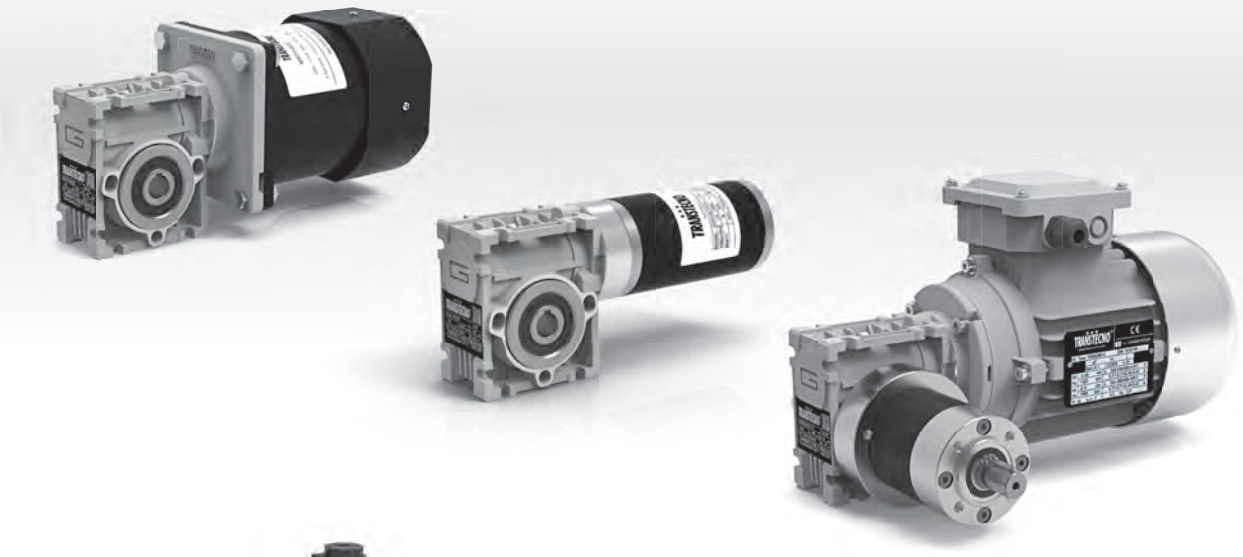
TRANSTECNO®

the modular gearmotor

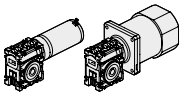
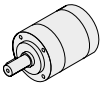
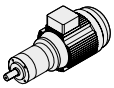
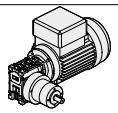
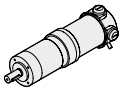
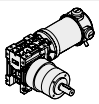
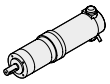
ACDC Robin

Small but Strong



TRANSTECNO · GENUINE · PRODUCTS ·

Indice Index

			Indice	Index	Pag. Page
		A	Introduzione	Introduction	A1
		B	Motoriduttori a vite senza fine ECM-ACM	Wormgearmotors ECM-ACM	B1
		C	Riduttori epicicloidali P	Planetary gear units P	C1
		D	Motoriduttori CA epicicloidali ACP	AC planetary gearmotors ACP	D1
		E	Motoriduttori CA combinati WMP	AC double reduction gearmotors WMP	E1
Neodymium		F	Motoriduttori CC epicicloidali NDP	DC planetary gearmotors NDP	F1
Neodymium		G	Motoriduttori CC combinati NDWMP	DC double reduction gearmotors NDWMP	G1
Ferrite		H	Motoriduttori CC epicicloidali ECP	DC planetary gearmotors ECP	H1
Ferrite		I	Motoriduttori CC combinati ECWMP	DC Double reduction gearmotors ECWMP	I1
		L	Azionamenti per motori CC PLN	DC motor controls PLN	L1

Indice	*Index*	Pag. *Page*
Generalità	*General information*	**A2**
Velocità entrata	*Input speed*	**A2**
Rapporto di riduzione	*Gear ratio*	**A2**
Velocità in uscita	*Output speed*	**A2**
Coppia richiesta	*Requested torque*	**A2**
Coppia nominale	*Nominal torque*	**A3**
Coppia trasmessa	*Output torque*	**A3**
Rendimento del riduttore a vite senza fine	*Worm gearbox efficiency*	**A3**
Reversibilità e irreversibilità	*Reversibility and irreversibility*	**A4**
Potenza in entrata	*Input power*	**A4**
Fattore di servizio	*Service factor*	**A5**
Carico radiale	*Radial load*	**A6**
Carico assiale	*Axial load*	**A6**
Scelta dei motoriduttori	*Selecting the gearmotors*	**A6**
Installazione e verifiche	*Installation and inspection*	**A8**
Applicazioni critiche	*Critical applications*	**A8**

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 e variatori.

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 and variators.

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

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

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

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

When different speeds are required, contact our Technical Service.

Rapporto di riduzione — i — *Gear ratio*

È una grandezza adimensionale ed è in funzione del numero dei denti degli ingranaggi interni al riduttore.
Nei riduttori a vite senza fine si ottiene dividendo il numero di denti della corona per il numero dei filetti (Z) della vite senza fine.
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.
This value is obtained in wormgearboxes by dividing the number of wheel teeth by the number of starts (Z) of the worm.
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*

È 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*

È 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*

È 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 del riduttore a vite senza fine — Rd; Rs — *Worm gearbox efficiency*

I calcoli delle prestazioni sono stati effettuati in base al rendimento dinamico Rd dei riduttori (valore ottimale che si raggiunge nel funzionamento a regime dopo rodaggio).

È opportuno considerare che nei riduttori a vite senza fine si ha anche un valore di rendimento statico Rs, presente in fase di avviamento, che declassa sensibilmente la coppia risultante per cui influenza in modo determinante la scelta di motorizzazioni destinate ad applicazioni intermittenti (es. sollevamenti).

Efficiency is calculated based on dynamic efficiency Rd of the gearboxes (optimal value reached when running at normal speed after the break in period).

It is important to remember that wormgearboxes also have static efficiency value Rs present at start-up. This value notably reduces the resulting torque. As a result, it must be taken into consideration when selecting drive systems for intermittent operations (e.g. lifting) as it is a determinant factor.

Reversibilità e irreversibilità

Reversibility and irreversibility

La diretta conseguenza del rendimento (statico e dinamico) è la reversibilità del riduttore a vite senza fine che consiste nella possibilità di fare ruotare l'albero entrata tramite l'applicazione di una torsione più o meno accentuata sull'albero uscita.
L'impossibilità o la difficoltà ad effettuare l'azione sopra descritta, determina il grado di reversibilità (o irreversibilità) di un riduttore.

Questa caratteristica, molto significativa nei riduttori a vite senza fine, è influenzata da molteplici fattori quali angolo d'elica (quindi rapporto di trasmissione), lubrificazione, temperatura, finitura superficiale della vite senza fine, presenza di vibrazioni, ecc.

In applicazioni dove sono presenti delle traslazioni è necessario garantire una elevata reversibilità onde evitare che le inerzie delle masse in movimento possano determinare punte di carico inammissibili sugli organi di trasmissione.

In applicazioni dove è richiesto un non ritorno del carico (es. sollevamenti o nastri trasportatori inclinati) in assenza di un freno motore è necessario scegliere un riduttore caratterizzato da un elevato grado di irreversibilità.
Desideriamo comunque evidenziare che la garanzia assoluta di non ritorno è data esclusivamente dall'installazione di un motore autofrenante o di un altro dispositivo frenante esterno.

La tabella sottostante riporta a titolo puramente indicativo i vari gradi di reversibilità/irreversibilità nei riduttori a vite senza fine in funzione del rendimento dinamico Rd e statico Rs.

Reversibility of the wormgearbox is the direct consequence of efficiency (static and dynamic). This determines whether or not the input shaft can be rotated by applying a certain torque on the output shaft.
Whether or not this can be done and how difficult it actually is to do determine the degree of reversibility (or irreversibility) of a gearbox.
This feature, quite significant in wormgearboxes, is affected by numerous factors including the helix angle (therefore drive ratio), lubrication, temperature, surface finish of the worm, vibrations, etc...

In applications that include translations, high reversibility must be guaranteed to prevent inertia of the moving parts from creating unacceptable load peaks on the drive parts.

In applications that require non-return of the load (e.g. lifting or inclined conveyor belts) a gearbox with high irreversibility must be chosen when a motor-brake unit is not present.
However, we would like to point out that non-return can be totally assured only by installing a self-braking motor or other external braking device.

The table below is provided for reference purposes only. It contains the various degrees of reversibility/irreversibility of wormgearboxes in relation to dynamic Rd and static Rs efficiency.

Rd	Reversibilità e irreversibilità dinamica	*Dynamic reversibility and irreversibility*
> 0.6	Reversibilità dinamica	Dynamic reversibility
0.5 - 0.6	Reversibilità dinamica incerta	Uncertain dynamic reversibility
0.4 - 0.5	Buona irreversibilità dinamica	Good dynamic irreversibility
<0.4	Irreversibilità dinamica	Dynamic irreversibility
Rs	**Reversibilità e irreversibilità statica**	***Static reversibility and irreversibility***
> 0.55	Reversibilità statica	Static reversibility
0.5 - 0.55	Reversibilità statica incerta	Uncertain static reversibility
<0.5	Irreversibilità statica	Static irreversibility

Potenza in entrata

P_1 [kW]

Input power

È 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*

È 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 ns. 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*

h/d	sf								
	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*

h/d	sf								
	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*

h/d	sf								
	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*

È 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 the Technical Service.

Scelta dei motoriduttori — *Selecting the gearmotors*

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

To select the required gearmotor perform the procedure below:

1. Per l'applicazione desiderata ricavare il fattore di servizio sf dalle tabelle a pag. A5 in base alla classe di carico, alle ore di funzionamento giornaliere e al numero di avviamenti orari.

1. *Determine the service factor sf for the desired application by referring to the charts given on page A5. This is to be done by considering the class of load, the operational hours/day and the number of start-ups/ hour.*

2. Se si conosce la potenza motore P_1 [kW] richiesta, passare al punto 3); se è nota la coppia in uscita M_2 richiesta è necessario calcolare la potenza motore P_1 con la formula:

2. *If the required motor power output P_1 [kW] is known, go to item 3); if the required output torque M_2 is known, determine motor output P_1 by using the following formula:*

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

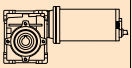
dove Rd è il rendimento dinamico e n_2 il numero di giri richiesti in uscita al motoriduttore.

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

3. Nelle tabelle dei dati tecnici ricercare la motorizzazione in cui sia P_1 maggiore o uguale a P e con riferimento ad 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).

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).

ECM

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
70						
(3000 min^{-1})	**600**	1.0	10.1	5	**ECM050/026**	120/240
	400	1.5	7.6	7.5		
	300	1.9	5.8	10		
	200	2.8	4.0	15		
	150	3.6	3.1	20		
	100	4.9	2.5	30		
	75	6.1	1.8	40		
	60	7.1	1.4	50		
	50	8.0	1.1	60		

Esempio / *Example:*

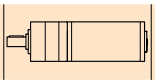
Applicazione / *Application:*
Carrello automatico / *Automatic carriage*

P_1 : 70 W
sf : 3.1
n_2 : 150 min^{-1}

Motorizzazione scelta / *Power unit selected:*

ECM050/026, i = 20, P_1 = 70 W, sf = 3.1

ECP

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione *Version*
500						
(3000 min^{-1})	**218**	16.2	1.5	**13.73**	**ECP350/622**	**120/240**
	189	18.7	1.3	15.88		
	163	21.6	1.2	18.36		
	156	22.6	1.1	**19.20**		
	135	26.1	1.0	22.20		
	120	29.4	0.8	**25.01**		
	112	31.6	0.8	26.85		
	104	34.1	0.7	**28.93**		
	86	35.7	0.7	**34.97**		
	66	35.7	0.7	**45.56**		

Esempio / *Example:*

Applicazione / *Application:*
Carrello automatico / *Automatic carriage*

P_1 : 500 W
sf : 1.5
n_2 : 218 min^{-1}

Motorizzazione scelta / *Power unit selected:*

ECP350/622, i = 13.73, P_1 = 500 W, sf = 1.5

Installazione e verifiche

In fase di installazione del motoriduttore 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.

Installation and inspection

While installing the gearmotor 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.*

Applicazioni critiche

In tutti questi casi consultare il Servizio Tecnico

- 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 <0°C o >+40°C;
- utilizzo in ambienti esterni

Critical applications

In these cases please contact the Technical Service

- *used as a hoist;*
- *used in mounting positions not shown in the catalogue;*
- *used in environment pressure other than atmospheric pressure;*
- *used in places with temperature <0°C or >+40°C;*
- *when used outdoors*

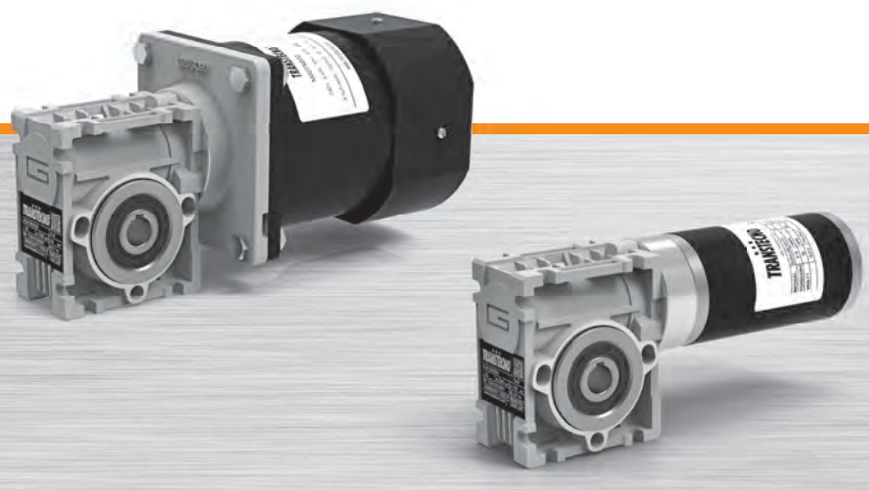
TRANSTECNO®
the modular gearmotor

ACM-ECM

ACM-ECM

ACM-ECM Robin
Small but Strong

Motoriduttori a vite senza fine
Wormgearmotors



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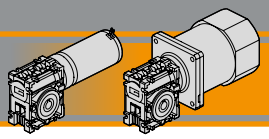


Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**B2**
Designazione	*Classification*	**B2**
Simbologia	*Symbols*	**B2**
Lubrificazione	*Lubrication*	**B3**
Carichi radiali	*Radial loads*	**B3**
Dati di dentatura	*Toothing data*	**B4**
Rendimento	*Efficiency*	**B4**
Dati tecnici	*Technical data*	**B5**
Dimensioni ECM	*ECM Dimensions*	**B6**
Dimensioni ACM	*ACM Dimensions*	**B8**
Accessori	*Accessories*	**B11**

Caratteristiche tecniche — *Technical features*

Le caratteristiche principali dei motoriduttori a vite senza fine della gamma Robin sono:

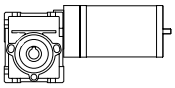
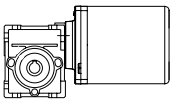
- Alimentazione in bassa tensione (12/24 Vcc) per la serie ECM; corrente alternata monofase (230 Vca - 50Hz) o corrente alternata trifase (400 Vca - 50Hz) per la serie ACM
- Potenze motore disponibili da 40 a 70 W
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Elevata affidabilità in ingombri molto ridotti

The main features of Robin wormgearmotors range are:

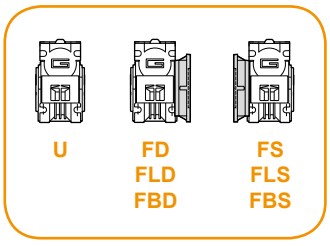
- *Supply voltage 12/24Vdc for ECM range, single phase 230Vac-50Hz or three phase 400Vac-50Hz for ACM range*
- *Motor power available from 40W to 70W*
- *Die-cast aluminum housing for wormgearboxes*
- *Permanent synthetic oil long-life lubrication*
- *Reliable and compact*

Designazione — *Classification*

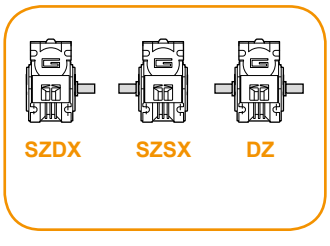
MOTORIDUTTORE / *GEARMOTOR*

ECM	050/026	U	10	SZDX	BRSX	90	240	BR
Tipo *Type*	Grandezza *Size*	Versione Riduttore *Gearbox Version*	Rapporto *Ratio*	Albero di uscita *Output shaft*	Braccio di reazione *Torque arm*	Angolo *Angle*	Versione Motore *Motor Version*	Versione Motore *Motor Version*
ECM 	**035/026** **035/030** **050/026** **050/030**	**U** **FD** **FS**	Vedere tabella *See tables*	**SZDX** **SZSX** **DZ**	**BRDX** **BRSX**	**0°** **90°** **180°** **270°**	**120** **240**	**BR** **BRL**
ACM 	**040/026** **040/030** **060/026** **060/030**						**230/1** **400/3** 230/3 a richiesta *on request*	-

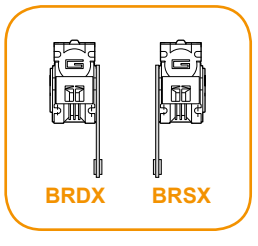
Versione Riduttore *Gearbox Version*



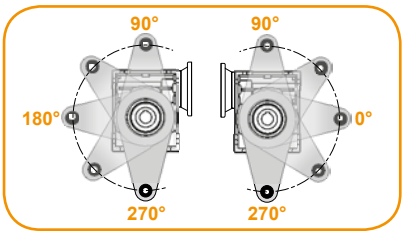
Albero di uscita *Output shaft*



Braccio di reazione *Torque arm*

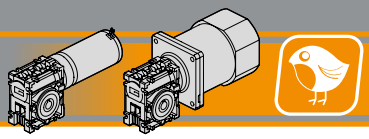


Angolo *Angle*



Simbologia — *Symbols*

n_1	[min^{-1}]	Velocità in ingresso / *Input speed*	Rd	%	Rendimento dinamico / *Dynamic efficiency*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*	A_2	N]	Carico assiale ammissibile in uscita / *Permitted output axial load*
i		Rapporto di riduzione / *Ratio*	Rs	%	Rendimento statico / *Static efficiency*
P_1	[kW]	Potenza in entrata / *Input power*	R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*
M_2	[Nm]	Coppia in uscita in funzione di P_1 / *Output torque referred to* P_1	Z		Numero di principi della vite / *Worm starts*
sf		Fattore di servizio / *Service factor*	β		Angolo d'elica / *Helix angle*

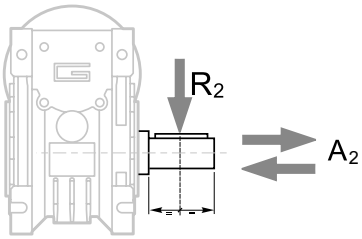


Lubrificazione — *Lubrication*

I riduttori a vite senza fine sono lubrificati a vita con olio sintetico viscosità 320 (-35°C +50°C), possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication viscosity grade 320 (-35°C +50°C) allows the wormgearboxes to be installed in all mounting positions and to be mainteinance free.

Carichi radiali — *Radial loads*

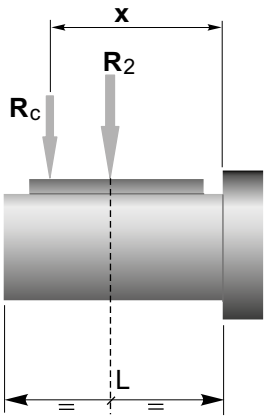


$A_2 = R_2 \times 0.2$

n_2 [min^{-1}]	R_2 [N]	
	CM026	CM030
187	400	674
140	490	743
93	580	851
70	610	936
56	610	1008
47	610	1069
35	610	1179
28	610	1270
23	610	1356
18	610	1471
14	610	1600

Quando il carico radiale risultante non è applicato sulla mezzeria dell'albero occorre calcolare quello effettivo con la seguente formula:

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:



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

$$R \leq R_c$$

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

	CM	
	026	030
a	56	65
b	43	50
R_{2MAX}	610	1600

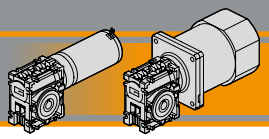
Dati di dentatura — *Toothing data*

	Dati della coppia vite-corona *Worm wheel data*	Rapporto / *Ratio*											
		5	**7.5**	**10**	**15**	**20**	**25**	**30**	**40**	**50**	**60**	**80**	**100**
CM026	Z	6	4	3	2	2		1	1	1	1		
	β	34° 35'	24° 41'	19° 1'	12° 57 '	10° 30'		6° 33'	5° 17'	4° 26'	3°49'		
CM030	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	27° 4'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'

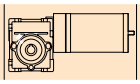
Rendimento — *Efficiency*

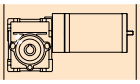
	n_1 [min^{-1}]	Rendimento *Efficiency*	Rapporto / *Ratio*											
			5	**7.5**	**10**	**15**	**20**	**25**	**30**	**40**	**50**	**60**	**80**	**100**
CM026	2800	Rd	89	87	85	83	80		73	68	64	60		
	1400		87	84	83	78	74		66	61	57	53		
	900		84	83	80	75	71		61	57	52	48		
		Rs	72	71	68	61	56		46	41	36	34		
CM030	2800	Rd	89	88	86	84	81	78	74	70	65	62	57	52
	1400		86	85	84	79	75	72	67	62	58	55	48	43
	900		84	83	81	75	71	68	62	58	53	49	43	39
		Rs	72	67	63	55	50	43	39	35	31	27	23	21

Rendimento teorico del riduttore dopo il rodaggio
Theoretical efficiency of the gearbox after the first running period

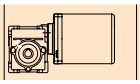


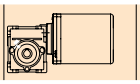
Dati tecnici ECM per servizio S2 — DC — *Technical data ECM for S2 duty*

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
55						
(3000 min^{-1})	**600**	0.8	12.8	5	**ECM035/026**	120/240
	400	1.1	9.6	7.5		
	300	1.5	7.4	10		
	200	2.2	5.0	15		
	150	2.8	3.9	20		
	100	3.8	3.1	30		
	75	4.8	2.3	40		
	60	5.6	1.8	50		
	50	6.3	1.4	60		
	600	0.8	16.7	5	**ECM035/030**	120/240
	400	1.2	13.0	7.5		
	300	1.5	10.6	10		
	200	2.2	7.3	15		
	150	2.8	4.9	20		
	120	3.4	4.4	25		
	100	3.9	4.6	30		
	75	4.9	3.3	40		
	60	5.7	2.6	50		
	50	6.5	2.1	60		
	38	8.0	1.5	80		
	30	9.1	1.2	100		

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
70						
(3000 min^{-1})	**600**	1.0	10.1	5	**ECM050/026**	120/240
	400	1.5	7.6	7.5		
	300	1.9	5.8	10		
	200	2.8	4.0	15		
	150	3.6	3.1	20		
	100	4.9	2.5	30		
	75	6.1	1.8	40		
	60	7.1	1.4	50		
	50	8.0	1.1	60		
	600	1.0	13.1	5	**ECM050/030**	120/240
	400	1.5	10.2	7.5		
	300	1.9	8.3	10		
	200	2.8	5.7	15		
	150	3.6	3.9	20		
	120	4.3	3.5	25		
	100	4.9	3.6	30		
	75	6.2	2.6	40		
	60	7.2	2.1	50		
	50	8.3	1.7	60		
	38	10.2	1.2	80		
	30	11.6	0.9	100		

Dati tecnici ACM — AC — *Technical data ACM*

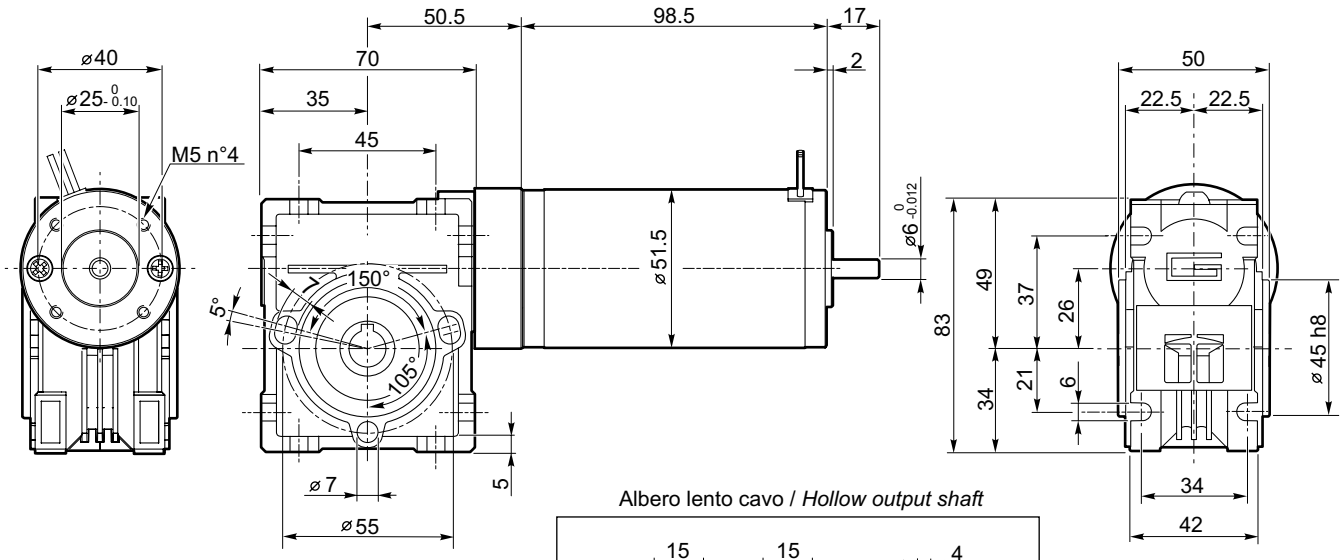
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
40						
(1300 min^{-1})	**260**	1.3	10.2	5	**ACM040/026**	230/1 - 400/3
	173	1.9	7.6	7.5		
	130	2.4	5.7	10		
	87	3.4	4.1	15		
	65	4.3	3.2	20		
	43	5.8	2.6	30		
	33	7.2	2.0	40		
	26	8.4	1.6	50		
	22	9.3	1.3	60		
	260	1.3	14.2	5	**ACM040/030**	230/1 - 400/3
	173	1.9	10.7	7.5		
	130	2.5	8.5	10		
	87	3.5	6.0	15		
	65	4.4	4.3	20		
	52	5.3	3.8	25		
	43	5.9	3.7	30		
	33	7.3	2.7	40		
	26	8.5	2.2	50		
	22	9.7	1.8	60		
	16	11.3	1.3	80		
	13	12.6	1.1	100		

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
60						
(1300 min^{-1})	**260**	1.9	6.8	5	**ACM060/026**	230/1 - 400/3
	173	2.8	5.0	7.5		
	130	3.7	3.8	10		
	87	5.2	2.7	15		
	65	6.5	2.1	20		
	43	8.7	1.7	30		
	33	10.8	1.3	40		
	26	12.6	1.0	50		
	22	14.0	0.9	60		
	260	1.9	6.9	5	**ACM060/030**	230/1 - 400/3
	173	2.8	5.3	7.5		
	130	3.7	4.3	10		
	87	5.2	3.1	15		
	65	6.6	2.1	20		
	52	7.9	1.9	25		
	43	8.9	2.0	30		
	33	10.9	1.5	40		
	26	12.8	1.2	50		
	22	14.5	1.0	60		
	16	16.9	0.7	80		
	13	16.0	0.7	100		

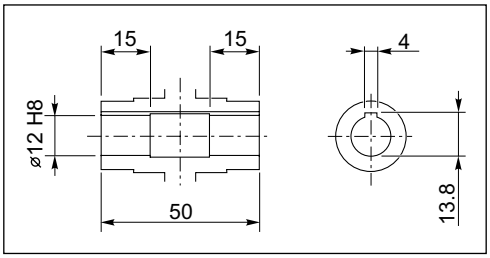
Dati tecnici calcolati secondo i valori di rendimento teorico dei riduttori dopo il rodaggio (vedi tabella)
Technical data calculated by using the theoretical efficiency of the gearboxes after the first running period (see table)

Nota: Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio
Note: *Please check that the output torque M2 does not exceed the value into the grey areas*

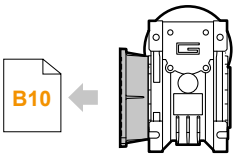
ECM035/026 U



Albero lento cavo / *Hollow output shaft*

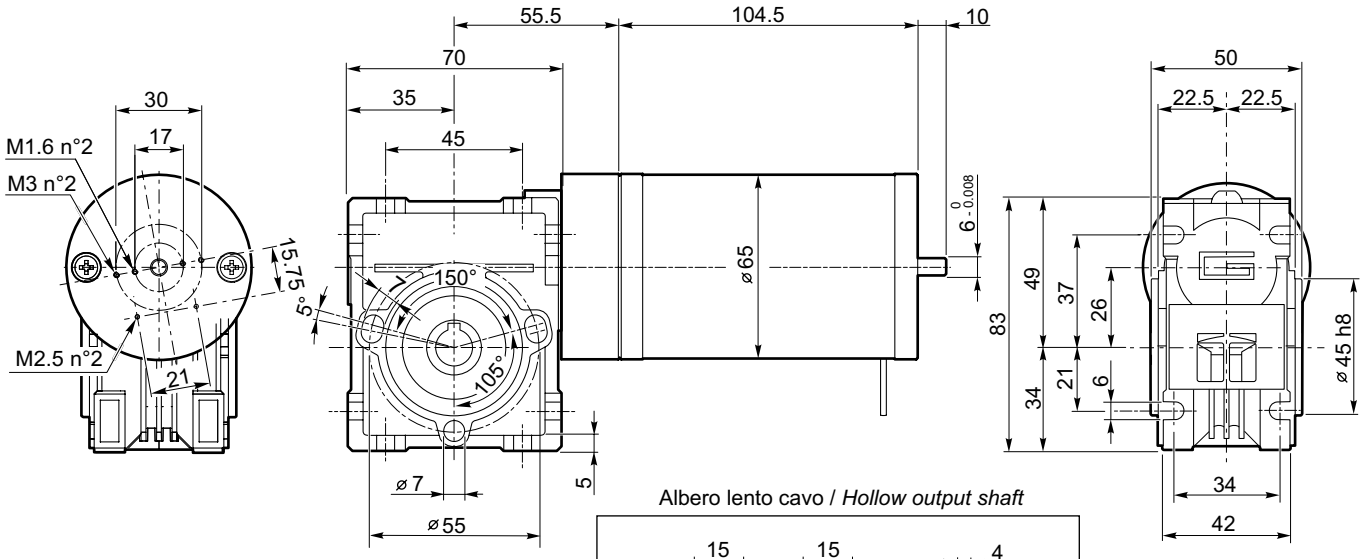


Kg 1.7

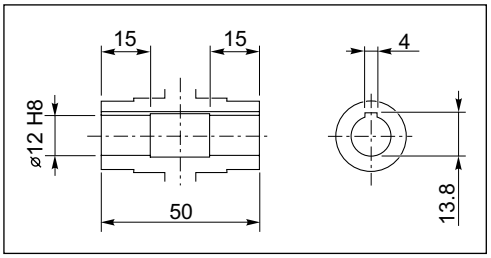


ECM035/026 F

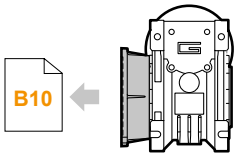
ECM050/026 U



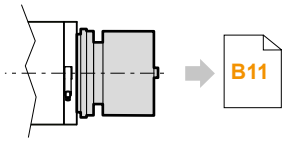
Albero lento cavo / *Hollow output shaft*



Kg 2.1

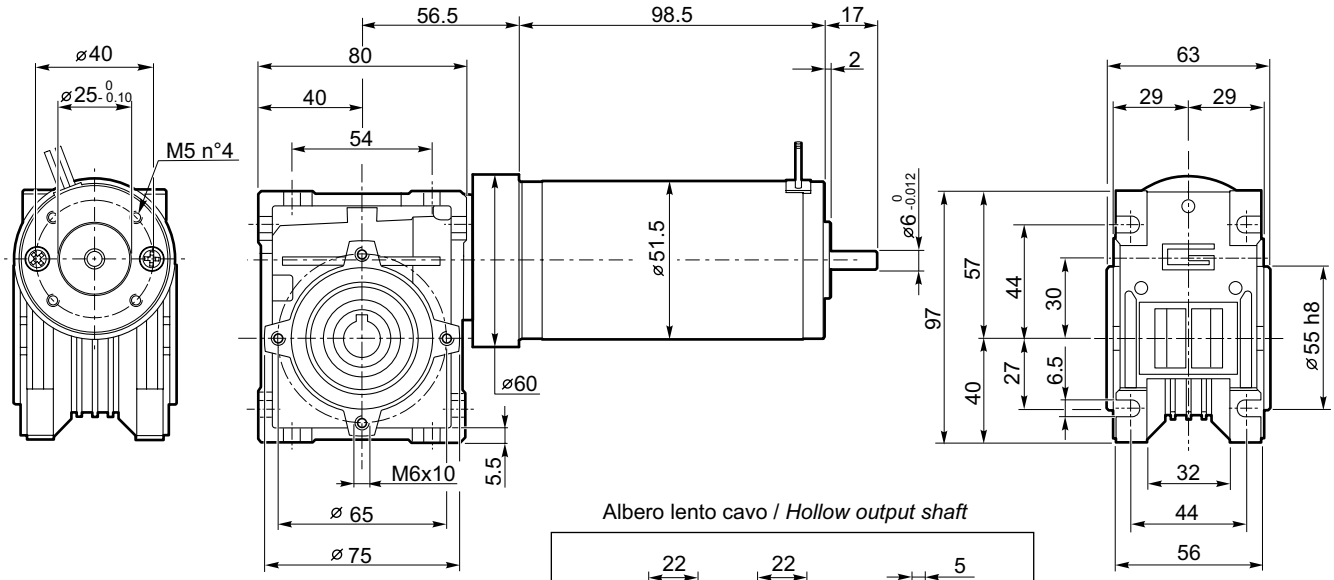


ECM050/026 F

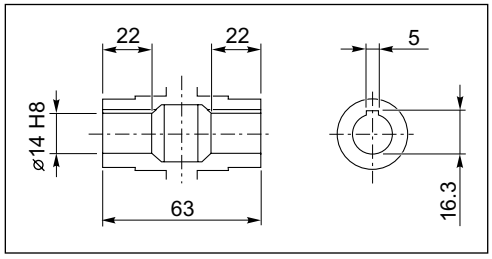


ECM050/026 U..BR
ECM050/026 U..BRL

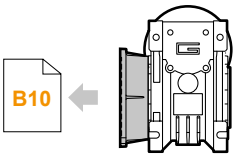
ECM035/030 U



Albero lento cavo / *Hollow output shaft*

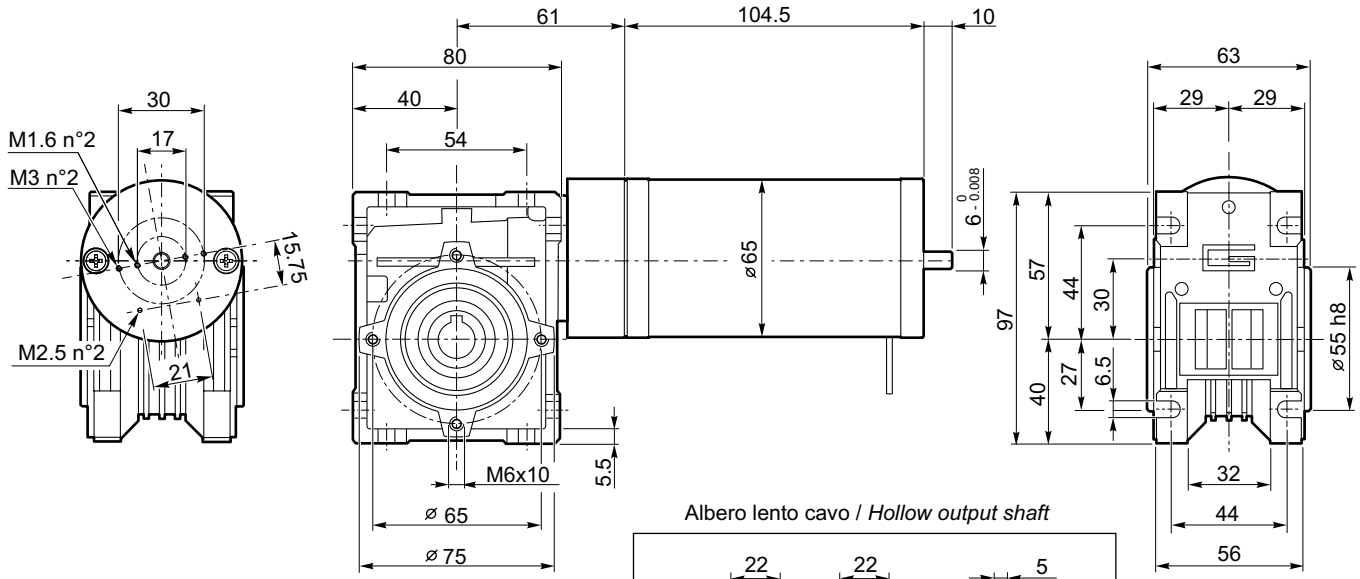


Kg
2.1

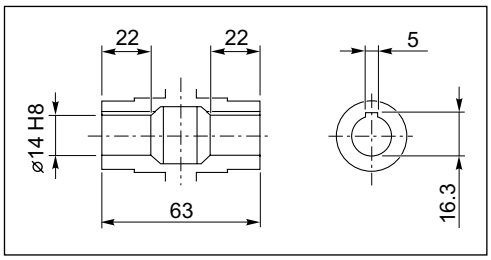


ECM035/030 F

ECM050/030 U



Albero lento cavo / *Hollow output shaft*



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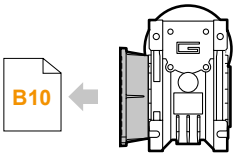

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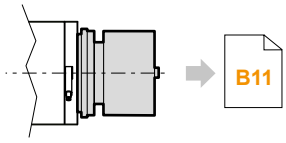

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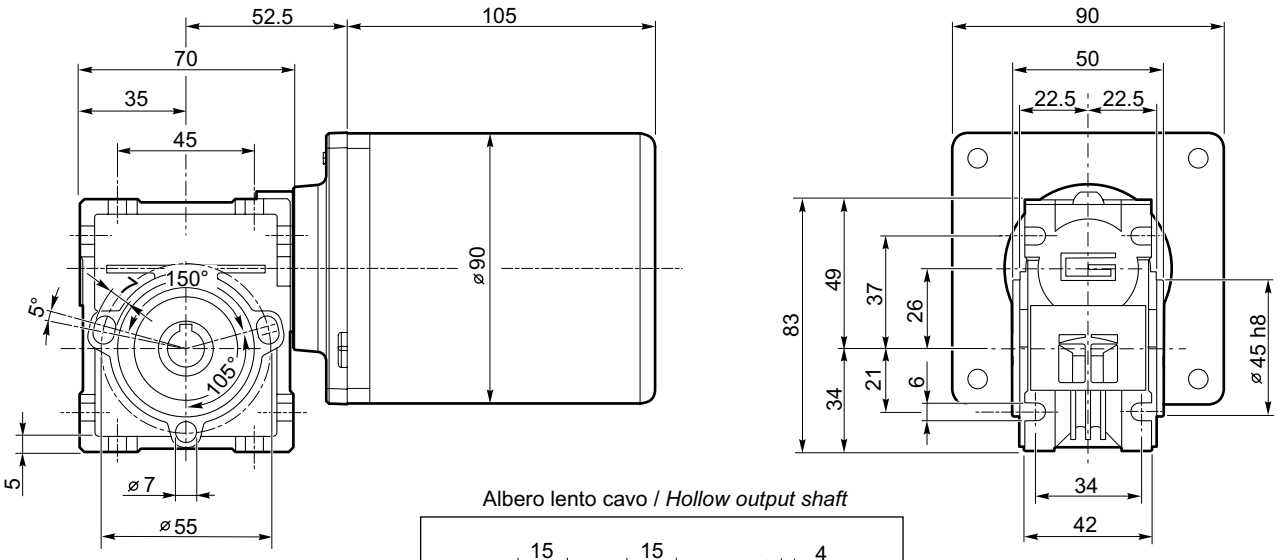
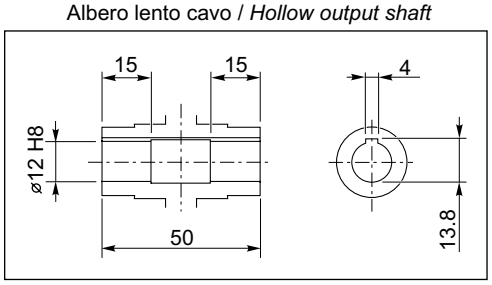
ECM050/030 U..BRL

ACM040/026 U



Albero lento cavo / *Hollow output shaft*



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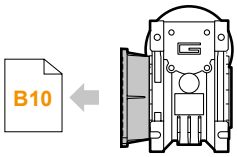
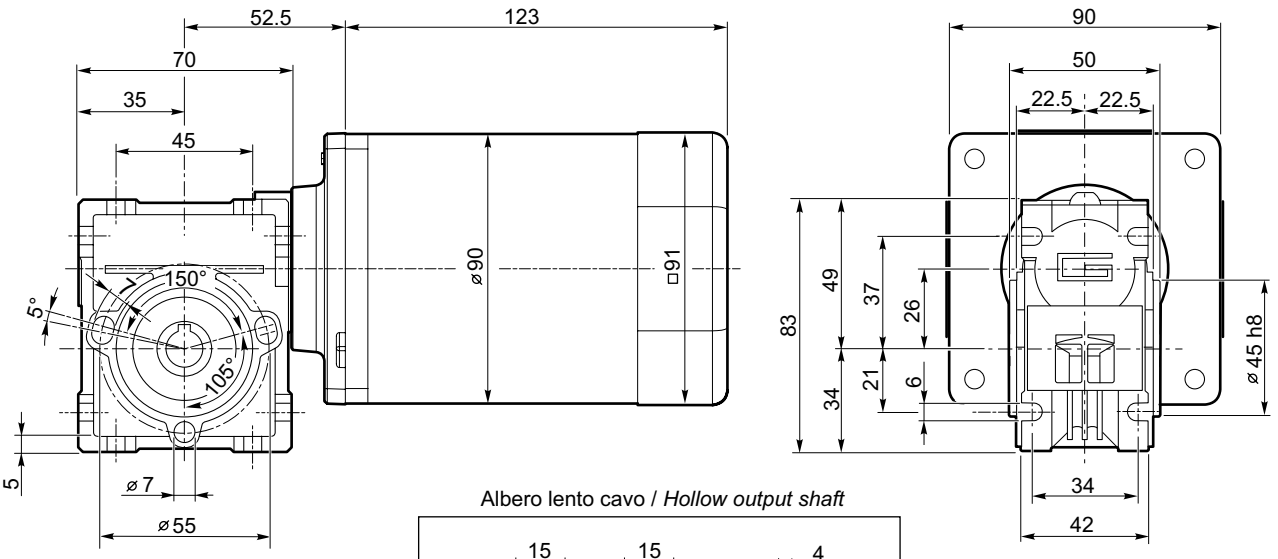
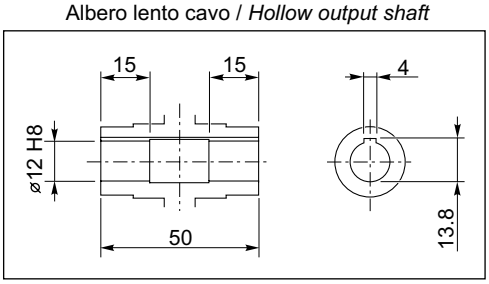


ACM040/026 F

ACM060/026 U



Albero lento cavo / *Hollow output shaft*



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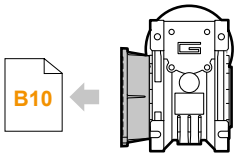

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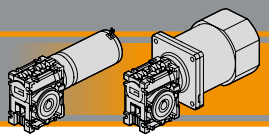

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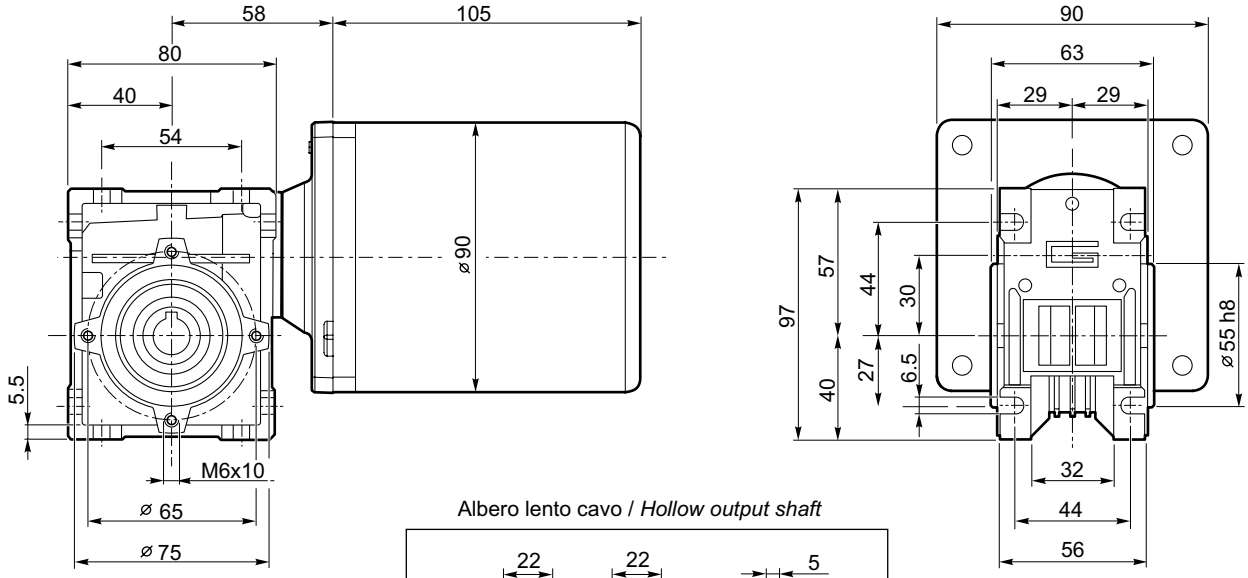
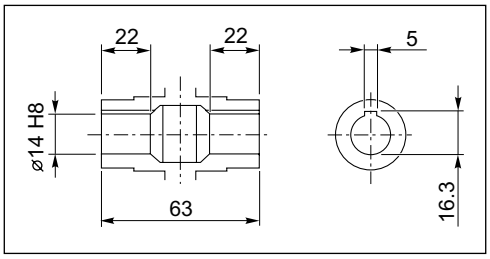


Albero lento cavo / *Hollow output shaft*



Kg
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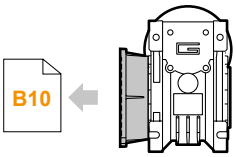
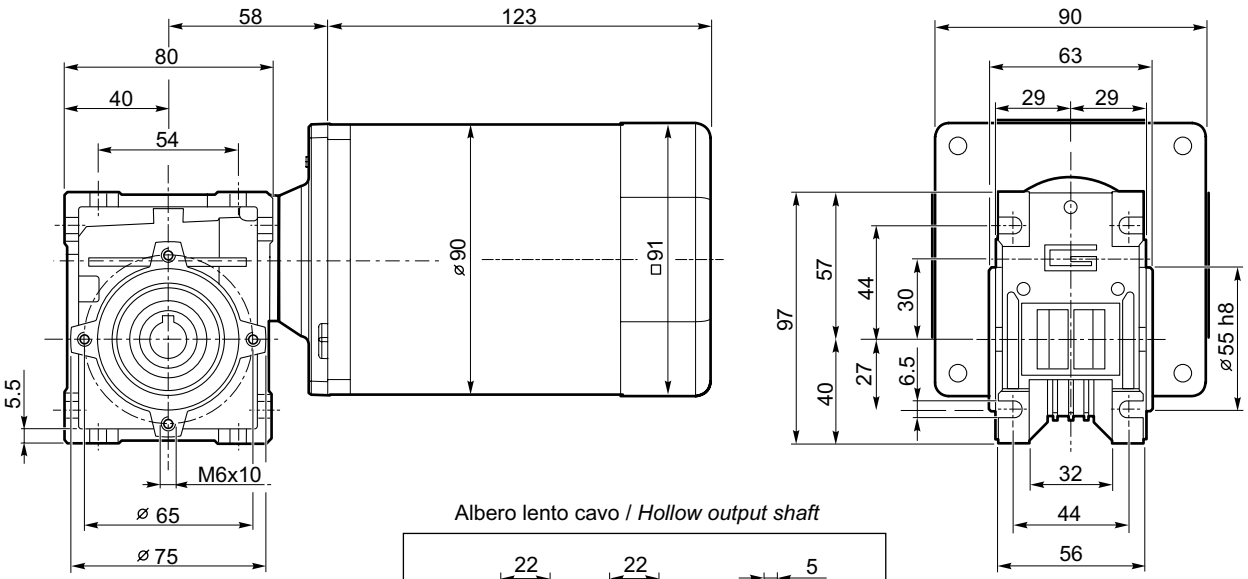
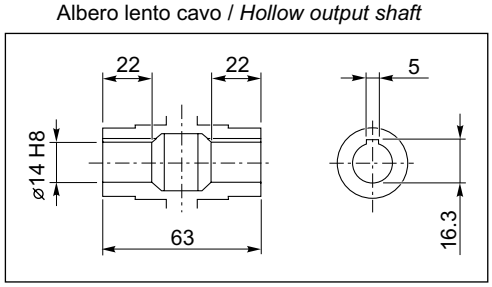


ACM040/030 F

ACM060/030 U



Albero lento cavo / *Hollow output shaft*



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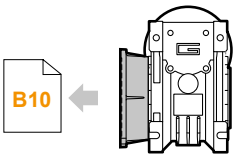
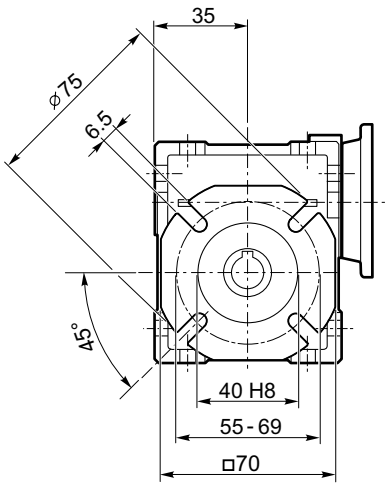
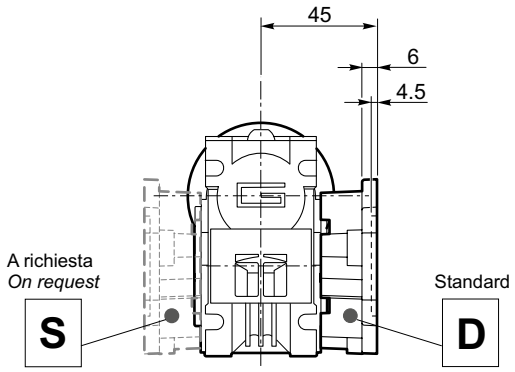


ACM060/030 F

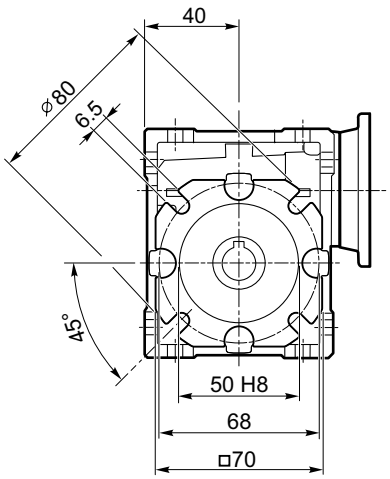
Dimensioni *Dimensions*

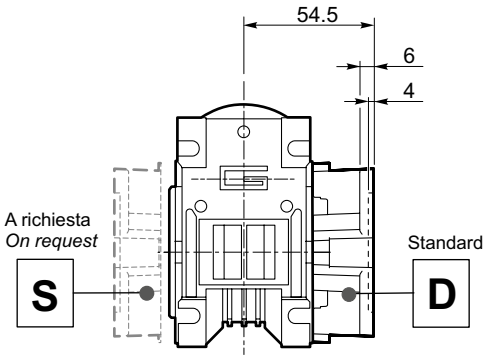
ECM.../026 F... Flange uscita / *Output flanges*
ACM.../026 F...

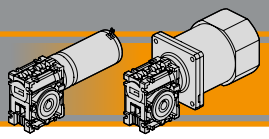




ECM.../030 F... Flange uscita / *Output flanges*
ACM.../030 F...





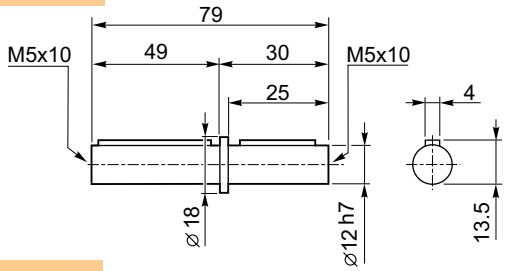


Accessori / *Accessories*

Albero lento semplice e doppio / *Single and double Output shaft*

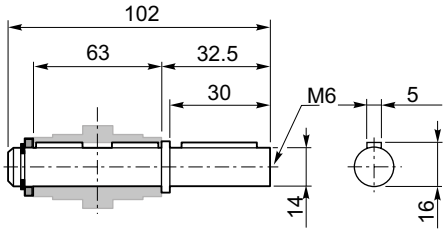
026

SZ



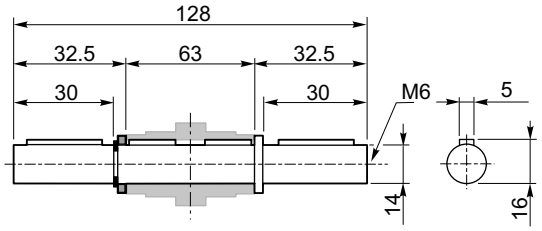
030

SZ



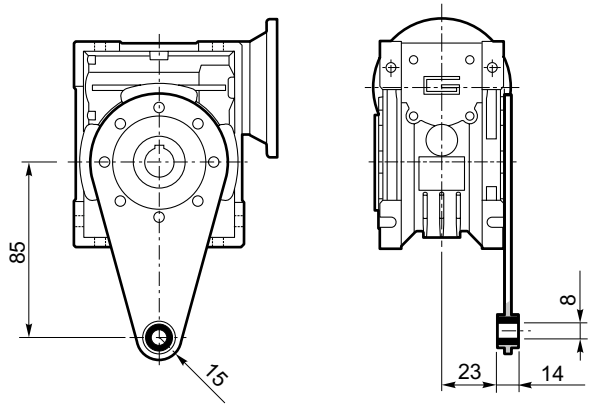
030

DZ

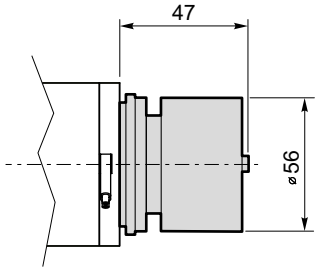


Braccio di reazione / *Torque arm*

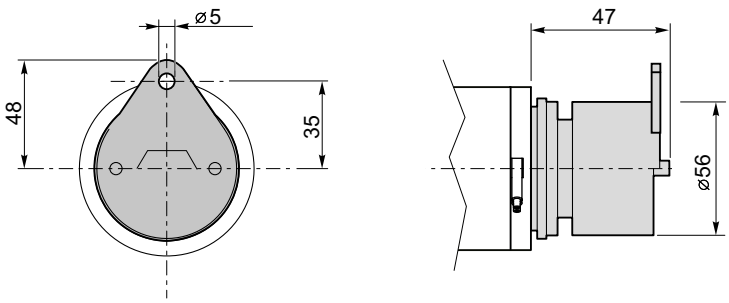
030



ECM ... U BR Freno / *Brake*



ECM ... U BRL Freno con leva di sblocco / *Brake with hand release*



Note/*Notes*

TRANSTECNO®

the modular gearmotor

P

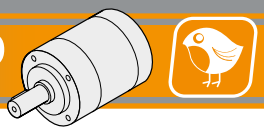
P

Robin

Small but Strong

Riduttori epicicloidali
Planetary gear units

TRANSTECNO · GENUINE · PRODUCTS



ENERGY SAVING

Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**C2**
Designazione	*Classification*	**C2**
Versioni	*Versions*	**C2**
Simbologia	*Symbols*	**C2**
Lubrificazione	*Lubrication*	**C3**
Carichi radiali e assiali	*Radial and axial loads*	**C3**
Dati tecnici	*Technical data*	**C4**
Dimensioni	*Dimensions*	**C5**

Caratteristiche tecniche — *Technical features*

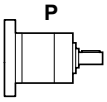
I riduttori epicicloidali della serie P hanno le seguenti caratteristiche principali:

- Ingresso ed uscita coassiali
- Senso di rotazione concorde ingresso/uscita
- Alte coppie in ingombri ridotti
- Adatti per servizio continuo ed intermittente

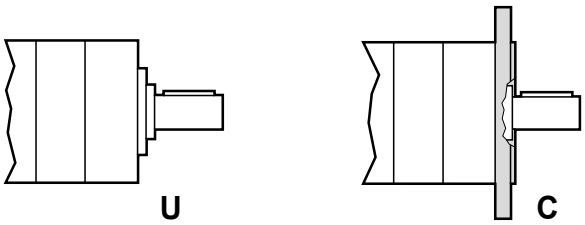
P planetary gearboxes have the following features:

- *Coaxial arrangement of the input and output*
- *Same rotation input/output*
- *Advantageous torque with minimum space requirements*
- *Suitable for continuous, reversing and intermittent operation*

Designazione — *Classification*

RIDUTTORE / *GEARBOX*					
P	**52**	**2**	**C**	**34.97**	**AS60**
Tipo *Type*	Grandezza *Size*	Stadi riduttore *Gearbox stages*	Versione riduttore *Gearbox Version*	Rapporto *Ratio*	Flangia ingresso *Input flange*
 **P**	**42** **52** **62** **72** **81** **105** **120**	**1** **2** **3**	**U** **C80** **C90** **C105** **C120** **C140** **C160**	Vedere tabella *See tables*	Vedere tabella *See tables*

Versioni — *Versions*



Simbologia — *Symbols*

Ns		Stadi / *Stages*	Mn_2	[Nm]	Coppia nominale in uscita / Nominal *output torque*
n_1	[min^{-1}]	Velocità in ingresso / *Input speed*	Rd	%	Rendimento dinamico / *Dynamic efficiency*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*	A_2	[N]	Carico assiale ammissibile in uscita / *Permitted output axial load*
i		Rapporto di riduzione / *Ratio*	R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*

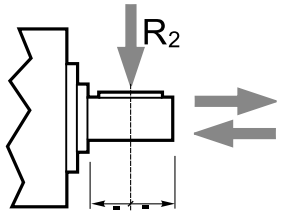
Lubrificazione — *Lubrication*

Tutti i riduttori P sono forniti completi di lubrificante, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent grease long-life lubrication makes it possible to use P in all mounting positions.

Temperatura ambiente di funzionamento consentita / *Operating environmental temperature range*	-50 / +40 °C

Carichi radiali e assiali — *Radial and axial loads*



n_1 = 3000 min^{-1}

Grandezza *Size*	Albero uscita / *Output shaft*						Albero entrata / *Input shaft*	
	1 stadio / *stage*		**2** stadi / *stages*		**3** stadi / *stages*		**1 - 2 - 3** stadi / *stages*	
	R_2 [N]	A_2 [N]	R_2 [N]	A_2 [N]	R_2 [N]	A_2 [N]	R_2 [N]	A_2 [N]
P42	160	50	230	80	300	110	70	40
P52	200	60	320	100	450	150	110	50
P62	240	70	360	100	520	150	120	60
P72	320	70	480	100	760	160	160	80
P81	400	80	600	120	1000	200	200	100
P105	600	120	900	180	1500	300	240	125
P120	600	120	900	180	1500	300	300	150

Dati tecnici — *Technical data*

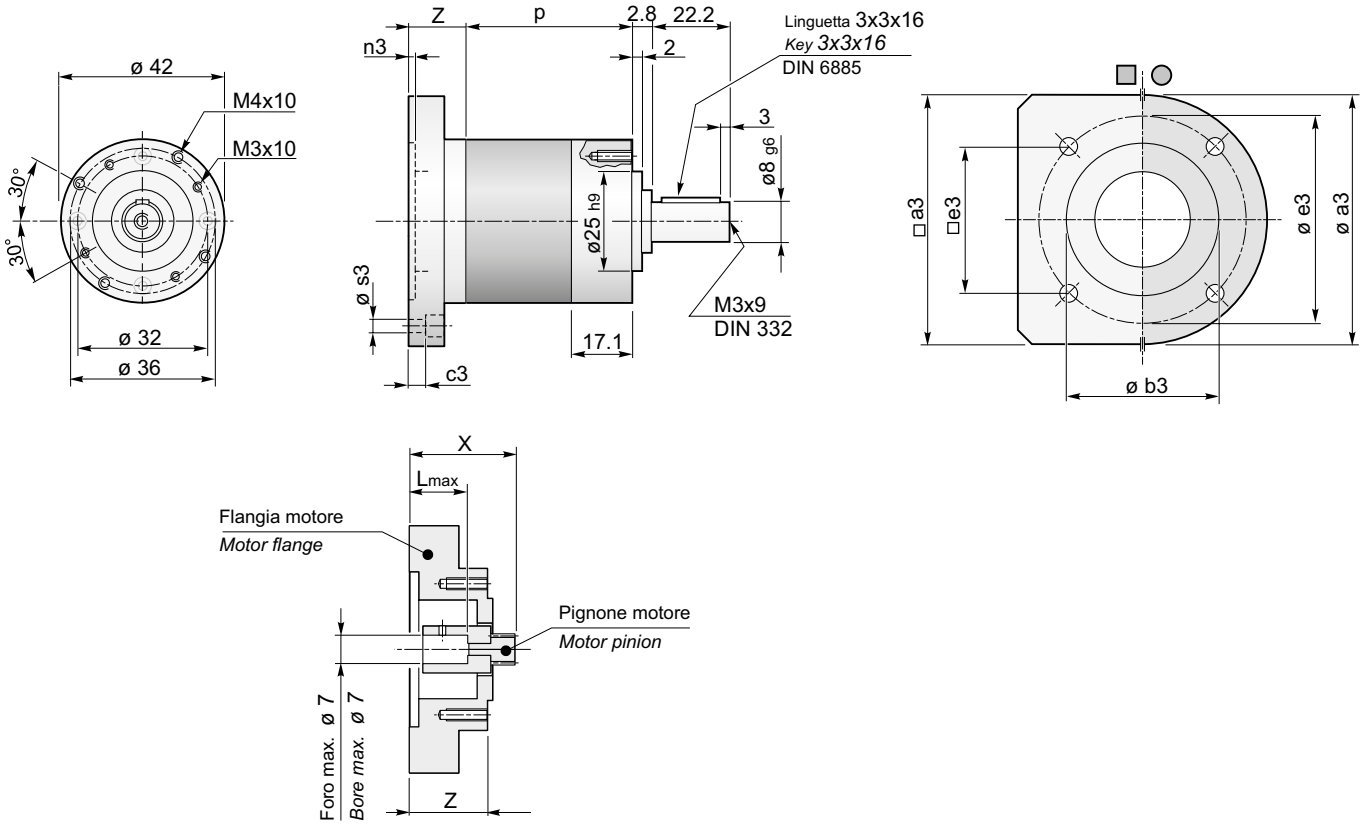
Ns	i	Mn_2 [Nm]													
		P42		P52		P62		P72		P81		P105		P120	
		3000 rpm	1400 rpm	3000 rpm	1400 rpm	3000 rpm	1400 rpm	3000 rpm	1400 rpm	3000 rpm	1400 rpm	3000 rpm	1400 rpm	3000 rpm	1400 rpm
1	3.70	3	3.9	4	5.1	8	10	14	18	20	25	35	45	50	64
	4.28													—	—
	5.18													—	—
	6.75													50	64
2	13.73	7.5	9.6	12	15	25	32	42	54	60	77	105	134	150	192
	15.88													—	—
	18.36													—	—
	19.20													—	—
	22.20													—	—
	25.01													150	192
	26.85													—	—
	28.93													—	—
	34.97													—	—
	45.56													150	192
3	50.89	15	19	25	32	50	64	84	107	120	154	195	250	300	384
	58.85													—	—
	68.06													—	—
	71.16													—	—
	78.71													—	—
	92.70													300	384
	95.17													—	—
	99.50													—	—
	107.20													—	—
	115.07													—	—
	123.97													—	—
	129.62													—	—
	139.13													—	—
	149.90													—	—
	168.84													300	384
	181.24													—	—
	195.26													—	—
	236.09													—	—
	307.54													300	384

Rapporti preferenziali per le taglie P42, P52, P62 e P81.
Preferred ratios for sizes P42, P52, P62 and P81.

Disponibili 4 stadi con rapporti fino a 2076 / *Available 4 stages with ratio up to 2076*

Dimensioni — *Dimensions*

P42 U



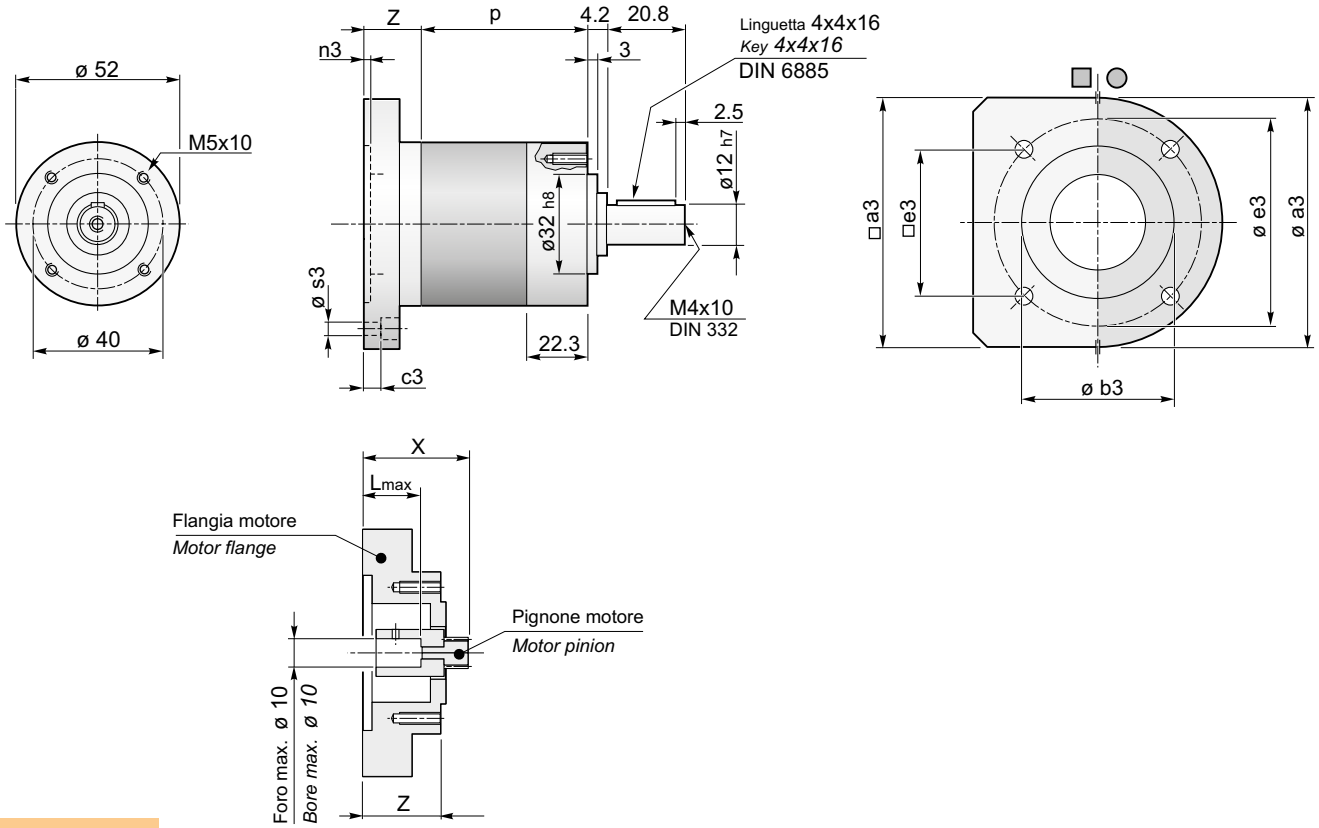
		Lunghezza riduttore *Gearbox length*	Peso *Weight* [kg]
		P	
P42...	1	39	0.4
	2	52	0.5
	3	65	0.6

	Flange entrata / *Input flanges*								
	Flangia *Flange*	a3	b3	c3	e3	n3	s3	Z	L max	X
P42	AS05	□ 42	22	17	□ 31	3	4 - Ø 3.5	32	25	42.7
	AS11	□ 56	38.1	/	□ 47.14	3	4 - M4	27	21	37.5
	AS32	Ø 42	22	13	Ø 32	3	4 - Ø 3.5	21	15	31.5
	AS33	Ø 42	16	16	Ø 25.5	3	4 - Ø 3.5	21	15	31.5
	AS47	Ø 64	28	5	Ø 50	3	3 - Ø 4.5	26.5	25	37
	AS58	□ 52	36	/	□ 41	2	4 - M4	27	21	37.5
	AS63	Ø 44	16	24	Ø 22	2	6 - Ø 3.3	31	25	39
	AS70	Ø 80	50	8.2	Ø 65	3	4 - Ø 5.5	26	20	36.5
	AS117	□ 56	22	3	Ø 40	3	4 - Ø 5.5	19	13	29.7
				/	□ 47		4 - M4			
	AS130	Ø 52	25	15	Ø 40	3	4 - Ø 5.5	21	15	31.5
	AS134	Ø 77	50	8.2	Ø 65	3	4 - Ø 5.5	21	15	31.5
				/	Ø 65		4 - M5			
	AS213	□ 60	36	/	□ 50	2.5	4 - M4	28.9	23	39.4

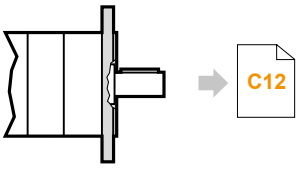
Preferenziali / *Preferred*

Dimensioni — *Dimensions*

P52 U



P52 C..



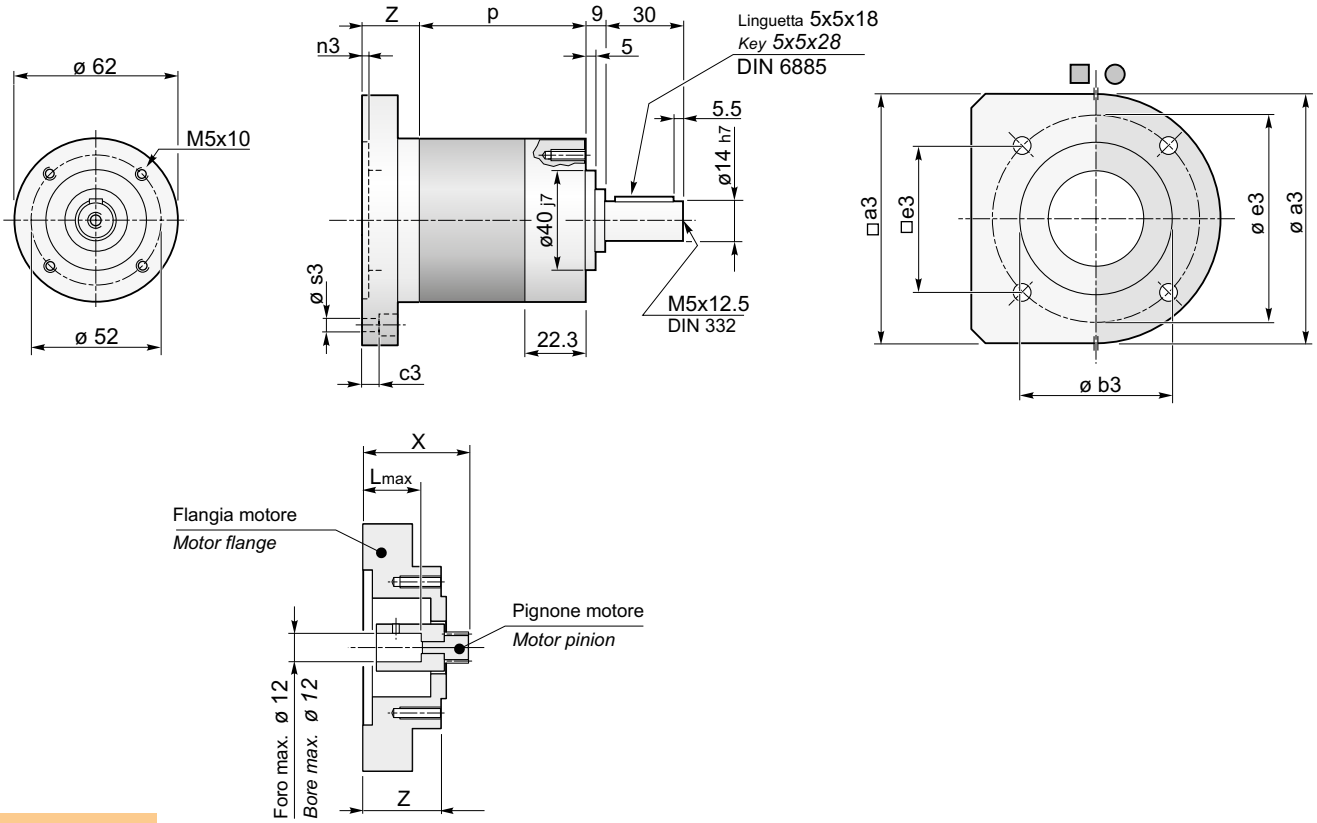
		Lunghezza riduttore *Gearbox length*	Peso *Weight* [kg]
		P	
P52...	1	46	0.7
	2	60	0.9
	3	74	1.1

	Flange entrata / *Input flanges*										
	Flangia *Flange*	IEC	a3	b3	c3	e3	n3	s3	Z	L max	X
P52	AS09	\	□ 60	36	/	□ 50	2	4 - M4	27	20.6	37.5
	AS23	\	Ø 60	26	17.5	Ø 39	3	4 - Ø 4.5	26.5	20	37
	AS36	\	Ø 60	28	15	Ø 42	3	4 - Ø 5.5	21	15	31.5
	AS38	\	Ø 65	32	23	Ø 46	3	4 - Ø 4.5	29	22.5	39.5
	AS50	\	Ø 79	45	14.5	Ø 65.5	3.5	4 - Ø 5.5	32	24	42.5
	AS51	\	Ø 68	28	21.5	Ø 50	3	3 - Ø 4.5	31.5	24	42
	AS60	56B14	Ø 80	50	10.2	Ø 65	3	4 - Ø 5.5	28	20	38.5
	AS68	\	Ø 52	22	13	Ø 30	3	4 - Ø 4.5	28	20	38.5
	AS86	\	Ø 52	30	/	Ø 46	3	4 - M4	33.5	25	44
	AS109	\	Ø 80	55	10	Ø 65	3	4 - Ø 6.5	24	16	34.5
	AS115	\	Ø 52	25	17.5	Ø 40	3	4 - Ø 5.5	26.5	20	37
	AS140	\	Ø 80	50	10.2	Ø 65	3	4 - Ø 5.5	28	20	38.5

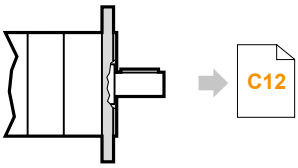
Preferenziali / *Preferred*

Dimensioni — *Dimensions*

P62 U



P62 C..



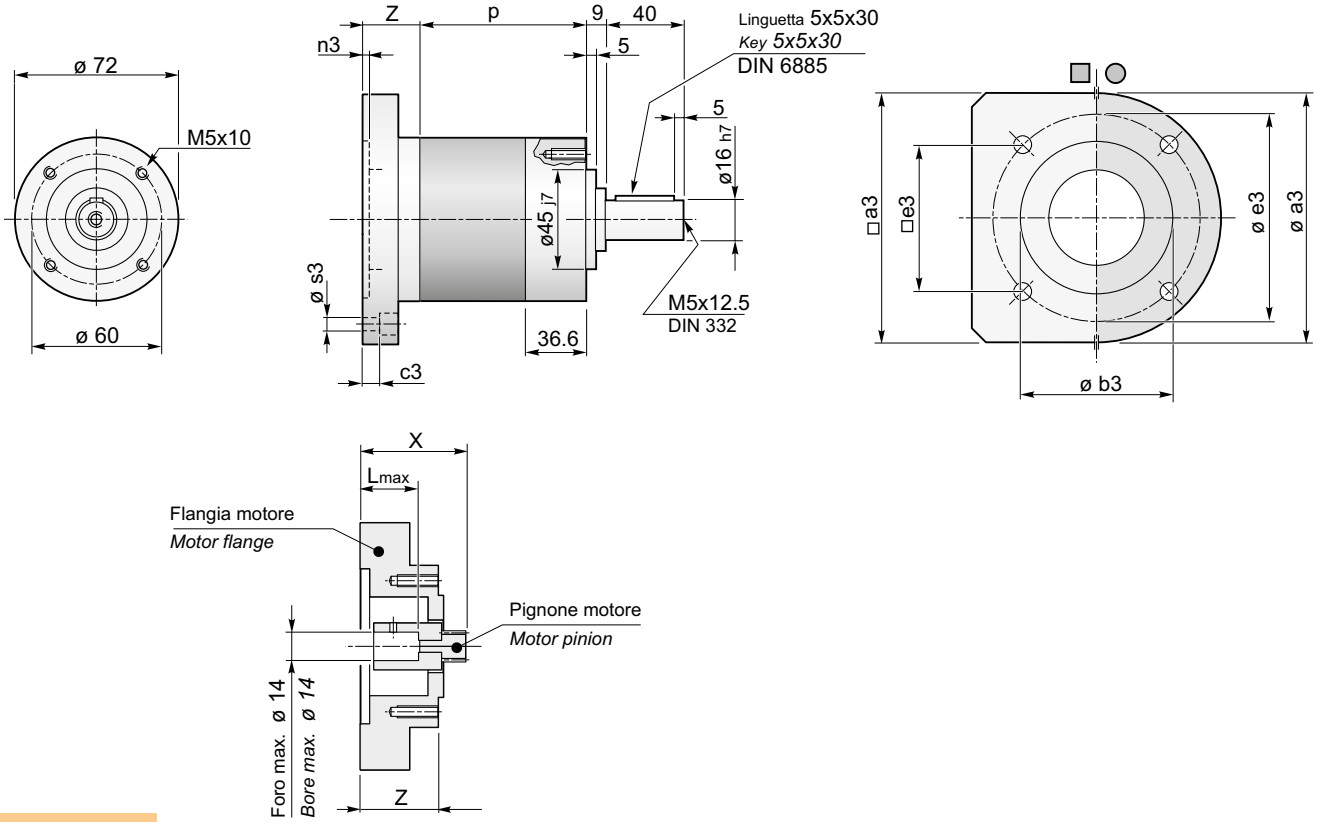
		Lunghezza riduttore *Gearbox length*	Peso *Weight* *[kg]*
		P	
P62...	1	46	0.8
	2	62	1.2
	3	78	1.6

P62	Flange entrata / *Input flanges*										
	Flangia *Flange*	IEC	a3	b3	c3	e3	n3	s3	Z	L max	X
	AS08	\	□ 60	50	/	□ 49.5	4	4 - M4	37	30	49.8
	AS12	\	□ 84.5	73.02	/	□ 69.6	2	4 - M5	40	30	52.8
	AS15	\	□ 58	38.1	/	□ 47.14	2	4 - M4	30	20.6	42.8
	AS61	63B14	Ø 90	60	7	Ø 75	3	4 - Ø 5.5	30	23	42.8
	AS244	56B14	Ø 80	50	5	Ø 65	3.5	4 - Ø 5.5	28	20	40.8

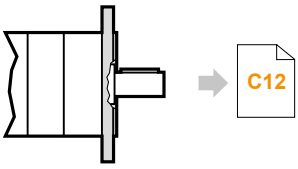
Preferenziali / *Preferred*

Dimensioni ***Dimensions***

P72 U



P72 C..

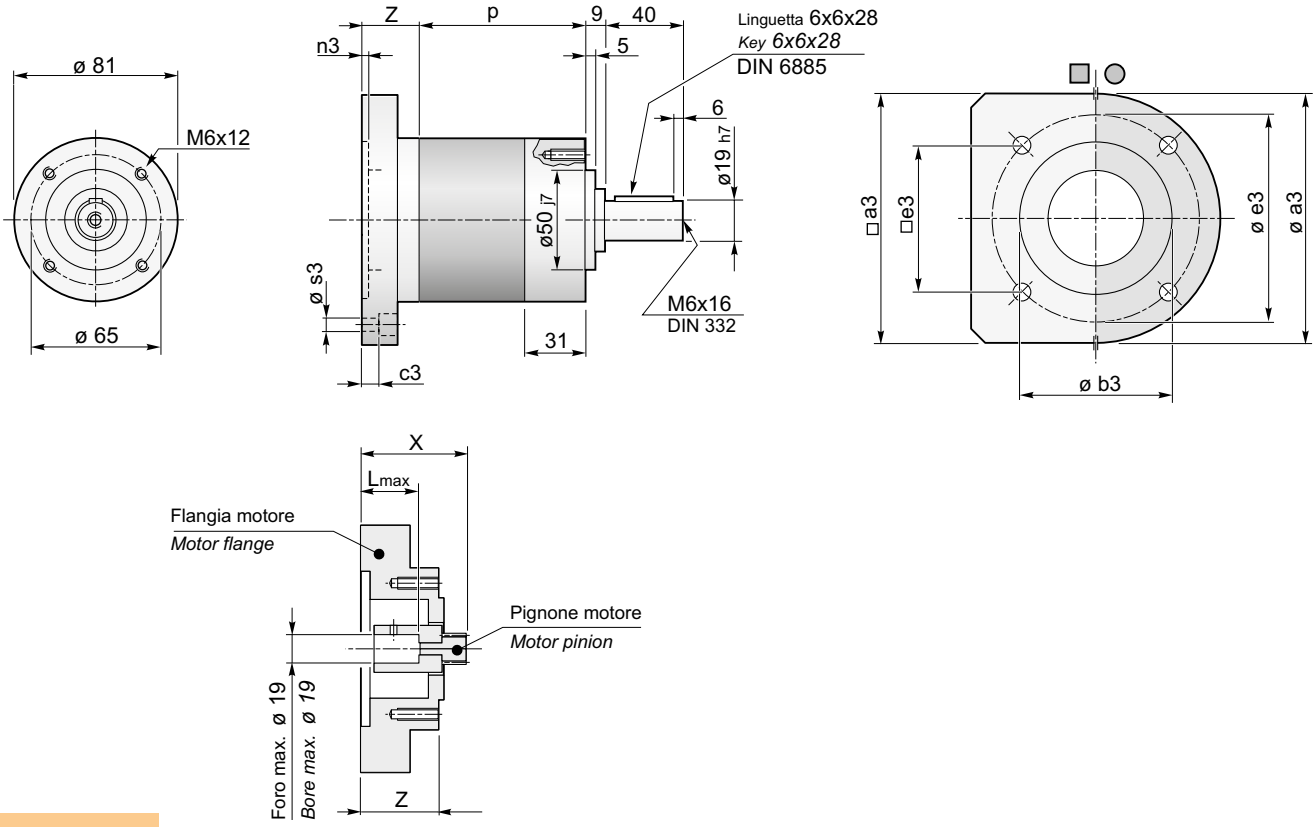


		Lunghezza riduttore *Gearbox length*	Peso *Weight* *[kg]*
		P	
P72...	1	56.9	1.4
	2	76.5	1.9
	3	96.1	2.4

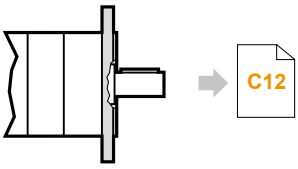
P72	Flange entrata / *Input flanges*										
	Flangia *Flange*	IEC	a3	b3	c3	e3	n3	s3	Z	L max	X
	AS245	56B14	Ø 80	50	10	Ø 65	3.4	4 - Ø 5.5	26.5	20	38.9
	AS246	63B14	Ø 90	60	9	Ø 75	3.5	4 - Ø 5.5	28.5	23	41.9
	AS247	71B14	Ø 105	70	10	Ø 85	4	4 - Ø 6.5	35.5	30	48.9

Dimensioni — *Dimensions*

P81 U



P81 C..



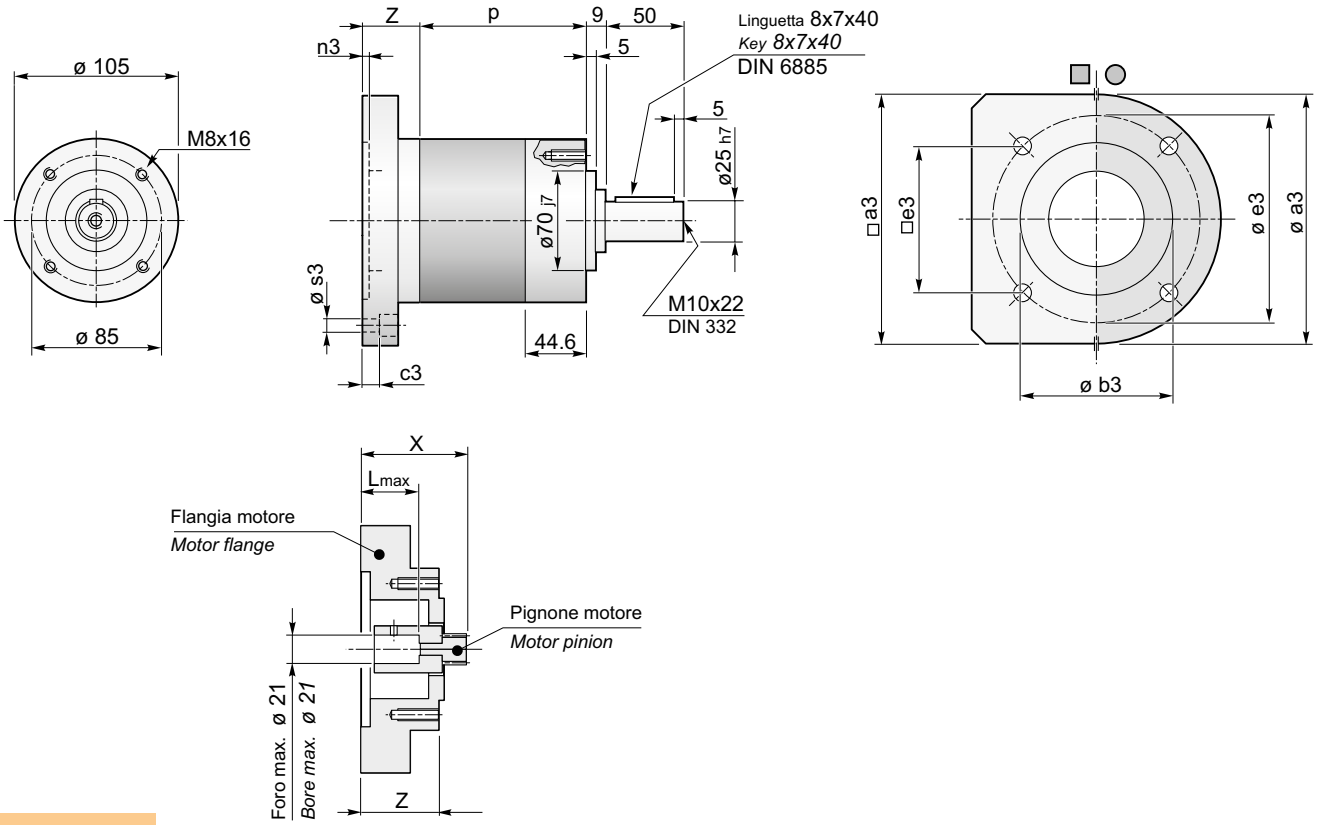
		Lunghezza riduttore *Gearbox length*	Peso *Weight* [kg]
		P	
P81...	1	59	1.8
	2	81	2.5
	3	103	3.2

	Flange entrata / *Input flanges*										
	Flangia *Flange*	IEC	a3	b3	c3	e3	n3	s3	Z	L max	X
P81	AS04	\	□ 100	95	25	Ø 115	3.5	4 - Ø 9	43	30	59.3
	AS12B	\	□ 85	73.02	—	□ 69.6	2	4 - M5	43	30	59.3
	AS18	\	Ø 114	80	26	Ø 100	4	4 - Ø 6.5	53	40	69.3
	AS30	\	Ø 80	50	35.5	Ø 70	3.5	4 - Ø 5.5	42.5	28	58.8
	AS40	\	□ 80	70	26.5	Ø 90	4	4 - Ø 6.5	52.5	40	68.8
	AS73	\	□ 110	55.524	49.8	□ 88.9	2	4 - Ø 8.5	67.8	55.63	84.1
	AS92	\	□ 85	35	—	□ 69.6	10.5	4 - M5	53	40.2	69.3
	AS248	56B14	Ø 80	50	9	Ø 65	3.5	4 - Ø 5.5	35	20	51.3
	AS249	63B14	Ø 90	60	5	Ø 75	3.5	4 - Ø 5.5	35	23	51.3
	AS254	71B14	Ø 105	70	6	Ø 85	4	4 - Ø 6.5	42	30	58.3
	AS280	80B14	Ø 120	80	10	Ø 100	4	4 - Ø 6.5	52	40	68.3

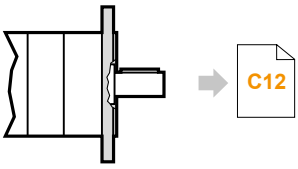
Preferenziali / *Preferred*

Dimensioni — *Dimensions*

P105 U



P105 C..

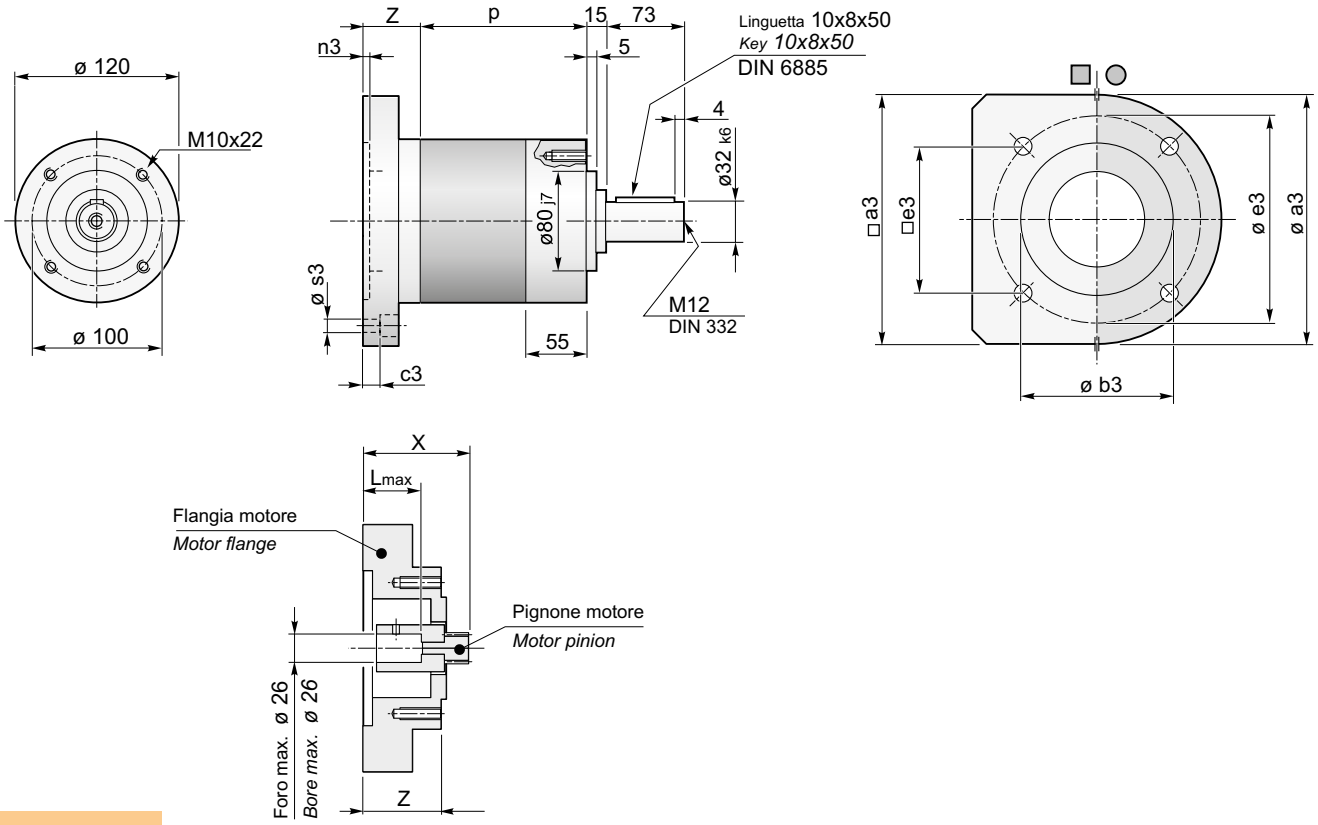


		Lunghezza riduttore *Gearbox length*	Peso *Weight* [kg]
		P	
P105...	1	76.4	4.4
	2	107.5	6.0
	3	138.5	7.6

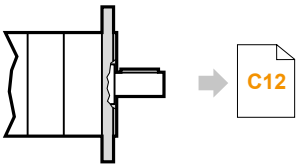
P105	Flange entrata / *Input flanges*										
	Flangia *Flange*	IEC	a3	b3	c3	e3	n3	s3	Z	L max	X
	AS250	56B14	Ø 105	50	13.5	Ø 65	3.5	4 - Ø 5.5	37	20	52.3
	AS251	63B14	Ø 105	60	10.5	Ø 75	3.5	4 - Ø 5.5	37	23	55.3
	AS252	71B14	Ø 105	70	11.5	Ø 85	4	4 - Ø 6.5	44	30	62.3
	AS281	80B14	Ø 120	80	17	Ø 100	4	4 - Ø 6.5	54.5	40	72.3

Dimensioni ***Dimensions***

P120 U



P120 C..

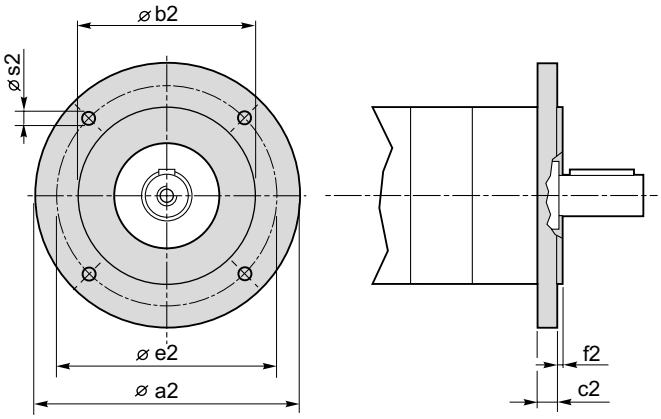


		Lunghezza riduttore *Gearbox length*	Peso *Weight* *[kg]*
		P	
P120…	1	89.7	5.6
	2	123.9	8.0
	3	158.1	10.4

P120	Flange entrata / *Input flanges*										
	Flangia *Flange*	IEC	a3	b3	c3	e3	n3	s3	Z	L max	X
	AS255	56B14	Ø 120	50	15	Ø 65	3.5	4 - Ø 5.5	41.7	20	60.2
	AS256	63B14	Ø 120	60	8.3	Ø 75	3.5	4 - Ø 5.5	41.7	23	63.2
	AS257	71B14	Ø 120	70	8.3	Ø 85	4	4 - Ø 6.5	43.8	30	70.2
	AS282	80B14	Ø 120	80	13.3	Ø 100	4	4 - Ø 6.5	53.8	40	80.2
	AS283	90B14	Ø 140	95	23.3	Ø 115	4	4 - Ø 8.5	63.8	50	90.2

Dimensioni — *Dimensions*

P.. C..



P	Flange uscita / *Output flanges*						
	a2	b2	c2	e2	f2	s2	Flangia *Flange*
52	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
62	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
72	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
81	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	M6	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
105	120	80 j7	12	100	3	M6	**C120**
	140	95 j7	12	115	3.5	M8	**C140**
	160	110 j7	12	130	3.5	M8	**C160**
120	140	95 j7	15	115	3	M8	**C140**
	160	110 j7	15	130	3.5	M8	**C160**

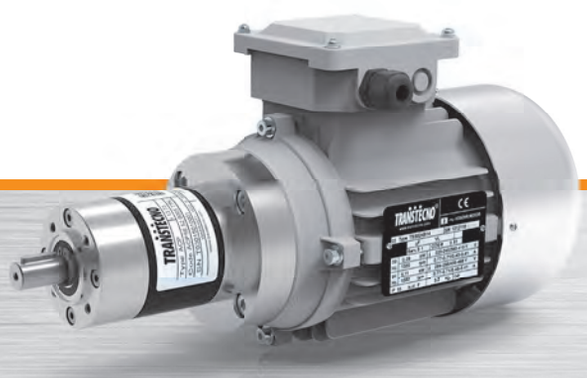
TRANSTECNO®
the modular gearmotor

ACP

ACP

ACP Robin
Small but Strong

Motoriduttori CA epicicloidali
AC planetary gearmotors



TRANSTECNO · GENUINE · PRODUCTS

ENERGY SAVING

Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**D2**
Designazione	*Classification*	**D2**
Versioni	*Versions*	**D2**
Simbologia	*Symbols*	**D2**
Lubrificazione	*Lubrication*	**D3**
Carichi radiali	*Radial loads*	**D3**
Rapporti	*Ratios*	**D4**
Dati tecnici	*Technical data*	**D5**
Motori applicabili	*IEC Motor adapters*	**D12**
Dimensioni	*Dimensions*	**D13**

Caratteristiche tecniche — *Technical features*

Le caratteristiche principali dei motoriduttori epicicloidali della serie ACP sono:

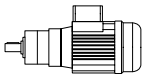
- Alimentazione in corrente alternata trifase;
- Ingresso ed uscita coassiali;
- Design compatto;
- Lubrificazione permanente a grasso;
- Possono essere installati in qualunque posizione di mon-montaggio

The main features of ACP planetary gearmotors range are:

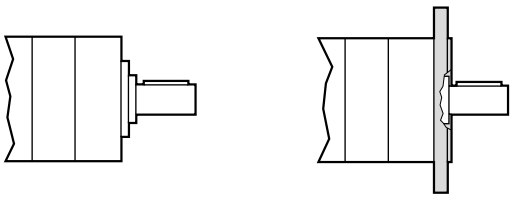
- *Threephase power supply;*
- *Coaxial arrangement of the input and output;*
- *Compact design;*
- *Permanent grease long life lubrication;*
- *Can be installed in all mounting positions.*

Designazione — *Classification*

MOTORIDUTTORE / *GEARMOTOR*

ACP	712/81					2	C	34.97
Tipo *Type*	Grandezza *Size*					Stadi riduttore *Gearbox stages*	Versione riduttore *Gearbox Version*	Rapporto *Ratio*
ACP 	**56.../52** **56.../62** **56.../72** **56.../81** **56.../105** **56.../120**	**63.../62** **63.../72** **63.../81** **63.../105** **63.../120**	**71.../72** **71.../81** **71.../105** **71.../120**	**80.../81** **80.../105** **80.../120**	**90.../120**	**1** **2** **3**	**U** **C80** **C90** **C105** **C120** **C140** **C160**	Vedere tabella *See tables*

Versioni — *Versions*



U **C**

Simbologia — *Symbols*

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

Lubrificazione

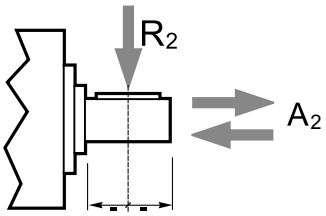
I motoriduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione.
Questo gli consente di essere installati praticamente ovunque.
La temperatura ambiente di funzionamento consentita va da -50°C a + 40 °C; per applicazioni particolari, possono essere adottate misure per raggiungere livelli di temperatura maggiori.

Lubrication

Planetary gearmotors are life-time lubricated with grease, therefore they are maintenance free.
They can be installed in any location.
The environmental temperature range is from -50 °C up to +40°C; *for special applications, measures can be taken for higher temperature range.*

Carichi radiali

Radial loads



Numero di stadi *N° of stages*	Carichi Radiali R_2 [N] / *Radial Load R_2 [N]*					
	P52	P62	P72	P81	P105	P120
1	200	240	320	400	600	600
2	320	360	480	600	900	900
3	450	520	760	1000	1500	1500

Numero di stadi *N° of stages*	Carichi Assiali A_2 [N] / *Axial Load A_2 [N]*					
	P52	P62	P72	P81	P105	P120
1	60	70	70	80	120	120
2	100	100	100	120	180	180
3	150	150	160	200	300	300

Rapporti — *Ratios*

Numero di stadi *N° of stages*	Per tutte le grandezze di riduttori della serie P *For all gearbox sizes of P range*
	Rapporti / *Ratios*
1	**3.70**
	4.28*
	5.18*
	6.75
2	**13.73**
	15.88*
	18.36*
	19.20*
	22.20*
	25.01
	26.85*
	28.93*
	34.97*
	45.56
3	**50.89**
	58.85*
	68.06*
	71.16*
	78.71*
	92.70
	95.17*
	99.50*
	107.20*
	115.07*
	123.97*
	129.62*
	139.13*
	149.90*
	168.84
	181.24*
	195.26*
	236.09*
	307.54

Rapporti preferenziali per le taglie P52, P62, P81.
Preferred ratios for P52, P62, P81.

*** Rapporto non disponibile su grandezza P120 / *Ratio not available on size P120***

Disponibile a 4 stadi con rapporti fino a 2076 / *Available 4 stages with ratio up to 2076*

Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.06					
(1400 min^{-1})	**378**	1.2	4.2	3.70	**5614/521**
	327	1.4	3.6	4.28	
	270	1.7	3.0	5.18	
	207	2.2	2.3	6.75	
	102	4.2	3.6	13.73	**5614/522**
	88.2	4.9	3.1	15.88	
	76.3	5.6	2.7	18.36	
	72.9	5.9	2.6	19.20	
	63.1	6.8	2.2	22.20	
	56.0	7.7	2.0	25.01	
	52.1	8.3	1.8	26.85	
	48.4	8.9	1.7	28.93	
	40.0	11	1.4	34.97	
	30.7	14	1.1	45.56	
	27.5	15	2.2	50.89	**5614/523**
	23.8	17	1.9	58.85	
	20.6	20	1.6	68.06	
	19.7	20	1.5	71.16	
	17.8	23	1.4	78.71	
	15.1	27	1.2	92.70	
	14.7	27	1.2	95.17	
	14.1	29	1.1	99.50	
	13.1	31	1.0	107.20	
	12.2	33	1.0	115.07	
	11.3	36	0.9	123.97	
	10.8	37	0.9	129.62	
	10.1	40	0.8	139.13	
	9.3	43	0.7	149.90	
	8.3	48	0.7	168.84	
	48.4	8.9	3.6	28.93	**5614/622**
	40.0	11	2.9	34.97	
	30.7	14	2.3	45.56	
	27.5	15	4.3	50.89	**5614/623**
	23.8	17	3.7	58.85	
	20.6	20	3.2	68.06	
	19.7	20	3.1	71.16	
	17.8	23	2.8	78.71	
	15.1	27	2.4	92.70	
	14.7	27	2.3	95.17	
	14.1	29	2.2	99.50	
	13.1	31	2.1	107.20	
	12.2	33	1.9	115.07	
	11.3	36	1.8	123.97	
	10.8	37	1.7	129.62	
	10.1	40	1.6	139.13	
	9.3	43	1.5	149.90	
	8.3	48	1.3	168.84	
	7.7	52	1.2	181.24	
	7.2	56	1.1	195.26	
	5.9	68	0.9	236.09	
	4.6	88	0.7	307.54	
	8.3	48	2.2	168.84	**5614/723**
	7.7	52	2.0	181.24	
	7.2	56	1.9	195.26	
	5.9	68	1.6	236.09	
	4.6	88	1.2	307.54	

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.09					
(1400 min^{-1})	**378**	1.8	2.8	3.70	**5624/521**
	327	2.1	2.4	4.28	
	270	2.5	2.0	5.18	
	207	3.3	1.5	6.75	
	102	6.3	2.4	13.73	**5624/522**
	88.2	7.3	2.1	15.88	
	76.3	8.4	1.8	18.36	
	72.9	8.8	1.7	19.20	
	63.1	10	1.5	22.20	
	56.0	11	1.3	25.01	
	52.1	12	1.2	26.85	
	48.4	13	1.1	28.93	
	40.0	16	0.9	34.97	
	30.7	21	0.7	45.56	
	27.5	22	1.5	50.89	**5624/523**
	23.8	25	1.3	58.85	
	20.6	29	1.1	68.06	
	19.7	30	1.0	71.16	
	17.8	34	0.9	78.71	
	15.1	40	0.8	92.70	
	14.7	41	0.8	95.17	
	14.1	42	0.7	99.50	
	13.1	46	0.7	107.20	
	72.9	8.8	3.6	19.20	**5624/622**
	63.1	10	3.1	22.20	
	56.0	11	2.8	25.01	
	52.1	12	2.6	26.85	
	48.4	13	2.4	28.93	
	40.0	16	2.0	34.97	
	30.7	21	1.5	45.56	
	27.5	22	2.9	50.89	**5624/623**
	23.8	25	2.5	58.85	
	20.6	29	2.2	68.06	
	19.7	30	2.1	71.16	
	17.8	34	1.9	78.71	
	15.1	40	1.6	92.70	
	14.7	41	1.6	95.17	
	14.1	42	1.5	99.50	
	13.1	46	1.4	107.20	
	12.2	49	1.3	115.07	
	11.3	53	1.2	123.97	
	10.8	55	1.1	129.62	
	10.1	59	1.1	139.13	
	9.3	64	1.0	149.90	
	8.3	72	0.9	168.84	
	7.7	77	0.8	181.24	
	7.2	83	0.8	195.26	
	15.1	40	2.7	92.70	**5624/723**
	14.7	41	2.6	95.17	
	14.1	42	2.5	99.50	
	13.1	46	2.3	107.20	
	12.2	49	2.2	115.07	
	11.3	53	2.0	123.97	
	10.8	55	1.9	129.62	

Motoriduttori preferenziali / ***Preferred gearmotors***

Dati tecnici / *Technical data*

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.09					
(1400 min^{-1})	**10.1**	59	1.8	139.13	**5624/723**
	9.3	64	1.7	149.90	
	8.3	72	1.5	168.84	
	7.7	77	1.4	181.24	
	7.2	83	1.3	195.26	
	5.9	101	1.1	236.09	
	4.6	131	0.8	307.54	
	8.3	72	2.1	168.84	**5624/813**
	7.7	77	2.0	181.24	
	7.2	83	1.8	195.26	
	5.9	101	1.5	236.09	
	4.6	131	1.2	307.54	
0.12					
(1400 min^{-1})	**378**	2.4	4.2	3.70	**6314/621**
	327	2.8	3.7	4.28	
	270	3.4	3.0	5.18	
	207	4.4	2.3	6.75	
	102	8.3	3.8	13.73	**6314/622**
	88.2	9.6	3.3	15.88	
	76.3	11	2.8	18.36	
	72.9	12	2.7	19.20	
	63.1	13	2.3	22.20	
	56.0	15	2.1	25.01	
	52.1	16	1.9	26.85	
	48.4	18	1.8	28.93	
	40.0	21	1.5	34.97	
	30.7	28	1.1	45.56	
	27.5	29	2.2	50.89	**6314/623**
	23.8	33	1.9	58.85	
	20.6	39	1.6	68.06	
	19.7	40	1.6	71.16	
	17.8	45	1.4	78.71	
	15.1	53	1.2	92.70	
	14.7	54	1.2	95.17	
	14.1	56	1.1	99.50	
	13.1	61	1.0	107.20	
	12.2	65	1.0	115.07	
	11.3	70	0.9	123.97	
	10.8	73	0.9	129.62	
	10.1	79	0.8	139.13	
	9.3	85	0.7	149.90	
	8.3	96	0.7	168.84	
	27.5	29	3.7	50.89	**6314/723**
	23.8	33	3.2	58.85	
	20.6	39	2.8	68.06	
	19.7	40	2.6	71.16	
	17.8	45	2.4	78.71	
	15.1	53	2.0	92.70	
	14.7	54	2.0	95.17	
	14.1	56	1.9	99.50	
	13.1	61	1.7	107.20	
	12.2	65	1.6	115.07	
	11.3	70	1.5	123.97	
	10.8	73	1.4	129.62	

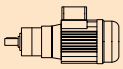
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.12					
(1400 min^{-1})	**10.1**	79	1.3	139.13	**6314/723**
	9.3	85	1.3	149.90	
	8.3	96	1.1	168.84	
	7.7	103	1.0	181.24	
	7.2	111	1.0	195.26	
	5.9	134	0.8	236.09	
	4.6	152*	0.7	307.54	
	15.1	53	2.9	92.70	**6314/813**
	14.7	54	2.8	95.17	
	14.1	56	2.7	99.50	
	13.1	61	2.5	107.20	
	12.2	65	2.3	115.07	
	11.3	70	2.2	123.97	
	10.8	73	2.1	129.62	
	10.1	79	1.9	139.13	
	9.3	85	1.8	149.90	
	8.3	96	1.6	168.84	
	7.7	103	1.5	181.24	
	7.2	111	1.4	195.26	
	5.9	134	1.1	236.09	
	4.6	174	0.9	307.54	
	8.3	96	2.6	168.84	**6314/1053**
	7.7	103	2.4	181.24	
	7.2	111	2.2	195.26	
	5.9	134	1.8	236.09	
	4.6	174	1.4	307.54	
0.18					
(1400 min^{-1})	**378**	3.7	2.7	3.70	**6324/621**
	327	4.3	2.3	4.28	
	270	5.2	1.9	5.18	
	207	6.8	1.5	6.75	
	102	13	2.4	13.73	**6324/622**
	88.2	15	2.1	15.88	
	76.3	17	1.8	18.36	
	72.9	18	1.7	19.20	
	63.1	21	1.5	22.20	
	56.0	24	1.3	25.01	
	52.1	25	1.2	26.85	
	48.4	27	1.2	28.93	
	40.0	33	1.0	34.97	
	30.7	43	0.7	45.56	
	27.5	45	1.4	50.89	**6324/623**
	23.8	52	1.2	58.85	
	20.6	60	1.1	68.06	
	19.7	63	1.0	71.16	
	17.8	69	0.9	78.71	
	15.1	82	0.8	92.70	
	14.7	84	0.8	95.17	
	14.1	88	0.7	99.50	
	13.1	95	0.7	107.20	

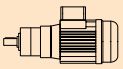
Motoriduttori preferenziali / *Preferred gearmotors*

* Coppia limitata / *Limited torque*

Dati tecnici

Technical data

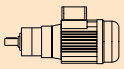
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.18					
(1400 min^{-1})	**72.9**	18	2.9	19.20	**6324/722**
	63.1	21	2.5	22.20	
	56.0	24	2.2	25.01	
	52.1	25	2.1	26.85	
	48.4	27	1.9	28.93	
	40.0	33	1.6	34.97	
	30.7	43	1.2	45.56	
	27.5	45	2.4	50.89	**6324/723**
	23.8	52	2.0	58.85	
	20.6	60	1.8	68.06	
	19.7	63	1.7	71.16	
	17.8	69	1.5	78.71	
	15.1	82	1.3	92.70	
	14.7	84	1.3	95.17	
	14.1	88	1.2	99.50	
	13.1	95	1.1	107.20	
	12.2	101	1.0	115.07	
	11.3	109	1.0	123.97	
	10.8	114	0.9	129.62	
	10.1	123	0.9	139.13	
	9.3	132	0.8	149.90	
	8.3	149	0.7	168.84	
	20.6	60	2.5	68.06	**6324/813**
	19.7	63	2.4	71.16	
	17.8	69	2.2	78.71	
	15.1	82	1.9	92.70	
	14.7	84	1.8	95.17	
	14.1	88	1.7	99.50	
	13.1	95	1.6	107.20	
	12.2	101	1.5	115.07	
	11.3	109	1.4	123.97	
	10.8	114	1.3	129.62	
	10.1	123	1.2	139.13	
	9.3	132	1.1	149.90	
	8.3	149	1.0	168.84	
	7.7	160	1.0	181.24	
	7.2	172	0.9	195.26	
	5.9	208	0.7	236.09	
	4.6	217*	0.7	307.54	
	15.1	82	3.0	92.70	**6324/1053**
	14.7	84	2.9	95.17	
	14.1	88	2.8	99.50	
	13.1	95	2.6	107.20	
	12.2	101	2.4	115.07	
	11.3	109	2.3	123.97	
	10.8	114	2.2	129.62	
	10.1	123	2.0	139.13	
	9.3	132	1.9	149.90	
	8.3	149	1.7	168.84	
	7.7	160	1.5	181.24	
	7.2	172	1.4	195.26	
	5.9	208	1.2	236.09	
	4.6	271	0.9	307.54	
	8.3	149	2.6	168.84	**6324/1203**
	4.6	271	1.4	307.54	

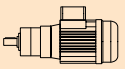
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.25					
(1400 min^{-1})	**378**	5.0	2.0	3.70	**6334/621**
	327	5.8	1.7	4.28	
	270	7.0	1.4	5.18	
	207	9.2	1.1	6.75	
	102	18	1.8	13.73	**6334/622**
	88.2	20	1.6	15.88	
	76.3	23	1.4	18.36	
	72.9	24	1.3	19.20	
	63.1	28	1.1	22.20	
	56.0	32	1.0	25.01	
	52.1	34	0.9	26.85	
	48.4	37	0.9	28.93	
	40.0	45	0.7	34.97	
	27.5	61	1.0	50.89	**6334/623**
	23.8	70	0.9	58.85	
	20.6	81	0.8	68.06	
	19.7	85	0.7	71.16	
	17.8	90*	0.7	78.71	
	15.1	90*	0.7	92.70	
	378	5.0	3.5	3.70	**6334/721**
	327	5.8	3.0	4.28	
	270	7.0	2.5	5.18	
	207	9.2	1.9	6.75	
	102	18	3.0	13.73	**6334/722**
	88.2	20	2.6	15.88	
	76.3	23	2.3	18.36	
	72.9	24	2.2	19.20	
	63.1	28	1.9	22.20	
	56.0	32	1.7	25.01	
	52.1	34	1.6	26.85	
	48.4	37	1.4	28.93	
	40.0	45	1.2	34.97	
	30.7	58	0.9	45.56	
	27.5	61	1.8	50.89	**6334/723**
	23.8	70	1.5	58.85	
	20.6	81	1.3	68.06	
	19.7	85	1.3	71.16	
	17.8	94	1.1	78.71	
	15.1	110	1.0	92.70	
	14.7	113	0.9	95.17	
	14.1	118	0.9	99.50	
	13.1	128	0.8	107.20	
	12.2	137	0.8	115.07	
	11.3	148	0.7	123.97	
	10.8	154	0.7	129.62	
	56.0	32	2.4	25.01	**6334/812**
	52.1	34	2.2	26.85	
	48.4	37	2.1	28.93	
	40.0	45	1.7	34.97	
	30.7	58	1.3	45.56	

Motoriduttori preferenziali / *Preferred gearmotors*

* Coppia limitata / *Limited torque*

Dati tecnici — *Technical data*

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.25					
(1400 min^{-1})	**27.5**	61	2.5	50.89	**6334/813**
	23.8	70	2.2	58.85	
	20.6	81	1.9	68.06	
	19.7	85	1.8	71.16	
	17.8	94	1.6	78.71	
	15.1	110	1.4	92.70	
	14.7	113	1.3	95.17	
	14.1	118	1.3	99.50	
	13.1	128	1.2	107.20	
	12.2	137	1.1	115.07	
	11.3	148	1.0	123.97	
	10.8	154	1.0	129.62	
	10.1	166	0.9	139.13	
	9.3	178	0.9	149.90	
	8.3	201	0.8	168.84	
	7.7	216	0.7	181.24	
	7.2	232	0.7	195.26	
	20.6	81	3.0	68.06	**6334/1053**
	19.7	85	2.9	71.16	
	17.8	94	2.6	78.71	
	15.1	110	2.2	92.70	
	14.7	113	2.2	95.17	
	14.1	118	2.1	99.50	
	13.1	128	1.9	107.20	
	12.2	137	1.8	115.07	
	11.3	148	1.7	123.97	
	10.8	154	1.6	129.62	
	10.1	166	1.5	139.13	
	9.3	178	1.4	149.90	
	8.3	201	1.2	168.84	
	7.7	216	1.1	181.24	
	7.2	232	1.1	195.26	
	5.9	281	0.9	236.09	
	4.6	366	0.7	307.54	
	15.1	110	3.4	92.70	**6334/1203**
	8.3	201	1.9	168.84	
	4.6	366	1.0	307.54	
	378	5.0	3.5	3.70	**7114/721**
	327	5.8	3.0	4.28	
	270	7.0	2.5	5.18	
	207	9.2	1.9	6.75	
	102	18	3.0	13.73	**7114/722**
	88.2	20	2.6	15.88	
	76.3	23	2.3	18.36	
	72.9	24	2.2	19.20	
	63.1	28	1.9	22.20	
	56.0	32	1.7	25.01	
	52.1	34	1.6	26.85	
	48.4	37	1.4	28.93	
	40.0	45	1.2	34.97	
	30.7	58	0.9	45.56	

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.25					
(1400 min^{-1})	**27.5**	61	1.8	50.89	**7114/723**
	23.8	70	1.5	58.85	
	20.6	81	1.3	68.06	
	19.7	85	1.3	71.16	
	17.8	94	1.1	78.71	
	15.1	110	1.0	92.70	
	14.7	113	0.9	95.17	
	14.1	118	0.9	99.50	
	13.1	128	0.8	107.20	
	12.2	137	0.8	115.07	
	11.3	148	0.7	123.97	
	10.8	154	0.7	129.62	
	56.0	32	2.4	25.01	**7114/812**
	52.1	34	2.2	26.85	
	48.4	37	2.1	28.93	
	40.0	45	1.7	34.97	
	30.7	58	1.3	45.56	
	27.5	61	2.5	50.89	**7114/813**
	23.8	70	2.2	58.85	
	20.6	81	1.9	68.06	
	19.7	85	1.8	71.16	
	17.8	94	1.6	78.71	
	15.1	110	1.4	92.70	
	14.7	113	1.3	95.17	
	14.1	118	1.3	99.50	
	13.1	128	1.2	107.20	
	12.2	137	1.1	115.07	
	11.3	148	1.0	123.97	
	10.8	154	1.0	129.62	
	10.1	166	0.9	139.13	
	9.3	178	0.9	149.90	
	8.3	201	0.8	168.84	
	7.7	216	0.7	181.24	
	7.2	232	0.7	195.26	
	20.6	81	3.0	68.06	**7114/1053**
	19.7	85	2.9	71.16	
	17.8	94	2.6	78.71	
	15.1	110	2.2	92.70	
	14.7	113	2.2	95.17	
	14.1	118	2.1	99.50	
	13.1	128	1.9	107.20	
	12.2	137	1.8	115.07	
	11.3	148	1.7	123.97	
	10.8	154	1.6	129.62	
	10.1	166	1.5	139.13	
	9.3	178	1.4	149.90	
	8.3	201	1.2	168.84	
	7.7	216	1.1	181.24	
	7.2	232	1.1	195.26	
	5.9	281	0.9	236.09	
	4.6	366	0.7	307.54	

Motoriduttori preferenziali / *Preferred gearmotors*

Dati tecnici

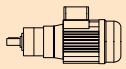
Technical data

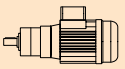
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.25					
(1400 min^{-1})	**15.1**	110	3.4	92.70	**7114/1203**
	8.3	201	1.9	168.84	
	4.6	366	1.0	307.54	
0.37					
(1400 min^{-1})	**378**	7.5	2.4	3.70	**7124/721**
	327	8.6	2.1	4.28	
	270	10	1.7	5.18	
	207	14	1.3	6.75	
	102	26	2.0	13.73	**7124/722**
	88.2	30	1.8	15.88	
	76.3	35	1.5	18.36	
	72.9	36	1.5	19.20	
	63.1	42	1.3	22.20	
	56.0	47	1.1	25.01	
	52.1	51	1.0	26.85	
	48.4	55	1.0	28.93	
	40.0	66	0.8	34.97	
	30.7	86	0.6	45.56	
	27.5	90	1.2	50.89	**7124/723**
	23.8	104	1.0	58.85	
	20.6	120	0.9	68.06	
	19.7	126	0.8	71.16	
	17.8	139	0.8	78.71	
	15.1	164	0.7	92.70	
	102	26	2.9	13.73	**7124/812**
	88.2	30	2.5	15.88	
	76.3	35	2.2	18.36	
	72.9	36	2.1	19.20	
	63.1	42	1.8	22.20	
	56.0	47	1.6	25.01	
	52.1	51	1.5	26.85	
	48.4	55	1.4	28.93	
	40.0	66	1.1	34.97	
	30.7	86	0.9	45.56	
	27.5	90	1.7	50.89	**7124/813**
	23.8	104	1.5	58.85	
	20.6	120	1.3	68.06	
	19.7	126	1.2	71.16	
	17.8	139	1.1	78.71	
	15.1	164	0.9	92.70	
	14.7	168	0.9	95.17	
	14.1	176	0.9	99.50	
	13.1	189	0.8	107.20	
	12.2	203	0.7	115.07	
	11.3	219	0.7	123.97	
	10.8	229	0.7	129.62	

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.37					
(1400 min^{-1})	**56.0**	47	2.8	25.01	**7124/1052**
	52.1	51	2.6	26.85	
	48.4	55	2.4	28.93	
	40.0	66	2.0	34.97	
	30.7	86	1.5	45.56	
	27.5	90	2.7	50.89	**7124/1053**
	23.8	104	2.4	58.85	
	20.6	120	2.1	68.06	
	19.7	126	2.0	71.16	
	17.8	139	1.8	78.71	
	15.1	164	1.5	92.70	
	14.7	168	1.5	95.17	
	14.1	176	1.4	99.50	
	13.1	189	1.3	107.20	
	12.2	203	1.2	115.07	
	11.3	219	1.1	123.97	
	10.8	229	1.1	129.62	
	10.1	245	1.0	139.13	
	9.3	264	0.9	149.90	
	8.3	298	0.8	168.84	
	7.7	320	0.8	181.24	
	7.2	344	0.7	195.26	
	15.1	164	2.3	92.70	**7124/1203**
	8.3	298	1.3	168.84	
	4.6	543	0.7	307.54	
0.55					
(1400 min^{-1})	**378**	11	1.6	3.70	**7134/721**
	327	13	1.4	4.28	
	270	16	1.1	5.18	
	207	20	0.9	6.75	
	102	39	1.4	13.73	**7134/722**
	88.2	45	1.2	15.88	
	76.3	52	1.0	18.36	
	72.9	54	1.0	19.20	
	63.1	62	0.9	22.20	
	56.0	70	0.8	25.01	
	52.1	76	0.7	26.85	
	48.4	81	0.7	28.93	
	378	11	2.3	3.70	**7134/811**
	327	13	2.0	4.28	
	270	16	1.6	5.18	
	207	20	1.3	6.75	

Motoriduttori preferenziali / *Preferred gearmotors*

Dati tecnici — *Technical data*

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.55					
(1400 min^{-1})	**102**	39	2.0	13.73	**7134/812**
	88.2	45	1.7	15.88	
	76.3	52	1.5	18.36	
	72.9	54	1.4	19.20	
	63.1	62	1.2	22.20	
	56.0	70	1.1	25.01	
	52.1	76	1.0	26.85	
	48.4	81	0.9	28.93	
	40.0	98	0.8	34.97	
	30.7	128	0.6	45.56	
	27.5	134	1.1	50.89	**7134/813**
	23.8	154	1.0	58.85	
	20.6	179	0.9	68.06	
	19.7	187	0.8	71.16	
	17.8	207	0.7	78.71	
	15.1	217*	0.7	92.70	
	72.9	54	2.5	19.20	**7134/1052**
	63.1	62	2.1	22.20	
	56.0	70	1.9	25.01	
	52.1	76	1.8	26.85	
	48.4	81	1.6	28.93	
	40.0	98	1.4	34.97	
	30.7	128	1.0	45.56	
	27.5	134	1.8	50.89	**7134/1053**
	23.8	154	1.6	58.85	
	20.6	179	1.4	68.06	
	19.7	187	1.3	71.16	
	17.8	207	1.2	78.71	
	15.1	243	1.0	92.70	
	14.7	250	1.0	95.17	
	14.1	261	0.9	99.50	
	13.1	281	0.9	107.20	
	12.2	302	0.8	115.07	
	11.3	325	0.8	123.97	
	10.8	340	0.7	129.62	
	10.1	365	0.7	139.13	
	9.3	353*	0.7	149.90	
	8.3	353*	0.7	168.84	
	30.7	120	1.6	45.56	**7134/1202**
	27.5	134	2.8	50.89	**7134/1203**
	15.1	243	1.6	92.70	
	8.3	443	0.9	168.84	
	378	11	2.3	3.70	**8014/811**
	327	13	2.0	4.28	
	270	16	1.6	5.18	
	207	20	1.3	6.75	

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.55					
(1400 min^{-1})	**102**	39	2.0	13.73	**8014/812**
	88.2	45	1.7	15.88	
	76.3	52	1.5	18.36	
	72.9	54	1.4	19.20	
	63.1	62	1.2	22.20	
	56.0	70	1.1	25.01	
	52.1	76	1.0	26.85	
	48.4	81	0.9	28.93	
	40.0	98	0.8	34.97	
	30.7	108*	0.7	45.56	
	27.5	134	1.1	50.89	**8014/813**
	23.8	154	1.0	58.85	
	20.6	179	0.9	68.06	
	19.7	187	0.8	71.16	
	17.8	207	0.7	78.71	
	15.1	217*	0.7	92.70	
	72.9	54	2.5	19.20	**8014/1052**
	63.1	62	2.1	22.20	
	56.0	70	1.9	25.01	
	52.1	76	1.8	26.85	
	48.4	81	1.6	28.93	
	40.0	98	1.4	34.97	
	30.7	128	1.0	45.56	
	27.5	134	1.8	50.89	**8014/1053**
	23.8	154	1.6	58.85	
	20.6	179	1.4	68.06	
	19.7	187	1.3	71.16	
	17.8	207	1.2	78.71	
	15.1	243	1.0	92.70	
	14.7	250	1.0	95.17	
	14.1	261	0.9	99.50	
	13.1	281	0.9	107.20	
	12.2	302	0.8	115.07	
	11.3	325	0.8	123.97	
	10.8	340	0.7	129.62	
	10.1	353*	0.7	139.13	
	9.3	353*	0.7	149.90	
	8.3	353*	0.7	168.84	
	30.7	120	1.6	45.56	**8014/1202**
	27.5	134	2.8	50.89	**8014/1203**
	15.1	243	1.6	92.70	
	8.3	443	0.9	168.84	

Motoriduttori preferenziali / *Preferred gearmotors*

* Coppia limitata / *Limited torque*

Dati tecnici

Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
0.75					
(1400 min^{-1})	**378**	15	1.7	3.70	**8024/811**
	327	18	1.4	4.28	
	270	21	1.2	5.18	
	207	28	0.9	6.75	
	102	53	1.4	13.73	**8024/812**
	88.2	61	1.2	15.88	
	76.3	71	1.1	18.36	
	72.9	74	1.0	19.20	
	63.1	85	0.9	22.20	
	56.0	96	0.8	25.01	
	52.1	103	0.7	26.85	
	48.4	111	0.7	28.93	
	27.5	182	0.8	50.89	**8024/813**
	23.8	211	0.7	58.85	
	20.6	217*	0.7	68.06	
	378	15	2.9	3.70	**8024/1051**
	327	18	2.5	4.28	
	270	21	2.1	5.18	
	207	28	1.6	6.75	
	102	53	2.5	13.73	**8024/1052**
	88.2	61	2.2	15.88	
	76.3	71	1.9	18.36	
	72.9	74	1.8	19.20	
	63.1	85	1.6	22.20	
	56.0	96	1.4	25.01	
	52.1	103	1.3	26.85	
	48.4	111	1.2	28.93	
	40.0	134	1.0	34.97	
	30.7	175	0.8	45.56	
	27.5	182	1.4	50.89	**8024/1053**
	23.8	211	1.2	58.85	
	20.6	244	1.0	68.06	
	19.7	255	1.0	71.16	
	17.8	282	0.9	78.71	
	15.1	332	0.7	92.70	
	207	24	2.6	6.75	**8024/1201**
	102	49	3.9	13.73	**8024/1202**
	56.0	90	2.1	25.01	
	30.7	163	1.2	45.56	
	27.5	182	2.1	50.89	**8024/1203**
	15.1	332	1.1	92.70	
	8.3	542*	0.7	168.84	

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
1.1					
(1400 min^{-1})	**378**	22	1.1	3.70	**8034/811**
	327	26	1.0	4.28	
	270	31	0.8	5.18	
	207	36*	0.7	6.75	
	102	77	1.0	13.73	**8034/812**
	88.2	89	0.9	15.88	
	76.3	103	0.7	18.36	
	72.9	108	0.7	19.20	
	378	22	2.0	3.70	**8034/1051**
	327	26	1.7	4.28	
	270	31	1.4	5.18	
	207	41	1.1	6.75	
	102	77	1.7	13.73	**8034/1052**
	88.2	89	1.5	15.88	
	76.3	103	1.3	18.36	
	72.9	108	1.2	19.20	
	63.1	125	1.1	22.20	
	56.0	141	0.9	25.01	
	52.1	151	0.9	26.85	
	48.4	163	0.8	28.93	
	40.0	197	0.7	34.97	
	30.7	256	0.5	45.56	
	27.5	267	0.9	50.89	**8034/1053**
	23.8	309	0.8	58.85	
	20.6	357	0.7	68.06	
	207	35	1.8	6.75	**8034/1201**
	102	72	2.6	13.73	**8034/1202**
	56.0	131	1.4	25.01	
	30.7	239	0.8	45.56	
	27.5	267	1.4	50.89	**8034/1203**
	15.1	487	0.8	92.70	
	207	35	1.8	6.75	**90S4/1201**
	102	72	2.6	13.73	**90S4/1202**
	56.0	131	1.4	25.01	
	30.7	239	0.8	45.56	
	27.5	267	1.4	50.89	**90S4/1203**
	15.1	487	0.8	92.70	

Motoriduttori preferenziali / *Preferred gearmotors*

* Coppia limitata / *Limited torque*

Dati tecnici — *Technical data*

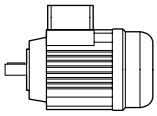
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
1.5					
(1400 min^{-1})	**378**	26	2.4	3.70	**90L14/1201**
	207	48	1.3	6.75	
	102	98	1.9	13.73	**90L14/1202**
	56.0	179	1.1	25.01	
	30.7	271*	0.7	45.56	
	27.5	364	1.0	50.89	**90L14/1203**
	15.1	543*	0.7	92.70	

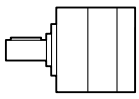
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i	
2.2					
(1400 min^{-1})	**378**	39	1.6	3.70	**90L24/1201**
	207	71	0.9	6.75	
	102	144	1.3	13.73	**90L24/1202**
	56.0	263	0.7	25.01	
	27.5	535	0.7	50.89	**90L24/1203**

Motoriduttori preferenziali / *Preferred gearmotors*

* Coppia limitata / *Limited torque*

Motori applicabili — *IEC Motor adapters*

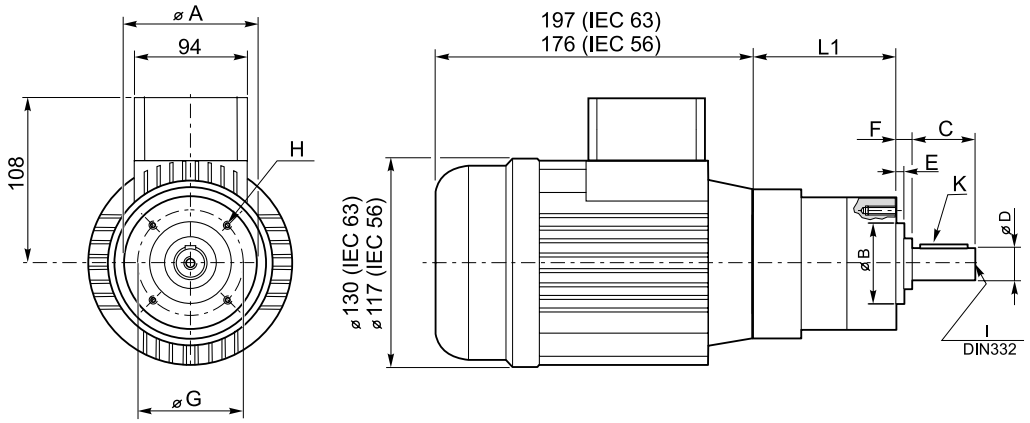




		TS				
		56...	**63...**	**71...**	**80...**	**90...**
P	**52...**	AS60				
	62...	AS244	AS61			
	72...	AS245	AS246	AS247		
	81...	AS248	AS249	AS254	AS280	
	105...	AS250	AS251	AS252	AS281	
	120...	AS255	AS256	AS257	AS282	AS283

Combinazioni preferenziali / *Preferred combinations*

Dimensioni — *Dimensions*



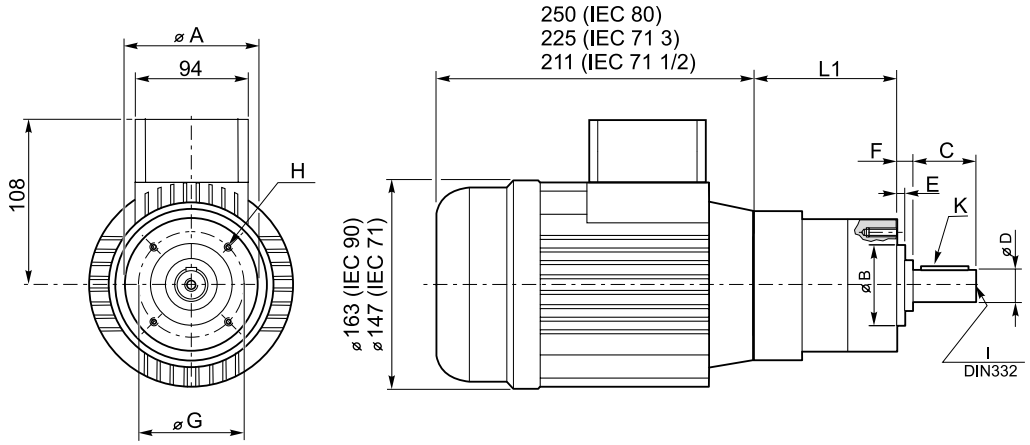
ACP56.../... U

Tipo *Type*	Numero di stadi *N° of stages*	Dimensioni / *Dimensions*										
		L1	A	B	C	D	E	F	G	H	I	K
ACP56../52...	1	74	52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	88										
	3	102										
ACP56../62...	1	74	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	90										
	3	106										
ACP56../72...	1	83.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	103										
	3	122.6										
ACP56../81...	1	94	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	116										
	3	138										
ACP56../105...	1	113.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	144.5										
	3	175.5										
ACP56../120...	1	131.4	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	165.6										
	3	199.8										

ACP 63.../... U

Tipo *Type*	Numero di stadi *N° of stages*	Dimensioni / *Dimensions*										
		L1	A	B	C	D	E	F	G	H	I	K
ACP63../62...	1	76	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	92										
	3	108										
ACP63../72...	1	85.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	105										
	3	124.6										
ACP63../81...	1	94	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	116										
	3	138										
ACP63../105...	1	113.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	144.5										
	3	175.5										
ACP63../120...	1	131.4	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	165.6										
	3	199.8										

Dimensioni — *Dimensions*



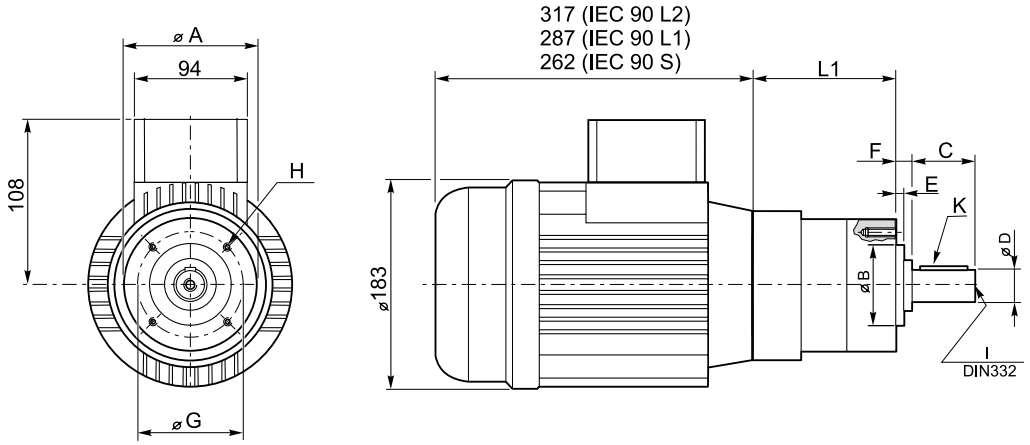
ACP 71.../... U

Tipo *Type*	Numero di stadi *N° of stages*	Dimensioni / *Dimensions*										
		L1	A	B	C	D	E	F	G	H	I	K
ACP71../72...	1	92.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	112										
	3	131.6										
ACP71../81...	1	101	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	123										
	3	145										
ACP71../105...	1	129.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	151.5										
	3	182.5										
ACP71../120...	1	133.5	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	167.7										
	3	201.9										

ACP 80.../... U

Tipo *Type*	Numero di stadi *N° of stages*	Dimensioni / *Dimensions*										
		L1	A	B	C	D	E	F	G	H	I	K
ACP80../81...	1	111	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	133										
	3	155										
ACP80../105...	1	130.9	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	162										
	3	193										
ACP80../120...	1	143.5	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	177.7										
	3	211.9										

Dimensioni — *Dimensions*

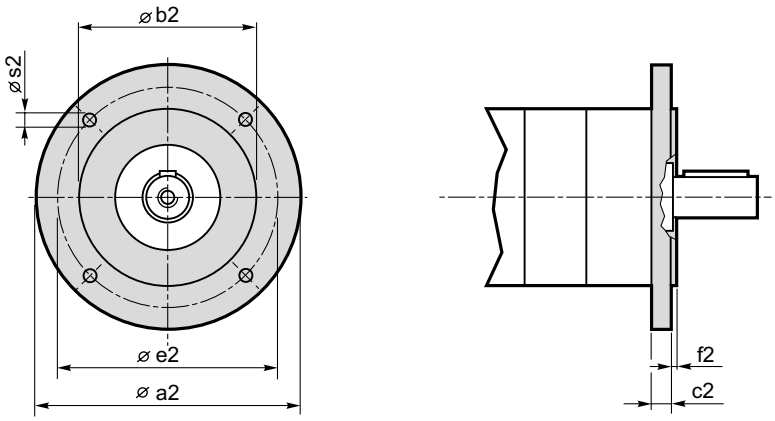


ACP 90.../... U

Tipo *Type*	Numero di stadi *N° of stages*	Dimensioni / *Dimensions*										
		L1	A	B	C	D	E	F	G	H	I	K
ACP90../120...	1	153.5	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	187.7										
	3	221.9										

Dimensioni — *Dimensions*

ACP.../... C... Flange uscita / *Output flanges*



	Dimensioni / *Dimensions*						
P	**a2**	**b2**	**c2**	**e2**	**f2**	**s2**	**Flangia uscita** *Output flange*
52	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
62	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
72	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
81	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	M6	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
105	120	80 j7	12	100	3	M6	**C120**
	140	95 j7	12	115	3.5	M8	**C140**
	160	110 j7	12	130	3.5	M8	**C160**
120	140	95 j7	15	115	3	M8	**C140**
	160	110 j7	15	130	3.5	M8	**C160**

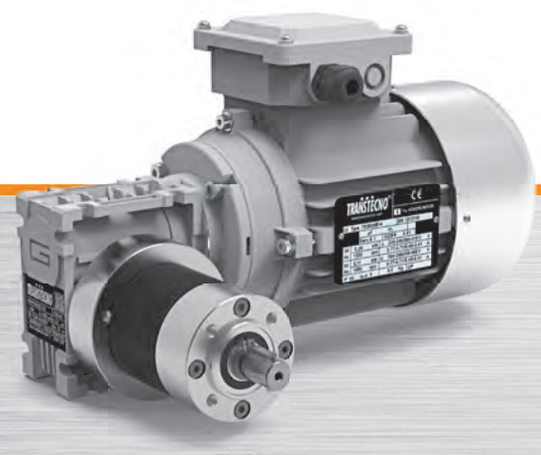
TRANSTECNO®
the modular gearmotor

WMP

WMP

WMP Robin
Small but Strong

Motoriduttori CA combinati
AC double reduction gearmotors



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Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**E2**
Designazione	*Classification*	**E2**
Versioni	*Versions*	**E2**
Simbologia	*Symbols*	**E2**
Lubrificazione	*Lubrication*	**E3**
Carichi radiali	*Radial loads*	**E3**
Rapporti	*Ratios*	**E3**
Dati tecnici	*Technical data*	**E4**
Dimensioni	*Dimensions*	**E5**

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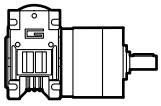
Caratteristiche tecniche — *Technical features*

L'accoppiamento di un riduttore a vite senza fine con un riduttore epicicloidale consente di ottenere elevati rapporti di riduzione (i_{max} = 1/18452) e di disporre di un gruppo autolubrificato compatto, silenzioso e con un'elevata affidabilità.

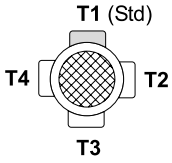
The coupling of a wormgearbox to a planetary gearbox allows to obtain high reduction ratios (i_{max} = 1/18452) and to get a compact, silent, self lubricated with high reliability group.

Designazione — *Classification*

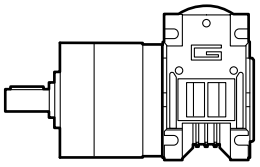
MOTORIDUTTORE / *GEARMOTOR*

WMP	026/52	1	CS90	202.5	56B14
Tipo *Type*	Grandezza *Size*	Numero stadi epicicloidale *N° of planetary stages*	Versione *Version*	Rapporto *Ratio*	IEC
	**026/52** **026/62** **030/81**	**1** **2** **3**	**US** **UD** **CS80…120** **CD80…120**	Vedere tabella *See tables*	**56B14** **63B14** **63B5**

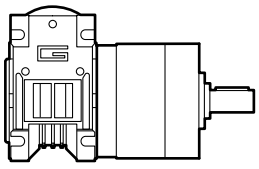
MOTORE CM / *CM MOTOR*

0.09kW	4p	3ph	50Hz	T1
Potenza *Power*	Poli *Poles*	Fasi *Phases*	Frequenza *Frequency*	Pos. morsettiera *Terminal box pos.*
Vedi tabelle *See tables*	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**50Hz** **60Hz**	

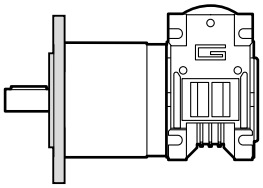
Versioni — *Versions*



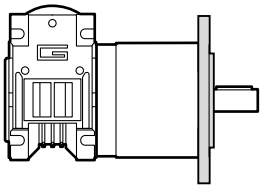
US



UD



CS



CD

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_n	[Nm]	Coppia nominale in uscita del riduttore / *Maximum output torque of the gearbox*
M_2	[Nm]	Coppia in uscita in funzione di P_1 / *Output torque referred to P_1*
sf		Fattore di servizio / *Service factor*
Rd	%	Rendimento dinamico / *Dynamic efficiency*
A_2	N]	Carico assiale ammissibile in uscita / *Permitted output axial load*
R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*

Lubrificazione — *Lubrication*

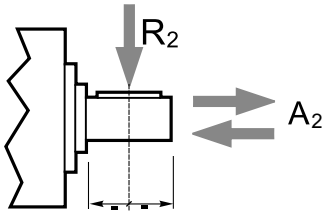
I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

I riduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione.
Questo gli consente di essere installati praticamente ovunque.
La temperatura ambiente di funzionamento consentita va da -50°C a + 40°C; per applicazioni particolari possone essere adottate misure per raggiungere livelli di temperatura maggiori.

Planetary gearboxes are life-time lubricated with grease, therefore they are maintenancie free.
They can be installed in any location.
The environmental temperature range is from -50°C up to +40°C; for special applications, measures can be taken for higher temperature range.

Carichi radiali — *Radial loads*



Numero di stadi *N° of stages*	Carichi Radiali R_2 [N] *Radial Load R_2 [N]*		
	P52	P62	P81
1	200	240	400
2	320	360	600
3	450	520	1000

Numero di stadi *N° of stages*	Carichi Assiali A_2 [N] *Axial Load A_2 [N]*		
	P52	P62	P81
1	60	70	80
2	100	100	120
3	150	150	200

Rapporti — *Ratios*

Motoriduttore *Gearmotor*	Numero stadi epicicloidale *N° of planetary stages*	Rapporto epicicloidale *Planetary ratio*	Rapporto vite senza fine *Wormgearbox ratio*	Rapporto finale *Total ratio*
WMP 026/052 **WMP 026/062** **WMP 030/081**	1	6.75	10	**67.5**
			15	**101.3**
			20	**135**
			30	**202.5**
			40	**270**
			50	**337.5**
			60	**405**
	2	28.93	10	**289.3**
			15	**434.0**
			20	**578.6**
			30	**867.9**
			40	**1157**
			50	**1447**
			60	**1736**
		34.97	60	**2098**
		45.56	60	**2734**

Dati tecnici — *Technical data*

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.09						
56B (1400 min^{-1})	**20.7**	25	1.0	67.5	**026/521**	**B14**
	13.8	25	1.0	101.3		**B14**
	10.4	25	1.0	135		**B14**
	6.9	25	1.0	202.5		**B14**
	5.2	25	1.0	270		**B14**
	4.8	25	1.0	289.3	**026/522**	**B14**
	4.1	25	1.0	337.5	**026/521**	**B14**
	3.5	25	1.0	405		**B14**
	3.2	25	1.0	434	**026/522**	**B14**
	2.4	25	1.0	578.6		**B14**
	1.6	25	1.0	867.9		**B14**
	1.2	25	1.0	1157		**B14**
	1.0	25	1.0	1447		**B14**
	0.8	25	1.0	1736		**B14**
	0.7	25	1.0	2098		**B14**
	0.5	25	1.0	2734		**B14**
	20.7	27	1.5	67.5	**026/621**	**B14**
	13.8	39	1.0	101.3		**B14**
	10.4	40	1.0	135		**B14**
	6.9	40	1.0	202.5		**B14**
	5.2	40	1.0	270		**B14**
	4.8	50	1.0	289.3	**026/622**	**B14**
	4.1	40	1.0	337.5	**026/621**	**B14**
	3.5	40	1.0	405		**B14**
	3.2	50	1.0	434	**026/622**	**B14**
	2.4	50	1.0	578.6		**B14**
	1.6	50	1.0	867.9		**B14**
	1.2	50	1.0	1157		**B14**
	1.0	50	1.0	1447		**B14**
	0.8	50	1.0	1736		**B14**
	0.7	50	1.0	2098		**B14**
	0.5	50	1.0	2734		**B14**
	20.7	28	2.9	67.5	**030/811**	**B5/B14**
	13.8	39	2.0	101.3		**B5/B14**
	10.4	49	1.6	135		**B5/B14**
	6.9	66	1.2	202.5		**B5/B14**
	5.2	80	1.0	270		**B5/B14**
	4.8	111	1.1	289.3	**030/812**	**B5/B14**
	4.1	80	1.0	337.5	**030/811**	**B5/B14**
	3.5	80	1.0	405		**B5/B14**
	3.2	120	1.0	434	**030/812**	**B5/B14**
	2.4	120	1.0	578.6		**B5/B14**
	1.6	120	1.0	867.9		**B5/B14**
	1.2	120	1.0	1157		**B5/B14**
	1.0	120	1.0	1447		**B5/B14**
	0.8	120	1.0	1736		**B5/B14**
	0.7	120	1.0	2098		**B5/B14**
	0.5	120	1.0	2734		**B5/B14**

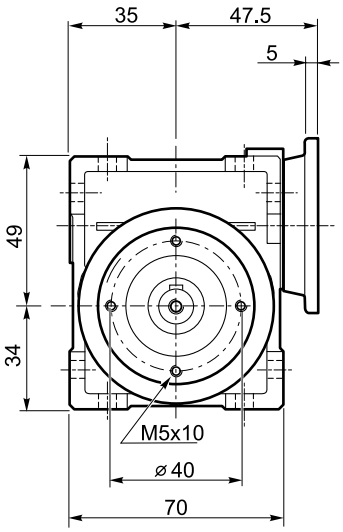
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
63A (1400 min^{-1})	**20.7**	37	2.2	67.5	**030/811**	**63B5/B14**
	13.8	52	1.5	101.3		**63B5/B14**
	10.4	66	1.2	135		**63B5/B14**
	6.9	80	1.0	202.5		**63B5/B14**
	5.2	80	1.0	270		**63B5/B14**
	4.8	120	1.0	289.3	**030/812**	**63B5/B14**
0.18						
63B (1400 min^{-1})	**20.7**	56	1.4	67.5	**030/811**	**63B5/B14**
	13.8	79	1.0	101.3		**63B5/B14**
	10.4	80	1.0	135		**63B5/B14**

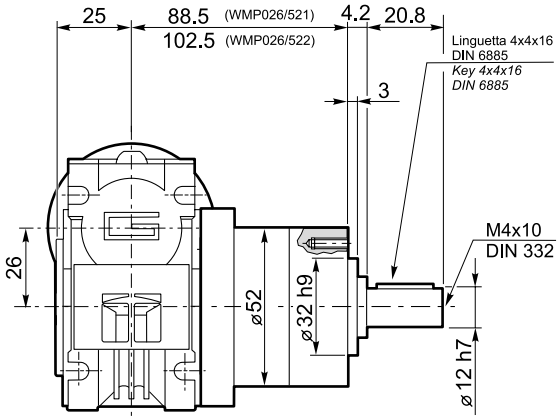
Nota: Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio

Note: *Please check that the output torque M2 does not exceed the value into the grey areas*

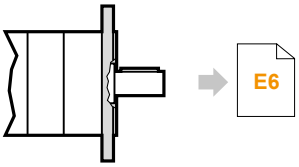
Dimensioni *Dimensions*

WMP026/52...U



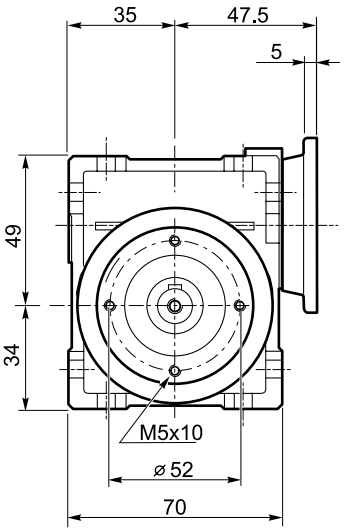


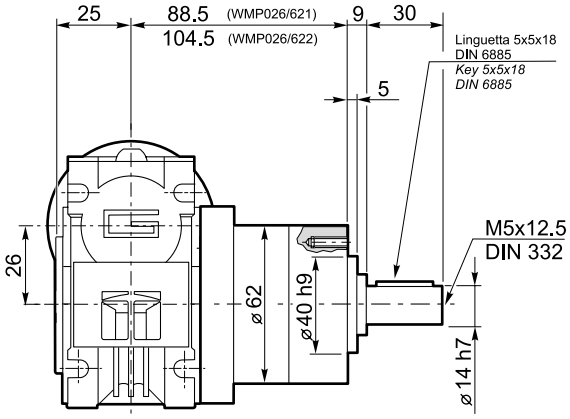
	Kg
WMP026/521	1.6
WMP026/522	1.8



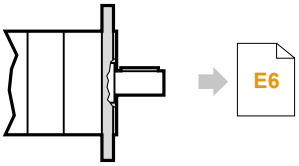
WMP026/52...C

WMP026/62...U





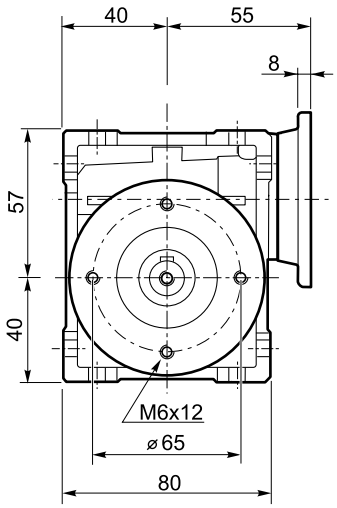
	Kg
WMP026/621	1.7
WMP026/622	2.1

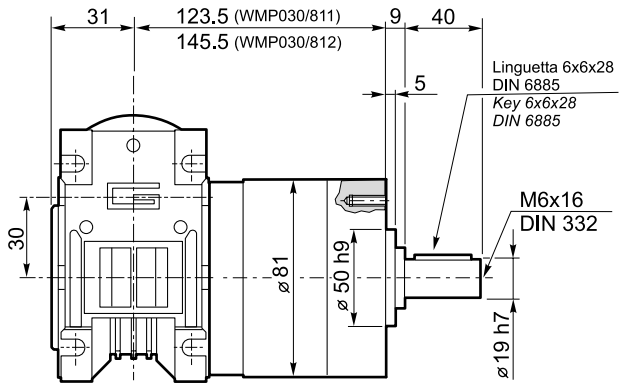


WMP026/62...C

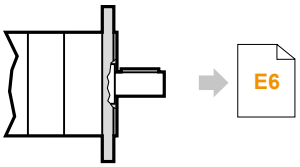
Dimensioni — *Dimensions*

WMP030/81...U



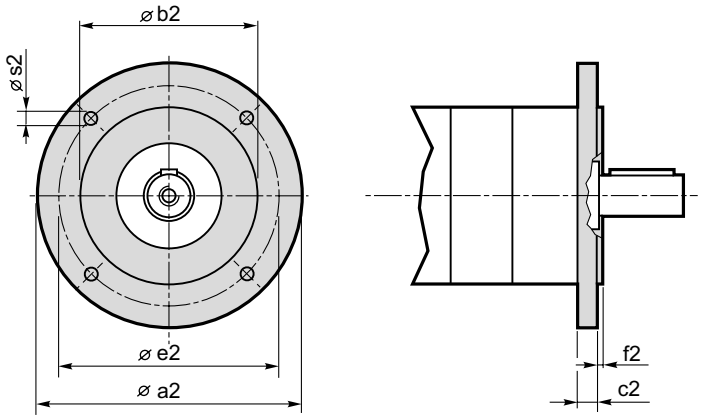


	Kg
WMP030/811	3.1
WMP030/812	3.8



WMP030/81...C

WMP.../.../... C... Flange uscita / *Output flanges*



P	Dimensioni / *Dimensions*						
	a2	b2	c2	e2	f2	s2	Flangia uscita *Output flange*
52	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
62	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
81	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	M6	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**

TRANSTECNO®

the modular gearmotor

NDP

NDP

NDP Robin

Small but Strong

Neodymium

Motoriduttori CC epicicloidali
DC planetary gearmotors

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ENERGY SAVING

Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**F2**
Designazione	*Classification*	**F2**
Versioni	*Versions*	**F2**
Simbologia	*Symbols*	**F2**
Lubrificazione	*Lubrication*	**F2**
Carichi radiali	*Radial loads*	**F3**
Rapporti	*Ratios*	**F3**
Dati tecnici	*Technical data*	**F4**
Dimensioni	*Dimensions*	**F7**

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Caratteristiche tecniche — *Technical features*

Le caratteristiche principali dei motoriduttori CC epicicloidali a magneti permanenti in neodimio serie NDP sono:

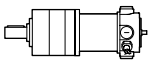
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 160 a 250 W S2
- Magneti in Neodimio
- Entrata ed uscita coassiali
- Design compatto
- Lubrificazione permanente a grasso
- Possono essere installati in qualunque posizione di montaggio.

The main features of NDP Neodymium permanent magnets DC planetary gearmotors range are:

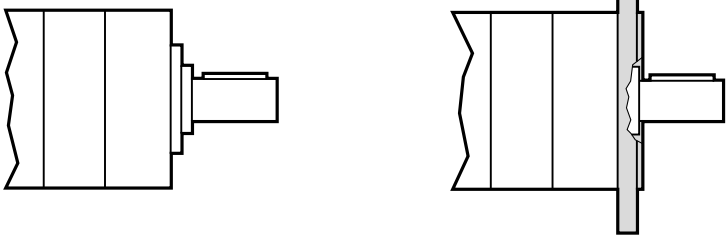
- *Low voltage power supply 12/24 Vdc*
- *Suitable for encoder assembly*
- *Motor power ratings available from 160 to 250 W S2*
- *Neodymium magnets*
- *Coaxial arrangement of the input and output*
- *Compact design*
- *Permanent grease oil long-life lubrication*
- *Can be intalled in all mounting position.*

Designazione — *Classification*

MOTORIDUTTORE / *GEARMOTOR*

NDP	120/62		2	C	90	34.97	120	BR
Tipo *Type*	Grandezza *Size*		Stadi riduttore *Gearbox stages*	Versione riduttore *Gearbox Version*	Flangia uscita *Output flange*	Rapporto *Ratio*	Versione Motore *Motor Version*	Opzioni *Options*
NDP 	**120/52** **120/62** **120/72** **120/81**	**180/52** **180/62** **180/72** **180/81** **180/105** **180/120**	**1** **2** **3**	**U** **C**	**80** **90** **105** **120**	Vedere tabella *See tables*	**120** **240**	**BR** **BRL**

Versioni — *Versions*



U **C**

Simbologia — *Symbols*

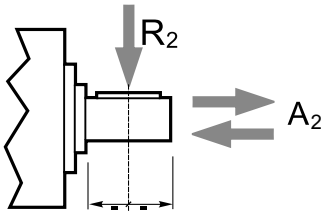
n_1	[min^{-1}]	Velocità in ingresso / *Input speed*	sf		Fattore di servizio / *Service factor*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*	Rd	%	Rendimento dinamico / *Dynamic efficiency*
i		Rapporto di riduzione / *Ratio*	A_2	[N]	Carico assiale ammissibile in uscita / *Permitted output axial load*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

Lubrificazione — *Lubrication*

I riduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione.
Questo gli consente di essere installati praticamente ovunque.

Planetary gearboxes are life-time lubricated with grease, therefore they are maintenance free.
They can be installed in any location.

Carichi radiali — *Radial loads*



Numero di stadi *Stages number*	Carichi Radiali R_2 [N] / *Radial Load R_2 [N]*			
	P52	P62	P72	P81
1	200	240	320	400
2	320	360	480	600
3	450	520	760	1000

Numero di stadi *Stages number*	Carichi Assiali [A_2] [N] / *Axial Load [A_2] [N]*			
	P52	P62	P72	P81
1	60	70	70	80
2	100	100	100	120
3	150	150	160	200

Rapporti — *Ratios*

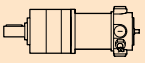
Numero di stadi Stages number	Per tutte le grandezze di riduttori della serie P *For all gearbox sizes of P range*
	Rapporti / *Ratios*
1	**3.70**
	4.28
	5.18
	6.75
2	13.73
	15.88
	18.36
	19.20
	22.20
	25.01
	26.85
	28.93
	34.97
	45.56
3	**50.89**
	58.85
	68.06
	71.16
	78.71
	92.70
	95.17
	99.50
	107.20
	115.07
	123.97
	129.62
	139.13
	149.90
	168.84
	181.24
	195.26
	236.09
	307.54

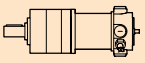
Rapporti preferenziali per le taglie P52, P62, P81.
Preferred ratios for P52, P62, P81.

Disponibile a 4 stadi con rapporti fino a 2076
Available 4 stages with ratio up to 2076

Dati tecnici per servizio S2

Technical data for S2 duty

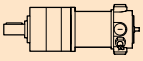
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
160						
(3000 min^{-1})	**811**	2	2.6	**3.70**	**NDP120/521**	**120/240**
	701	2	2.3	4.28		
	579	2	1.9	**5.18**		
	444	3	1.5	**6.75**		
	218	5	2.3	**13.73**	**NDP120/522**	**120/240**
	189	6	2.0	15.88		
	163	7	1.7	18.36		
	156	7	1.6	**19.20**		
	135	8	1.4	22.20		
	120	10	1.3	**25.01**		
	112	10	1.2	26.85		
	104	11	1.1	**28.93**		
	86	13	0.9	**34.97**		
	66	17	0.7	**45.56**		
	59	18	1.4	**50.89**	**NDP120/523**	**120/240**
	51	21	1.2	58.85		
	44	24	1.0	**68.06**		
	42	25	1.0	71.16		
	38	28	0.9	78.71		
	32	33	0.8	**92.70**		
	32	34	0.7	95.17		
	30	36	0.7	99.50		
	28	36	0.7	107.20		
	26	36	0.7	115.07		
	24	36	0.7	123.97		
	23	36	0.7	129.62		
	22	36	0.7	139.13		
	20	36	0.7	149.90		
	18	36	0.7	**168.84**		
	17	36	0.7	181.24		
	15	36	0.7	195.26		
	13	36	0.7	236.09		
	9.8	36	0.7	**307.54**		
	579	2	3.8	**5.18**	**NDP120/621**	**120/240**
	444	3	2.9	**6.75**		
	218	5	4.8	**13.73**	**NDP120/622**	**120/240**
	189	6	4.1	15.88		
	163	7	3.6	18.36		
	156	7	3.4	**19.20**		
	135	8	2.9	22.20		
	120	10	2.6	**25.01**		
	112	10	2.4	26.85		
	104	11	2.3	**28.93**		
	86	13	1.9	**34.97**		
	66	17	1.4	**45.56**		

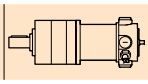
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
160						
(3000 min^{-1})	**59**	18	2.8	**50.89**	**NDP120/623**	**120/240**
	51	21	2.4	58.85		
	44	24	2.1	**68.06**		
	42	25	2.0	71.16		
	38	28	1.8	78.71		
	32	33	1.5	**92.70**		
	32	34	1.5	95.17		
	30	36	1.4	99.50		
	28	38	1.3	107.20		
	26	41	1.2	115.07		
	24	44	1.1	123.97		
	23	46	1.1	129.62		
	22	50	1.0	139.13		
	20	54	0.9	149.90		
	18	60	0.8	**168.84**		
	17	65	0.8	181.24		
	15	70	0.7	195.26		
	13	71	0.7	236.09		
	9.8	71	0.7	**307.54**		
	44	24	3.5	**68.06**	**NDP120/723**	**120/240**
	42	25	3.3	71.16		
	38	28	3.0	78.71		
	32	33	2.5	**92.70**		
	32	34	2.5	95.17		
	30	36	2.4	99.50		
	28	38	2.2	107.20		
	26	41	2.0	115.07		
	24	44	1.9	123.97		
	23	46	1.8	129.62		
	22	50	1.7	139.13		
	20	54	1.6	149.90		
	18	60	1.4	**168.84**		
	17	65	1.3	181.24		
	15	70	1.2	195.26		
	13	84	1.0	236.09		
	9.8	110	0.8	**307.54**		
	32	33	3.6	**92.70**	**NDP120/813**	**120/240**
	32	34	3.5	95.17		
	30	36	3.4	99.50		
	28	38	3.1	107.20		
	26	41	2.9	115.07		
	24	44	2.7	123.97		
	23	46	2.6	129.62		
	22	50	2.4	139.13		
	20	54	2.2	149.90		
	18	60	2.0	**168.84**		
	17	65	1.9	181.24		
	15	70	1.7	195.26		
	13	84	1.4	236.09		
	9.8	110	1.1	**307.54**		

Motoriduttori preferenziali / *Preferred gearmotors*

Dati tecnici per servizio S2

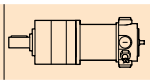
Technical data for S2 duty

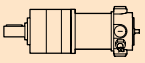
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
250						
(3000 min^{-1})	**811**	2	1.7	**3.70**	**NDP180/521**	**120/240**
	701	3	1.5	**4.28**		**120/240**
	579	3	1.2	**5.18**		**120/240**
	444	4	0.9	**6.75**		**120/240**
	218	8	1.5	**13.73**	**NDP180/522**	**120/240**
	189	10	1.3	**15.88**		**120/240**
	163	11	1.1	**18.36**		**120/240**
	156	12	1.0	**19.20**		**120/240**
	135	13	0.9	**22.20**		**120/240**
	120	15	0.8	**25.01**		**120/240**
	112	16	0.7	**26.85**		**120/240**
	104	17	0.7	**28.93**		**120/240**
	86	17	0.7	**34.97**		**120/240**
	66	17	0.7	**45.56**		**120/240**
	59	28	0.9	**50.89**	**NDP180/523**	**120/240**
	51	33	0.8	**58.85**		**120/240**
	44	36	0.7	**68.06**		**120/240**
	42	36	0.7	**71.16**		**120/240**
	38	36	0.7	**78.71**		**120/240**
	32	36	0.7	**92.70**		**120/240**
	32	36	0.7	**95.17**		**120/240**
	30	36	0.7	**99.50**		**120/240**
	28	36	0.7	**107.20**		**120/240**
	26	36	0.7	**115.07**		**120/240**
	24	36	0.7	**123.97**		**120/240**
	23	36	0.7	**129.62**		**120/240**
	22	36	0.7	**139.13**		**120/240**
	20	36	0.7	**149.90**		**120/240**
	18	36	0.7	**168.84**		**120/240**
	17	36	0.7	**181.24**		**120/240**
	15	36	0.7	**195.26**		**120/240**
	13	36	0.7	**236.09**		**120/240**
	9.8	36	0.7	**307.54**		**120/240**
	811	2	3.4	**3.70**	**NDP180/621**	**120/240**
	701	3	2.9	**4.28**		**120/240**
	579	3	2.4	**5.18**		**120/240**
	444	4	1.9	**6.75**		**120/240**
	218	8	3.0	**13.73**	**NDP180/622**	**120/240**
	189	10	2.6	**15.88**		**120/240**
	163	11	2.3	**18.36**		**120/240**
	156	12	2.2	**19.20**		**120/240**
	135	13	1.9	**22.20**		**120/240**
	120	15	1.7	**25.01**		**120/240**
	112	16	1.6	**26.85**		**120/240**
	104	17	1.4	**28.93**		**120/240**
	86	21	1.2	**34.97**		**120/240**
	66	27	0.9	**45.56**		**120/240**

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
250						
(3000 min^{-1})	**59**	28	1.8	**50.89**	**NDP180/623**	**120/240**
	51	33	1.5	**58.85**		**120/240**
	44	38	1.3	**68.06**		**120/240**
	42	40	1.3	**71.16**		**120/240**
	38	44	1.1	**78.71**		**120/240**
	32	52	1.0	**92.70**		**120/240**
	32	53	0.9	**95.17**		**120/240**
	30	56	0.9	**99.50**		**120/240**
	28	60	0.8	**107.20**		**120/240**
	26	64	0.8	**115.07**		**120/240**
	24	69	0.7	**123.97**		**120/240**
	23	71	0.7	**129.62**		**120/240**
	22	71	0.7	**139.13**		**120/240**
	20	71	0.7	**149.90**		**120/240**
	18	71	0.7	**168.84**		**120/240**
	17	71	0.7	**181.24**		**120/240**
	15	71	0.7	**195.26**		**120/240**
	13	71	0.7	**236.09**		**120/240**
	9.8	71	0.7	**307.54**		**120/240**
	579	3	4.2	**5.18**	**NDP180/721**	**120/240**
	444	4	3.2	**6.75**		**120/240**
	156	12	3.6	**19.20**	**NDP180/722**	**120/240**
	135	13	3.2	**22.20**		**120/240**
	120	15	2.8	**25.01**		**120/240**
	112	16	2.6	**26.85**		**120/240**
	104	17	2.4	**28.93**		**120/240**
	86	21	2.0	**34.97**		**120/240**
	66	27	1.5	**45.56**		**120/240**
	59	28	2.9	**50.89**	**NDP180/723**	**120/240**
	51	33	2.5	**58.85**		**120/240**
	44	38	2.2	**68.06**		**120/240**
	42	40	2.1	**71.16**		**120/240**
	38	44	1.9	**78.71**		**120/240**
	32	52	1.6	**92.70**		**120/240**
	32	53	1.6	**95.17**		**120/240**
	30	56	1.5	**99.50**		**120/240**
	28	60	1.4	**107.20**		**120/240**
	26	64	1.3	**115.07**		**120/240**
	24	69	1.2	**123.97**		**120/240**
	23	73	1.2	**129.62**		**120/240**
	22	78	1.1	**139.13**		**120/240**
	20	84	1.0	**149.90**		**120/240**
	18	95	0.9	**168.84**		**120/240**
	17	101	0.8	**181.24**		**120/240**
	15	109	0.8	**195.26**		**120/240**
	13	120	0.7	**236.09**		**120/240**
	9.8	120	0.7	**307.54**		**120/240**
	86	21	2.9	**34.97**	**NDP180/812**	**120/240**
	66	27	2.2	**45.56**		**120/240**

Motoriduttori preferenziali / *Preferred gearmotors*

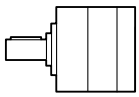
Dati tecnici per servizio S2 — *Technical data for S2 duty*

	P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
250							
(3000 min^{-1})	**44**	38	3.1	**68.06**	**NDP180/813**		**120/240**
	42	40	3.0	**71.16**			**120/240**
	38	44	2.7	**78.71**			**120/240**
	32	52	2.3	**92.70**			**120/240**
	32	53	2.3	**95.17**			**120/240**
	30	56	2.2	**99.50**			**120/240**
	28	60	2.0	**107.20**			**120/240**
	26	64	1.9	**115.07**			**120/240**
	24	69	1.7	**123.97**			**120/240**
	23	73	1.7	**129.62**			**120/240**
	22	78	1.5	**139.13**			**120/240**
	20	84	1.4	**149.90**			**120/240**
	18	95	1.3	**168.84**			**120/240**
	17	101	1.2	**181.24**			**120/240**
	15	109	1.1	**195.26**			**120/240**
	13	132	0.9	**236.09**			**120/240**
	9.8	172	0.7	**307.54**			**120/240**

	P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
250							
(3000 min^{-1})	**32**	52	3.8	**92.70**	**NDP180/1053**		**120/240**
	32	53	3.7	**95.17**			**120/240**
	30	56	3.5	**99.50**			**120/240**
	28	60	3.2	**107.20**			**120/240**
	26	64	3.0	**115.07**			**120/240**
	24	69	2.8	**123.97**			**120/240**
	23	73	2.7	**129.62**			**120/240**
	22	78	2.5	**139.13**			**120/240**
	20	84	2.3	**149.90**			**120/240**
	18	95	2.1	**168.84**			**120/240**
	17	101	1.9	**181.24**			**120/240**
	15	109	1.8	**195.26**			**120/240**
	13	132	1.5	**236.09**			**120/240**
	9.8	172	1.1	**307.54**			**120/240**
	18	95	3.2	**168.84**	**NDP180/1203**		**120/240**
	17	101	3.0	**181.24**			**120/240**
	15	109	2.7	**195.26**			**120/240**
	13	132	2.3	**236.09**			**120/240**
	9.8	172	1.7	**307.54**			**120/240**

Motoriduttori preferenziali / *Preferred gearmotors*

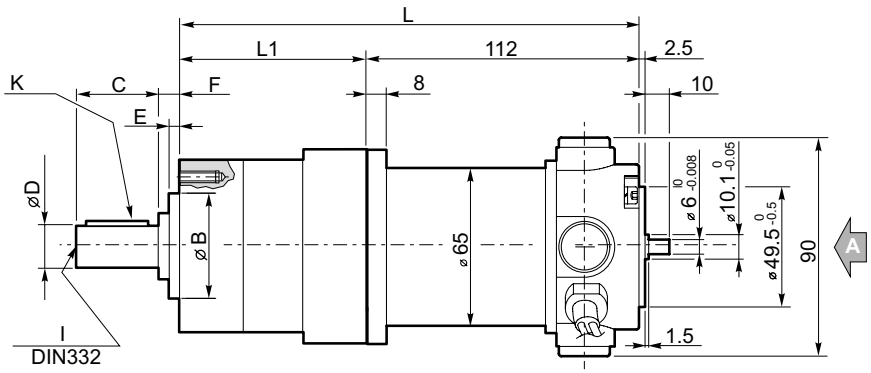
Motori applicabili — *IEC Motor adapters*

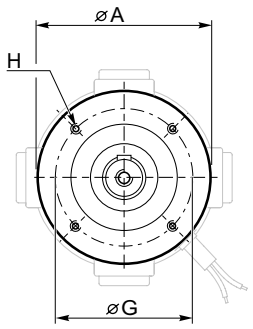


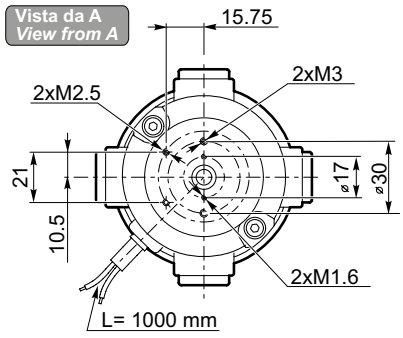
		ND	
		120.120	**180.120**
		120.240	**180.240**
P	**52...**	AS60	AS60
	62...	AS244	AS244
	72...	AS245	AS245
	81...	AS248	AS248
	105...	AS250	AS250
	120...	AS255	AS255

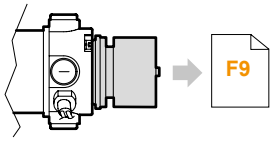
Combinazioni preferenziali / *Preferred combinations*

NDP120/... U

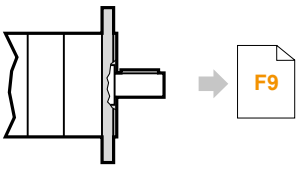








NDP120/... U BR
NDP120/... U BRL

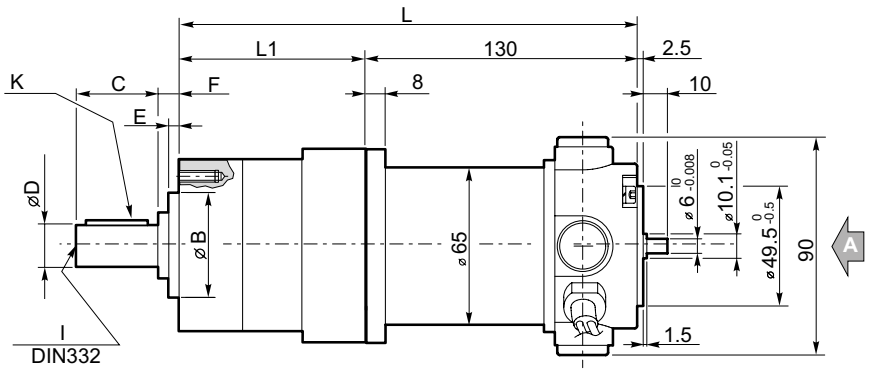


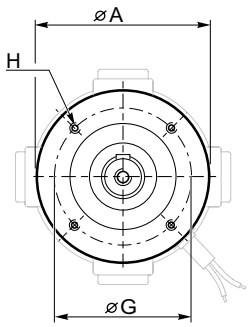
NDP120/... C...

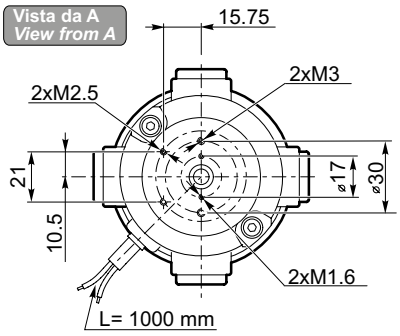
Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*											
		L1	L	A	B	C	D	E	F	G	H	I	K
NDP120/52...	1	74	186	52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	88	200										
	3	102	214										
NDP120/62...	1	74	186	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	90	202										
	3	106	218										
NDP120/72...	1	83.4	195.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	103	215										
	3	122.6	234.6										
NDP120/81...	1	91	203	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	113	225										
	3	135	247										

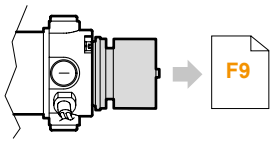
Dimensioni *Dimensions*

NDP180/... U

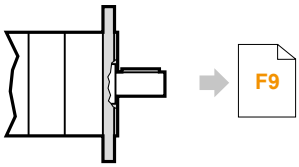








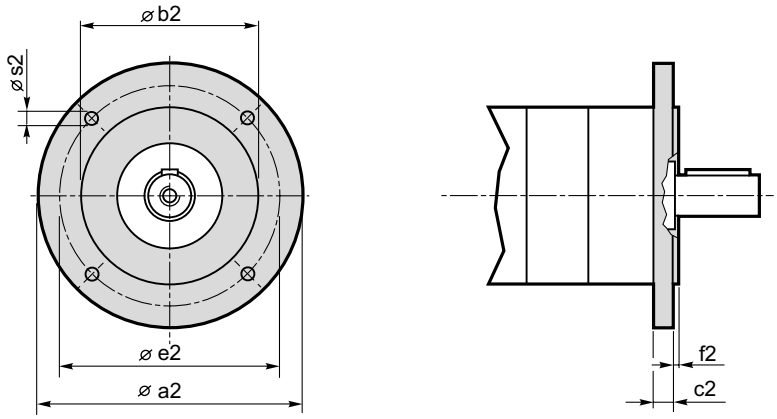
NDP180/... U BR
NDP180/... U BRL



NDP180/... C...

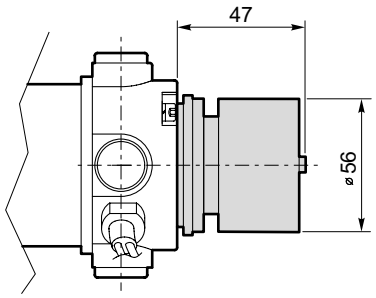
Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*											
		L1	L	A	B	C	D	E	F	G	H	I	K
NDP180/52	1	74	204	52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	88	218										
	3	102	232										
NDP180/62	1	74	204	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	90	220										
	3	106	236										
NDP180/72	1	83.4	213.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	103	233										
	3	122.6	252.6										
NDP180/81	1	94	221	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	116	243										
	3	138	268										
NDP180/105	1	113.4	243.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	144.5	274.5										
	3	175.5	305.5										
NDP180/120	1	131.6	261.6	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	165.8	295.8										
	3	200	330										

NDP.../... C... Flange uscita / *Output flanges*

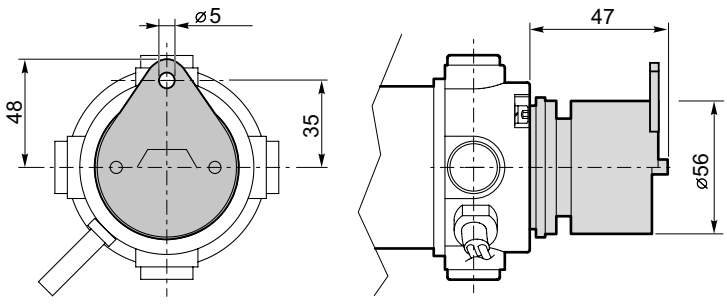


	Dimensioni / *Dimensions*						
P	**a2**	**b2**	**c2**	**e2**	**f2**	**s2**	**Flangia uscita** *Output flange*
52	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
62	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
72	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
81	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	M6	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
P105	120	80 j7	12	100	3	M6	**C120**
	140	95 j7	12	115	3.5	M8	**C140**
	160	110 j7	12	130	3.5	M8	**C160**
P120	140	95 j7	15	115	3	M8	**C140**
	160	110 j7	15	130	3.5	M8	**C160**

NDP.../... U BR Freno / *Brake*



NDP.../... U BRL Freno con leva di sblocco/ *Brake with hand release*



Note/*Notes*

TRANSTECNO®
the modular gearmotor

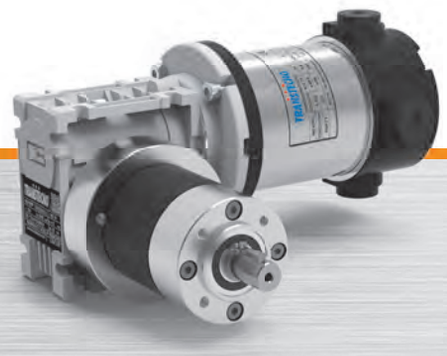
NDWMP

NDWMP

NDWMP
Robin
Small but Strong

Neodymium

Motoriduttori CC combinati
DC double reduction gearmotors



TRANSTECNO · GENUINE · PRODUCTS ·

Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**G2**
Designazione	*Classification*	**G2**
Versioni	*Versions*	**G2**
Simbologia	*Symbols*	**G2**
Lubrificazione	*Lubrication*	**G3**
Carichi radiali	*Radial loads*	**G3**
Rapporti	*Ratios*	**G4**
Dati tecnici	*Technical data*	**G5**
Dimensioni	*Dimensions*	**G6**
Note	*Notes*	**G10**

Caratteristiche tecniche — *Technical features*

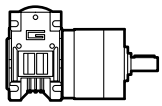
L'accoppiamento di un riduttore a vite senza fine con un riduttore epicicloidale consente di ottenere elevati rapporti di riduzione (i_{max} = 1/18452) e di disporre di un gruppo autolubrificato compatto, silenzioso e con un'elevata affidabilità.

The coupling of a wormgearbox to a planetary gearbox allows to obtain high reduction ratios (i_{max} = 1/18452) and to get a compact, silent, self lubricated with high reliability group.

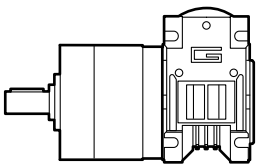
Designazione — *Classification*

MOTORIDUTTORE / *GEARMOTOR*

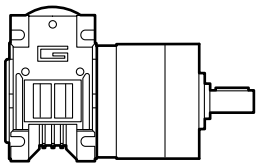
NDWMP	120/026/52	2	CD	90	405	240	BR
Tipo *Type*	Grandezza *Size*	Numero stadi epicicloidale *Planetary stages number*	Versione Riduttore *Gearbox Version*	Flangia Uscita *Output flange*	Rapporto *Ratio*	Versione Motore *Motor Version*	Opzioni *Options*
NDWMP	**120/026/52** **180/026/62** **120/026/62** **180/030/81** **120/030/81**	**1** **2** **3**	**US** **UD** **CS** **CD**	**80** **90** **105** **120**	Vedere tabella *See tables*	**120** **240**	**BR** **BRL**



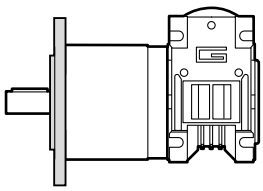
Versioni — *Versions*



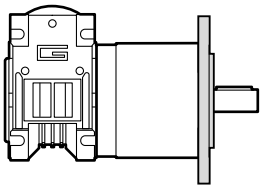
US



UD



CS



CD

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_n	[Nm]	Coppia nominale in uscita del riduttore / *Maximum output torque of the gearbox*
M_2	[Nm]	Coppia in uscita in funzione di P_1 / *Output torque referred to P_1*
sf		Fattore di servizio / *Service factor*
Rd	%	Rendimento dinamico / *Dynamic efficiency*
A_2	N]	Carico assiale ammissibile in uscita / *Permitted output axial load*
R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*

Lubrificazione — *Lubrication*

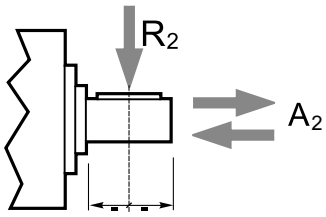
I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

I riduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione.
Questo gli consente di essere installati praticamente ovunque.

Planetary gearboxes are life-time lubricated with grease, therefore they are maintenance free.
They can be installed in any location.

Carichi radiali — *Radial loads*



Numero di stadi *Stages number*	Carichi Radiali R_2 [N] *Radial Load R_2 [N]*		
	P52	P62	P81
1	200	240	400
2	320	360	600
3	450	520	1000

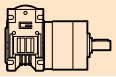
Numero di stadi *Stages number*	Carichi Assiali A_2 [N] *Axial Load A_2 [N]*		
	P52	P62	P81
1	60	70	80
2	100	100	120
3	150	150	200

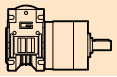
Rapporti *Ratios*

Motoriduttore *Gearmotor*	Numero stadi epicicloidale *Planetary stages number*	Rapporto epicicloidale *Planetary ratio*	Rapporto vite senza fine *Wormgearbox ratio*	Rapporto finale *Total ratio*
.../026/52 .../026/62 .../030/81	1	6.75	10	**67.5**
			15	**101.3**
			20	**135**
			30	**202.5**
			40	**270**
			50	**337.5**
			60	**405**
	2	28.93	10	**289.3**
			15	**434.0**
			20	**578.6**
			30	**867.9**
			40	**1157**
			50	**1447**
			60	**1736**
		34.97	60	**2098**
		45.56	60	**2734**

Dati tecnici per servizio S2

Technical data for S2 duty

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
160						
(3000 min^{-1})	**44.4**	23	1.1	67.5	**120/026/521**	120/240
	29.6	25	1.0	101.3		
	22.2	25	1.0	135.0		
	14.8	25	1.0	202.5		
	11.1	25	1.0	270.0		
	10.4	25	1.0	289.3	**120/026/522**	120/240
	8.9	25	1.0	337.5	**120/026/521**	120/240
	7.4	25	1.0	405.0		
	6.9	25	1.0	434.0	**120/026/522**	120/240
	5.2	25	1.0	578.6		
	3.5	25	1.0	867.9		
	2.6	25	1.0	1157.0		
	2.1	25	1.0	1447.0		
	1.7	25	1.0	1736.0		
	1.4	25	1.0	2098.0		
	1.1	25	1.0	2734.0		
	44.4	23	1.7	67.5	**120/026/621**	120/240
	29.6	34	1.2	101.3		
	22.2	40	1.0	135.0		
	14.8	40	1.0	202.5		
	11.1	40	1.0	270.0		
	10.4	50	1.0	289.3	**120/026/622**	120/240
	8.9	40	1.0	337.5	**120/026/621**	120/240
	7.4	40	1.0	405.0		
	6.9	50	1.0	434.0	**120/026/622**	120/240
	5.2	50	1.0	578.6		
	3.5	50	1.0	867.9		
	2.6	50	1.0	1157.0		
	2.1	50	1.0	1447.0		
	1.7	50	1.0	1736.0		
	1.4	50	1.0	2098.0		
	1.1	50	1.0	2734.0		

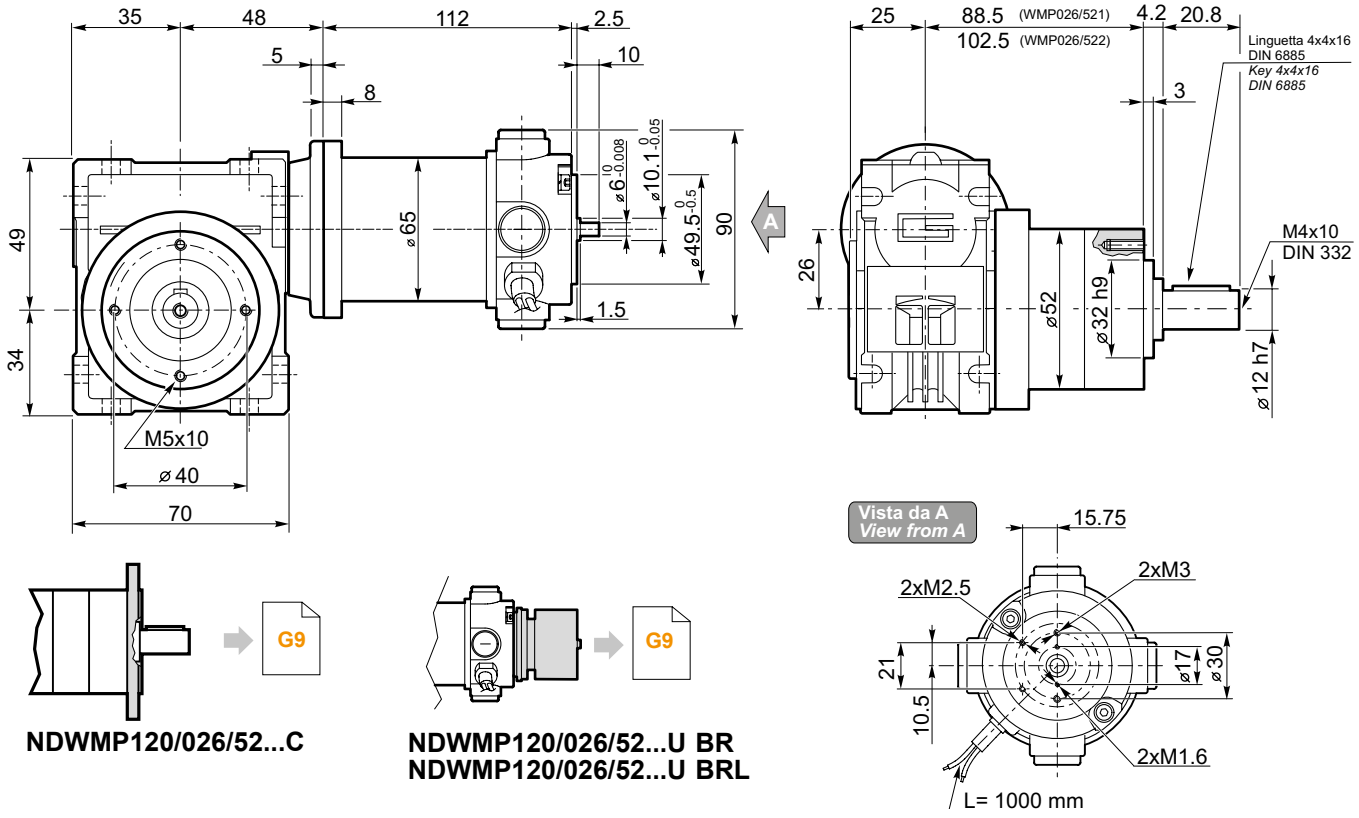
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
160						
(3000 min^{-1})	**44.4**	24	3.4	67.5	**120/030/811**	120/240
	29.6	35	2.3	101.3		
	22.2	45	1.8	135.0		
	14.8	61	1.3	202.5		
	11.1	77	1.0	270.0		
	10.4	95	1.3	289.3	**120/030/812**	120/240
	8.9	80	1.0	337.5	**120/030/811**	120/240
	7.4	80	1.0	405.0		
	6.9	120	1.0	434.0	**120/030/812**	120/240
	5.2	120	1.0	578.6		
	3.5	120	1.0	867.9		
	2.6	120	1.0	1157.0		
	2.1	120	1.0	1447.0		
	1.7	120	1.0	1736.0		
	1.4	120	1.0	2098.0		
	1.1	120	1.0	2734.0		
250						
(3000 min^{-1})	**44.4**	37	1.1	67.5	**180/026/621**	120/240
	44.4	40	2.0	67.5	**180/030/811**	120/240
	29.6	54	1.5	101.3		120/240
	22.2	70	1.1	135.0		120/240
	14.8	80	1.0	202.5		120/240
	10.4	120	1.0	289.3	**180/030/812**	120/240

Nota: Verificare sempre che la coppia M_2 utilizzata non ecceda il valore indicato nelle caselle in grigio

Note: *Please check that the output torque M_2 does not exceed the value into the grey areas*

Dimensioni — *Dimensions*

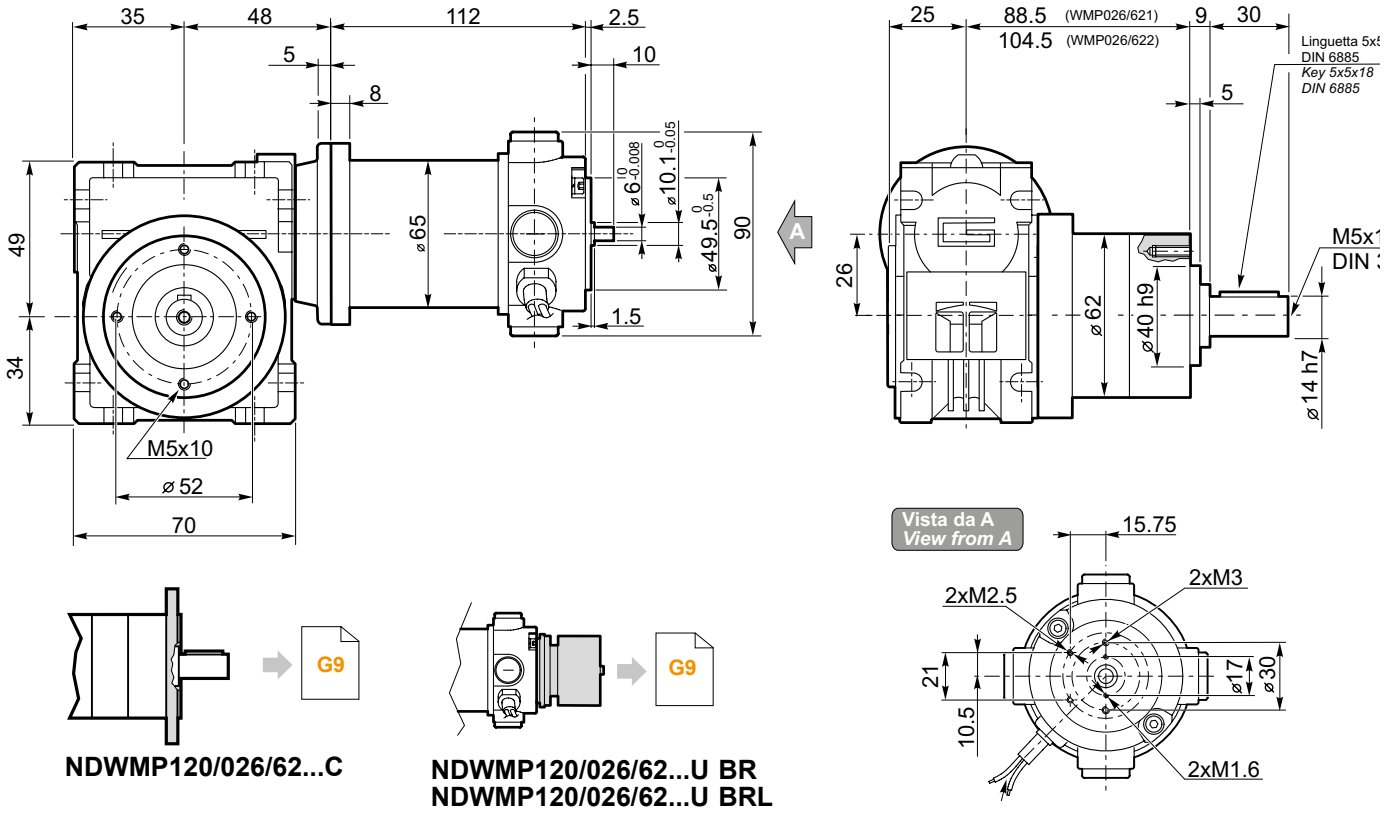
NDWMP120/026/52...U



NDWMP120/026/52...C

NDWMP120/026/52...U BR
NDWMP120/026/52...U BRL

NDWMP120/026/62...U

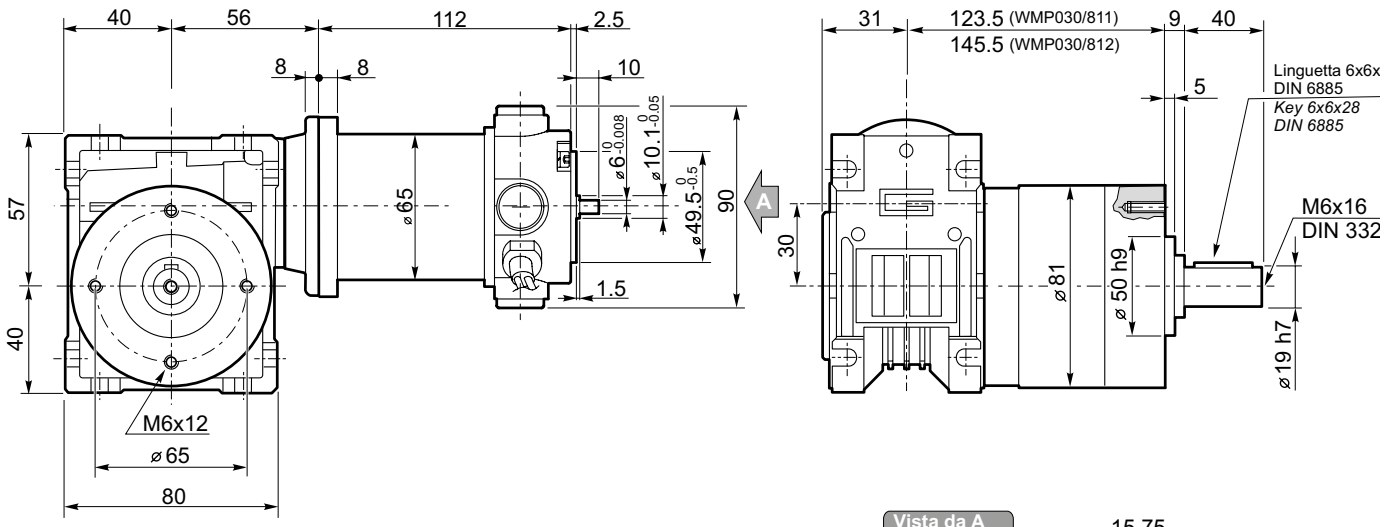


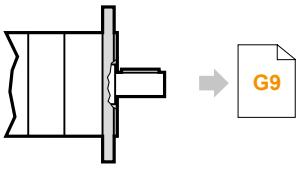
NDWMP120/026/62...C

NDWMP120/026/62...U BR
NDWMP120/026/62...U BRL

Dimensioni *Dimensions*

NDWMP120/030/81...U





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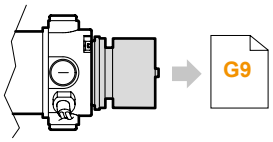
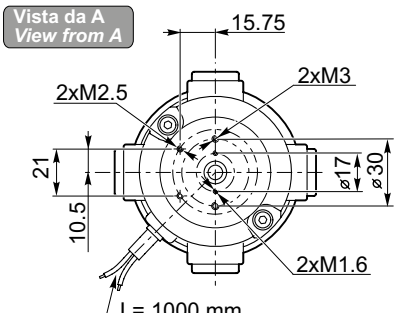
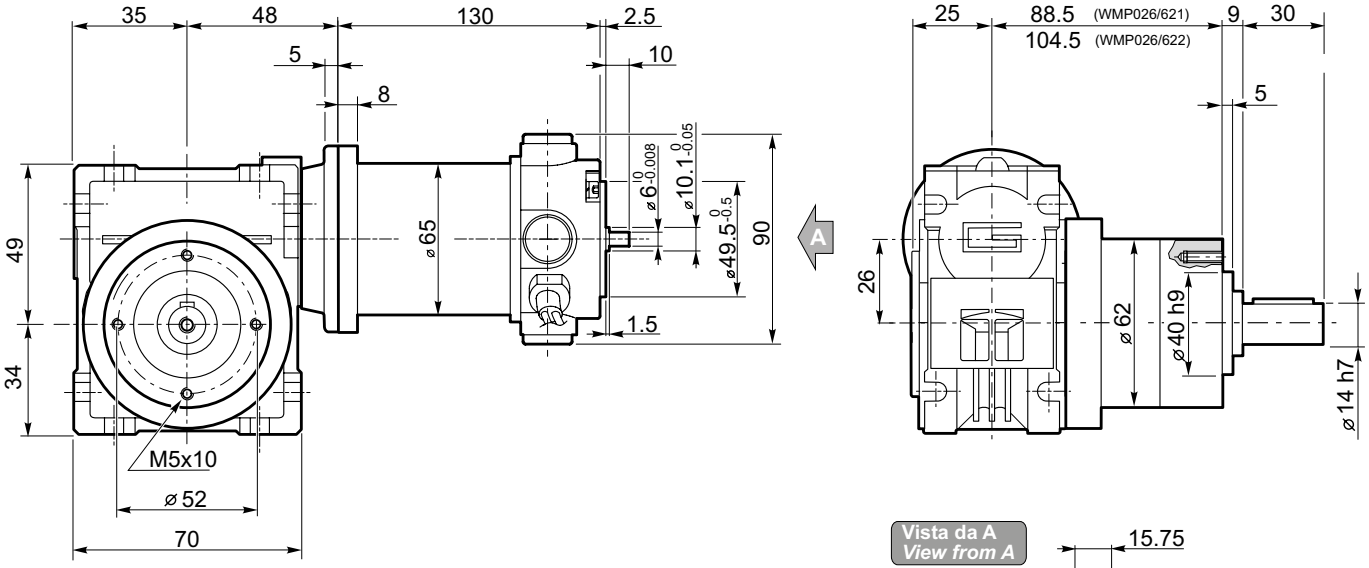


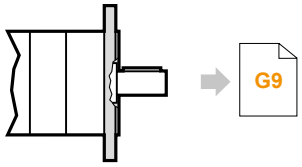
NDWMP120/030/81...U BR
NDWMP120/030/81...U BRL



Dimensioni ***Dimensions***

NDWMP180/026/62...U





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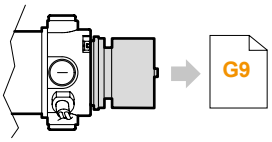
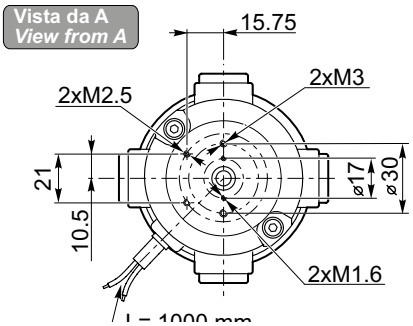


NDWMP180/026/62...U BR
NDWMP180/026/62...U BRL



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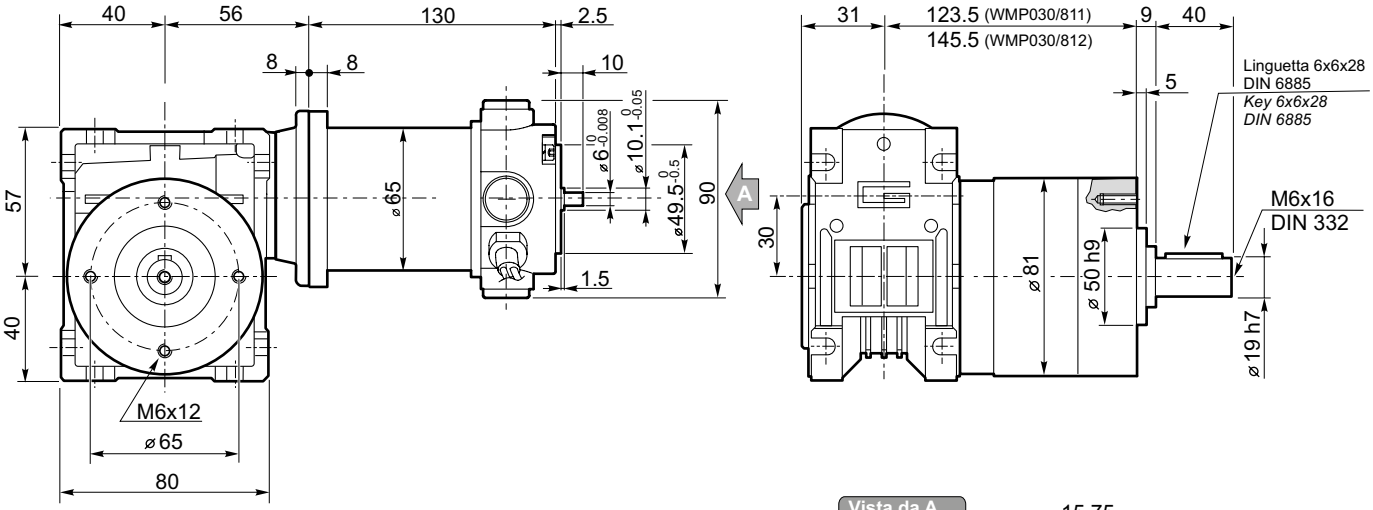

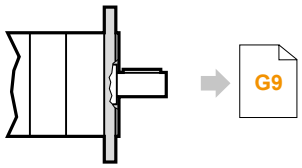

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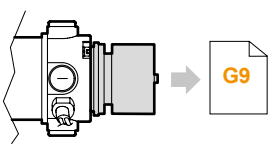
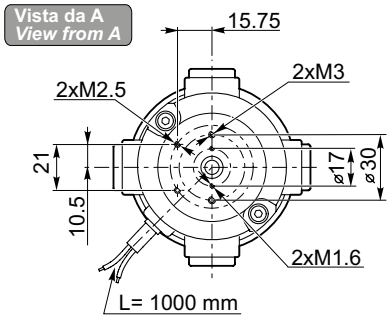
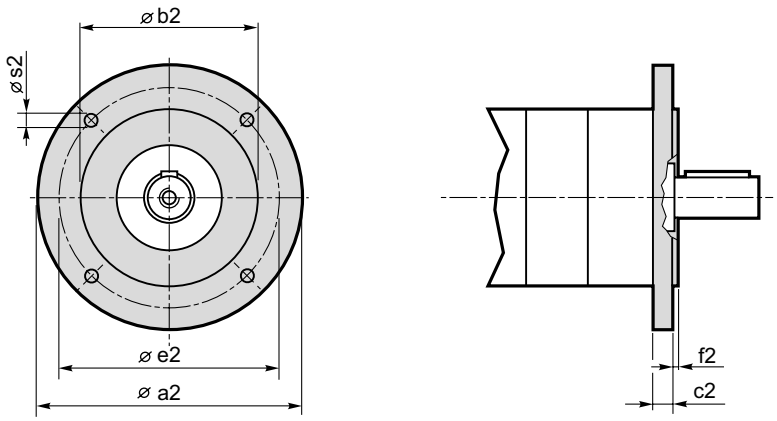


NDWMP180/030/81...U BR
NDWMP180/030/81...U BRL



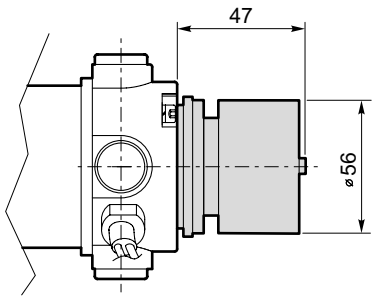
Dimensioni — *Dimensions*

NDWMP.../.../... C... Flange uscita / *Output flanges*

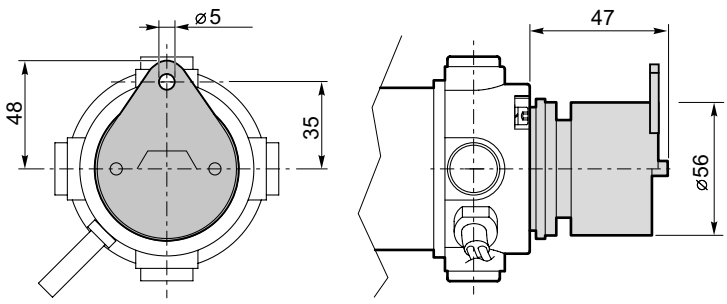


P	Dimensioni / *Dimensions*						
	a2	b2	c2	e2	f2	s2	Flangia uscita *Output flange*
52	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
62	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
81	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	M6	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**

NDP.../... U BR Freno / *Brake*



NDP.../... U BRL Freno con leva di sblocco/ *Brake with hand release*



Note/*Notes*

TRANSTECNO®
the modular gearmotor

ECP

ECP

ECP Robin
Small but Strong

Ferrite

Motoriduttori CC epicicloidali
DC planetary gearmotors

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ENERGY SAVING

Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**H2**
Designazione	*Classification*	**H2**
Versioni	*Versions*	**H2**
Simbologia	*Symbols*	**H2**
Lubrificazione	*Lubrification*	**H2**
Carichi radiali	*Radial loads*	**H3**
Rapporti	*Ratios*	**H3**
Dati tecnici	*Technical data*	**H4**
Motori applicabili	*IEC Motor adapters*	**H11**
Dimensioni	*Dimensions*	**H12**

Questa sezione annulla e sostituisce ogni precedente edizione o revisione. Qualora questa sezione non Vi sia giunta in distribuzione controllata, l'aggiornamento dei dati ivi contenuto non è assicurato. **In tal caso la versione più aggiornata è disponibile sul nostro sito internet www.transtecno.com**

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Caratteristiche tecniche — *Technical features*

Le caratteristiche principali dei motoriduttori CC epicicloidali a magneti permanenti in ferrite serie ECP sono:

- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder
- Potenze motore disponibili da 30 a 800W S2
- Magneti in ferrite
- Entrata ed uscita coassiali
- Design compatto
- Lubrificazione permanente a grasso
- Possono essere installati in qualunque posizione di montaggio.

The main features of ECP Ferrite permanent magnets DC planetary gearmotors range are:

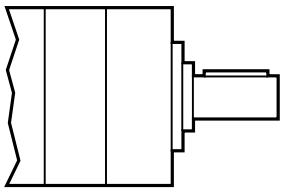
- *Low voltage power supply 12/24 Vdc*
- *Suitable for encoder assembly*
- *Motor power ratings available from 30 up to 800W S2*
- *Ferrite magnets*
- *Coaxial arrangement of the input and output*
- *Compact design*
- *Permanent grease oil long-life lubrication*
- *Can be intalled in all mounting position.*

Designazione — *Classification*

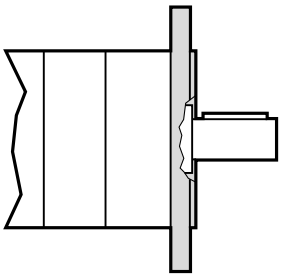
MOTORIDUTTORE / *GEARMOTOR*

ECP	070/62	2	C	90	34.97	120	BR
Tipo *Type*	Grandezza *Size*	Stadi riduttore *Gearbox stages*	Versione riduttore *Gearbox Version*	Flangia Uscita *Output flange*	Rapporto *Ratio*	Versione Motore *Motor Version*	Opzioni *Options*
ECP	**020/42** **035/42** **035/52** **050/42** **050/52** **070/52** **070/62** **070/72** **070/81** **100/52** **100/62** **100/72** **100/81** **180/52** **180/62** **180/72** **180/81** **180/105** **180/120** **250/62** **250/72** **250/81** **250/105** **250/120** **350/62** **350/72** **350/81** **350/105** **350/120** **600/72** **600/81** **600/105** **600/120**	**1** **2** **3**	**U** **C**	**80** **90** **105** **120**	Vedere tabella *See tables*	**120** **240** **24E**	**BR** **BRL**

Versioni — *Versions*



U



C

Simbologia — *Symbols*

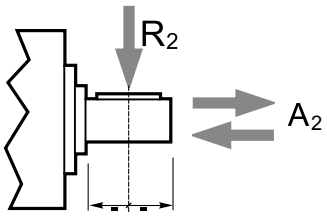
n_1	[min^{-1}]	Velocità in ingresso / *Input speed*	sf		Fattore di servizio / *Service factor*
n_2	[min^{-1}]	Velocità in uscita / *Output speed*	Rd	%	Rendimento dinamico / *Dynamic efficiency*
i		Rapporto di riduzione / *Ratio*	A_2	[N]	Carico assiale ammissibile in uscita / *Permitted output axial load*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

Lubrificazione — *Lubrication*

I riduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione.
Questo gli consente di essere installati praticamente ovunque.

Planetary gearboxes are life-time lubricated with grease, therefore they are maintenance free.
They can be installed in any location.

Carichi radiali — *Radial loads*



Numero di stadi *Stages number*	Carichi Radiali R_2 [N] / *Radial Load R_2 [N]*						
	P42	P52	P62	P72	P81	P105	P120
1	160	200	240	320	400	600	600
2	230	320	360	480	600	900	900
3	300	450	520	760	1000	1500	1500

Numero di stadi *Stages number*	Carichi Assiali A_2 [N] / *Axial Load A_2 [N]*						
	P42	P52	P62	P72	P81	P105	P120
1	50	60	70	70	80	120	120
2	80	100	100	100	120	180	180
3	110	150	150	160	200	300	300

Rapporti — *Ratios*

Numero di stadi *Stages number*	Per tutte le grandezze di riduttori della serie P *For all gearbox sizes of P range*
	Rapporti / *Ratios*
1	**3.70**
	4.28*
	5.18*
	6.75
2	**13.73**
	15.88*
	18.36*
	19.20*
	22.20*
	25.01
	26.85*
	28.93*
	34.97*
	45.56
3	**50.89**
	58.85*
	68.06*
	71.16*
	78.71*
	92.70
	95.17*
	99.50*
	107.20*
	115.07*
	123.97*
	129.62*
	139.13*
	149.90*
	168.84
	181.24*
	195.26*
	236.09*
	307.54

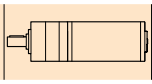
Rapporti preferenziali per le taglie P42,P52, P62, P81.
Preferred ratios for P42, P52, P62, P81.

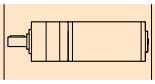
* ***Rapporto non disponibile su grandezza P120***
Ratio not available on size P120

Disponibile a 4 stadi con rapporti fino a 2076
Available 4 stages with ratio up to 2076

Dati tecnici per servizio S2

Technical data for S2 duty

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
30						
(2850 min^{-1})	**770**	0.24	12.7	**3.70**	**ECP020/421**	**120/24E**
	666	0.27	11.0	4.28		
	550	0.33	9.0	**5.18**		
	422	0.43	6.9	**6.75**		
	208	0.82	9.1	**13.73**	**ECP020/422**	**120/24E**
	179	0.95	7.9	15.88		
	155	1.1	6.8	18.36		
	148	1.2	6.5	**19.20**		
	128	1.3	5.6	22.20		
	114	1.5	5.0	**25.01**		
	106	1.6	4.7	26.85		
	99	1.7	4.3	**28.93**		
	81	2.1	3.6	**34.97**		
	63	2.7	2.7	**45.56**		
	56	2.8	5.3	**50.89**	**ECP020/423**	**120/24E**
	48	3.3	4.6	58.85		
	42	3.8	3.9	**68.06**		
	40	4.0	3.8	71.16		
	36	4.4	3.4	78.71		
	31	5.2	2.9	**92.70**		
	30	5.3	2.8	95.17		
	29	5.6	2.7	99.50		
	27	6.0	2.5	107.20		
	25	6.4	2.3	115.07		
	23	6.9	2.2	123.97		
	22	7.3	2.1	129.62		
	20	7.8	1.9	139.13		
	19	8.4	1.8	149.90		
	17	9.5	1.6	**168.84**		
	16	10	1.5	181.24		
	15	11	1.4	195.26		
	12	13	1.1	236.09		
	9.3	17	0.9	**307.54**		
55						
(3000 min^{-1})	**811**	0.53	5.6	**3.70**	**ECP035/421**	**120/240**
	701	0.62	4.9	4.28		
	579	0.75	4.0	**5.18**		
	444	0.97	3.1	**6.75**		
	218	1.9	4.0	**13.73**	**ECP035/422**	**120/240**
	189	2.1	3.5	15.88		
	163	2.5	3.0	18.36		
	156	2.6	2.9	**19.20**		
	135	3.0	2.5	22.20		
	120	3.4	2.2	**25.01**		
	112	3.6	2.1	26.85		
	104	3.9	1.9	**28.93**		
	86	4.7	1.6	**34.97**		
	65.8	6.2	1.2	**45.56**		
	59	6.4	2.3	**50.89**	**ECP035/423**	**120/240**
	51	7.4	2.0	58.85		
	44	8.6	1.7	**68.06**		
	42	9.0	1.7	71.16		
	38	9.9	1.5	78.71		
	32	12	1.3	**92.70**		

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
55						
(2850 min^{-1})	**31**	12	1.3	95.17	**ECP035/423**	**120/240**
	30	13	1.2	99.50		
	28	14	1.1	107.20		
	26	14	1.0	115.07		
	24	16	1.0	123.97		
	23	16	0.9	129.62		
	22	18	0.9	139.13		
	20	19	0.8	149.90		
	18	21	0.7	**168.84**		
	17	21	0.7	181.24		
	15	21	0.7	195.26		
	13	21	0.7	236.09		
	10	21	0.7	**307.54**		
	811	0.53	7.5	**3.70**	**ECP035/521**	**120/240**
	701	0.62	6.5	**4.28**		
	579	0.75	5.4	**5.18**		
	444	0.97	4.1	**6.75**		
	218	1.9	6.5	**13.73**	**ECP035/522**	**120/240**
	189	2.1	5.6	**15.88**		
	163	2.5	4.8	**18.36**		
	156	2.6	4.6	**19.20**		
	135	3.0	4.0	**22.20**		
	120	3.4	3.6	**25.01**		
	112	3.6	3.3	**26.85**		
	104	3.9	3.1	**28.93**		
	86	4.7	2.5	**34.97**		
	66	6.2	2.0	**45.56**		
	59	6.4	3.9	**50.89**	**ECP035/523**	**120/240**
	51	7.4	3.4	**58.85**		
	44	8.6	2.9	**68.06**		
	42	9.0	2.8	**71.16**		
	38	9.9	2.5	**78.71**		
	32	11.7	2.1	**92.70**		
	31	12.0	2.1	**95.17**		
	30	12.5	2.0	**99.50**		
	28	13.5	1.9	**107.20**		
	26	14.5	1.7	**115.07**		
	24	15.6	1.6	**123.97**		
	23	16.3	1.5	**129.62**		
	22	17.5	1.4	**139.13**		
	20	18.9	1.3	**149.90**		
	18	21.3	1.2	**168.84**		
	17	22.8	1.1	**181.24**		
	15	24.6	1.0	**195.26**		
	13	29.7	0.8	**236.09**		
	10	35.7	0.7	**307.54**		
70						
(3000 min^{-1})	**811**	0.65	4.6	**3.70**	**ECP050/421**	**12E/24E**
	701	0.75	4.0	4.28		
	579	0.91	3.3	**5.18**		
	444	1.2	2.5	**6.75**		
	218	2.3	3.3	**13.73**	**ECP050/422**	**12E/24E**
	189	2.6	2.9	15.88		
	163	3.0	2.5	18.36		
	156	3.2	2.4	**19.20**		
	135	3.7	2.0	22.20		
	120	4.1	1.8	**25.01**		
	112	4.4	1.7	26.85		
	104	4.8	1.6	**28.93**		
	86	5.8	1.3	**34.97**		
	66	7.5	1.0	**45.56**		

Motoriduttori preferenziali / *Preferred gearmotors*

Dati tecnici per servizio S2

Technical data for S2 duty

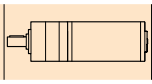
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
70						
(2850 min^{-1})	**59**	7.8	1.9	**50.89**	**ECP050/423**	**12E/24E**
	51	9.1	1.7	58.85		
	44	10	1.4	**68.06**		
	42	11	1.4	71.16		
	38	12	1.2	78.71		
	32	14	1.1	**92.70**		
	31	15	1.0	95.17		
	30	15	1.0	99.50		
	28	17	0.9	107.20		
	26	18	0.8	115.07		
	24	19	0.8	123.97		
	23	20	0.8	129.62		
	22	21	0.7	139.13		
	20	21	0.7	149.90		
	18	21	0.7	**168.84**		
	17	21	0.7	181.24		
	15	21	0.7	195.26		
	13	21	0.7	236.09		
	9.8	21	0.7	**307.54**		
	163	3.0	4.0	18.36	**ECP050/522**	**12E/24E**
	156	3.2	3.8	**19.20**		
	135	3.7	3.3	22.20		
	120	4.1	2.9	**25.01**		
	112	4.4	2.7	26.85		
	104	4.8	2.5	**28.93**		
	86	5.8	2.1	**34.97**		
	66	7.5	1.6	**45.56**		
	59	7.8	3.2	**50.89**	**ECP050/523**	**12E/24E**
	51	9.1	2.8	58.85		
	44	10	2.4	**68.06**		
	42	11	2.3	71.16		
	38	12	2.1	78.71		
	32	14	1.8	**92.70**		
	31	15	1.7	95.17		
	30	15	1.6	99.50		
	28	17	1.5	107.20		
	26	18	1.4	115.07		
	24	19	1.3	123.97		
	23	20	1.3	129.62		
	22	21	1.2	139.13		
	20	23	1.1	149.90		
	18	26	1.0	**168.84**		
	17	28	0.9	181.24		
	15	30	0.8	195.26		
	13	36	0.7	236.09		
	9.8	36	0.7	**307.54**		
100						
(3000 min^{-1})	**811**	0.92	4.4	**3.70**	**ECP070/521**	**120/240**
	701	1.1	3.8	4.28		
	579	1.3	3.1	**5.18**		
	444	1.7	2.4	**6.75**		
	218	3.2	3.8	**13.73**	**ECP070/522**	**120/240**
	189	3.7	3.3	15.88		
	163	4.3	2.8	18.36		
	156	4.5	2.7	**19.20**		
	135	5.2	2.3	22.20		
	120	5.8	2.1	**25.01**		
	112	6.2	1.9	26.85		
	104	6.7	1.8	**28.93**		
	86	8.1	1.5	**34.97**		
	66	11	1.1	**45.56**		

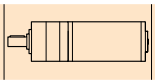
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
100						
(3000 min^{-1})	**59**	11	2.3	**50.89**	**ECP070/523**	**120/240**
	51	13	2.0	58.85		
	44	15	1.7	**68.06**		
	42	15	1.6	71.16		
	38	17	1.5	78.71		
	32	20	1.2	**92.70**		
	31	21	1.2	95.17		
	30	22	1.2	99.50		
	28	23	1.1	107.20		
	26	25	1.0	115.07		
	24	27	0.9	123.97		
	23	28	0.9	129.62		
	22	30	0.8	139.13		
	20	33	0.8	149.90		
	18	36	0.7	**168.84**		
	17	36	0.7	181.24		
	15	36	0.7	195.26		
	13	36	0.7	236.09		
	9.8	36	0.7	**307.54**		
	120.0	5.8	4.3	**25.01**	**ECP070/622**	**120/240**
	112	6.2	4.0	26.85		
	104	6.7	3.7	**28.93**		
	86	8.1	3.1	**34.97**		
	66	11	2.4	**45.56**		
	59	11	4.5	**50.89**	**ECP070/623**	**120/240**
	51	13	3.9	58.85		
	44	15	3.4	**68.06**		
	42	15	3.2	71.16		
	38	17	2.9	78.71		
	32	20	2.5	**92.70**		
	31	21	2.4	95.17		
	30	22	2.3	99.50		
	28	23	2.1	107.20		
	26	25	2.0	115.07		
	24	27	1.9	123.97		
	23	28	1.8	129.62		
	22	30	1.7	139.13		
	20	33	1.5	149.90		
	18	37	1.4	**168.84**		
	17	39	1.3	181.24		
	15	42	1.2	195.26		
	13	51	1.0	236.09		
	9.8	67	0.7	**307.54**		
	32	20	4.2	**92.70**	**ECP070/723**	**120/240**
	31	21	4.1	95.17		
	30	22	3.9	99.50		
	28	23	3.6	107.20		
	26	25	3.4	115.07		
	24	27	3.1	123.97		
	23	28	3.0	129.62		
	22	30	2.8	139.13		
	20	33	2.6	149.90		
	18	37	2.3	**168.84**		
	17	39	2.1	181.24		
	15	42	2.0	195.26		
	13	51	1.6	236.09		
	9.8	67	1.3	**307.54**		

Motoriduttori preferenziali / *Preferred gearmotors*

Dati tecnici per servizio S2

Technical data for S2 duty

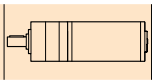
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
100						
(3000 min^{-1})	**20**	33	3.7	149.90	**ECP070/813**	**120/240**
	18	37	3.3	**168.84**		
	17	39	3.1	181.24		
	15	42	2.8	195.26		
	13	51	2.3	236.09		
	9.8	67	1.8	**307.54**		
140						
(3000 min^{-1})	**811**	1.3	3.1	**3.70**	**ECP100/521**	**120/240/24E**
	701	1.5	2.7	4.28		
	579	1.8	2.2	**5.18**		
	444	2.3	1.7	**6.75**		
	218	4.4	2.7	**13.73**	**ECP100/522**	**120/240/24E**
	189	5.1	2.3	15.88		
	163	5.9	2.0	18.36		
	156	6.2	1.9	**19.20**		
	135	7.2	1.7	22.20		
	120	8.1	1.5	**25.01**		
	112	8.7	1.4	26.85		
	104	9.3	1.3	**28.93**		
	86	11	1.1	**34.97**		
	66	15	0.8	**45.56**		
	59	15	1.6	**50.89**	**ECP100/523**	**120/240/24E**
	51	18	1.4	58.85		
	44	20	1.2	**68.06**		
	42	21	1.2	71.16		
	38	24	1.1	78.71		
	32	28	0.9	**92.70**		
	31	29	0.9	95.17		
	30	30	0.8	99.50		
	28	32	0.8	107.20		
	26	35	0.7	115.07		
	24	36	0.7	123.97		
	23	36	0.7	129.62		
	22	36	0.7	139.13		
	20	36	0.7	149.90		
	18	36	0.7	**168.84**		
	17	36	0.7	181.24		
	15	36	0.7	195.26		
	13	36	0.7	236.09		
	9.8	36	0.7	**307.54**		
	444	2.3	3.4	**6.75**	**ECP100/621**	**120/240/24E**
	156	6.2	4.0	**19.20**	**ECP100/622**	**120/240/24E**
	135	7.2	3.5	22.20		
	120	8.1	3.1	**25.01**		
	112	8.7	2.9	26.85		
	104	9.3	2.7	**28.93**		
	86	11	2.2	**34.97**		
	66	15	1.7	**45.56**		

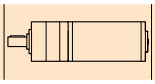
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
140						
(3000 min^{-1})	**59**	15	3.3	**50.89**	**ECP100/623**	**120/240/24E**
	51	18	2.8	58.85		
	44	20	2.4	**68.06**		
	42	21	2.3	71.16		
	38	24	2.1	78.71		
	32	28	1.8	**92.70**		
	31	29	1.7	95.17		
	30	30	1.7	99.50		
	28	32	1.5	107.20		
	26	35	1.4	115.07		
	24	37	1.3	123.97		
	23	39	1.3	129.62		
	22	42	1.2	139.13		
	20	45	1.1	149.90		
	18	51	1.0	**168.84**		
	17	55	0.9	181.24		
	15	59	0.9	195.26		
	13	71	0.7	236.09		
	9.8	71	0.7	**307.54**		
	86	11	3.7	**34.97**	**ECP100/722**	**120/240/24E**
	66	15	2.9	**45.56**		
	44	20	4.1	**68.06**	**ECP100/723**	**120/240/24E**
	42	21	3.9	71.16		
	38	24	3.5	78.71		
	32	28	3.0	**92.70**		
	31	29	2.9	95.17		
	30	30	2.8	99.50		
	28	32	2.6	107.20		
	26	35	2.4	115.07		
	24	37	2.3	123.97		
	23	39	2.2	129.62		
	22	42	2.0	139.13		
	20	45	1.9	149.90		
	18	51	1.7	**168.84**		
	17	55	1.5	181.24		
	15	59	1.4	195.26		
	13	71	1.2	236.09		
	9.8	93	0.9	**307.54**		
	32	28	4.3	**92.70**	**ECP100/813**	**120/240/24E**
	31	29	4.2	95.17		
	30	30	4.0	99.50		
	28	32	3.7	107.20		
	26	35	3.5	115.07		
	24	37	3.2	123.97		
	23	39	3.1	129.62		
	22	42	2.9	139.13		
	20	45	2.7	149.90		
	18	51	2.4	**168.84**		
	17	55	2.2	181.24		
	15	59	2.0	195.26		
	13	71	1.7	236.09		
	9.8	93	1.3	**307.54**		
250						
(3000 min^{-1})	**811**	2.4	1.7	**3.70**	**ECP180/521**	**120/240**
	701	2.7	1.5	4.28		
	579	3.3	1.2	**5.18**		
	444	4.3	0.9	**6.75**		

Motoriduttori preferenziali / *Preferred gearmotors*

Dati tecnici per servizio S2

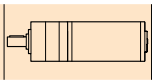
Technical data for S2 duty

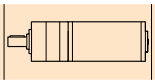
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
250						
(3000 min^{-1})	**218**	8.2	1.5	**13.73**	**ECP180/522**	**120/240**
	189	9.5	1.3	15.88		
	163	11	1.1	18.36		
	156	12	1.0	**19.20**		
	135	13	0.9	22.20		
	120	15	0.8	**25.01**		
	112	16	0.7	26.85		
	104	17	0.7	**28.93**		
	86	17	0.7	**34.97**		
	66	17	0.7	**45.56**		
	59	28	0.9	**50.89**	**ECP180/523**	**120/240**
	51	33	0.8	58.85		
	44	36	0.7	**68.06**		
	42	36	0.7	71.16		
	38	36	0.7	78.71		
	32	36	0.7	**92.70**		
	31	36	0.7	95.17		
	30	36	0.7	99.50		
	28	36	0.7	107.20		
	26	36	0.7	115.07		
	24	36	0.7	123.97		
	23	36	0.7	129.62		
	22	36	0.7	139.13		
	20	36	0.7	149.90		
	18	36	0.7	**168.84**		
	17	36	0.7	181.24		
	15	36	0.7	195.26		
	13	36	0.7	236.09		
	9.8	36	0.7	**307.54**		
	811	2.4	3.4	**3.70**	**ECP180/621**	**120/240/24E**
	701	2.7	2.9	4.28		
	579	3.3	2.4	**5.18**		
	444	4.3	1.9	**6.75**		
	218	8.2	3.0	**13.73**	**ECP180/622**	**120/240/24E**
	189	9.5	2.6	15.88		
	163	11	2.3	18.36		
	156	12	2.2	**19.20**		
	135	13	1.9	22.20		
	120	15	1.7	**25.01**		
	112	16	1.6	26.85		
	104	17	1.4	**28.93**		
	86	21	1.2	**34.97**		
	66	27	0.9	**45.56**		
	59	28	1.8	**50.89**	**ECP180/623**	**120/240/24E**
	51	33	1.5	58.85		
	44	38	1.3	**68.06**		
	42	40	1.3	71.16		
	38	44	1.1	78.71		
	32	52	1.0	**92.70**		
	31	53	0.9	95.17		
	30	56	0.9	99.50		
	28	60	0.8	107.20		
	26	64	0.8	115.07		
	24	69	0.7	123.97		
	23	71	0.7	129.62		
	22	71	0.7	139.13		
	20	71	0.7	149.90		
	18	71	0.7	**168.84**		
	17	71	0.7	181.24		
	15	71	0.7	195.26		
	13	71	0.7	236.09		
	9.8	71	0.7	**307.54**		

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
250						
(3000 min^{-1})	**163**	11	3.8	18.36	**ECP180/722**	**120/240/24E**
	156	12	3.6	**19.20**		
	135	13	3.2	22.20		
	120	15	2.8	**25.01**		
	112	16	2.6	26.85		
	104	17	2.4	**28.93**		
	86	21	2.0	**34.97**		
	66	27	1.5	**45.56**		
	59	28	2.9	**50.89**	**ECP180/723**	**120/240/24E**
	51	33	2.5	58.85		
	44	38	2.2	**68.06**		
	42	40	2.1	71.16		
	38	44	1.9	78.71		
	32	52	1.6	**92.70**		
	31	53	1.6	95.17		
	30	56	1.5	99.50		
	28	60	1.4	107.20		
	26	64	1.3	115.07		
	24	69	1.2	123.97		
	23	73	1.2	129.62		
	22	78	1.1	139.13		
	20	84	1.0	149.90		
	18	95	0.9	**168.84**		
	17	101	0.8	181.24		
	15	109	0.8	195.26		
	13	120	0.7	236.09		
	9.8	120	0.7	**307.54**		
	120	15	4.0	**25.01**	**ECP180/812**	**120/240/24E**
	112	16	3.7	26.85		
	104	17	3.5	**28.93**		
	86	21	2.9	**34.97**		
	66	27	2.2	**45.56**		
	51	33	3.6	58.85	**ECP180/813**	**120/240/24E**
	44	38	3.1	**68.06**		
	42	40	3.0	71.16		
	38	44	2.7	78.71		
	32	52	2.3	**92.70**		
	31	53	2.3	95.17		
	30	56	2.2	99.50		
	28	60	2.0	107.20		
	26	64	1.9	115.07		
	24	69	1.7	123.97		
	23	73	1.7	129.62		
	22	78	1.5	139.13		
	20	84	1.4	149.90		
	18	95	1.3	**168.84**		
	17	101	1.2	181.24		
	15	109	1.1	195.26		
	13	132	0.9	236.09		
	9.8	172	0.7	**307.54**		

Motoriduttori preferenziali / *Preferred gearmotors*

Dati tecnici per servizio S2 / *Technical data for S2 duty*

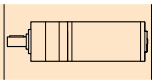
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
250						
(3000 min^{-1})	**32**	52	3.8	**92.70**	**ECP180/1053**	**120/240/24E**
	31	53	3.7	95.17		
	30	56	3.5	99.50		
	28	60	3.2	107.20		
	26	64	3.0	115.07		
	24	69	2.8	123.97		
	23	73	2.7	129.62		
	22	78	2.5	139.13		
	20	84	2.3	149.90		
	18	95	2.1	**168.84**		
	17	101	1.9	181.24		
	15	109	1.8	195.26		
	13	132	1.5	236.09		
	9.8	172	1.1	**307.54**		
	18	95	3.2	**168.84**	**ECP180/1203**	**120/240/24E**
	9.8	172	1.7	**307.54**		
350						
(3000 min^{-1})	**811**	3.3	2.4	**3.70**	**ECP250/621**	**120/240**
	701	3.8	2.1	4.28		
	579	4.6	1.7	**5.18**		
	444	6.0	1.3	**6.75**		
	218	11.5	2.2	**13.73**	**ECP250/622**	**120/240**
	189	13.3	1.9	15.88		
	163	15.4	1.6	18.36		
	156	16.1	1.6	**19.20**		
	135	18.6	1.3	22.20		
	120	21.0	1.2	**25.01**		
	112	22.6	1.1	26.85		
	104	24.3	1.0	**28.93**		
	86	29.4	0.9	**34.97**		
	66	38.3	0.7	**45.56**		
	59	39.9	1.3	**50.89**	**ECP250/623**	**120/240**
	51	46.1	1.1	58.85		
	44	53.4	0.9	**68.06**		
	42	55.8	0.9	71.16		
	38	61.7	0.8	78.71		
	32	72.7	0.7	**92.70**		
	32	74.6	0.7	95.17		
	30	71.0	0.7	99.50		
	28	71.0	0.7	107.20		
	26	71.0	0.7	115.07		
	24	71.0	0.7	123.97		
	23	71.0	0.7	129.62		
	22	71.0	0.7	139.13		
	20	71.0	0.7	149.90		
	18	71.0	0.7	**168.84**		
	17	71.0	0.7	181.24		
	15	71.0	0.7	195.26		
	13	71.0	0.7	236.09		
	9.8	71.0	0.7	**307.54**		
	811	3.3	4.2	**3.70**	**ECP250/721**	
	701	3.8	3.7	4.28		
	579	4.6	3.0	**5.18**		
	444	6.0	2.3	**6.75**		

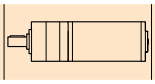
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
350						
(3000 min^{-1})	**218**	11.5	3.6	**13.73**	**ECP250/722**	**120/240**
	189	13.3	3.1	15.88		
	163	15.4	2.7	18.36		
	156	16.1	2.6	**19.20**		
	135	18.6	2.3	22.20		
	120	21.0	2.0	**25.01**		
	112	22.6	1.9	26.85		
	104	24.3	1.7	**28.93**		
	86	29.4	1.4	**34.97**		
	66	38.3	1.1	**45.56**		
	59	39.9	2.1	**50.89**	**ECP250/723**	**120/240**
	51	46.1	1.8	58.85		
	44	53.4	1.6	**68.06**		
	42	55.8	1.5	71.16		
	38	61.7	1.4	78.71		
	32	72.7	1.2	**92.70**		
	32	74.6	1.1	95.17		
	30	78.0	1.1	99.50		
	28	84.0	1.0	107.20		
	26	90.2	0.9	115.07		
	24	97.2	0.9	123.97		
	23	101.6	0.8	129.62		
	22	109.1	0.8	139.13		
	20	117.5	0.7	149.90		
	18	120.0	0.7	**168.84**		
	17	120.0	0.7	181.24		
	15	120.0	0.7	195.26		
	13	120.0	0.7	236.09		
	9.8	120.0	0.7	**307.54**		
	701	3.8	5.2	4.28	**ECP250/811**	**120/240**
	579	4.6	4.3	**5.18**		
	444	6.0	3.3	**6.75**		
	218	11.5	5.2	**13.73**	**ECP250/812**	**120/240**
	189	13.3	4.5	15.88		
	163	15.4	3.9	18.36		
	156	16.1	3.7	**19.20**		
	135	18.6	3.2	22.20		
	120	21.0	2.9	**25.01**		
	112	22.6	2.7	26.85		
	104	24.3	2.5	**28.93**		
	86	29.4	2.0	**34.97**		
	66	38.3	1.6	**45.56**		
	59	39.9	3.0	**50.89**	**ECP250/813**	**120/240**
	51	46.1	2.6	58.85		
	44	53.4	2.2	**68.06**		
	42	55.8	2.2	71.16		
	38	61.7	1.9	78.71		
	32	72.7	1.7	**92.70**		
	32	74.6	1.6	95.17		
	30	78.0	1.5	99.50		
	28	84.0	1.4	107.20		
	26	90.2	1.3	115.07		
	24	97.2	1.2	123.97		
	23	101.6	1.2	129.62		
	22	109.1	1.1	139.13		
	20	117.5	1.0	149.90		
	18	132.4	0.9	**168.84**		
	17	142.1	0.8	181.24		
	15	153.1	0.8	195.26		
	13	171.0	0.7	236.09		
	9.8	171.0	0.7	**307.54**		

Motoriduttori preferenziali / *Preferred gearmotors*

Dati tecnici per servizio S2

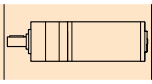
Technical data for S2 duty

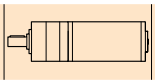
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
500						
(3000 min^{-1})	**120**	21.0	5.0	**25.01**	**ECP250/1052**	**120/240**
	112	22.6	4.7	26.85		
	104	24.3	4.3	**28.93**		
	86	29.4	3.6	**34.97**		
	66	38.3	2.7	**45.56**		
	59	39.9	4.9	**50.89**	**ECP250/1053**	**120/240**
	51	46.1	4.2	58.85		
	44	53.4	3.7	**68.06**		
	42	55.8	3.5	71.16		
	38	61.7	3.2	78.71		
	32	72.7	2.7	**92.70**		
	32	74.6	2.6	95.17		
	30	78.0	2.5	99.50		
	28	84.0	2.3	107.20		
	26	90.2	2.2	115.07		
	24	97.2	2.0	123.97		
	23	101.6	1.9	129.62		
	22	109.1	1.8	139.13		
	20	117.5	1.7	149.90		
	18	132.4	1.5	**168.84**		
	17	142.1	1.4	181.24		
	15	153.1	1.3	195.26		
	13	185.1	1.1	236.09		
	9.8	241.1	0.8	**307.54**		
	66	38.3	3.9	**45.56**	**ECP250/1202**	**120/240**
	32	72.7	4.1	**92.70**	**ECP250/1203**	**120/240**
	18	132.4	2.3	**168.84**		
	9.8	241.1	1.2	**307.54**		

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
500						
(3000 min^{-1})	**811**	4.6	1.7	**3.70**	**ECP350/621**	**120/240**
	701	5.4	1.5	4.28		
	579	6.5	1.2	**5.18**		
	444	8.5	0.9	**6.75**		
	218	16	1.5	**13.73**	**ECP350/622**	**120/240**
	189	19	1.3	15.88		
	163	22	1.2	18.36		
	156	23	1.1	**19.20**		
	135	26	1.0	22.20		
	120	29	0.8	**25.01**		
	112	32	0.8	26.85		
	104	34	0.7	**28.93**		
	86	36	0.7	**34.97**		
	66	36	0.7	**45.56**		
	59	56	0.9	**50.89**	**ECP350/623**	**120/240**
	51	65	0.8	58.85		
	44	71	0.7	**68.06**		
	42	71	0.7	71.16		
	38	71	0.7	78.71		
	32	71	0.7	**92.70**		
	31	71	0.7	95.17		
	30	71	0.7	99.50		
	28	71	0.7	107.20		
	26	71	0.7	115.07		
	24	71	0.7	123.97		
	23	71	0.7	129.62		
	22	71	0.7	139.13		
	20	71	0.7	149.90		
	18	71	0.7	**168.84**		
	17	71	0.7	181.24	**ECP350/623**	**120/240**
	15	71	0.7	195.26		
	13	71	0.7	236.09		
	9.8	71	0.7	**307.54**		
	811	4.6	3.0	**3.70**	**ECP350/721**	**120/240**
	701	5.4	2.6	4.28		
	579	6.5	2.2	**5.18**		
	444	8.5	1.7	**6.75**		
	218	16	2.6	**13.73**	**ECP350/722**	**120/240**
	189	19	2.2	15.88		
	163	22	1.9	18.36		
	156	23	1.9	**19.20**		
	135	26	1.6	22.20		
	120	29	1.4	**25.01**		
	112	32	1.3	26.85		
	104	34	1.2	**28.93**		
	86	41	1.0	**34.97**		
	66	54	0.8	**45.56**		
	59	56	1.5	**50.89**	**ECP350/723**	**120/240**
	51	65	1.3	58.85		
	44	75	1.1	**68.06**		
	42	78	1.1	71.16		
	38	87	1.0	78.71		
	32	102	0.8	**92.70**		
	31	105	0.8	95.17		
	30	109	0.8	99.50		
	28	118	0.7	107.20		
	26	120	0.7	115.07		
	24	120	0.7	123.97		
	23	120	0.7	129.62		
	22	120	0.7	139.13		
	20	120	0.7	149.90		
	18	120	0.7	**168.84**		
	17	120	0.7	181.24		
	15	120	0.7	195.26		
	13	120	0.7	236.09		
	9.8	120	0.7	**307.54**		
	701	5.4	3.7	4.28	**ECP350/811**	**120/240**
	579	6.5	3.1	**5.18**		
	444	8.5	2.4	**6.75**		
	218	16	3.7	**13.73**	**ECP350/812**	**120/240**
	189	19	3.2	15.88		
	163	22	2.8	18.36		
	156	23	2.7	**19.20**		
	135	26	2.3	22.20		
	120	29	2.0	**25.01**		
	112	32	1.9	26.85		
	104	34	1.8	**28.93**		
	86	41	1.5	**34.97**		
	66	54	1.1	**45.56**		
	59	56	2.1	**50.89**	**ECP350/813**	**120/240**
	51	65	1.9	58.85		
	44	75	1.6	**68.06**		
	42	78	1.5	71.16		
	38	87	1.4	78.71		
	32	102	1.2	**92.70**		
	31	105	1.1	95.17		
	30	109	1.1	99.50		
	28	118	1.0	107.20		

Motoriduttori preferenziali / *Preferred gearmotors*

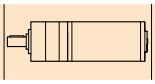
Dati tecnici per servizio S2 / *Technical data for S2 duty*

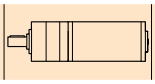
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
500						
(3000 min^{-1})	**26**	126	0.9	115.07	**ECP350/813**	**120/240**
	24	136	0.9	123.97		
	23	142	0.8	129.62		
	22	153	0.8	139.13		
	20	165	0.7	149.90		
	18	171	0.7	**168.84**		
	17	171	0.7	181.24		
	15	171	0.7	195.26		
	13	171	0.7	236.09		
	9.8	171	0.7	**307.54**		
	120	29	3.6	**25.01**	**ECP350/1052**	**120/240**
	112	32	3.3	26.85		
	104	34	3.1	**28.93**		
	86	41	2.5	**34.97**		
	66	54	2.0	**45.56**		
	59	56	3.5	**50.89**	**ECP350/1053**	**120/240**
	51	65	3.0	58.85		
	44	75	2.6	**68.06**		
	42	78	2.5	71.16		
	38	87	2.3	78.71		
	32	102	1.9	**92.70**		
	31	105	1.9	95.17		
	30	109	1.8	99.50		
	28	118	1.7	107.20		
	26	126	1.5	115.07		
	24	136	1.4	123.97		
	23	142	1.4	129.62		
	22	153	1.3	139.13		
	20	165	1.2	149.90		
	18	186	1.1	**168.84**		
	17	199	1.0	181.24		
	15	215	0.9	195.26		
	13	259	0.8	236.09		
	9.8	279	0.7	**307.54**		
	66	54	2.8	**45.56**	**ECP350/1202**	**120/240**
	32	102	2.9	**92.70**	**ECP350/1203**	**120/240**
	18	186	1.6	**168.84**		
	9.8	338	0.9	**307.54**		
800						
(3000 min^{-1})	**811**	7.5	1.9	**3.70**	**ECP600/721**	**120/240**
	701	8.7	1.6	4.28		
	579	11	1.3	**5.18**		
	444	14	1.0	**6.75**		
	218	26	1.6	**13.73**	**ECP600/722**	**120/240**
	189	30	1.4	15.88		
	163	35	1.2	18.36		
	156	37	1.1	**19.20**		
	135	42	1.0	22.20		
	120	48	0.9	**25.01**		
	112	51	0.8	26.85		
	104	55	0.8	**28.93**		
	86	60	0.7	**34.97**		
	66	60	0.7	**45.56**		

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
800						
(3000 min^{-1})	**59**	90	0.9	**50.89**	**ECP600/723**	**120/240**
	51	105	0.8	58.85		
	44	120	0.7	**68.06**		
	42	120	0.7	71.16		
	38	120	0.7	78.71		
	32	120	0.7	**92.70**		
	31	120	0.7	95.17		
	30	120	0.7	99.50		
	28	120	0.7	107.20		
	26	120	0.7	115.07		
	24	120	0.7	123.97		
	23	120	0.7	129.62		
	22	120	0.7	139.13		
	20	120	0.7	149.90		
	18	120	0.7	**168.84**		
	17	120	0.7	181.24		
	15	120	0.7	195.26		
	13	120	0.7	236.09		
	9.8	120	0.7	**307.54**		
	811	7.5	2.7	**3.70**	**ECP600/811**	**120/240**
	701	8.7	2.3	4.28		
	579	11	1.9	**5.18**		
	444	14	1.5	**6.75**		
	218	26	2.3	**13.73**	**ECP600/812**	**120/240**
	189	30	2.0	15.88		
	163	35	1.7	18.36		
	156	37	1.6	**19.20**		
	135	42	1.4	22.20		
	120	48	1.3	**25.01**		
	112	51	1.2	26.85		
	104	55	1.1	**28.93**		
	86	67	0.9	**34.97**		
	66	86	0.7	**45.56**		
	59	90	1.3	**50.89**	**ECP600/813**	**120/240**
	51	105	1.1	58.85		
	44	121	1.0	**68.06**		
	42	127	0.9	71.16		
	38	140	0.9	78.71		
	32	165	0.7	**92.70**		
	31	169	0.7	95.17		
	30	171	0.7	99.50		
	28	171	0.7	107.20		
	26	171	0.7	115.07		
	24	171	0.7	123.97		
	23	171	0.7	129.62		
	22	171	0.7	139.13		
	20	171	0.7	149.90		
	18	171	0.7	**168.84**		
	17	171	0.7	181.24		
	15	171	0.7	195.26		
	13	171	0.7	236.09		
	9.8	171	0.7	**307.54**		
	701	8.7	4.0	4.28	**ECP600/1051**	**120/240**
	579	11	3.3	**5.18**		
	444	14	2.6	**6.75**		

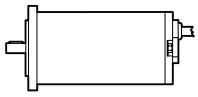
Motoriduttori preferenziali / *Preferred gearmotors*

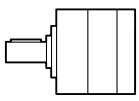
Dati tecnici per servizio S2 — *Technical data for S2 duty*

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
800						
(3000 min^{-1})	**218**	26	4.0	**13.73**	**ECP600/1052**	**120/240**
	189	30	3.5	15.88		
	163	35	3.0	18.36		
	156	37	2.9	**19.20**		
	135	42	2.5	22.20		
	120	48	2.2	**25.01**		
	112	51	2.1	26.85		
	104	55	1.9	**28.93**		
	86	67	1.6	**34.97**		
	66	87	1.2	**45.56**		
	59	90	2.2	**50.89**	**ECP600/1053**	**120/240**
	51	105	1.9	58.85		
	44	121	1.6	**68.06**		
	42	127	1.5	71.16		
	38	140	1.4	78.71		
	32	165	1.2	**92.70**		
	31	169	1.2	95.17		
	30	177	1.1	99.50		
	28	191	1.0	107.20		
	26	205	1.0	115.07		
	24	220	0.9	123.97		
	23	230	0.8	129.62		
	22	247	0.8	139.13		
	20	267	0.7	149.90		
	18	279	0.7	**168.84**		
	17	279	0.7	181.24		
	15	279	0.7	195.26		
	13	279	0.7	236.09		
	9.8	279	0.7	**307.54**		

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
800						
(3000 min^{-1})	**120**	48	3.1	**25.01**	**ECP600/1202**	**120/240**
	66	87	1.7	**45.56**		
	59	90	3.3	**50.89**	**ECP600/1203**	**120/240**
	32	165	1.8	**92.70**		
	18	300	1.0	**168.84**		
	9.8	429	0.7	**307.54**		

Motori applicabili — *Motor adapters*





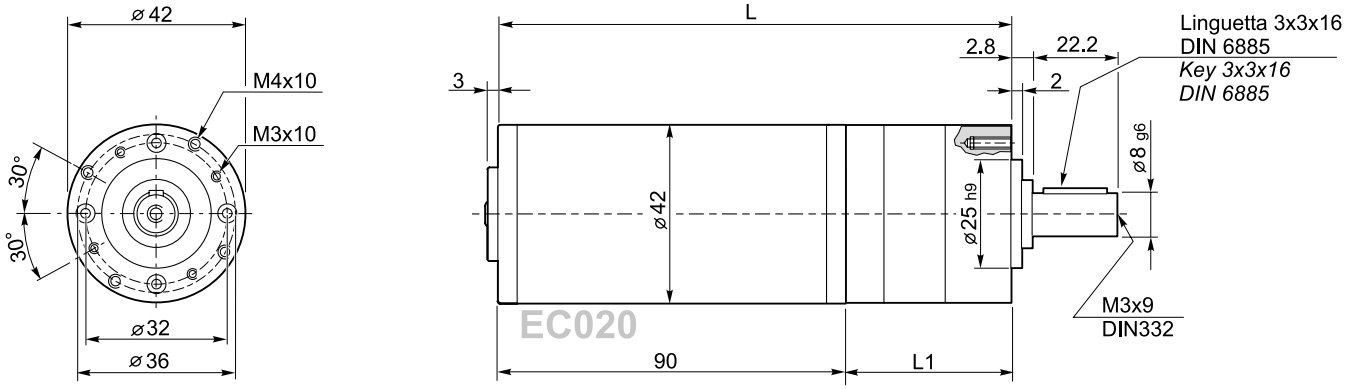
		EC									
		020.120 020.24E	**035.120 035.240**	**050.12E 050.24E**	**070.120 070.240**	**100.120 100.240 100.24E**	**180.120 180.240**	**180.24E**	**250.120 250.240**	**350.120 350.240**	**600.120 600.240**
P	**42**	AS32	AS130	AS130	*	*	*				
	52		AS115	AS115	AS60	AS60	AS60				
	62				AS244	AS244	AS244	AS61	AS61	AS61	
	72				AS245	AS245	AS245	AS246	AS246	AS246	AS247
	81				AS248	AS248	AS248	AS249	AS249	AS249	AS254
	105						AS250	AS251	AS251	AS251	AS252
	120						AS255	AS256	AS256	AS256	AS257

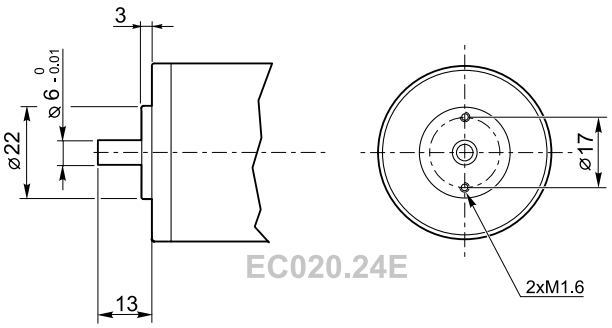
Combinazioni preferenziali / *Preferred combinations*

* **Contattare il nostro servizio tecnico / *Please contact our technical department***

Dimensioni — *Dimensions*

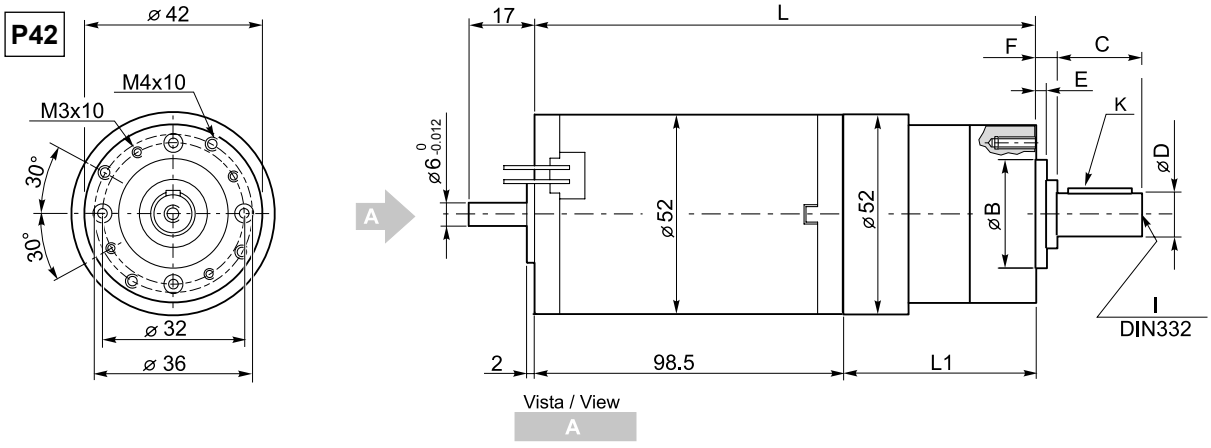
ECP020/42... U

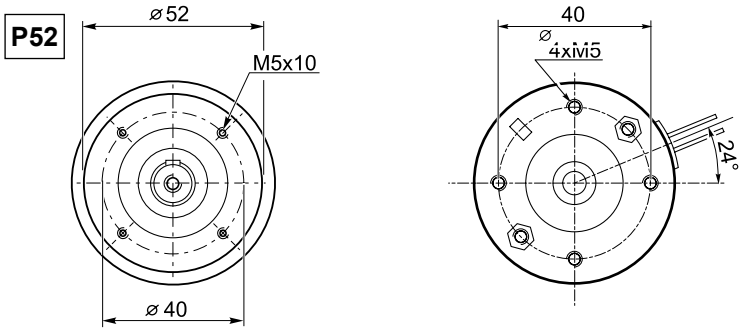




	Numero di stadi / *Stages number*		
ECP020/42...	**1**	**2**	**3**
L1	60	73	86
L	150	163	176

ECP035/... U



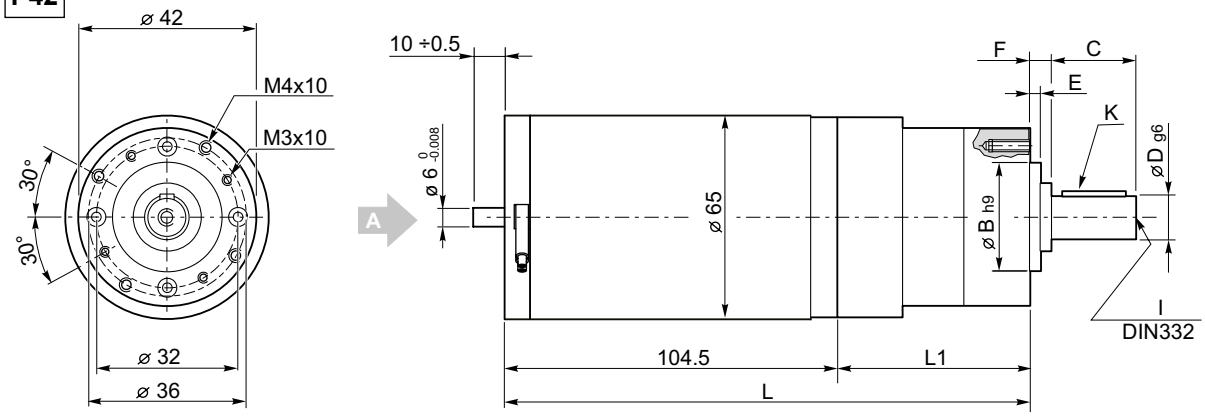


Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*								
		L1	**L**	**B**	**C**	**D**	**E**	**F**	**I**	**K**
ECP035/42...	**1**	60	158.5	25 h9	22.2	8 g6	2	2.8	M3x9	3x3x16
	2	73	171.5							
	3	86	184.5							
ECP035/52...	**1**	72.5	175.5	32 h8	20.8	12 h7	3	4.2	M4x10	4x4x16
	2	86.5	189.5							
	3	100.5	203.5							

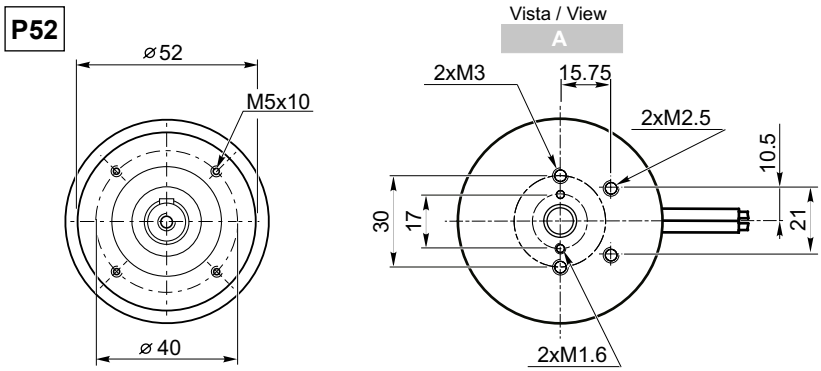
Dimensioni *Dimensions*

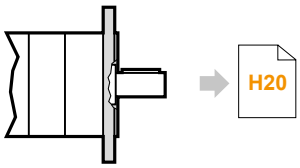
ECP050/... U

P42

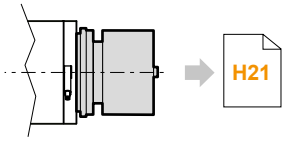


P52





ECP050/... C...

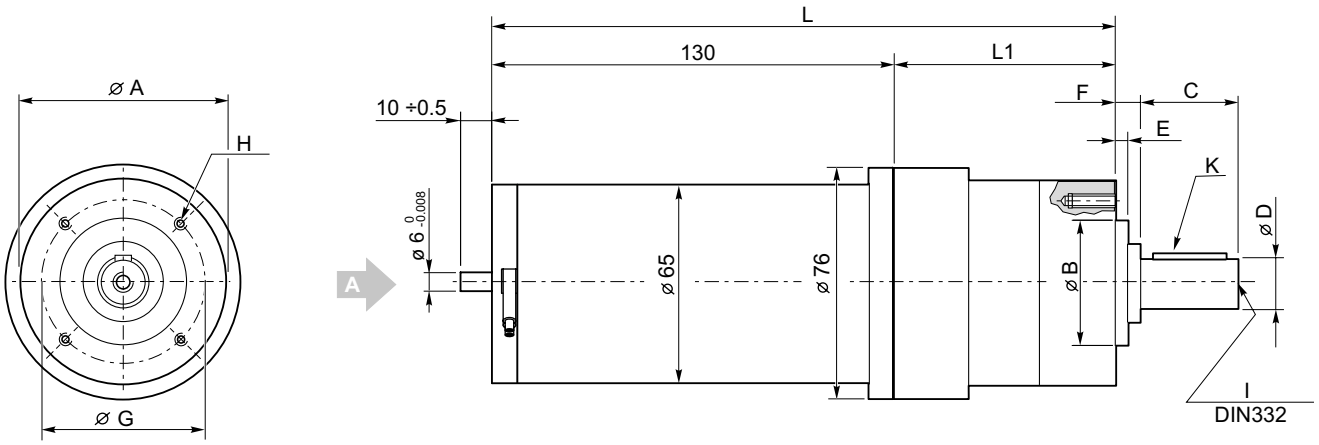


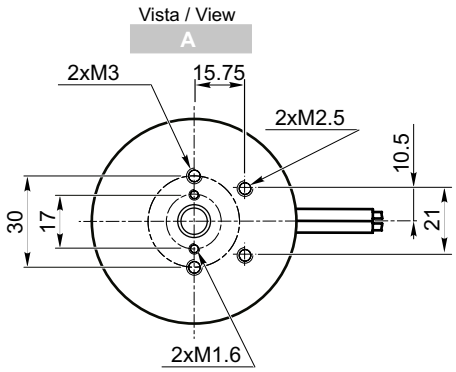
ECP050/... U.. BR
ECP050/... U.. BRL

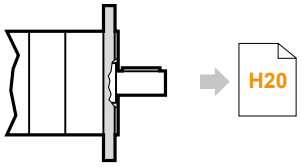
Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*								
		L1	L	B	C	D	E	F	I	K
ECP050/42...	1	60	164.5	25 h9	22.2	8 g6	2	2.8	M3x9	3x3x16
	2	73	177.5							
	3	86	190.5							
ECP050/52...	1	72.5	177	32 h8	20.8	12 h7	3	4.2	M4x10	4x4x16
	2	86.5	191							
	3	100.5	205							

Dimensioni *Dimensions*

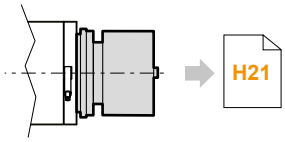
ECP070/... U







ECP070/... C...

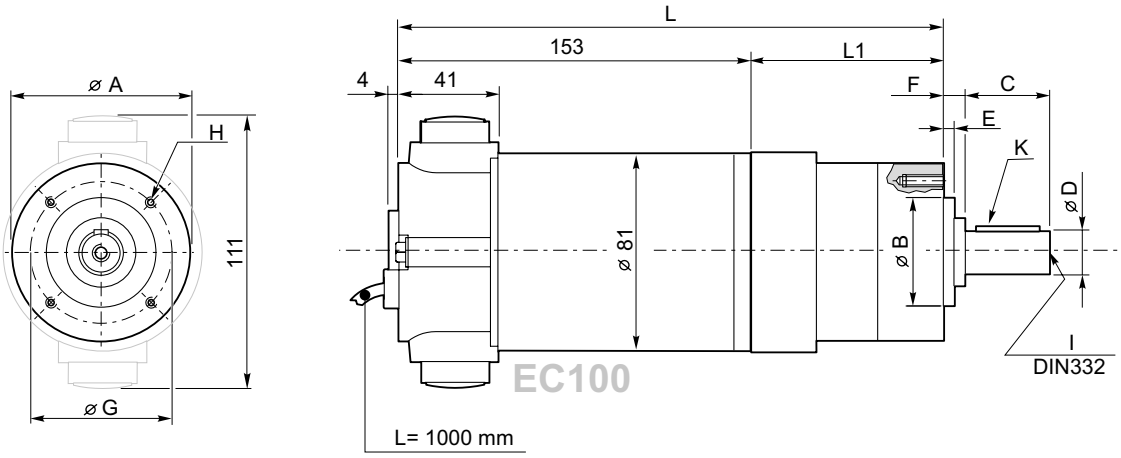


ECP070/... U.. BR
ECP070/... U.. BRL

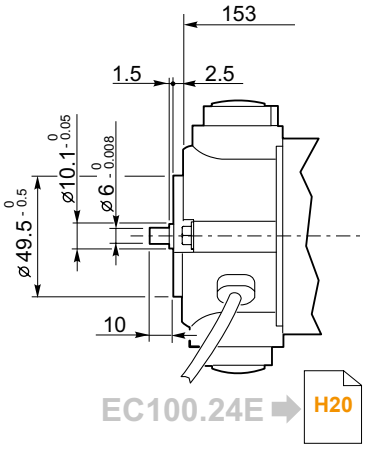
Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP070/52...	1	74	204	52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	88	218										
	3	102	232										
ECP070/62...	1	74	204	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	90	220										
	3	106	236										
ECP070/72...	1	83.4	213.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	103	233										
	3	122.6	252.6										
ECP070/81...	1	94	224	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	116	246										
	3	138	268										

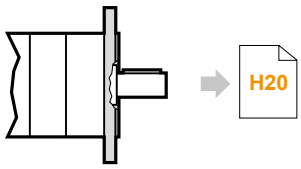
Dimensioni ***Dimensions***

ECP100/... U... 120/140

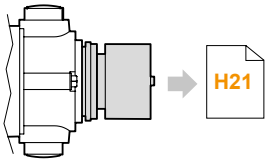


ECP100/... U... 24E





ECP100/... C...

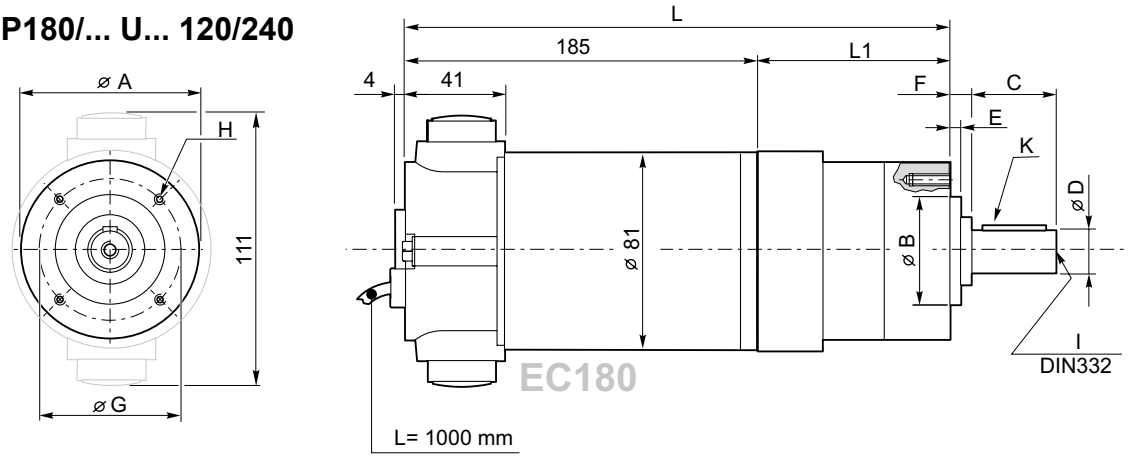


ECP100/... U.. BR
ECP100/... U.. BRL

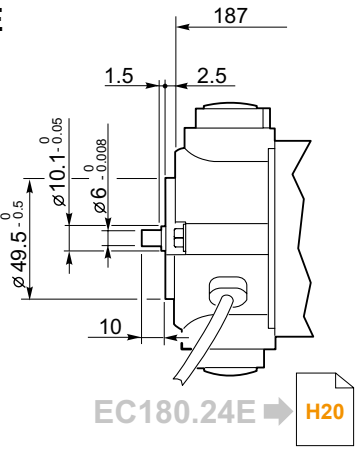
Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP100/52...	1	74	227	52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	88	241										
	3	102	255										
ECP100/62...	1	74	227	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	90	243										
	3	106	259										
ECP100/72...	1	83.4	236.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	103	256										
	3	122.6	275.6										
ECP100/81...	1	94	247	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	116	269										
	3	138	291										

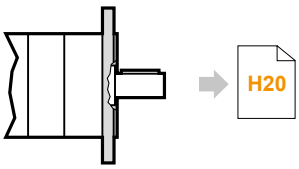
Dimensioni *Dimensions*

ECP180/... U... 120/240

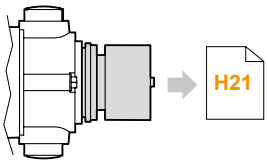


ECP180/... U... 24E





ECP180/... C...

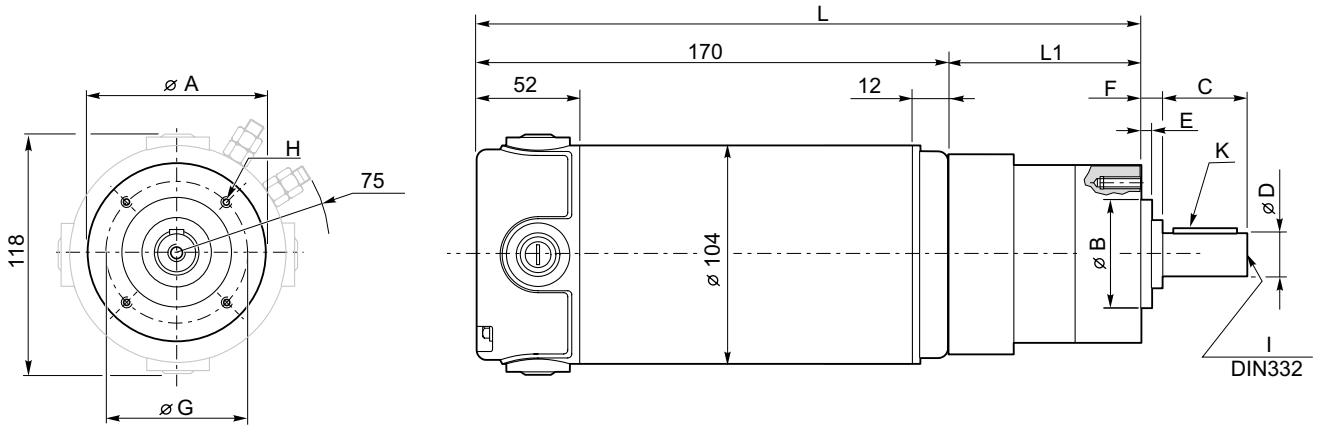


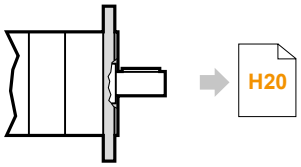
ECP180/... U.. BR
ECP180/... U.. BRL

Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*													
		EC180		EC180.24E		EC180 - EC180.24E									
		L1	L	L1	L	A	B	C	D	E	F	G	H	I	K
ECP180/52...	1	74	259			52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	88	273												
	3	102	287												
ECP180/62...	1	74	259	76	263	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	90	275	92	279										
	3	106	291	108	295										
ECP180/72...	1	83.4	268.4	85.4	272.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	103	288	105	292										
	3	122.6	307.6	124.6	311.6										
ECP180/81...	1	94	279	94	281	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	116	301	116	303										
	3	138	323	138	325										
ECP180/105...	1	113.4	298.4	113.4	305.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	144.5	329.5	144.5	336.5										
	3	175.5	360.5	175.5	367.5										
ECP180/120...	1	131.6	316.6	131.6	318.6	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	165.8	350.8	165.8	352.8										
	3	200	385	200	387										

Dimensioni *Dimensions*

ECP250/... U



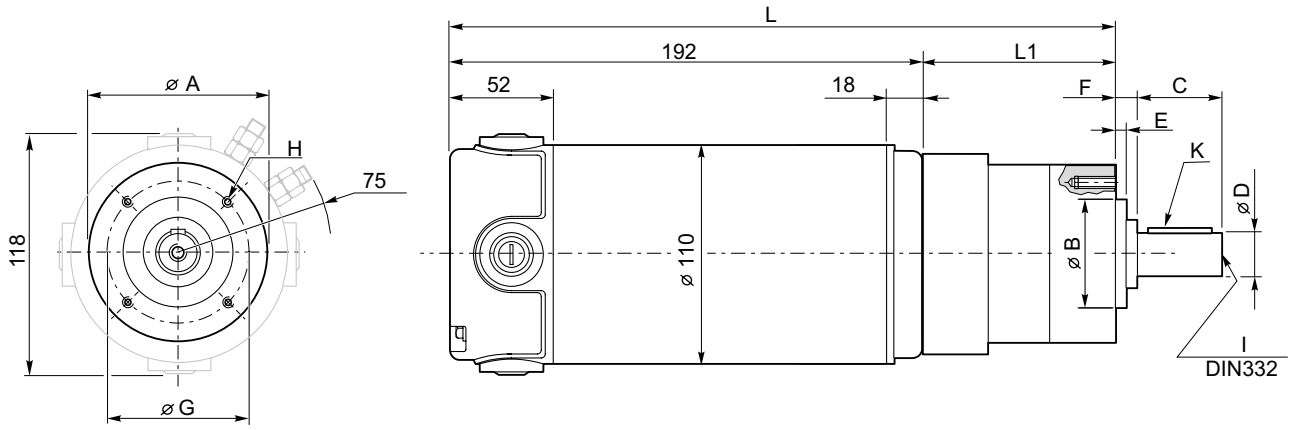


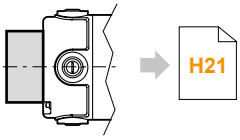
ECP250/... C...

Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP250/62...	1	76	246	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	92	262										
	3	108	278										
ECP250/72...	1	85.4	255.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	105	275										
	3	124.6	294.6										
ECP250/81...	1	94	264	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	116	286										
	3	138	308										
ECP250/105...	1	113.4	283.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	144.5	314.5										
	3	175.5	345.5										
ECP250/120...	1	131.6	301.6	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	165.8	335.8										
	3	200	370										

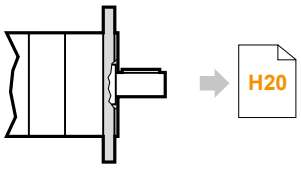
Dimensioni *Dimensions*

ECP350/... U





ECP350/... U.. BR
ECP350/... U.. BRL

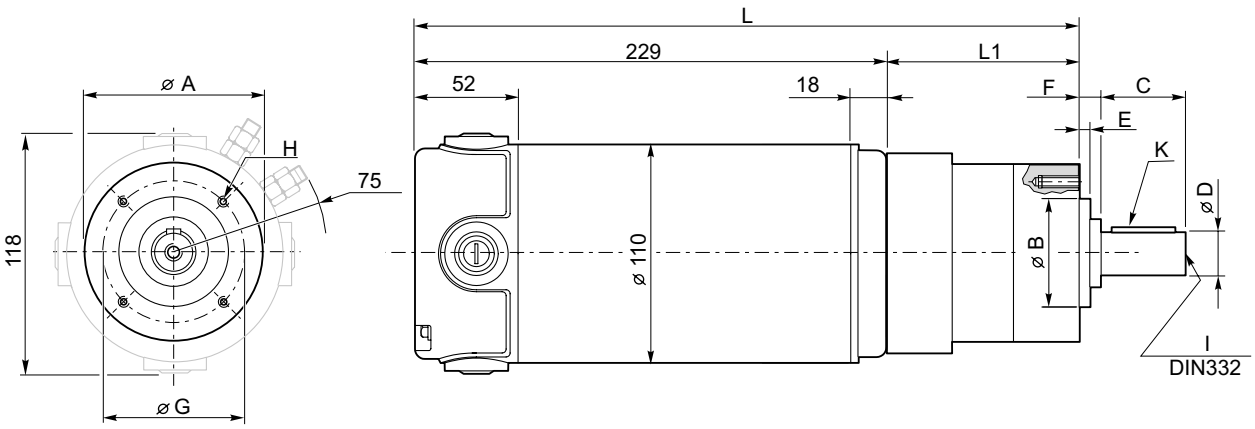


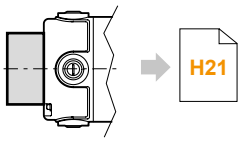
ECP350/... C...

Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*												
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP350/62...	1	76	268	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	92	284										
	3	108	300										
ECP350/72...	1	85.4	277.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	105	297										
	3	124.6	316.6										
ECP350/81...	1	94	286	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	116	308										
	3	138	330										
ECP350/105...	1	113.4	305.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	144.5	336.5										
	3	175.5	367.5										
ECP350/120...	1	131.6	323.6	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	165.8	357.8										
	3	200	392										

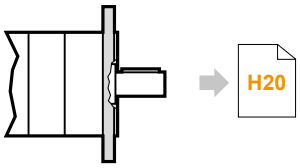
Dimensioni ***Dimensions***

ECP600/... U





ECP600/... U.. BR
ECP600/... U.. BRL

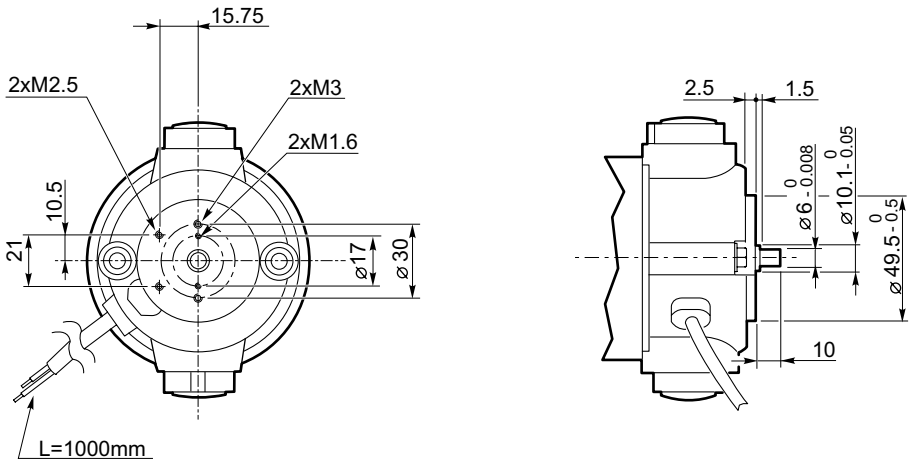


ECP600/... C...

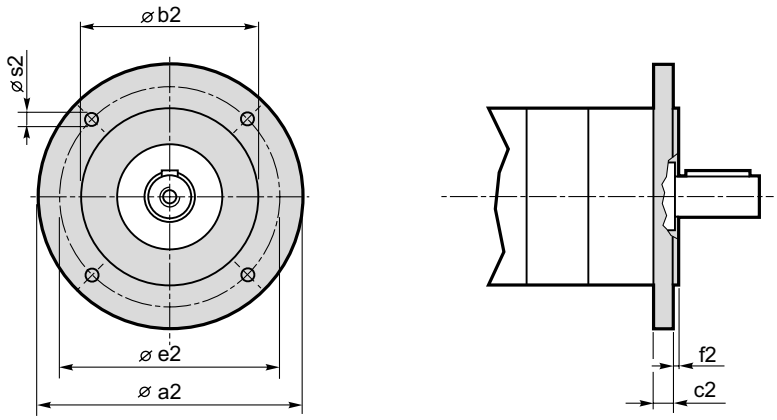
Tipo *Type*	Numero di stadi *Stages number*	Dimensioni / *Dimensions*											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP600/72...	1	92.4	321.4	72	45 j7	40	16 h7	5	9	60	M5x10	M5x12	5x5x30
	2	112	341										
	3	131.6	360.6										
ECP600/81...	1	101	330	81	50 j7	40	19 h7	5	9	65	M6x12	M6x16	6x6x28
	2	123	352										
	3	145	374										
ECP600/105...	1	120.4	349.4	105	70 j7	50	25 h7	5	9	85	M8x16	M10x22	8x7x40
	2	151.5	380.5										
	3	182.5	411.5										
ECP600/120...	1	133.7	362.7	120	80 j7	73	32 k6	5	15	100	M10x22	M12	10x8x50
	2	167.9	396.9										
	3	202.1	431.1										

Dimensioni — *Dimensions*

ECP100.24E
ECP180.24E



ECP.../... C... Flange uscita / *Output flanges*

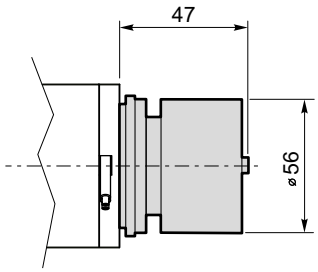


	Dimensioni / *Dimensions*						
P	**a2**	**b2**	**c2**	**e2**	**f2**	**s2**	**Flangia uscita** *Output flange*
52	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
62	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
72	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
81	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	M6	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
105	120	80 j7	12	100	3	M6	**C120**
	140	95 j7	12	115	3.5	M8	**C140**
	160	110 j7	12	130	3.5	M8	**C160**
120	140	95 j7	15	115	3	M8	**C140**
	160	110 j7	15	130	3.5	M8	**C160**

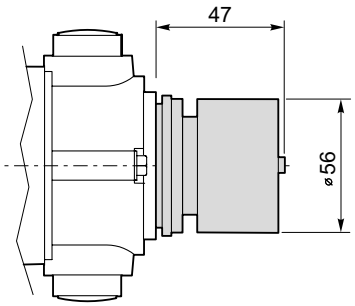
Dimensioni *Dimensions*

Freno / *Brake*

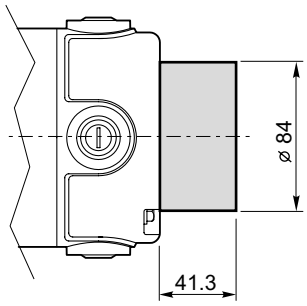
ECP50/... U BR
ECP70/... U BR



ECP100/... U BR
ECP180/... U BR

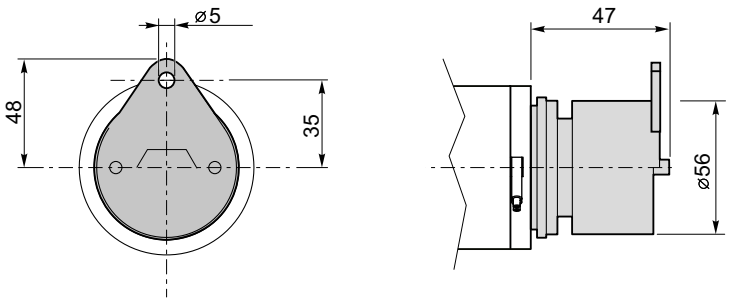


ECP350/... U BR
ECP600/... U BR

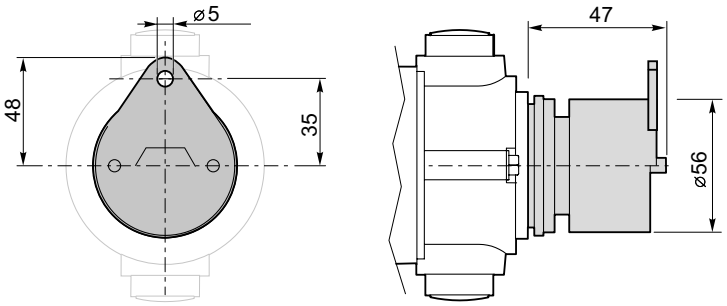


Freno con leva di sblocco/ *Brake with hand release*

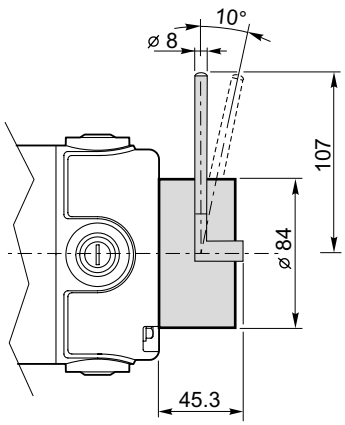
ECP50/... U BRL
ECP70/... U BRL



ECP100/... U BRL
ECP180/... U BRL



ECP350/... U BRL
ECP600/... U BRL



ECP

Note/*Notes*

TRANSTECNO®
the modular gearmotor

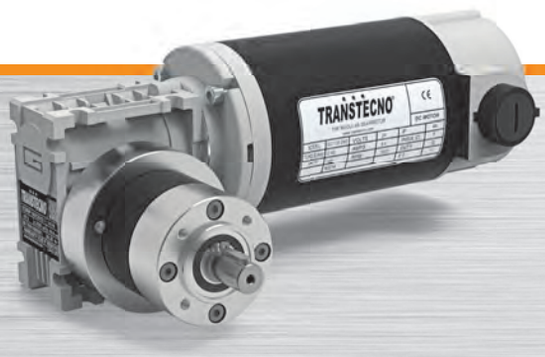
ECWMP

ECWMP

ECWMP
Robin
Small but Strong

Ferrite

Motoriduttori CC combinati
DC Double reduction gearmotors



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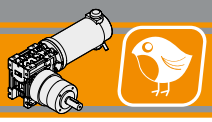


Indice	*Index*	Pag. *Page*
Caratteristiche tecniche	*Technical features*	**I2**
Designazione	*Classification*	**I2**
Versioni	*Versions*	**I2**
Simbologia	*Symbols*	**I2**
Lubrificazione	*Lubrication*	**I2**
Carichi radiali	*Radial loads*	**I3**
Rapporti	*Ratios*	**I3**
Dati tecnici	*Technical data*	**I4**
Dimensioni	*Dimensions*	**I5**

Caratteristiche tecniche / *Technical features*

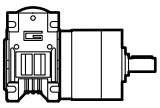
L'accoppiamento di un riduttore a vite senza fine con un riduttore epicicloidale consente di ottenere elevati rapporti di riduzione (i_{max} = 1/18452) e di disporre di un gruppo autolubrificato compatto, silenzioso e con un'elevata affidabilità.

The coupling of a wormgearbox to a planetary gearbox allows to obtain high reduction ratios (i_{max} = 1/18452) and to get a compact, silent, self lubricated with high reliability group.

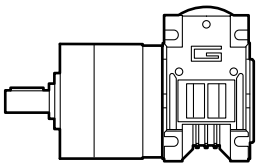
Designazione / *Classification*

MOTORIDUTTORE / *GEARMOTOR*

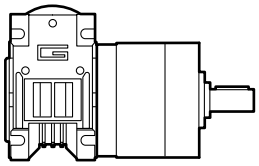
ECWMP	070/026/52					2	CD	90	405	240	BR
Tipo *Type*	Grandezza *Size*					Numero stadi epicicloidale *Planetary stages number*	Versione Riduttore *Gearbox Version*	Flangia Uscita *Output flange*	Rapporto *Ratio*	Versione Motore *Motor Version*	Opzioni *Options*
ECWMP	**070/026/52**	**100/026/52**	**180/026/62**	**250/030/81**	**350/030/81**	**1**	**US**	**80**	Vedere tabella *See tables*	**120**	**BR**
	070/026/62	**100/026/62**	**180/030/81**							**240**	**BRL**
	070/030/81	**100/030/81**				**2**	**UD**	**90**		**24E**	
						3	**CS**	**105**			
							CD	**120**			



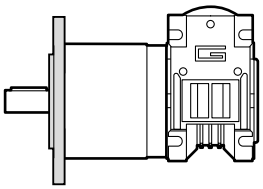
Versioni / *Versions*



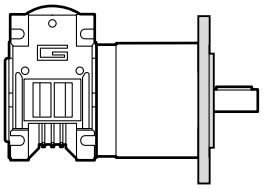
US



UD



CS



CD

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_n	[Nm]	Coppia nominale in uscita del riduttore / *Maximum output torque of the gearbox*
M_2	[Nm]	Coppia in uscita in funzione di P_1 / *Output torque referred to P_1*
sf		Fattore di servizio / *Service factor*
Rd	%	Rendimento dinamico / *Dynamic efficiency*
A_2	N]	Carico assiale ammissibile in uscita / *Permitted output axial load*
R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*

Lubrificazione / *Lubrication*

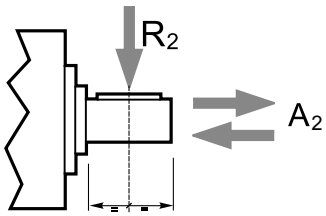
I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

I riduttori epicicloidali sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione.
Questo gli consente di essere installati praticamente ovunque.

Planetary gearboxes are life-time lubricated with grease, therefore they are maintenancie free.
They can be installed in any location.

Carichi radiali — *Radial loads*



Numero di stadi *Stages number*	Carichi Radiali R_2 [N] *Radial Load R_2 [N]*		
	P52	P62	P81
1	200	240	400
2	320	360	600
3	450	520	1000

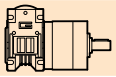
Numero di stadi *Stages number*	Carichi Assiali A_2 [N] *Axial Load A_2 [N]*		
	P52	P62	P81
1	60	70	80
2	100	100	120
3	150	150	200

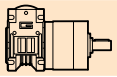
Rapporti — *Ratios*

Motoriduttore *Gearmotor*	Numero stadi epicicloidale *Planetary stages number*	Rapporto epicicloidale *Planetary ratio*	Rapporto vite senza fine *Wormgearbox ratio*	Rapporto finale *Total ratio*
.../026/052 .../026/062 .../030/081	1	6.75	10	**67.5**
			15	**101.3**
			20	**135**
			30	**202.5**
			40	**270**
			50	**337.5**
			60	**405**
	2	28.93	10	**289.3**
			15	**434.0**
			20	**578.6**
			30	**867.9**
			40	**1157**
			50	**1447**
			60	**1736**
		34.97	60	**2098**
		45.56	60	**2734**

Dati tecnici per servizio S2

Technical data for S2 duty

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
100						
(3000 min^{-1})	**44.4**	14	1.8	67.5	**070/026/521**	120/240
	29.6	21	1.2	101.3		
	22.2	25	1.0	135.0		
	14.8	25	1.0	202.5		
	11.1	25	1.0	270.0		
	10.4	25	1.0	289.3	**070/026/522**	120/240
	8.9	25	1.0	337.5	**070/026/521**	120/240
	7.4	25	1.0	405		
	6.9	25	1.0	434	**070/026/522**	120/240
	5.2	25	1.0	579		
	3.5	25	1.0	868		
	2.6	25	1.0	1157		
	2.1	25	1.0	1447		
	1.7	25	1.0	1736		
	1.4	25	1.0	2098		
	1.1	25	1.0	2734		
	44.4	14	2.8	67.5	**070/026/621**	120/240
	29.6	21	1.9	101.3		
	22.2	27	1.5	135.0		
	14.8	37	1.1	202.5		
	11.1	40	1.0	270.0		
	10.4	50	1.0	289.3	**070/026/622**	120/240
	8.9	40	1.0	337.5	**070/026/621**	120/240
	7.4	40	1.0	405.0		
	6.9	50	1.0	434.0	**070/026/622**	120/240
	5.2	50	1.0	578.6		
	3.5	50	1.0	867.9		
	2.6	50	1.0	1157		
	2.1	50	1.0	1447		
	1.7	50	1.0	1736		
	1.4	50	1.0	2098		
	1.1	50	1.0	2734		
	44.4	14	5.6	67.5	**070/030/811**	120/240
	29.6	21	3.8	101.3		
	22.2	27	2.9	135.0		
	14.8	37	2.2	202.5		
	11.1	47	1.7	270.0		
	10.4	58	2.1	289.3	**070/030/812**	120/240
	8.9	54	1.5	337.5	**070/030/811**	120/240
	7.4	62	1.3	405.0		
	6.9	85	1.4	434.0	**070/030/812**	120/240
	5.2	109	1.1	578.6		
	3.5	120	1.0	867.9		
	2.6	120	1.0	1157		
	2.1	120	1.0	1447		
	1.7	120	1.0	1736		
	1.4	120	1.0	2098		
	1.1	120	1.0	2734		

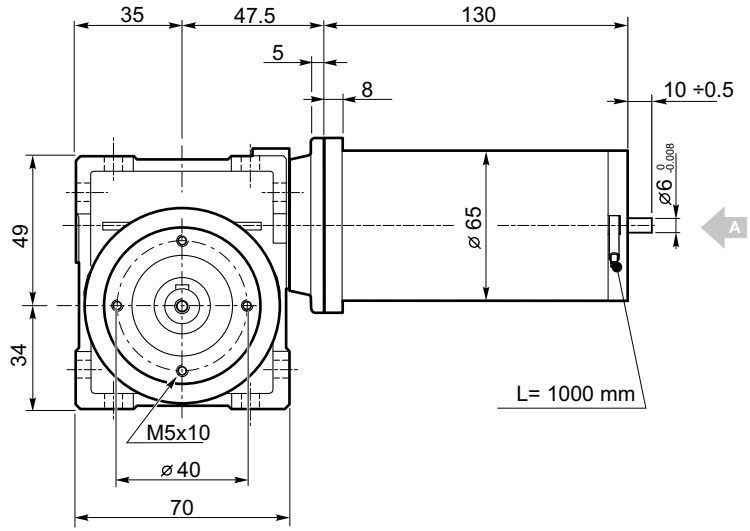
P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		Versione motore *Motor version*
140						
(3000 min^{-1})	**44.4**	20	1.3	67.5	**100/026/521**	120/240/24E
	29.6	25	1.0	101.3		
	44.4	20	2.0	67.5	**100/026/621**	120/240/24E
	29.6	29	1.4	101.3		
	22.2	37	1.1	135.0		
	14.8	40	1.0	202.5		
	44.4	20	4.0	67.5	**100/030/811**	120/240/24E
	29.6	29	2.7	101.3		
	22.2	38	2.1	135.0		
	14.8	52	1.6	202.5		
	11.1	65	1.2	270.0		
	10.4	80	1.5	289.3	**100/030/812**	120/240/24E
	8.9	75	1.1	337.5	**100/030/811**	120/240/24E
	7.4	80	1.0	405.0		
	6.9	120	1.0	434.0	**100/030/812**	120/240/24E
	5.2	120	1.0	578.6		
250						
(3000 min^{-1})	**44.4**	37	1.1	67.5	**180/026/621**	120/240
	29.6	40	1.0	101.3		
	22.2	40	1.0	135.0		
	44.4	37	2.2	67.5	**180/030/811**	120/240/24E
	29.6	54	1.5	101.3		
	22.2	70	1.1	135.0		
	14.8	80	1.0	202.5		
	11.1	80	1.0	270.0		
	10.4	120	1.0	289.3	**180/030/812**	120/240/24E
	8.9	80	1.0	337.5	**180/030/811**	120/240/24E
350						
(3000 min^{-1})	**44.4**	52	1.5	67.5	**250/030/811**	120/240
	29.6	76	1.1	101.3		
	22.2	80	1.0	135.0		
	14.8	80	1.0	202.5		
	11.1	80	1.0	270.0		
500						
(3000 min^{-1})	**44.4**	73	1.1	67.5	**350/030/811**	120/240
	29.6	80	1.0	101.3		
	22.2	80	1.0	135.0		

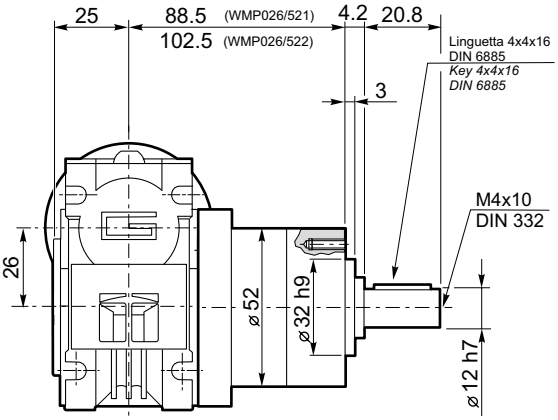
Nota: Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio

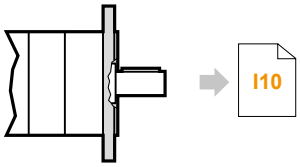
Note: *Please check that the output torque M2 does not exceed the value into the grey areas*

Dimensioni ***Dimensions***

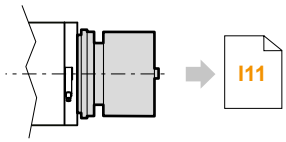
ECWMP070/026/52...U



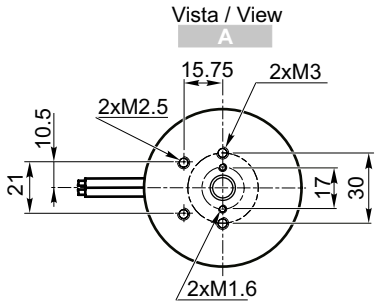




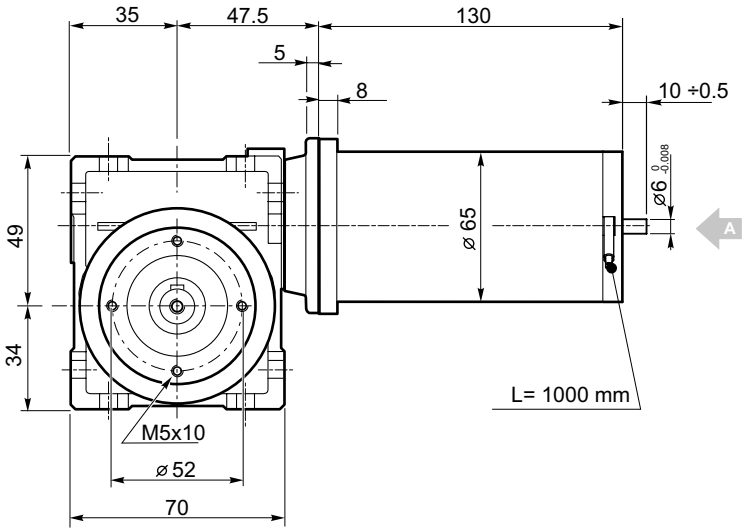
ECWMP070/026/52...C

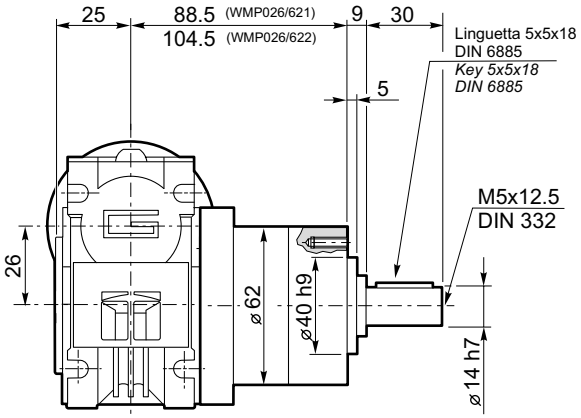


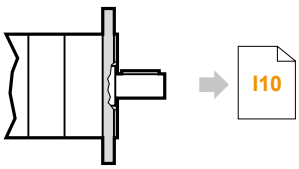
ECP070/026/52...U BR
ECP070/026/52...U BRL



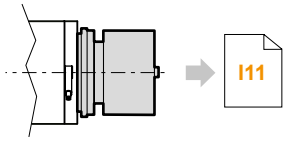
ECWMP070/026/62...U



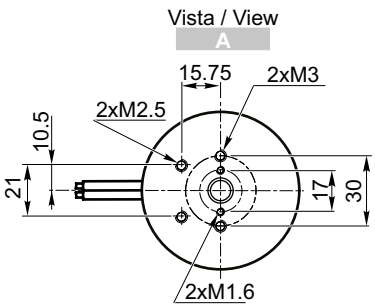




ECWMP070/026/62...C

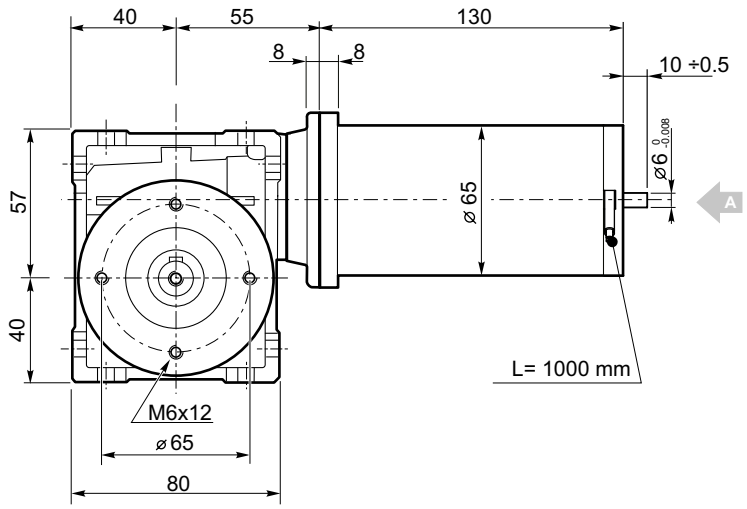


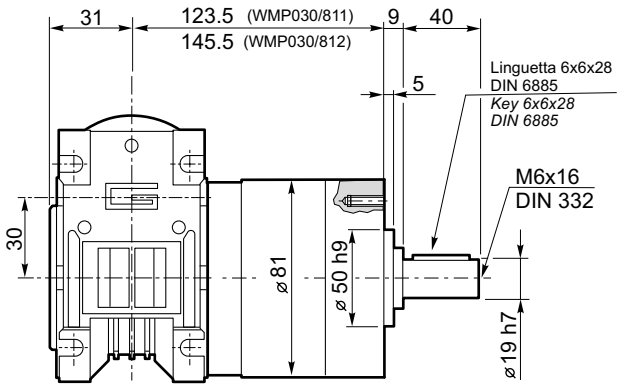
ECP070/026/62...U BR
ECP070/026/62...U BRL

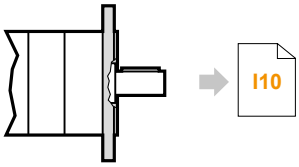


Dimensioni ***Dimensions***

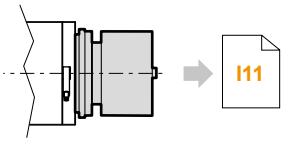
ECWMP070/030/81...U



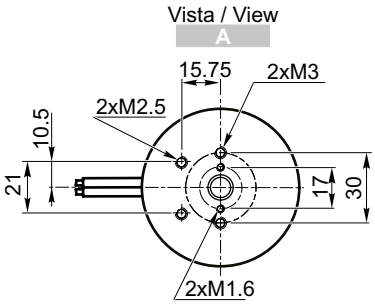




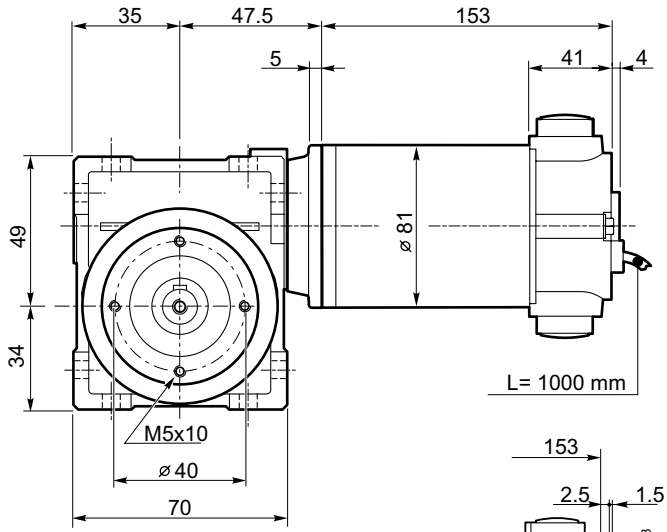
ECWMP070/030/81...C

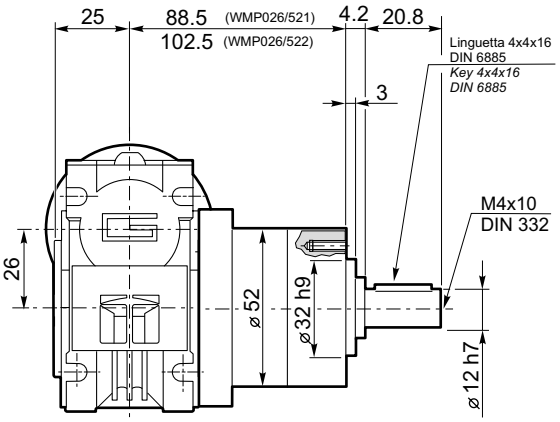


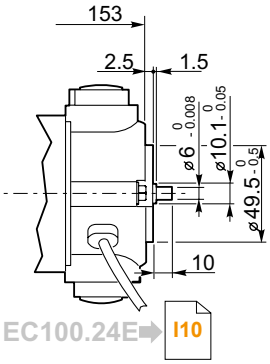
ECP070/030/81...U BR
ECP070/030/81...U BRL

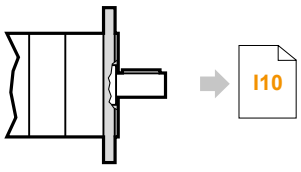


ECWMP100/026/52...U

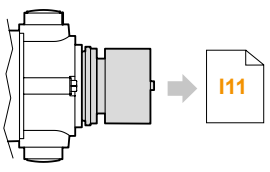








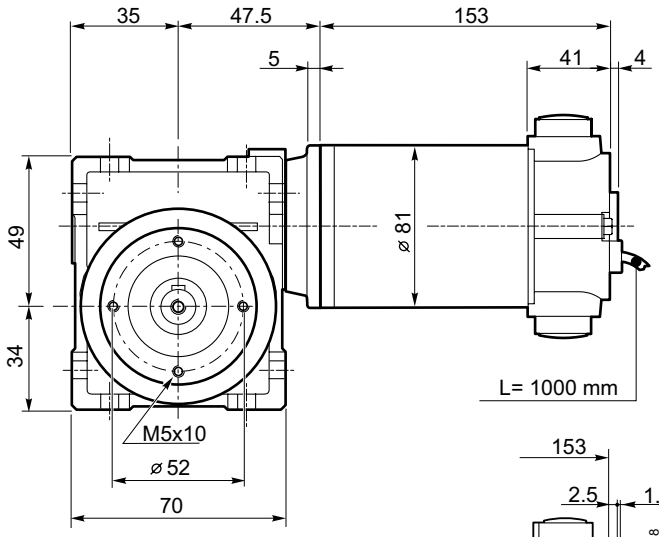
ECWMP100/026/52...C

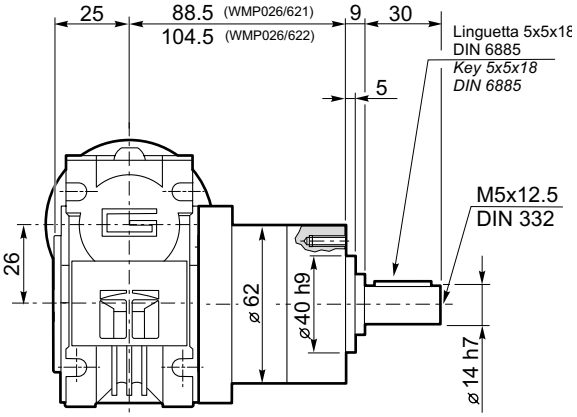


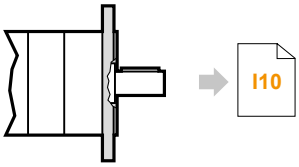
ECP100/026/52...U BR
ECP100/026/52...U BRL

Dimensioni *Dimensions*

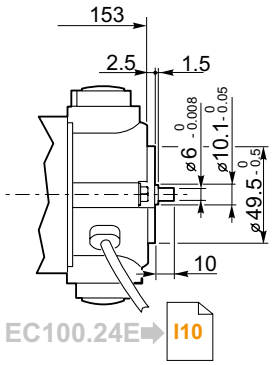
ECWMP100/026/62...U

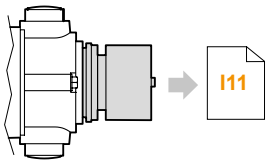






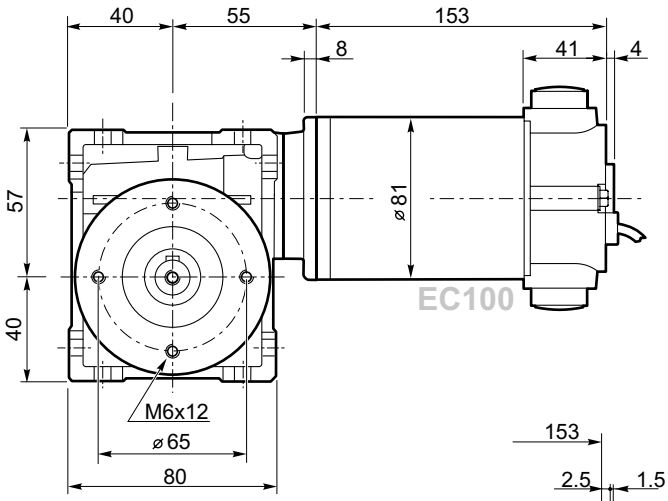
ECWMP100/026/62...C

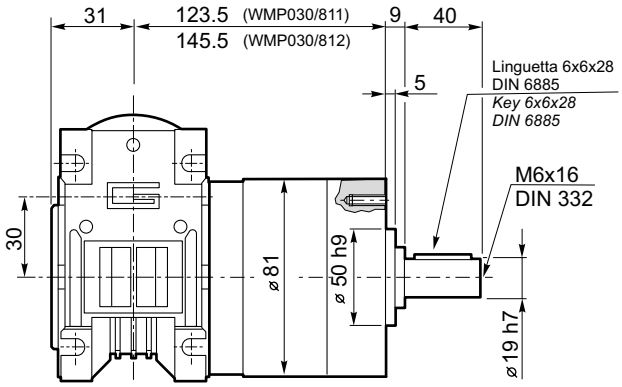


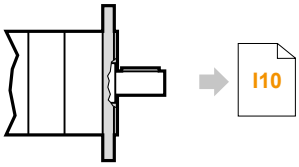


ECP100/026/62...U BR
ECP100/026/62...U BRL

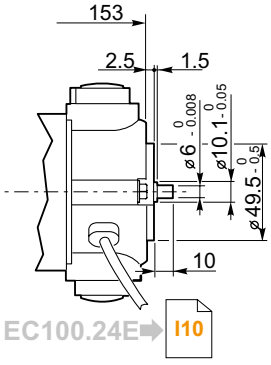
ECWMP100/030/81...U

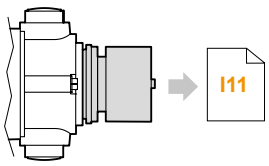






ECWMP100/030/81...C

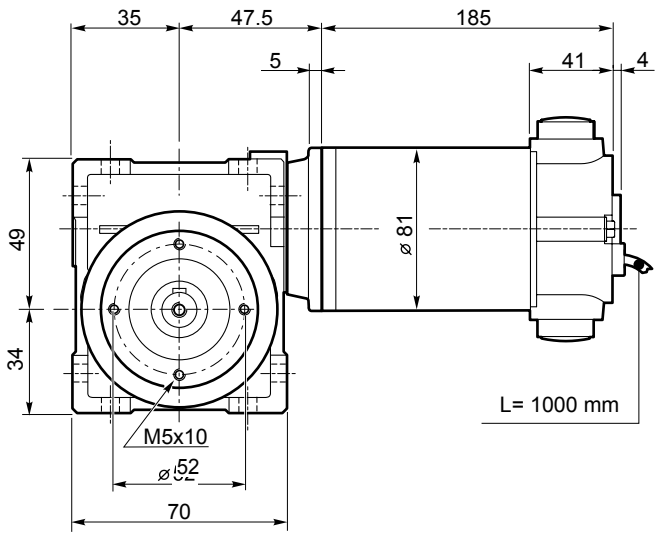


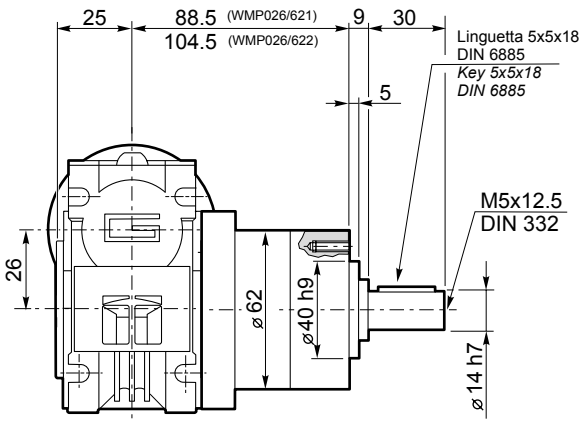


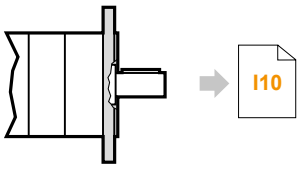
ECP100/030/81...U BR
ECP100/030/81...U BRL

Dimensioni ***Dimensions***

ECWMP180/026/62...U

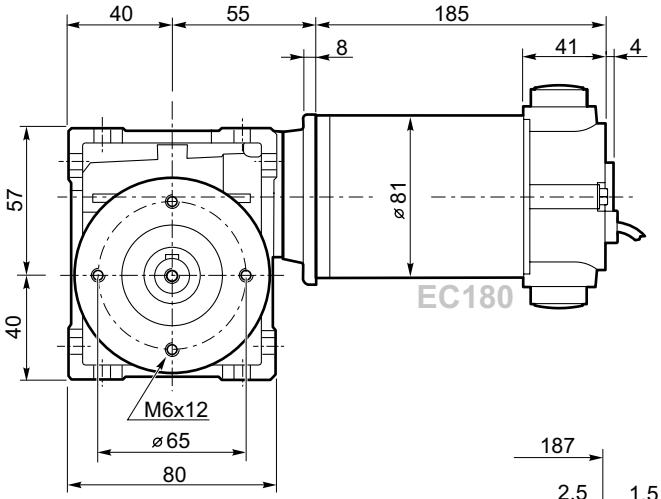


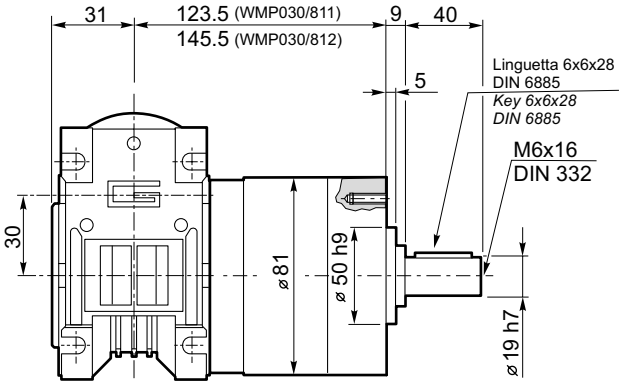


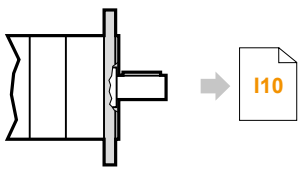


ECWMP180/026/62...C

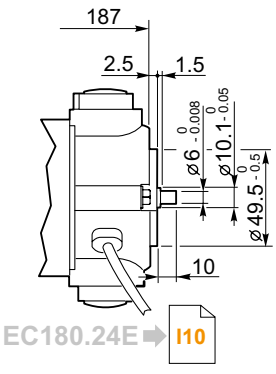
ECWMP180/030/81...U

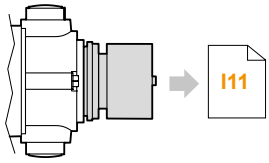






ECWMP180/030/81...C

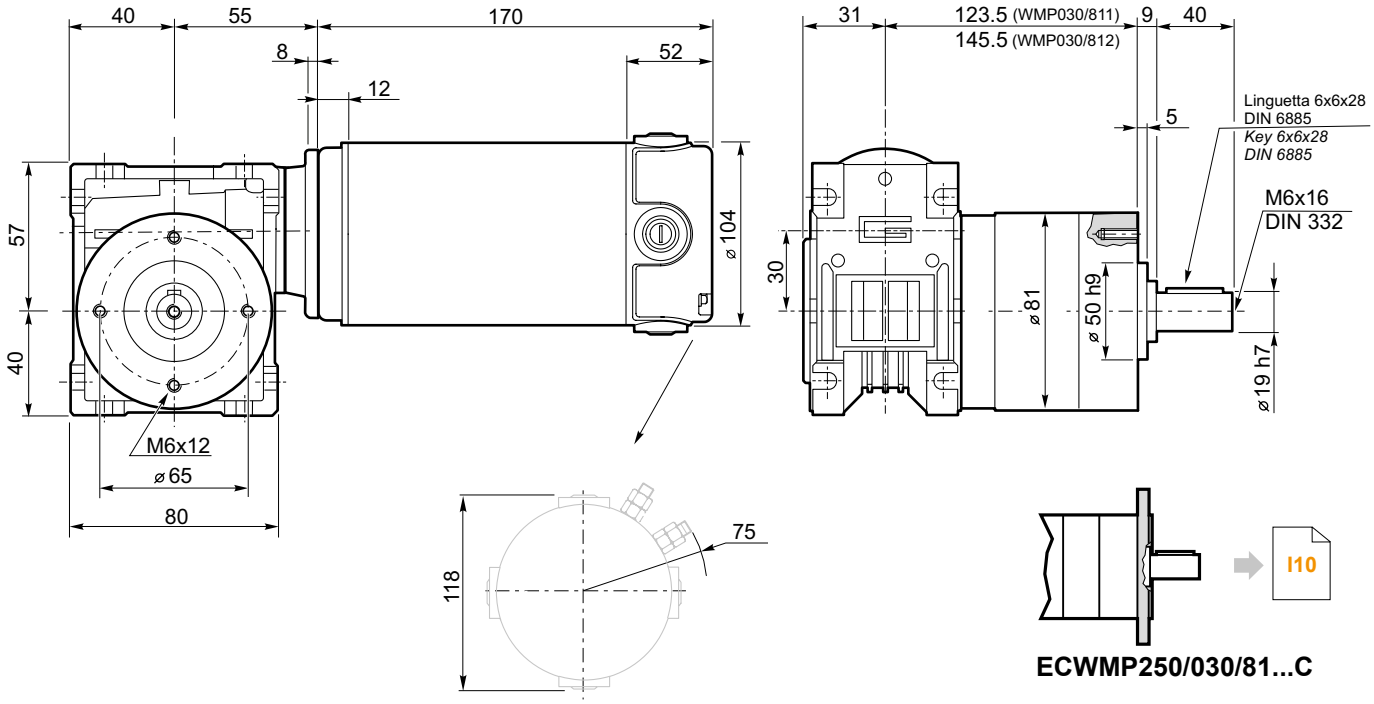




ECP180/030/81... U.. BR
ECP180/030/81... U.. BRL

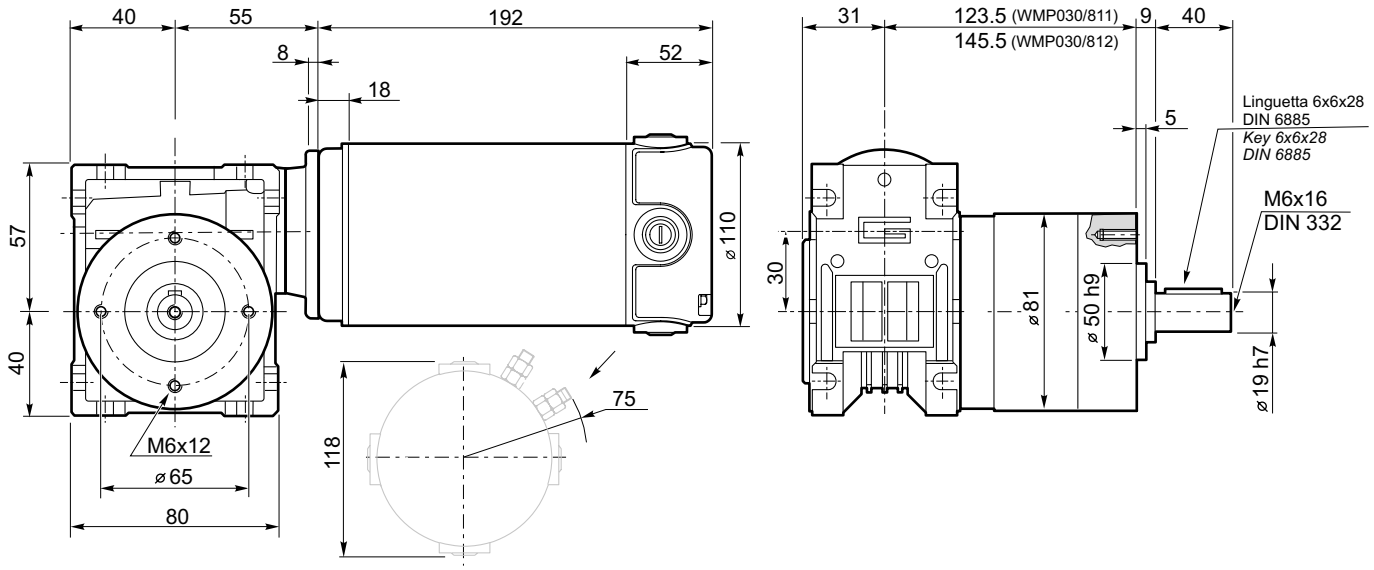
Dimensioni *Dimensions*

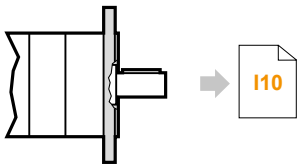
ECWMP250/030/81...U



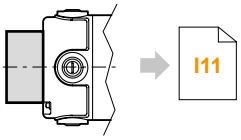
ECWMP250/030/81...C

ECWMP350/030/81...U





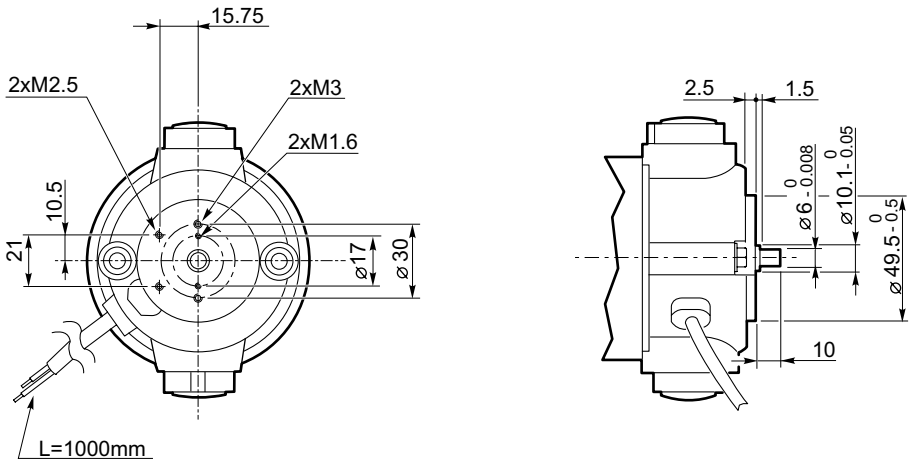
ECWMP350/030/81...C



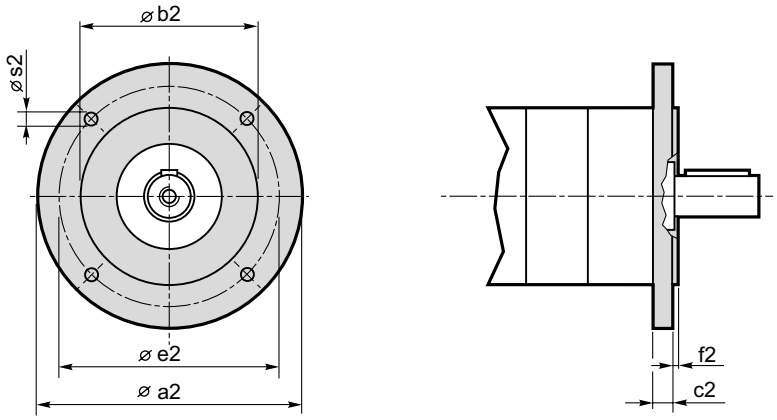
ECP350/030/81...U.. BR
ECP350/030/81...U.. BRL

Dimensioni ***Dimensions***

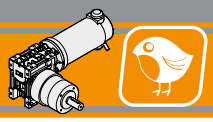
ECP100.24E
ECP180.24E



ECWMP.../.../... C... Flange uscita / *Output flanges*

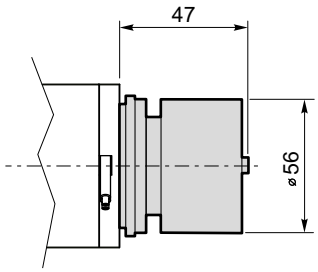


	Dimensioni / *Dimensions*						
P	**a2**	**b2**	**c2**	**e2**	**f2**	**s2**	**Flangia uscita** *Output flange*
52	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
62	80	50 j7	9	65	2.5	M5	**C80**
	90	60 j7	9	75	2.5	5.5	**C90**
	105	70 j7	9	85	2.5	6.5	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**
81	90	60 j7	9	75	2.5	M5	**C90**
	105	70 j7	9	85	2.5	M6	**C105**
	120	80 j7	9	100	3.0	6.5	**C120**

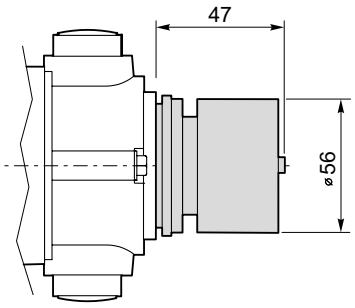


Freno / *Brake*

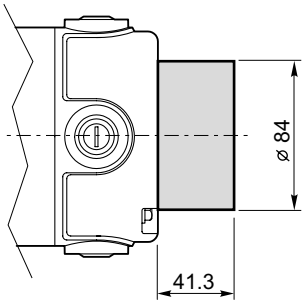
ECWMP50/... U BR
ECWMP70/... U BR



ECWMP100/... U BR
ECWMP180/... U BR

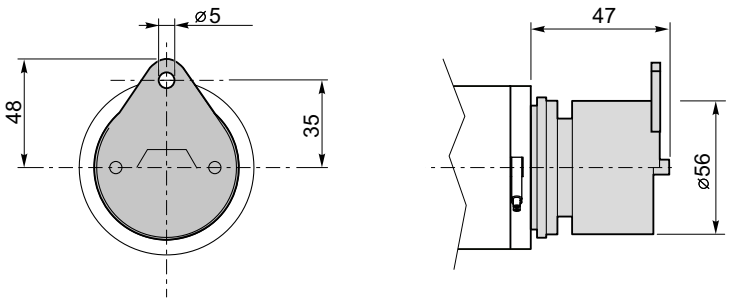


ECWMP350/... U BR
ECWMP600/... U BR

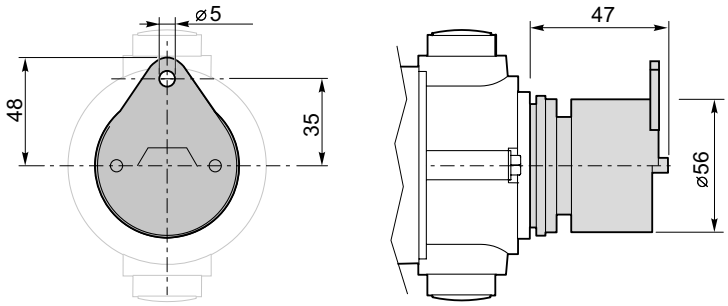


Freno con leva di sblocco/ *Brake with hand release*

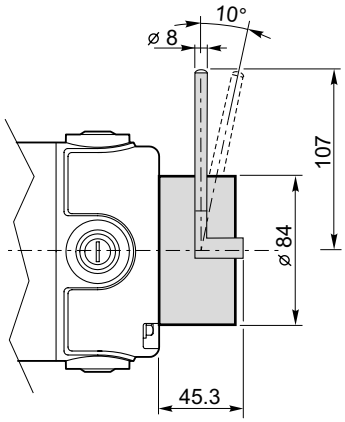
ECWMP50/... U BRL
ECWMP70/... U BRL



ECWMP100/... U BRL
ECWMP180/... U BRL



ECWMP350/... U BRL
ECWMP600/... U BRL



Note/*Notes*

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the modular gearmotor

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PLN Robin
Small but Strong

Azionamenti per motori CC
DC motor controls

TRANSTECNO · GENUINE · PRODUCTS

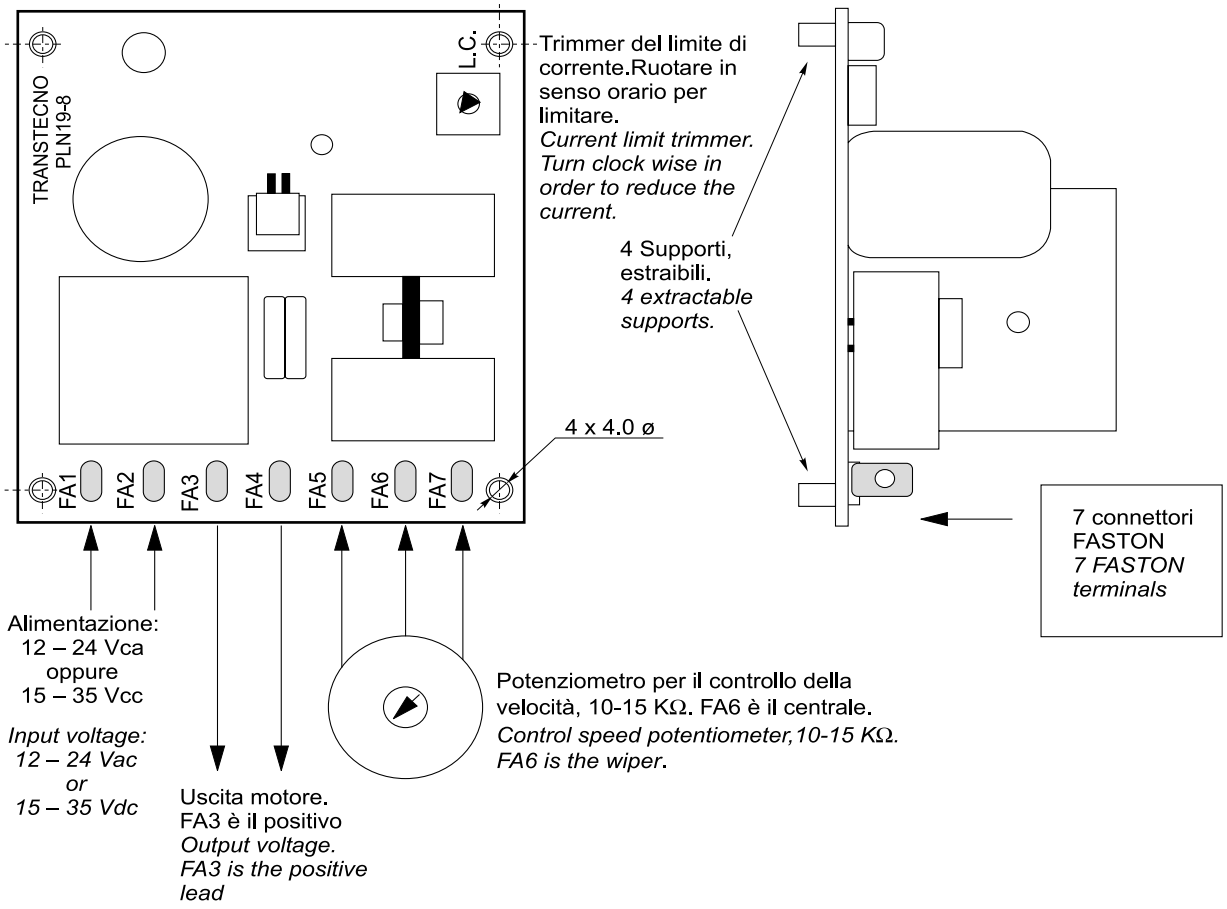
	Indice	*Index*	Pag. *Page*
PLN19-8	Schema dei collegamenti	*Main connection diagram*	**L2**
	Caratteristiche tecniche	*Technical features*	**L2**
	Dimensioni	*Dimensions*	**L3**
	Opzioni	*Options*	**L3**
PLN20 PLN40	Schema dei collegamenti	*Main connection diagram*	**L4**
	Caratteristiche tecniche	*Technical features*	**L5**
	Dotazioni	*Equipment*	**L5**
	Manuale	*User manual*	**L5**
	Dimensioni	*Dimensions*	**L6**
	GUIDA alla selezione dell'azionamento	*Drive selection GUIDE*	**L7**
	Note	*Note*	**L8**

PLN

AZIONAMENTO UNIDIREZIONALE PWM PER LA REGOLAZIONE DI VELOCITA' DEI MOTORI A CORRENTE CONTINUA A BASSA TENSIONE

LOW VOLTAGE SINGLE DIRECTION PWM DC MOTORS CONTROL

SCHEMA DEI COLLEGAMENTI - MAIN CONNECTION DIAGRAM



Attenzione: se si scollega il potenziometro con la scheda alimentata, il motore ruota alla velocità nominale.

***Warning:** if speed pot is disconnected when the board is powered, the motor runs at its maximum speed.*

Caratteristiche tecniche

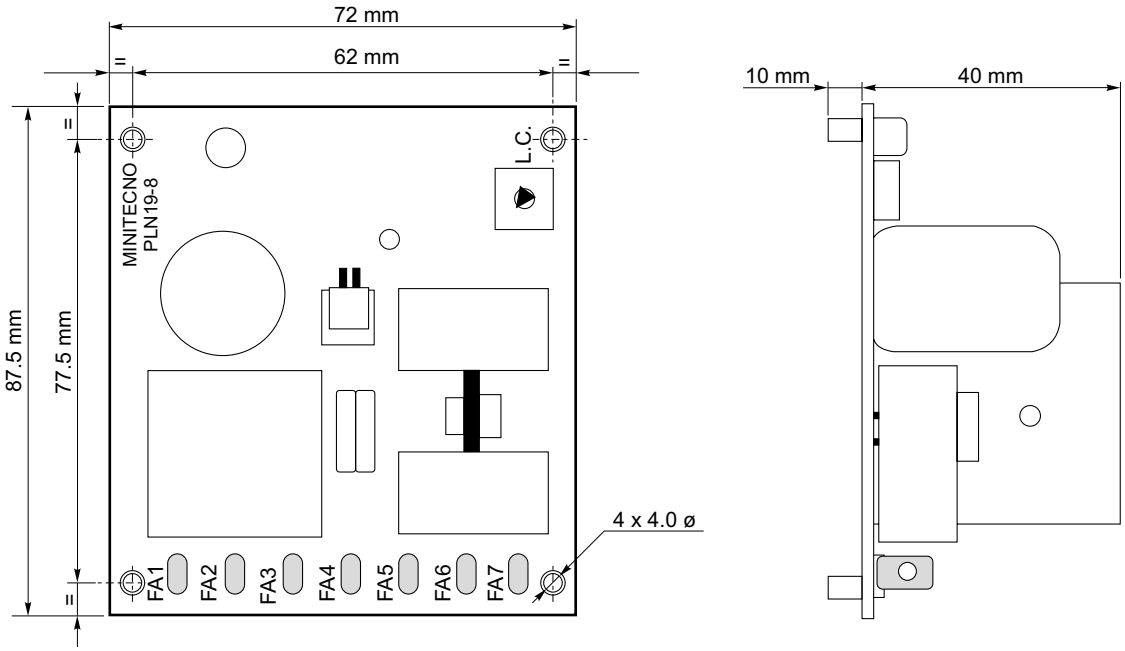
- Alimentazione ai terminali FA1 e FA2:
  12 - 24 Vca oppure 15 - 35 Vcc.
- Regolazione della velocità mediante potenziometro 10-15 KΩ.
- Trimmer di Limitazione della corrente, per adattare la scheda anche a motori di piccole potenze. Per limitare l' erogazione di corrente, ruotare in senso orario il trimmer.
- Uscita motore ai terminali FA3 e FA4, regolabile da 0 a Vcc MAX che è proporzionale alla tensione di ingresso. Con 35 Vcc di alimentazione, l'uscita MAX è circa 30 Vcc.
- Corrente di uscita (*): Massima corrente ammessa: 8 A in ambiente ventilato, servizio continuo.
- Peso: 0.120 Kg.

Technical features

- *Line voltage at terminals FA1 and FA2:*
  12 – 24 Vac or 15 – 35 Vdc.
- *The speed of the drive is to be controlled by potentiometer, 10-15 KΩ.*
- *Current Limit trimmer, in order to suit the board for small motors. In order to limit the current, turn clock wise the trimmer.*
- *Output voltage from terminals FA3 and FA4, from 0 up to Vdc MAX which is proportional to the input voltage. With 35 Vdc input voltage, the max output voltage is about 30 Vdc.*
- *Output current (*): Maximum output current allowed: 8 A in a ventilated environment, continuous duty.*
- *Weight: 0.120 Kg.*

Dimensioni

Dimensions



Opzioni

Options

1. Potenziometro 10 kΩ
2. Supporto per montaggio su guida DIN

1. *Speed potentiometer 10 kΩ*
2. *DIN mounting support*

(*) il valore massimo di corrente motore deve essere utilizzato in **ambiente ventilato**. In ambienti non ventilati e per temperatura ambiente di 45 °C, ridurre la corrente motore massima a 4 A; servizio continuo.

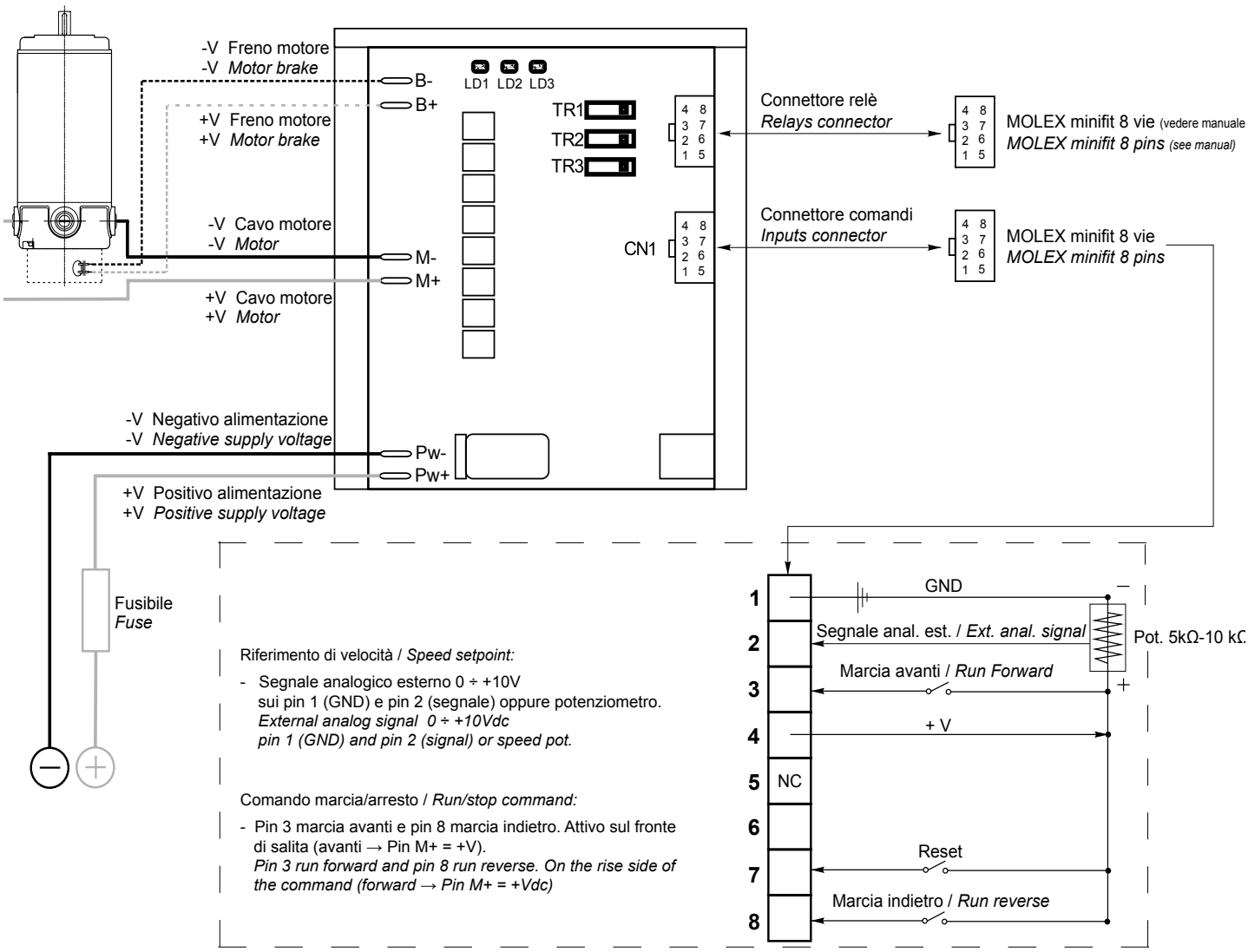
(*) *the maximum output current value must be used **in a ventilated environment.** Derate the maximum output current down to 4 A if the environment is not ventilated and the temperature is about 45 °C; continuous duty.*

PLN

AZIONAMENTO BIDIREZIONALE PWM PER LA REGOLAZIONE DI VELOCITA' DEI MOTORI A CORRENTE CONTINUA A BASSA TENSIONE

LOW VOLTAGE BIDIRECTIONAL PWM DC MOTORS CONTROL

SCHEMA DEI COLLEGAMENTI - MAIN CONNECTION DIAGRAM



Fusibile:
150-200% della corrente motore. Max 3 volte la corrente nominale della scheda, con intervento entro pochi secondi.

Fuse:
150-200 % rated motor current. Max 3 times rated current of the drive (trip time in few seconds).

Trimmer multigiro:

TR1: Accelerazione: selezione da 0.5 a 10 sec.

TR2: Limite di corrente: riduce il limite di corrente nominale da 100% a circa 30% (corrente di picco 3 volte la corrente selezionata).

TR3: Decelerazione: selezione da 0.5 a 10 sec.

Multiturn trimmers:

TR1: Acceleration time: from 0.5 to 10 sec.

TR2: Current limitation: rated current limited from 100% to about 30% (peak current 3 times the selected limited current).

TR3: Deceleration time: from 0.5 to 10 sec.

LED:

LD1: Visualizza lo stato di funzionamento con limite di corrente attivo (il motore assorbe più della corrente selezionata e l'azionamento opera in limitazione).

LD2: Stato dell'azionamento: lampeggio veloce e continuo = funzionamento normale, lampeggio lento e codificato = presenza di un allarme

LD3: Segnalazione presenza alimentazione.

LED:

LD1: ON when the drive runs under current limitation (motor requires more than the rated current and drive supplies only limited current).

LD2: Status: quick continuous flash = drive ok, slow coded flash = fault).

LD3: Power ON

Caratteristiche tecniche

- Scheda bidirezionale a transistor a ricircolo di corrente.
- Selezionabili i seguenti parametri (mediante trimmer):
  - rampa di accelerazione: 0.5 - 10 sec
  - rampa di decelerazione: 0.5 - 10 sec
  - limite corrente 100%-30% circa
- Temperatura di lavoro: 0°C / +40°C (allarme sotto zero)
- Diagnostica tramite LED
- Frequenza di commutazione: 16kHz
- Dotata di coperchio
- Velocità regolabile con potenziometro 5-10 kΩ o con segnale 0-10 Vcc
- Limitazione della corrente regolabile
- Sensore termico di protezione

Technical features

- *Transistor bidirectional drive with regenerative current system.*
- *Following settings can be adjusted (by built in trimmers):*
  - *acceleration ramp: 0.5 - 10 sec*
  - *deceleration ramp: 0.5 - 10 sec*
  - *current limit 100% - about 30%*
- *Room temperature: 0°C / +40°C (alarm below zero)*
- *LED for system diagnosis*
- *Switching frequency: 16kHz*
- *Covered*
- *5-10 kΩ Speed pot. or 0-10 Vdc external signal for speed regulation*
- *Variable current limit*
- *Thermal sensor for protection*

Modello *Model number*	Tensione di alimentazione *DC input voltage* [Vdc]	Tensione di uscita *Motor voltage* [Vdc]*	Corrente di uscita nominale *DC load current* [A]	Corrente di picco motore *Maximum load current* [A]**	Campo di alimentazione *Power supply range* [Vdc]
PLN20	12 ÷ 24	0 ÷ Vin	20	60 (4 sec)	10 ÷ 30
PLN40	12 ÷24	0 ÷ Vin	40	120 (4 sec)	10 ÷ 30

* L'azionamento riduce la tensione nominale di 1-2 Vcc. Il fenomeno è normale e fisiologico. Se serve ottenere 24 ÷ 12 Vcc in uscita sotto ogni condizione di carico, si suggerisce di sovralimentare di un paio di volt.

** Un timer impone il limite con un andamento temporale iperbolico, cioè quanta più corrente eroga e tanto meno è il tempo per il quale ciò è ammesso, prima che appunto la scheda vada in limitazione. Alla corrente di picco (x 3 volte quella nominale) la scheda funziona per pochi secondi.

** The drive reduces the rated voltage of 1-2 Vdc. This is normal and physiological. If 24 ÷12 VDC output is required under all load conditions, it is advisable to supercharge a couple of volts.*

*** A timer imposes a limit with a temporary hyperbolic performance, which means the more current is requested, the less time is permitted with this current before the drive is limited. When the current reaches its peak (3 times the rated value) the drive will work for a few seconds.*

Dotazioni

Equipment

	PLN20 PLN40
Trimmer di selezione ACCEL, DECEL e LIMITE di CORRENTE / *Selection Trimmer ACCEL, DECEL, CURRENT LIMIT*	■
2 contatti: marcia avanti e marcia indietro / *2 contacts : forward and reverse*	■
Riferimento di velocità / *Speed setpoint reference*	■
3 LEDs di segnalazione / *3 LEDs signals*	■
Segnale di comando di eventuale freno negativo di stazionamento / *Command signal for possible negative electromagnetic brake*	■
Predisposizione per montaggio a libro e a zoccolo / *Arranged for 2 different ways of mounting*	■
Memorizzazione e segnalazione degli allarmi / *Memory storage and report of allarm*	■
2 ingressi digitali ausiliari / *2 auxiliary digital inputs*	■#
1 relè segnalazione allarmi / *Alarm output relays*	■

uno impegnato dal reset / *one comitted by reset*

PLN

Manuale

Per approfondimenti si raccomanda di scaricare il manuale d'uso dal nostro sito **www.transtecno.com** alla pagina dei prodotti.

User manual

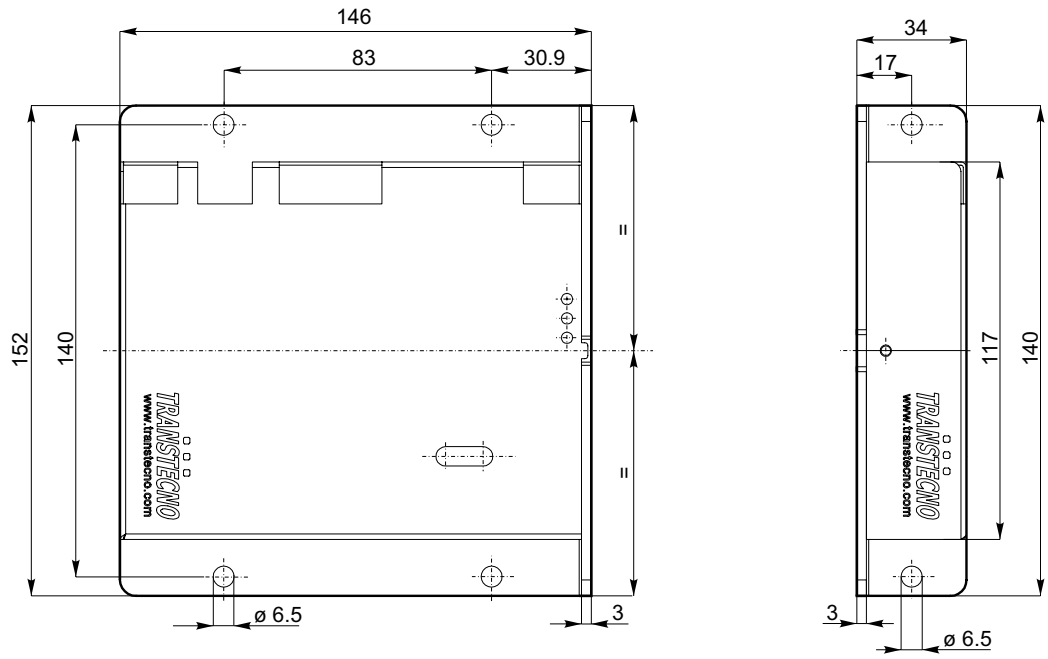
*Please, download the user manual for more information from our web site **www.transtecno.com** from the product page.*

AZIONAMENTO BIDIREZIONALE PWM PER LA REGOLAZIONE DI VELOCITA' DEI MOTORI A CORRENTE CONTINUA A BASSA TENSIONE

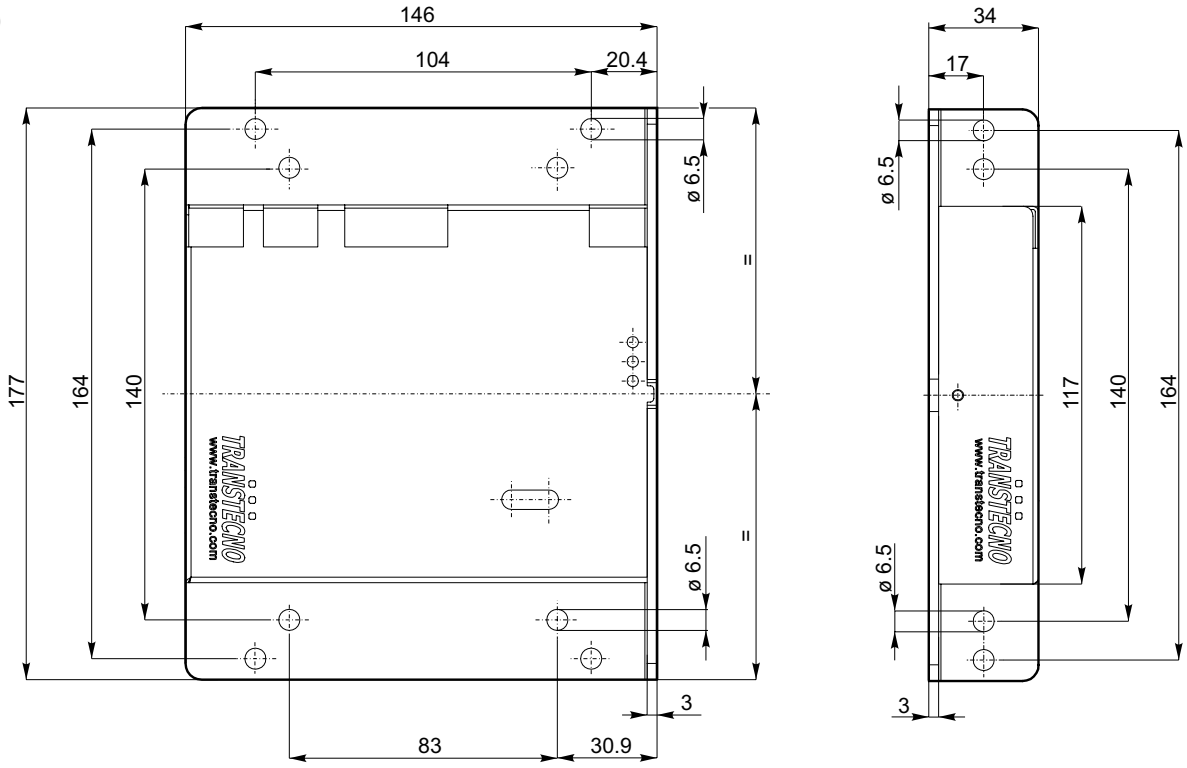
LOW VOLTAGE BIDIRECTIONAL PWM DC MOTORS CONTROL

Dimensioni / *Dimensions*

PLN20



PLN40



GUIDA alla selezione dell'azionamento

Drive selection GUIDE

Corrente di uso del motore	≤	Corrente nominale dell'azionamento

Real motor current	≤	*Rated current of the drive*

Attenzione: la reale corrente assorbita dal motore può essere diversa da quella indicata in targhetta.

PLN19-8 = max 6 A

PLN20 = max 22 A

PLN40 = max 44 A

Vedere sotto la tabella per esemplificazioni

Warning: the real absorbed current by the motor can be different from the one written on the nameplate.

PLN19-8 = max 6 A

PLN20 = max 22 A

PLN40 = max 44 A

See the table below for quick reference

Codice motore *Motor code*	Corrente motore *Motor current* S1	Scheda-Drive (servizio motore-motor duty) S1	Corrente motore *Motor current* S2	Scheda-Drive (servizio motore-motor duty) S2
EC020.120	3.2	PLN19-8 – PLN20	4	PLN19-8 – PLN20
EC020.240	1.5	PLN19-8 – PLN20	2	PLN19-8 - PLN20
EC035.120	5.2	PLN19-8 – PLN20	8	PLN20
EC035.240	2.6	PLN19-8 - PLN20	4	PLN19-8 - PLN20
EC050.120	6.8	PLN20	9.4	PLN20
EC050.240	3.4	PLN19-8 - PLN20	4.7	PLN19-8 - PLN20
EC070.120	8.4	PLN20	11.8	PLN20
EC070.240	4.2	PLN19-8 - PLN20	5.9	PLN19-8 - PLN20
EC100.120	12	PLN20	16.8	PLN20
EC100.240	6	PLN19-8 - PLN20	8.4	PLN20
EC100.24E	6	PLN19-8 - PLN20	8.4	PLN20
ND100.120	13.9	PLN20	19	PLN20
ND100.240	6.9	PLN20	9.0	PLN20
EC180.120	21.5	PLN20	30	PLN40
EC180.240	10.8	PLN20	15	PLN20
EC180.24E	10.8	PLN20	15	PLN20
ND180.120	20	PLN20	30	PLN40
ND180.240	10	PLN20	14	PLN20
EC250.120	30	PLN40	39	PLN40
EC250.240	15	PLN20	19.5	PLN20
EC350.120	42	PLN40	58.8	----
EC350.120BR				
EC350.240	21	PLN20	29.4	PLN40
EC350.240BR				
EC600.240	35.5	PLN40	47	PLN40
EC600.240BR				

MA TRANSTECNO S.A.P.I. DE C.V.
Av. Mundial # 176, Parque Industrial
JM Apodaca, Nuevo León,
C.P. 66600
MÉXICO
T +52 8113340920
info@transtecno.com.mx
www.transtecno.com.mx

TRANSTECNO SRL
Via Caduti di Sabbiuno, 11/D-E
40011 Anzola dell'Emilia (BO)
ITALY
T+39 051 64 25 811
F +39 051 73 49 43
sales@transtecno.com
www.transtecno.com

HANGZHOU TRANSTECNO POWER TRANSMISSIONS CO LTD
Changlian Road, Fengdu Industry zone,
Pingyao Town Yuhang Area,
Hangzhou, 311115 - CHINA
T +86 571 86 92 02 60
F +86 571 86 92 18 10
info-china@transtecno.com
www.transtecno.cn

CATROBIN0617

TRANSTECNO U.S.A. LLC
5440 S.W. 156th Place Miami,
FL 33185 - USA
Tel: +1 (305) 220-4423
Fax: +1 (305) 220-5945
usaoffice@transtecno.com

SALES OFFICE BRAZIL
Rua Dr. Freire Alemão 155 / 402 - CEP. 90450-060
Auxiliadora Porto Alegre RS - BRAZIL
Tel: +55 51 3251 5447
Fax: +55 51 3251 5447
Mobile: +55 51 811 45 962
braziloffice@transtecno.com
www.transtecno.com.br

TRANSTECNO B.V.
De Stuwdam, 43
3815 KM Amersfoort - NETHERLANDS
Tel: +31(0) 33 45 19 505
Fax: +31(0) 33 45 19 506
info@transtecno.nl
www.transtecno.nl

TRANSTECNO IBÉRICA
THE MODULAR GEARMOTOR, S.A.
C/Enginy, 2 Nave 6 - 08850 Gavà (Barcelona) - SPAIN
Tel: +34 931 598 950
info@transtecno.es
www.transtecno.es

SALES OFFICE FRANCE
12 Impasse des Mûriers
38300 Ruy - FRANCE
Tel: +33 (0) 6 85 12 09 87
Fax-Italy: +39 051 733 904
franceoffice@transtecno.com
www.transtecno.fr

SALES OFFICE GUANGZHOU
Room 401A, LeTian Building, No.188 TangAn Road,
Tianhe District, Guangzhou City, 510665 - CHINA
Tel: +86 571 86920260-826
Fax: +86 013185001627
guangzhouoffice@transtecno.com

SALES OFFICE INDIA
A/10, Anagha, S.N. Road, Mulund (W) Mumbai
400080 - INDIA
Tel: +91 9820614698
Fax-Italy: +39 051 733 904
indiaoffice@transtecno.com

SALES OFFICE SOUTH KOREA
D-304 Songdo BRC Smart Valley 30, Songdomirae-ro,
Yeonsu-gu, Incheon, 406-840 - SOUTH KOREA
Tel: +82 70 8288 2107
Fax: +82 32 815 2107
Mobile: +82 10 5094 2107
koreaoffice@transtecno.com

SALES OFFICE OCEANIA
44 Northview drive, Sunshine west 3020
Victoria - AUSTRALIA
Tel: +61 03 9312 4722
Fax: +61 03 9312 4714
Mobile: +61 0438 060 997
oceaniaoffice@transtecno.com
www.transtecno.com.au

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