
	180	469	1.3	7.79		6293
	159	531	1.2	8.82		6554
	139	607	1.2	10.08		6805
	123	684	1.1	11.35		6989
	105	801	1.1	13.30		7157
	278	297	2.9	5.03	**ITH132**	12784
	230	367	2.3	6.09		13938
	203	416	2.2	6.91		14736
	186	452	2.0	7.51		15266
	167	504	1.8	8.36		15945
	155	544	1.7	9.03		16426
	136	621	1.5	10.30		17221
	127	663	1.4	11.01		17599
	113	747	1.6	12.39		18229
	95	892	1.3	14.80		18500
	93	910	1.4	15.11		18500
	75	1126	1.3	18.69		18500
	69	1223	1.3	20.31		18500
	55	1545	1.0	25.65		18500
	51	1656	1.0	27.48		18104
	228	363	5.0	6.15	**ITH142**	21179
	190	443	4.1	7.35		22500
	158	535	3.7	8.88		22500
	144	587	3.4	9.75		22500
	135	623	3.4	10.35		22500
	120	702	3.0	11.65		22500
	110	770	2.9	12.78		22500
	99	848	2.7	14.08		22500
	85	988	2.3	16.40		22500
	79	1068	2.6	17.73		22500
	69	1219	2.3	20.24		22500
	54	1566	2.0	25.99		22500
	50	1693	1.9	28.10		22500
	43	1949	1.6	32.35		22500
	38	2234	1.4	37.09		22500
	32	2625	1.2	43.57		22500
	30	2853	1.1	47.35		22500
	27	3118	1.0	51.76		22500
	23	3642	1.0	61.74	**ITH143**	22500
11.0						
T3A160M4-B5 (1400 min^{-1})	**278**	355	2.4	5.03	**ITH132**	12525
	230	439	1.9	6.09		13580
	203	498	1.8	6.91		14299
	186	541	1.7	7.51		14768
	167	602	1.5	8.36		15355
	155	650	1.4	9.03		15759
	136	742	1.3	10.30		16398
	127	793	1.2	11.01		16686
	113	893	1.3	12.39		17128
	95	1066	1.1	14.80		17547
	93	1088	1.2	15.11		17571
	75	1346	1.1	18.69		17421
	69	1463	1.1	20.31		17114



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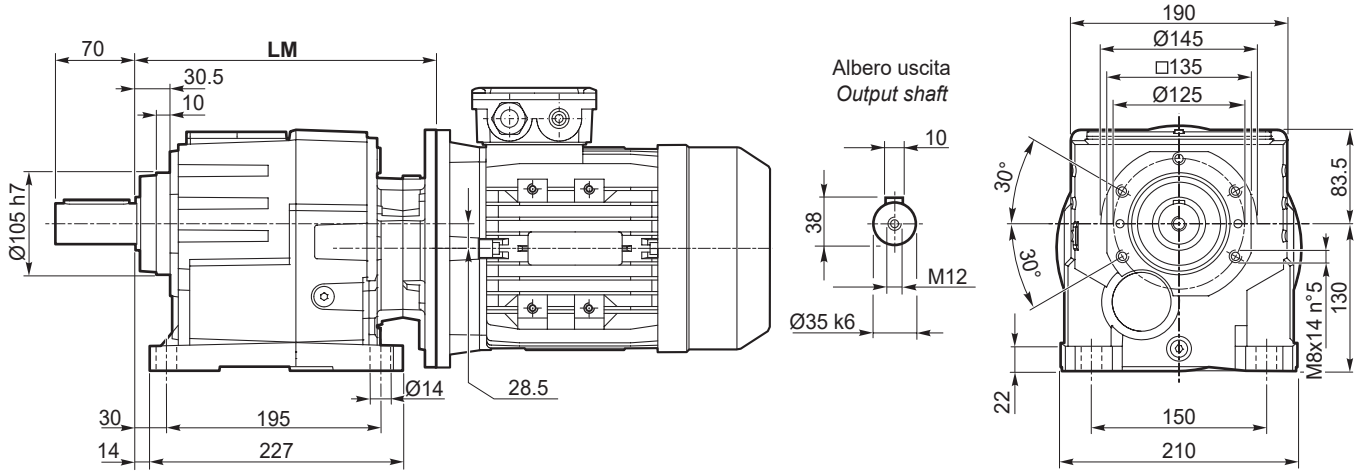
Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
11.0						
T3A160M4-B5 (1400 min^{-1})	**228**	434	4.1	6.15	**ITH142**	20871
	190	529	3.4	7.35		22500
	158	640	3.1	8.88		22500
	144	702	2.8	9.75		22500
	135	745	2.8	10.35		22500
	120	839	2.5	11.65		22500
	110	920	2.4	12.78		22500
	99	1014	2.3	14.08		22500
	85	1181	1.9	16.40		22500
	79	1277	2.2	17.73		22500
	69	1458	1.9	20.24		22500
	54	1872	1.7	25.99		22500
	50	2024	1.6	28.10		22500
	43	2330	1.4	32.35		22500
	38	2671	1.2	37.09		22500
	32	3139	1.0	43.57		22500
15.0						
T3A160L14-B5 (1400 min^{-1})	**278**	484	1.8	5.03	**ITH132**	11949
	230	598	1.4	6.09		12785
	203	679	1.3	6.91		13329
	186	738	1.2	7.51		13661
	167	821	1.1	8.36		14043
	155	887	1.0	9.03		14276
	228	592	3.0	6.15	**ITH142**	20188
	190	722	2.5	7.35		21643
	158	873	2.3	8.88		22500
	144	957	2.1	9.75		22500
	135	1016	2.1	10.35		22500
	120	1144	1.8	11.65		22500
	110	1255	1.8	12.78		22500
	99	1383	1.7	14.08		22500
	85	1610	1.4	16.40		22500
	79	1742	1.6	17.73		22500
	69	1988	1.4	20.24		22500
	54	2553	1.3	25.99		22500
	50	2760	1.2	28.10		22500
	43	3178	1.0	32.35		22410
18.5						
T3A160L24-B5 (1400 min^{-1})	**278**	597	1.4	5.03	**ITH132**	11445
	230	738	1.2	6.09		12090
	203	837	1.1	6.91		12480
	186	910	1.0	7.51		12692
	228	730	2.5	6.15	**ITH142**	19590
	190	890	2.0	7.35		20839
	158	1076	1.9	8.88		22145
	144	1181	1.7	9.75		22500
	135	1254	1.7	10.35		22500
	120	1411	1.5	11.65		22500
	110	1548	1.4	12.78		22500
	99	1705	1.3	14.08		22500
	85	1986	1.2	16.40		22500
	79	2148	1.3	17.73		22500
	69	2452	1.1	20.24		22500
	54	3149	1.0	25.99		20141

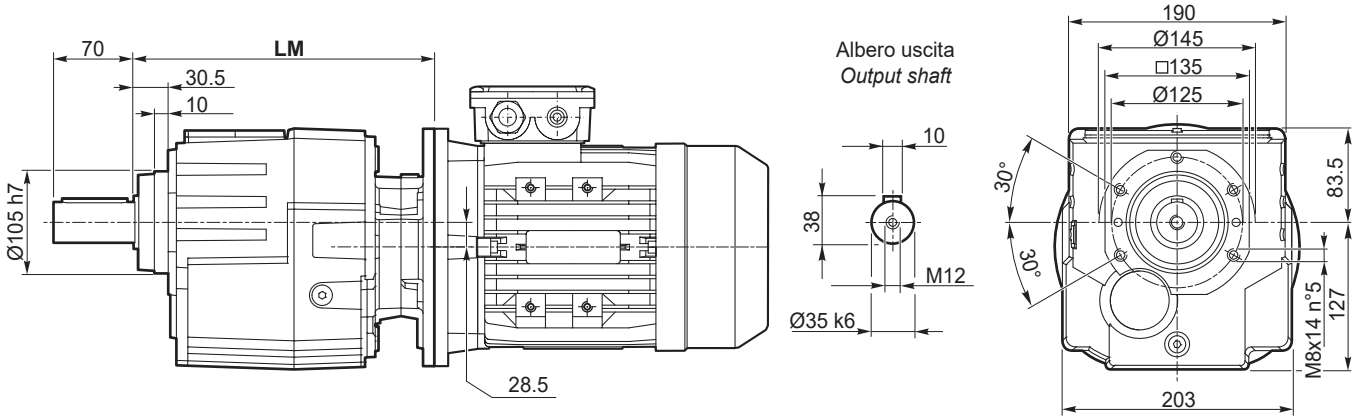
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
22.0						
180L4 (1400 min^{-1})	**278**	710	1.2	5.03	**ITH132**	10941
	230	878	1.0	6.09		11394
	228	868	2.1	6.15	**ITH142**	18992
	190	1059	1.7	7.35		20034
	158	1280	1.6	8.88		21065
	144	1404	1.4	9.75		21474
	135	1491	1.4	10.35		21693
	120	1678	1.3	11.65		22000
	110	1840	1.2	12.78		22097
	99	2028	1.1	14.08		22028
	85	2362	1.0	16.40		21475
	79	2555	1.1	17.73		20928
	69	2916	1.0	20.24		19494
30.0						
200L4 (1400 min^{-1})	**228**	1183	1.5	6.15	**ITH142**	17626
	190	1444	1.2	7.35		18195
	158	1745	1.1	8.88		18598
	144	1915	1.0	9.75		18625
	135	2033	1.0	10.35		18568
	120	2288	0.9	11.65		18247

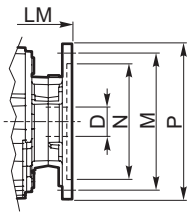
ITH 112 - ITH 113

ITH 112 U
ITH 113 U

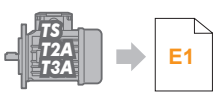


ITH 112 G
ITH 113 G

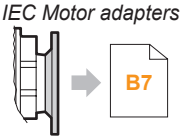




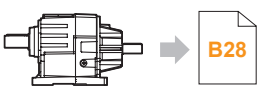
Dimensioni IEC / *IEC Dimensions*								
	71 B5	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
LM	289			293,5	293	293,5	314	
N	110	130	130	95	180	110	230	130
M	130	165	165	115	215	130	265	165
P	160	200	200	140	250	160	300	200
D	14	19	24		28		38	

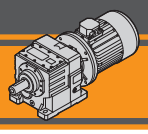


IEC Motori applicabili
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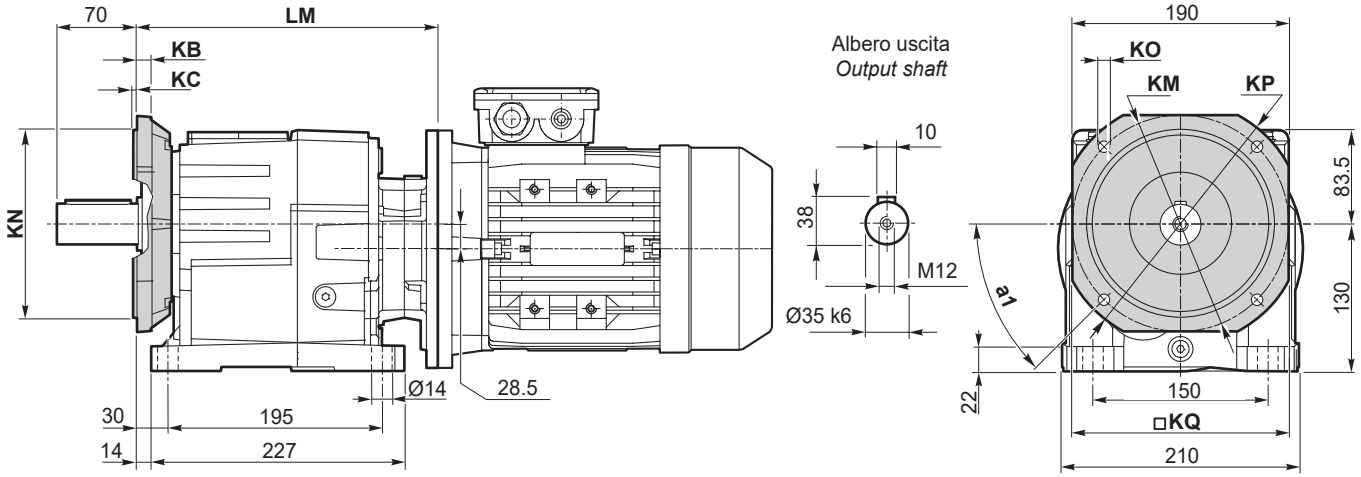
ITHIS 112...
ITHIS 113...



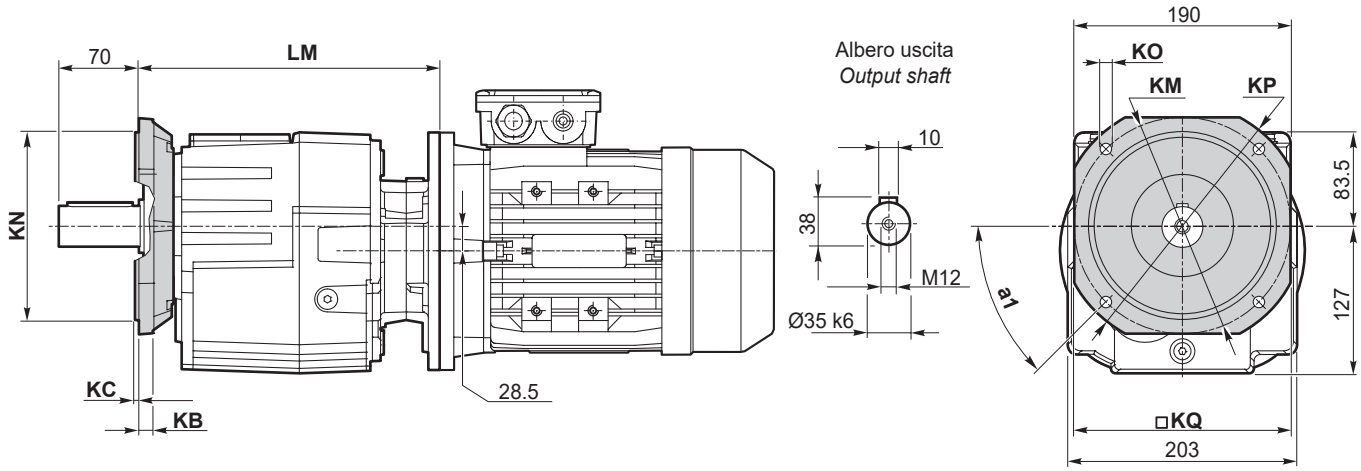


ITH 112 - ITH 113

ITH 112 U/F...
ITH 113 U/F...



ITH 112 F...
ITH 113 F...

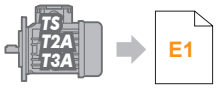


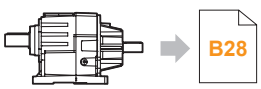
Versione **F** / ***F** Version*										
ITH	**a_1**	**KB**	**KC**	**KM**	**KN** f7	**KO**	**KP**	**KQ**	**Flangia / *Flange*** Tipo / *Type*	**Peso / *Weight* [kg]**
112 113	45°	12	4	165	130	11	200	165	**F200**	**2.1**
	45°	12	4	215	180	14	250	215	**F250**	**3.2**

Peso / *Weight [kg]*								
ITH	**71 B5**	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
112 U	28	29	29	28	30	28	34	31
112 G	26	27	27	26	29	26	32	29
113 U	28	29	29	28	-	-	-	-
113 G	27	28	28	27	-	-	-	-

Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

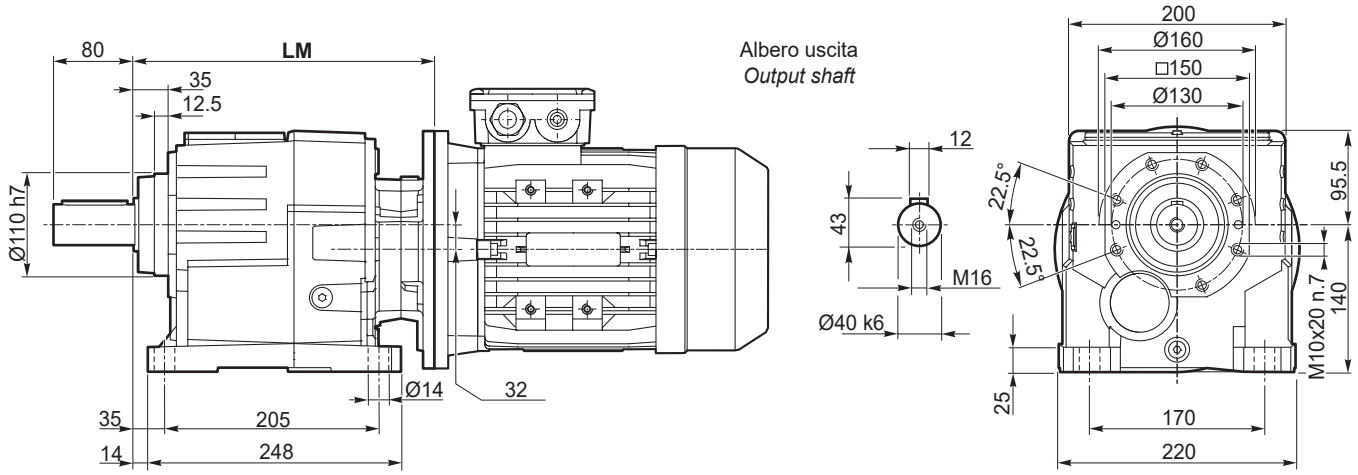
ITHIS 112...
ITHIS 113...



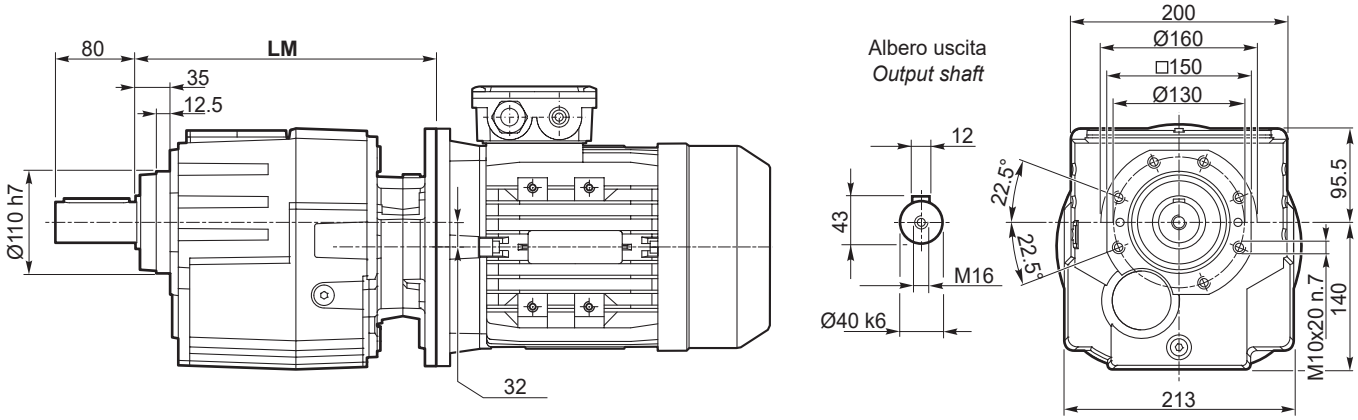


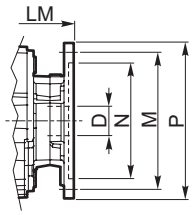
ITH 122 - ITH 123

ITH 122 U
ITH 123 U

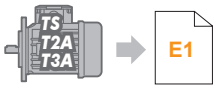


ITH 122 G
ITH 123 G

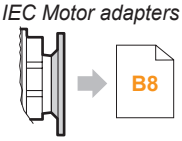




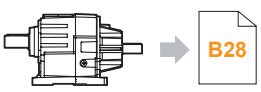
Dimensioni IEC / *IEC Dimensions*								
	71 B5	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
LM	309.5			314	313.5	314	334.5	
N	110	130	130	95	180	110	230	130
M	130	165	165	115	215	130	265	165
P	160	200	200	140	250	160	300	200
D	14	19	24		28		38	

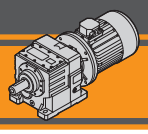


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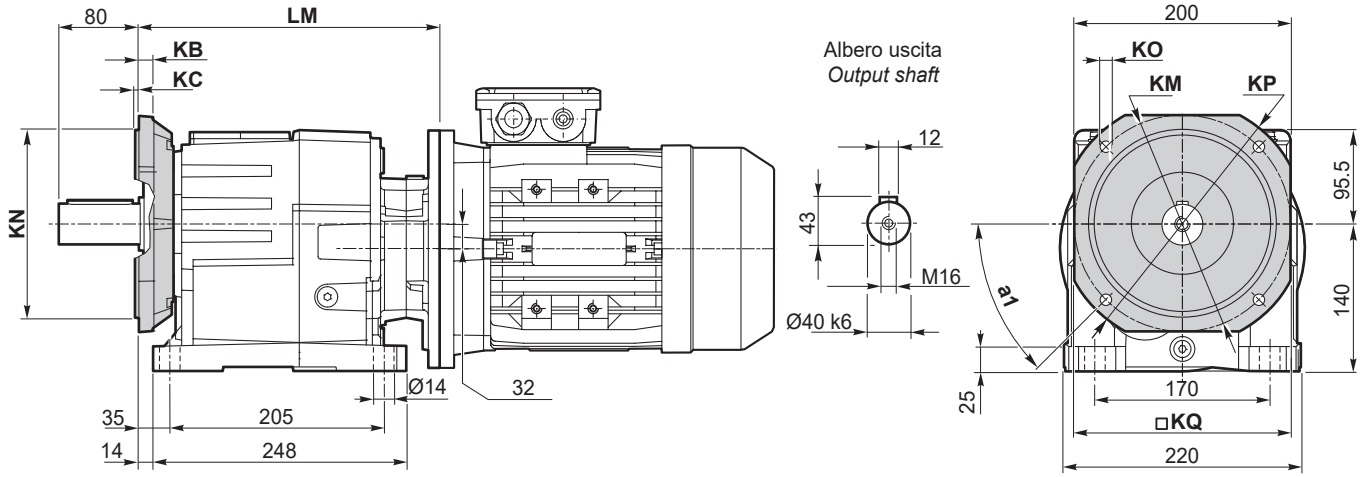
ITHIS 122...
ITHIS 123...



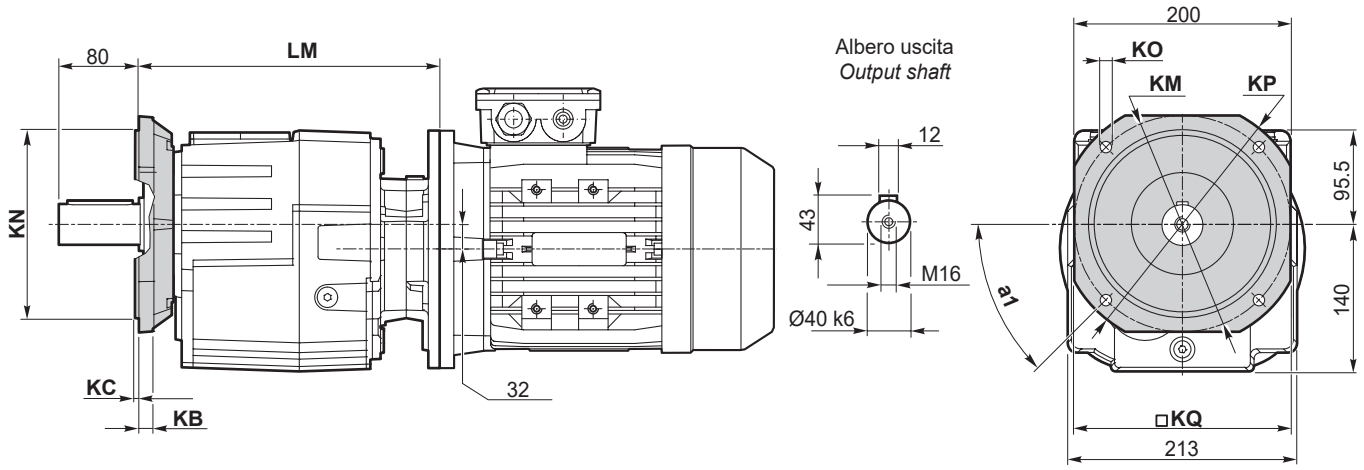


ITH 122- ITH 123

ITH 122 U/F...
ITH 123 U/F...



ITH 122 F...
ITH 123 F...

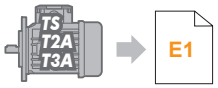


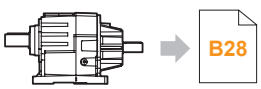
Versione **F** / ***F** Version*										
ITH	**a_1**	**KB**	**KC**	**KM**	**KN** f7	**KO**	**KP**	**KQ**	**Flangia / *Flange*** Tipo / *Type*	**Peso / *Weight* [kg]**
122 123	45°	13	4	165	130	11	200	172	**F200**	**2.6**
	45°	13	4	215	180	14	250	215	**F250**	**3.8**
	45°	13	4	265	230	14	300	265	**F300**	**5.6**

Peso / *Weight [kg]*								
ITH	**71 B5**	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
122 U	-	36	36	35	38	35	41	38
122 G	-	34	34	33	36	33	39	36
123 U	36	37	37	36	39	36	-	-
123 G	34	35	35	34	37	34	-	-

Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

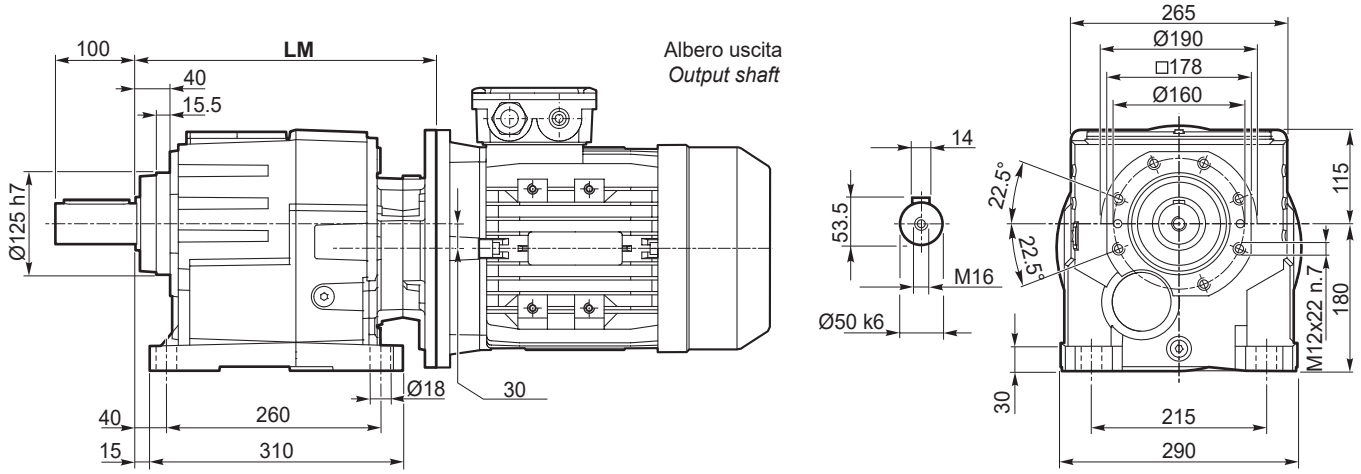
ITHIS 122...
ITHIS 123...



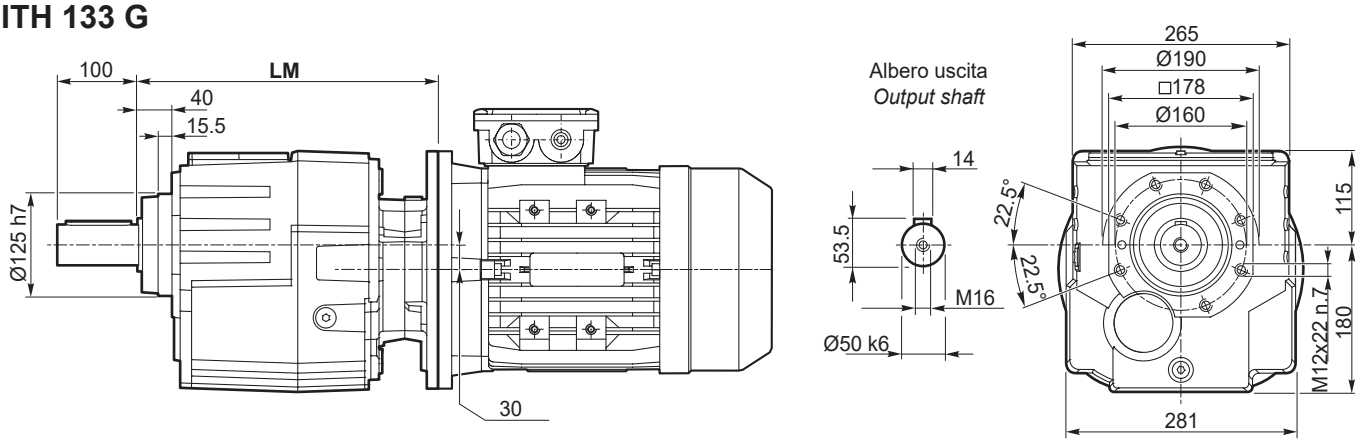


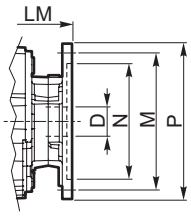
ITH 132 - ITH 133

ITH 132 U
ITH 133 U

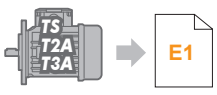


ITH 132 G
ITH 133 G

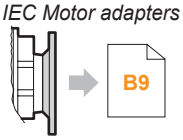




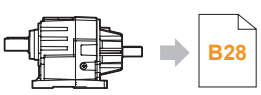
Dimensioni IEC / *IEC Dimensions*									
	80 B5	90 B5	90 B14	100/112 B5	100/112 B14	132 B5	132 B14	160 B5	180 B5
LM	340.5		345	344.5	345	365.5		415.5	
N	130		95	180	110	230	130	250	
M	165		115	215	130	265	165	300	
P	200		140	250	160	300	200	350	
D	19	24		28		38		42	48

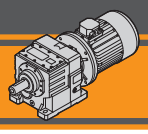


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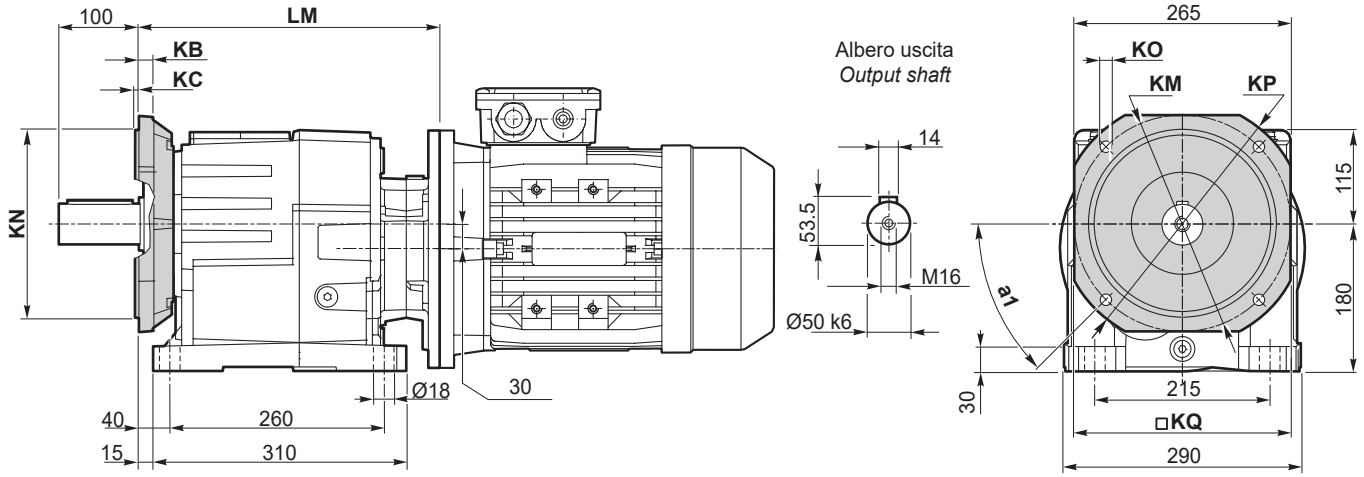
ITHIS 132...
ITHIS 133...



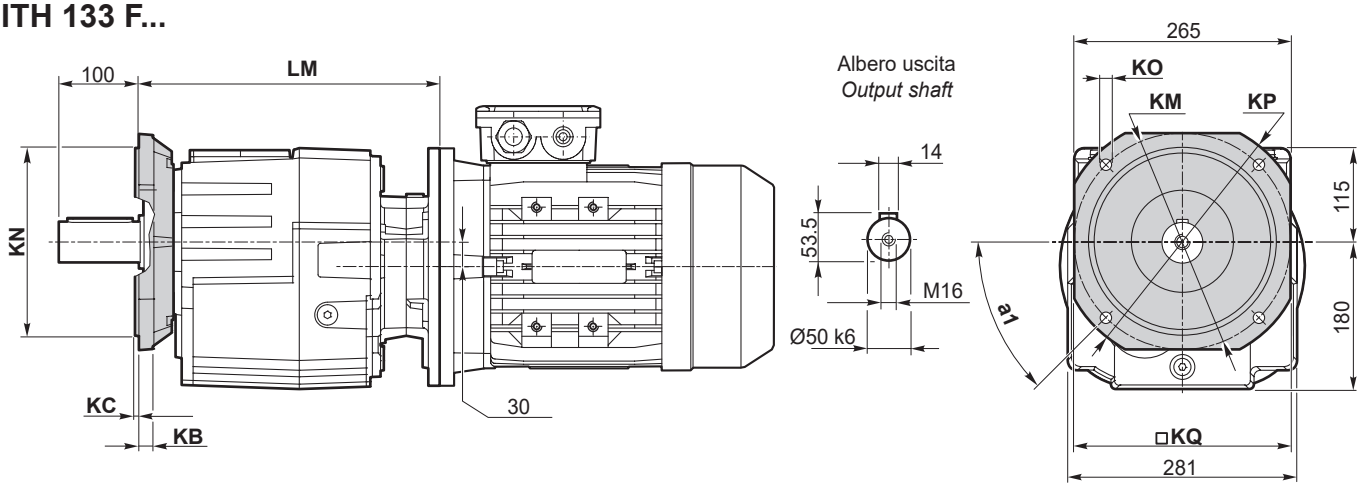


ITH 132- ITH 133

ITH 132 U/F...
ITH 133 U/F...



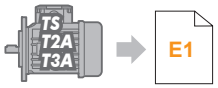
ITH 132 F...
ITH 133 F...



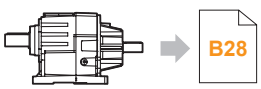
Versione **F** / ***F** Version*										
ITH	**a_1**	**KB**	**KC**	**KM**	**KN** f7	**KO**	**KP**	**KQ**	**Flangia / *Flange*** Tipo / *Type*	**Peso / *Weight* [kg]**
132 133	45°	16	4	215	180	14	250	215	**F250**	**4.8**
	45°	16	4	265	230	14	300	260	**F300**	**7.1**
	45°	16	4	300	250	18	350	300	**F350**	**9.1**

Peso / *Weight [kg]*									
ITH	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**	**180 B5**
132 U	67		66	68	66	72	69	83	
132 G	63		62	64	62	68	65	79	
133 U	69		68	70	68	74	71	-	-
133 G	65		64	66	64	70	67	-	-

Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

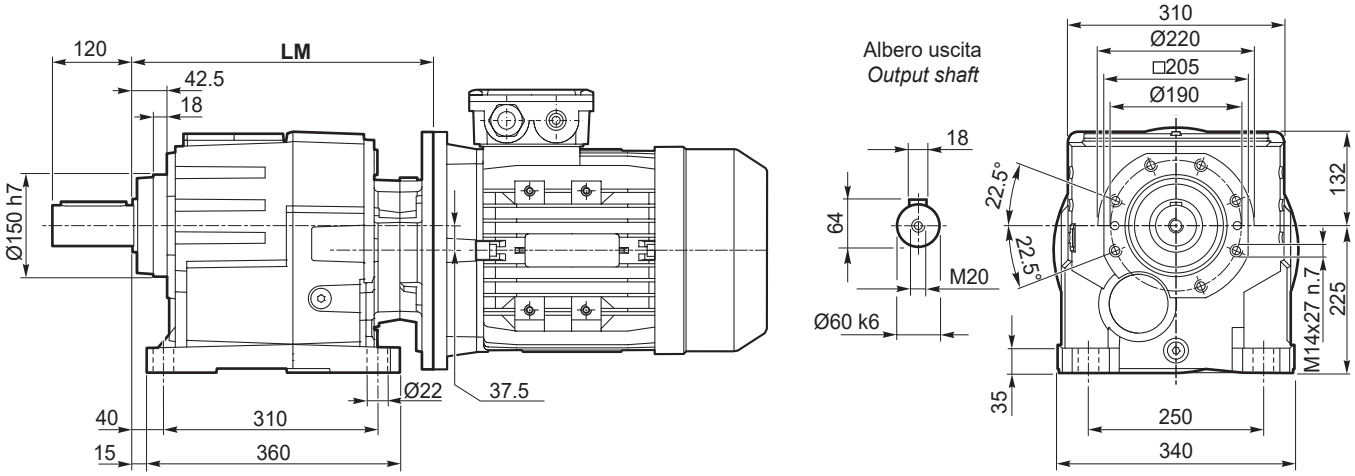


ITHIS 132...
ITHIS 133...

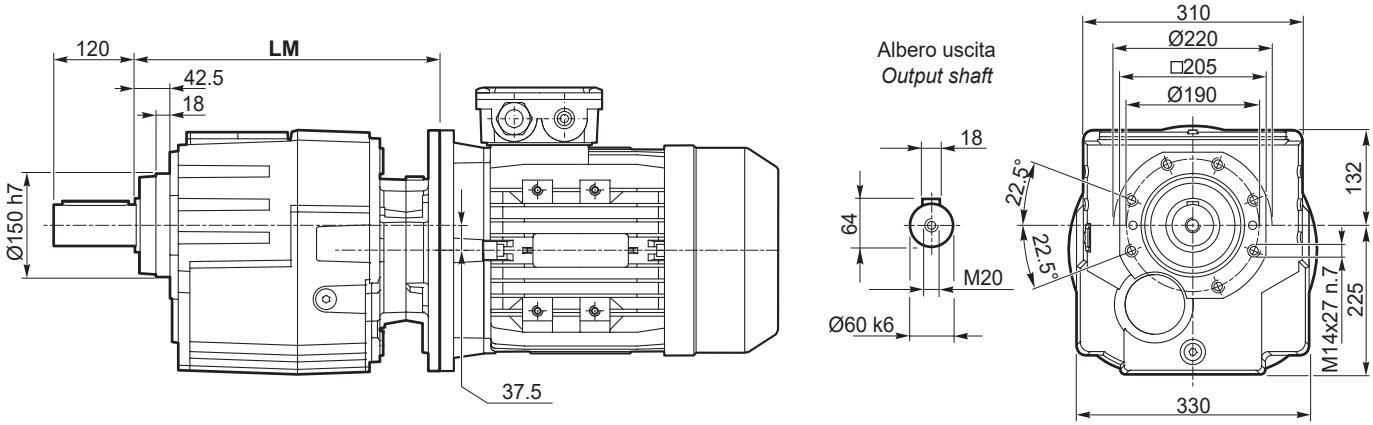


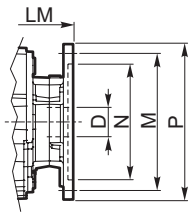
ITH 142 - ITH 143

ITH 142 U
ITH 143 U

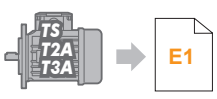


ITH 142 G
ITH 143 G

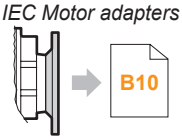




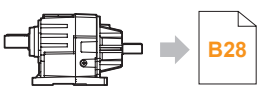
Dimensioni IEC / *IEC Dimensions*										
	80 B5	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**	**180 B5**	**200 B5**
LM	373.5		378	377.5	378	398.5		448.5		460.5
N	130		95	180	110	230	130	250		300
M	165		115	215	130	265	165	300		350
P	200		140	250	160	300	200	350		400
D	19	24		28		38		42	48	55

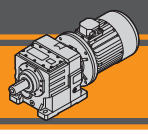


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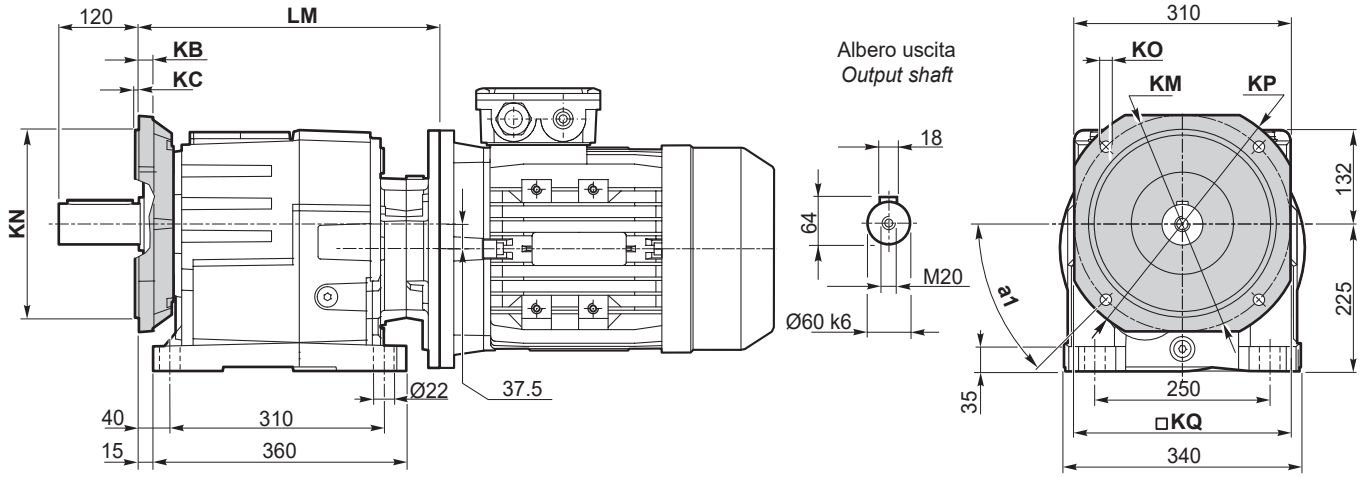
ITHIS 142...
ITHIS 143...



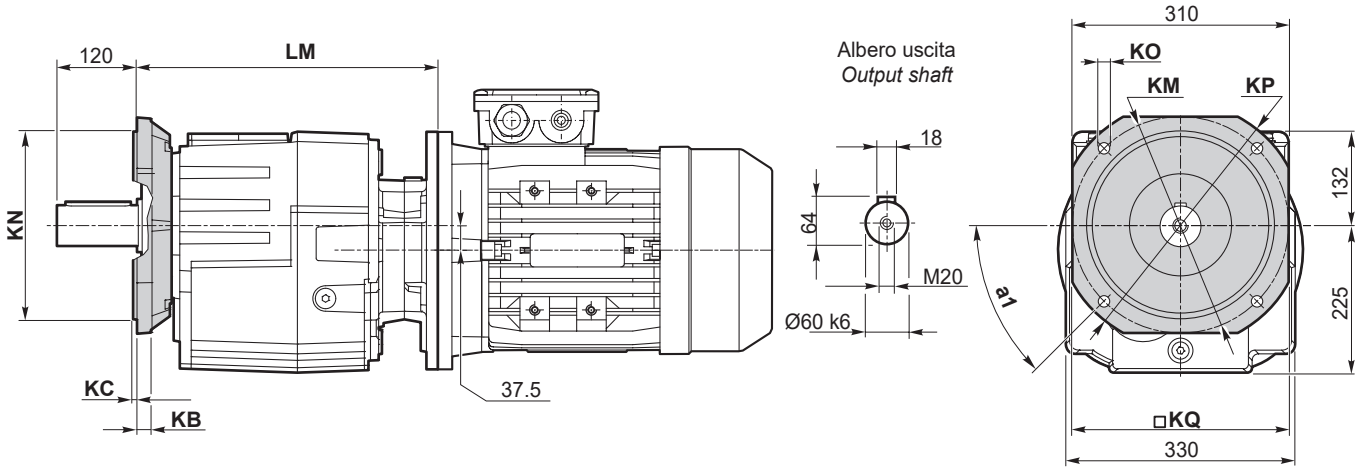


ITH 142- ITH 143

ITH 142 U/F...
ITH 143 U/F...



ITH 142 F...
ITH 143 F...

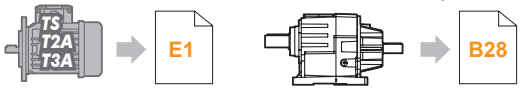


Versione **F** / ***F** Version*										
ITH	**a_1**	**KB**	**KC**	**KM**	**KN** f7	**KO**	**KP**	**KQ**	**Flangia** / ***Flange*** Tipo / *Type*	**Peso** / ***Weight*** **[kg]**
142 143	45°	18	4	265	230	14	300	265	**F300**	**7.4**
	45°	18	5	300	250	18	350	300	**F350**	**10.2**
	45°	18	5	400	350	18	450	400	**F450**	**16.9**

Peso / ***Weight [kg]***										
ITH	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**	**180 B5**	**200 B5**
142 U	-	-	-	105	102	108	105	119		129
142 G	-	-	-	99	96	102	99	113		123
143 U	106		105	108	105	111	108	-	-	-
143 G	100		99	102	99	105	102	-	-	-

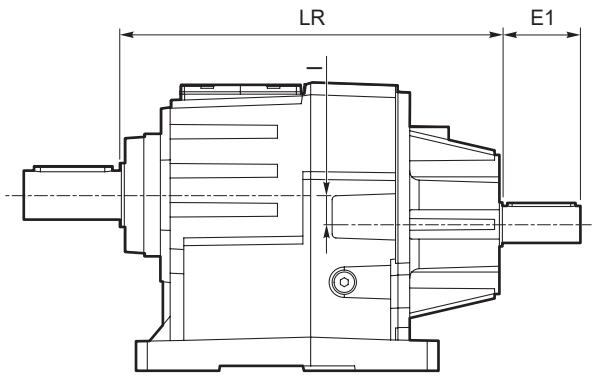
Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

ITHIS 142...
ITHIS 143...

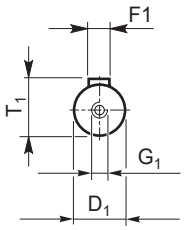


Dimensioni — *Dimensions*

ITHIS...



Albero entrata
Input shaft



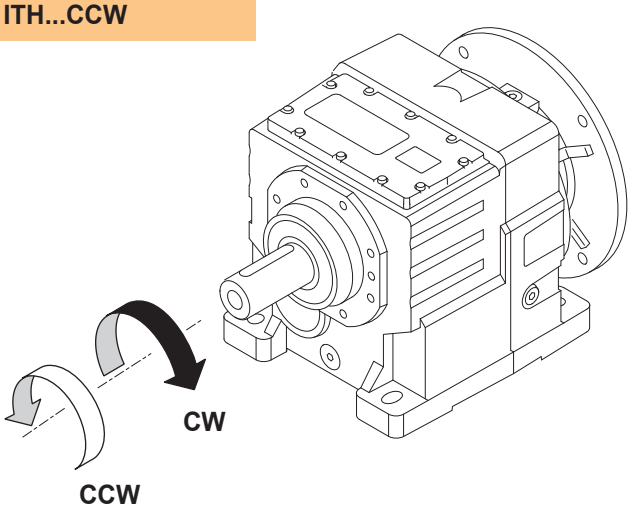
ITHIS	Versione *Version*	LR	D1	E1	I	T1	F1	G1
112	U G U/F... F...	321.5	28	60	28.5	31	8	M10
113		321.5	24	50	28.5	27	8	M8
122		342	28	60	32	31	8	M10
123		342	28	60	32	31	8	M10
132		390.5	38	80	30	41	10	M12
133		373	28	60	30	31	8	M10
142		423.5	38	80	37.5	41	10	M12
143		406	28	60	37.5	31	8	M10

ITHIS	Peso / *Weight* [kg]
112 U	29
112 G	28
113 U	30
113 G	28
122 U	37
122 G	35
123 U	38
123 G	36
132 U	73
132 G	69
133 U	69
133 G	65
142 U	110
142 G	104
143 U	107
143 G	101

Accessori — *Accessories*

Dispositivo antiretro / *Backstop device*

ITH...CW
ITH...CCW



Il dispositivo antiretro permette la rotazione dell'albero in un solo senso senza creare ingombri aggiuntivi.
Prima di utilizzarlo è necessario specificare il senso di rotazione dell'albero di uscita come mostrato in figura.

The backstop device allows the output shaft to rotate in just one direction. Before using it, please specify output shaft rotation direction as shown in the figure.

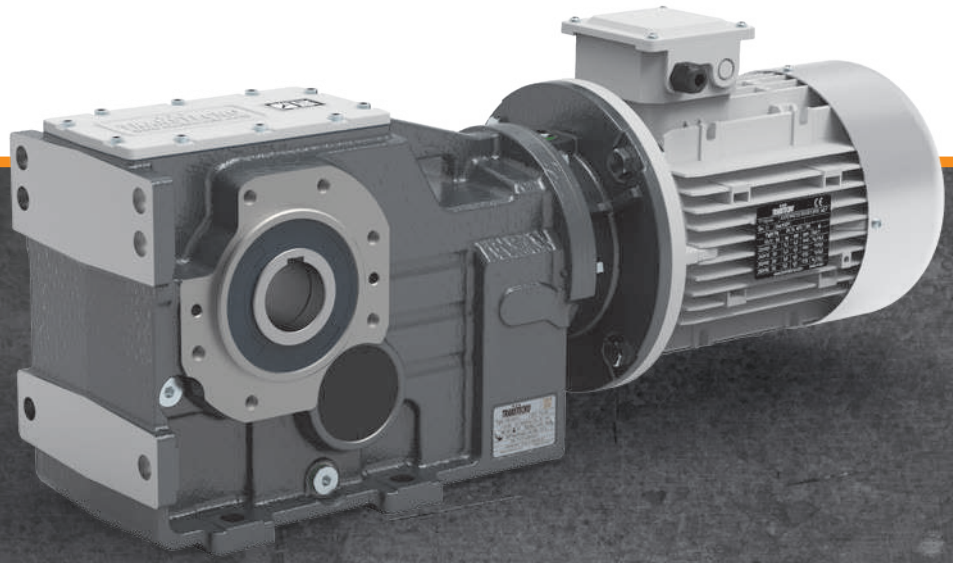
TRANSTECNO®
the modular gearmotor

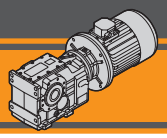
ITB

ITB

ITB Iron

Motoriduttori ad assi ortogonali
Helical bevel gearmotors





ENERGY SAVING

Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**C2**
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Dati tecnici	*Technical data*	**C7**
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Caratteristiche tecniche

Technical features

I motoriduttori della serie ITB sono dedicati ad applicazioni industriali che presentano carichi particolarmente gravosi. La costruzione robusta con carcassa in ghisa e l'elevata modularità dei diversi kit di entrata e di uscita li rendono adatti ad ogni tipo di applicazione.

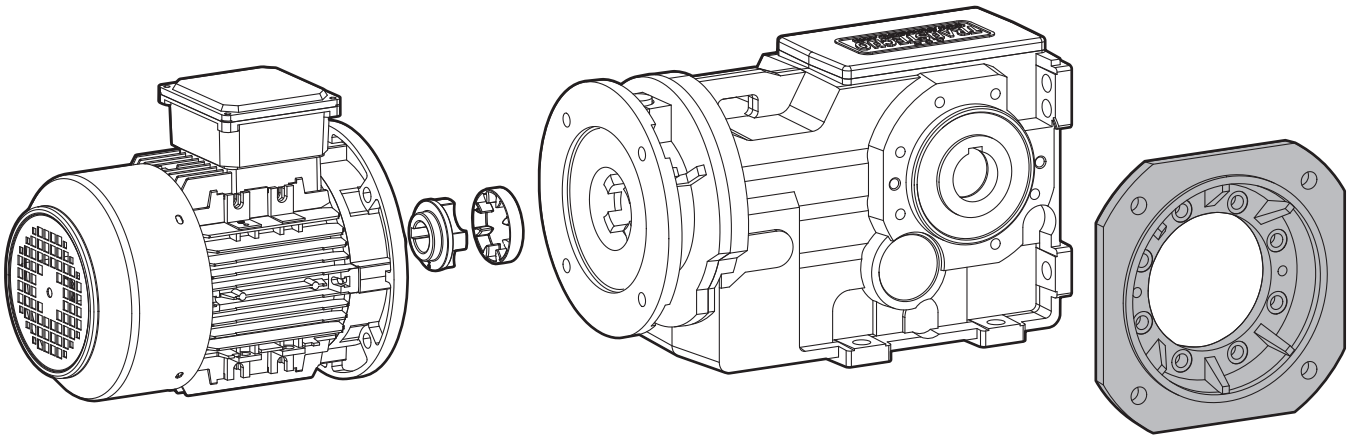
The ITB gearmotors are intended for heavy duty applications. The robust one pieces casing of the main housing and the modular design of input and output sets increase application fexibility.

Caratteristiche comuni a tutta la serie sono:

- Costruzione robusta con carcassa in ghisa
- Elevata modularità
- Lubrificazione con olio sintetico
- Accoppiamento al motore tramite giunto elastico o manicotto rigido
- Verniciatura a polvere epossidica RAL 7016 di spessore medio 0,10 – 0,15 mm.

The main features of ITB range are:

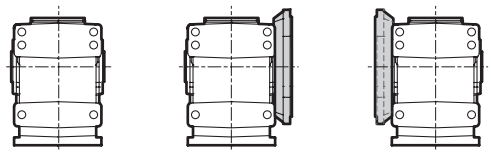
- *Robust cast iron housings*
- *High degree of modularity*
- *Lubrication with synthetic oil*
- *Coupled to motor with flexible coupling or motor sleeve*
- *Epoxy powder coating RAL 7016 average thickness 0,10 – 0,15 mm.*



Versioni

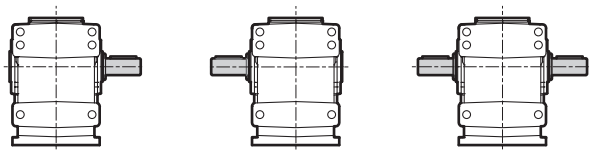
Versions

Versione Riduttore
Gearbox Version



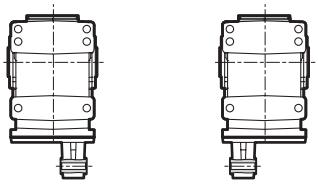
U F... D F... S

Albero di uscita
Output shaft



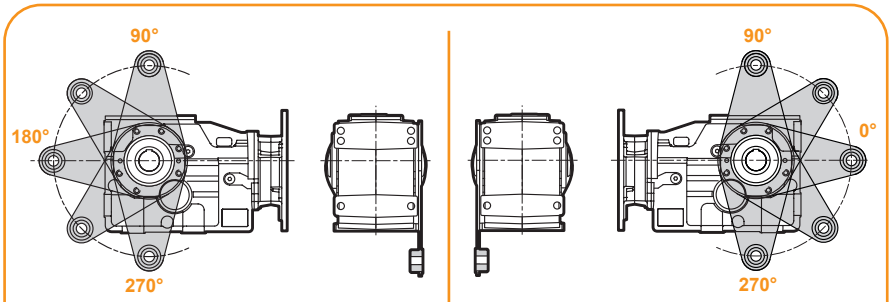
SZDX SZSX DZ

Braccio di reazione
Torque arm



TADX TASX

Braccio di reazione
Torque arm (*)

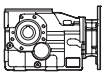


BRDX BRSX

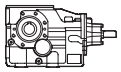
(*) NOTA: il braccio di reazione viene fornito smontato.
NOTE: the torque arm will be supplied not assembled.

Designazione — *Classification*

RIDUTTORE / *GEARBOX*

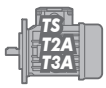
ITB	42	3	U	20.12	D40	132	B5	SZDX	BRSX	M1	HS	CW
Tipo *Type*	Grandezza *Size*	Stadi *Stages*	Versione *Version*	Rapporto *Ratio*	Albero uscita *Output shaft*	IEC	Forma costruttiva *Version*	Albero di uscita *Output shaft*	Braccio di reaz. *Torque arm* (*)	Pos. di montaggio *Mounting position*	Manicotto rigido *Motor sleeve*	Dispositivo antiretro *Backstop device*
ITB 	**42** **43** **44**	**3**	**U** **F…D** **F…S**	vedi tabelle *see tables*	**D...** standard **G...** calettatore *shrink disc*	**80..** **—** **180..**	**B5** **B14**	**SZDX** **SZSX** **DZ**	**TADX** **TASX** **BRDX 90°...270°** **BRSX 0°...270°**	**M1 (B3)** **M2 (V6)** **M3 (B8)** **M4 (V5)** **M5 (B7)** **M6 (B6)**	**HS**	**CW** **CCW**

RIDUTTORE / *GEARBOX*

ITBIS	42	3	U	20.12	D40	SZDX	BRSX	M1
Tipo *Type*	Grandezza *Size*	Stadi *Stages*	Versione *Version*	Rapporto *Ratio*	Albero uscita *Output shaft*	Albero di uscita *Output shaft*	Braccio di reaz. *Torque arm* (*)	Pos. di montaggio *Mounting position*
ITBIS 	**42** **43** **44**	**3**	**U** **F…D** **F…S**	vedi tabelle *see tables*	**D...** standard **G...** calettatore *shrink disc*	**SZDX** **SZSX** **DZ**	**TADX** **TASX** **BRDX 90°...270°** **BRSX 0°...270°**	**M1 (B3)** **M2 (V6)** **M3 (B8)** **M4 (V5)** **M5 (B7)** **M6 (B6)**

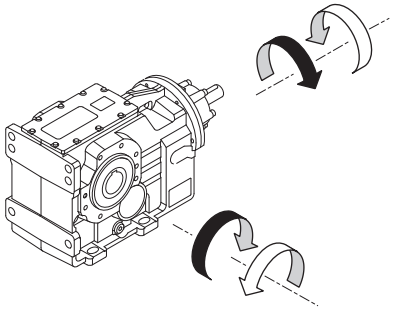
(*) NOTA: il braccio di reazione viene fornito smontato.
NOTE: the torque arm will be supplied not assembled.

MOTORE TRIFASE / *THREE PHASE MOTOR*

T	2A	63	2	4	0.18 kW	B5	PTO	230-400 V	50 Hz
Tipo *Type*	Efficienza *Efficiency level*	Grandezza *Size*	Indicativo potenza *Power coefficient*	Poli *Poles*	Potenza *Power*	Forma costruttiva *Version*	Protezione termica *Thermal protector*	Tensione *Voltage*	Frequenza *Frequency*
T 	**S** (IE1) **2A** (IE2) **3A** (IE3)	vedi tabelle *see tables*	**1-2-3-S** **L1-L2** **M1-M2**	**2** **4** **6**	**0.06 kW** **...** **11 kW**	**B5** **B14** **B3**	**Null** **PTO**	**230-400 V** **275-480 V** **400-690 V**	**50Hz** **60Hz** **50Hz**

Sensi di rotazione — *Direction of rotation*

ITB...3



Rotazione inversa disponibile a richiesta.
Inverse rotation on request

Simbologia / *Symbols*

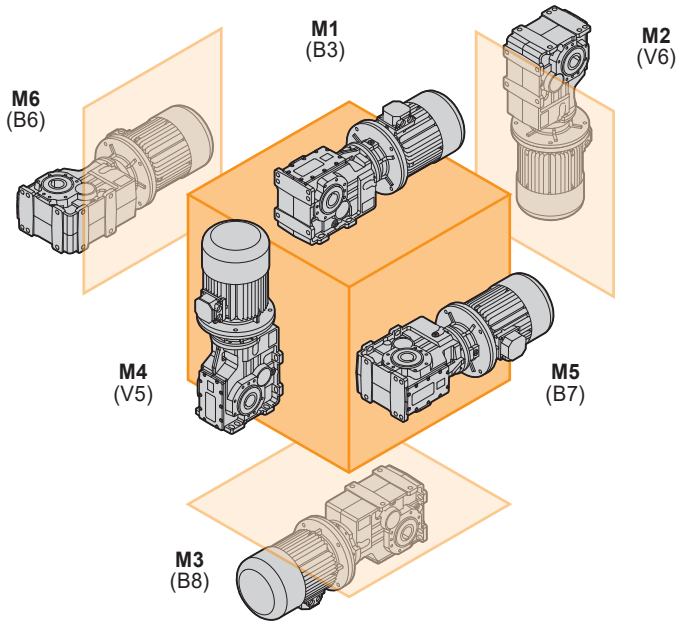
n_1	[min^{-1}]	Velocità in ingresso / *Input speed*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*
i		Rapporto di riduzione / *Ratio*
P_1	[kW]	Potenza in entrata / *Input power*
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / *Output torque referred to P_1*
Pn_1	[kW]	Potenza nominale in entrata / *Nominal input power*
Mn_2	[Nm]	Coppia nominale in uscita in funzione di Pn_1 / *Nominal output torque referred to Pn_1*
sf		Fattore di servizio / *Service factor*
R_1	[N]	Carico radiale ammissibile in entrata / *Permitted input radial load*
A_1	[N]	Carico assiale ammissibile in entrata / *Permitted input axial load*
R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*
A_2	[N]	Carico assiale ammissibile in uscita / *Permitted output axial load*

Lubrificazione / *Lubrication*

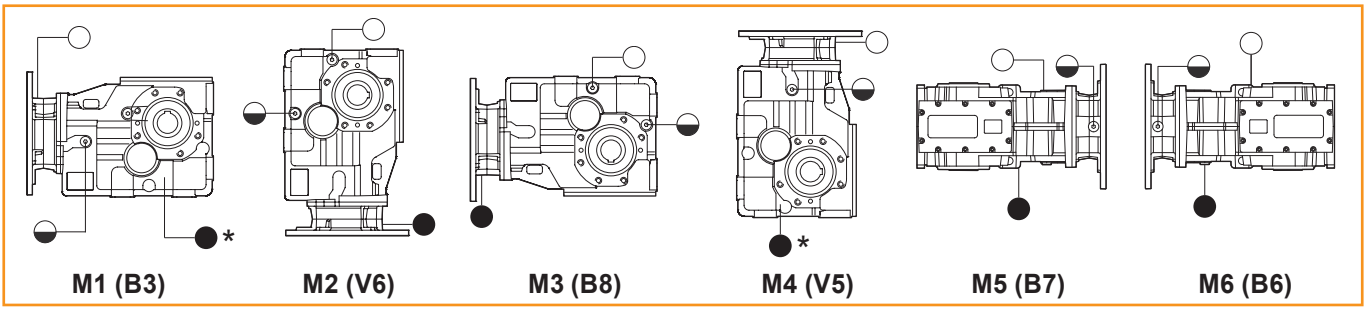
I motoriduttori della serie ITB sono forniti completi di lubrificante sintetico viscosità 320. La quantità di lubrificante dipende dalla posizione di montaggio.

ITB series gearmotors come complete with synthetic lubricant 320 viscosity. The lubricant quantity depends on assembly position.

ITB..



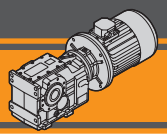
ITB	**Quantità di olio** (litri) / ***Oil quantity*** *(litres)*					
	M1 (B3)	**M2** (V6)	**M3** (B8)	**M4** (V5)	**M5** (B7)	**M6** (B6)
423	2.1	3.1	3.0	3.9	3.2	2.3
433	4.3	5.1	4.9	7.2	5.3	4.0
443	6.5	8.9	9.0	12.2	8.8	6.7



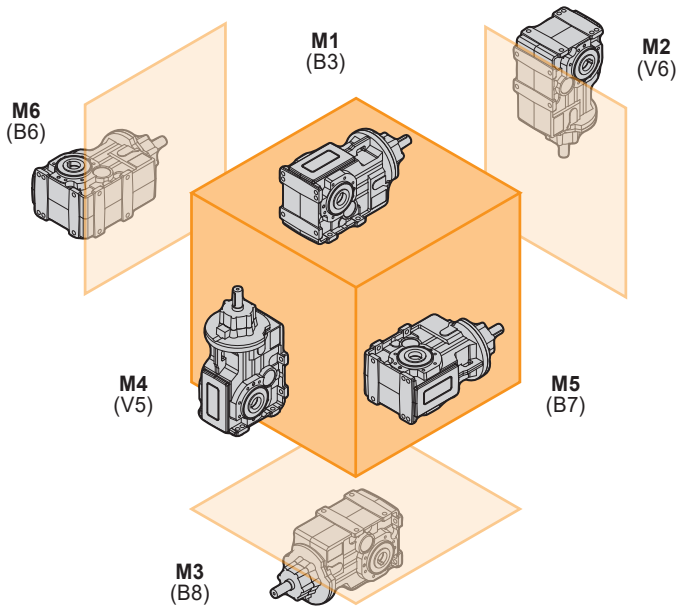
* Tappo di scarico in posizione posteriore

* *Oil draing plug in backside position.*

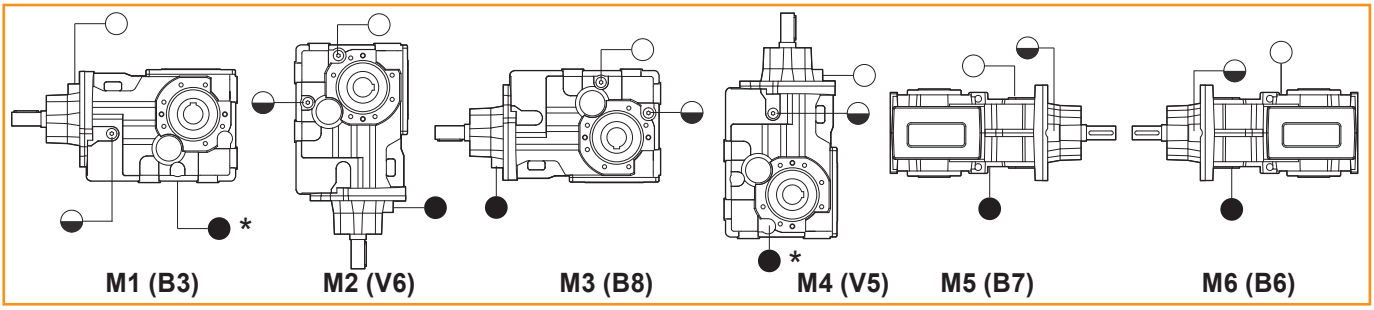
○ Sfiato e tappo di riempimento / *Breather and filling plug*
◒ Livello olio / *Oil level plug*
● Tappo di scarico / *Oil drain plug*



ITBIS..



ITBIS	**Quantità di olio** (litri) / ***Oil quantity*** *(litres)*					
	M1 (B3)	**M2** (V6)	**M3** (B8)	**M4** (V5)	**M5** (B7)	**M6** (B6)
423	2.3	3.5	3.2	3.9	3.4	2.5
433	4.5	5.5	5.1	7.2	5.5	4.2
443	6.9	9.6	9.4	12.2	9.2	7.1



* Tappo di scarico in posizione posteriore

* *Oil draing plug in backside position.*

○ Sfiato e tappo di riempimento / *Breather and filling plug*
◒ Livello olio / *Oil level plug*
● Tappo di scarico / *Oil drain plug*

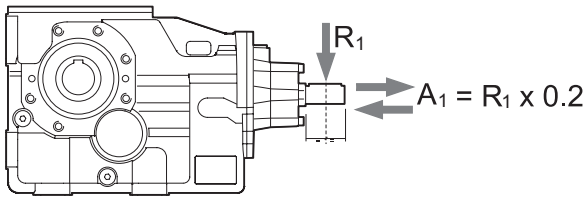
Carichi radiali in entrata — *Input radial loads*

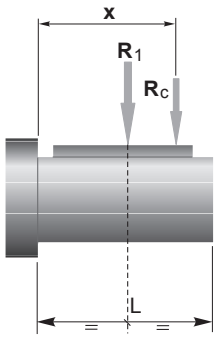
ITB423 ITB433	n_1 [min^{-1}]	Potenza motore/ *Motor Power [kW]*			
		2.2	3.0	4.0	5.5
R1 [N]	1400	1800			750
	900	2100		1200	-
	500	2500	-	-	-

ITB443	n_1 [min^{-1}]	Potenza motore/ *Motor Power [kW]*					
		5.5	7.5	9.2	11.0	15.0	18.5
R1 [N]	1400	3700				2800	1200
	900	4900			3300	650	-
	500	5250	3900	1300	-	-	-

I carichi radiali entrata massimi applicabili sono riportati nelle tabelle precedenti.
Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

The radial loads maximum input applicable are indicated in the previous tables.
When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:





	ITB 423	ITB 433	ITB 443
a	139		157
b	110		118

$$R_c = \frac{R_1 \cdot a}{(b+x)} \leq R_1$$

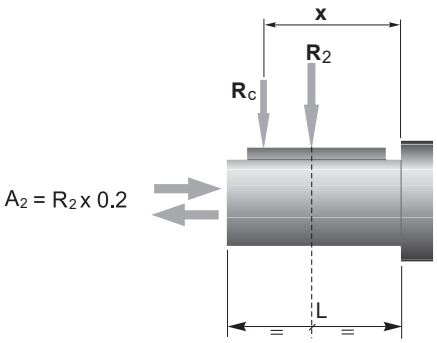
$$R \leq R_c$$

a, b = valori riportati nella tabella
a, b = values given in the table

Carichi radiali in uscita — *Output radial loads*

I carichi radiali uscita massimi applicabili sono riportati nelle tabelle dati tecnici.
Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

The radial loads maximum output applicable are indicated in the technical data table.
When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:

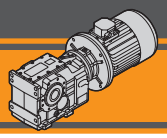


	ITB 423	ITB 433	ITB 443
a	182	218	252
b	142	168	192
R_{2MAX}	18500	23000	31000

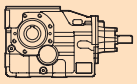
$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

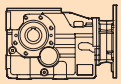
a, b = valori riportati nella tabella
a, b = values given in the table



Dati tecnici — n_1 1400 min^{-1} — *Technical data*



n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 [N]
ITBIS 423				
191	500	10.62	7.34	9609
153	500	8.51	9.16	10851
118	600	7.90	11.85	12122
90	600	5.98	15.64	14119
76	700	5.96	18.32	14920
70	700	5.43	20.12	15708
61	800	5.46	22.85	16301
50	800	4.42	28.22	18306
47	850	4.48	29.57	18500
45	850	4.29	30.90	18500
41	850	3.83	34.57	18500
37	850	3.49	37.99	18500
36	900	3.60	39.01	18500
34	900	3.37	41.70	18500
29	900	2.86	49.13	18500
28	900	2.80	50.19	18500
26	900	2.61	53.77	18500
24	900	2.37	59.26	18500
20	900	1.99	70.40	18500
18	950	1.92	77.08	18500
16	950	1.72	86.24	18500
15	950	1.56	94.77	18500
14	950	1.42	104.04	18500
11	950	1.21	122.57	18500
10	950	1.10	134.15	18500
9.5	950	1.00	147.84	18500



IEC Motori applicabili
IEC Motor adapters

80B5	90B5/B14	100B5/B14	112B5/B14	132B5/B14
ITB 423				
				*
				*
				*
				*
			*	*
			*	*
			*	*
			*	
			*	*
			*	
			*	
		*	*	*
		*	*	*
		*	*	*
		*	*	*
		*	*	*
		*	*	
		*	*	
		*	*	

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

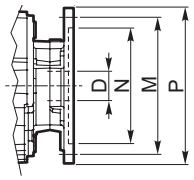
N.B.
Highlighted areas indicate motor inputs available on each size of unit.

***** = Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. C10 alla pag. C15.

***** = *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

Before selecting any gearbox, please read the performance values shown in the tables on page C10 to C15.



Dimensioni IEC / *IEC Dimensions*								
	71 B5	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
N	110	130	130	95	180	110	230	130
M	130	165	165	115	215	130	265	165
P	160	200	200	140	250	160	300	200
D	14	19	24		28		38	

Dati tecnici — n_1 1400 min^{-1} — *Technical data*

n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 [N]	IEC Motori applicabili *IEC Motor adapters* 80B5	90B5/B14	100B5/B14	112B5/B14	132B5/B14	160B5
ITBIS 433										
171	1000	18.99	8.21	12339						
137	1000	15.22	10.25	13935						
106	1300	15.30	13.25	15144						
80	1400	12.48	17.49	17285						
69	1600	12.21	20.44	18060						
62	1700	11.78	22.50	18635						
55	1700	10.40	25.49	19960						*
44	1700	8.40	31.56	22448						*
43	1700	8.04	32.98	23000						*
41	1700	7.67	34.55	23000						
36	1700	6.86	38.66	23000						
33	1700	6.24	42.48	23000						
32	1800	6.45	43.51	23000						*
30	1800	6.02	46.64	23000						
25	1800	5.01	55.98	23000					*	*
23	1600	4.15	60.14	23000						
21	1600	3.77	66.27	23000				*		
18	1800	3.58	78.52	23000				*	*	*
16	1800	3.27	85.97	23000				*	*	
15	1800	2.92	96.19	23000				*	*	
13	1800	2.66	105.70	23000				*	*	
12	1800	2.42	116.04	23000				*	*	
10	1800	2.05	136.71	23000			*	*		
9.4	1800	1.88	149.63	23000			*	*		
8.5	1800	1.70	164.89	23000			*	*		

ITB 433

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

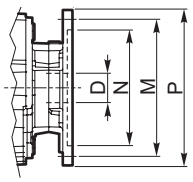
N.B.
Highlighted areas indicate motor inputs available on each size of unit.

*** =** Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

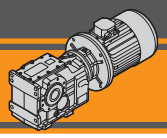
Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. C10 alla pag. C15.

**** =*** *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

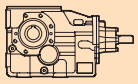
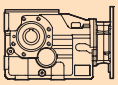
Before selecting any gearbox, please read the performance values shown in the tables on page C10 to C15.



Dimensioni IEC / *IEC Dimensions*	80 B5	90 B5	90 B14	100/112 B5	100/112 B14	132 B5	132 B14	160 B5
N	130	130	95	180	110	230	130	250
M	165	165	115	215	130	265	165	300
P	200	200	140	250	160	300	200	350
D	19	24		28		38		42



Dati tecnici — n_1 1400 min^{-1} — *Technical data*

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 [N]	 IEC Motori applicabili *IEC Motor adapters*						
ITBIS 443						**ITB 443**						
						80B5	**90B5/B14**	**100B5/B14**	**112B5/B14**	**132B5/B14**	**160B5**	**180B5**
	178	1700	33.65	7.88	17306							
	147	1700	27.81	9.53	19220							
	119	1800	23.89	11.75	21325	*	*	*	*			
	99	2000	22.07	14.13	23076	*	*	*	*			
	81	2300	20.82	17.23	24849	*	*	*	*			
	61	2800	18.86	23.16	27511	*	*	*	*			
	56	3000	18.85	24.82	27861							
	47	3000	15.58	30.03	31000							*
	38	3000	12.64	37.01	31000							*
	36	2800	11.06	39.46	31000							*
	32	3200	11.21	44.51	31000							*
	29	2800	9.16	47.67	31000							
	26	3200	9.20	54.26	31000						*	*
	19	3500	7.48	72.94	31000						*	*
	15	3500	5.92	92.14	31000						*	*
	11	3500	4.39	124.32	31000					*	*	*
	10	3500	4.03	135.45	31000					*		
	9.3	3500	3.64	150.15	31000				*	*		
	8.5	3500	3.33	163.80	31000				*	*		
	7.8	3500	3.05	179.16	31000				*	*		

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

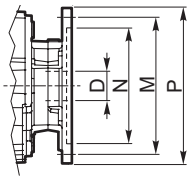
N.B.
Highlighted areas indicate motor inputs available on each size of unit.

*** =** Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. C10 alla pag. C15.

*** =** *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

Before selecting any gearbox, please read the performance values shown in the tables on page C10 to C15.



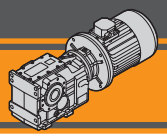
Dimensioni IEC / *IEC Dimensions*									
	80 B5	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**	**180 B5**
N	130	130	95	180	110	230	130	250	250
M	165	165	115	215	130	265	165	300	300
P	200	200	140	250	160	300	200	350	350
D	19	24		28		38		42	48

Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
0.55						
TS8014-B5	**191**	26	19	7.34	**ITB423**	11001
T2A8014-B5	**153**	32	15	9.16		12403
(1400 min^{-1})	**118**	42	14	11.85		14255
	90	55	11	15.64		16545
	76	65	11	18.32		18005
	70	71	9.9	20.12		18500
	61	81	9.9	22.85		18500
	50	100	8.0	28.22		18500
	47	104	8.2	29.57		18500
	45	109	7.8	30.90		18500
	40	122	7.0	34.57		18500
	37	134	6.3	37.99		18500
	36	138	6.5	39.01		18500
	34	147	6.1	41.70		18500
	29	173	5.2	49.13		18500
	28	177	5.1	50.19		18500
	26	190	4.7	53.77		18500
	24	209	4.3	59.26		18500
	20	248	3.6	70.40		18500
	18	272	3.5	77.08		18500
	16	304	3.1	86.24		18500
	15	334	2.8	94.77		18500
	13	367	2.6	104.04		18500
	11	432	2.2	122.57		18500
	10	473	2.0	134.15		18500
	9.5	521	1.8	147.84		18500
	25	197	9.1	55.98	**ITB433**	23000
	23	212	7.5	60.14		23000
	21	234	6.8	66.27		23000
	18	277	6.5	78.52		23000
	16	303	5.9	85.97		23000
	15	339	5.3	96.19		23000
	13	373	4.8	105.70		23000
	12	409	4.4	116.04		23000
	10	482	3.7	136.71		23000
	9.4	528	3.4	149.63		23000
	8.5	582	3.1	164.89		23000
	11	438	8.0	124.32	**ITB443**	31000
	10	478	7.3	135.45		31000
	9.3	530	6.6	150.15		31000
	8.5	578	6.1	163.80		31000
	7.8	632	5.5	179.16		31000

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
0.75						
TS8024-B5	**191**	35	14	7.34	**ITB423**	10973
T3A8024-B5	**153**	44	11	9.16		12364
(1400 min^{-1})	**118**	57	11	11.85		14197
	90	75	8.0	15.64		16455
	76	88	7.9	18.32		17891
	70	97	7.2	20.12		18500
	61	110	7.3	22.85		18500
	50	136	5.9	28.22		18500
	47	142	6.0	29.57		18500
	45	149	5.7	30.90		18500
	40	166	5.1	34.57		18500
	37	183	4.7	37.99		18500
	36	188	4.8	39.01		18500
	34	201	4.5	41.70		18500
	29	236	3.8	49.13		18500
	28	241	3.7	50.19		18500
	26	259	3.5	53.77		18500
	24	285	3.2	59.26		18500
	20	339	2.7	70.40		18500
	18	371	2.6	77.08		18500
	16	415	2.3	86.24		18500
	15	456	2.1	94.77		18500
	13	500	1.9	104.04		18500
	11	589	1.6	122.57		18500
	10	645	1.5	134.15		18500
	9.5	711	1.3	147.84		18500
	41	166	10	34.55	**ITB433**	23000
	36	186	9.1	38.66		23000
	33	204	8.3	42.48		23000
	32	209	8.6	43.51		23000
	30	224	8.0	46.64		23000
	25	269	6.7	55.98		23000
	23	289	5.5	60.14		23000
	21	319	5.0	66.27		23000
	18	378	4.8	78.52		23000
	16	413	4.4	85.97		23000
	15	463	3.9	96.19		23000
	13	508	3.5	105.70		23000
	12	558	3.2	116.04		23000
	10	657	2.7	136.71		23000
	9.4	720	2.5	149.63		23000
	8.5	793	2.3	164.89		23000
	19	351	10	72.94	**ITB443**	31000
	15	443	7.9	92.14		31000
	11	598	5.9	124.32		31000
	10	651	5.4	135.45		31000
	9.3	722	4.8	150.15		31000
	8.5	788	4.4	163.80		31000
	7.8	862	4.1	179.16		31000



Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
1.1						
TS8034-B5	**191**	52	9.7	7.34	**ITB423**	10925
T3A8034-B5	**153**	65	7.7	9.16		12295
TS90S4-B5/B14	**118**	84	7.2	11.85		14095
T3A90S4-B5/B14	**90**	110	5.4	15.64		16299
(1400 min^{-1})	**76**	129	5.4	18.32		17692
	70	142	4.9	20.12		18500
	61	161	5.0	22.85		18500
	50	199	4.0	28.22		18500
	47	209	4.1	29.57		18500
	45	218	3.9	30.90		18500
	40	244	3.5	34.57		18500
	37	268	3.2	37.99		18500
	36	275	3.3	39.01		18500
	34	294	3.1	41.70		18500
	29	347	2.6	49.13		18500
	28	354	2.5	50.19		18500
	26	379	2.4	53.77		18500
	24	418	2.2	59.26		18500
	20	497	1.8	70.40		18500
	18	544	1.7	77.08		18500
	16	608	1.6	86.24		18500
	15	668	1.4	94.77		18500
	13	734	1.3	104.04		18500
	11	865	1.1	122.57		18500
	10	946	1.0	134.15		18500
	9.5	1043	0.9	147.84		18500
	55	180	9.5	25.49	**ITB433**	23000
	44	223	7.6	31.56		23000
	42	233	7.3	32.98		23000
	41	244	7.0	34.55		23000
	36	273	6.2	38.66		23000
	33	300	5.7	42.48		23000
	32	307	5.9	43.51		23000
	30	329	5.5	46.64		23000
	25	395	4.6	55.98		23000
	23	424	3.8	60.14		23000
	21	467	3.4	66.27		23000
	18	554	3.3	78.52		23000
	16	606	3.0	85.97		23000
	15	678	2.7	96.19		23000
	13	746	2.4	105.70		23000
	12	818	2.2	116.04		23000
	10	964	1.9	136.71		23000
	9.4	1055	1.7	149.63		23000
	8.5	1163	1.5	164.89		23000
	35	278	10	39.46	**ITB443**	31000
	31	314	10	44.51		31000
	29	336	8.3	47.67		31000
	26	383	8.4	54.26		31000
	19	515	6.8	72.94		31000
	15	650	5.4	92.14		31000
	11	877	4.0	124.32		31000
	10	955	3.7	135.45		31000
	9.3	1059	3.3	150.15		31000
	8.5	1155	3.0	163.80		31000
	7.8	1264	2.8	179.16		31000

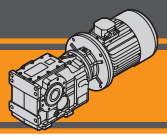
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
1.5						
TS90L14-B5/B14	**191**	71	7.1	7.34	**ITB423**	10870
T3A90L14-B5/B14	**153**	88	5.7	9.16		12218
(1400 min^{-1})	**118**	114	5.3	11.85		13979
	90	150	4.0	15.64		16120
	76	176	4.0	18.32		17463
	70	194	3.6	20.12		18298
	61	220	3.6	22.85		18500
	50	271	2.9	28.22		18500
	47	284	3.0	29.57		18500
	45	297	2.9	30.90		18500
	40	332	2.6	34.57		18500
	37	365	2.3	37.99		18500
	36	375	2.4	39.01		18500
	34	401	2.2	41.70		18500
	29	473	1.9	49.13		18500
	28	483	1.9	50.19		18500
	26	517	1.7	53.77		18500
	24	570	1.6	59.26		18500
	20	677	1.3	70.40		18500
	18	741	1.3	77.08		18500
	16	829	1.1	86.24		18500
	15	912	1.0	94.77		18500
	13	1001	0.9	104.04		18500
	106	127	10	13.25	**ITB433**	18711
	80	168	8.3	17.49		21650
	69	197	8.1	20.44		23000
	62	216	7.9	22.50		23000
	55	245	6.9	25.49		23000
	44	304	5.6	31.56		23000
	42	317	5.4	32.98		23000
	41	332	5.1	34.55		23000
	36	372	4.6	38.66		23000
	33	409	4.2	42.48		23000
	32	419	4.3	43.51		23000
	30	449	4.0	46.64		23000
	25	538	3.3	55.98		23000
	23	578	2.8	60.14		23000
	21	637	2.5	66.27		23000
	18	755	2.4	78.52		23000
	16	827	2.2	85.97		23000
	15	925	1.9	96.19		23000
	13	1017	1.8	105.70		23000
	12	1116	1.6	116.04		23000
	10	1315	1.4	136.71		23000
	9.4	1439	1.3	149.63		23000
	8.5	1586	1.1	164.89		23000
	38	356	8.4	37.01	**ITB443**	31000
	35	380	7.4	39.46		31000
	31	428	7.5	44.51		31000
	29	458	6.1	47.67		31000
	26	522	6.1	54.26		31000
	19	702	5.0	72.94		31000
	15	886	3.9	92.14		31000
	11	1196	2.9	124.32		31000
	10	1303	2.7	135.45		31000
	9.3	1444	2.4	150.15		31000
	8.5	1576	2.2	163.80		31000
	7.8	1723	2.0	179.16		31000

Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
1.85						
T3A90L24-B5/B14 (1400 min^{-1})	**191**	87	5.7	7.34	**ITB423**	10821
	153	109	4.6	9.16		12149
	118	141	4.3	11.85		13877
	90	186	3.2	15.64		15964
	76	217	3.2	18.32		17264
	70	239	2.9	20.12		18067
	61	271	3.0	22.85		18500
	50	335	2.4	28.22		18500
	47	351	2.4	29.57		18500
	45	367	2.3	30.90		18500
	40	410	2.1	34.57		18500
	37	451	1.9	37.99		18500
	36	463	1.9	39.01		18500
	34	495	1.8	41.70		18500
	29	583	1.5	49.13		18500
	28	595	1.5	50.19		18500
	26	638	1.4	53.77		18500
	24	703	1.3	59.26		18500
	20	835	1.1	70.40		18500
	18	914	1.0	77.08		18500
	16	1023	0.9	86.24		18500
	170	97	10	8.21	**ITB433**	14449
	137	122	8.2	10.25		16254
	106	157	8.3	13.25		18620
	80	207	6.7	17.49		21511
	69	242	6.6	20.44		23000
	62	267	6.4	22.50		23000
	55	302	5.6	25.49		23000
	44	374	4.5	31.56		23000
	42	391	4.3	32.98		23000
	41	410	4.1	34.55		23000
	36	459	3.7	38.66		23000
	33	504	3.4	42.48		23000
	32	516	3.5	43.51		23000
	30	553	3.3	46.64		23000
	25	664	2.7	55.98		23000
	23	713	2.2	60.14		23000
	21	786	2.0	66.27		23000
	18	931	1.9	78.52		23000
	16	1020	1.8	85.97		23000
	15	1141	1.6	96.19		23000
	13	1254	1.4	105.70		23000
	12	1376	1.3	116.04		23000
	10	1622	1.1	136.71		23000
	9.4	1775	1.0	149.63		23000
	38	439	6.8	37.01	**ITB443**	31000
	35	468	6.0	39.46		31000
	31	528	6.1	44.51		31000
	29	565	5.0	47.67		31000
	26	644	5.0	54.26		31000
	19	865	4.0	72.94		31000
	15	1093	3.2	92.14		31000
	11	1475	2.4	124.32		31000
	10	1607	2.2	135.45		31000
	9.3	1781	2.0	150.15		31000
	8.5	1943	1.8	163.80		31000
	7.8	2125	1.6	179.16		31000

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
2.2						
TS90LB4-B14	**191**	104	4.8	7.34	**ITB423**	10773
T3A90LB4-B14	**153**	129	3.9	9.16		12081
TS100L14-B5/B14	**118**	167	3.6	11.85		13776
T3A100L14-B5/B14	**90**	221	2.7	15.64		15808
(1400 min^{-1})	**76**	258	2.7	18.32		17064
	70	284	2.5	20.12		17836
	61	322	2.5	22.85		18500
	50	398	2.0	28.22		18500
	47	417	2.0	29.57		18500
	45	436	2.0	30.90		18500
	40	488	1.7	34.57		18500
	37	536	1.6	37.99		18500
	36	550	1.6	39.01		18500
	34	588	1.5	41.70		18500
	29	693	1.3	49.13		18500
	28	708	1.3	50.19		18500
	26	759	1.2	53.77		18500
	24	836	1.1	59.26		18500
	170	116	8.6	8.21	**ITB433**	14406
	137	145	6.9	10.25		16193
	106	187	7.0	13.25		18530
	80	247	5.7	17.49		21372
	69	288	5.6	20.44		23000
	62	317	5.4	22.50		23000
	55	360	4.7	25.49		23000
	44	445	3.8	31.56		23000
	42	465	3.7	32.98		23000
	41	487	3.5	34.55		23000
	36	545	3.1	38.66		23000
	33	599	2.8	42.48		23000
	32	614	2.9	43.51		23000
	30	658	2.7	46.64		23000
	25	790	2.3	55.98		23000
	23	848	1.9	60.14		23000
	21	935	1.7	66.27		23000
	18	1108	1.6	78.52		23000
	16	1213	1.5	85.97		23000
	15	1357	1.3	96.19		23000
	13	1491	1.2	105.70		23000
	12	1637	1.1	116.04		23000
	38	522	5.7	37.01	**ITB443**	31000
	35	557	5.0	39.46		31000
	31	628	5.1	44.51		31000
	29	672	4.2	47.67		31000
	26	765	4.2	54.26		31000
	19	1029	3.4	72.94		31000
	15	1300	2.7	92.14		31000
	11	1754	2.0	124.32		31000
	10	1911	1.8	135.45		31000
	9.3	2118	1.7	150.15		31000
	8.5	2311	1.5	163.80		31000
	7.8	2527	1.4	179.16		31000



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Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
3						
T3A100L24-B5 (1400 min^{-1})	**191**	141	3.5	7.34	**ITB423**	10662
	153	176	2.8	9.16		11925
	118	228	2.6	11.85		13543
	90	301	2.0	15.64		15451
	76	352	2.0	18.32		16608
	70	387	1.8	20.12		17308
	61	440	1.8	22.85		18277
	50	543	1.5	28.22		18500
	47	569	1.5	29.57		18500
	45	594	1.4	30.90		18500
	40	665	1.3	34.57		18500
	37	731	1.2	37.99		18500
	36	750	1.2	39.01		18500
	34	802	1.1	41.70		18500
	29	945	1.0	49.13		18500
	170	158	6.3	8.21	**ITB433**	14307
	137	197	5.1	10.25		16054
	106	255	5.1	13.25		18323
	80	336	4.2	17.49		21054
	69	393	4.1	20.44		22719
	62	433	3.9	22.50		23000
	55	490	3.5	25.49		23000
	44	607	2.8	31.56		23000
	42	634	2.7	32.98		23000
	41	665	2.6	34.55		23000
	36	744	2.3	38.66		23000
	33	817	2.1	42.48		23000
	32	837	2.2	43.51		23000
	30	897	2.0	46.64		23000
	25	1077	1.7	55.98		23000
	23	1157	1.4	60.14		23000
	21	1275	1.3	66.27		23000
	18	1510	1.2	78.52		23000
	16	1654	1.1	85.97		23000
	15	1850	1.0	96.19		23000
	38	712	4.2	37.01	**ITB443**	31000
	35	759	3.7	39.46		31000
	31	856	3.7	44.51		31000
	29	917	3.1	47.67		31000
	26	1044	3.1	54.26		31000
	19	1403	2.5	72.94		31000
	15	1772	2.0	92.14		31000
	11	2391	1.5	124.32		31000
	10	2606	1.3	135.45		31000
	9.3	2888	1.2	150.15		31000
	8.5	3151	1.1	163.80		31000
	7.8	3446	1.0	179.16		31000

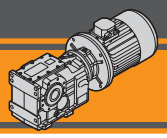
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
4						
T3A100L34-B5 T3A112M4-B5 (1400 min^{-1})	**191**	188	2.7	7.34	**ITB423**	10524
	153	235	2.1	9.16		11730
	118	304	2.0	11.85		13253
	90	401	1.5	15.64		15005
	76	470	1.5	18.32		16037
	70	516	1.4	20.12		16649
	61	586	1.4	22.85		17474
	50	724	1.1	28.22		18500
	47	758	1.1	29.57		18500
	45	792	1.1	30.90		18500
	40	887	1.0	34.57		18500
	170	211	4.7	8.21	**ITB433**	14184
	137	263	3.8	10.25		15881
	106	340	3.8	13.25		18064
	80	449	3.1	17.49		20656
	69	524	3.1	20.44		22213
	62	577	2.9	22.50		23000
	55	654	2.6	25.49		23000
	44	809	2.1	31.56		23000
	42	846	2.0	32.98		23000
	41	886	1.9	34.55		23000
	36	992	1.7	38.66		23000
	33	1090	1.6	42.48		23000
	32	1116	1.6	43.51		23000
	30	1196	1.5	46.64		23000
	25	1436	1.3	55.98		23000
	23	1542	1.0	60.14		23000
	38	949	3.2	37.01	**ITB443**	31000
	35	1012	2.8	39.46		31000
	31	1142	2.8	44.51		31000
	29	1223	2.3	47.67		31000
	26	1392	2.3	54.26		31000
	19	1871	1.9	72.94		31000
	15	2363	1.5	92.14		31000
	11	3189	1.1	124.32		31000
	10	3474	1.0	135.45		31000

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Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
5.5						
T3A132S4-B5 (1400 min^{-1})	**191**	259	1.9	7.34	**ITB423**	10316
	153	323	1.5	9.16		11438
	118	418	1.4	11.85		12817
	90	552	1.1	15.64		14335
	76	646	1.1	18.32		15181
	70	710	1.0	20.12		15659
	61	806	1.0	22.85		16268
	170	290	3.5	8.21	**ITB433**	13999
	137	361	2.8	10.25		15621
	106	467	2.8	13.25		17676
	80	617	2.3	17.49		20060
	69	721	2.2	20.44		21454
	62	794	2.1	22.50		22325
	55	899	1.9	25.49		23000
	44	1113	1.5	31.56		23000
	42	1163	1.5	32.98		23000
	41	1219	1.4	34.55		23000
	36	1363	1.2	38.66		23000
	33	1498	1.1	42.48		23000
	32	1535	1.2	43.51		23000
	30	1645	1.1	46.64		23000
	178	278	6.1	7.88	**ITB443**	20029
	147	336	5.1	9.53		22120
	119	414	4.3	11.75		24631
	99	498	4.0	14.13		27041
	81	607	3.8	17.23		29833
	60	817	3.4	23.16		31000
	56	875	3.4	24.82		31000
	47	1059	2.8	30.03		31000
	38	1305	2.3	37.01		31000
	35	1392	2.0	39.46		31000
	31	1570	2.0	44.51		31000
	29	1681	1.7	47.67		31000
	26	1914	1.7	54.26		31000
	19	2573	1.4	72.94		31000
	15	3249	1.1	92.14		31000

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
7.5						
T3A132M4-B5 (1400 min^{-1})	**191**	353	1.4	7.34	**ITB423**	10040
	153	441	1.1	9.16		11049
	118	570	1.1	11.85		12236
	170	395	2.5	8.21	**ITB433**	13753
	137	493	2.0	10.25		15274
	106	637	2.0	13.25		17159
	80	841	1.7	17.49		19266
	69	983	1.6	20.44		20442
	62	1082	1.6	22.50		21150
	55	1226	1.4	25.49		22027
	44	1518	1.1	31.56		23000
	42	1586	1.1	32.98		23000
	41	1662	1.0	34.55		23000
	178	379	4.5	7.88	**ITB443**	19836
	147	458	3.7	9.53		21860
	119	565	3.2	11.75		24271
	99	680	2.9	14.13		26562
	81	828	2.8	17.23		29182
	60	1114	2.5	23.16		31000
	56	1194	2.5	24.82		31000
	47	1444	2.1	30.03		31000
	38	1780	1.7	37.01		31000
	35	1898	1.5	39.46		31000
	31	2141	1.5	44.51		31000
	29	2292	1.2	47.67		31000
	26	2609	1.2	54.26		31000
	19	3508	1.0	72.94		31000
9.2						
T3A132M24-B5 (1400 min^{-1})	**191**	433	1.2	7.34	**ITB423**	9805
	170	485	2.1	8.21	**ITB433**	13544
	137	604	1.7	10.25		14979
	106	782	1.7	13.25		16720
	80	1032	1.4	17.49		18590
	69	1206	1.3	20.44		19582
	62	1327	1.3	22.50		20152
	55	1504	1.1	25.49		20815
	178	465	3.7	7.88	**ITB443**	19671
	147	562	3.0	9.53		21639
	119	693	2.6	11.75		23966
	99	834	2.4	14.13		26156
	81	1016	2.3	17.23		28629
	60	1366	2.0	23.16		31000
	56	1464	2.0	24.82		31000
	47	1772	1.7	30.03		31000
	38	2183	1.4	37.01		31000
	35	2328	1.2	39.46		31000
	31	2626	1.2	44.51		31000
	29	2812	1.0	47.67		31000
	26	3201	1.0	54.26		31000



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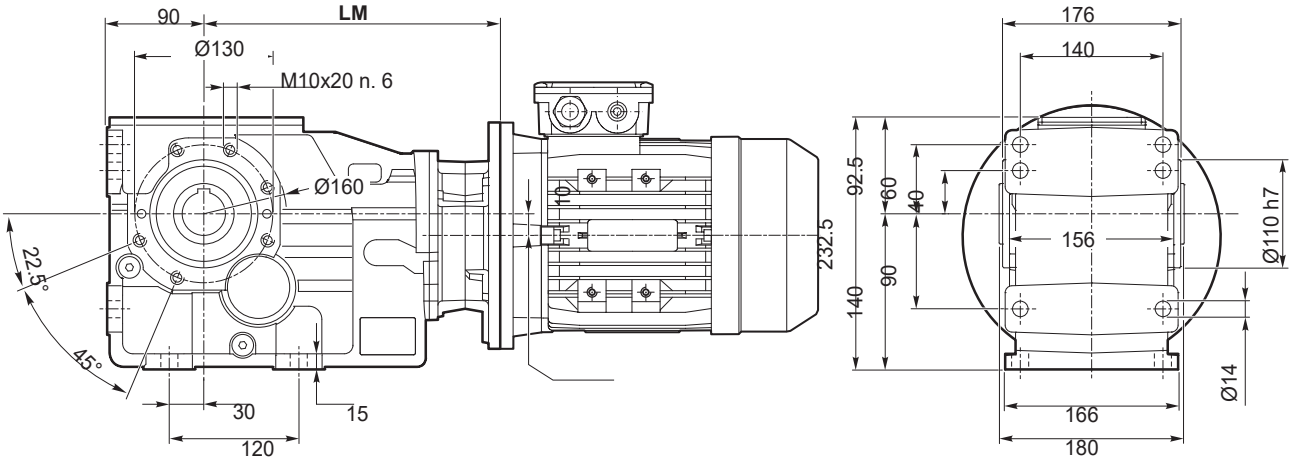
Technical data

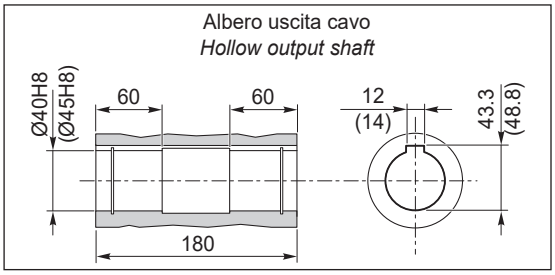
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
11.0						
T3A160M4-B5 (1400 min^{-1})	**170**	579	1.7	8.21	**ITB433**	13322
	137	723	1.4	10.25		14667
	106	935	1.4	13.25		16254
	80	1234	1.1	17.49		17875
	69	1441	1.1	20.44		18672
	62	1587	1.1	22.50		19095
	178	556	3.1	7.88	**ITB443**	19497
	147	672	2.5	9.53		21405
	119	829	2.2	11.75		23642
	99	997	2.0	14.13		25725
	81	1215	1.9	17.23		28044
	60	1633	1.7	23.16		31000
	56	1751	1.7	24.82		31000
	47	2118	1.4	30.03		31000
	38	2611	1.1	37.01		31000
	35	2784	1.0	39.46		31000
	31	3140	1.0	44.51		31000
15.0						
T3A160L14-B5 (1400 min^{-1})	**170**	790	1.3	8.21	**ITB433**	12830
	137	985	1.0	10.25		13973
	106	1275	1.0	13.25		15220
	178	758	2.2	7.88	**ITB443**	19110
	147	917	1.9	9.53		20885
	119	1130	1.6	11.75		22923
	99	1359	1.5	14.13		24768
	81	1657	1.4	17.23		26743
	60	2227	1.3	23.16		29496
	56	2387	1.3	24.82		30067
	47	2888	1.0	30.03		31000

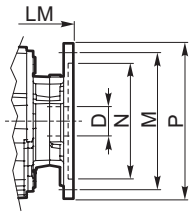
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 [N]
18.5						
T3A160L24-B5 (1400 min^{-1})	**178**	935	1.8	7.88	**ITB443**	18772
	147	1131	1.5	9.53		20430
	119	1394	1.3	11.75		22294
	99	1676	1.2	14.13		23931
	81	2043	1.1	17.23		25605
	60	2747	1.0	23.16		27695
	56	2944	1.0	24.82		28062
22.0						
180L4 (1400 min^{-1})	**178**	1111	1.5	7.88	**ITB443**	18433
	147	1345	1.3	9.53		19975
	119	1658	1.1	11.75		21665
	99	1993	1.0	14.13		23093
	81	2430	0.9	17.23		24467

ITB 423 U

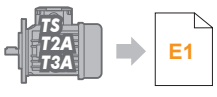
ITB 423 U



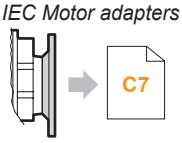




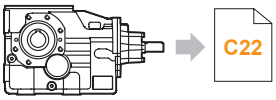
Dimensioni IEC / *IEC Dimensions*							
	80 B5	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
LM	279.5	279.5	284	283.5	284	304.5	
N	130	130	95	180	110	230	130
M	165	165	115	215	130	265	165
P	200	200	140	250	160	300	200
D	19	24		28		38	

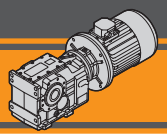


IEC Motori applicabili
IEC Motor adapters



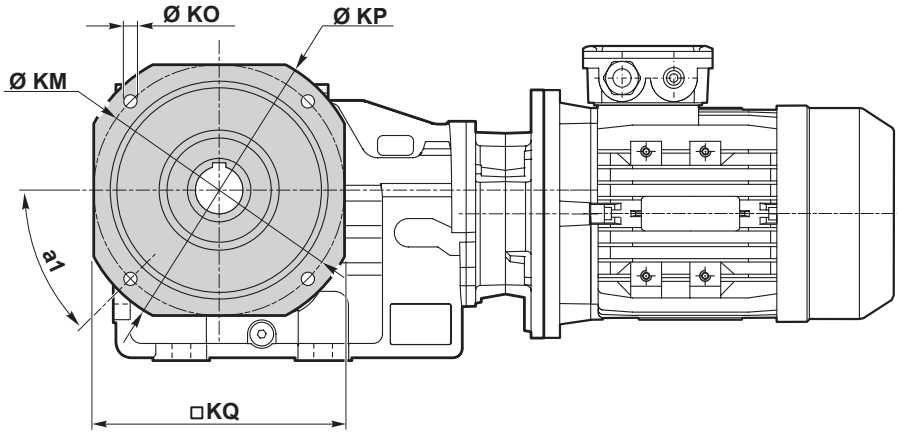
ITBIS 423..

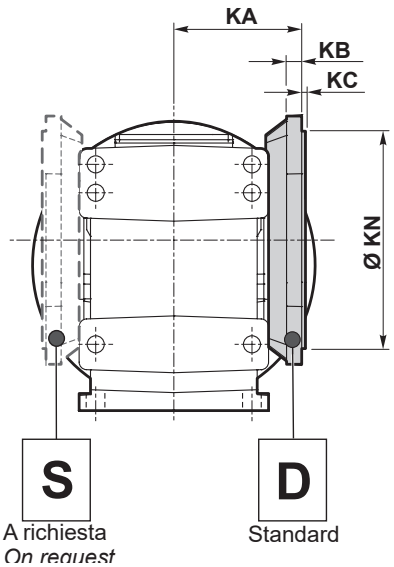


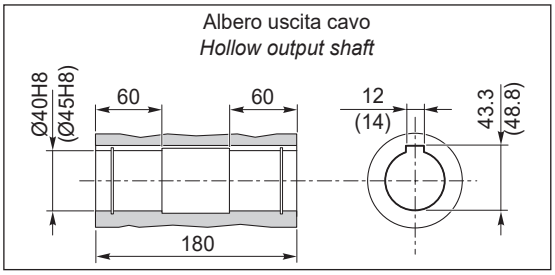


ITB 423 F...

ITB 423 F...





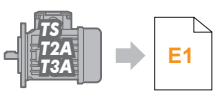


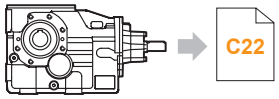
Versione **F** / ***F** Version*											
ITB	**a_1**	**KA**	**KB**	**KC**	**KM**	**KN** f7	**KO**	**KP**	**KQ**	**Flangia / *Flange*** Tipo / *Type*	**Peso / *Weight*** [kg]
423	45°	113	13	4	165	130	11	200	172	**F200**	2.6
	45°	113	13	4	215	180	14	250	215	**F250**	3.8
	45°	113	13	4	265	230	14	300	265	**F300**	5.6

Peso / *Weight [kg]*							
ITB	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
423 U	39	39	38	41	38	44	41

Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

ITBIS 423..

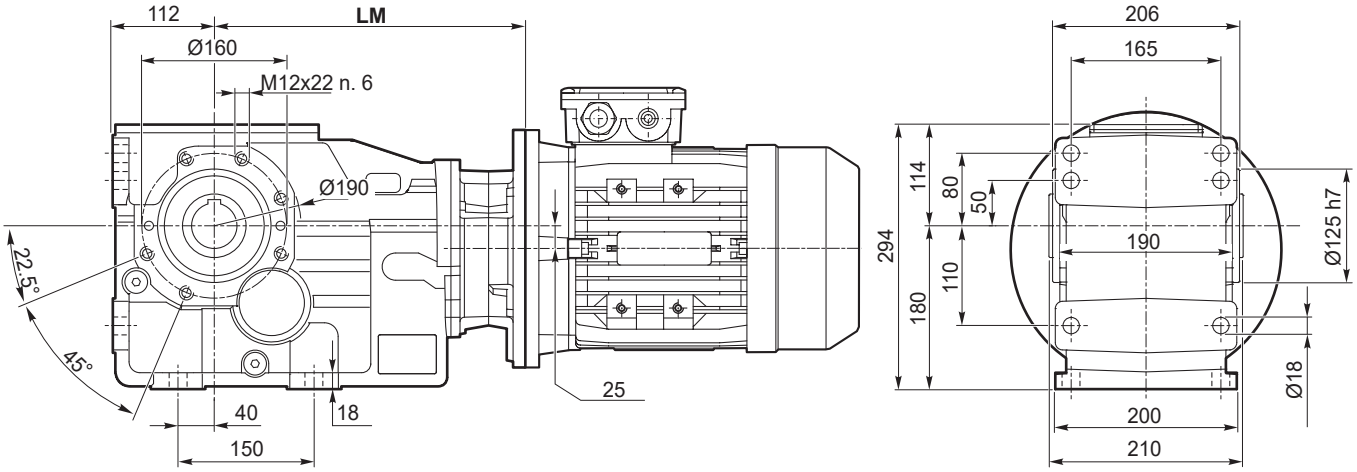


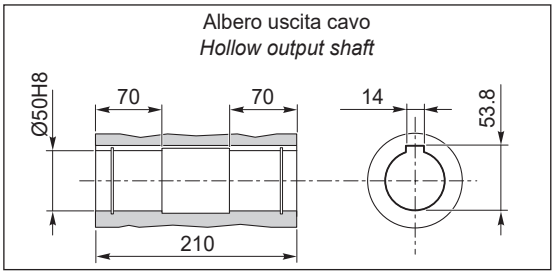


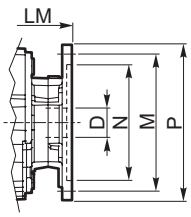
Dimensioni *Dimensions*

ITB 433 U

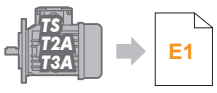
ITB 433 U



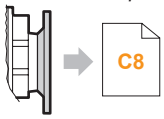




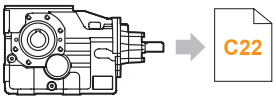
Dimensioni IEC / *IEC Dimensions*								
	80 B5	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**
LM	330	330	334.5	334	334.5	355		405
N	130	130	95	180	110	230	130	250
M	165	165	115	215	130	265	165	300
P	200	200	140	250	160	300	200	350
D	19	24		28		38		42

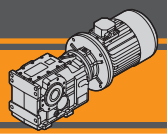


IEC Motori applicabili
IEC Motor adapters



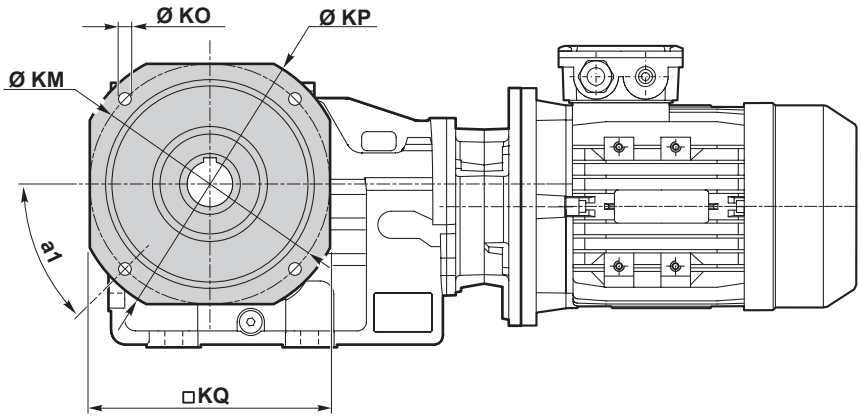
ITBIS 433..

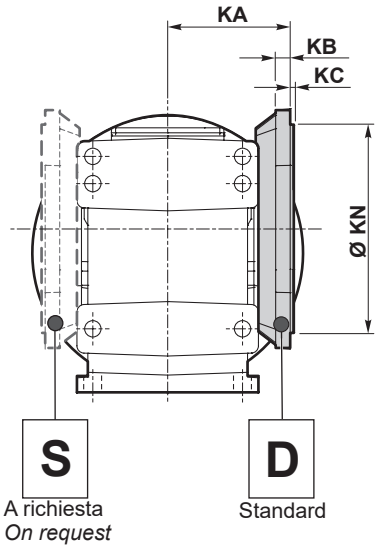


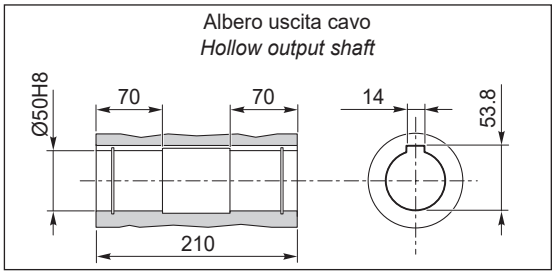


ITB 433 F...

ITB 433 F...





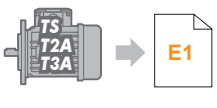


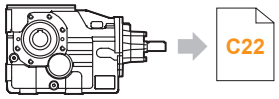
Versione **F** / ***F** Version*											
ITB	**a_1**	**KA**	**KB**	**KC**	**KM**	**KN** f7	**KO**	**KP**	**KQ**	**Flangia / *Flange*** Tipo / *Type*	**Peso / *Weight*** [kg]
433	45°	135	16	4	215	180	14	250	215	**F250**	4.8
	45°	135	16	4	265	230	14	300	260	**F300**	7.1
	45°	135	16	4	300	250	18	350	300	**F350**	9.1

Peso / *Weight [kg]*								
ITB	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**
433 U	65	65	64	67	64	70	67	78

Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

ITBIS 433..

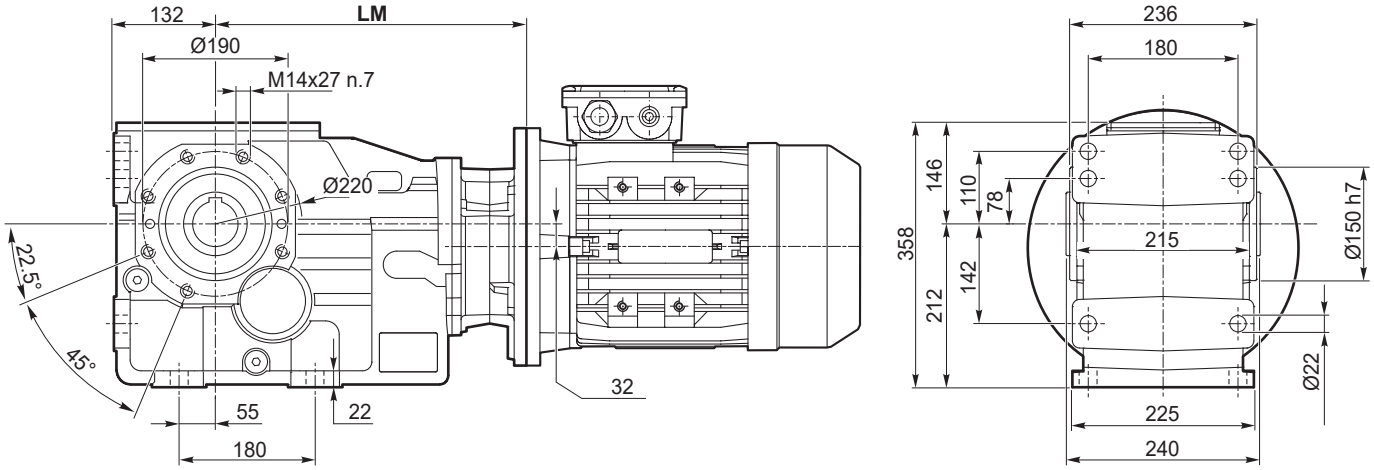


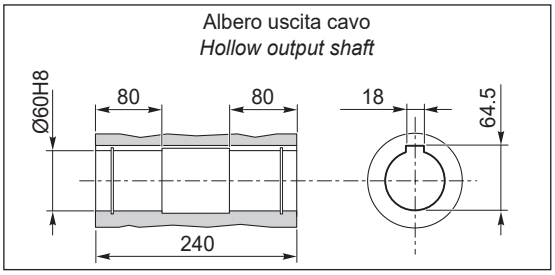


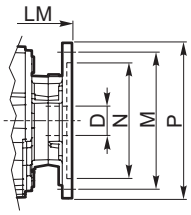
Dimensioni *Dimensions*

ITB 443 U

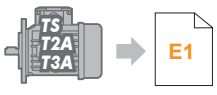
ITB 443 U



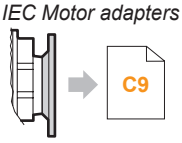




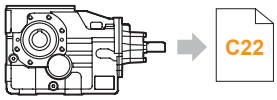
Dimensioni IEC / *IEC Dimensions*									
	80 B5	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**	**180 B5**
LM	375.5	375.5	380	379.5	383	400.5		450.5	450.5
N	130	130	95	180	110	230	130	250	250
M	165	165	115	215	130	265	165	300	300
P	200	200	140	250	160	300	200	350	350
D	19	24		28		38		42	48

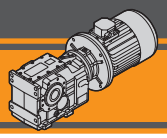


IEC Motori applicabili
IEC Motor adapters



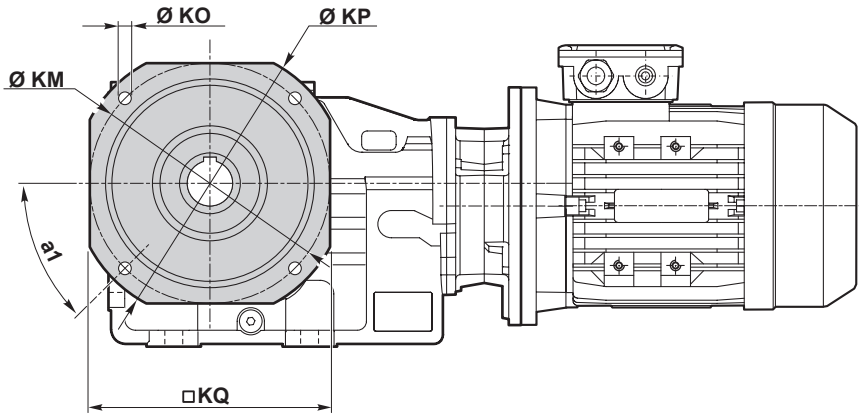
ITBIS 443..

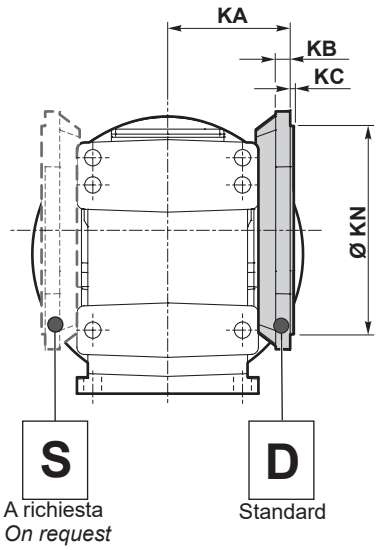


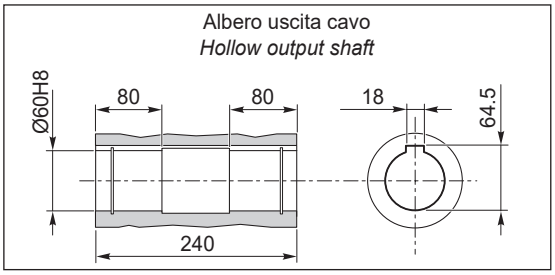


ITB 443 F...

ITB 443 F...





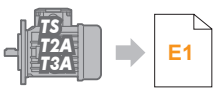


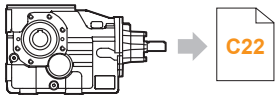
Versione **F** / ***F** Version*											
ITB	**a_1**	**KA**	**KB**	**KC**	**KM**	**KN** f7	**KO**	**KP**	**KQ**	**Flangia / *Flange*** Tipo / *Type*	**Peso / *Weight*** [kg]
443	45°	150	18	4	265	230	14	300	265	**F300**	7.4
	45°	150	18	5	300	250	18	350	300	**F350**	10.2
	45°	150	18	5	400	350	18	450	400	**F450**	16.9

Peso / *Weight [kg]*									
ITB	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**	**180 B5**
443 U	108	108	107	109	107	113	111	124	124

Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

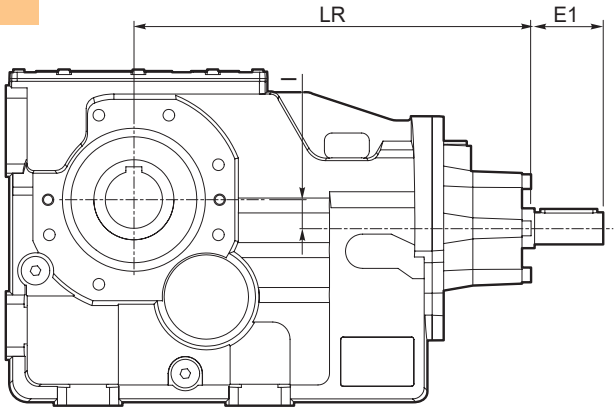
ITBIS 443..



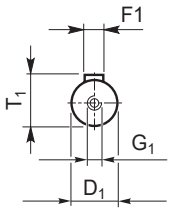


Dimensioni — *Dimensions*

ITBIS..



Albero entrata
Input shaft



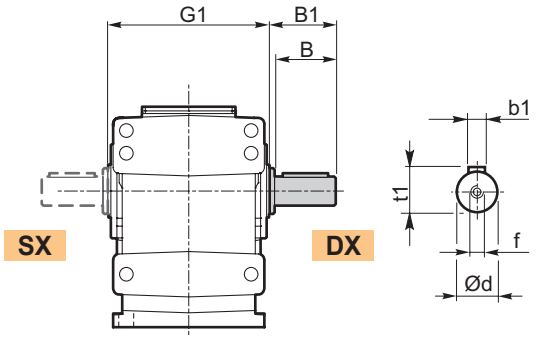
ITBIS	Versione *Version*	LR	D1	E1	I	T1	F1	G1
423	U F	312	28	60	10	31	8	M10
433		362.5	28	60	25	31	8	M10
443		425.5	38	80	32	41	10	M12

ITBIS	Peso / *Weight* [kg]
423 U	40
433 U	60
443 U	114

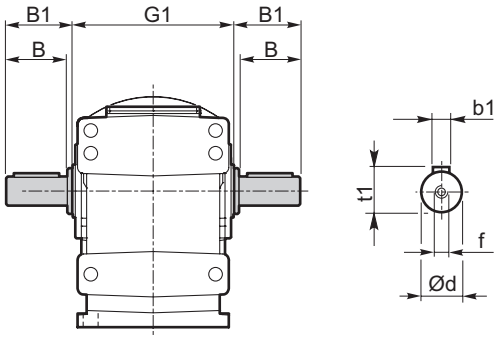
Accessori — *Accessories*

Albero lento / *Output shaft*

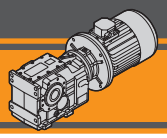
ITB.. SZ..
ITBIS..SZ..



ITB... DZ
ITBIS..DZ

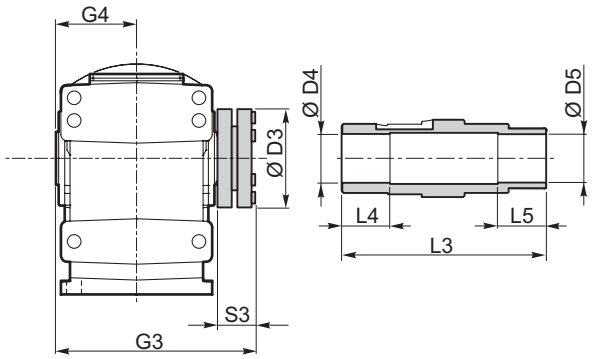


ITB	d h7	B	B1	G1	f	b1	t1	Peso / *Weight* [kg]	
								SZ	DZ
423	40	80	84	180	M16	12	43	2.2	3.2
433	50	100	105	210	M16	14	53.5	4.3	6.2
443	60	120	125	240	M20	18	64	7.1	10.3



Albero lento con calettatore / *Output shaft with shrink disk*

ITB...G..
ITBIS..G..



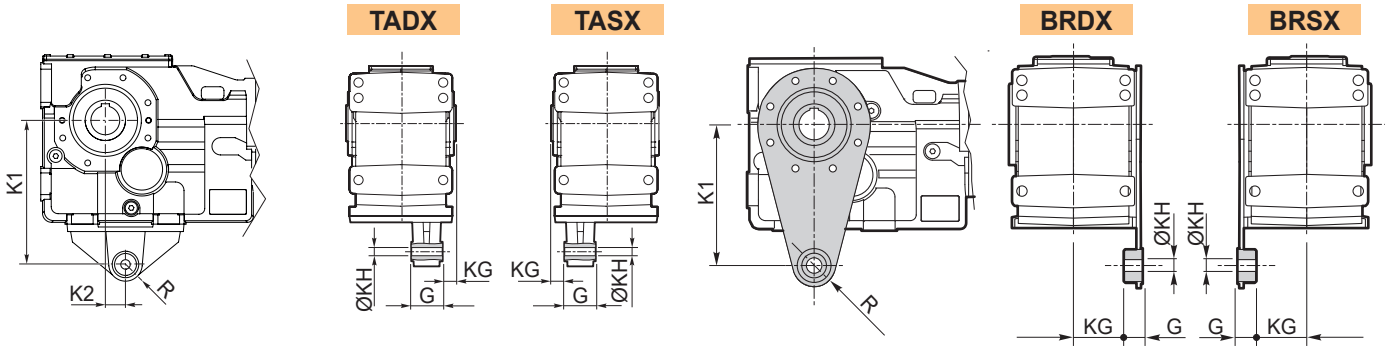
ITB		D3	D4 H8	D5 H8	G3	L3	L4	L5	S3	G4
423	**G40**	100	41	40	217.5	215	45	45	34.5	90
	G45	100	46	45	217.5	215	45	45	34.5	90
433	**G50**	110	51	50	247.5	245	50	50	34.5	105
443	**G60**	138	61	60	280.5	279	60	60	37.5	120

Kit albero uscita con calettatore disponibile a richiesta:
per le istruzioni di montaggio riferirsi al nostro Servizio Tecnico.

Output shaft kit with shrink disk available on request:
for assembly instructions please contact our Technical Service

Kit braccio di reazione — *Torque arm kit*

ITB..
ITBIS..



Braccio di reazione / *Torque arm*

ITB ITBIS	K1	K2	KG	KH	G	R	Peso / *Weight [kg]*
423	200	30	25	16.5	60	29	2.9
433	250	35	25	16.5	60	29	4.4
443	300	35	30	25	80	40	8.1

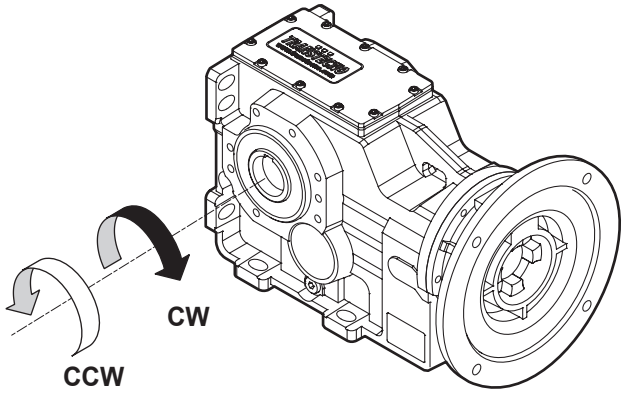
Braccio di reazione / *Torque arm*

ITB ITBIS	K1	KG	KH	G	R	Peso / *Weight [kg]*
423	200	68.5	20	25	30	1.6
433	250	83	25	30	35	2.7

Accessori — *Accessories*

Dispositivo antiretro / *Backstop device*

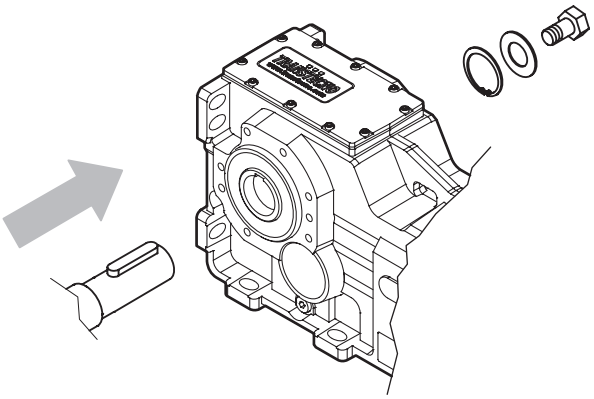
ITB...CW
ITB...CCW



Il dispositivo antiretro permette la rotazione dell'albero in un solo senso senza creare ingombri aggiuntivi.
Prima di utilizzarlo è necessario specificare il senso di rotazione dell'albero di uscita come mostrato in figura.

The backstop device allows the output shaft to rotate in just one direction. Before using it, please specify output shaft rotation direction as shown in the figure.

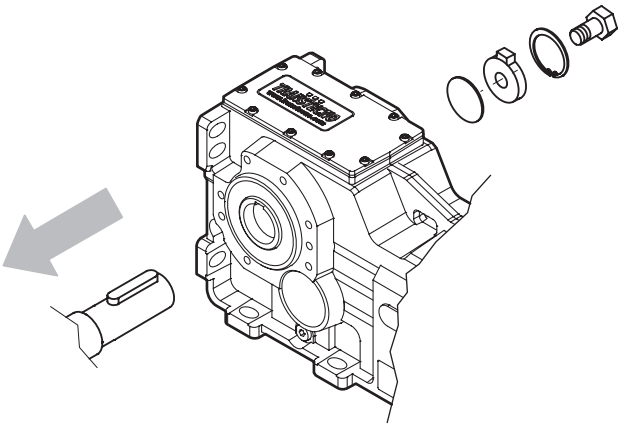
Kit di montaggio albero uscita / *Output shaft assembly kit*



Kit di montaggio albero uscita disponibile a richiesta:
per le istruzioni di montaggio riferirsi al nostro Servizio Tecnico.
Viti escluse dalla fornitura

Output shaft assembly kit available upon request:
for assembly instructions please contact our Technical Assistance
Screws not provided

Kit di smontaggio albero uscita / *Output shaft disassembly kit*



Kit di smontaggio albero uscita disponibile a richiesta:
per le istruzioni di montaggio riferirsi al nostro Servizio Tecnico.
Viti escluse dalla fornitura

Output shaft disassembly kit available upon request:
for assembly instructions please contact our Technical Assistance
Screws not provided

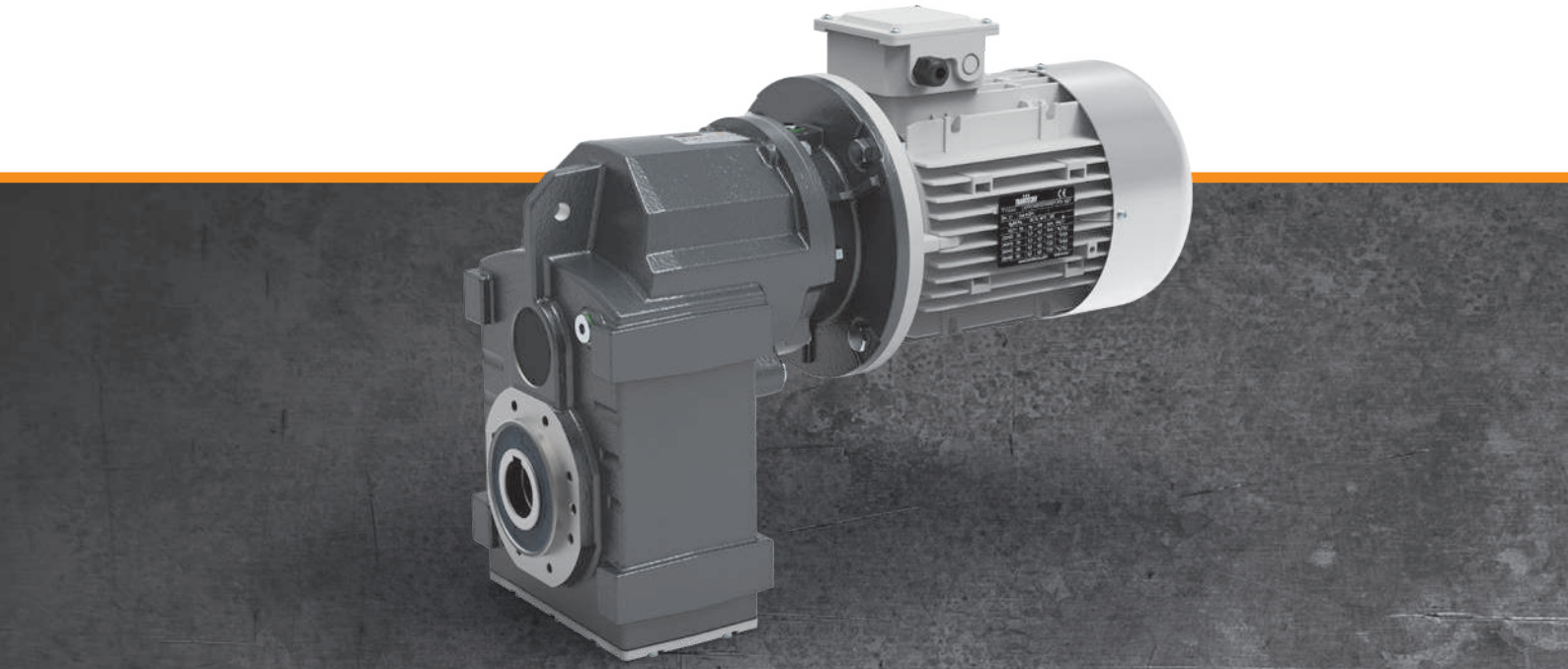
TRANSTECNO®
the modular gearmotor

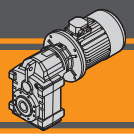
ITS

ITS

ITS Iron

Motoriduttori pendolari
Helical parallel gearmotors





ENERGY SAVING

Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**D2**
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Simbologia	*Symbols*	**D4**
Lubrificazione	*Lubrication*	**D4**
Carichi radiali	*Radial loads*	**D6**
Dati tecnici	*Technical data*	**D8**
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Caratteristiche tecniche

Technical features

I motoriduttori della serie ITS sono dedicati ad applicazioni industriali che presentano carichi particolarmente gravosi. La costruzione robusta con carcassa in ghisa e l'elevata modularità dei diversi kit di entrata e di uscita li rendono adatti ad ogni tipo di applicazione.

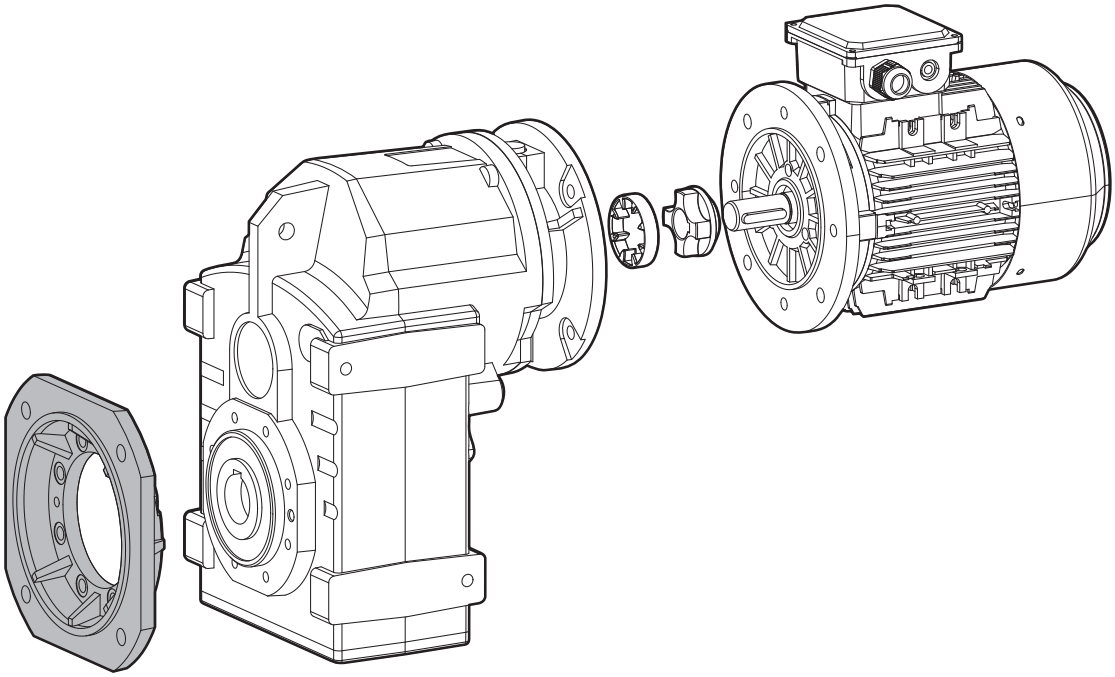
The ITS gearmotors are intended for heavy duty applications. The robust one pieces casing of the main housing and the modular design of input and output sets increase application fexibility.

Caratteristiche comuni a tutta la serie sono:

- Costruzione robusta con carcassa in ghisa
- Elevata modularità
- Lubrificazione con olio sintetico
- Accoppiamento al motore tramite giunto elastico o manicotto rigido
- Verniciatura a polvere epossidica RAL 7016 di spessore medio 0,10 – 0,15 mm

The main features of ITS range are:

- *Robust cast iron housings*
- *High degree of modularity*
- *Lubrication with synthetic oil*
- *Coupled to motor with flexible coupling or motor sleeve*
- *Epoxy powder coating RAL 7016 average thickness 0,10 – 0,15 mm.*

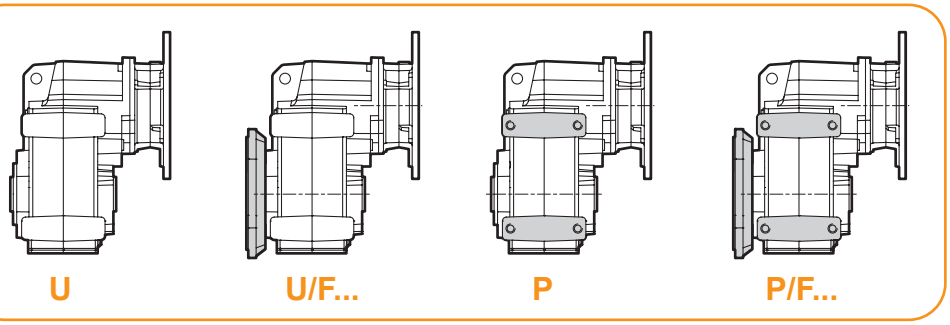


Versioni

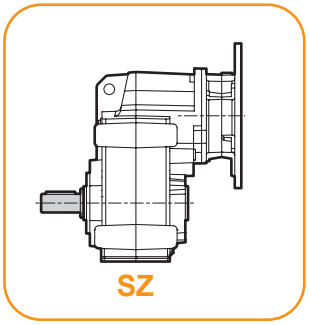
Versions

ITS...

Versione Riduttore
Gearbox Version

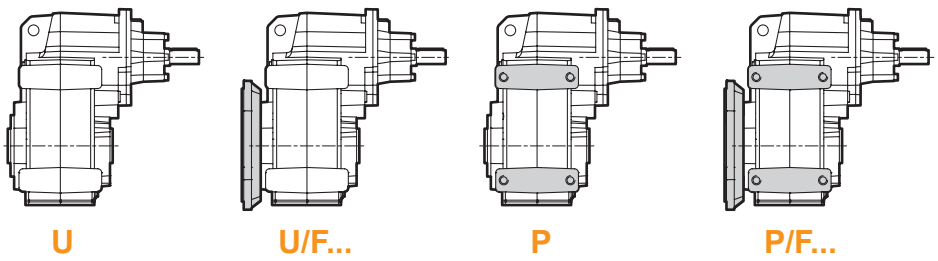


Albero di uscita
Output shaft

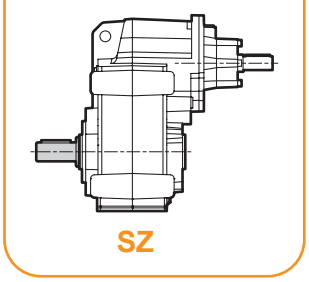


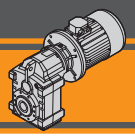
ITSIS...

Versione Riduttore
Gearbox Version



Albero di uscita
Output shaft





Designazione — *Classification*

RIDUTTORE / *GEARBOX*

ITS	92	2	U	22.92	D40	132	B5	SZ	M1	HS	CW
Tipo *Type*	Grandezza *Size*	Stadi *Stages*	Versione *Version*	Rapporto *Ratio*	Albero uscita *Output shaft*	IEC	Forma costruttiva *Version*	Albero uscita maschio *Solid outout shaft*	Posizione di montaggio *Mounting position*	Manicotto rigido *Motor sleeve*	Dispositivo antiretro *Backstop device*
ITS	92 93 94	2 3	U... U/F... P... P/F...	vedi tabelle *see tables*	D... standard G... calettatore *shrink disc*	80.. — 180..	B5 B14	SZ	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)	HS	CW CCW



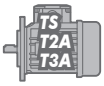
RIDUTTORE / *GEARBOX*

ITSIS	92	2	U	22.92	D40	SZ	M1
Tipo *Type*	Grandezza *Size*	Stadi *Stages*	Versione *Version*	Rapporto *Ratio*	Albero uscita *Output shaft*	Albero uscita maschio *Solid outout shaft*	Posizione di montaggio *Mounting position*
ITSIS	92 93 94	2 3	U... U/F... P... P/F...	vedi tabelle *see tables*	D... standard G... calettatore *shrink disc*	SZ	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)



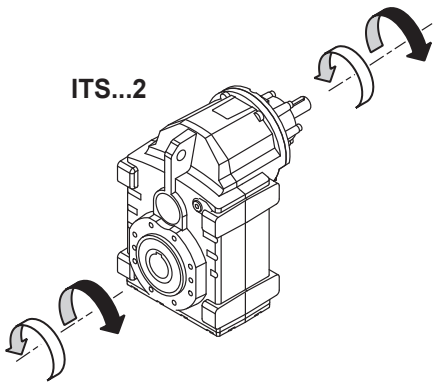
MOTORE TRIFASE / *THREE PHASE MOTOR*

T	2A	63	2	4	0.18 kW	B5	PTO	230-400 V	50 Hz
Tipo *Type*	Efficienza *Efficiency level*	Grandezza *Size*	Indicativo potenza *Power coefficient*	Poli *Poles*	Potenza *Power*	Forma costruttiva *Version*	Protezione termica *Thermal protector*	Tensione *Voltage*	Frequenza *Frequency*
T	**S** (IE1) **2A** (IE2) **3A** (IE3)	vedi tabelle *see tables*	1-2-3-S L1-L2 M1-M2	2 4 6	0.06 kW ... 11 kW	B5 B14 B3	Null PTO	230-400 V 50Hz 275-480 V 60Hz 400-690 V 50Hz	

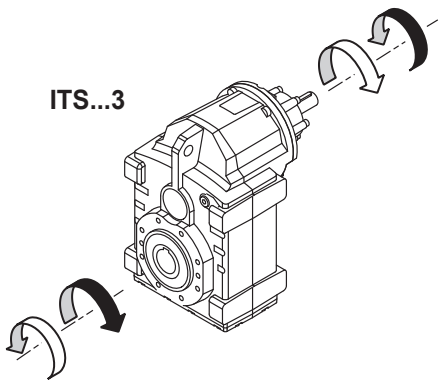


Sensi di rotazione — *Direction of rotation*

ITS...2



ITS...3



Simbologia / *Symbols*

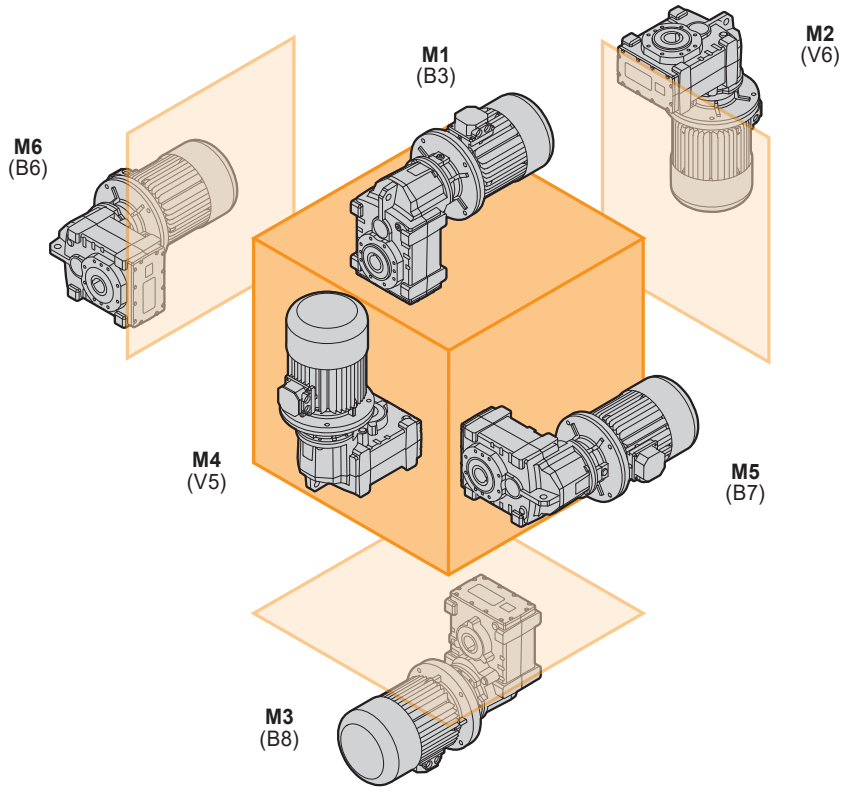
n_1	[min^{-1}]	Velocità in ingresso / *Input speed*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*
i		Rapporto di riduzione / *Ratio*
P_1	[kW]	Potenza in entrata / *Input power*
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / *Output torque referred to P_1*
Pn_1	[kW]	Potenza nominale in entrata / *Nominal input power*
Mn_2	[Nm]	Coppia nominale in uscita in funzione di Pn_1 / *Nominal output torque referred to Pn_1*
sf		Fattore di servizio / *Service factor*
R_1	[N]	Carico radiale ammissibile in entrata / *Permitted input radial load*
A_1	[N]	Carico assiale ammissibile in entrata / *Permitted input axial load*
R_2 U	[N]	Carico radiale ammissibile in uscita per la versione “U...” / *Permitted output radial load for “U...” version*
R_2 P	[N]	Carico radiale ammissibile in uscita per la versione “P...” / *Permitted output radial load for “P...” version*
R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*
A_2	[N]	Carico assiale ammissibile in uscita / *Permitted output axial load*

Lubrificazione / *Lubrication*

I motoriduttori della serie ITS sono forniti completi di lubrificante sintetico viscosità 320. La quantità di lubrificante dipende dalla posizione di montaggio.

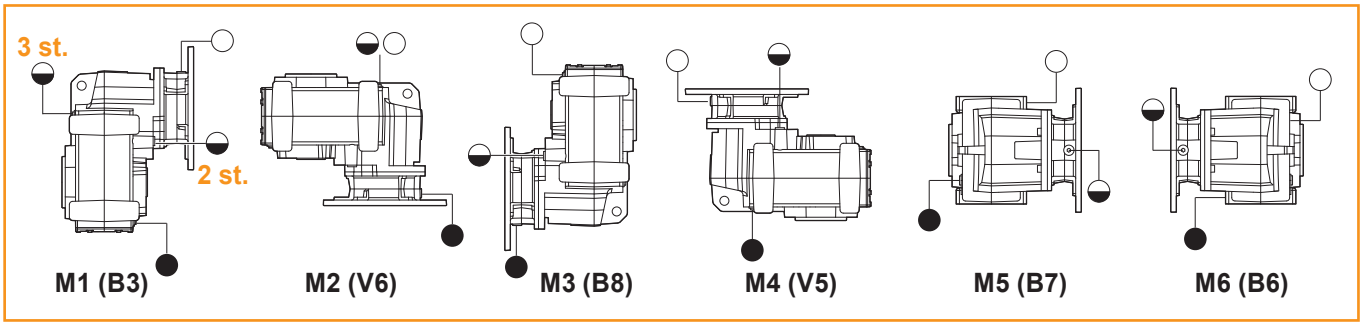
ITS series gearmotors come complete with synthetic lubricant 320 viscosity. The lubricant quantity depends on assembly position.

ITS..



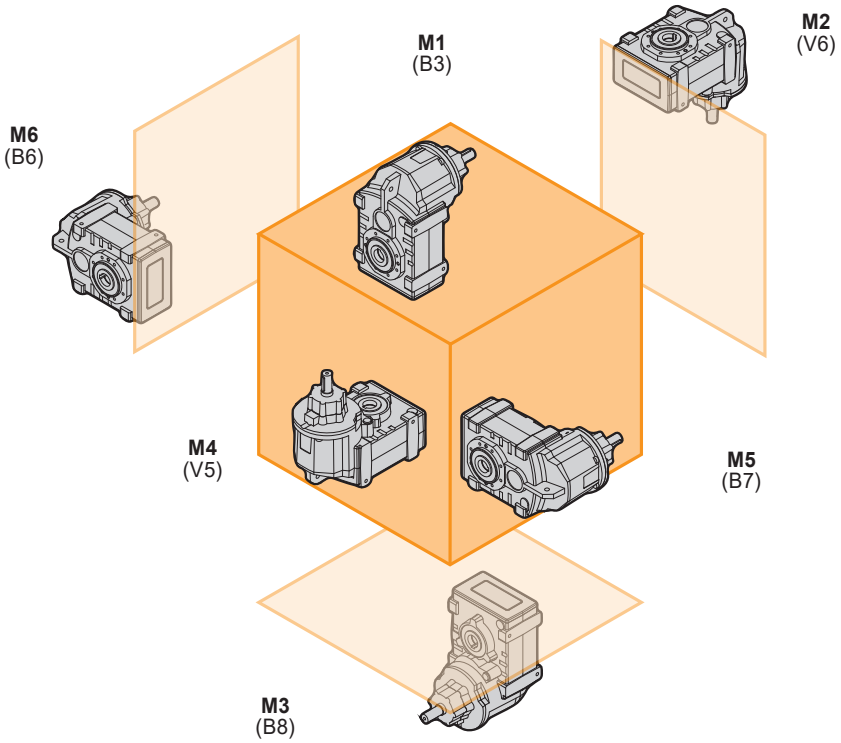
ITS	Quantità di olio (litri) / *Oil quantity (litres)*					
	M1 (B3)	**M2** (V6)	**M3** (B8)	**M4** (V5)	**M5** (B7)	**M6** (B6)
922	3,4	5,2	4,2	6,1	3,7	3,6
923	4,9			5.9		
932	4,7	7,0	4,3	7,7	4,5	4,4
933	6,7			7.5		
942	9,1	14,4	9,1	15,4	9,1	8,9
943	12,0			15,1		

Lubrificazione — *Lubrication*

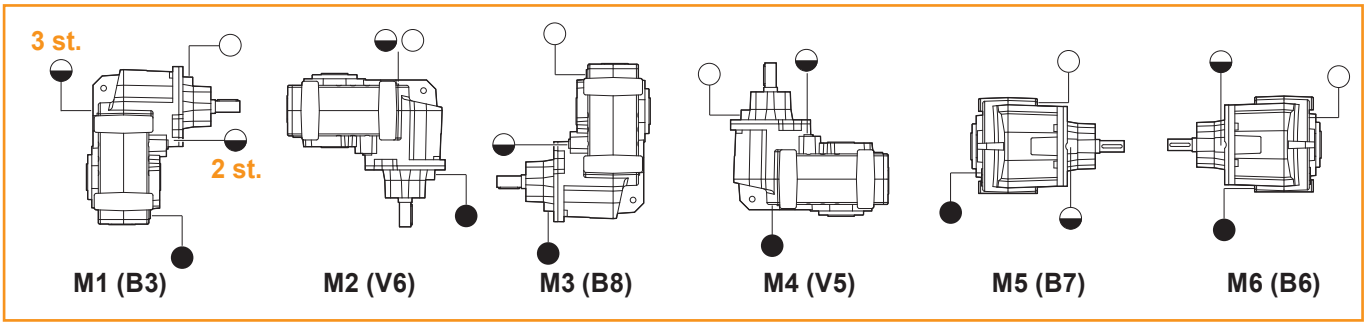


○ Sfiato e tappo di riempimento / *Breather and filling plug*
● Tappo di scarico / *Oil drain plug*
◒ Livello olio / *Oil level plug*

ITSIS..



ITSIS	Quantità di olio (litri) / *Oil quantity (litres)*					
	M1 (B3)	**M2** (V6)	**M3** (B8)	**M4** (V5)	**M5** (B7)	**M6** (B6)
922	3,6	5,6	4,4	6,1	3,9	3,8
923	5,1			5.9		
932	4,9	7,4	4,7	7,7	4,7	4,6
933	6,9			7.5		
942	9,3	15,1	9,8	15,4	9,5	9,3
943	12,2	14,8	9,5	15,1	9,3	9,1



○ Sfiato e tappo di riempimento / *Breather and filling plug*
● Tappo di scarico / *Oil drain plug*
◒ Livello olio / *Oil level plug*

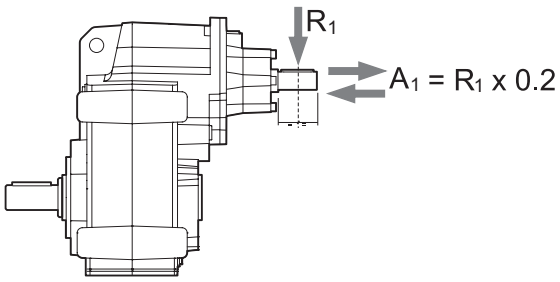
Carichi radiali in entrata — *Input Radial loads*

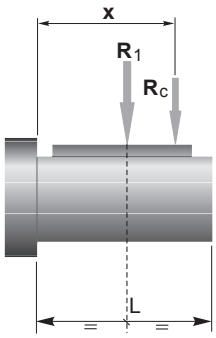
ITS 922 ITS 923 -932 ITS 933 - 943	n_1 [min^{-1}]	Potenza motore/ *Motor Power [kW]*			
		2.2	3.0	4.0	5.5
R_1 [N]	1400	1800			750
	900	2100		1200	-
	500	2500	-	-	-

ITS 942	n_1 [min^{-1}]	Potenza motore/ *Motor Power [kW]*					
		5.5	7.5	9.2	11.0	15.0	18.5
R_1 [N]	1400	3700				2800	1200
	900	4900			3300	650	-
	500	5250	3900	1300	-	-	-

I carichi radiali entrata massimi applicabili sono riportati nelle tabelle precedenti.
Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

The radial loads maximum input applicable are indicated in the previous tables.
When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:





	ITS922	ITS923	ITS932	ITS933	ITS942	ITS943
a	139				157	139
b	110				118	110

$$R_c = \frac{R_1 \cdot a}{(b+x)} \leq R_1$$

$$R \leq R_c$$

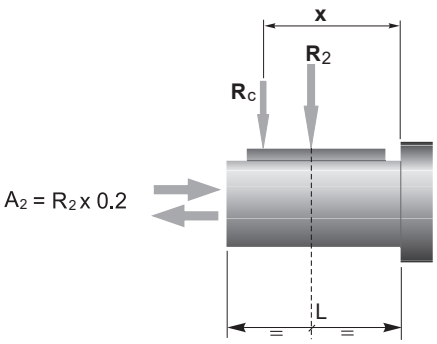
a, b = valori riportati nella tabella
a, b = values given in the table

Carichi radiali in uscita

Output radial loads

I carichi radiali uscita massimi applicabili sono riportati nelle tabelle dati tecnici.
Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

The radial loads maximum output applicable are indicated in the technical data table.
When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:



ITS	922 U... 923 U...	922 P... 923 P...	932 U... 933 U...	932 P... 933 P...	942 U... 943 U...	942 P... 943 P...
a	190	182	224	216	262	252
b	150	142	174	166	202	192
R_{2MAX}	9500	18000	12000	23000	15000	31000

$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

a, b = valori riportati nella tabella
a, b = values given in the table

La versione U utilizza cuscinetti a sfere sull'asse di uscita mentre la versione P utilizza cuscinetti a rulli conici.
E' possibile utilizzare cuscinetti a rulli conici anche sulla versione U a richiesta.

U version has ball bearings on the output side.
P version uses taper roller bearings.
It's possible to have taper roller bearings for U version upon request.

Dati tecnici — n_1 1400 min^{-1} — *Technical data*

n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 U [N]	R_2 P [N]
ITSIS 922					
248	500	13.50	5.66	2492	9368
198	500	10.82	7.06	2835	10580
167	500	9.13	8.37	3131	11619
153	650	10.87	9.13	3078	11708
134	650	9.51	10.43	3327	12602
116	650	8.24	12.04	3618	13638
104	750	8.48	13.50	3685	14122
90	750	7.39	15.50	3994	15236
79	900	7.72	17.81	4012	15753
64	900	6.32	21.73	4506	17576
61	900	6.00	22.92	4648	18095
59	900	5.78	23.80	4751	18500
53	900	5.16	26.63	5073	18500
48	900	4.70	29.26	5360	18500
44	1000	4.75	32.14	5361	18500
40	1000	4.43	35.19	5652	18500
36	1000	3.96	39.38	6035	18500
32	1000	3.60	43.27	6376	18500
30	1000	3.28	47.50	6733	18500
25	1100	3.07	55.96	6992	18500
23	1100	2.80	61.25	7371	18500
21	1100	2.54	67.50	7800	18500
ITSIS 923					
19	1100	2.29	75.00	8295	18500
16	1100	1.99	86.28	9001	18500
15	1100	1.82	94.46	9500	18500
13	1100	1.58	108.48	9500	18500
12	1100	1.44	118.77	9500	18500
9.9	1100	1.22	140.93	9500	18500
9.1	1100	1.11	154.30	9500	18500
8.1	1100	1.00	172.40	9500	18500
7.4	1100	0.91	188.76	9500	18500
6.6	1100	0.81	211.15	9500	18500
5.9	1100	0.72	238.53	9500	18500
5.1	1100	0.63	272.74	9500	18500
4.8	1100	0.59	289.29	9500	18500
4.4	1100	0.54	316.73	9500	18500
4.1	1100	0.50	342.86	9500	18500
3.7	1100	0.46	375.38	9500	18500

IEC Motori applicabili — *IEC Motor adapters*

ITS 922

80B5	90B5/B14	100B5/B14	112B5/B14	132B5/B14
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			*	
			*	

ITS 923

71B5	80B5	90B5/B14	100B5/B14	112B5/B14
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	*	*	*	*
	*	*	*	*

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

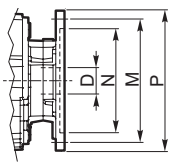
⚠ * = Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. D11 alla pag. D17.

N.B.
Highlighted areas indicate motor inputs available on each size of unit.

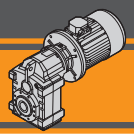
⚠ * = *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

Before selecting any gearbox, please read the performance values shown in the tables on page D11 to D17.



Dimensioni IEC / *IEC Dimensions*

	71 B5	80 B5	90 B5	90 B14	100/112 B5	100/112 B14	132 B5	132 B14
N	110	130	130	95	180	110	230	130
M	130	165	165	115	215	130	265	165
P	160	200	200	140	250	160	300	200
D	14	19	24		28		38	



Dati tecnici — n_1 1400 min^{-1} — *Technical data*



n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 U [N]	R_2 P [N]
ITSIS 932					
228	850	21.16	6.13	2770	11626
183	850	16.96	7.65	3152	13130
155	850	14.37	9.03	3472	14386
141	900	13.88	9.90	3606	14984
124	900	12.20	11.27	3889	16091
107	900	10.52	13.06	4238	17453
96	900	9.43	14.58	4519	18541
83	1000	9.09	16.81	4754	19661
73	1000	7.94	19.24	5144	21179
59	1200	7.77	23.57	5412	22749
57	1200	7.40	24.75	5568	23000
54	1400	8.28	25.81	5306	23000
49	1400	7.40	28.88	5665	23000
40	1650	7.26	34.71	5714	23000
37	1650	6.63	38.01	6024	23000
33	1650	6.05	42.53	6432	23000
30	1650	5.51	46.73	6796	23000
27	1650	5.02	51.30	7176	23000
23	1650	4.26	60.44	7896	23000
21	1650	3.89	66.15	8323	23000
19	1500	3.21	72.90	9358	23000
ITSIS 933					
17	1700	3.27	81.00	9172	23000
15	1700	2.85	93.18	9953	23000
14	1700	2.60	102.02	10493	23000
12	1700	2.26	117.16	11376	23000
11	1700	2.07	128.28	12000	23000
9.2	1700	1.74	152.21	12000	23000
8.4	1700	1.59	166.65	12000	23000
7.5	1700	1.42	186.19	12000	23000
6.9	1700	1.30	203.86	12000	23000
6.1	1700	1.16	228.05	12000	23000
5.4	1700	1.03	257.61	12000	23000
4.8	1700	0.90	294.56	12000	23000
4.5	1700	0.85	312.43	12000	23000
4.1	1700	0.78	342.07	12000	23000
3.8	1700	0.72	370.29	12000	23000
3.5	1700	0.65	405.42	12000	23000



IEC Motori applicabili
IEC Motor adapters

ITS 932

80B5	90B5/B14	100B5/B14	112B5/B14	132B5/B14	160B5
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			*		

ITS 933

71B5	80B5	90B5/B14	100B5/B14	112B5/B14
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N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

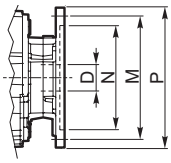
⚠ * = Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. D11 alla pag. D17.

N.B.
Highlighted areas indicate motor inputs available on each size of unit.

⚠ * = *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

Before selecting any gearbox, please read the performance values shown in the tables on page D11 to D17.



Dimensioni IEC / *IEC Dimensions*

	71 B5	80 B5	90 B5	90 B14	100/112 B5	100/112 B14	132 B5	132 B14	160 B5
N	110	130	130	95	180	110	230	130	250
M	130	165	165	115	215	130	265	165	300
P	160	200	200	140	250	160	300	200	350
D	14	19	24		28		38		42

Dati tecnici — n_1 1400 min^{-1} — *Technical data*

ITSIS 942

n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 U [N]	R_2 P [N]
177	1500	28.90	7.93	4206	17268
146	1500	23.89	9.59	4701	19178
131	1700	24.34	10.67	4816	19916
118	1700	21.96	11.82	5113	21074
109	2000	23.66	12.91	5070	21422
99	2000	21.49	14.21	5364	22590
88	2400	23.04	15.91	5258	22990
81	2400	21.15	17.33	5527	24097
73	2500	19.96	19.13	5725	25158
60	2500	16.37	23.32	6426	28055
48	2700	14.01	29.42	7022	31000
45	3000	14.61	31.35	6763	31000
35	3000	11.57	39.60	7751	31000
32	2700	9.53	43.25	8792	31000
29	2700	8.60	47.95	9337	31000
26	3200	9.34	53.43	8754	31000
24	3200	8.57	58.22	9203	31000
22	3200	7.73	64.53	9773	31000
20	3000	6.65	70.40	10842	31000
18	3000	6.08	77.00	11424	31000

ITSIS 943

n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	R_2 U [N]	R_2 P [N]
15	3200	5.31	94.05	12175	31000
14	3200	4.99	99.94	12614	31000
13	3200	4.56	109.42	13299	31000
12	3200	4.12	121.00	14102	31000
10	3200	3.71	134.54	15000	31000
9.5	3200	3.38	147.69	15000	31000
8.2	3200	2.94	169.71	15000	31000
7.5	3200	2.69	185.82	15000	31000
6.7	3200	2.40	207.90	15000	31000
6.1	3200	2.18	228.46	15000	31000
5.6	3200	1.99	250.80	15000	31000
4.7	3200	1.69	295.48	15000	31000
4.3	3200	1.54	323.40	15000	31000
3.9	3200	1.40	356.40	15000	31000

IEC Motori applicabili — ***IEC Motor adapters***

ITS 942

90B5/B14	100B5/B14	112B5/B14	132B5/B14	160B5	180B5
*	*	*			
					*
					*
					*
					*

ITS 943

80B5	90B5/B14	100B5/B14	112B5/B14	132B5/B14
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				*
				*
			*	*
			*	*
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		*	*	

N.B.
Le aree evidenziate indicano l'applicabilità della corrispondente grandezza motore.

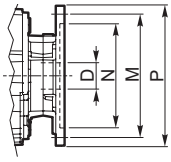
⚠ * = Il fattore di servizio (**sf**) deve essere scelto in funzione dell'applicazione: si prega di contattare il nostro Servizio Tecnico.

Prima di eseguire la scelta del motoriduttore riferirsi alle prestazioni elencate nelle tabelle dalla pag. D11 alla pag. D17.

N.B.
Highlighted areas indicate motor inputs available on each size of unit.

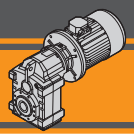
⚠ * = *The service factor (**sf**) has to be selected depending on application: please contact our Technical Department.*

Before selecting any gearbox, please read the performance values shown in the tables on page D11 to D17.



Dimensioni IEC / *IEC Dimensions*

	80 B5	90 B5	90 B14	100/112 B5	100/112 B14	132 B5	132 B14	160 B5	180 B5
N	130	130	95	180	110	230	130	250	250
M	165	165	115	215	130	265	165	300	300
P	200	200	140	250	160	300	200	350	350
D	19	24		28		38		42	48



Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
0.25							
TS7114-B5 (1400 min^{-1})	**5.9**	382	2.9	238.53	**ITS923**	9500	18500
	5.1	437	2.5	272.74		9500	18500
	4.8	464	2.4	289.29		9500	18500
	4.4	508	2.2	316.73		9500	18500
	4.1	550	2.0	342.86		9500	18500
	3.7	602	1.8	375.38		9500	18500
	5.4	413	4.1	257.61	**ITS933**	12000	23000
	4.8	472	3.6	294.56		12000	23000
	4.5	501	3.4	312.43		12000	23000
	4.1	548	3.1	342.07		12000	23000
	3.8	594	2.9	370.29		12000	23000
	3.5	650	2.6	405.42		12000	23000
0.37							
TS7124-B5 T2A7124-B5 (1400 min^{-1})	**5.9**	566	1.9	238.53	**ITS923**	9500	18500
	5.1	647	1.7	272.74		9500	18500
	4.8	686	1.6	289.29		9500	18500
	4.4	751	1.5	316.73		9500	18500
	4.1	813	1.4	342.86		9500	18500
	3.7	891	1.2	375.38		9500	18500
	5.4	611	2.8	257.61	**ITS933**	12000	23000
	4.8	699	2.4	294.56		12000	23000
	4.5	741	2.3	312.43		12000	23000
	4.1	812	2.1	342.07		12000	23000
	3.8	879	1.9	370.29		12000	23000
	3.5	962	1.8	405.42		12000	23000
0.55							
TS8014-B5 T2A8014-B5 (1400 min^{-1})	**247**	20	25	5.66	**ITS922**	3016	10554
	198	25	20	7.06		3424	11905
	167	30	17	8.37		3775	13059
	153	33	20	9.13		3969	13693
	134	38	17	10.43		4283	14723
	116	43	15	12.04		4647	15910
	104	49	15	13.50		4958	16920
	90	56	13	15.50		5359	18223
	79	64	14	17.81		5795	18500
	64	78	11	21.73		6474	18500
	61	83	11	22.92		6667	18500
	59	86	11	23.80		6807	18500
	53	96	9.4	26.63		7240	18500
	48	105	8.5	29.26		7623	18500
	44	116	8.6	32.14		8021	18500
	40	124	8.1	35.19		8430	18500
	36	139	7.2	39.38		8951	18500
	32	153	6.6	43.27		9408	18500
	29	168	6.0	47.50		9500	18500
	25	197	5.6	55.96		9500	18500
	23	216	5.1	61.25		9500	18500
	21	238	4.6	67.50		9500	18500

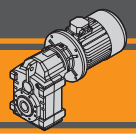
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
0.55							
TS7134-B5 T2A7134-B5 TS8014-B5 T2A8014-B5 (1400 min^{-1})	**19**	265	4.2	75.00	**ITS923**	9500	18500
	16	304	3.6	86.28		9500	18500
	15	333	3.3	94.46		9500	18500
	13	383	2.9	108.48		9500	18500
	12	419	2.6	118.77		9500	18500
	9.9	497	2.2	140.93		9500	18500
	9.1	544	2.0	154.30		9500	18500
	8.1	608	1.8	172.40		9500	18500
	7.4	666	1.7	188.76		9500	18500
	6.6	745	1.5	211.15		9500	18500
	5.9	841	1.3	238.53		9500	18500
	5.1	962	1.1	272.74		9500	18500
	4.8	1020	1.1	289.29		9500	18500
	4.4	1117	1.0	316.73		9500	18500
TS8014-B5 T2A8014-B5 (1400 min^{-1})	**30**	165	10	46.73	**ITS932**	10992	23000
	27	181	9.1	51.30		11559	23000
	23	213	7.7	60.44		12000	23000
	21	233	7.1	66.15		12000	23000
	19	257	5.8	72.90		12000	23000
TS7134-B5 T2A7134-B5 TS8014-B5 T2A8014-B5 (1400 min^{-1})	**17**	286	6.0	81.00	**ITS933**	12000	23000
	15	329	5.2	93.18		12000	23000
	14	360	4.7	102.02		12000	23000
	12	413	4.1	117.16		12000	23000
	11	452	3.8	128.28		12000	23000
	9.2	537	3.2	152.21		12000	23000
	8.4	588	2.9	166.65		12000	23000
	7.5	657	2.6	186.19		12000	23000
	6.9	719	2.4	203.86		12000	23000
	6.1	804	2.1	228.05		12000	23000
	5.4	908	1.9	257.61		12000	23000
	4.8	1039	1.6	294.56		12000	23000
	4.5	1102	1.5	312.43		12000	23000
	4.1	1206	1.4	342.07		12000	23000
	3.8	1306	1.3	370.29		12000	23000
	3.5	1430	1.2	405.42		12000	23000
TS8014-B5 T2A8014-B5 (1400 min^{-1})	**15**	332	9.6	94.05	**ITS943**	15000	31000
	14	352	9.1	99.94		15000	31000
	13	386	8.3	109.42		15000	31000
	12	427	7.5	121.00		15000	31000
	10	474	6.7	134.54		15000	31000
	9.5	521	6.1	147.69		15000	31000
	8.2	599	5.3	169.71		15000	31000
	7.5	655	4.9	185.82		15000	31000
	6.7	733	4.4	207.90		15000	31000
	6.1	806	4.0	228.46		15000	31000
	5.6	884	3.6	250.80		15000	31000
	4.7	1042	3.1	295.48		15000	31000
	4.3	1141	2.8	323.40		15000	31000
	3.9	1257	2.5	356.40		15000	31000

Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
0.75							
TS8024-B5 T3A8024-B5 (1400 min^{-1})	**247**	28	18	5.66	**ITS922**	3008	10535
	198	35	14	7.06		3413	11879
	167	41	12	8.37		3760	13026
	153	45	14	9.13		3951	13655
	134	51	13	10.43		4262	14675
	116	59	11	12.04		4621	15851
	104	66	11	13.50		4926	16850
	90	76	9.9	15.50		5319	18136
	79	87	10	17.81		5745	18500
	64	107	8.4	21.73		6406	18500
	61	113	8.0	22.92		6593	18500
	59	117	7.7	23.80		6728	18500
	53	131	6.9	26.63		7146	18500
	48	144	6.3	29.26		7514	18500
	44	158	6.3	32.14		7895	18500
	40	169	5.9	35.19		8287	18500
	36	189	5.3	39.38		8780	18500
	32	208	4.8	43.27		9210	18500
	29	228	4.4	47.50		9500	18500
	25	269	4.1	55.96		9500	18500
	23	295	3.7	61.25		9500	18500
	21	325	3.4	67.50		9500	18500
	19	361	3.0	75.00	**ITS923**	9500	18500
	16	415	2.7	86.28		9500	18500
	15	454	2.4	94.46		9500	18500
	13	522	2.1	108.48		9500	18500
	12	571	1.9	118.77		9500	18500
	9.9	678	1.6	140.93		9500	18500
	9.1	742	1.5	154.30		9500	18500
	8.1	829	1.3	172.40		9500	18500
	7.4	908	1.2	188.76		9500	18500
	6.6	1015	1.1	211.15		9500	18500
	57	122	9.9	24.75	**ITS932**	7671	23000
	54	127	11	25.81		7850	23000
	48	142	9.9	28.88		8350	23000
	40	170	9.7	34.71		9229	23000
	37	187	8.8	38.01		9689	23000
	33	205	8.1	42.53		10298	23000
	30	225	7.3	46.73		10823	23000
	27	247	6.7	51.30		11362	23000
	23	291	5.7	60.44		12000	23000
	21	318	5.2	66.15		12000	23000
	19	351	4.3	72.90		12000	23000
	17	390	4.4	81.00	**ITS933**	12000	23000
	15	448	3.8	93.18		12000	23000
	14	491	3.5	102.02		12000	23000
	12	563	3.0	117.16		12000	23000
	11	617	2.8	128.28		12000	23000
	9.2	732	2.3	152.21		12000	23000
	8.4	801	2.1	166.65		12000	23000
	7.5	895	1.9	186.19		12000	23000
	6.9	980	1.7	203.86		12000	23000
	6.1	1097	1.6	228.05		12000	23000
	5.4	1239	1.4	257.61		12000	23000
	4.8	1417	1.2	294.56		12000	23000
	4.5	1503	1.1	312.43		12000	23000
	4.1	1645	1.0	342.07		12000	23000
	3.8	1781	1.0	370.29		12000	23000

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
0.75							
TS8024-B5 T3A8024-B5 (1400 min^{-1})	**15**	452	7.1	94.05	**ITS943**	15000	31000
	14	481	6.7	99.94		15000	31000
	13	526	6.1	109.42		15000	31000
	12	582	5.5	121.00		15000	31000
	10	647	4.9	134.54		15000	31000
	9.5	710	4.5	147.69		15000	31000
	8.2	816	3.9	169.71		15000	31000
	7.5	894	3.6	185.82		15000	31000
	6.7	1000	3.2	207.90		15000	31000
	6.1	1099	2.9	228.46		15000	31000
	5.6	1206	2.7	250.80		15000	31000
	4.7	1421	2.3	295.48		15000	31000
	4.3	1555	2.1	323.40		15000	31000
	3.9	1714	1.9	356.40		15000	31000
1.1							
TS8034-B5 T3A8034-B5 TS90S4-B5/B14 T3A90S4-B5/B14 (1400 min^{-1})	**247**	41	12	5.66	**ITS922**	2993	10503
	198	51	9.8	7.06		3393	11834
	167	60	8.3	8.37		3734	12967
	153	66	9.9	9.13		3921	13587
	134	75	8.6	10.43		4225	14592
	116	87	7.5	12.04		4574	15748
	104	97	7.7	13.50		4869	16726
	90	112	6.7	15.50		5249	17983
	79	128	7.0	17.81		5658	18500
	64	157	5.7	21.73		6287	18500
	61	165	5.5	22.92		6463	18500
	59	171	5.3	23.80		6591	18500
	53	192	4.7	26.63		6982	18500
	48	211	4.3	29.26		7323	18500
	44	232	4.3	32.14		7673	18500
	40	248	4.0	35.19		8037	18500
	36	278	3.6	39.38		8481	18500
	32	305	3.3	43.27		8862	18500
	29	335	3.0	47.50		9245	18500
	25	395	2.8	55.96		9500	18500
	23	432	2.5	61.25		9500	18500
	21	476	2.3	67.50		9500	18500
	19	529	2.1	75.00	**ITS923**	9500	18500
	16	609	1.8	86.28		9500	18500
	15	666	1.7	94.46		9500	18500
	13	765	1.4	108.48		9500	18500
	12	838	1.3	118.77		9500	18500
	9.9	994	1.1	140.93		9500	18500
	9.1	1088	1.0	154.30		9500	18500
	8.1	1216	0.9	172.40		9500	18500
	107	94	9.6	13.06	**ITS932**	5321	20175
	96	105	8.6	14.58		5658	21394
	83	121	8.3	16.81		6121	23000
	73	139	7.2	19.24		6594	23000
	59	170	7.1	23.57		7365	23000
	57	178	6.7	24.75		7561	23000
	54	186	7.5	25.81		7732	23000
	48	208	6.7	28.88		8209	23000
	40	250	6.6	34.71		9040	23000
	37	274	6.0	38.01		9471	23000
	33	300	5.5	42.53		10042	23000
	30	330	5.0	46.73		10526	23000
	27	362	4.6	51.30		11019	23000
	23	426	3.9	60.44		11913	23000
	21	467	3.5	66.15		12000	23000
	19	514	2.9	72.90		12000	23000



Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
1.1							
TS8034-B5	**17**	571	3.0	81.00	**ITS933**	12000	23000
T3A8034-B5	**15**	657	2.6	93.18		12000	23000
TS90S4-B5/B14	**14**	720	2.4	102.02		12000	23000
T3A90S4-B5/B14	**12**	826	2.1	117.16		12000	23000
(1400 min^{-1})	**11**	905	1.9	128.28		12000	23000
	9.2	1074	1.6	152.21		12000	23000
	8.4	1175	1.4	166.65		12000	23000
	7.5	1313	1.3	186.19		12000	23000
	6.9	1438	1.2	203.86		12000	23000
	6.1	1608	1.1	228.05		12000	23000
	5.4	1817	0.9	257.61		12000	23000
	32	312	8.7	43.25	**ITS942**	13823	31000
	29	345	7.8	47.95		14603	31000
	26	377	8.5	53.43		15000	31000
	24	411	7.8	58.22		15000	31000
	22	455	7.0	64.53		15000	31000
	20	497	6.0	70.40		15000	31000
	18	543	5.5	77.00		15000	31000
	15	663	4.8	94.05	**ITS943**	15000	31000
	14	705	4.5	99.94		15000	31000
	13	772	4.1	109.42		15000	31000
	12	853	3.7	121.00		15000	31000
	10	949	3.4	134.54		15000	31000
	9.5	1042	3.1	147.69		15000	31000
	8.2	1197	2.7	169.71		15000	31000
	7.5	1311	2.4	185.82		15000	31000
	6.7	1466	2.2	207.90		15000	31000
	6.1	1611	2.0	228.46		15000	31000
	5.6	1769	1.8	250.80		15000	31000
	4.7	2084	1.5	295.48		15000	31000
	4.3	2281	1.4	323.40		15000	31000
	3.9	2514	1.3	356.40		15000	31000
1.5							
TS90L14-B5/B14	**247**	56	9.0	5.66	**ITS922**	2977	10467
T3A90L14-B5/B14	**198**	69	7.2	7.06		3370	11782
(1400 min^{-1})	**167**	82	6.1	8.37		3704	12900
	153	90	7.2	9.13		3887	13510
	134	102	6.3	10.43		4182	14498
	116	118	5.5	12.04		4520	15630
	104	133	5.7	13.50		4805	16585
	90	152	4.9	15.50		5169	17808
	79	175	5.1	17.81		5558	18500
	64	213	4.2	21.73		6150	18500
	61	225	4.0	22.92		6315	18500
	59	234	3.9	23.80		6433	18500
	53	262	3.4	26.63		6794	18500
	48	287	3.1	29.26		7104	18500
	44	316	3.2	32.14		7420	18500
	40	338	3.0	35.19		7750	18500
	36	379	2.6	39.38		8139	18500
	32	416	2.4	43.27		8465	18500
	29	457	2.2	47.50		8785	18500
	25	538	2.0	55.96		9328	18500
	23	589	1.9	61.25		9500	18500
	21	649	1.7	67.50		9500	18500
	19	721	1.5	75.00	**ITS923**	9500	18500
	16	830	1.3	86.28		9500	18500
	15	909	1.2	94.46		9500	18500
	13	1043	1.1	108.48		9500	18500
	12	1142	1.0	118.77		9500	18500

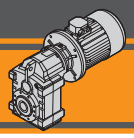
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
1.5							
TS90L14-B5/B14	**155**	89	9.6	9.03	**ITS932**	4297	16485
T3A90L14-B5/B14	**141**	97	9.3	9.90		4523	17311
(1400 min^{-1})	**124**	111	8.1	11.27		4861	18549
	107	128	7.0	13.06		5275	20059
	96	143	6.3	14.58		5603	21257
	83	165	6.1	16.81		6053	22900
	73	189	5.3	19.24		6509	23000
	59	232	5.2	23.57		7248	23000
	57	243	4.9	24.75		7434	23000
	54	254	5.5	25.81		7597	23000
	48	284	4.9	28.88		8047	23000
	40	341	4.8	34.71		8824	23000
	37	373	4.4	38.01		9222	23000
	33	409	4.0	42.53		9751	23000
	30	449	3.7	46.73		10188	23000
	27	493	3.3	51.30		10626	23000
	23	581	2.8	60.44		11404	23000
	21	636	2.6	66.15		11831	23000
	19	701	2.1	72.90		12000	23000
	17	779	2.2	81.00	**ITS933**	12000	23000
	15	896	1.9	93.18		12000	23000
	14	981	1.7	102.02		12000	23000
	12	1127	1.5	117.16		12000	23000
	11	1234	1.4	128.28		12000	23000
	9.2	1464	1.2	152.21		12000	23000
	8.4	1603	1.1	166.65		12000	23000
	7.5	1791	0.9	186.19		12000	23000
	48	289	9.3	29.42	**ITS942**	11078	31000
	45	308	9.7	31.35		11463	31000
	35	389	7.7	39.60		12974	31000
	32	425	6.4	43.25		13584	31000
	29	471	5.7	47.95		14322	31000
	26	514	6.2	53.43		15000	31000
	24	560	5.7	58.22		15000	31000
	22	621	5.2	64.53		15000	31000
	20	677	4.4	70.40		15000	31000
	18	741	4.1	77.00		15000	31000
	15	905	3.5	94.05	**ITS943**	15000	31000
	14	961	3.3	99.94		15000	31000
	13	1052	3.0	109.42		15000	31000
	12	1164	2.7	121.00		15000	31000
	10	1294	2.5	134.54		15000	31000
	9.5	1421	2.3	147.69		15000	31000
	8.2	1632	2.0	169.71		15000	31000
	7.5	1787	1.8	185.82		15000	31000
	6.7	2000	1.6	207.90		15000	31000
	6.1	2197	1.5	228.46		15000	31000
	5.6	2412	1.3	250.80		15000	31000
	4.7	2842	1.1	295.48		15000	31000
	4.3	3111	1.0	323.40		15000	31000

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Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
1.85							
T3A90L24-B5/B14 (1400 min^{-1})	**247**	69	7.3	5.66	**ITS922**	2963	10435
	198	85	5.8	7.06		3350	11737
	167	101	4.9	8.37		3678	12841
	153	111	5.9	9.13		3856	13443
	134	126	5.1	10.43		4145	14415
	116	146	4.5	12.04		4473	15526
	104	164	4.6	13.50		4749	16462
	90	188	4.0	15.50		5099	17656
	79	216	4.2	17.81		5471	18500
	64	263	3.4	21.73		6031	18500
	61	278	3.2	22.92		6185	18500
	59	288	3.1	23.80		6295	18500
	53	323	2.8	26.63		6629	18500
	48	354	2.5	29.26		6913	18500
	44	389	2.6	32.14		7198	18500
	40	417	2.4	35.19		7500	18500
	36	467	2.1	39.38		7840	18500
	32	513	1.9	43.27		8118	18500
	29	563	1.8	47.50		8382	18500
	25	664	1.7	55.96		8806	18500
	23	727	1.5	61.25		9007	18500
	21	801	1.4	67.50		9189	18500
	19	890	1.2	75.00	**ITS923**	9332	18500
	16	1023	1.1	86.28		9411	18500
	15	1121	1.0	94.46		9374	18500
	183	93	9.2	7.65	**ITS932**	3896	15035
	155	109	7.8	9.03		4275	16428
	141	120	7.5	9.90		4497	17246
	124	137	6.6	11.27		4830	18469
	107	158	5.7	13.06		5235	19958
	96	177	5.1	14.58		5555	21137
	83	204	4.9	16.81		5993	22751
	73	233	4.3	19.24		6435	23000
	59	286	4.2	23.57		7145	23000
	57	300	4.0	24.75		7324	23000
	54	313	4.5	25.81		7479	23000
	48	350	4.0	28.88		7906	23000
	40	421	3.9	34.71		8635	23000
	37	460	3.6	38.01		9004	23000
	33	504	3.3	42.53		9495	23000
	30	554	3.0	46.73		9891	23000
	27	609	2.7	51.30		10283	23000
	23	717	2.3	60.44		10959	23000
	21	785	2.1	66.15		11317	23000
	19	865	1.7	72.90		11684	23000
	17	961	1.8	81.00	**ITS933**	12000	23000
	15	1105	1.5	93.18		12000	23000
	14	1210	1.4	102.02		12000	23000
	12	1390	1.2	117.16		12000	23000
	11	1522	1.1	128.28		12000	23000
	9.2	1806	0.9	152.21		12000	23000
	60	283	8.8	23.32	**ITS942**	9683	31000
	48	356	7.6	29.42		10965	31000
	45	380	7.9	31.35		11337	31000
	35	480	6.3	39.60		12793	31000
	32	524	5.2	43.25		13375	31000
	29	581	4.6	47.95		14077	31000
	26	634	5.0	53.43		14868	31000
	24	691	4.6	58.22		15000	31000
	22	766	4.2	64.53		15000	31000
	20	835	3.6	70.40		15000	31000
	18	913	3.3	77.00		15000	31000

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
1.85							
T3A90L24-B5/B14 (1400 min^{-1})	**15**	1116	2.9	94.05	**ITS943**	15000	31000
	14	1186	2.7	99.94		15000	31000
	13	1298	2.5	109.42		15000	31000
	12	1435	2.2	121.00		15000	31000
	10	1596	2.0	134.54		15000	31000
	9.5	1752	1.8	147.69		15000	31000
	8.2	2013	1.6	169.71		15000	31000
	7.5	2204	1.5	185.82		15000	31000
	6.7	2466	1.3	207.90		15000	31000
	6.1	2710	1.2	228.46		15000	31000
	5.6	2975	1.1	250.80		15000	31000
2.2							
TS90LB4-B14 T3A90LB4-B14 TS100L14-B5/B14 T3A100L14-B5/B14 (1400 min^{-1})	**247**	81	6.1	5.66	**ITS922**	2949	10402
	198	102	4.9	7.06		3330	11692
	167	121	4.1	8.37		3651	12782
	153	132	4.9	9.13		3826	13376
	134	150	4.3	10.43		4107	14332
	116	174	3.7	12.04		4427	15423
	104	194	3.9	13.50		4693	16338
	90	223	3.4	15.50		5030	17503
	79	257	3.5	17.81		5384	18500
	64	313	2.9	21.73		5912	18500
	61	330	2.7	22.92		6055	18500
	59	343	2.6	23.80		6158	18500
	53	384	2.3	26.63		6465	18500
	48	422	2.1	29.26		6722	18500
	44	463	2.2	32.14		6976	18500
	40	496	2.0	35.19		7249	18500
	36	555	1.8	39.38		7540	18500
	32	610	1.6	43.27		7770	18500
	29	670	1.5	47.50		7979	18500
	25	789	1.4	55.96		8284	18500
	23	864	1.3	61.25		8405	18500
	21	952	1.2	67.50		8486	18500
	19	1058	1.0	75.00	**ITS923**	8502	18500
	228	88	9.6	6.13	**ITS932**	3429	13323
	183	110	7.7	7.65		3879	14991
	155	130	6.5	9.03		4252	16371
	141	143	6.3	9.90		4471	17180
	124	162	5.5	11.27		4798	18388
	107	188	4.8	13.06		5194	19857
	96	210	4.3	14.58		5507	21017
	83	242	4.1	16.81		5933	22601
	73	277	3.6	19.24		6361	23000
	59	340	3.5	23.57		7043	23000
	57	357	3.4	24.75		7213	23000
	54	372	3.8	25.81		7361	23000
	48	416	3.4	28.88		7765	23000
	40	500	3.3	34.71		8446	23000
	37	548	3.0	38.01		8785	23000
	33	600	2.8	42.53		9240	23000
	30	659	2.5	46.73		9595	23000
	27	724	2.3	51.30		9939	23000
	23	853	1.9	60.44		10514	23000
	21	933	1.8	66.15		10804	23000
	19	1028	1.5	72.90		11085	23000
	17	1143	1.5	81.00	**ITS933**	11343	23000
	15	1314	1.3	93.18		11582	23000
	14	1439	1.2	102.02		11655	23000
	12	1653	1.0	117.16		11604	23000
	11	1810	0.9	128.28		11435	23000



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Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
2.2							
TS90LB4-B14	**98**	205	9.8	14.21	**ITS942**	7340	26991
T3A90LB4-B14	**88**	229	10	15.91		7809	28652
TS100L14-B5/B14	**81**	250	9.6	17.33		8183	29976
T3A100L14-B5/B14	**73**	276	9.1	19.13		8636	31000
(1400 min^{-1})	**60**	336	7.4	23.32		9604	31000
	48	424	6.4	29.42		10851	31000
	45	452	6.6	31.35		11212	31000
	35	571	5.3	39.60		12611	31000
	32	623	4.3	43.25		13167	31000
	29	691	3.9	47.95		13831	31000
	26	754	4.2	53.43		14582	31000
	24	821	3.9	58.22		15000	31000
	22	910	3.5	64.53		15000	31000
	20	993	3.0	70.40		15000	31000
	18	1086	2.8	77.00		15000	31000
	15	1327	2.4	94.05	**ITS943**	15000	31000
	14	1410	2.3	99.94		15000	31000
	13	1544	2.1	109.42		15000	31000
	12	1707	1.9	121.00		15000	31000
	10	1898	1.7	134.54		15000	31000
	9.5	2083	1.5	147.69		15000	31000
	8.2	2394	1.3	169.71		15000	31000
	7.5	2621	1.2	185.82		15000	31000
	6.7	2933	1.1	207.90		15000	31000
	6.1	3223	1.0	228.46		15000	31000
3.0							
T3A100L24-B5	**247**	111	4.5	5.66	**ITS922**	2916	10329
(1400 min^{-1})	**198**	139	3.6	7.06		3284	11589
	167	164	3.0	8.37		3591	12648
	153	179	3.6	9.13		3757	13222
	134	205	3.2	10.43		4022	14143
	116	237	2.7	12.04		4319	15186
	104	265	2.8	13.50		4565	16056
	90	304	2.5	15.50		4870	17153
	79	350	2.6	17.81		5185	18309
	64	427	2.1	21.73		5639	18500
	61	450	2.0	22.92		5759	18500
	59	468	1.9	23.80		5843	18500
	53	523	1.7	26.63		6089	18500
	48	575	1.6	29.26		6286	18500
	44	631	1.6	32.14		6470	18500
	40	677	1.5	35.19		6677	18500
	36	757	1.3	39.38		6856	18500
	32	832	1.2	43.27		6976	18500
	29	914	1.1	47.50		7059	18500
	25	1077	1.0	55.96		7090	18500

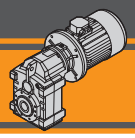
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
3.0							
T3A100L24-B5	**228**	121	7.1	6.13	**ITS932**	3401	13251
(1400 min^{-1})	**183**	150	5.7	7.65		3840	14890
	155	177	4.8	9.03		4201	16240
	141	194	4.6	9.90		4412	17029
	124	221	4.1	11.27		4725	18204
	107	257	3.5	13.06		5103	19626
	96	286	3.1	14.58		5398	20743
	83	330	3.0	16.81		5796	22260
	73	378	2.6	19.24		6191	23000
	59	463	2.6	23.57		6809	23000
	57	486	2.5	24.75		6960	23000
	54	507	2.8	25.81		7091	23000
	48	567	2.5	28.88		7442	23000
	40	682	2.4	34.71		8014	23000
	37	747	2.2	38.01		8287	23000
	33	818	2.0	42.53		8657	23000
	30	899	1.8	46.73		8918	23000
	27	987	1.7	51.30		9154	23000
	23	1163	1.4	60.44		9496	23000
	21	1272	1.3	66.15		9629	23000
	19	1402	1.1	72.90		9715	23000
	17	1558	1.1	81.00	**ITS933**	9724	23000
	15	1792	0.9	93.18		9562	23000
	98	279	7.2	14.21	**ITS942**	7258	26808
	88	313	7.7	15.91		7711	28435
	81	340	7.1	17.33		8071	29728
	73	376	6.7	19.13		8504	31000
	60	458	5.5	23.32		9425	31000
	48	578	4.7	29.42		10592	31000
	45	616	4.9	31.35		10925	31000
	35	778	3.9	39.60		12196	31000
	32	850	3.2	43.25		12689	31000
	29	942	2.9	47.95		13269	31000
	26	1028	3.1	53.43		13929	31000
	24	1120	2.9	58.22		14413	31000
	22	1241	2.6	64.53		14983	31000
	20	1354	2.2	70.40		15000	31000
	18	1481	2.0	77.00		15000	31000
	15	1809	1.8	94.05	**ITS943**	15000	31000
	14	1923	1.7	99.94		15000	31000
	13	2105	1.5	109.42		15000	31000
	12	2328	1.4	121.00		15000	31000
	10	2588	1.2	134.54		15000	31000
	9.5	2841	1.1	147.69		15000	31000
	8.2	3265	1.0	169.71		15000	31000

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Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
4.0							
T3A100L34-B5 T3A112M4-B5 (1400 min^{-1})	**247**	148	3.4	5.66	**ITS922**	2876	10238
	198	185	2.7	7.06		3226	11460
	167	219	2.3	8.37		3516	12480
	153	239	2.7	9.13		3671	13030
	134	273	2.4	10.43		3915	13906
	116	316	2.1	12.04		4186	14891
	104	354	2.1	13.50		4404	15704
	90	406	1.8	15.50		4671	16717
	79	467	1.9	17.81		4937	17767
	64	569	1.6	21.73		5298	18500
	61	600	1.5	22.92		5388	18500
	59	623	1.4	23.80		5450	18500
	53	697	1.3	26.63		5619	18500
	48	766	1.2	29.26		5740	18500
	44	842	1.2	32.14		5836	18500
	40	903	1.1	35.19		5961	18500
	36	1010	1.0	39.38		6001	18500
	32	1110	0.9	43.27		5983	18500
	228	161	5.3	6.13	**ITS932**	3366	13162
	183	200	4.2	7.65		3790	14764
	155	237	3.6	9.03		4137	16077
	141	259	3.5	9.90		4338	16841
	124	295	3.0	11.27		4634	17974
	107	342	2.6	13.06		4988	19337
	96	382	2.4	14.58		5261	20400
	83	440	2.3	16.81		5625	21833
	73	504	2.0	19.24		5979	23000
	59	617	1.9	23.57		6516	23000
	57	648	1.9	24.75		6644	23000
	54	676	2.1	25.81		6753	23000
	48	756	1.9	28.88		7039	23000
	40	909	1.8	34.71		7474	23000
	37	996	1.7	38.01		7663	23000
	33	1091	1.5	42.53		7928	23000
	30	1199	1.4	46.73		8071	23000
	27	1316	1.3	51.30		8173	23000
	23	1550	1.1	60.44		8224	23000
	21	1697	1.0	66.15		8162	23000
	98	372	5.4	14.21	**ITS942**	7155	26580
	88	417	5.8	15.91		7589	28163
	81	454	5.3	17.33		7931	29417
	73	501	5.0	19.13		8340	30929
	60	611	4.1	23.32		9201	31000
	48	771	3.5	29.42		10268	31000
	45	821	3.7	31.35		10567	31000
	35	1037	2.9	39.60		11677	31000
	32	1133	2.4	43.25		12093	31000
	29	1256	2.1	47.95		12567	31000
	26	1370	2.3	53.43		13113	31000
	24	1493	2.1	58.22		13478	31000
	22	1655	1.9	64.53		13882	31000
	20	1806	1.7	70.40		14184	31000
	18	1975	1.5	77.00		14446	31000
	15	2412	1.3	94.05	**ITS943**	14785	31000
	14	2563	1.2	99.94		14800	31000
	13	2807	1.1	109.42		14723	31000
	12	3103	1.0	121.00		14473	31000

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
5.5							
T3A132S4-B5 (1400 min^{-1})	**247**	204	2.5	5.66	**ITS922**	2815	10100
	198	254	2.0	7.06		3140	11266
	167	301	1.7	8.37		3403	12228
	153	329	2.0	9.13		3541	12741
	134	376	1.7	10.43		3755	13552
	116	434	1.5	12.04		3985	14448
	104	486	1.5	13.50		4164	15174
	90	558	1.3	15.50		4371	16061
	79	642	1.4	17.81		4564	16953
	64	783	1.1	21.73		4787	18183
	61	825	1.1	22.92		4832	18494
	59	857	1.1	23.80		4859	18500
	228	221	3.8	6.13	**ITS932**	3314	13027
	183	276	3.1	7.65		3717	14575
	155	325	2.6	9.03		4041	15833
	141	357	2.5	9.90		4226	16559
	124	406	2.2	11.27		4498	17630
	107	470	1.9	13.06		4815	18904
	96	525	1.7	14.58		5056	19886
	83	605	1.7	16.81		5368	21192
	73	693	1.4	19.24		5661	22462
	59	849	1.4	23.57		6077	23000
	57	891	1.3	24.75		6170	23000
	54	930	1.5	25.81		6246	23000
	48	1040	1.3	28.88		6433	23000
	40	1250	1.3	34.71		6663	23000
	37	1369	1.2	38.01		6728	23000
	33	1500	1.1	42.53		6834	23000
	30	1648	1.0	46.73		6801	23000
	27	1809	0.9	51.30		6701	23000
	177	285	5.3	7.93	**ITS942**	5157	19427
	146	345	4.3	9.59		5711	21458
	131	384	4.4	10.67		6041	22671
	118	426	4.0	11.82		6372	23896
	108	465	4.3	12.91		6667	24990
	98	512	3.9	14.21		7002	26238
	88	573	4.2	15.91		7405	27755
	81	624	3.8	17.33		7720	28952
	73	689	3.6	19.13		8095	30386
	60	840	3.0	23.32		8864	31000
	48	1060	2.5	29.42		9782	31000
	45	1129	2.7	31.35		10029	31000
	35	1426	2.1	39.60		10899	31000
	32	1558	1.7	43.25		11198	31000
	29	1727	1.6	47.95		11513	31000
	26	1884	1.7	53.43		11889	31000
	24	2053	1.6	58.22		12076	31000
	22	2276	1.4	64.53		12231	31000
	20	2483	1.2	70.40		12289	31000
	18	2716	1.1	77.00		12262	31000
	15	3317	1.0	94.05	**ITS943**	11787	31000
7.5							
T3A132M4-B5 (1400 min^{-1})	**247**	278	1.8	5.66	**ITS922**	2734	9917
	198	347	1.4	7.06		3025	11008
	167	411	1.2	8.37		3253	11892
	153	448	1.4	9.13		3369	12357
	134	512	1.3	10.43		3542	13078
	116	592	1.1	12.04		3717	13857
	104	663	1.1	13.50		3843	14469
	90	761	1.0	15.50		3972	15188
	79	875	1.0	17.81		4066	15869



Dati tecnici

Technical data

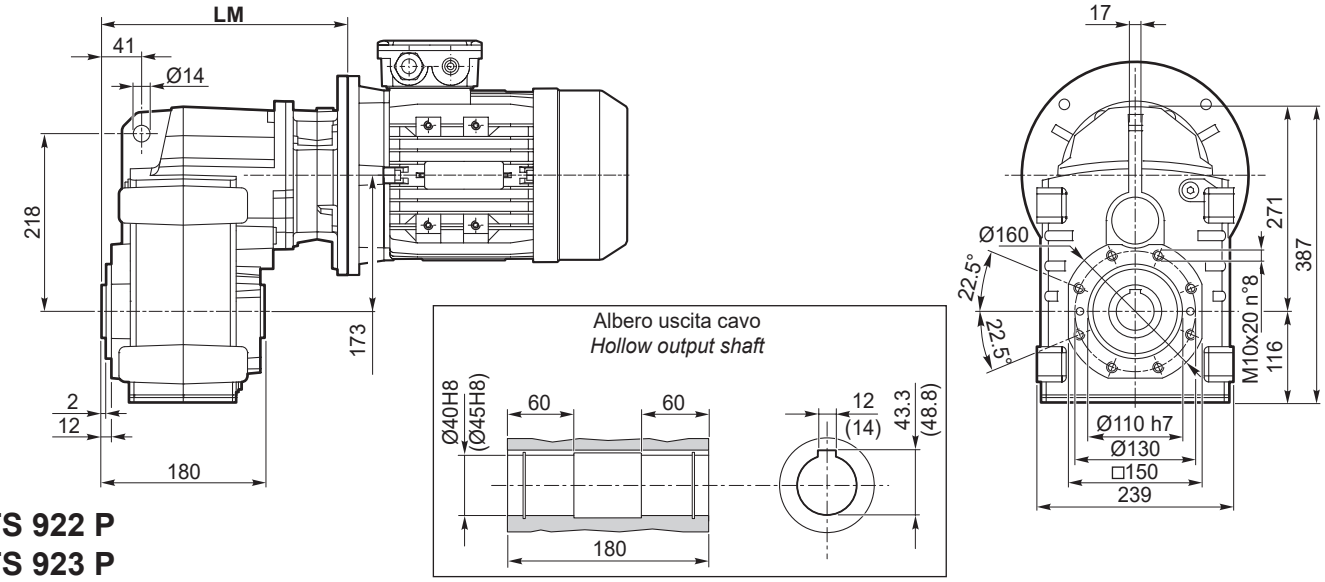
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
7.5							
T3A132M4-B5 (1400 min^{-1})	**228**	301	2.8	6.13	**ITS932**	3245	12848
	183	376	2.3	7.65		3618	14323
	155	444	1.9	9.03		3912	15506
	141	486	1.9	9.90		4078	16183
	124	553	1.6	11.27		4316	17170
	107	642	1.4	13.06		4585	18326
	96	716	1.3	14.58		4782	19201
	83	825	1.2	16.81		5025	20338
	73	945	1.1	19.24		5237	21409
	59	1158	1.0	23.57		5492	22947
	57	1216	1.0	24.75		5538	23000
	54	1268	1.1	25.81		5571	23000
	48	1418	1.0	28.88		5627	23000
	40	1705	1.0	34.71		5583	23000
	177	389	3.9	7.93	**ITS942**	5076	19243
	146	471	3.2	9.59		5601	21210
	131	524	3.2	10.67		5911	22378
	118	581	2.9	11.82		6220	23553
	108	634	3.2	12.91		6492	24597
	98	698	2.9	14.21		6797	25781
	88	781	3.1	15.91		7160	27212
	81	851	2.8	17.33		7440	28332
	73	940	2.7	19.13		7767	29663
	60	1145	2.2	23.32		8415	31000
	48	1445	1.9	29.42		9133	31000
	45	1540	1.9	31.35		9312	31000
	35	1945	1.5	39.60		9861	31000
	32	2124	1.3	43.25		10004	31000
	29	2355	1.1	47.95		10108	31000
	26	2569	1.2	53.43		10256	31000
	24	2800	1.1	58.22		10206	31000
	22	3103	1.0	64.53		10030	31000
9.2							
T3A132M24-B5 (1400 min^{-1})	**247**	341	1.5	5.66	**ITS922**	2666	9762
	198	425	1.2	7.06		2928	10789
	167	504	1.0	8.37		3125	11607
	153	550	1.2	9.13		3222	12030
	134	629	1.0	10.43		3361	12676
	228	370	2.3	6.13	**ITS932**	3186	12696
	183	461	1.8	7.65		3534	14108
	155	544	1.6	9.03		3804	15229
	141	596	1.5	9.90		3952	15864
	124	679	1.3	11.27		4161	16779
	107	787	1.1	13.06		4390	17835
	96	878	1.0	14.58		4550	18619
	83	1012	1.0	16.81		4734	19612
	177	477	3.1	7.93	**ITS942**	5007	19086
	146	578	2.6	9.59		5508	20999
	131	643	2.6	10.67		5800	22130
	118	712	2.4	11.82		6089	23262
	108	778	2.6	12.91		6342	24263
	98	856	2.3	14.21		6623	25394
	88	958	2.5	15.91		6952	26750
	81	1044	2.3	17.33		7202	27805
	73	1153	2.2	19.13		7488	29048
	60	1405	1.8	23.32		8034	31000
	48	1773	1.5	29.42		8582	31000
	45	1889	1.6	31.35		8703	31000
	35	2386	1.3	39.60		8979	31000
	32	2606	1.0	43.25		8990	31000
	29	2889	0.9	47.95		8914	31000
	26	3152	1.0	53.43		8869	31000

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		R_2 U [N]	R_2 P [N
11.0							
T3A160M4-B5 (1400 min^{-1})	**228**	442	1.9	6.13	**ITS932**	3123	12535
	183	551	1.5	7.65		3446	13881
	155	651	1.3	9.03		3688	14935
	141	713	1.3	9.90		3819	15526
	124	812	1.1	11.27		3997	16366
	107	941	1.0	13.06		4183	17315
	177	571	2.6	7.93	**ITS942**	4934	18920
	146	691	2.2	9.59		5409	20776
	131	768	2.2	10.67		5683	21867
	118	851	2.0	11.82		5952	22953
	108	930	2.2	12.91		6184	23910
	98	1024	2.0	14.21		6438	24983
	88	1146	2.1	15.91		6732	26261
	81	1248	1.9	17.33		6950	27246
	73	1378	1.8	19.13		7193	28397
	60	1680	1.5	23.32		7630	30695
	48	2119	1.3	29.42		7999	31000
	45	2258	1.3	31.35		8058	31000
	35	2853	1.1	39.60		8046	31000
15.0							
T3A160L14-B5 (1400 min^{-1})	**228**	603	1.4	6.13	**ITS932**	2984	12177
	183	752	1.1	7.65		3248	13377
	155	887	1.0	9.03		3432	14283
	177	779	1.9	7.93	**ITS942**	4771	18551
	146	942	1.6	9.59		5189	20280
	131	1048	1.6	10.67		5423	21282
	118	1161	1.5	11.82		5646	22267
	108	1268	1.6	12.91		5832	23124
	98	1396	1.4	14.21		6028	24070
	88	1563	1.5	15.91		6242	25174
	81	1702	1.4	17.33		6389	26006
	73	1879	1.3	19.13		6537	26950
	60	2291	1.1	23.32		6733	28729
18.5							
T3A160L24-B5 (1400 min^{-1})	**177**	960	1.6	7.93	**ITS942**	4629	18228
	146	1162	1.3	9.59		4997	19846
	131	1292	1.3	10.67		5196	20770
	118	1432	1.2	11.82		5378	21667
	108	1564	1.3	12.91		5524	22436
	98	1722	1.2	14.21		5670	23271
	88	1927	1.2	15.91		5814	24224
	81	2099	1.1	17.33		5898	24920
	73	2318	1.1	19.13		5963	25685
22.0							
180L4 (1400 min^{-1})	**177**	1142	1.3	7.93	**ITS942**	4487	17905
	146	1382	1.1	9.59		4805	19412
	131	1537	1.1	10.67		4968	20258
	118	1703	1.0	11.82		5110	21067
	108	1859	1.1	12.91		5217	21749
	98	2048	1.0	14.21		5311	22473
	88	2292	1.0	15.91		5385	23273

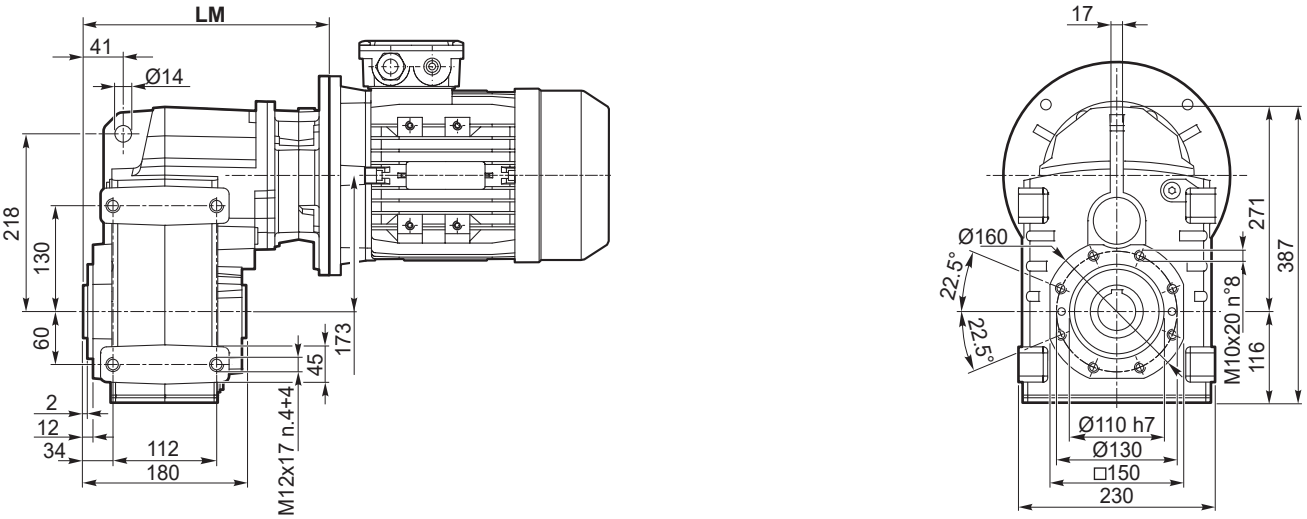
Dimensioni | *Dimensions*

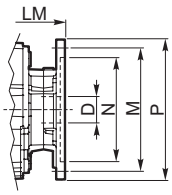
ITS 922 - ITS 923

ITS 922 U
ITS 923 U



ITS 922 P
ITS 923 P



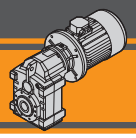


Dimensioni IEC / *IEC Dimensions*								
	71 B5	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
LM	282.5	282.5	282.5	287	286.5	287	307.5	
N	110	130	130	95	180	110	230	130
M	130	165	165	115	215	130	265	165
P	160	200	200	140	250	160	300	200
D	14	19	24		28		38	

TS T2A T3A → E1

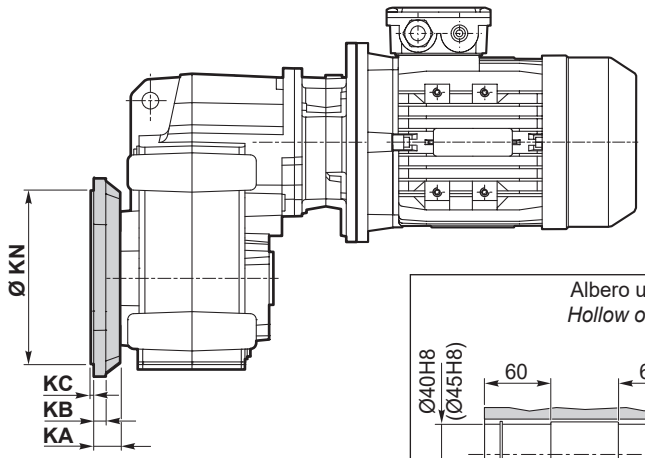
IEC Motori applicabili
IEC Motor adapters → D8

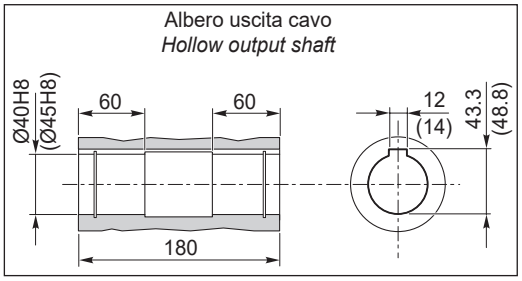
ITSIS.. → D24

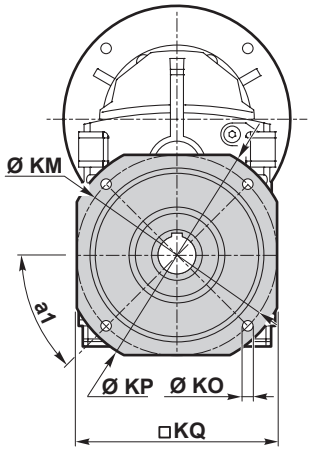


ITS 922 - ITS 923

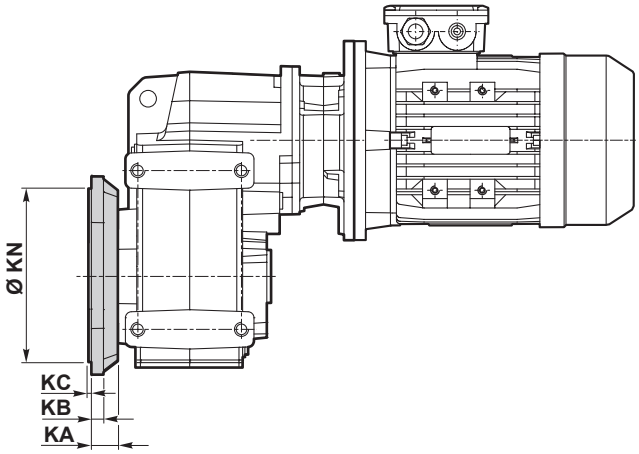
ITS 922 U/F...
ITS 923 U/F...

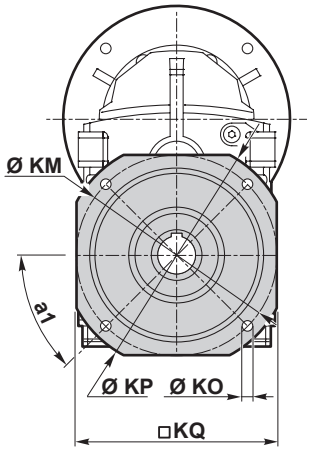






ITS 922 P/F...
ITS 923 P/F...



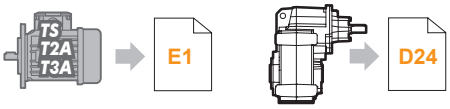


Versione **F** / ***F** Version*											
ITS	**KA**	**a_1**	**KB**	**KC**	**Ø KM**	**KN** f7	**KO**	**KP □**	**KQ**	**Flangia / *Flange*** Tipo / *Type*	**Peso / *Weight* [kg]**
922 923	35	45°	13	4	165	130	11	200	172	**F200**	**2.6**
	35	45°	13	4	215	180	14	250	215	**F250**	**3.8**
	35	45°	13	4	265	230	14	300	265	**F300**	**5.6**

Peso / *Weight [kg]*								
ITS	**71 B5**	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**
922 U	-	42	42	41	44	42	47	44
922 P	-	42	42	41	44	41	47	44
923 U	44	45	45	44	47	44		-
923 P	44	44	44	43	46	44		-

Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

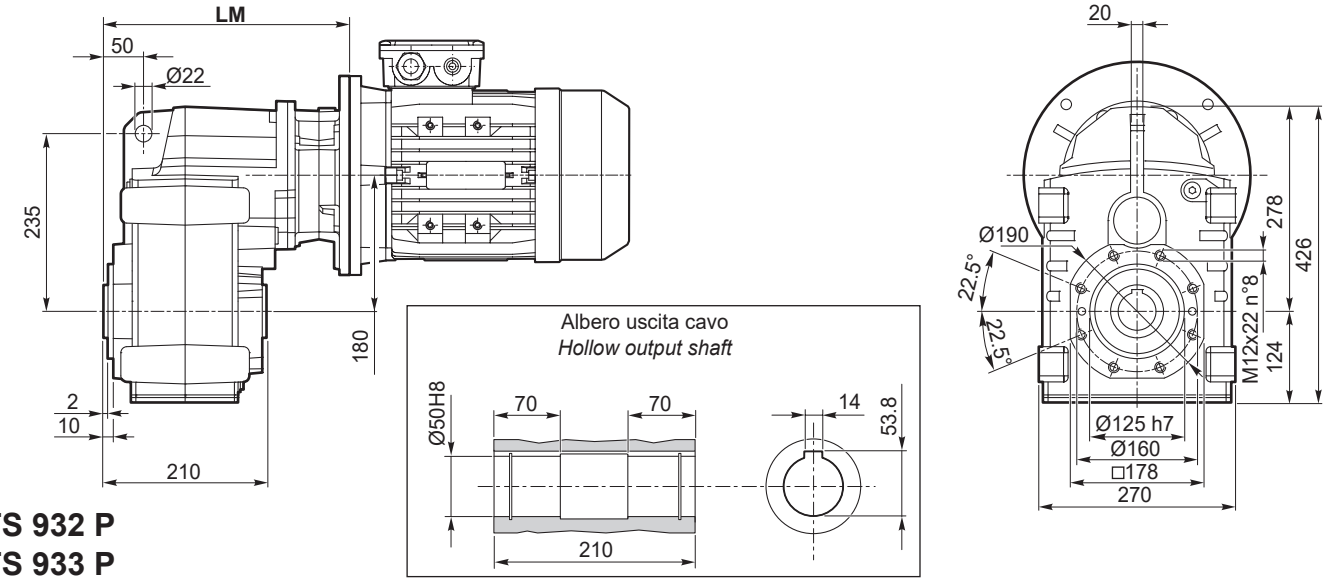
ITSIS..



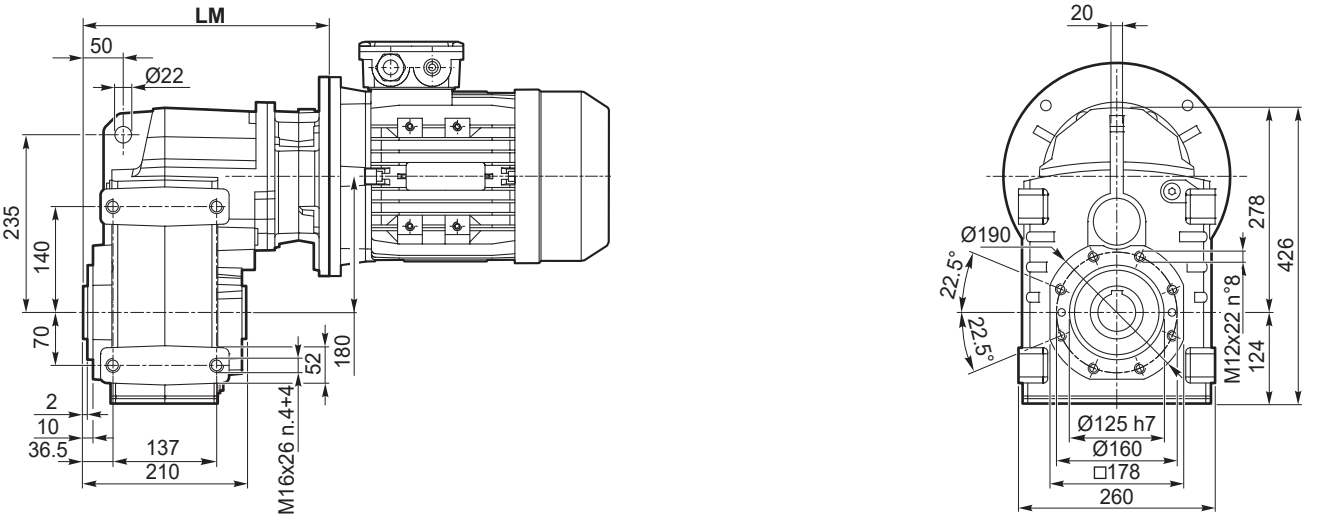
Dimensioni *Dimensions*

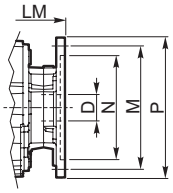
ITS 932 - ITS 933

ITS 932 U
ITS 933 U



ITS 932 P
ITS 933 P



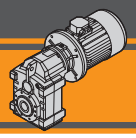


Dimensioni IEC / *IEC Dimensions*									
	71 B5	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**
LM	297.5	297.5	297.5	302	301.5	302	322.5		372.5
N	110	130	130	95	180	110	230	130	250
M	130	165	165	115	215	130	265	165	300
P	160	200	200	140	250	160	300	200	350
D	14	19	24		28		38		42

TS T2A T3A → E1

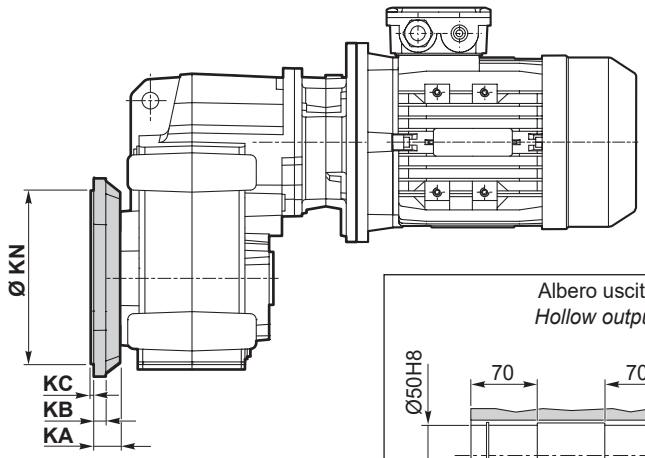
IEC Motori applicabili
IEC Motor adapters → D9

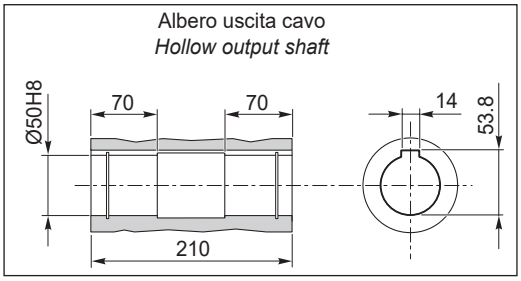
ITSIS.. → D24

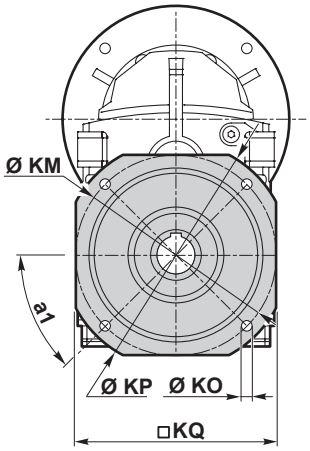


ITS 932 - ITS 933

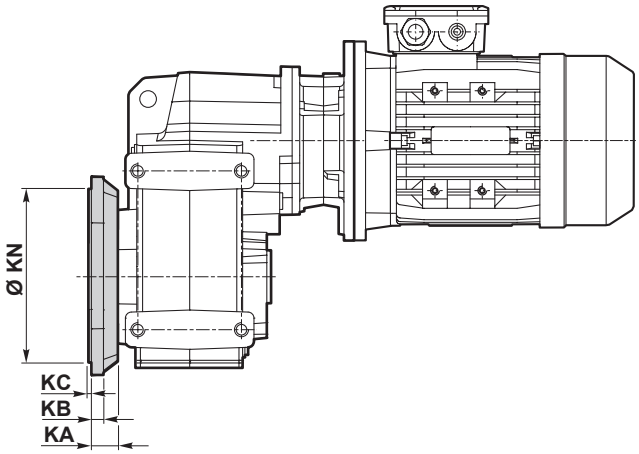
ITS 932 U/F...
ITS 933 U/F...

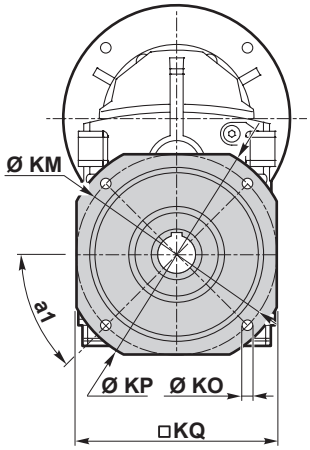






ITS 932 P/F...
ITS 933 P/F...



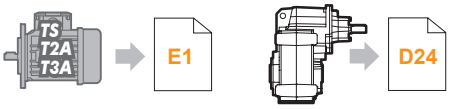


Versione **F** / ***F** Version*											
ITS	**KA**	**a_1**	**KB**	**KC**	**Ø KM**	**KN** f7	**KO**	**KP□**	**KQ**	**Flangia / *Flange*** Tipo / *Type*	**Peso / *Weight* [kg]**
932 933	40	45°	16	4	215	180	14	250	215	**F250**	**4.8**
	40	45°	16	4	265	230	14	300	265	**F300**	**7.1**
	40	45°	16	4	300	250	18	350	300	**F350**	**9.1**

Peso / *Weight [kg]*									
ITS	**71 B5**	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**
932 U	-	55	55	54	57	54	60	57	68
932 P	-	54	54	53	56	54	59	56	68
933 U	58	59	59	58	61	58	-	-	-
933 P	58	58	58	57	60	58	-	-	-

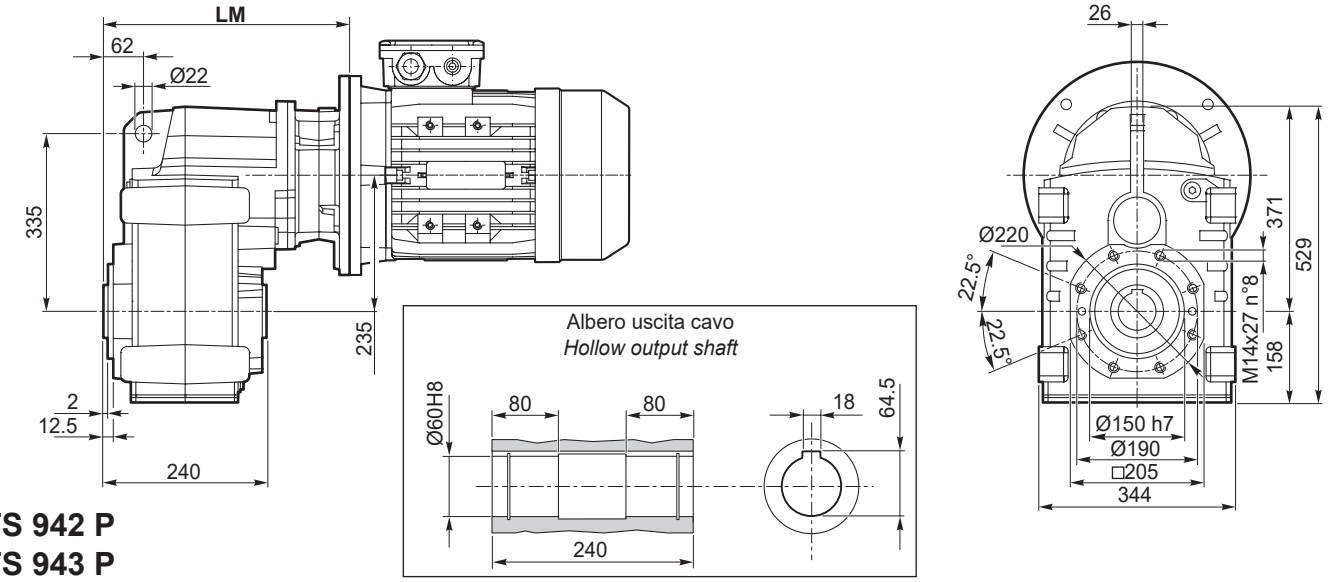
Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

ITSIS..

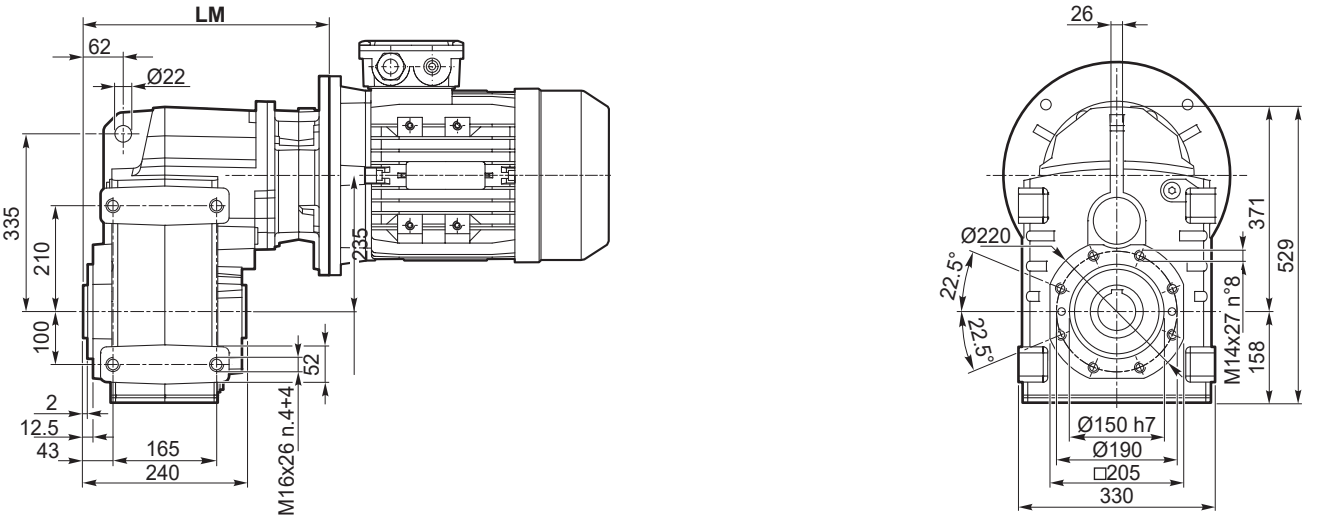


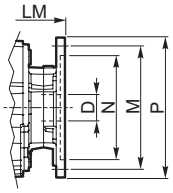
ITS 942 - ITS 943

ITS 942 U
ITS 943 U



ITS 942 P
ITS 943 P



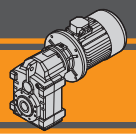


Dimensioni IEC / *IEC Dimensions*									
	80 B5	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**	**180 B5**
LM	325.5	325.5	330	329.5	330	350.5		400.5	400.5
N	130	130	95	180	110	230	130	250	250
M	165	165	115	215	130	265	165	300	300
P	200	200	140	250	160	300	200	350	350
D	19	24		28		38		42	48

TS T2A T3A → E1

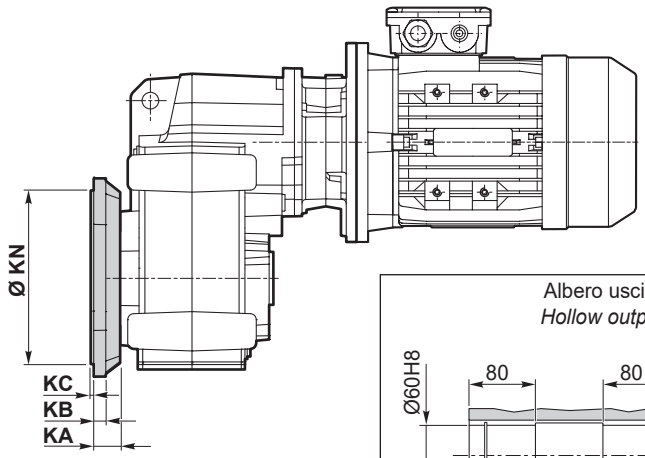
IEC Motori applicabili
IEC Motor adapters → D10

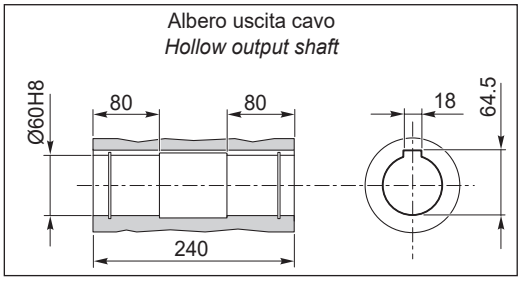
ITSIS.. → D24

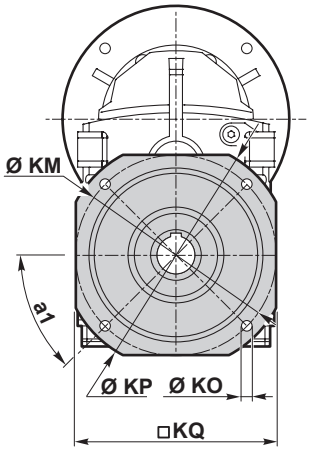


ITS 942 - ITS 943

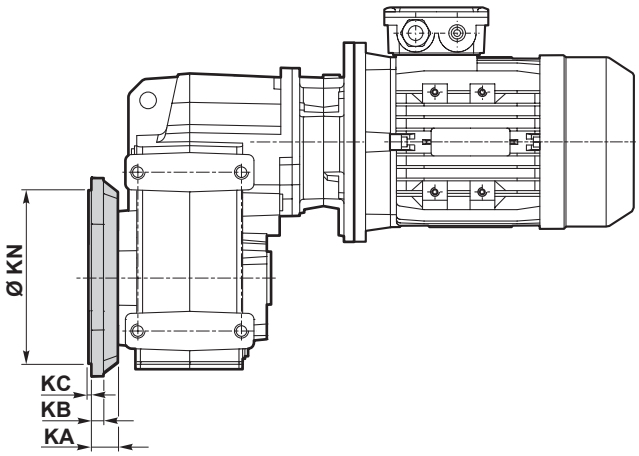
ITS 942 U/F...
ITS 943 U/F...

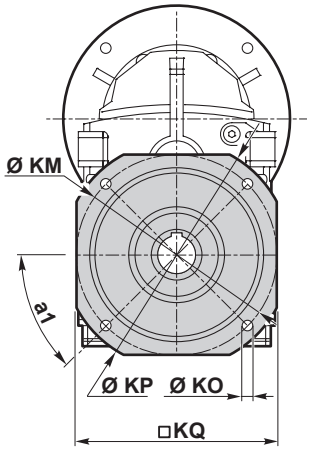






ITS 942 P/F...
ITS 943 P/F...





Versione **F** / ***F** Version*											
ITS	**KA**	**a_1**	**KB**	**KC**	**Ø KM**	**KN** f7	**KO**	**KP□**	**KQ**	**Flangia / *Flange*** Tipo / *Type*	**Peso / *Weight* [kg]**
942 943	42.5	45°	18	4	265	230	14	300	265	**F300**	**7.4**
	42.5	45°	18	5	300	250	18	350	300	**F350**	**10.2**
	42.5	45°	18	5	400	350	18	450	400	**F450**	**16.9**

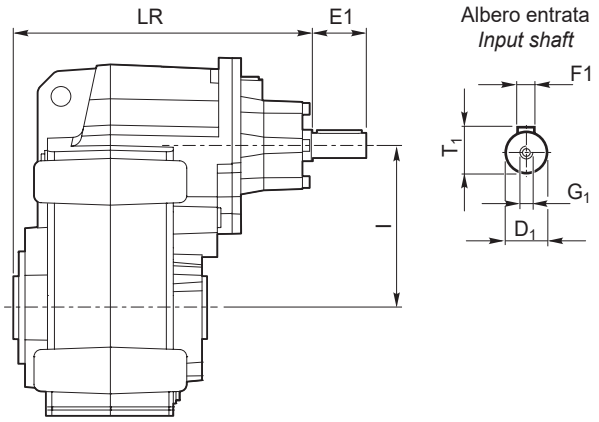
Peso / *Weight [kg]*									
ITS	**80 B5**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**	**132 B5**	**132 B14**	**160 B5**	**180 B5**
942 U	-	93	92	95	92	98	95	109	109
942 P	-	92	91	94	91	97	94	108	108
943 U	99	99	98	101	98	104	101	-	-
943 P	98	98	97	100	97	103	100	-	-

Nota: peso del riduttore complessivo di olio per la posizione M1 (B3)
Note: weight of the gearbox filled with oil for M1 (B3) assembly position

ITSIS..
TS T2A T3A → E1
→ D24

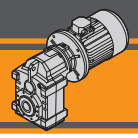
Dimensioni — *Dimensions*

ITSIS...



ITSIS	Versione *Version*	LR	D1	E1	I	T1	F1	G1
922	**U** **P** **U/F...** **P/F...**	315	28	60	173	31	8	M10
923		315	28	60	173	31	8	M10
932		330	28	60	180	31	8	M10
933		330	28	60	180	31	8	M10
942		375.5	38	80	235	41	10	M12
943		358	28	60	235	31	8	M10

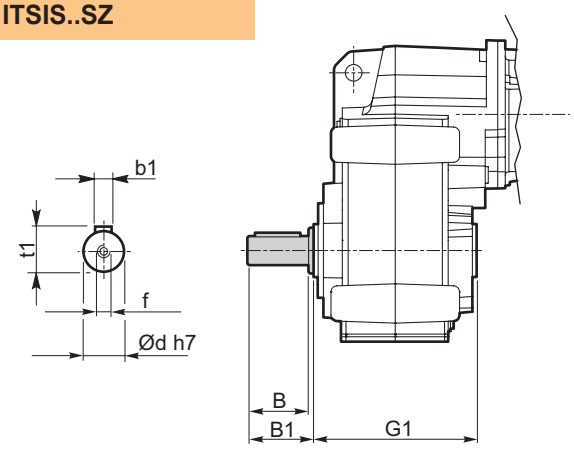
ITSIS	Peso / *Weight* [kg]
922 U	43
922 P	43
923 U	46
923 P	45
932 U	56
932 P	55
933 U	60
933 P	59
942 U	99
942 P	98
943 U	100
943 P	99



Accessori — *Accessories*

Albero lento / *Output shaft*

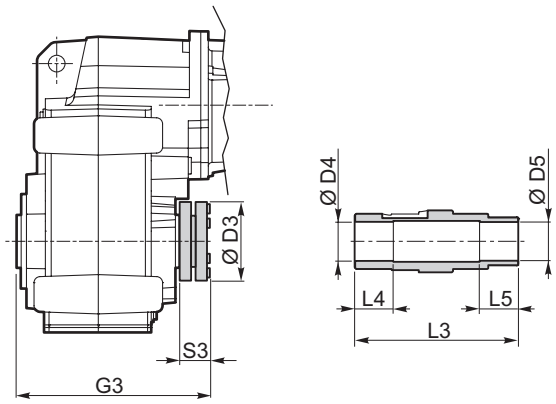
ITS...SZ
ITSIS..SZ



ITS	d h7	B	B1	G1	f	b1	t1	Peso / *Weight* [kg]
922 923	40	80	84	180	M16	12	43	2.2
932 933	50	100	105	210	M16	14	53.5	4.3
942 943	60	120	125	240	M20	18	64	7.1

Albero lento con calettatore / *Output shaft with shrink disk*

ITS...G...
ITSIS..G..



Albero lento con calettatore / *Output shaft with shrink disk*

ITS		D3	D4 H8	D5 H8	G3	L3	L4	L5	S3	G4
922/3	**G40**	100	41	40	217.5	215	45	45	34.5	90
	G45	100	46	45	217.5	215	45	45	34.5	90
932/3	**G50**	110	51	50	247.5	245	50	50	34.5	105
942/3	**G60**	138	61	60	280.5	279	60	60	37.5	120

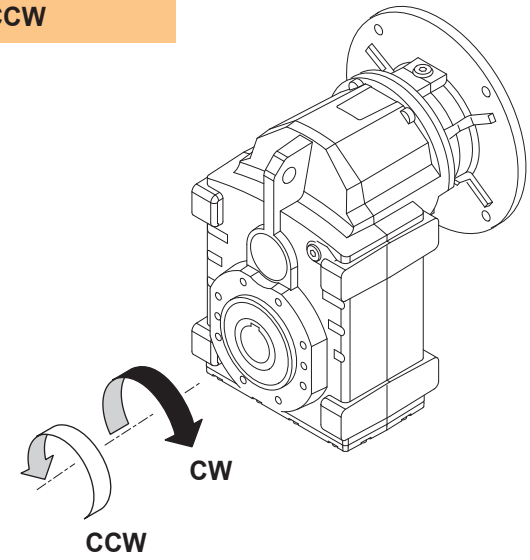
Kit albero uscita con calettatore disponibile a richiesta:
per le istruzioni di montaggio riferirsi al nostro Servizio Tecnico.

Output shaft kit with shrink disk available on request:
for assembly instructions please contact our Technical Service

Accessori / *Accessories*

Dispositivo antiretro / *Backstop device*

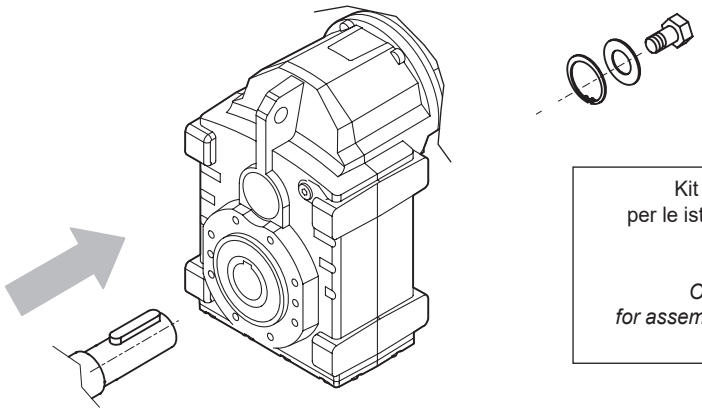
ITS...CW
ITS...CCW



Il dispositivo antiretro permette la rotazione dell'albero in un solo senso senza creare ingombri aggiuntivi.
Prima di utilizzarlo è necessario specificare il senso di rotazione dell'albero di uscita come mostrato in figura.

The backstop device allows the output shaft to rotate in just one direction. Before using it, please specify output shaft rotation direction as shown in the figure.

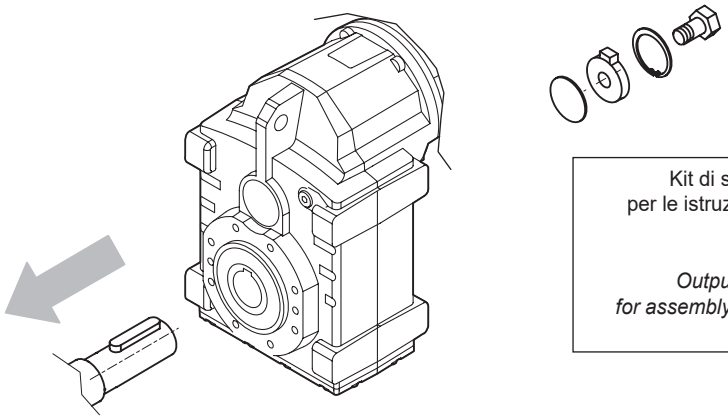
Kit di montaggio albero uscita / *Output shaft assembly kit*



Kit di montaggio albero uscita disponibile a richiesta:
per le istruzioni di montaggio riferirsi al nostro Servizio Tecnico.
Viti escluse dalla fornitura

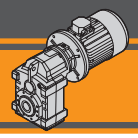
Output shaft assembly kit available upon request:
for assembly instructions please contact our Technical Assistance
Screws not provided

Kit di smontaggio albero uscita / *Output shaft disassembly kit*



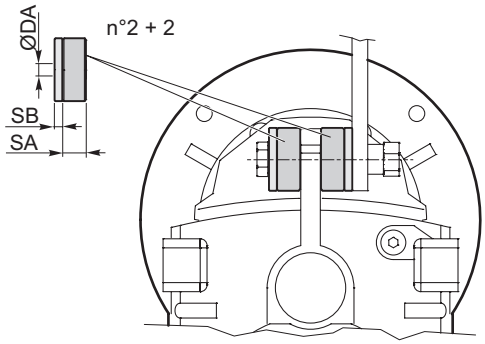
Kit di smontaggio albero uscita disponibile a richiesta:
per le istruzioni di montaggio riferirsi al nostro Servizio Tecnico.
Viti escluse dalla fornitura

Output shaft disassembly kit available upon request:
for assembly instructions please contact our Technical Assistance
Screws not provided



Accessori — *Accessories*

Kit braccio di reazione / *Torque arm kit*



Kit braccio di reazione disponibile a richiesta:
per le istruzioni di montaggio riferirsi al nostro Servizio Tecnico.

Torque arm kit available upon request:
for assembly instructions please contact our Technical Assistance

Braccio di reazione / *Torque arm*

ITS	ØDA	SA	SB
922 **923**	13	15	5
932 **933**	21	30	10
942 **943**	21	30	10

Note / *Notes*

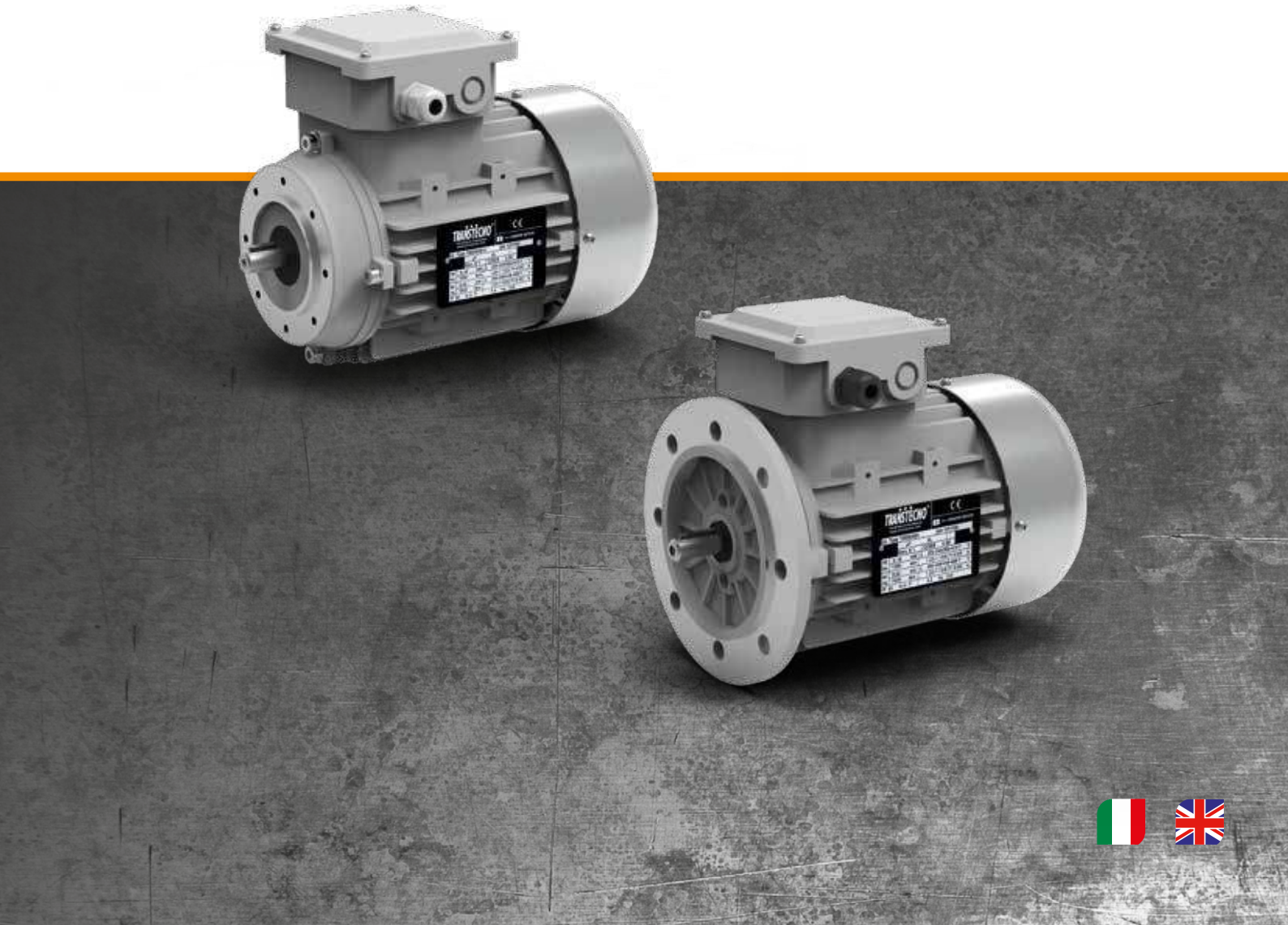
TRANSTECNO®
the modular gearmotor

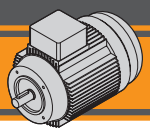
TS - T2A - T3A

TS - T2A - T3A

TS - T2A - T3A Iron

Motori elettrici asincroni trifase CA
AC asynchronous three phase electric motors





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Protezione termica bimetallica (PTO) - solo IE2 e IE3	*Thermal bimetallic protector (PTO) – IE2 and IE3 only*	**E12**
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Tabella pressacavi	*Table of cable glands data*	**E14**
Connessioni e collegamenti	*Connection diagram*	**E14**
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Caratteristiche tecniche

I motori della serie TS, T2A e T3A sono chiusi e dotati di ventola di raffreddamento.
La serie comprende motori ad induzione trifase 230/400 Vca a 50 Hz e 275/480 Vca a 60 Hz, 2-4-6 poli, per potenze da 0.06 kW fino a 15 kW e 400/690V a 18.5 kW.
Silenziosi e dinamicamente ben bilanciati uniscono qualità robustezza e convenienza.
Efficienza livelli IE1, IE2 e IE3.
La serie è costruita in alluminio ed è disponibile in configurazione B5, B14 e B3.

Altre caratteristiche standard dei motori TS, T2 e T3A sono:

- Isolamento termico di classe F
- Grado di protezione IP55 standard
- Sonda bimetallica PTO per protezione da sovratemperatura (solo IE2 e IE3)
- Rumorosità e vibrazioni contenute
- Temperatura ambiente: -20 °C ÷ +40 °C.
- Per uso industriale (industria leggera e pesante) e commerciale.
- Separatore di fase, per uso con convertitore di frequenza (campo frequenza consigliato 30-80Hz, contattare Transtecno per un diverso campo di lavoro)
- Tolleranza sulla tensione di alimentazione: +-10%
- B14 a 8 fori

Technical characteristics

TS, T2A and T3A series motors are closed and fan cooled.
The series includes induction 3-phase 2-4-6 poles motors 230/400 Vac at 50 Hz and 275/480 Vac at 60 Hz, it covers power sizes from 0.06 kW up to 18.5 kW. 18.5 kW standard is 400/690V power supply.
These motors run quietly and are dinamically well balanced; they match quality, strength and cheapness.
IE1, IE2 and IE3 efficiency levels.
The series is made in aluminum frame and is available with B5, B14 and B3.

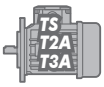
Other TS, T2A and T3A standard features are:

- *Class F thermal insulation*
- *IP55 enclosure protection*
- *PTO thermostat for overheating protection (IE2 and IE3 only)*
- *Low noise and vibrations*
- *Ambient temperature: -20 °C ÷ +40 °C.*
- *Heavy and light industrial applications suitable and commercial ones.*
- *Interwindings insulators, for use with frequency converter (recommended frequency range 30-80Hz, pls,contact Transtecno for a different frequency range)*
- *Supply voltage tolerance: +-10%*
- *B14: 8 holes*

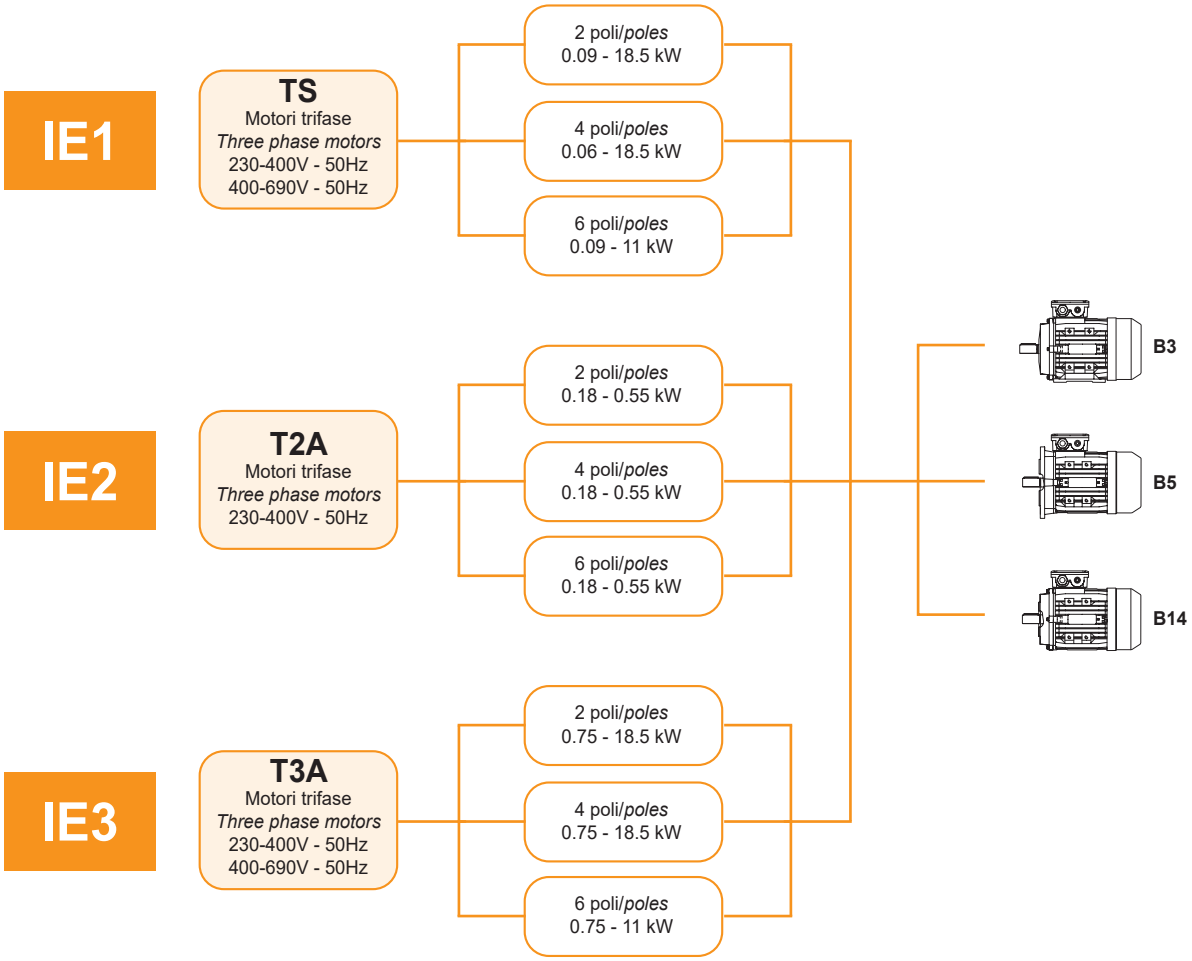
Designazione

Classification

MOTORE TRIFASE / *THREE PHASE MOTOR*

T	2A	63	2	4	0.18 kW	B5	PTO	230-400 V	50 Hz
Tipo *Type*	Efficienza *Efficiency level*	Grandezza *Size*	Indicativo potenza *Power coefficient*	Poli *Poles*	Potenza *Power*	Forma costruttiva *Version*	Protezione termica *Thermal protector*	Tensione *Voltage*	Frequenza *Frequency*
T 	**S** (IE1) **2A** (IE2) **3A** (IE3)	vedi tabelle *see tables*	**1-2-3-S** **L1-L2** **M1-M2**	**2** **4** **6**	**0.06 kW** **...** **11 kW**	**B5** **B14** **B3**	**Null** **PTO**	**230-400 V** **275-480 V** **400-690 V**	**50Hz** **60Hz** **50Hz**

Versioni — *Versions*



Simbologia e formule — *Symbols and formulas*

P_n	[kW]	Potenza nominale	*Rated power*
I_n	[A]	Corrente nominale (a 400V)	*Rated current (at 400V)*
M_n	[Nm]	Coppia nominale	*Rated torque*
n_n	[rpm]	Velocità nominale	*Rated speed*
LR	[dB]	Livello di rumorosità	*Noise Level*
M_s / M_n		Rapporto coppia spunto / coppia nominale	*Ratio start torque / rated torque*
M_k / M_n		Rapporto coppia massima / coppia nominale	*Ratio max torque / rated torque*
M_{sel} / M_n		Rapporto coppia di sella (minima) / coppia nominale	*Ratio saddle torque / rated torque*
I_s / I_n		Rapporto corrente di spunto / corrente nominale	*Ratio start current / rated current*
cosφ		Fattore di potenza al carico nominale	*Power factor at rated torque load*
η		Rendimento al carico nominale	*Efficiency at rated torque load*
Potenza *Power*	[HP]	Potenza [kW] x 1.34 circa	*Power [kW] x 1.34 (about)*
Potenza resa P_n *P_n output power*	[kW]	Potenza assorbita x η	*Absorbed power x η*
Pot. assorbita *Absorbed power*	[kW]	$\frac{V \times I \times PF}{1000}$ (monofase) $\frac{V \times I \times \sqrt{3} \times PF}{1000}$ (trifase)	$\frac{V \times I \times PF}{1000}$ *(singlephase)* $\frac{V \times I \times \sqrt{3} \times PF}{1000}$ *(threephase)*
I_n (230 V)		In (400 V) x √3	*In (400 V) x √3*

Dati tecnici — *Technical data*

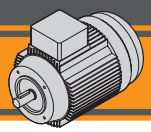
TS Motori trifase / *TS Three phase motors* (230-400 V / 50 Hz - 3000 min^{-1}) poli / *poles* 2

TS			P_n [kW]	M_n [Nm]	n_n [min^{-1}]	I_n (400V) [A]	η %	cosφ	M_s/M_n	I_s/I_n	M_k/M_n	M_{sel}/M_n	LR [dB]	Massa *Mass* [Kg]	Servizio *Duty*	
IE1	561-2	B5 B14	0.09	0.31	2800	0.35	55.4	0.67	2.4	3.5	2.6	2.2	58	2.8	S1	230-400 V
	562-2		0.12	0.40	2840	0.37	65.9	0.71	2.3	4.3	2.6	2.1	58	3.0	S3 70%	
	631-2		0.18	0.62	2780	0.51	66.2	0.77	2.3	4.1	2.5	2.4	61	4.0		
	632-2		0.25	0.86	2780	0.65	70.3	0.79	2.6	4.3	2.5	2.4	61	4.2		
	633-2		0.37	1.28	2750	0.95	71.2	0.79	2.8	4.7	2.6	2.6	62	4.7		
	711-2		0.37	1.25	2830	0.94	71.0	0.80	2.8	5.9	2.9	2.0	64	5.2		
	712-2		0.55	1.87	2815	1.39	71.4	0.80	2.7	6.0	2.7	1.8	64	6.2		
	713-2		0.75	2.54	2820	1.79	73.8	0.82	3.0	6.6	3.0	2.0	65	7.2		
	801-2		0.75	2.53	2830	1.73	75.4	0.83	3.0	6.2	2.8	2.0	67	8.7		
	802-2		1.1	3.70	2840	2.42	79.0	0.83	2.6	6.1	3.1	2.6	67	10.5		
	803-2		1.5	5.08	2820	3.14	81.1	0.85	3.2	7.2	3.0	2.5	70	11.2		
	90S-2		1.5	5.03	2850	3.15	80.9	0.85	2.8	7.7	3.3	2.6	72	12.0		
	90L1-2		2.2	7.35	2860	4.51	82.8	0.85	3.7	8.8	3.9	3.3	72	14.5		
	90L2-2		3	10.12	2830	6.11	82.4	0.86	4.4	8.0	4.2	3.5	74	15.0		
	100L1-2		3	9.98	2870	6.00	83.9	0.86	2.8	8.1	3.2	2.0	76	20.0		
	100L2-2		4	13.31	2870	7.59	85.5	0.89	3.2	8.8	3.4	2.2	77	24.0		
	112M-2		4	13.31	2870	7.25	85.6	0.93	2.6	8.1	2.9	1.8	77	26.0		
	112L-2		5.5	18.17	2890	9.9	87.2	0.92	3.1	9.4	3.3	2.0	78	29.3		
	132S1-2		5.5	18.11	2900	10.2	86.5	0.90	2.3	7.9	3.1	1.5	80	38.4		
	132S2-2		7.5	24.70	2900	13.5	88.1	0.91	2.4	8.5	3.3	1.5	80	41.3		
	132M1-2		9.2	29.99	2930	17.0	87.8	0.89	2.0	7.5	2.2	1.2	81	48.2		
	132M2-2		11	35.85	2930	20.0	88.2	0.90	2.0	7.5	2.2	1.2	83	52.5		
	(400-690 V - 50 Hz - 3000 min^{-1}) su richiesta- *on request* (230- 400V 50 Hz)															
	160M1-2	B5 B14	11	35.98	2920	20.0	89.2	0.89	2.6	7.1	2.9	1.9	86	76.0	S3 70%	400-690V
	160M2-2		15	49.23	2910	27.1	88.8	0.90	2.2	6.4	2.8	1.8	86	83.0		
	160L-2		18.5	60.30	2930	32.6	90.0	0.91	2.9	8.4	3.1	1.7	86	92.3		

TS Motori trifase / *TS Three phase motors* (230-400 V / 50 Hz - 1500 min^{-1}) poli / *poles* 4

TS			P_n [kW]	M_n [Nm]	n_n [min^{-1}]	I_n (400V) [A]	η %	cosφ	M_s/M_n	I_s/I_n	M_k/M_n	M_{sel}/M_n	LR [dB]	Massa *Mass* [Kg]	Servizio *Duty*	
IE1	561-4	B5-B14	0.06	0.42	1360	0.30	52.5	0.55	3.1	3.2	3.2	3.0	50	2.9	S1	230-400 V
	562-4	B5 B14	0.09	0.63	1360	0.39	56.5	0.59	2.3	3.1	2.5	2.8	50	3.2	S1	
	631-4		0.12	0.84	1360	0.49	57.9	0.61	2.65	3.2	2.8	2.7	52	3.7	S3 70%	
	632-4		0.18	1.31	1310	0.63	64.4	0.64	2.8	3.6	2.55	2.4	52	4.4		
	633-4		0.25	1.78	1340	0.80	68.3	0.66	2.7	3.9	2.7	2.4	54	5.0		
	711-4		0.25	1.77	1350	0.76	65.0	0.73	2.0	4.2	2.15	1.7	55	5.1		
	712-4		0.37	2.58	1370	1.05	68.7	0.74	2.25	4.6	2.35	1.95	55	6.1		
	713-4		0.55	3.81	1380	1.54	71.6	0.72	2.8	4.8	2.8	2.4	57	7.2		
	714-4		0.75	5.3	1360	2.24	68.1	0.71	2.7	4.2	2.7	2.4	58	7.7		
	801-4		0.55	3.83	1370	1.51	71.0	0.74	2.25	4.9	2.55	1.95	58	8.3		
	802-4		0.75	5.19	1380	1.85	74.1	0.79	2.5	5.4	2.55	2.05	58	9.7		
	803-4		1.1	7.56	1390	2.69	74.7	0.79	2.9	5.9	2.9	2.4	60	11.7		
	90S-4		1.1	7.50	1400	2.69	75.7	0.78	2.9	6.0	2.7	2.15	61	11.7		
	90L1-4		1.5	10.23	1400	3.56	80.0	0.76	3.4	6.9	3.3	2.7	61	15.0		
	90L2-4		2.2	15.01	1400	5.37	78.8	0.75	3.8	7.2	3.6	3.2	63	17.6		
	100L1-4		2.2	14.80	1420	4.79	80.8	0.82	2.4	6.3	2.7	2.15	64	19.2		
	100L2-4	B5 B14	3	20.18	1420	6.31	83.7	0.82	2.6	6.8	3.0	2.15	64	22.5	S3 70%	
	100L3-4		4	26.71	1430	8.36	84.2	0.82	2.2	7.0	2.3	1.5	65	27.3		
	112M-4		4	26.71	1430	8.17	85.1	0.83	2.5	7.1	2.9	2.05	65	29.0		
	112L-4		5.5	36.48	1440	11.2	86.4	0.82	2.5	7.2	2.95	2.2	68	35.7		
	132S-4		5.5	36.22	1450	10.8	86.5	0.85	2.15	7.5	2.85	1.8	71	39.0		
	132M-4		7.5	49.40	1450	14.2	87.6	0.87	2.1	8.6	2.9	1.7	71	48.6		
	132L1-4		9.2	60.18	1460	17.2	88.7	0.87	2.8	8.4	2.4	2.0	74	56.5		
	132L2-4		11	71.95	1460	20.5	90.1	0.86	2.2	8.9	2.5	2.0	74	64.0		
	(400-690 V - 50 Hz - 1500 min^{-1}) su richiesta- *on request* (230- 400V 50 Hz)															
	160M-4	B5 B14	11	71.95	1460	21.8	87.8	0.83	2.2	6.1	2.25	1.6	75	73.0	S3 70%	400-690V
	160L1-4		15	98.12	1460	28.5	88.3	0.86	2.2	7.3	2.45	1.4	75	88.5		
	160L2-4		18.5	121.01	1460	34.7	90.5	0.85	2.2	7.5	2.2	1.4	78	97.5		

MOTORI PREFERZIALI
PREFERED MOTORS



Dati tecnici — *Technical data*

TS Motori trifase / *TS Three phase motors*

(230-400 V / 50 Hz - 1000 min^{-1}) poli / *poles* 6

TS			P_n [kW]	M_n [Nm]	n_n [min^{-1}]	I_n (400V) [A]	η %	cosφ	M_s/M_n	I_s/I_n	M_k/M_n	M_{sel}/M_n	LR [dB]	Massa *Mass* [Kg]	Servizio *Duty*	
IE1	631-6	B5 B14	0.09	1.02	840	0.41	51.1	0.62	2.0	2.9	2.2	1.9	50	4.2	S1	230-400 V
	632-6		0.12	1.35	850	0.54	53.5	0.60	2.3	2.8	2.2	2.1	50	4.5	S3 70%	
	711-6		0.18	1.95	880	0.61	63.6	0.67	2.15	3.5	2.4	2.0	52	5.6		
	712-6		0.25	2.65	900	0.86	62.6	0.67	2.05	3.2	2.3	2.05	52	6.1		
	713-6		0.37	3.97	890	1.28	65.2	0.64	2.3	3.4	2.5	2.3	54	6.8		
	801-6		0.37	3.93	900	1.13	68.5	0.69	1.95	3.7	2.25	1.8	56	8.1		
	802-6		0.55	5.84	900	1.51	72.0	0.73	2.25	4.3	2.45	2.05	56	9.6		
	803-6		0.75	7.96	900	2.01	72.8	0.74	2.2	4.1	2.4	2.1	58	10.0		
	90S-6		0.75	7.79	920	2.11	72.3	0.71	1.8	4.1	2.2	1.7	59	11.3	S3 70%	
	90L1-6		1.1	11.36	925	3.01	73.3	0.72	1.95	4.2	2.25	1.85	59	14.4		
	100L1-6		1.5	15.16	945	3.72	78.7	0.74	2.05	5.0	2.35	1.8	61	18.8		
	112M-6		2.2	22.00	955	5.11	79.7	0.78	1.9	4.7	2.25	1.75	64	25.0		
	132S-6		3	29.84	960	6.86	82.0	0.77	1.7	5.3	2.15	1.45	64	35.0		
	132M1-6		4	39.79	960	8.92	85.2	0.76	2.3	6.6	2.9	1.6	68	47.6		
	132M2-6		5.5	54.71	960	11.8	86.3	0.78	2.5	6.7	2.7	1.7	68	50.7		
	132L-6		7.5	74.61	960	16.5	85.2	0.77	2.0	6.5	2.0	1.3	68	57.2		
	(400-690 V - 50 Hz - 1000 min^{-1}) su richiesta- *on request* (230- 400V 50 Hz)															
	160M-6	B5 B14	7.5	74.61	960	16.7	86.4	0.75	2.1	6.1	2.7	1.65	68	69.0	S3 70%	400-690V
	160L-6		11	109.43	960	23.4	87.0	0.78	2.25	6.9	2.35	1.5	73	86.0		

T2A Motori trifase / *T2A Three phase motors*

(230-400 V / 50 Hz - 3000 min^{-1}) poli / *poles* 2

T2A			P_n [kW]	M_n [Nm]	n_n [min^{-1}]	I_n (400V) [A]	η %	cosφ	M_s/M_n	I_s/I_n	M_k/M_n	M_{sel}/M_n	LR [dB]	Massa *Mass* [Kg]	Servizio *Duty*	
IE2	631-2	B5 B14	0.18	0.61	2840	0.54	64.5	0.75	2.0	4.7	2.5	1.7	61	3.6	S1	230-400 V
	632-2		0.25	0.84	2840	0.67	68.8	0.78	2.5	5.2	2.7	2.1	61	3.9		
	633-2		0.37	1.24	2840	0.98	69.8	0.78	2.0	5.1	2.4	1.8	62	4.6		
	712-2		0.55	1.85	2840	1.32	74.1	0.81	2.3	5.7	2.5	1.6	64	5.8		

PTO installato / *PTO on board*

T2A Motori trifase / *T2A Three phase motors*

(230-400 V / 50 Hz - 1500 min^{-1}) poli / *poles* 4

MOTORI PREFERZIALI *PREFERED MOTORS*

T2A			P_n [kW]	M_n [Nm]	n_n [min^{-1}]	I_n (400V) [A]	η %	cosφ	M_s/M_n	I_s/I_n	M_k/M_n	M_{sel}/M_n	LR [dB]	Massa *Mass* [Kg]	Servizio *Duty*	
IE2	632-4	B5 B14	0.18	1.25	1380	0.59	64.7	0.68	2.0	3.6	2.1	1.9	52	4.0	S1	230-400 V
	633-4		0.25	1.72	1385	0.79	68.5	0.67	2.1	4.0	2.3	2.0	54	5.0		
	712-4		0.37	2.52	1400	1.01	72.7	0.73	2.4	4.7	2.5	2.0	55	6.3		
	713-4		0.55	3.77	1395	1.41	77.1	0.73	2.5	4.9	2.6	2.4	57	7.5		
	801-4		0.55	3.70	1420	1.47	77.1	0.70	2.4	5.4	2.8	2.2	57	9.0		

PTO installato / *PTO on board*

T2A Motori trifase / *T2A Three phase motors*

(230-400 V / 50 Hz - 1000 min^{-1}) poli / *poles* 6

T2A			P_n [kW]	M_n [Nm]	n_n [min^{-1}]	I_n (400V) [A]	η %	cosφ	M_s/M_n	I_s/I_n	M_k/M_n	M_{sel}/M_n	LR [dB]	Massa *Mass* [Kg]	Servizio *Duty*	
IE2	711-6	B5 B14	0.18	2.02	850	0.69	56.6	0.67	2.0	3.0	2.2	1,8	52	5.1	S1	230-400 V
	712-6		0.25	2.62	910	0.89	61.6	0.66	2.1	3.3	2.3	2.0	52	6.0		
	801-6		0.37	3.82	925	1.20	67.6	0.66	2.0	3.8	2.3	1.8	56	8.9		
	802-6		0.55	5.62	935	1.60	73.1	0.68	2.0	4.0	2.4	2.0	56	10.2		

PTO installato / *PTO on board*

Dati tecnici — *Technical data*

T3A Motori trifase / *T3A Three phase motors* — (230-400 V / 50 Hz - 3000 min^{-1}) poli / *poles* 2

T3A			P_n [kW]	M_n [Nm]	n_n [min^{-1}]	I_n (400V) [A]	η %	cosφ	M_s/M_n	I_s/I_n	M_k/M_n	M_{sel}/M_n	LR [dB]	Massa *Mass* [Kg]	Servizio *Duty*	
IE3	713-2	B5 B14	0.75	2.50	2870	1.64	80.7	0.82	3.0	7.1	3.2	2.2	65	7.1	S1	230-400 V
	802-2		1.1	3.63	2890	2.31	82.7	0.83	3.4	8.7	3.4	2.0	67	10.6		
	803-2		1.5	4.92	2910	3.17	84.2	0.81	4.0	9.6	4.0	2.2	70	12.5		
	90S-2		1.5	4.94	2900	3.14	84.2	0.82	3.5	8.3	3.7	2.1	72	14.0		
	90L-2		2.2	7.22	2910	4.51	85.9	0.82	3.1	8.1	3.5	2.2	72	16.3		
	90L2-2		3	9.85	2910	6.21	87.1	0.80	4.0	9.6	4.1	2.6	74	18.5		
	100L-2		3	9.85	2910	5.59	87.1	0.89	3.2	9.4	3.6	2.6	76	23.7		
	100L2-2		4	13,13	2910	7.28	88.1	0.90	3.3	10.1	3.6	2.3	77	27.6		
	112M-2		4	13,08	2920	7.20	88.1	0.91	3.4	10.5	3.9	2.4	77	30.1		
	112M2-2		5.5	17,99	2920	9.78	89.2	0.91	3.3	11.9	4.2	2.9	78	35.7		
	132S1-2		5.5	17,93	2930	10.0	89.2	0.89	3.2	10.0	4.0	2.5	80	43.4		
	132S2-2		7.5	24,45	2930	13.4	90.1	0.90	3.6	11.9	4.7	2.4	80	51.7		
	132M1-2		9.2	29,99	2930	16.1	90.6	0.91	3.2	11.6	4.2	2.6	81	58.3		
	132M2-2		11	35,85	2930	18.9	91.2	0.92	3.6	12.2	4.1	2.4	83	63.5		
	(400-690 V - 50 Hz - 3000 min^{-1}) su richiesta- *on request* (230- 400V 50 Hz)															
	160M1-2	B5 B14	11	35,49	2960	19.8	91.2	0.88	3.2	10.3	4.0	1.4	86	85.5	S1	400-690V
	160M2-2		15	48,40	2960	26.5	91.9	0.89	3.9	11.4	4.2	1.4	86	104		
	160L1-2		18.5	59,89	2950	31.8	92.4	0.91	3.0	9.1	3.0	1.5	86	121		

PTO installato / *PTO on board*

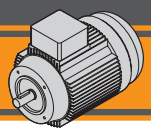
T3A Motori trifase / *T3A Three phase motors* — (230-400 V / 50 Hz - 1500 min^{-1}) poli / *poles* 4

MOTORI PREFERZIALI *PREFERED MOTORS*

T3A			P_n [kW]	M_n [Nm]	n_n [min^{-1}]	I_n (400V) [A]	η %	cosφ	M_s/M_n	I_s/I_n	M_k/M_n	M_{sel}/M_n	LR [dB]	Massa *Mass* [Kg]	Servizio *Duty*	
IE3	802-4	B5 B14	0.75	4.97	1440	1.90	82.5	0.69	3.1	6.3	3.1	2.5	58	11.7	S1	230-400 V
	803-4		1.1	7.35	1430	2.55	84.1	0.74	3.0	6.6	3.1	2.6	61	13.8		
	90S-4		1.1	7.30	1440	2.59	84.1	0.73	4.0	7.1	3.4	2.5	61	15.1		
	90L1-4		1.5	9.95	1440	3.43	85.3	0.74	3.4	7.1	3.3	2.8	61	18.0		
	90L2-4		1.85	12.27	1440	4.28	85.4	0.73	3.2	7.5	3.3	2.7	61	18.0		
	90LB-4		2.2	14.59	1440	4.84	86.7	0.75	3.5	7.7	3.6	3.2	62	20.0		
	100L1-4		2.2	14.49	1450	4.58	86.7	0.80	2.8	7.9	3.3	2.3	64	23.9		
	100L2-4 *	B5	3	19.76	1450	6.33	87.7	0.78	3.3	8.1	3.4	2.7	64	28.3		
	100L3-4 *		4	26.25	1455	8.55	88.6	0.77	3.8	9.0	3.9	2.7	65	29.0		
	112M4 *		4	26.34	1450	7.95	88.6	0.82	3.1	8.6	3.7	2.6	65	33.9		
	112M2-4 *		5.5	36.22	1450	11.1	89.6	0.80	3.8	9.1	3.7	2.5	71	39.1		
	132S-4 *		5.5	36.22	1460	10.5	89.6	0.84	2.3	9.0	3.5	1.9	71	47.4		
	132M4 *		7.5	49.06	1460	14.3	90.4	0.84	2.6	8.9	3.4	2.2	71	57.4		
	132M2-4 *		9.2	60.18	1460	17.8	90.9	0.82	3.2	10.0	3.6	2.0	74	60		
	132M34 *		11	71.95	1460	20.7	91.4	0.84	3.5	10.5	3.7	2.1	75	67		
	(400-690 V - 50 Hz - 1500 min^{-1}) su richiesta- *on request* (230- 400V 50 Hz)															
	160M-4 *	B5	11	71.46	1470	20.9	91.4	0.83	2.6	7.6	2.8	1.8	75	89	S1	400-690V
	160L1-4 *		15	97.45	1470	27.7	92.1	0.85	3.0	9.2	3.0	2.0	75	111		
	160L2-4 *		18.5	120.2	1470	34.3	92.6	0.84	3.1	9.5	3.2	1.5	80	115		

PTO installato / *PTO on board*

* versione B14 a richihesta / *B14 version on request*



Dati tecnici — *Technical data*

T3A Motori trifase / *T3A Three phase motors*

(230-400 V / 50 Hz - 1000 min^{-1}) poli / *poles* 6

T3A			P_n [kW]	M_n [Nm]	n_n [min^{-1}]	I_n (400V) [A]	η %	cosφ	M_s/M_n	I_s/I_n	M_k/M_n	M_{sel}/M_n	LR [dB]	Massa *Mass* [Kg]	Servizio *Duty*	
IE3	90S-6	B5 B14	0.75	7.54	950	2.05	78.9	0.67	2.3	4.7	2.6	2.1	59	13.8	S1	230-400 V
	90L-6		1.1	11.06	950	2.93	81.0	0.67	2.7	5.2	2.9	2.5	59	16.2		
	90L2-6		1.5	15.08	950	3.92	82.5	0.67	2.9	5.6	3.0	2.6	61	21.3		
	100L6		1.5	15.00	955	3.75	82.5	0.70	2.4	5.5	2.9	2.2	61	22.1		
	100L2-6		2.2	22.00	955	5.23	84.3	0.72	2.5	6.2	3.0	2.3	64	27.7		
	112M-6		2.2	21.77	965	5.54	84.3	0.68	2.0	5.5	2.5	1.8	64	27.1		
	112M2-6		3	29.69	965	7.33	85.6	0.69	2.5	6.3	2.9	1.9	64	33.1		
	132S-6		3	29.69	965	6.84	85.6	0.74	2.0	6.0	2.7	1.7	64	38.6		
	132M1-6		4	39.38	970	8.99	86.8	0.74	2.3	6.8	3.0	1.8	68	47.6		
	132M2-6		5.5	53.87	975	12.7	88.0	0.71	2.9	7.4	3.5	2.2	68	55.7		
	132M3-6		7.5	73.84	970	16.9	89.1	0.72	3.3	8.3	3.3	2.0	68	67.6		
	(400-690 V - 50 Hz - 1000 min^{-1}) su richiesta- *on request* (230- 400V 50 Hz)															
	160M-6	B5 B14	7.5	73.46	975	16.0	89.1	0.76	2.2	7.3	2.9	1.8	68	79.6	S1	400-690V
	160L-6		11	107.74	975	22.5	90.3	0.78	2.7	8.4	2.9	1.2	73	105		

PTO installato / *PTO on board*

Dati tecnici: dimensioni motori — *Technical data : motor dimensions*

Dimensioni motori trifase serie TS — B5 — *TS Series three phase motor dimensions*

TS	Albero / *Shaft*					B5											
	D	E	DH	GA	F	P	M	N	S	T	AC	AD	AF	KK	L	LL	V
56	9	20	M3	10.2	3	120	100	80	7	3	110	98	88	1-M16x1.5	196	88	14
63	11	23	M4	12.5	4	140	115	95	10	3	121	108	94	1-M16x1.5	220	94	14
71 1/2 (3)	14	30	M5	16	5	160	130	110	10	3.5	139	116	94	1-M20x1.5	241 (255)	94	20
80	19	40	M6	21.5	6	200	165	130	12	3.5	156	133	105	1-M20x1.5	290	105	27
90S	24	50	M8	27	8	200	165	130	12	3.5	175	141	105	1-M20x1.5	312	105	30
90L1	24	50	M8	27	8	200	165	130	12	3.5	175	141	105	1-M20x1.5	337	105	30
100L 1/2	28	60	M10	31	8	250	215	180	15	4	196	152	105	2-M20x1.5	368/386	105	26
112M/L	28	60	M10	32	8	250	215	180	15	4	221	169	112	2-M25x1.5	397	112	32
132S	38	80	M12	41	10	300	265	230	15	4	256	187	112	2-M25x1.5	437	112	38
132M/L	38	80	M12	41	10	300	265	230	15	4	256	187	112	2-M25x1.5	475/501	112	38
160M/L	42	110	M16	49	12	350	300	250	19	5	313	226	143	2-M32x1.5	641	143	64

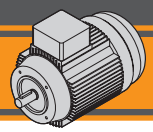
Dimensioni motori trifase serie TS — B14 — *TS Series three phase motor dimensions*

TS	Albero / *Shaft*					B14											
	D	E	DH	GA	F	P	M	N	S	T	AC	AD	AF	KK	L	LL	V
56	9	20	M3	10.2	3	80	65	50	M5	2.5	110	98	88	1-M16x1.5	196	88	14
63	11	23	M4	12.5	4	90	75	60	M5	2.5	121	108	94	1-M16x1.5	220	94	14
71 1/2 (3)	14	30	M5	16	5	105	85	70	M6	2.5	139	116	94	1-M20x1.5	241 (255)	94	20
80	19	40	M6	21.5	6	120	100	80	M6	3	156	133	105	1-M20x1.5	290	105	27
90S	24	50	M8	27	8	140	115	95	M8	3	175	141	105	1-M20x1.5	312	105	30
90L 1/2	24	50	M8	27	8	140	115	95	M8	3	175	141	105	1-M20x1.5	337 / 367	105	30
100L 1/2	28	60	M10	31	8	160	130	110	M8	3.5	196	152	105	2-M20x1.5	368/386	105	26
112M/L	28	60	M10	32	8	160	130	110	M8	4	221	169	112	2-M25x1.5	397	112	32
132S	38	80	M12	41	10	200	165	130	M10	4	256	187	112	2-M25x1.5	437	112	38
132M/L	38	80	M12	41	10	200	165	130	M10	4	256	187	112	2-M25x1.5	475/501	112	38
160M/L	42	110	M16	49	12	250	215	180	M12	4	313	226	143	2-M32x1.5	641	143	64

Dimensioni motori trifase serie TS — B3 — *TS Series three phase motor dimensions*

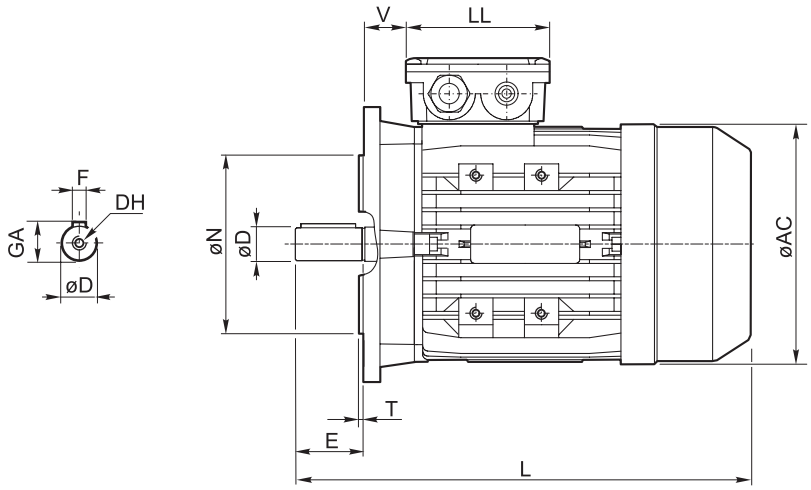
TS	Albero / *Shaft*					B3													
	D	E	DH	GA	F	A	E1	F1	G	G1	H	I	AC	AD	AF	KK	L	LL	V
56	9	20	M4	10.2	3	56	36	71	90	110	5.8x8.8	6.5	110	98	88	1-M16x1.5	196	88	14
63	11	23	M4	12.5	4	63	40	80	100	124	7x10	7	121	108	94	1-M16x1.5	218	94	14
71 1/2 (3)	14	30	M5	16	5	71	45	90	112	140	7x10	10	139	116	94	1-M20x1.5	241 (255)	94	20
80	19	40	M6	21.5	6	80	50	100	125	160	10x13	10	156	133	105	1-M20x1.5	290	105	27
90S	24	50	M8	28	8	90	56	100	140	175	10x13	12	175	141	105	1-M20x1.5	312	105	30
90L 1/2	24	50	M8	28	8	90	56	125	140	175	10x13	12	175	141	105	1-M20x1.5	337/367	105	30
100L 1/2	28	60	M10	32	8	100	63	140	160	200	12x15	14	198	152	105	2-M20x1.5	368/386	105	26
112M/L	28	60	M10	32	8	112	70	140	190	230	12x15	14	221	169	112	2-M25x1.5	397	112	32
132S	38	80	M12	41	10	132	89	140	216	255	12x15	16	256	187	112	2-M25x1.5	437	112	38
132M/L	38	80	M12	41	10	132	89	178	216	255	12x15	16	256	187	112	2-M25x1.5	475/501	112	38
160M/L	42	110	M16	49	12	160	108	210/254	254	314	15x19	16	313	226	143	2-M32x1.5	641	143	64

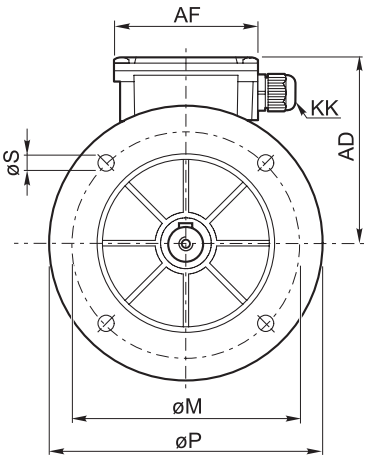
Nota: I piedi sono avvitati fino alla taglia 132 / **Note:** *foot removable up to size 132*



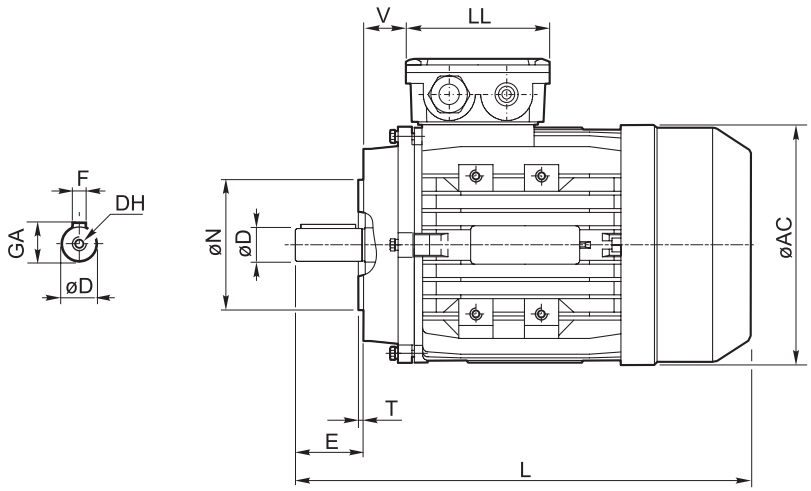
Dati tecnici: dimensioni motori *Technical data: motor dimensions*

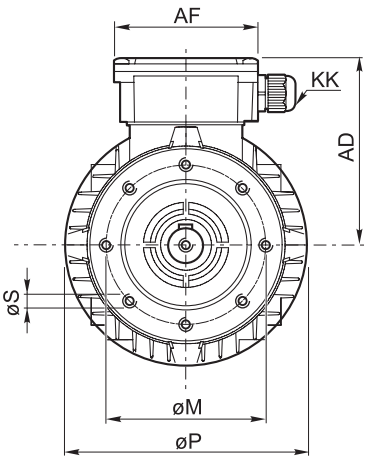
Dimensioni motori trifase serie TS B5 *TS Series three phase motor dimensions*



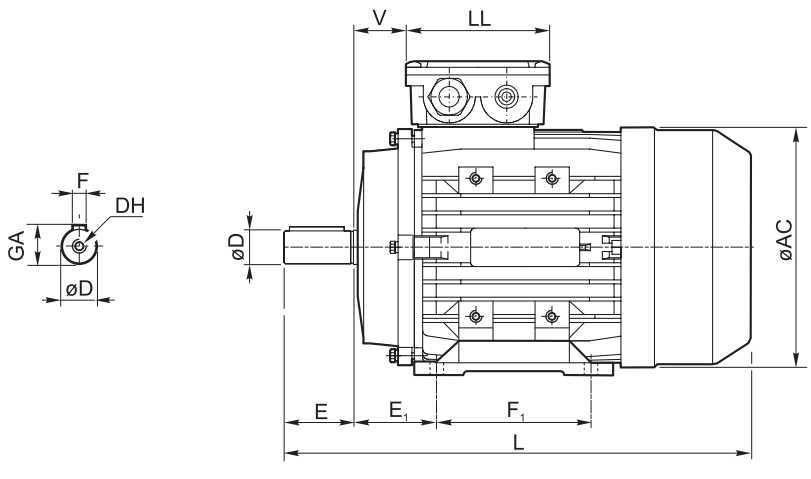


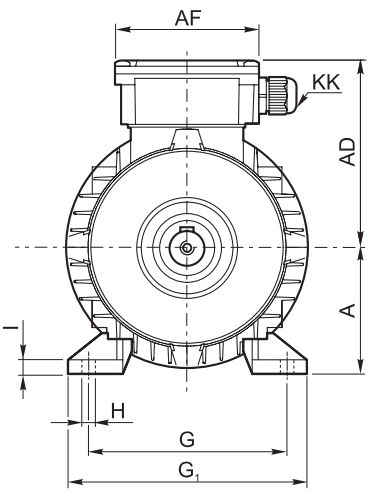
Dimensioni motori trifase serie TS B14 *TS Series three phase motor dimensions*





Dimensioni motori trifase serie TS B3 *TS Series three phase motors dimensions*





TS-T2A-T3A

Dati tecnici: dimensioni motori — *Technical data: motor dimensions*

Dimensioni motori trifase serie T2A / T3A B5 *T2A / T3A Series three phase motor dimensions*

T2A T3A	Albero / *Shaft*					B5											
	D	E	DH	GA	F	P	M	N	S	T	AC	AD	AF	KK	L	LL	V
63	11	23	M4	12.5	4	140	115	95	10	3	122	110	98	1-M16x1.5	217	98	10
71 1/2/3	14	30	M5	16	5	160	130	110	10	3.5	138	119	98	1-M20x1.5	245	98	16
80	19	40	M6	21.5	6	200	165	130	12	3.5	157	137	109	1-M20x1.5	280	109	27
90S	24	50	M8	28	8	200	165	130	12	3.5	176	147	109	1-M20x1.5	315	109	28.5
90L1/L2/B	24	50	M8	28	8	200	165	130	12	3.5	176	147	109	1-M20x1.5	340	109	28.5
100L1/2/3	28	60	M10	32	8	250	215	180	15	4	199	162	118	2-M20x1.5	376	118	32
112M/L	28	60	M10	32	8	250	215	180	15	4	220	175	118	2-M25x1.5	398	118	33
132S	38	80	M12	41	10	300	265	230	15	4	260	195	118	2-M25x1.5	460	118	37
132M/L	38	80	M12	41	10	300	265	230	15	4	260	195	118	2-M25x1.5	498	118	37
160M/L	42	110	M16	49	12	350	300	250	19	5	314	235	148	2-M32x1.5	616-660	148	64

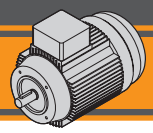
Dimensioni motori trifase serie T2A / T3A B14 *T2A / T3A Series three phase motor dimensions*

T2A T3A	Albero / *Shaft*					B14											
	D	E	DH	GA	F	P	M	N	S	T	AC	AD	AF	KK	L	LL	V
63	11	23	M4	12.5	4	90	75	60	M5	2.5	122	110	98	1-M16x1.5	217	98	10
71 1/2/3	14	30	M5	16	5	105	85	70	M6	2.5	138	119	98	1-M20x1.5	245	98	16
80	19	40	M6	21.5	6	120	100	80	M6	3	157	137	109	1-M20x1.5	280	109	27
90S	24	50	M8	28	8	140	115	95	M8	3	176	147	109	1-M20x1.5	315	109	28.5
90L1/L2/B	24	50	M8	28	8	140	115	95	M8	3	176	147	109	1-M20x1.5	340	109	28.5
100L1/2/3	28	60	M10	32	8	160	130	110	M8	3.5	199	162	118	2-M20x1.5	376	118	32
112M/L	28	60	M10	32	8	160	130	110	M8	3.5	220	175	118	2-M25x1.5	398	118	33
132S	38	80	M12	41	10	200	165	130	M10	3.5	260	195	118	2-M25x1.5	460	118	37
132M/L	38	80	M12	41	10	200	165	130	M10	3.5	260	195	118	2-M25x1.5	498	118	37
160M/L	42	110	M16	49	12	250	215	180	M12	4	314	235	148	2-M32x1.5	616-660	148	64

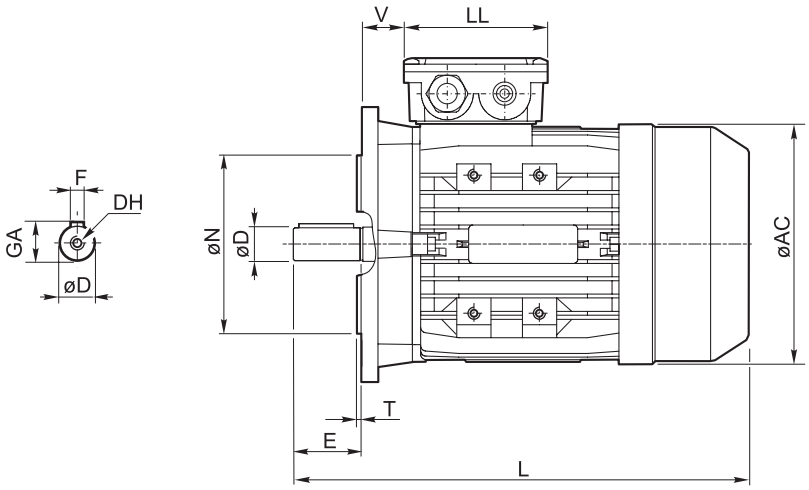
Dimensioni motori trifase serie T2A / T3A B3 *T2A / T3A Series three phase motor dimensions*

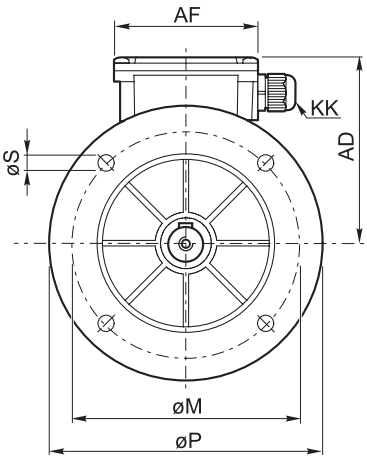
T2A T3A	Albero / *Shaft*					B3													
	D	E	DH	GA	F	A	E1	F1	G	G1	H	I	AC	AD	AF	KK	L	LL	V
63	11	23	M4	12.5	4	63	40	80	100	124	7x10	7	122	110	98	1-M16x1.5	217	98	10
71	14	30	M5	16	5	71	45	90	112	140	7x10	10	138	119	98	1-M20x1.5	245	98	16
80	19	40	M6	21.5	6	80	50	100	125	160	10x15	10	157	137	109	1-M20x1.5	280	109	27
90S	24	50	M8	28	8	90	56	100	140	176	10x15	12	176	147	109	1-M20x1.5	315	109	28.5
90L1/L2/B	24	50	M8	28	8	90	56	125	140	176	10x15	12	176	147	109	1-M20x1.5	340	109	28.5
100L1/2/3	28	60	M10	32	8	100	63	140	160	200	12x16	14	199	162	118	2-M20x1.5	376	118	32
112M/L	28	60	M10	32	8	112	70	140	190	224	12x16	14	220	175	118	2-M25x1.5	398	118	33
132S	38	80	M12	41	10	132	89	140	216	260	12x16	16	260	195	118	2-M25x1.5	460	118	37
132M/L	38	80	M12	41	10	132	89	178	216	260	12x16	16	260	195	118	2-M25x1.5	498	118	37
160M/L	42	110	M16	49	12	160	108	210/254	254	314	15x21	16	314	235	148	2-M32x1.5	616-660	148	64

Nota: I piedi sono avvitati fino alla taglia 132 / **Note:** *foot removable up to size 132*

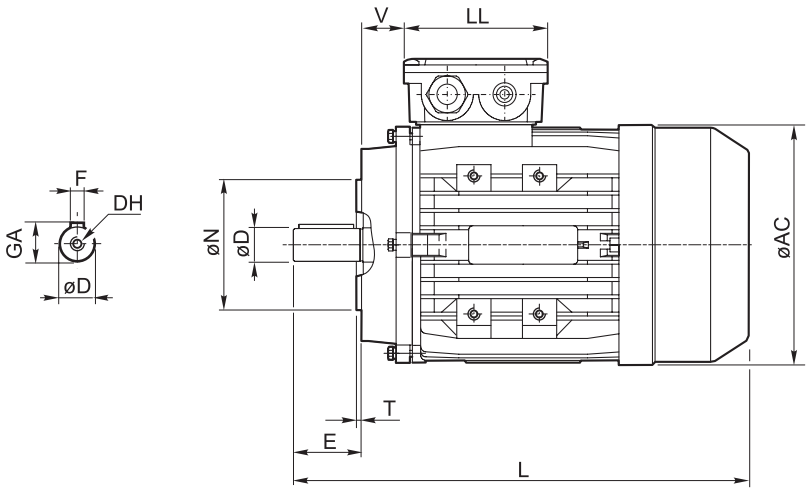


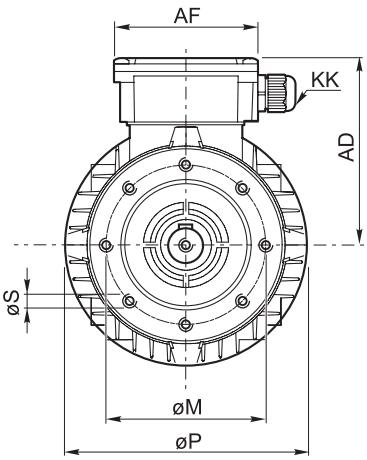
Dimensioni motori trifase serie T2A / T3A B5 *T2A / T3A Series three phase motor dimensions*



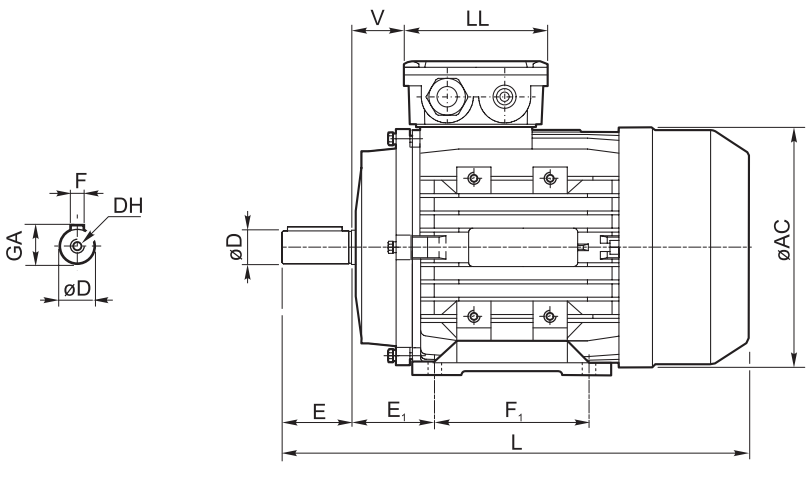


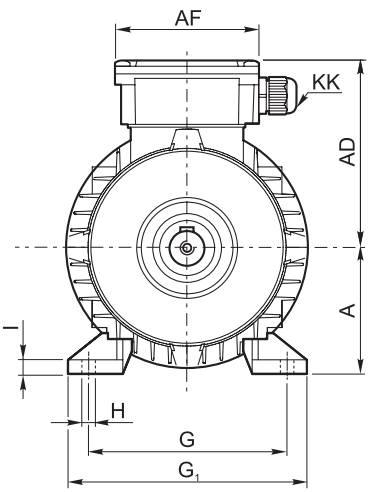
Dimensioni motori trifase serie T2A / T3A B14 *T2A / T3A Series three phase motor dimensions*





Dimensioni motori trifase serie T2A / T3A B3 *T2A / T3A Series three phase motor dimensions*



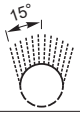
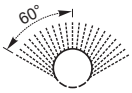
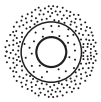
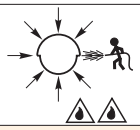
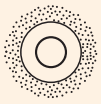


Grado di protezione IP — *IP protection rating*

Indica il grado di isolamento meccanico del corpo motore.
1ª cifra protezione alla penetrazione di corpi solidi.

2ª cifra protezione contro la penetrazione d'acqua.

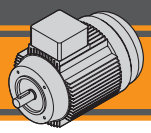
IP protection rating indicates the degree of mechanical insulation of the motor casing.
The 1st figure indicates the level of protection against the intrusion of solid matter.
The 2nd figure indicates to which degree the motor is waterproof.

IP		Definizione / *Description*	IP		Definizione / *Description*
0		Non protetto / *No protection*	0		Non protetto / *No protection*
1		Protetto da corpi solidi superiori a Ø 50 mm. *Protected against solid matter (over Ø 50 mm).*	1		Protetto contro la caduta verticale di gocce d'acqua. *Protected against drops of water falling vertically.*
2		Protetto da corpi solidi superiori a Ø 12 mm. *Protected against solid matter (over Ø 12 mm).*	2		Protetto contro la caduta verticale di gocce d'acqua con inclinazione max di 15°. *Protected against drops of water falling up to 15°.*
3		Protetto da corpi solidi superiori a Ø 2.5 mm. *Protected against solid matter (over Ø 2.5 mm).*	3		Protetto contro la pioggia. *Rain proof.*
4		Protetto da corpi solidi superiori a Ø1 mm. *Protected against solid matter (over Ø1 mm).*	4		Protetto contro gli spruzzi. *Splash proof.*
5		Protetto contro la polvere. *Dust protected.*	5		Protetto contro getti d'acqua. *Water jet proof.*
6		Totalmente protetto contro la polvere. *Fully dust tight.*	6		Protetto dalle ondate. *Waveproof.*
7		N.A.	7		Protetto contro immersione. *Immersion up to 1 metre.*
8		N.A.	8		Protetto contro immersione/sommersione prolungata. *Immersion beyond 1 metre.*

Protezione termica bimetallica (PTO) - solo IE2 e IE3 — *Thermal bimetallic protector (PTO) – IE2 and IE3 only*

La serie T2A/T3A (IE2 e IE3) è dotata di pastiglia termica bimetallica (PTO) per il monitoraggio del superamento della soglia termica (135°C ± 5°C). Utile per applicazioni che possono raggiungere temperature elevate. Sotto alcuni esempi dell'utilizzo.La pastiglia termica in dotazione standard è un contatto normalmente chiuso: si apre al superamento della temperatura di soglia. La protezione termica PTO (Power Take Off), è un contatto bimetallico, cioè composto da 2 metalli, abbracciati da una molla. La diversa dilatazione termica induce lo scostamento dei due metalli al superamento della soglia di intervento. La lettura del segnale è un semplice chiuso-aperto.
Esso può essere letto da un PLC, oppure portato all'ingresso di un terminale di un convertitore di frequenza. Solitamente la PTO viene gestita attraverso un teleruttore: utilizzata per interrompere l'alimentazione di un teleruttore che, a sua volta, interrompe l'alimentazione del motore.
Attenzione: il riarmo è automatico a circa 90-95°C. si consiglia fortemente l'istallazione da parte di personale esperto, in grado di mettere in opera un circuito con autoritenuta (o similare) che impedisca l'automatica ripartenza del motore alla richiusura della PTO.

T2A/T3A series (IE2 and IE3) is provided with standard bimetallic thermal protector (PTO) monitoring overtemperature (135°C ± 5°C). Suggested in high temperature motor applications. Below some examples.
Standard built in thermal protector is a normally closed contact. It opens over temperature threshold.
The PTO (Power Take Off) thermal protection is a bimetallic contact, i.e. composed of 2 metals, embraced by a spring. The different thermal expansion causes the two metals to move apart when the intervention threshold is exceeded. The signal reading is a simple closed-open.
It can be read by a PLC, or brought to the input of a terminal of a frequency converter. Usually the PTO is managed through a contactor: used to interrupt the power supply of a contactor which, in turn, interrupts the power supply to the motor.
Warning: the reset is automatic at about 90-95°C. It is strongly recommended that installation is carried out by expert personnel, capable of implementing a self-retaining circuit (or similar) that prevents the automatic restart of the motor when the PTO closes.



Tipi di servizio IEC

IEC duty cycles

Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro. Lo stesso motore può funzionare in tutti i servizi, purché si moduli la potenza nominale al fine di consentire il corretto equilibrio termico.
Lo stesso motore è dichiarato per potenze diverse se è diverso il servizio.

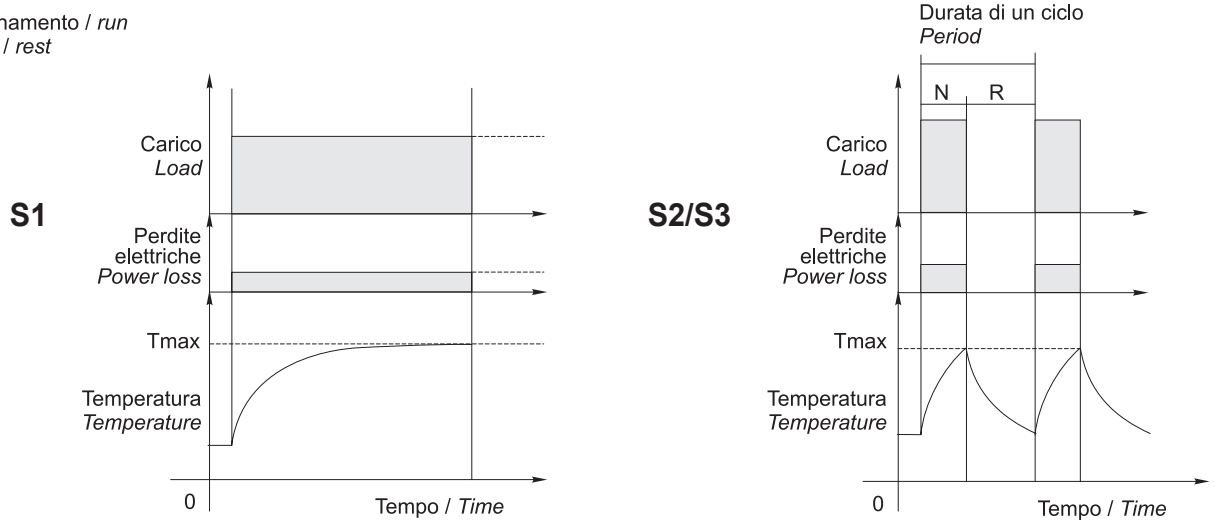
The duty cycle of a motor indicates its use and running cycle. The same motor can work under all these conditions by adjusting the rated power in order to maintain the correct temperature balance. The same motor can be declared as having a different power if it has a different duty cycle.

S1	**Servizio continuo.** Funzionamento a carico costante per una durata sufficiente al raggiungimento dell'equilibrio termico.	***Continuous duty.*** *The motor works at a constant load for enough time to reach temperature equilibrium*
S2	**Servizio di durata limitata.** Funzionamento a carico costante per una durata inferiore a quella necessaria al raggiungimento dell'equilibrio termico, seguito da un periodo di riposo tale da riportare il motore alla temperatura ambiente.	***Short time duty****. The motor works at a constant load, but not long enough to reach temperature equilibrium, and the rest periods are long enough for the motor to reach ambient temperature.*
S3	**Servizio periodico intermittente.** Sequenze di cicli identici di marcia e di riposo a carico costante, senza raggiungimento dell'equilibrio termico. La corrente di spunto ha effetti trascurabili sul surriscaldamento del motore.	***Intermittent periodic duty.*** *Sequential, identical run and rest cycles with constant load. Temperature equilibrium is never reached. Starting current has little effect on temperature rise.*
S4	**Servizio periodico intermittente con avviamento.** Sequenza di cicli di funzionamento identici di avviamento, marcia e riposo a carico costante, senza raggiungimento dell'equilibrio termico. La corrente di spunto ha effetti sul riscaldamento del motore.	***Intermittent periodic duty with starting.*** *Sequential identical start, run and rest cycles with constant load. Temperature equilibrium is not reached, but starting current affects temperature rise.*
S5	**Servizio periodico intermittente con frenatura elettrica.** Sequenza di cicli di funzionamento identici di avviamento, marcia a carico costante, frenatura elettrica e riposo, senza raggiungimento dell'equilibrio termico.	***Intermittent periodic duty with electric braking.*** *Sequential, identical cycles of starting, running at constant load, electric braking and rest. Temperature equilibrium is not reached.*
S6	**Servizio periodico ininterrotto con carico intermittente.** Sequenza di cicli di lavoro identici con carico costante e senza carico. Non ci sono periodi di riposo.	***Continuous operation with intermittent load.*** *Sequential, identical cycles of running with constant load and running with no load. No rest periods.*
S7	**Servizio periodico ininterrotto con frenatura elettrica.** Sequenza di cicli di funzionamento identici di avviamento, marcia a carico costante e frenatura elettrica, senza periodi di riposo.	***Continuous operation with electric braking.*** *Sequential, identical cycles of starting, running at constant load and electric braking. No rest periods.*
S8	**Servizio periodico ininterrotto con variazioni di carico e di velocità.** Sequenza di cicli identici di avviamento, marcia a carico costante e velocità definita, seguiti da marcia a carico costante differente e velocità differente dalla precedente. Non ci sono periodi di riposo.	***Continuous operation with periodic changes in load and speed.*** *Sequential, identical, duty cycles of start, run at constant load and given speed, then run at other constant loads and speeds. No rest periods.*
S9	**Servizio con variazioni di carico e velocità non periodiche**	***Load and speed non periodic variations***

Grafico servizi più comuni

Most common services diagram

N = funzionamento / *run*
R = riposo / *rest*



NOTA: Lo stesso motore può essere usato per cicli e servizi diversi, con l'unica limitazione che la temperatura interna non superi mai la Tmax stabilita dalla classe di isolamento termico del motore.

NOTE: The same motor can run under all duty services, limitation is due to internal temperature that must not override Tmax stated by motor thermal class.

Classe di isolamento termico — *Insulation class*

La classe termica indica il grado di resistenza alla temperatura interna, nel punto più caldo (avvolgimenti).
Isolamento termico di classeF.

Thermal insulation class indicates the level of thermal protection measured at the hottest point inside the motor (windings). Thermal insulation class F.

Classe ***Class***	Massima temperatura interna Max. *windings temp.*
E	120°C
B	130°C
F	155°C
H	180°C

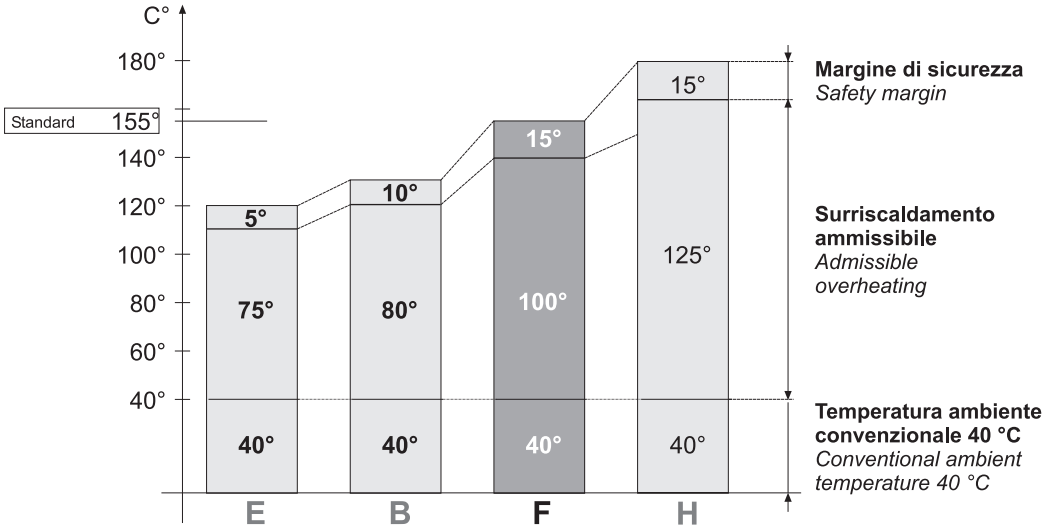
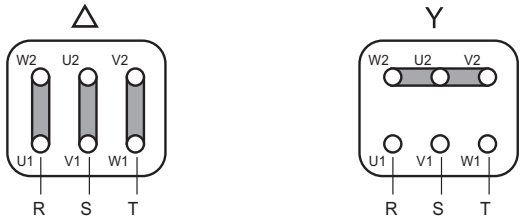


Tabella pressacavi — *Table of cable glands data*

TS - T2A - T3A	Pressacavi *Cable glands*
56	1-M16x1.5
63	1-M16x1.5
71	1-M20x1.5
80	1-M20x1.5
90	1-M20x1.5
100	2-M20x1.5
112	2-M25x1.5
132	2-M25x1.5
160	2-M32x1.5

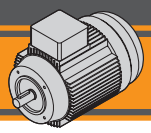
Connessioni e collegamenti — *Connection diagram*

TS - T2A - T3A - 230 V - 50 Hz (275 V 60Hz) / **400 V - 50 Hz** (480 V 60Hz)



Nota: per invertire il senso di rotazione spostare tra loro 2 cavi
Note: swap the 2 leads to reverse rotation

Sopra i 3 kW disponibile alimentazione 400 V (triangolo) / 690 V (stella).
Over 3 kW available supply voltage 400 V (delta) / 690 V (star).



Targhetta / *Nameplate*

TS

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CE
3 ASINCHR. MOTOR

03 Type TS6334B14			SN 1912-016
	µF	VL	
	Serv. S3 70%	cos φ	
50	0.25 kW	Δ 220 - 240/380 - 415 Y	V
Hz.	1400 rpm	1.45-1.33 / 0.84-0.77	A
60	0.3 kW	Δ 264 - 288/456 - 498 Y	V
Hz.	1650 rpm	1.45-1.33 / 0.84-0.77	A
IP 55 Is.cl. F	Kg.	OP	warranty void if removed

T2A

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CE IE2
3 ASINCHR. MOTOR

03 Type T2A8014B14PTO				SN 2408-039	
µF	VL	Serv. S1		OP	
IP 55 Is.cl. F		8.6 Kg.		cos φ 0.70	
50	0.55 kW	Δ	230/400 Y		V
Hz.	1420 rpm		2.55/1.47		A
60	0.66 kW	Δ	275/480 Y		V
Hz.	1710 rpm		2.55/1.47		A
Year of manufacture 2024	50	100%	75%	50%	
warranty void if removed	Hz	77.1%	77.1%	73.9%	

T3A

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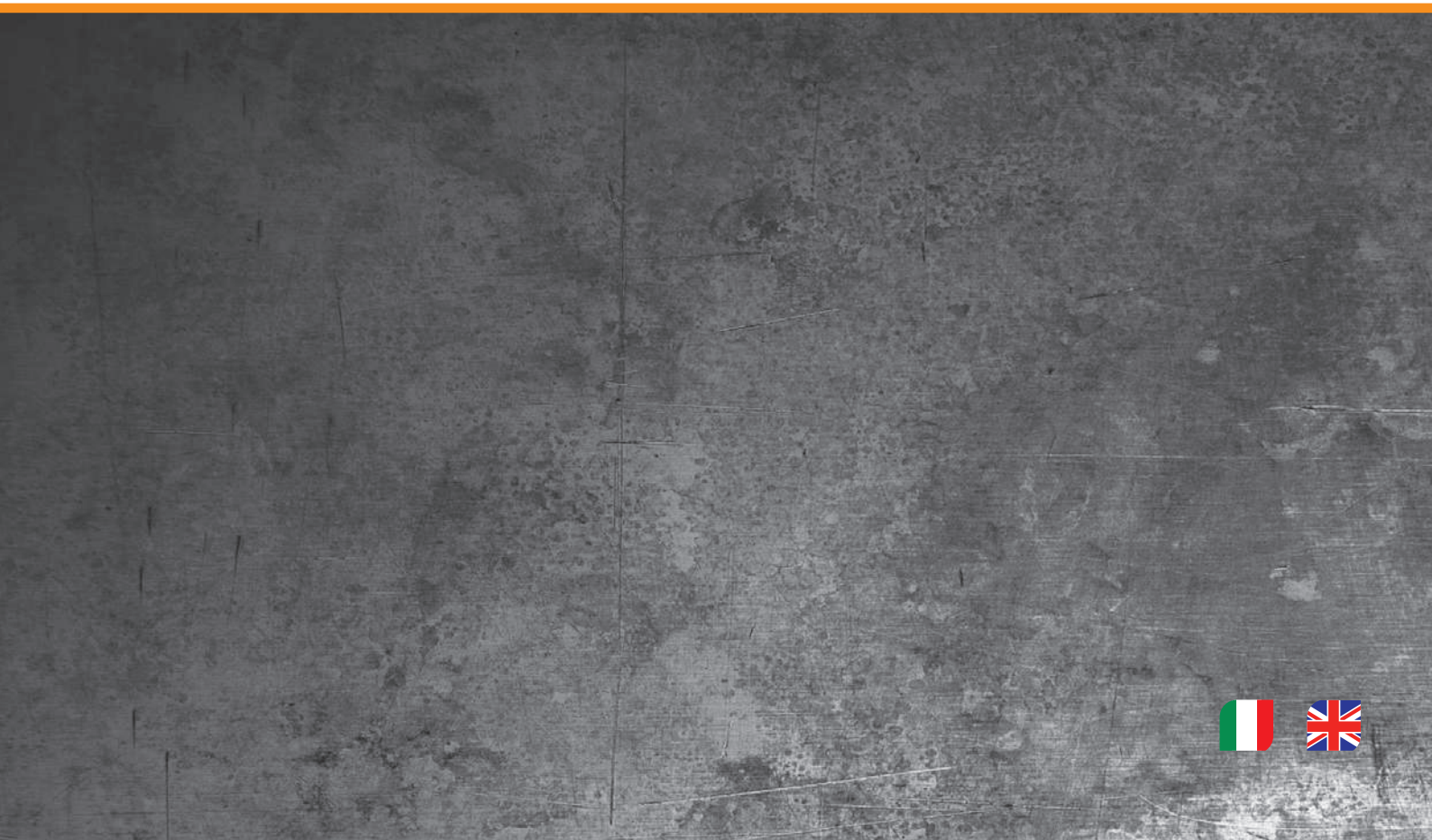
CE IE3
3 ASINCHR. MOTOR

03 Type T3A132M24B5PTO				SN 2408-039	
µF	VL	Serv. S1		OP	
IP 55 Is.cl. F		60.2 Kg.		cos φ 0.82	
50	9.2 kW	Δ	220-240/380-415 Y		V
Hz.	1460 rpm		30.8/17.8		A
60	11.04 kW	Δ	264-288/456-498 Y		V
Hz.	1760 rpm		30.8/17.8		A
Year of manufacture 2024	100%		75%	50%	
warranty void if removed	91.0%		91.5%	90.9%	

Note / *Notes*

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Appendice
Appendix



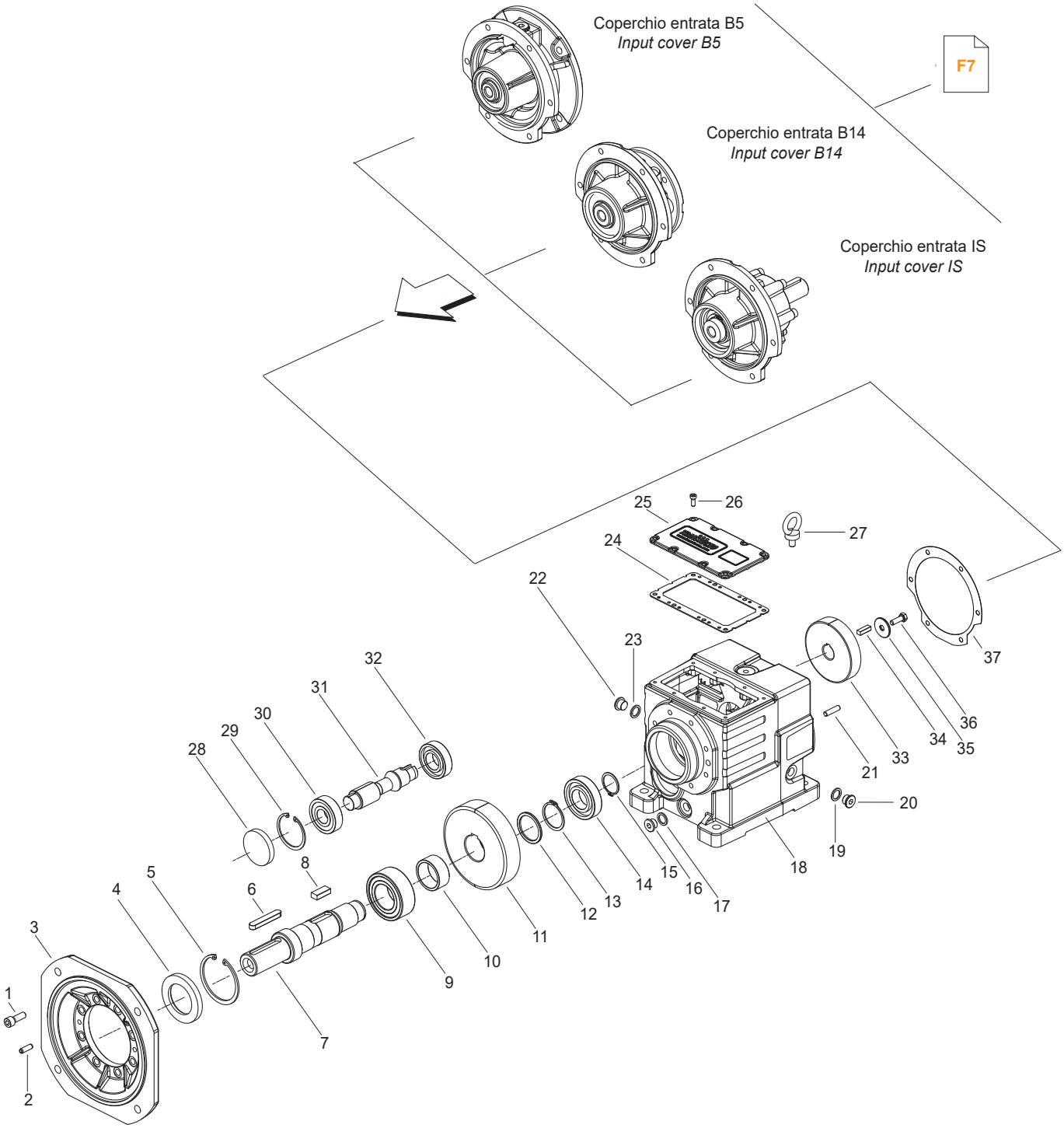
Indice	***Index***	Pag. *Page*
Liste parti di ricambio	*Spare parts list*	
ITH..2	*ITH..2*	**F2**
ITH..3	*ITH..3*	**F3**
ITB..	*ITB..*	**F4**
ITS..2	*ITS..2*	**F5**
ITS..3	*ITS..3*	**F6**
Coperchio entrata	*Input cover*	**F7**
TS - T2A - T3A	*TS - T2S -T3A*	**F8**

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Lista parti di ricambio ***Spare parts list***

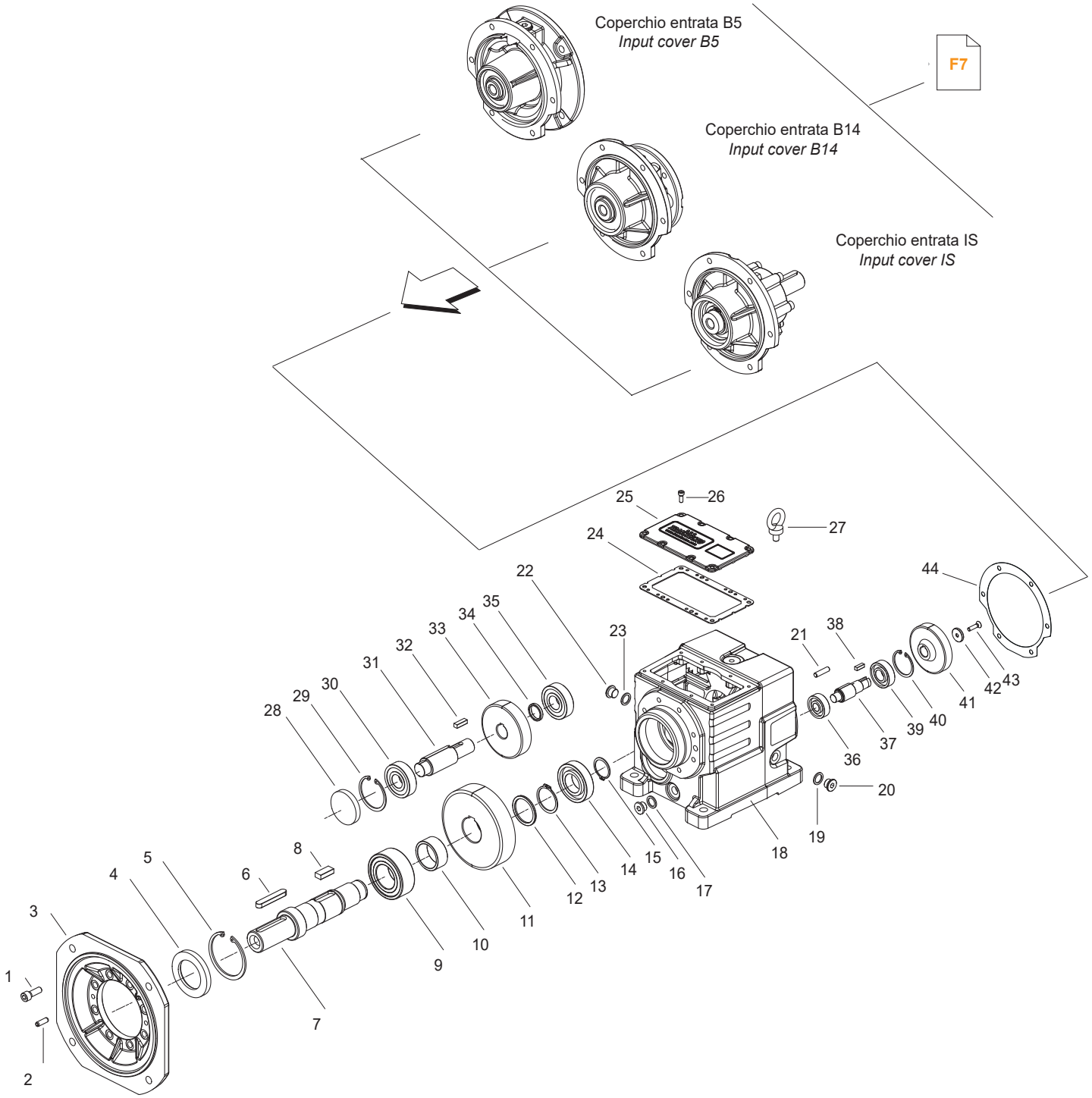
ITH..2



ITH	Anelli di tenuta / *Oil seals*	RCA
	4	**28**
112	45/80/10	52x10
122	55/85/10	62x10
132	65/100/10	72x10
142	75/120/10	80x10

Lista parti di ricambio ***Spare parts list***

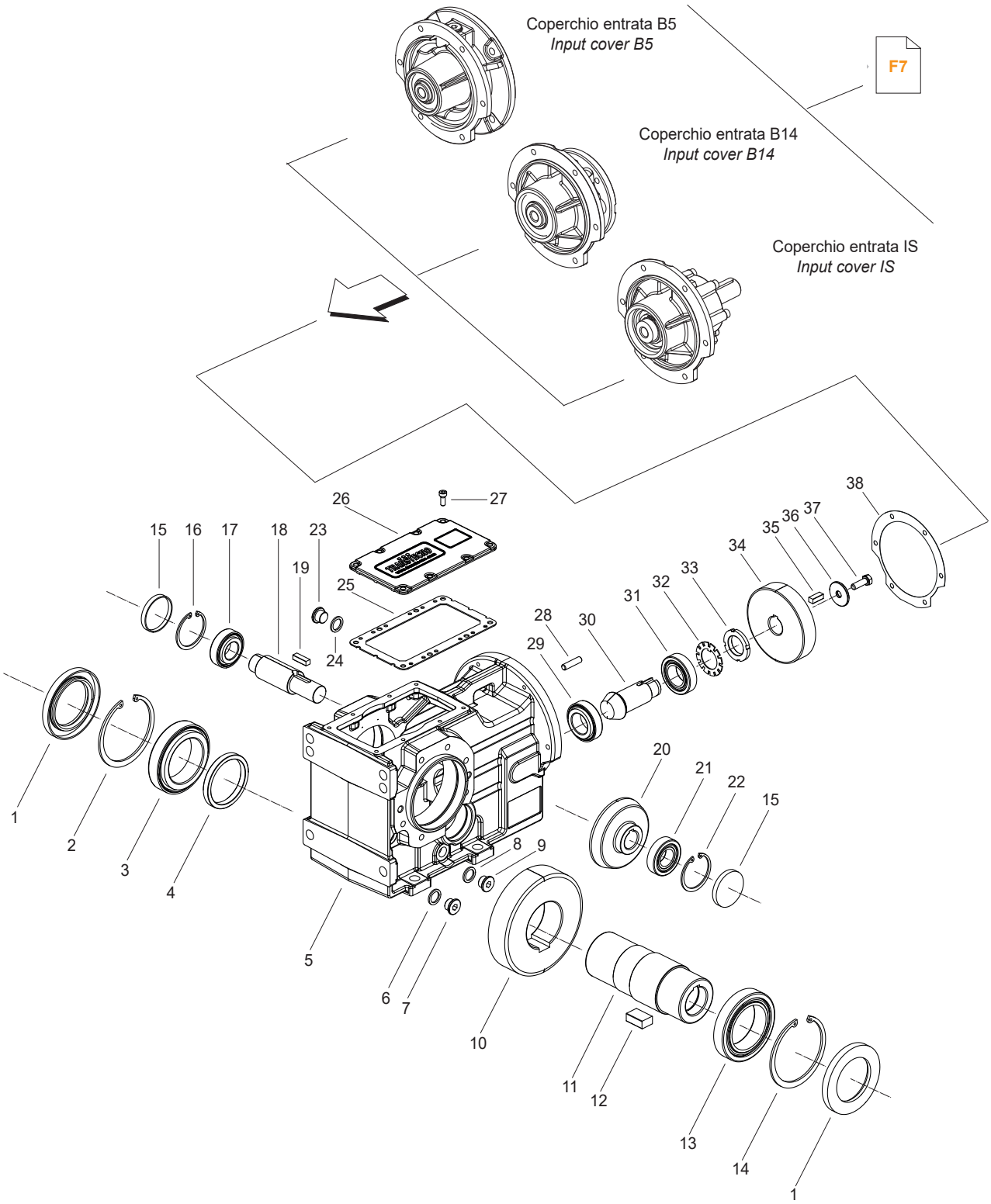
ITH..3



ITH	Anelli di tenuta / *Oil seals*	RCA
	4	**28**
113	45/80/10	52x10
123	55/85/10	62x10
133	65/100/10	72x10
143	75/120/10	80x10

Lista parti di ricambio ***Spare parts list***

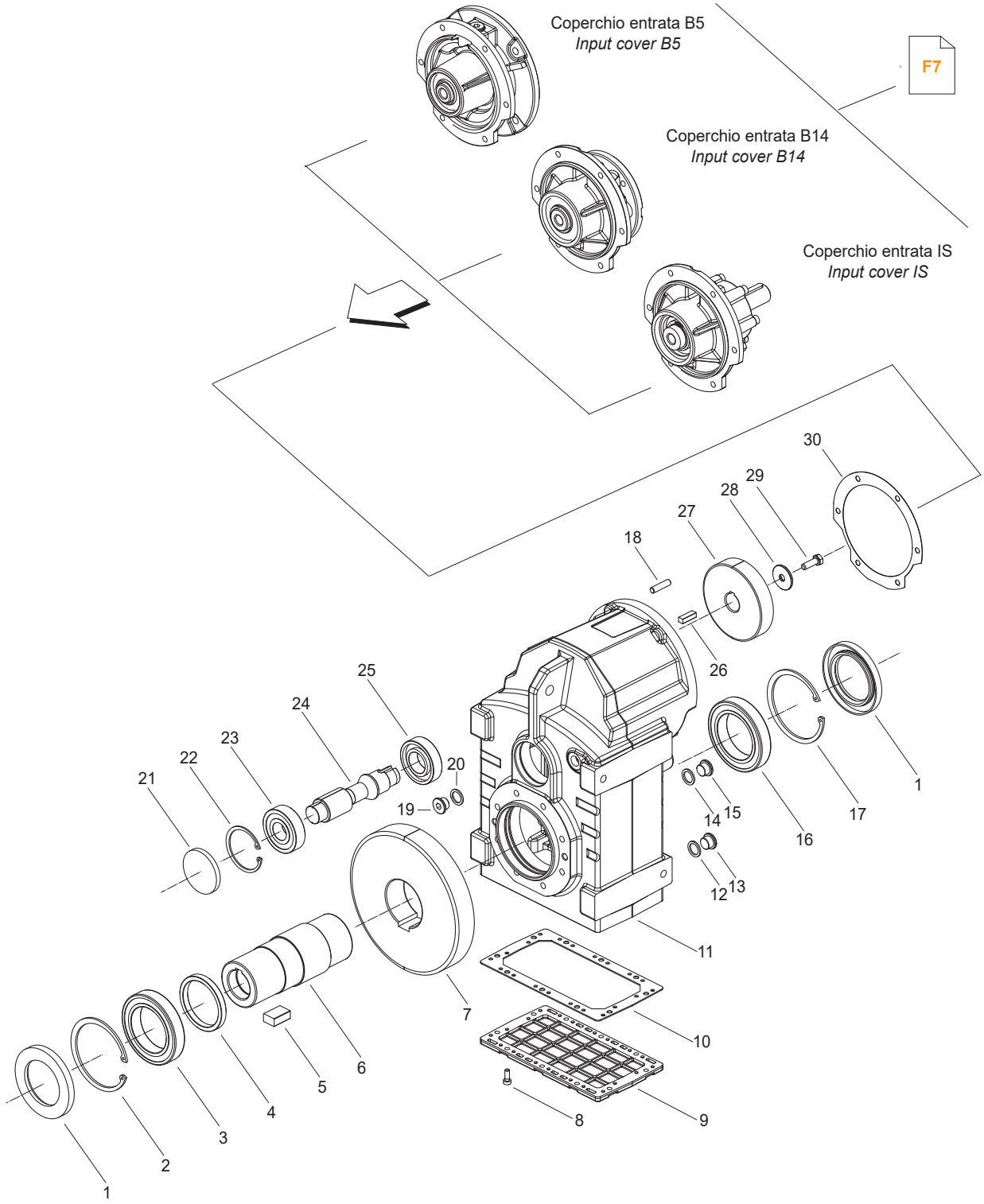
ITB ..



ITB	Anelli di tenuta / *Oil seals*	RCA
	1	**15**
423	65/100/10	52x7
433	70/110/12	72x10
443	85/130/10	80x10

Lista parti di ricambio ***Spare parts list***

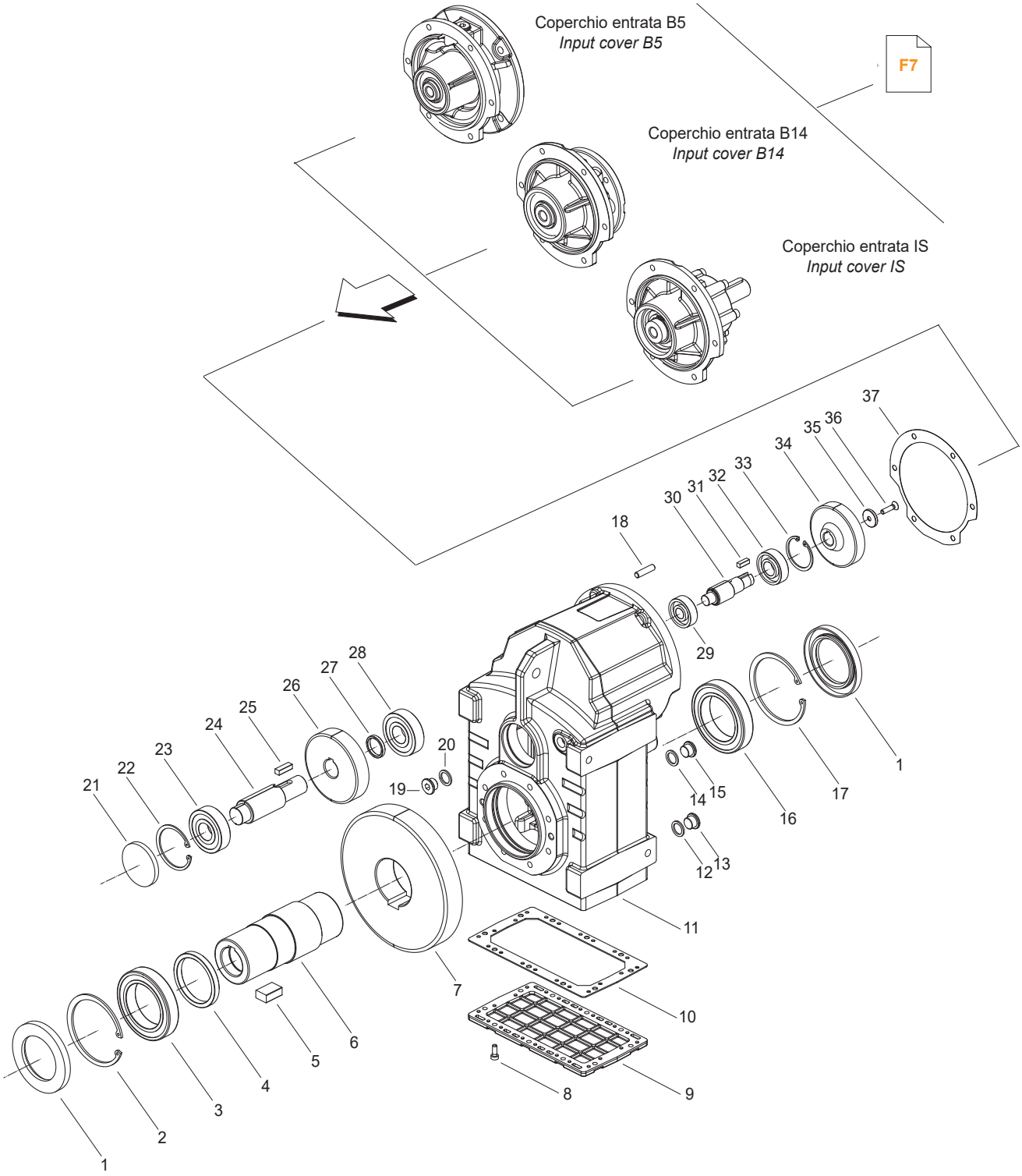
ITS ..2



ITS	Anelli di tenuta / *Oil seals*	RCA
	1	**21**
922	65/100/10	62x7
932	70/110/12	62x7
942	85/130/10	72x10

Lista parti di ricambio ***Spare parts list***

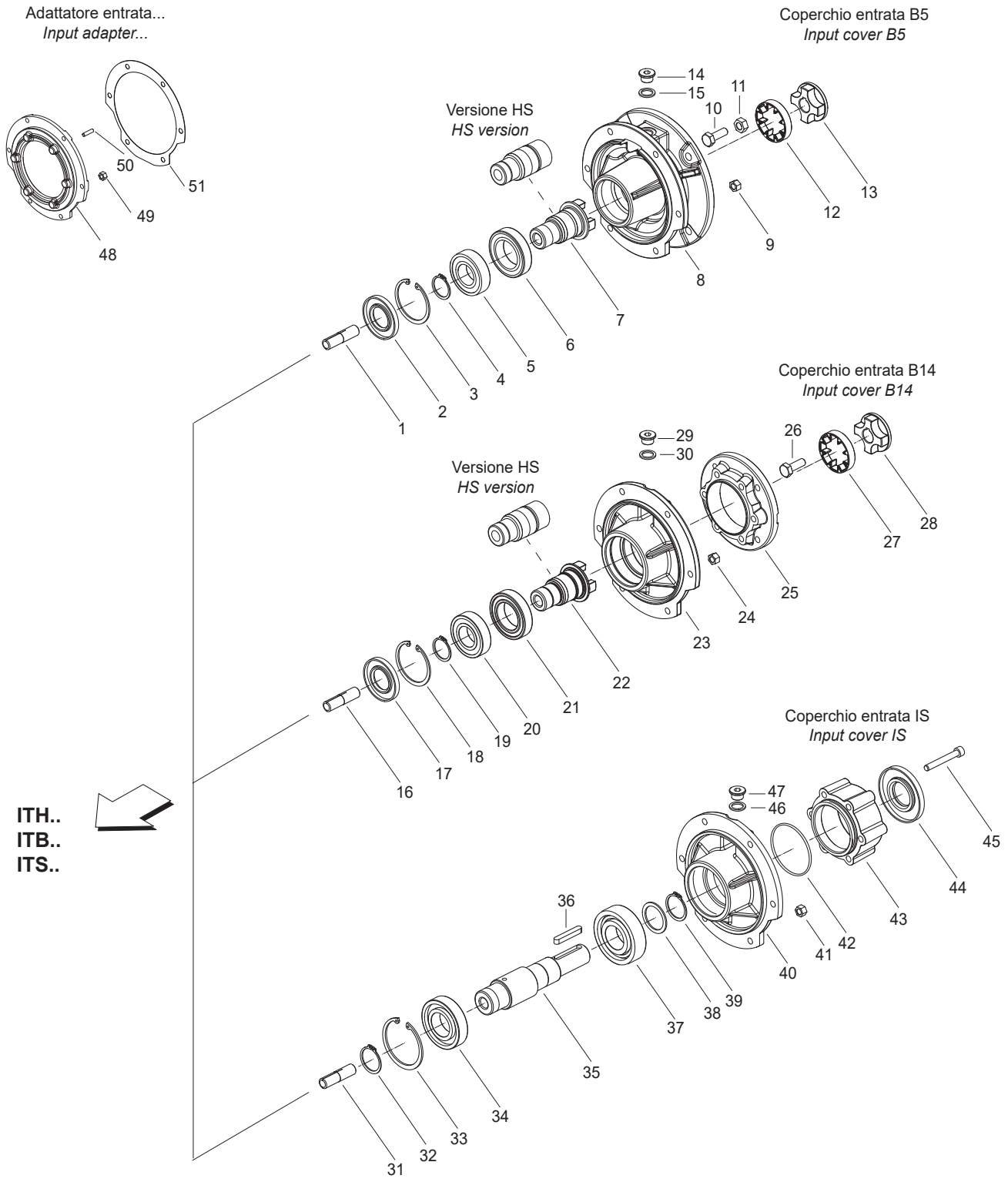
ITS ..3



ITS	Anelli di tenuta / *Oil seals*	RCA
	1	**21**
923	65/100/10	62x10
933	70/110/12	62x10
943	85/130/10	72x10

Lista parti di ricambio ***Spare parts list***

COPERCHIO ENTRATA - *INPUT COVER*



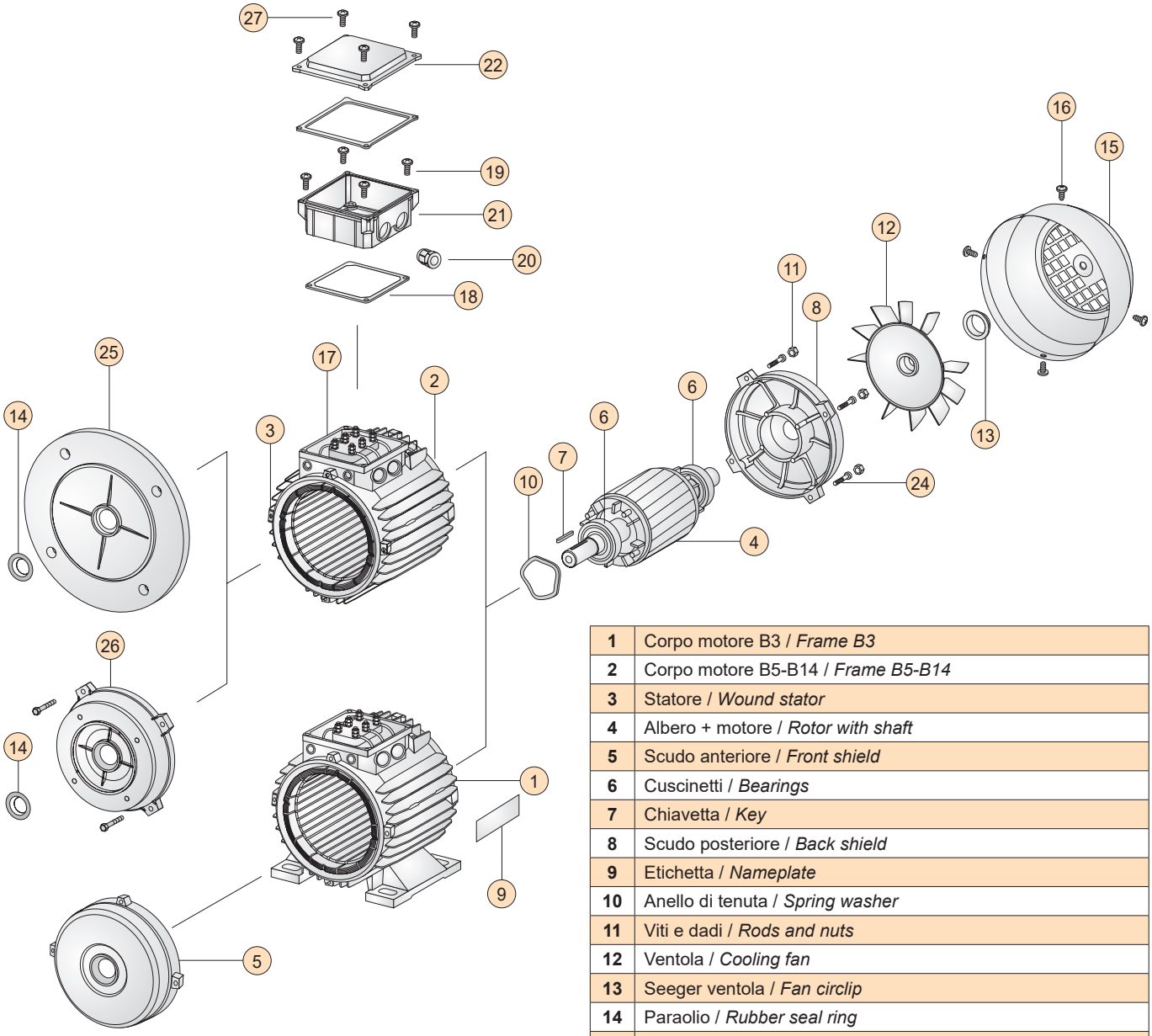
IEC B5	Anelli di tenuta / *Oil seals*
	2
71	30/62/7
80/90	30/62/7
100/112	35/72/7
132	40/80/10
160/180	50/110/12
200	60/130/12

IEC B14	Anelli di tenuta / *Oil seals*
	17
90	35/72/7
100/112	35/72/7
132	40/80/10

IS	Anelli di tenuta / *Oil seals*
	44
24	35/80/8
28	35/80/8
38	45/100/10

Lista parti di ricambio ***Spare parts list***

TS - T2A - T3A



1	Corpo motore B3 / *Frame B3*
2	Corpo motore B5-B14 / *Frame B5-B14*
3	Statore / *Wound stator*
4	Albero + motore / *Rotor with shaft*
5	Scudo anteriore / *Front shield*
6	Cuscinetti / *Bearings*
7	Chiavetta / *Key*
8	Scudo posteriore / *Back shield*
9	Etichetta / *Nameplate*
10	Anello di tenuta / *Spring washer*
11	Viti e dadi / *Rods and nuts*
12	Ventola / *Cooling fan*
13	Seeger ventola / *Fan circlip*
14	Paraolio / *Rubber seal ring*
15	Copriventola / *Fan cover*
16	Viti copriventola / *Self-threading screws for fan cover fixing*
17	Porta terminali completo / *Terminal board complete*
18	Guarnizione / *Terminal seal*
19	Viti scatola morsettiera / *Screws for terminal box fixing*
20	Pressacavo / *Cable gland*
21	Scatola morsettiera / *Terminal box* (base)
22	Coperchio scatola morsettiera / *Terminal box* (cover)
24	Viti scudi / *Mounting studs screws*
25	Flangia B5 / *Flange B5*
26	Flangia B14 / *Flange B14*
27	Viti coperchio / *Screws for terminal box fixing*

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