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Introduzione
Introduction



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Generalità

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.

General information

Velocità entrata

n_1 [min⁻¹]

Input speed

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

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

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

When different speeds are required, contact our Technical Service.

Rapporto di riduzione

i

Gear ratio

È una grandezza adimensionale ed è in funzione del numero dei denti degli ingranaggi interni al riduttore.

This value is strictly related to the size and number of teeth gears inside the gearbox.

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.

This value is obtained in wormgearboxes by dividing the number of wheel teeth by the number of starts (Z) of the worm.

Dai dati di catalogo si può ottenere con la relazione:

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.

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).

Essa può essere comunicata dall'utente oppure calcolata in base ai dati di applicazione (se forniti).

Coppia nominale

Mn₂ [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

M₂ [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).

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

Nei riduttori combinati, il rendimento complessivo è dato dal prodotto dei rendimenti dei due riduttori, considerando però che nel secondo riduttore il rendimento dovrà essere valutato in base alla ridotta velocità in entrata ottenuta dividendo n_1 per il rapporto i del primo riduttore.

In combination gearboxes, overall efficiency is obtained from the combined efficiency of the two gearboxes. However, keep in mind that efficiency of the second gearbox should be determined according to the reduced input speed obtained by dividing n_1 by ratio i of the first gearbox.

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).

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.

Il valore dei rendimenti dinamico e statico dei riduttori a vite senza fine sono riportati nella tabella a pag. N4.

Dynamic and static efficiency of wormgearboxes are given in the table on page N4.

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

On helical gearboxes CMG and CMB the average efficiency is 94%.

Nei motovariatori il rendimento assume un valore di 0.85 alla velocità massima e decresce fino a 0.7 alla velocità minima.

Efficiency is 0.85 at the highest speed decreasing to 0.7 at the lowest speed in motovariators.

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.

A - Uniforme	$fa \leq 0.3$
B - Medio	$fa \leq 3$
C - Forte	$fa \leq 10$

A - Uniform	$fa \leq 0.3$
B - Moderate shocks	$fa \leq 3$
C - Heavy shocks	$fa \leq 10$

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

- Je (kgm²) momento d'inerzia esterno ridotto all'albero motore.
- Jm (kgm²) momento d'inerzia motore.

Se $fa > 10$ interpellare il ns. Servizio Tecnico.

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

- Je (kgm²) moment of reduced external inertia at the drive-shaft.
- Jm (kgm²) moment of inertia of motor.

If $fa > 10$ call our Technical Service.

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

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

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

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

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

		sf								
		n. avviamenti/ora / n. start-up/hour								
h/d	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; R₂ [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 R₂ 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 R₂ refer to loads that act on the center-line of the output shaft (considering the shaft protrudes). As a result, the value should be compared under the same conditions.

Carico assiale

A; A₂ [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 A₂ 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 A₂ 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 A₂ contattate il ns. Servizio Tecnico.

If axial load A that acts on the shaft is greater than A₂, 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 P₁ [kW] richiesta, passare al punto 3); se è nota la coppia in uscita M₂ richiesta è necessario calcolare la potenza motore P₁ con la formula:

2. If the required motor power output P₁ [kW] is known, go to item 3); if the required output torque M₂ is known, determine motor output P₁ by using the following formula:

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

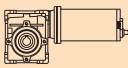
dove Rd è il rendimento dinamico e n₂ il numero di giri richiesti in uscita al motoriduttore.

where Rd stands for the dynamic efficiency and n₂ 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
140						
(3000 min ⁻¹)	600	2.0	5.0	5	ECM100/026	120/240/24E
	400	2.9	3.8	7.5		
	300	3.8	2.9	10		
	200	5.5	2.0	15		
	150	7.1	1.5	20		
	100	10	1.2	30		
	75	12	0.9	40		
	60	14	0.7	50		
	50	13	0.7	60		

Esempio / Example:

Applicazione / Application:

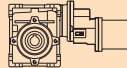
Carrello automatico / Automatic carriage

P_1 : 140 W
sf : 1.5
 n_2 : 150 min⁻¹

Motorizzazione scelta / Power unit selected:

ECM100/026, i = 20, P_1 = 140 W, sf = 1.5

ECMP

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
250						
(3000 min ⁻¹)	50	35	2.3	60	ECMP180/063/050	120/240/24E
	40	42	1.8	75		
	33	48	2.1	90		
	25	58	1.5	120		
	20	69	1.2	150		
	17	77	1.0	180		
	13	90	0.8	240		

Esempio / Example:

Applicazione / Application:

Carrello automatico / Automatic carriage

M_2 : 58 Nm
sf : 1.5
 n_2 : 25 min⁻¹

Motorizzazione scelta / Power unit selected:

ECMP180/063/050, i = 120, P_1 = 250 W, sf = 1.5

Giunto elastico

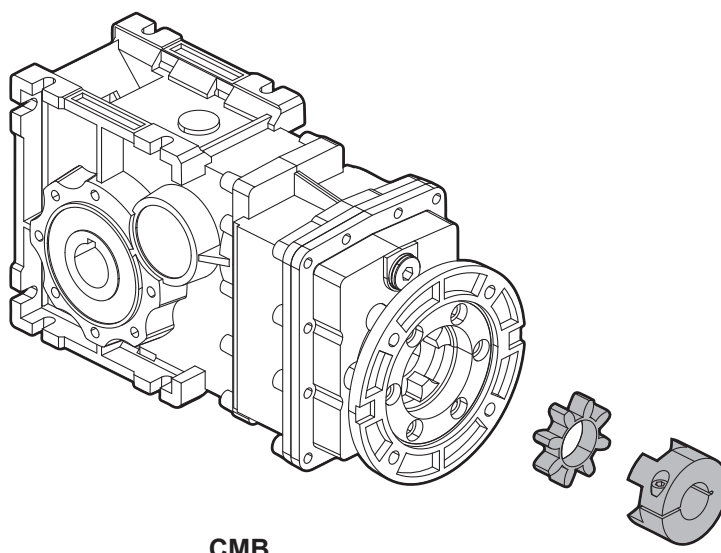
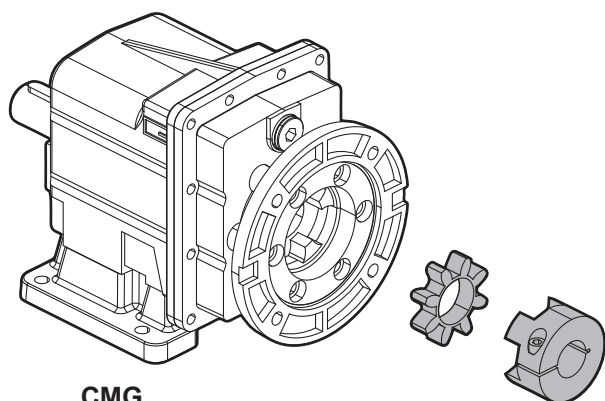
L'accoppiamento al motore tramite giunto elastico a morsetto ha i seguenti vantaggi:

- Maggiore rigidità torsionale;
- Smorzamento delle vibrazioni;
- Smorzamento dei picchi d'inerzia del motore;
- Eliminazione dell'ossidazione tra l'albero motore ed il manicotto per tribocorrosione;
- Temperatura di funzionamento inferiore;
- Facilità di smontaggio del motore anche dopo lunghi periodi di utilizzo;
- Evita il danneggiamento della linguetta del motore per servizio altamente intermittente.

Flexible coupling

Motor connection by clamp flexible coupling allows the following benefits:

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



Installazione e verifiche

Installation and inspection

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.

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

Critical applications

In tutti questi casi consultare il Servizio Tecnico

- utilizzo come organo di sollevamento;
- utilizzo in posizioni non previste a catalogo;
- utilizzo in ambiente con pressione diversa da quella atmosferica;
- utilizzo in ambiente con temperature $<0^{\circ}\text{C}$ o $>+40^{\circ}\text{C}$
- utilizzo in ambienti esterni
- servizio continuo o altamente intermittente per motoriduttori in corrente continua o brushless
- utilizzo in applicazioni con forti inerzia

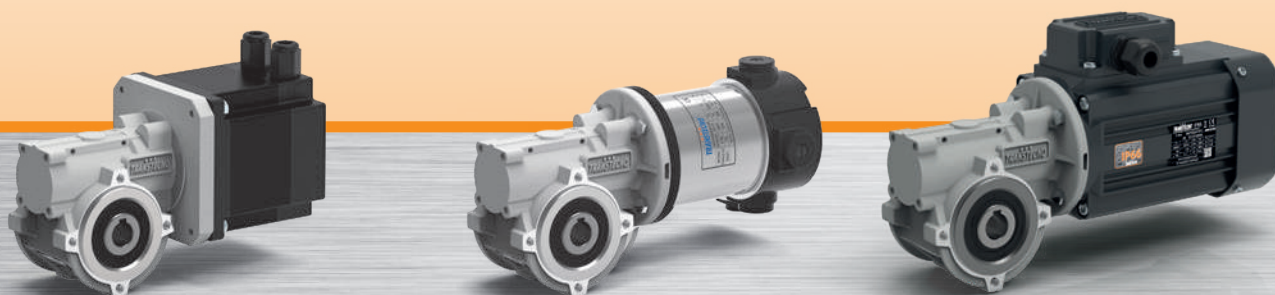
In these cases please contact the Technical Service

- 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 $<0^{\circ}\text{C}$ or $>+40^{\circ}\text{C}$
- when used outdoors
- continuous or highly intermittent duty for DC or brushless gearmotors
- used in applications with high inertia

MINI  **TECNO**™
small but strong

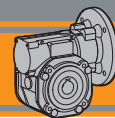
CL

Motoriduttori a vite senza fine
Wormgearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®

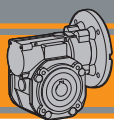




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CL

Motoriduttori a vite senza fine Wormgearmotors



Caratteristiche tecniche

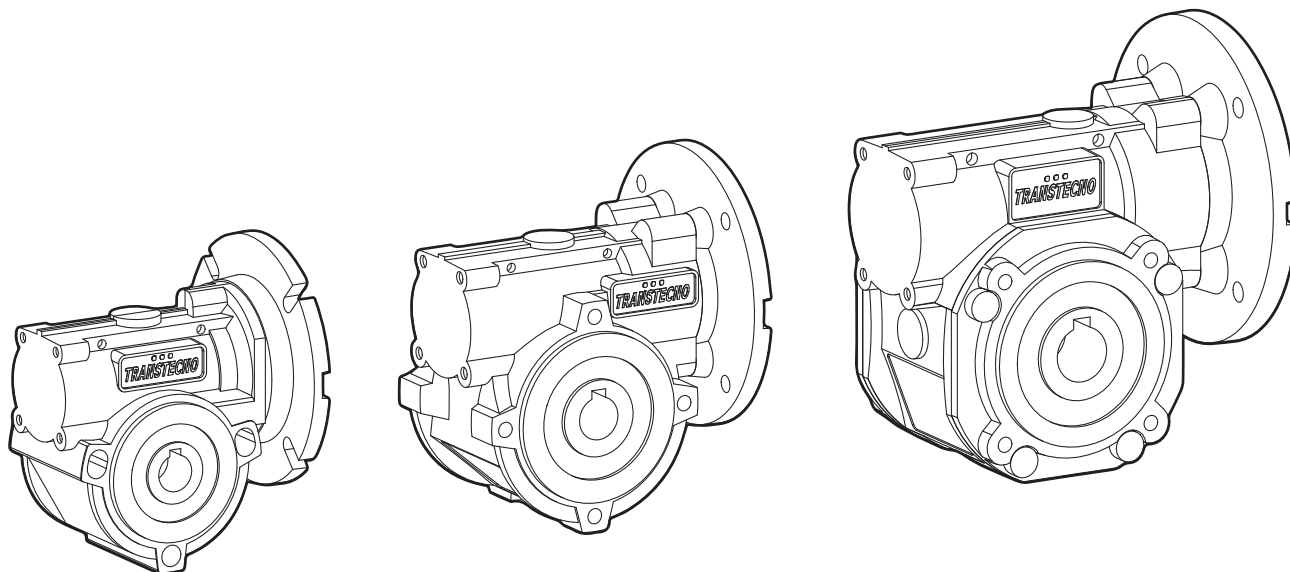
Technical features

L'elevata modularità contraddistingue i motoriduttori a vite senza fine della serie CL: i diversi kit entrata ed uscita li rendono estremamente versatili.

The high degree of modularity is a design feature of CL wormgearmotors range thanks to a wide selection of input and output kits. Main features of CL range are:

Le caratteristiche principali della serie CL sono:

- Carcassa in alluminio
- Lubrificazione permanente con olio sintetico
- Die-cast aluminium housing
- Permanent synthetic oil long life lubrication



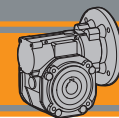
Designazione

Classification

RIDUTTORI A VITE SENZA FINE / WORMGEARBOXES

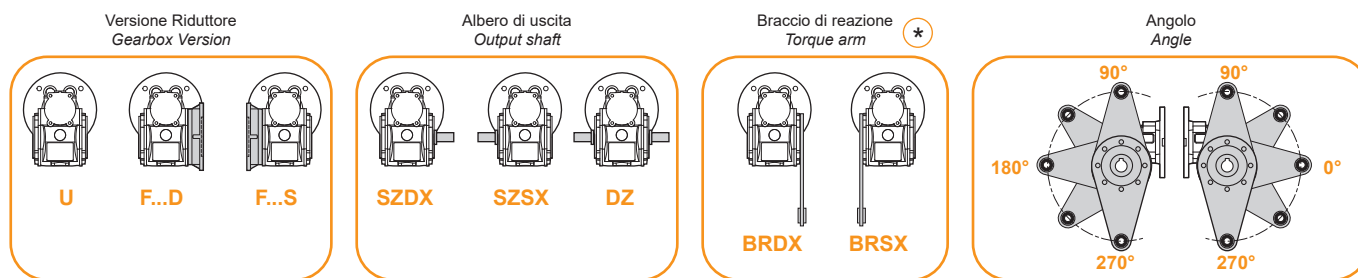
RIDUTTORE / GEARBOX

CL	030	U	10	63	B14	SZDX	BRSX	90	VS
Tipo Type	Grandezza Size	Versione riduttore Gearbox Version	Rapporto Ratio	IEC 	Forma costruttiva Version	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Opzioni Options
CL 	026 (D11) 026 026 (D14) 030 040	U F...	Vedere tabella See tables	56.. — 71..	B5 B14	SZDX SZSX DZ	BRDX BRSX 	0° 90° 180° 270°	VS
CLIS 									



Designazione

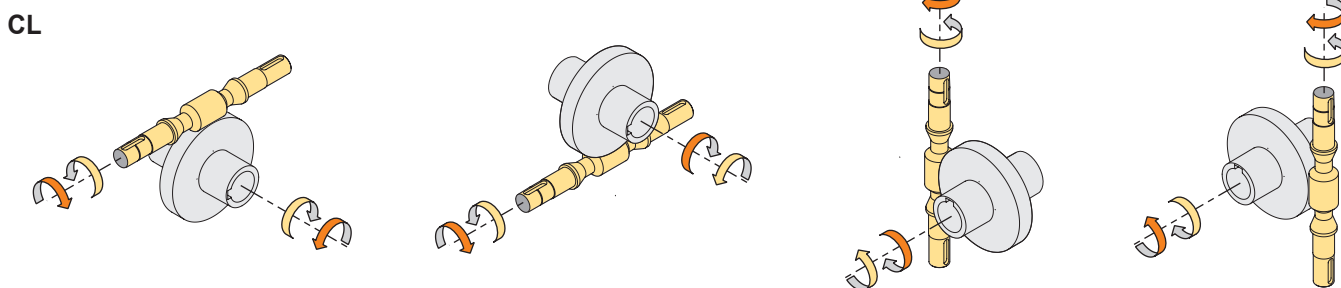
Classification



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

Sensi di rotazione

Direction of rotation



Simbologia

Symbols

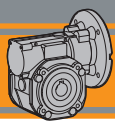
n_1	[min^{-1}]	Velocità in ingresso / <i>Input speed</i>	sf	Fattore di servizio / <i>Service factor</i>
n_2	[min^{-1}]	Velocità in uscita / <i>Output speed</i>	Rd	% Rendimento dinamico / <i>Dynamic efficiency</i>
i		Rapporto di riduzione / <i>Ratio</i>	Rs	% Rendimento statico / <i>Static efficiency</i>
P_1	[kW]	Potenza in entrata / <i>Nominal input power</i>	R_2	[N] Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
M_2	[Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>	A_2	[N] Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>
P_{n1}	[kW]	Potenza nominale in entrata / <i>Nominal input power</i>	Z	Numero di principi della vite / <i>Worm starts</i>
M_{n2}	[Nm]	Coppia nominale in uscita in funzione di P_{n1} / <i>Nominal output torque referred to P_{n1}</i>	β	Angolo d'elica / <i>Helix angle</i>

Lubrificazione

Lubrication

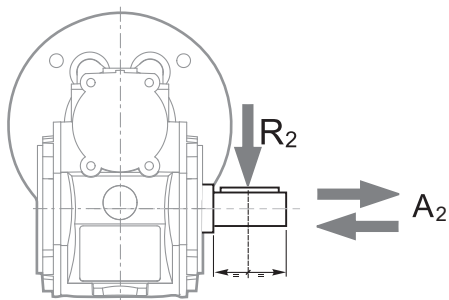
Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.



Carichi radiali

Radial loads

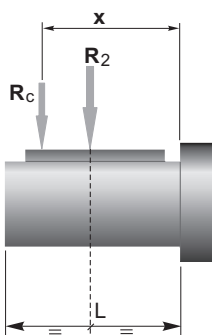


$A_2 = R_2 \times 0.2$

n ₂ [min ⁻¹]	R ₂ [N]		
	CL026	CL030	CL040
187	400	674	1264
140	490	743	1392
93	580	851	1596
70	610	936	1754
56	610	1008	1890
47	610	1069	2004
35	610	1179	2210
28	610	1270	2381
23	610	1356	2542
18	610	1471	2759
14	610	1600	3000

Quando il carico radiale risultante non è applicato sulla mezza-
ria 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

	CL		
	026	030	040
a	56	65	84
b	43	50	64
R _{2MAX}	610	1600	3000

Dati di dentatura

Toothing data

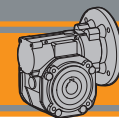
	Dati della coppia vite-corona Worm wheel data	Rapporto / Ratio											
		5	7.5	10	15	20	25	30	40	50	60	80	100
CL026	Z	6	4	3	2	2		1	1	1	1		
	β	34° 35'	24° 41'	19° 1'	12° 57'	10° 30'		6° 33'	5° 17'	4° 26'	3° 49'		
CL030	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	27° 4'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'
CL040	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 19'	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
CL026	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		
CL030		Rs	72	71	68	61	56	46	41	36	34			
	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
CL040		Rs	72	67	63	55	50	43	39	35	31	27	23	21
	2800	Rd	90	89	87	84	83	80	77	73	69	66	60	56
	1400		88	86	84	81	78	74	70	65	60	58	52	46
	900		86	84	82	77	74	70	66	60	57	53	46	41
	Rs	74	71	67	60	55	51	45	40	36	32	28	24	


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



Dati tecnici

n_1 1400 min⁻¹

Technical data


	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
---	-------------------------------	----------------	----------------	-----

CLIS026

280	13	0.44	5
187	14	0.33	7.5
140	14	0.25	10
93	14	0.18	15
70	14	0.14	20
47	15	0.11	30
35	14	0.08	40
28	13	0.07	50
23	12	0.06	60

CLIS030

280	18	0.61	5
187	20	0.46	7.5
140	21	0.37	10
93	21	0.26	15
70	19	0.19	20
56	20	0.16	25
47	22	0.16	30
35	20	0.12	40
28	19	0.10	50
23	17	0.08	60
18	15	0.06	80
14	14	0.05	100

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
---	-------------------------------	----------------	----------------	-----

CLIS040

280	41	1.37	5
187	44	1.00	7.5
140	45	0.79	10
93	45	0.54	15
70	40	0.38	20
56	38	0.30	25
47	48	0.34	30
35	42	0.24	40
28	39	0.19	50
23	36	0.15	60
18	33	0.12	80
14	31	0.10	100

Nota:

Pn_1 è la potenza meccanica.

La potenza applicabile è ridotta del fattore termico.

Per maggiori dettagli consultare il nostro Servizio Tecnico.

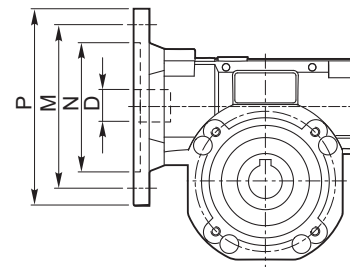
Note:

Pn_1 is an input mechanical power which must be reduced by the heating factor in order to get the relevant one. For more details please contact our Technical Service.

Motori applicabili

IEC Motor adapters

	IEC	N	M	P	D	i																		
						5	7.5	10	15	20	25	30	40	50	60	80	100							
CL026	56B14	50	65	80	9																			
CL030	63B5	95	115	140	11																			
	63B14	60	75	90	9	B	B	B	B	B	B	B	B	B										
CL040	71B5	110	130	160	14																			
	63B5	95	115	140	11	B	B	B	B	B	B	B	B											
	63B14	60	75	90	9	BS	BS	BS	BS	BS	BS	BS	BS	BS	B	B	B	B						
56B5	80	100	120	9																				
56B14	50	65	80	9																				



N.B.

Le aree evidenziate in grigio indicano l'applicabilità della corrispondente grandezza motore.

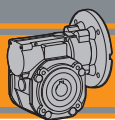
N.B. Grey areas indicate motor inputs available on each size of unit.

B/BS = Boccola di riduzione in acciaio

B/BS = Metal shaft sleeve

Nota: flange Nema disponibili a richiesta

Note: Nema flange available on demand



CL

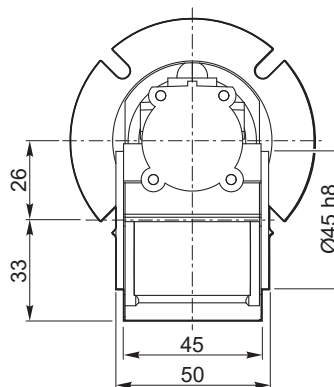
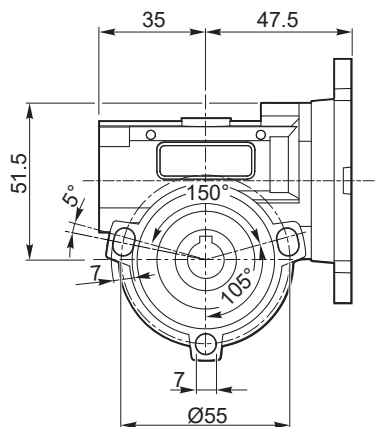
Motoriduttori a vite senza fine Wormgearmotors

MINI TECNO

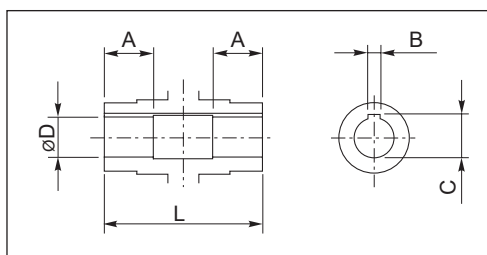
Dimensioni

Dimensions

CL 026 U



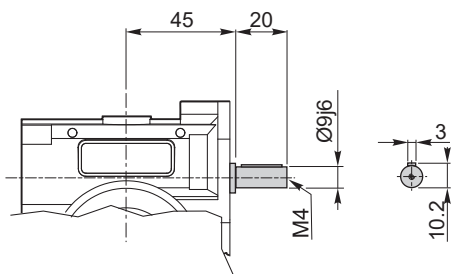
Kg
0.7



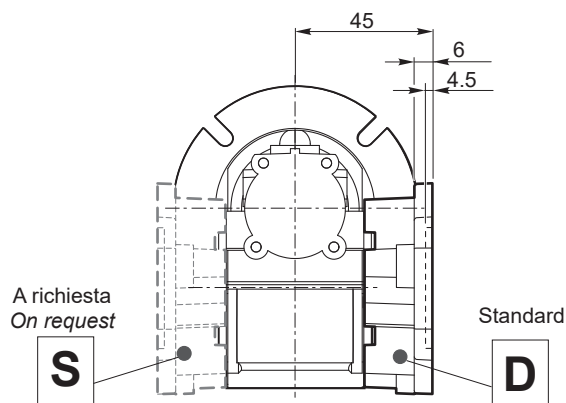
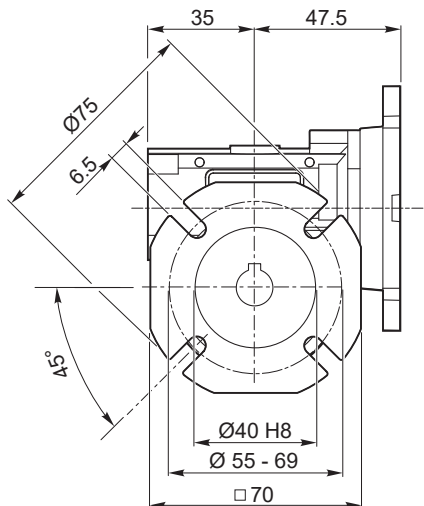
Albero lento cavo / Hollow output shaft

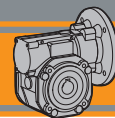
Grandezza Size	Ø D H8	L	A	B	C
CL 026 (D11)	11	50	15	4	12.8
CL 026	12	50	15	4	13.8
CL 026 (D14)	14	50	15	5	16.2

CLIS 026 ..



CL 026 F

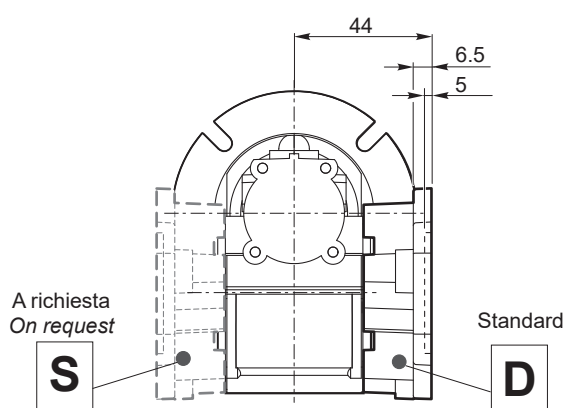
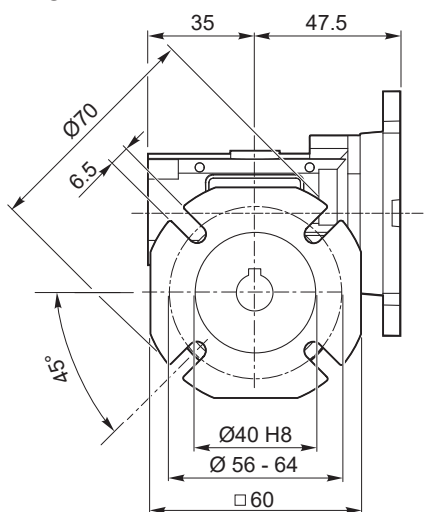




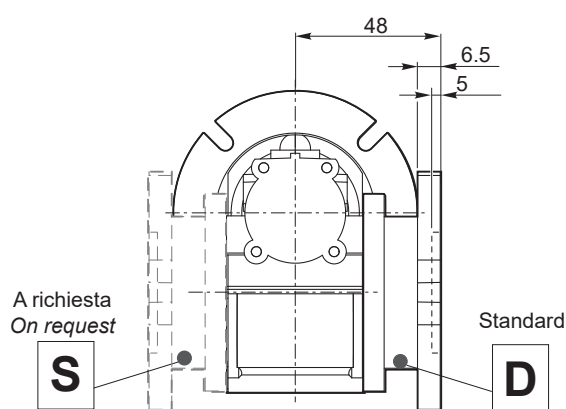
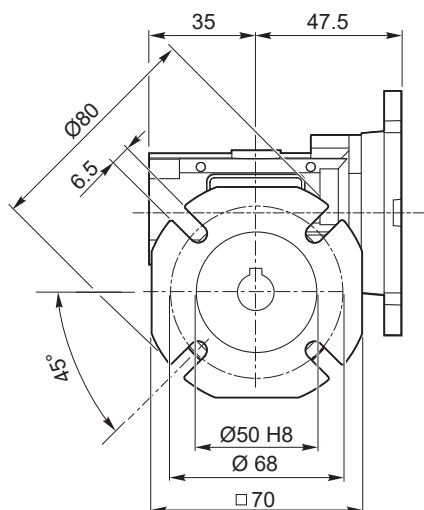
Dimensioni

Dimensions

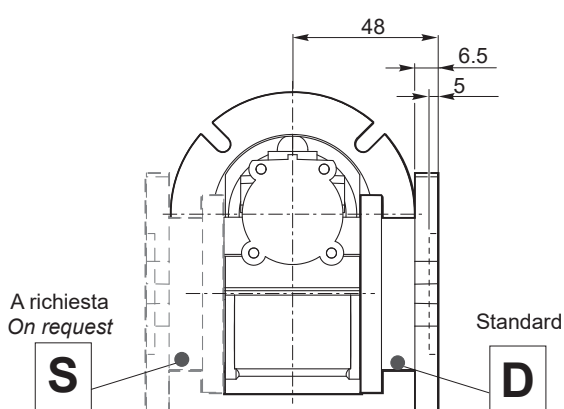
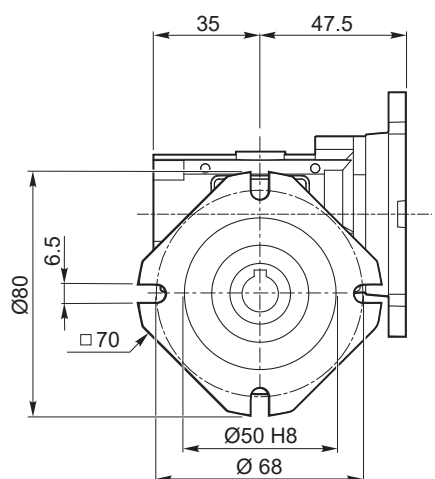
CL 026 F28

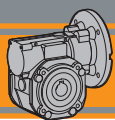


CL 026 F30



CL 026 F30C

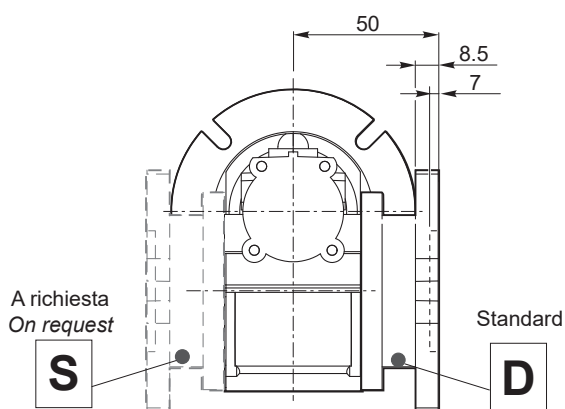
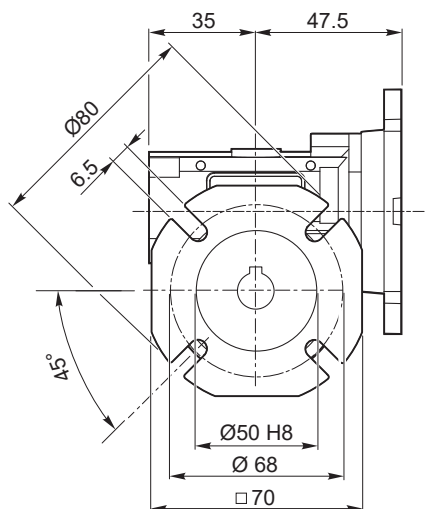




Dimensioni

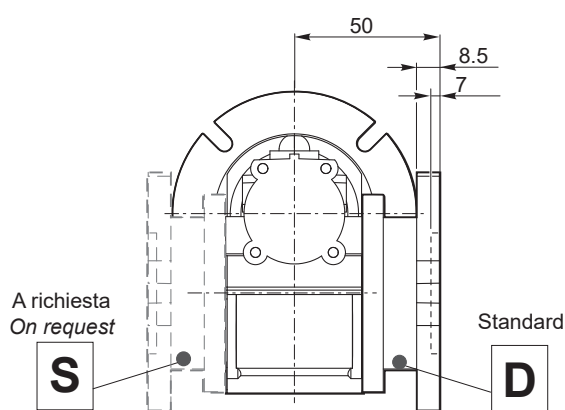
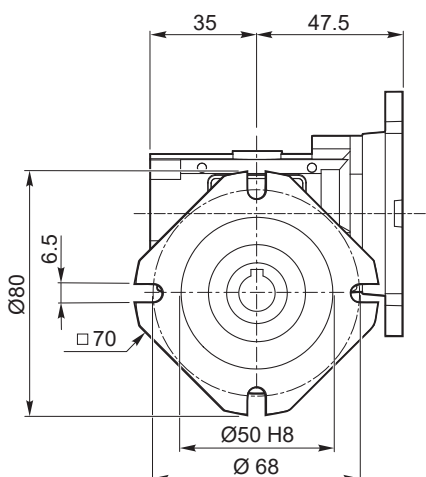
Dimensions

CL 026 F30S



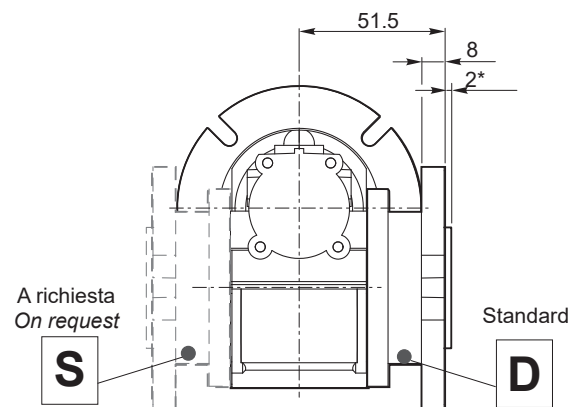
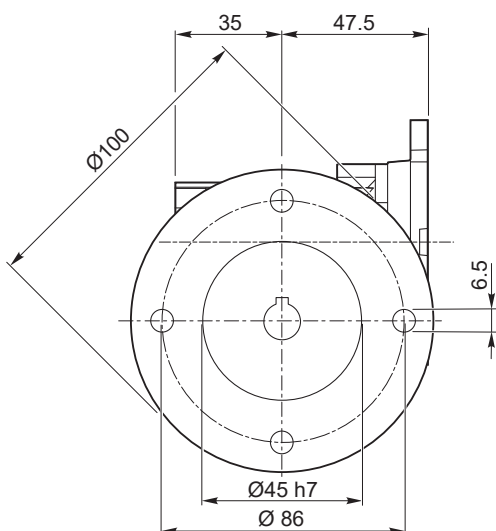
Nota: Esecuzione con flangia uscita F30 e spessore 2mm
Note: Made with flange F30 and spacer with 2mm thickness

CL 026 F30SC

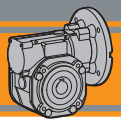


Nota: Esecuzione con flangia uscita F30C e spessore 2mm
Note: MAde with flange F30C and spacer with 2mm thickness

CL 026 F100



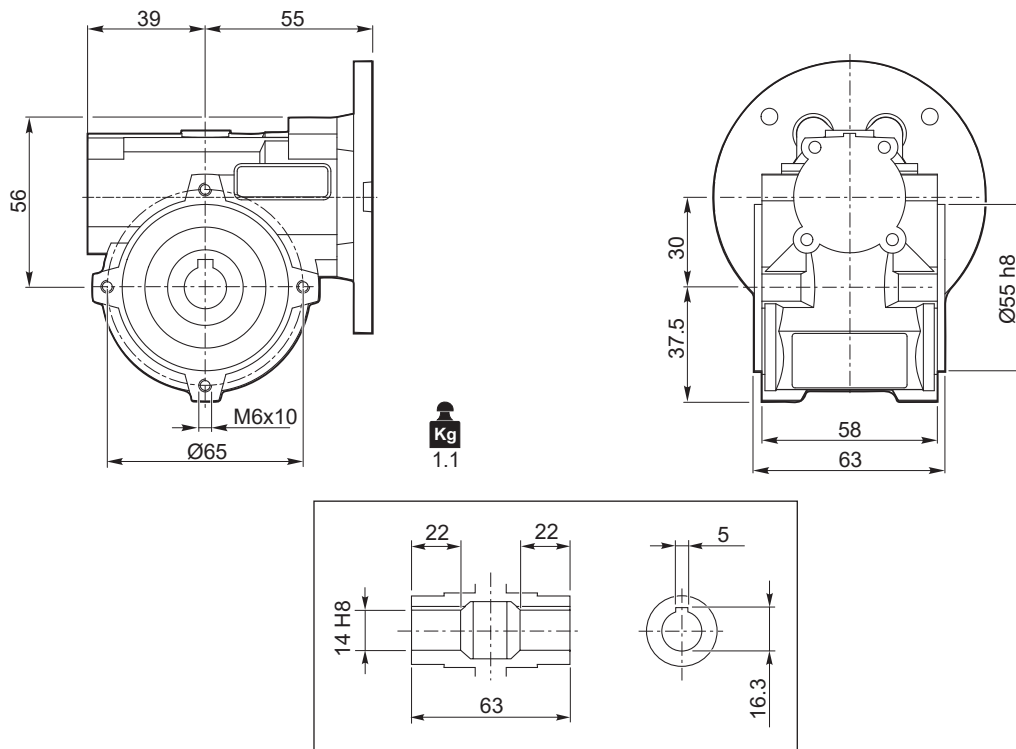
(*): Centraggio maschio
 (*): Male centering diameter



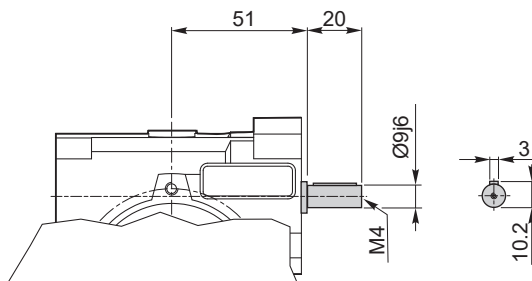
Dimensioni

Dimensions

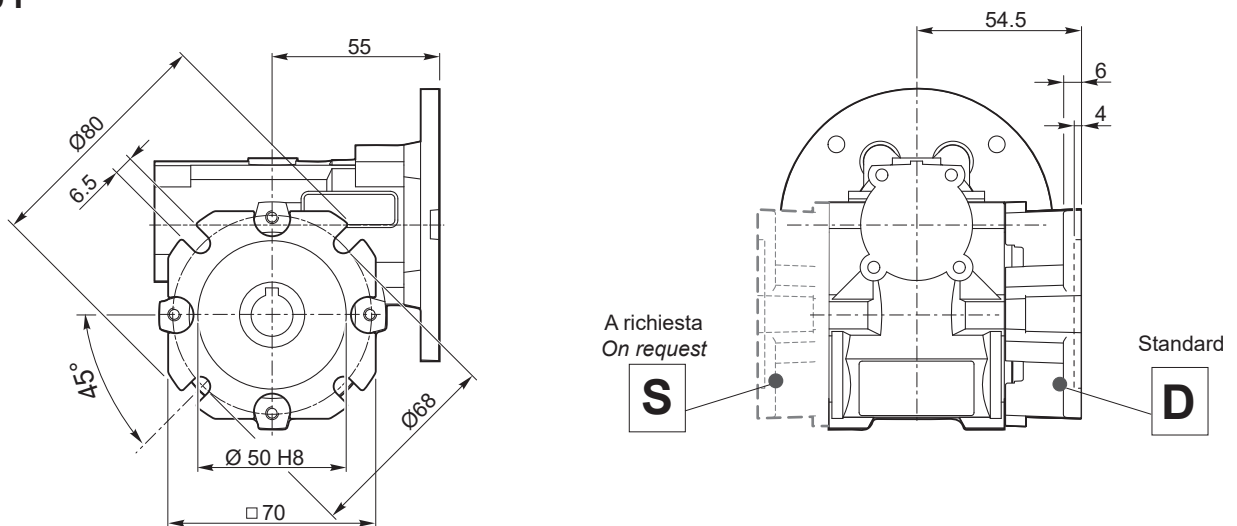
CL 030 U

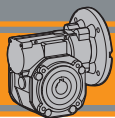


CLIS 030 ..



CL 030 F





CL

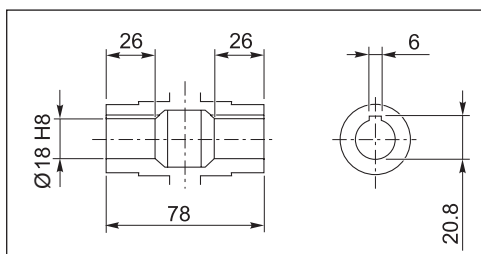
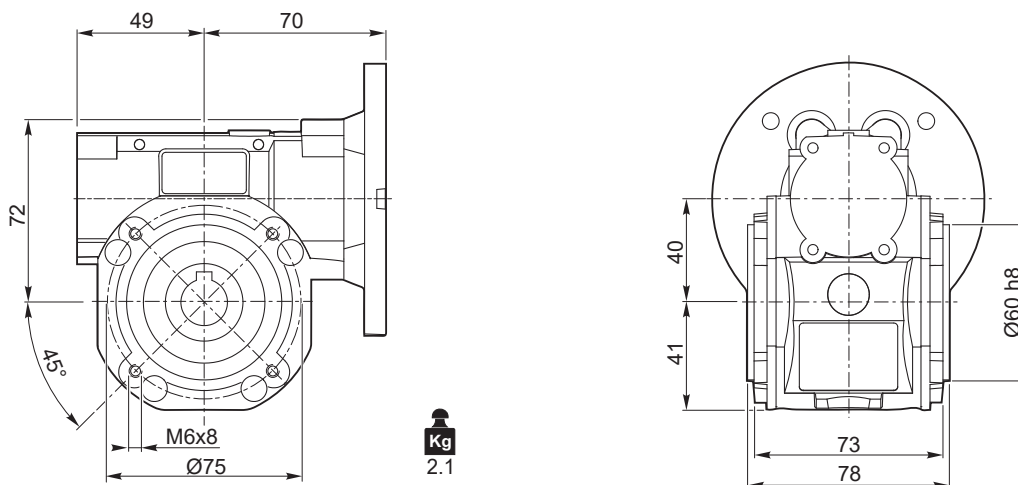
Motoriduttori a vite senza fine Wormgearmotors



Dimensioni

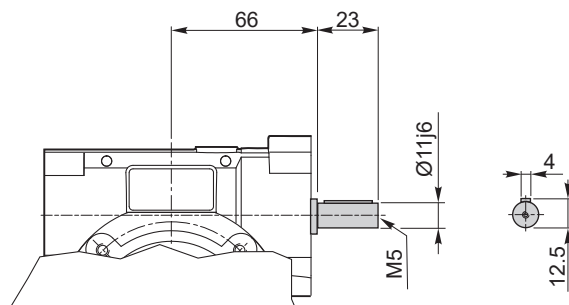
Dimensions

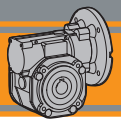
CL 040 U



Albero lento cavo / Hollow output shaft

CLIS 040 ..

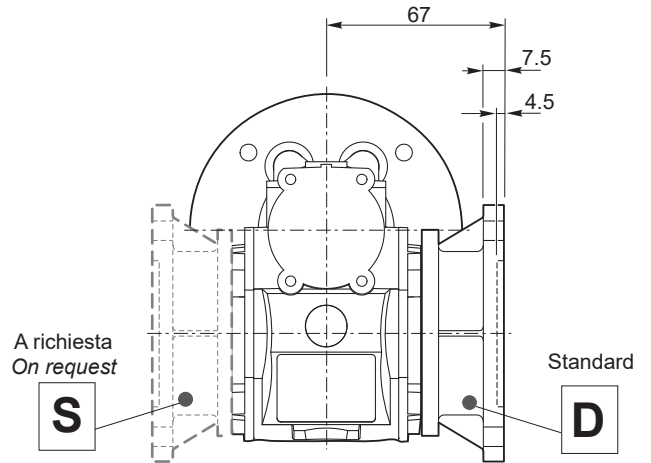
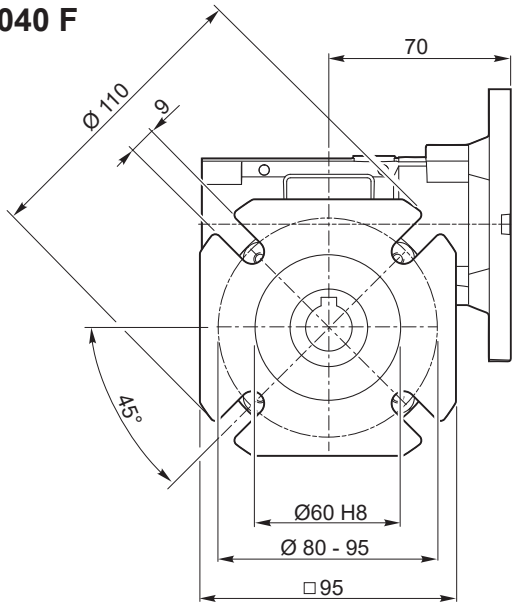




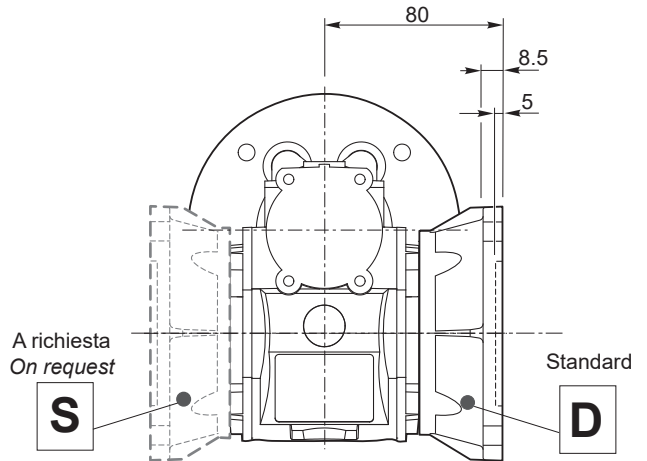
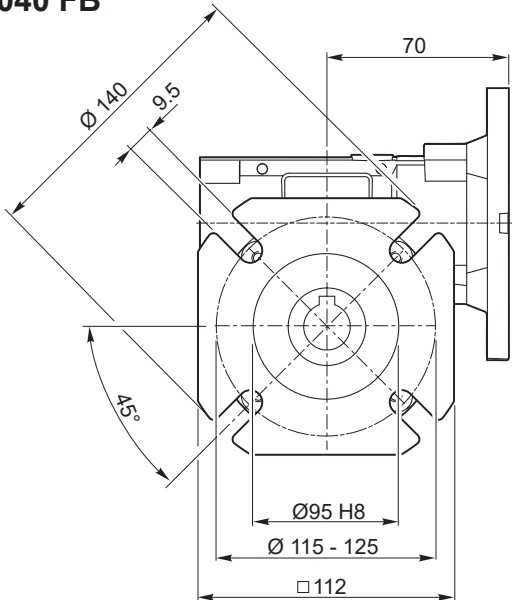
Dimensioni

Dimensions

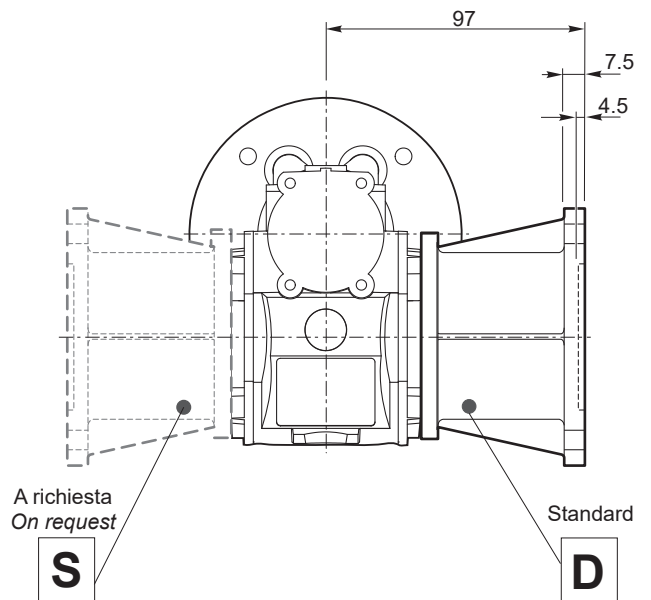
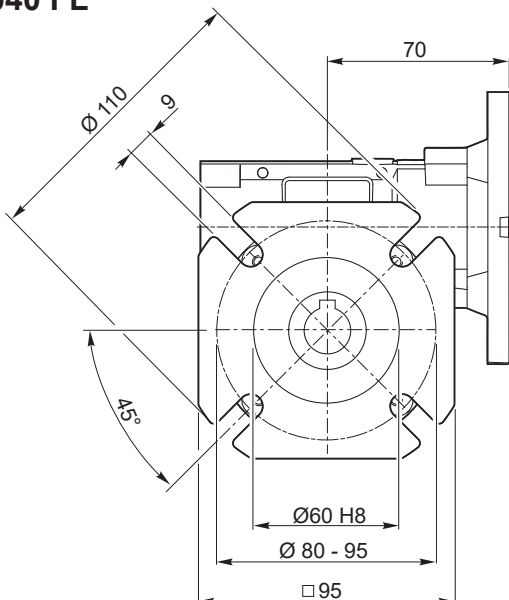
CL 040 F

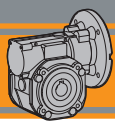


CL 040 FB



CL 040 FL





CL

Motoriduttori a vite senza fine
Wormgearmotors

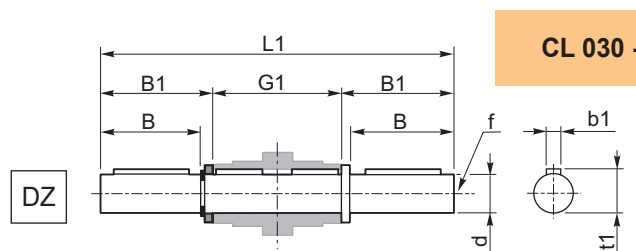
MINI
TECNO

Accessori

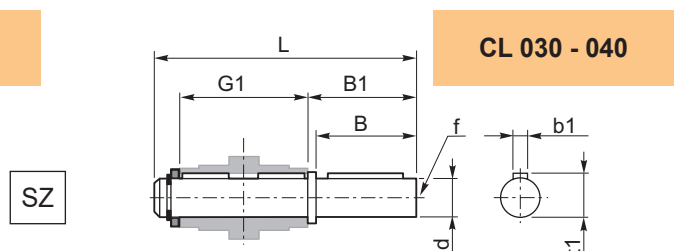
Accessories

Albero lento semplice e doppio

Single and double output shaft

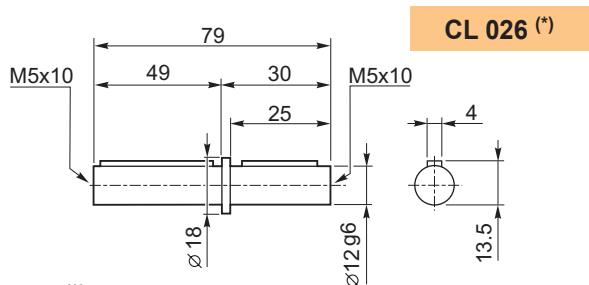


CL 030 - 040



CL 030 - 040

CL	d _{h7}	B	B1	G1	L	L1	f	b1	t1
030	14	30	32.5	63	102	128	M6	5	16
040	18	40	43	78	128	164	M6	6	20.5



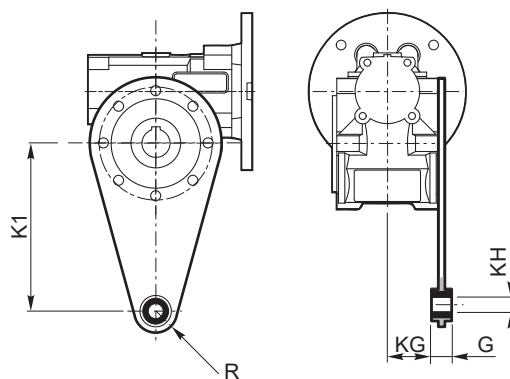
CL 026 (*)

(*)
Nota: disponibile solo per cavo uscita Ø12
Note: available for output hollow shaft Ø12 only

Braccio di reazione

Torque arm

CL	K1	G	KG	KH	R
030	85	14	23	8	15
040	100	14	31	10	18



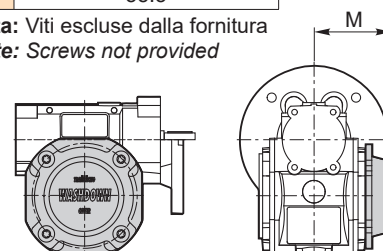
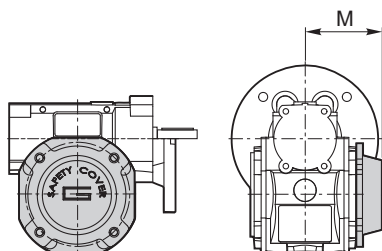
SC - Safety Cover

WD - Kit washdown cover

CL	M
030	47
040	54.5

CL	M
026 *	37.5
030	48
040	55.5

(*) Nota: Viti escluse dalla fornitura
(*) Note: Screws not provided



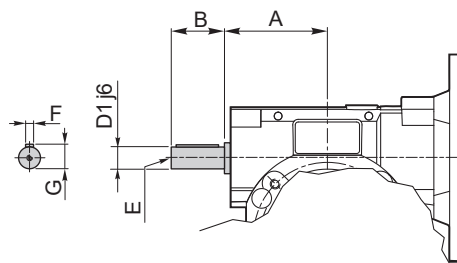
Opzioni

Options

VS - Vite sporgente / Extended input shaft

CL	A	B	D ₁ _{j6}	E	F	G
030	45	20	9	M4	3	10.2
040	53	23	11	M5	4	12.5

Costruito su richiesta
Built on request



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














Motoriduttori CA
AC gearmotors

AC



MINI  **TECNO**™ brand of
TRANSTECNO®



	Indice	Index	Pag. Page
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	A-B Motori elettrici CA autofrenanti SM..BR	Braked AC Electric motors SM..BR	A-A1
	A-C Motori elettrici CA servoventilati SM..SV	AC Electric Motors with forced-ventilation SM..SV	A-A1
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 	A-E Motoriduttori CA ad ingranaggi cilindrici CMG	AC Helical in-line garmotors CMG	A-B1
 	A-F Motoriduttori CA ad assi ortogonali CMB	AC Helical bevel garmotors CMB	A-C1
 	A-G Motoriduttori CA pendolari KFT105 - FT	AC Helical parallel garmotors KFT105 - FT	A-D1
	A-H Motoriduttori CA a vite senza fine CM/CMP	AC Wormgarmotors CM/CMP	A-E1
	A-I Motoriduttori CA combinati a vite senza fine CMM	AC Doble reduction wormgarmotors CMM	A-F1
 	A-L Motoriduttori CA epicicloidali P	AC Planetary garmotors P	A-G1
	A-M Motoriduttori CA combinati WMP	AC Doble reduction garmotors WMP	A-H1

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SM



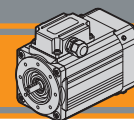
AC

Motori elettrici asincroni CA
AC asynchronous electric motors



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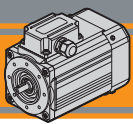




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Dati tecnici motori monofase	<i>Single phase motors technical data</i>	AA5
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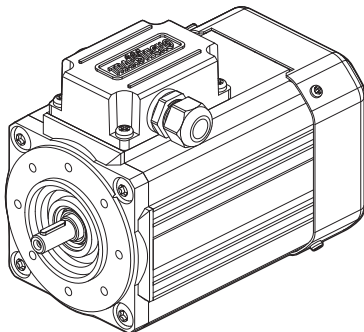
Caratteristiche tecniche

Technical characteristics

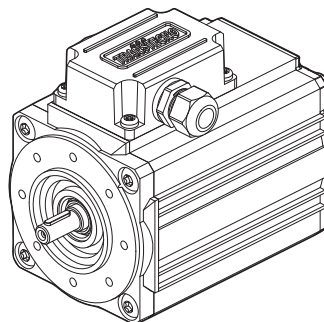
I motori delle serie SMT ed SMM hanno le seguenti caratteristiche principali:

SMT and SMM motor range has the following main features:

- Costruzione compatta
 - Motorizzazioni in corrente alternata monofase e trifase
 - Carcassa estrusa in alluminio anodizzato nero
 - Motore elettrico AC con grado di protezione IP66 eccetto il condensatore.
 - Rumorosità e vibrazioni contenute
 - Isolamento termico di classe F
 - Flangia motore IEC B14
 - Temperatura ambiente: -20°C / +40°C
 - Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
 - Protezione termica PTO 150°C per le taglie 56, 63 e 71.
 - SMT56, SMT63 e SMT71 adatti al funzionamento con alimentazione da inverter.
 - Cava esagonale su albero motore lato NDE.
 - Condensatore di marcia sempre cablato ad esclusione della taglia SMM50.
 - La tolleranza di tensione è $\pm 10\%$ per tutti i motori ad esclusione della taglia 50 ($\pm 5\%$).
 - Disponibili nelle versioni autofrenante, servoventilata e con certificazione UL.
- *Compact design*
 - *AC single phase and three phase motors available*
 - *Black anodized extruded aluminium housing*
 - *AC electric motor in IP66 protection Standard, except capacitor*
 - *Low noise and vibrations*
 - *Class F insulation Standard*
 - *Motor flange IEC B14*
 - *Ambient temperature: -20°C / +40°C*
 - *Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available*
 - *PTO 150°C thermal protection for motor sizes 56, 63 and 71.*
 - *SMT56, SMT63 and SMT71 are suitable for inverter duty.*
 - *Motor shaft hexagon socket on the NDE side.*
 - *Running capacitor always connected, except for SMM50.*
 - *The voltage tolerance is $\pm 10\%$ for all motors, except for size 50 ($\pm 5\%$).*
 - *Brake motors, forced ventilation motors and UL compliance versions available.*

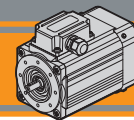


SM .. TEFC



SM .. TENV



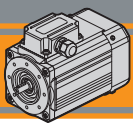

Designazione
Classification

MOTORE TRIFASE / THREE PHASE MOTOR									
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	BR
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options
SMT 	Vedi tabelle See tables	1-2-3-4-5	4	0.04 kW ... 0.75 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC TENV	BR → SV → UL-CSA →

MOTORE MONOFASE / SINGLE PHASE MOTOR									
SMM	63	2	4	0.18 kW	B14	230 V	50 Hz	TEFC	-
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options
SMM 	Vedi tabelle See tables	1-2-3-4	4	0.04 kW ... 0.55 kW	B14	230V 115V (UL-CSA)	50Hz	TEFC TENV	UL-CSA →

Simbologia e formule
Symbols and formulas

P_n	[kW]	Potenza nominale	Rated power
I_n	[A]	Corrente nominale (a 400V)	Rated current (at 400V)
M_n	[Nm]	Coppia nominale	Rated torque
n_n	[rpm]	Velocità nominale	Rated speed
M_s / M_n		Rapporto coppia spunto / coppia nominale	Ratio start torque / rated torque
M_k / M_n		Rapporto coppia massima / coppia nominale	Ratio max torque / rated torque
I_s / I_n		Rapporto corrente di spunto / corrente nominale	Ratio start current / rated current
$\cos\varphi$		Fattore di potenza al carico nominale	Power factor at rated torque load
η		Rendimento al carico nominale	Efficiency at rated torque load
Potenza Power	[HP]	Potenza [kW] x 1.341	Power [kW] x 1.341
Potenza resa P_n P_n output power	[kW]	Potenza assorbita x η	Absorbed power x η
Pot. assorbita Absorbed power	[kW]	$\frac{\sqrt{x} \cdot I \cdot \cos\varphi}{1000}$ (monofase)	$\frac{\sqrt{x} \cdot I \cdot \cos\varphi}{1000}$ (singlephase)
		$\frac{\sqrt{x} \cdot I \cdot \sqrt{3} \cdot \cos\varphi}{1000}$ (trifase)	$\frac{\sqrt{x} \cdot I \cdot \sqrt{3} \cdot \cos\varphi}{1000}$ (threephase)
I_n (230 V)		I_n (400 V) x $\sqrt{3}$	I_n (400 V) x $\sqrt{3}$



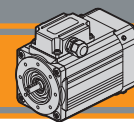
Dati tecnici motori trifase

Three phase motors technical data

SMT Motori trifase / **SMT** Three phase motors

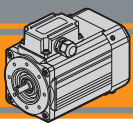
(230-400 V / 50 Hz) poli / poles **4**

	TAGLIA SIZE	P _n [kW]	M _n [Nm]	n _n [min ⁻¹]	I _n (400V) [A]	η %	cosφ	M _s /M _n	I _s /I _n	M _k /M _n	PTO [°C]	Servizio Duty TEFC	Servizio Duty TENV
	5014	0.04	0.30	1290	0.25	34.0	0.68	1.65	1.75	1.70	-	S1	S3 30%
	5024	0.06	0.44	1300	0.35	35.7	0.69	1.55	1.80	1.60			
	5034	0.09	0.65	1315	0.54	38.0	0.64	1.80	2.00	1.85			
	5044	0.12	0.87	1315	0.64	43.0	0.63	1.80	2.00	1.80		S3 75%	
	5624	0.09	0.64	1345	0.45	46.5	0.62	2.50	2.40	2.70	PTO 150°	S1	S3 50%
	5634	0.12	0.89	1300	0.45	52.0	0.74	1.90	2.40	1.90		S3 75%	
IE2	5634 IE2	0.12	0.84	1360	0.48	59.1	0.61	2.70	2.90	2.70		S1	-
	5644	0.18	1.26	1360	0.69	59.0	0.65	2.50	3.00	2.60		S3 75%	S3 50%
	5654	0.25	1.80	1330	0.93	59.0	0.66	2.50	2.80	2.60			
	6324	0.18	1.26	1360	0.69	57.0	0.66	2.50	2.90	2.50		S1	-
IE2	6324 IE2	0.18	1.27	1360	0.65	64.7	0.62	2.50	2.90	2.50			
	6334	0.25	1.74	1375	0.94	62.0	0.64	2.80	3.00	2.80		S3 75%	S3 50%
IE2	6334 IE2	0.25	1.72	1390	0.88	68.5	0.60	3.20	3.50	3.20		S1	-
	6344	0.37	2.60	1360	1.24	65.3	0.66	2.70	3.00	2.70		S3 75%	S3 50% S3 45%
	7124	0.37	2.52	1400	1.10	67.9	0.72	2.75	4.20	2.75			
IE2	7124 IE2	0.37	2.48	1425	1.05	72.7	0.70	2.80	4.90	2.90		S1	-
	7134	0.55	3.76	1395	1.55	70.2	0.73	2.90	4.40	2.90		S3 75%	S3 45%
IE2	7134 IE2	0.55	3.70	1420	1.56	77.1	0.66	3.40	5.20	3.40			
	7144	0.75	5.09	1405	2.00	74.0	0.73	2.90	5.00	2.90		S3 75%	S3 45%
	8024 IE3	0.75	4.96	1440	1.94	82.5	0.68	3.60	6.00	3.70			
IE3	8034 IE3	1.1	7.25	1450	2.91	84.1	0.65	4.00	6.80	4.40	S1	S3 70%	
	9024 IE3	1.5	10.0	1430	3.48	85.3	0.73	3.20	6.30	3.50			
	9034 IE3	2.2	14.9	1410	4.68	86.7	0.79	3.00	6.20	3.30		S3 75%	


Dati tecnici motori monofase
Single phase motors technical data
SMM Motori monofase / SMM Single phase motors

 (230 V / 50 Hz) poli / poles **4**

TAGLIA SIZE	P _n [kW]	M _n [Nm]	n _n [min ⁻¹]	I _n (230V) [A]	η %	cosφ	M _s /M _n	I _s /I _n	M _k /M _n	Cond/cap [μF]	PTO [°C]	Servizio Duty TEFC	Servizio Duty TENV
5014	0.04	0.27	1390	0.60	33.4	0.88	0.74	1.60	1.55	8.0	-	S1	S3 30%
5024	0.06	0.42	1380	0.89	34.3	0.85	0.76	1.70	1.50	12.0			
5034	0.09	0.63	1375	1.10	40.0	0.89	0.80	1.70	1.45	16.0	PTO 150°	S3 75%	S3 50%
5624	0.09	0.63	1370	0.82	48.6	0.98	0.72	1.70	1.45	6.3			
5634	0.12	0.83	1380	1.06	50.3	0.98	0.75	2.10	1.65	9.0			
5644	0.18	1.25	1375	1.50	53.8	0.97	0.70	2.20	1.58	12.5			
6324	0.18	1.33	1290	1.50	54.5	0.97	1.00	1.80	1.45	12.0			
6334	0.25	1.85	1290	1.95	56.8	0.98	0.93	1.90	1.50	16.0			
7124	0.37	2.72	1300	2.78	58.6	0.99	0.77	2.00	1.35	20.0			
7134	0.55	3.95	1330	3.54	68.9	0.98	0.66	2.40	1.40	25.0			
8024	0.75	5.31	1350	4.93	67.4	0.98	0.67	2.50	1.54	35.0		S3 45%	
													S3 40%

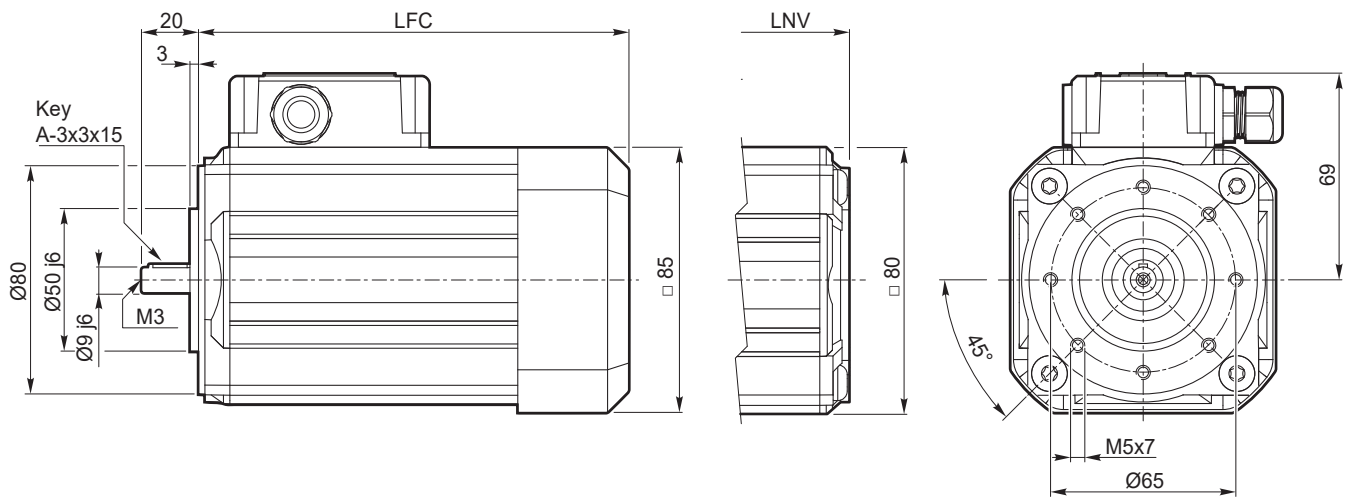


Dimensioni motori trifase

Three phase motors dimensions

3~

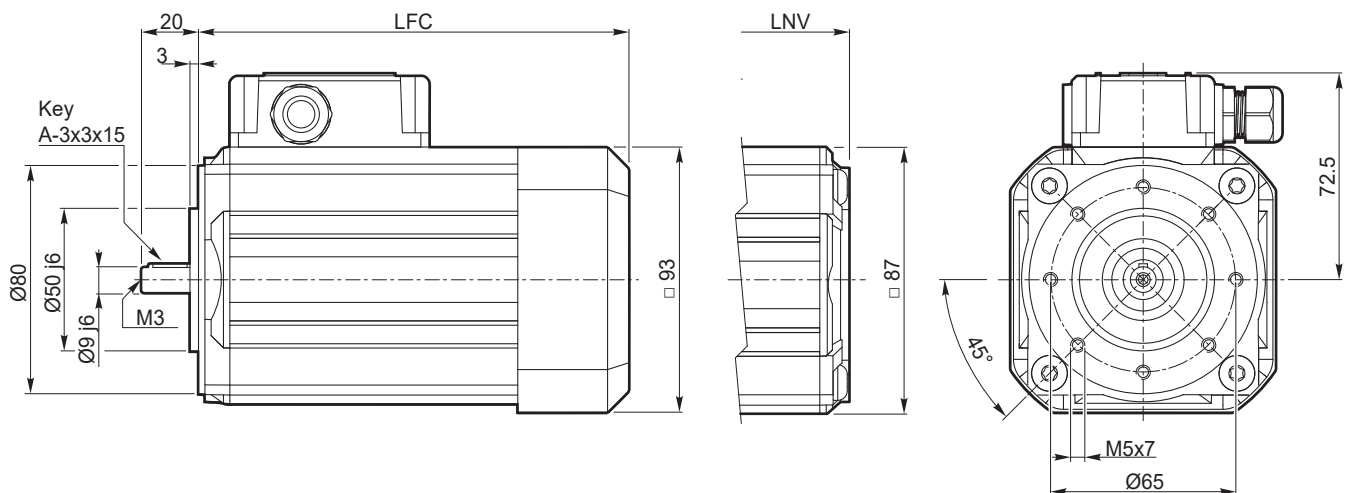
SMT50.. - B14 - TEFC / TENV



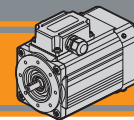
SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
5014	135.5	2.3	108.5	2.2
5024	150.5	2.7	123.5	2.6
5034	175.5	3.5	148.5	3.4
5044	200.5	4.2	173.5	4.1

3~

SMT56.. - B14 - TEFC / TENV



SMT	... TEFC		... TENV	
	LFC	kg	LNV	kg
5624	141	2.9	117	2.8
5634	151	3.2	127	3.1
5634 IE2	171	3.8	-	-
5644	186	4.4	162	4.3
5654	206	5.1	182	5.0

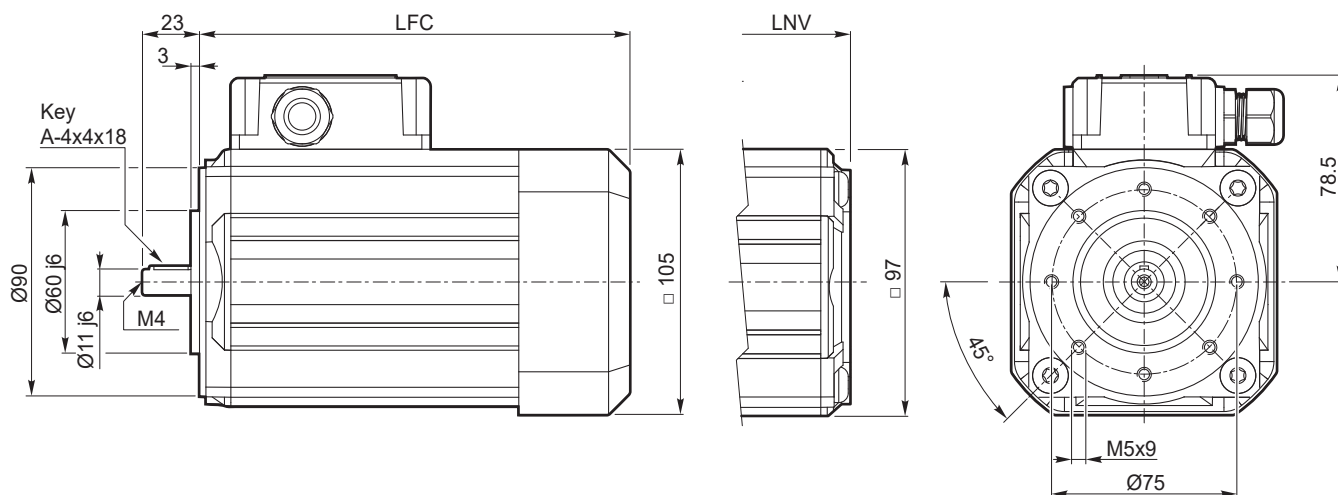


Dimensioni motori trifase

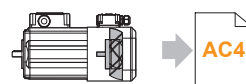
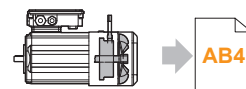
Three phase motors dimensions

3~

SMT63.. - B14 - TEFC / TENV

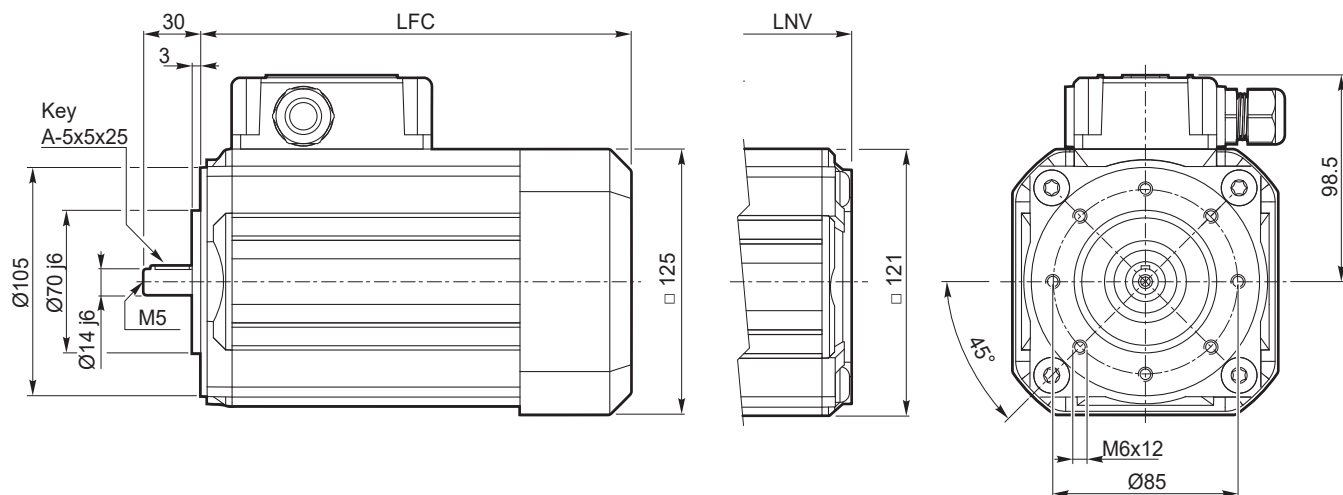


SMT	... TEFC		... TENV	
	LFC	Kg	LNV	Kg
6324	165.5	4.3	138.5	4.2
6324 IE2	180.5	4.9	-	-
6334	180.5	5.0	153.5	4.9
6334 IE2	205.5	6.1	-	-
6344	205.5	6.2	178.5	6.1

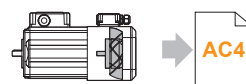
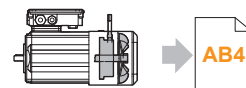


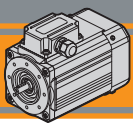
3~

SMT71.. - B14 - TEFC / TENV



SMT	... TEFC		... TENV	
	LFC	Kg	LNV	Kg
7124	174	6.6	145.5	6.4
7124 IE2	189	7.5	-	-
7134	189	7.7	160.5	7.5
7134 IE2	214	9.2	-	-
7144	214	9.4	185.5	9.2



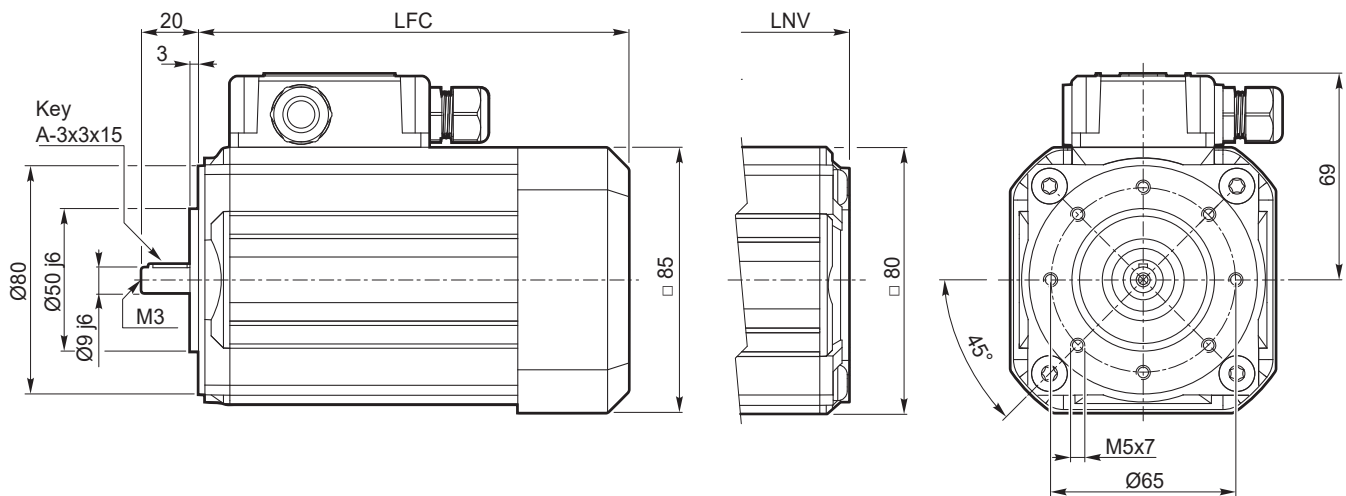


Dimensioni motori monofase

Single phase motors dimensions

1 ~

SMM50.. - B14 - TEFC / TENV



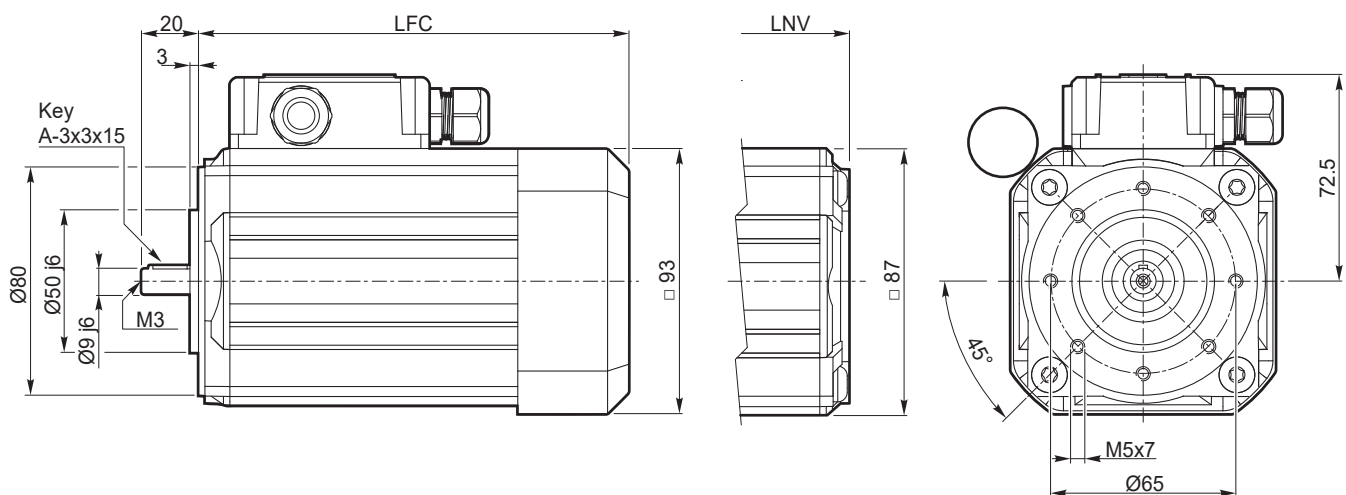
SMM	... TEFC		... TENV	
	LFC	kg	LNV	kg
5014	150.5	2.7	123.5	2.6
5024	175.5	3.5	148.5	3.4
5034	200.5	4.2	173.5	4.1

Nota:
il condensatore sarà fornito a corredo

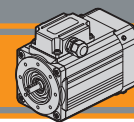
Note:
the capacitor will be supplied separately

1 ~

SMM56.. - B14 - TEFC / TENV



SMM	... TEFC		... TENV	
	LFC	kg	LNV	kg
5624	151	3.3	127	3.2
5634	171	3.9	147	3.8
5644	206	5.0	182	4.9

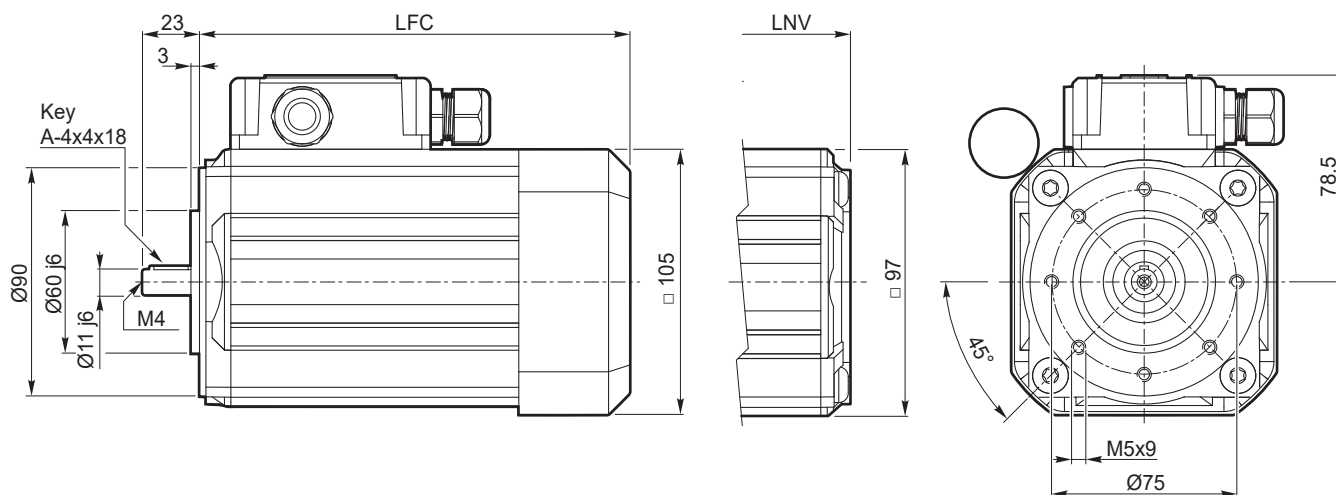


Dimensioni motori monofase

Single phase motors dimensions

1 ~

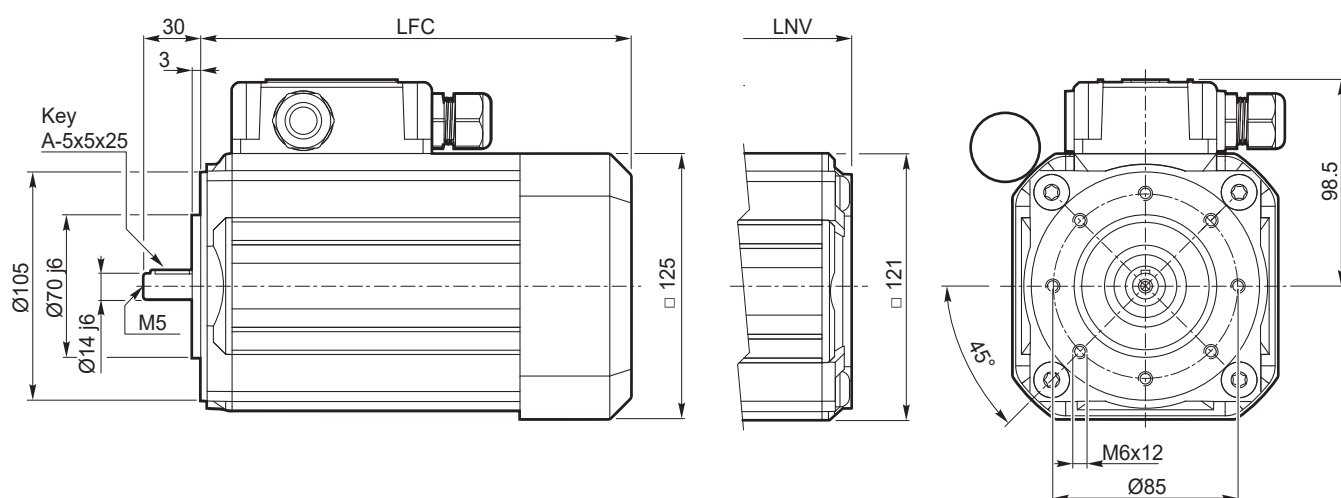
SMM63.. - B14 - TEFC / TENV



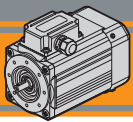
SMM	... TEFC		... TENV	
	LFC	kg	LNV	kg
6324	180.5	5.1	153.5	5.0
6334	205.5	6.2	178.5	6.1

1 ~

SMM71.. - B14 - TEFC / TENV

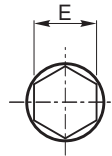
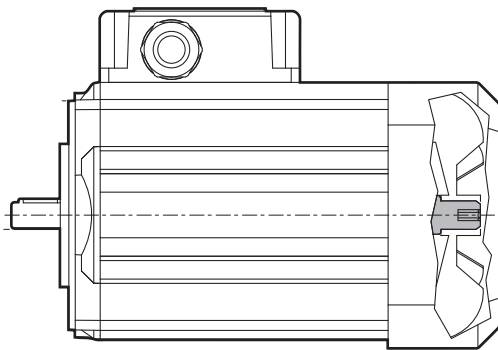


SMM	... TEFC		... TENV	
	LFC	kg	LNV	kg
7124	189	7.3	160.5	7.1
7134	214	9.2	185.5	9.0



Cava esagonale

Hexagonal socket



Esagono / Hexagon

SM..	E
50	
56	4
63	
71	6

Nota:

Installare a monte dell'alimentazione un dispositivo che assicuri la disconnessione della rete omipolare, durante le operazioni di rotazione manuale è obbligatorio l'utilizzo di tale sezionatore.

Il quadro elettrico del motore deve essere lucchettabile al fine di evitare il riarmo non previsto alla rete elettrica.

E' severamente vietata la messa in servizio del motore elettrico senza copriventola opportunamente montata.

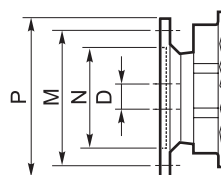
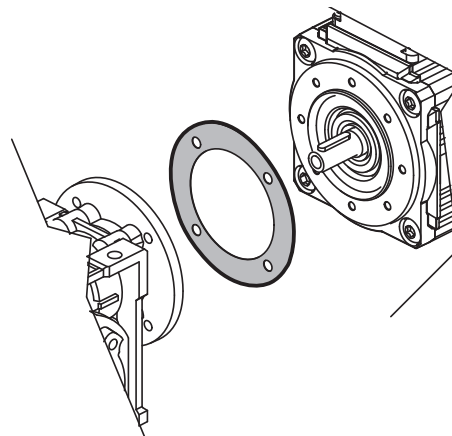
Note:

An omnipolar cut-off device must be fitted upstream of the power supply; the use of this device is mandatory during manual rotation operations.

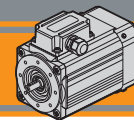
The switchgear for the motor must be padlockable in order to prevent the power supply from being accidentally reset. It is strictly prohibited to put the electric motor into service if the fan cover is not fitted.

Opzione guarnizione CA

Rubber gasket option



Dimensioni IEC / IEC Dimensions			
	56 B14	63 B14	71 B14
N	50	60	70
M	65	75	85
P	80	90	105
D	9	11	14


Grado di protezione IP
IP protection rating

Indica il grado di isolamento meccanico del corpo motore.















1^a cifra protezione alla penetrazione di corpi solidi.

2^a cifra protezione contro la penetrazione d'acqua.

IP protection rating indicates the degree of mechanical insulation of the motor casing.

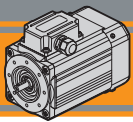
The 1st figure indicates the level of protection against the intrusion of solid matter.

The 2nd figure indicates to which degree the motor is waterproof.

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

Normative di riferimento
Reference Standards

	Europe EN	World IEC	Italy CEI
Requisiti generali per macchine elettriche <i>General requirements electrical machines</i>	EN 60034-1:2010	IEC 60034-1:2010	CEI EN 60034-1:2010
Classificazione del grado di protezione <i>Classification degree of protection provided by enclosures</i>	EN 60034-5:2001	IEC 60034-5:2001	CEI EN 60034-5:2001
Sistema di raffreddamento <i>Cooling system</i>	EN 60034-6:1993	IEC 60034-6:1993	CEI EN 60034-6:1993
Modalità di montaggio <i>Mounting arrangements</i>	EN 60034-7:1993	IEC 60034-7:1993	CEI EN 60034-7:1993



Tipi di servizi IEC

IEC duty cycles

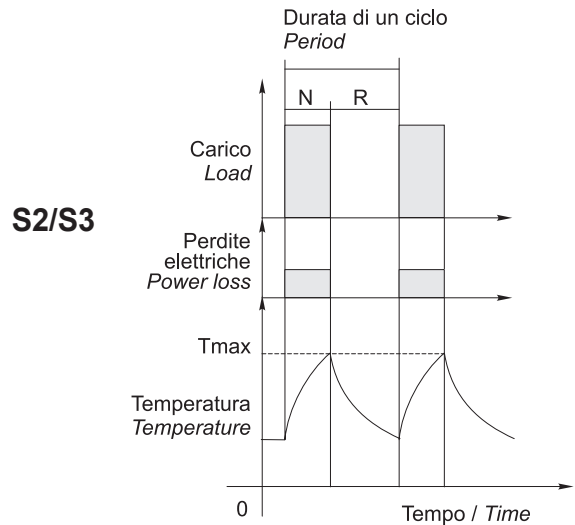
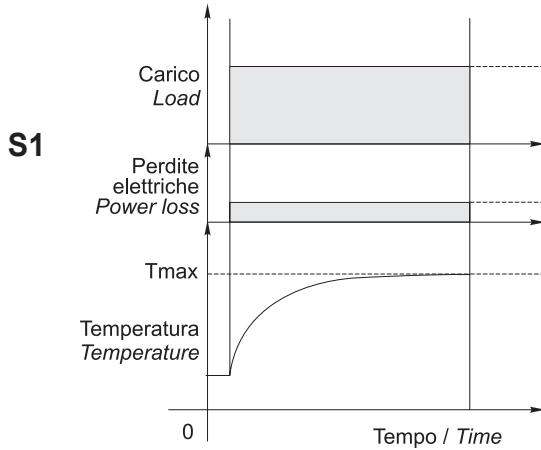
Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

The duty cycle of a motor indicates its use and running cycle.

Grafico servizi più comuni

Most common duty cycles diagram

N = funzionamento / run
R = riposo / rest



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

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

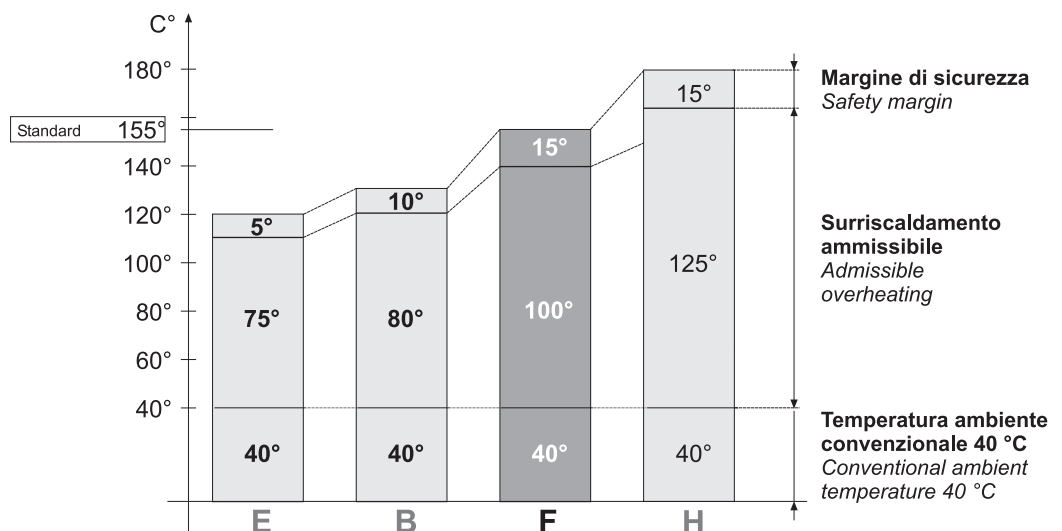
Classe di isolamento termico

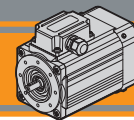
Insulation class

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

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

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





Serie SM - Funzionamento a 60 Hz

Series SM - 60 Hz line power supply

Velocità, coppia e potenza nominale nel funzionamento a 60 Hz varieranno come da tabella:

Speed, torque and rated power in 60 Hz operation is shown in the following table:


	50 Hz	60 Hz
400 V	Vedi dati tecnici / see technical data 	Velocità / speed ≈ + 20% Coppia / torque ≈ -20% Potenza / power ≈ invariata / the same
480 V	Non permesso / not allowed	Velocità / speed ≈ + 20% Coppia / torque ≈ invariata / the same Potenza / power ≈ + 20%

Tabella pressacavi

Table of cable glands data

Serie SMT / SMT Series

Serie SMM / SMM Series

TAGLIA SIZE	Pressacavo Cable gland
50 / 56 / 63	M16x1.5
71	M20x1.5

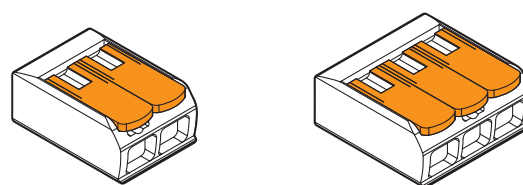
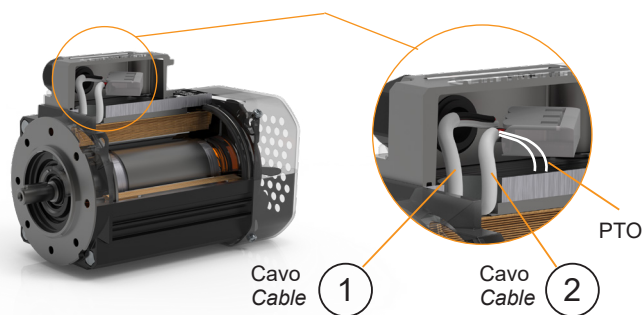
TAGLIA SIZE	Pressacavo Cable gland
50 / 56 / 63	n°2 - M16x1.5
71	M20x1.5 + M16x1.5

Connessioni e collegamenti

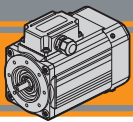
Connection diagram

Riferimenti

References



Morsetto di collegamento a leva a 2 e 3 poli
Splicing connector with lever 2 - and 3 - pin.

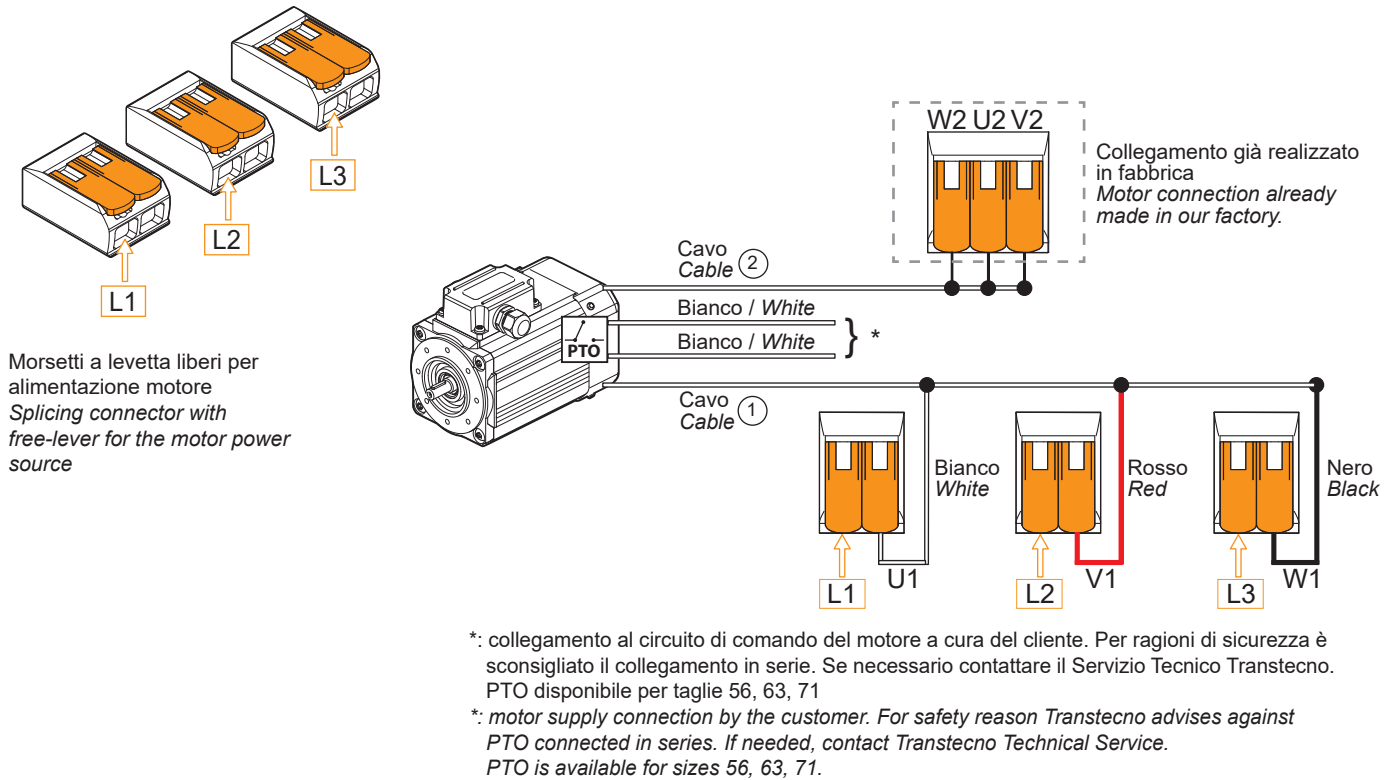


Connessioni e collegamenti

Connection diagram

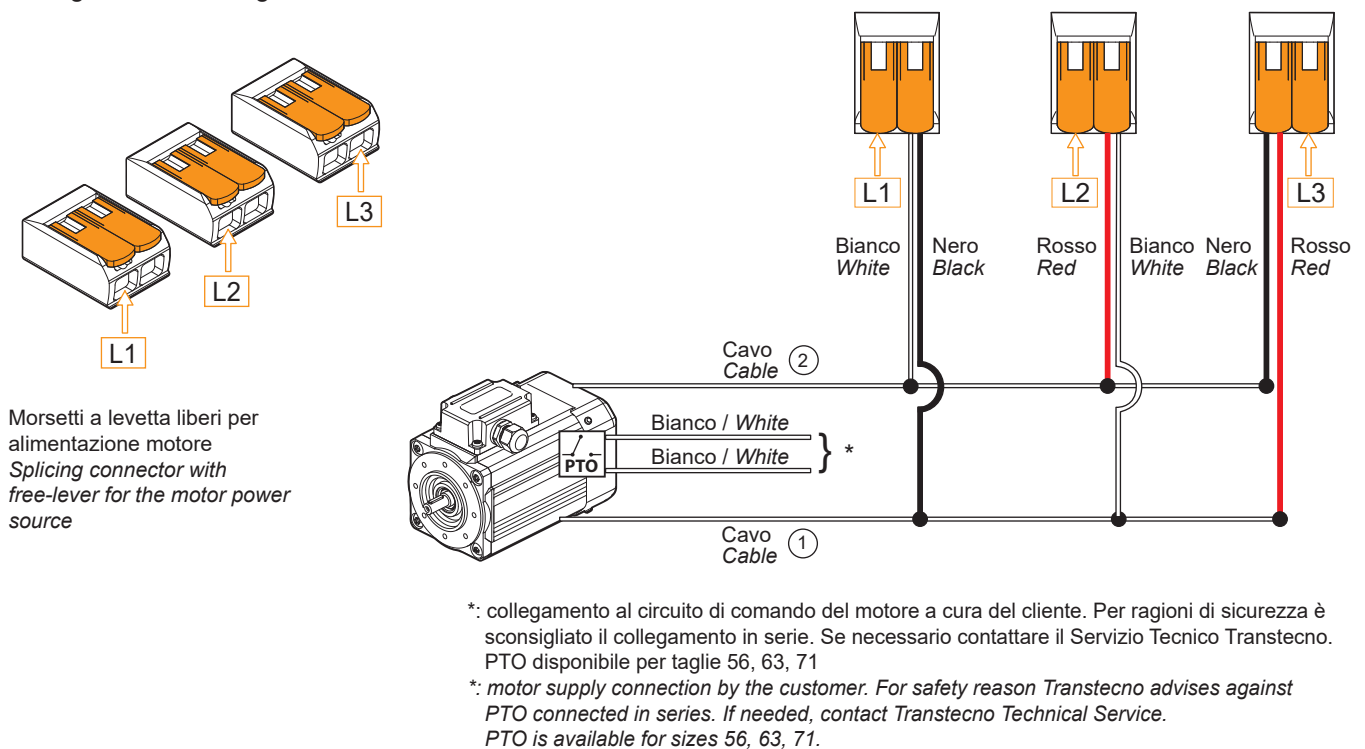
400/460 V - Trifase / Three phase

Collegamento a stella / Star connection



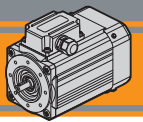
230 V - Trifase / Three phase

Collegamento a triangolo / Delta connection



I motori della serie SM sono forniti in collegamento a stella, lo schema di collegamento a triangolo sopra riportato fornisce una chiara indicazione delle modifiche che il cliente può apportare in autonomia. Se necessario contattare il Servizio Tecnico Transtecno.

The SM series is supplied in star connection, the delta connection diagram shown above provides a clear indication of the modification that the customer can make independently. If needed, contact Transtecno Technical Service.

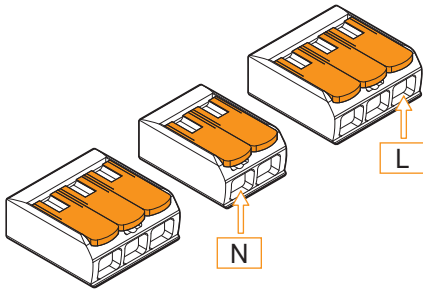


Connessioni e collegamenti

Connection diagram

230 V - Monofase / Single phase

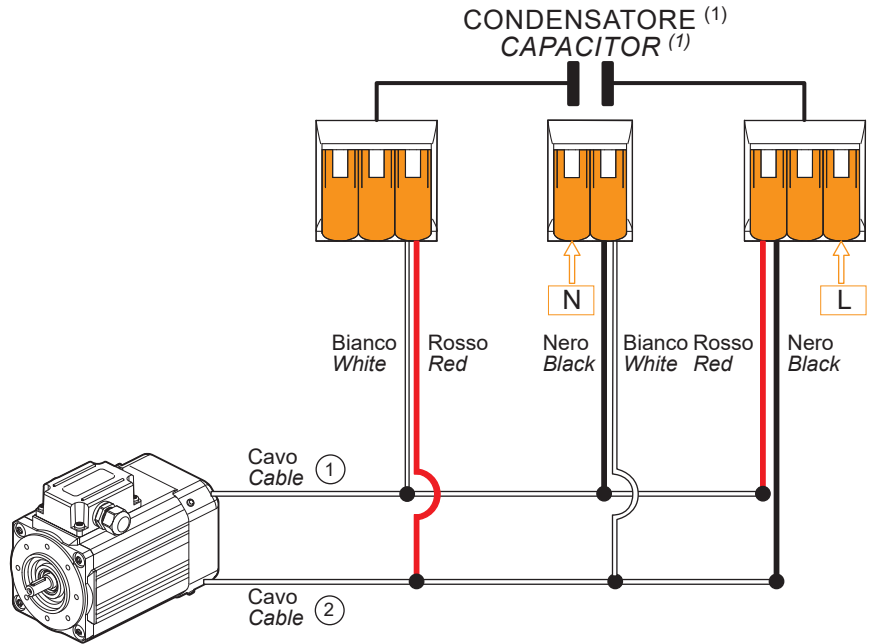
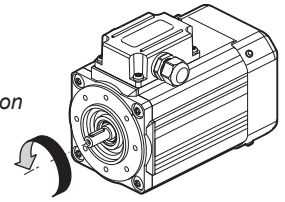
Monofase SMM 50... / Single phase SMM 50...



Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

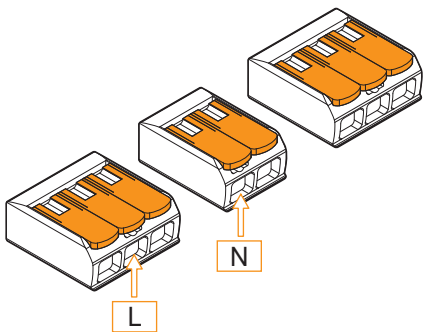
(1): il condensatore sarà fornito a corredo.
(1): the capacitor will be supplied separately.

Senso di rotazione antiorario
Counter-clockwise direction of rotation



230 V - Monofase / Single phase

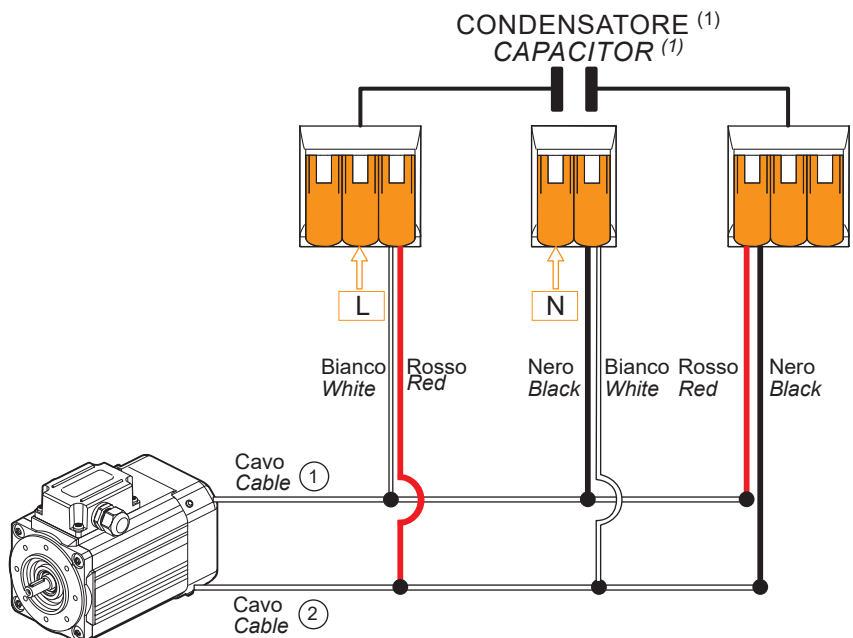
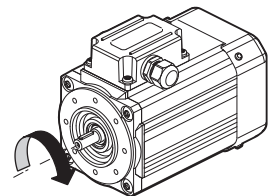
Monofase SMM 50... / Single phase SMM 50...



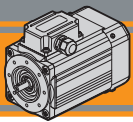
Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

(1): il condensatore sarà fornito a corredo.
(1): the capacitor will be supplied separately.

Senso di rotazione orario
Clockwise direction of rotation



AC

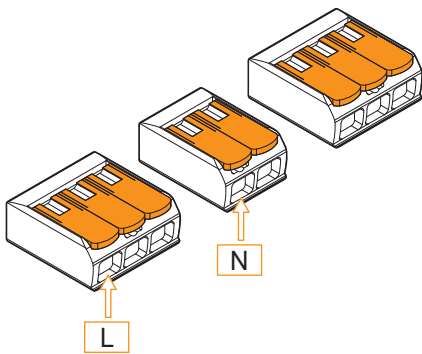


Connessioni e collegamenti

Connection diagram

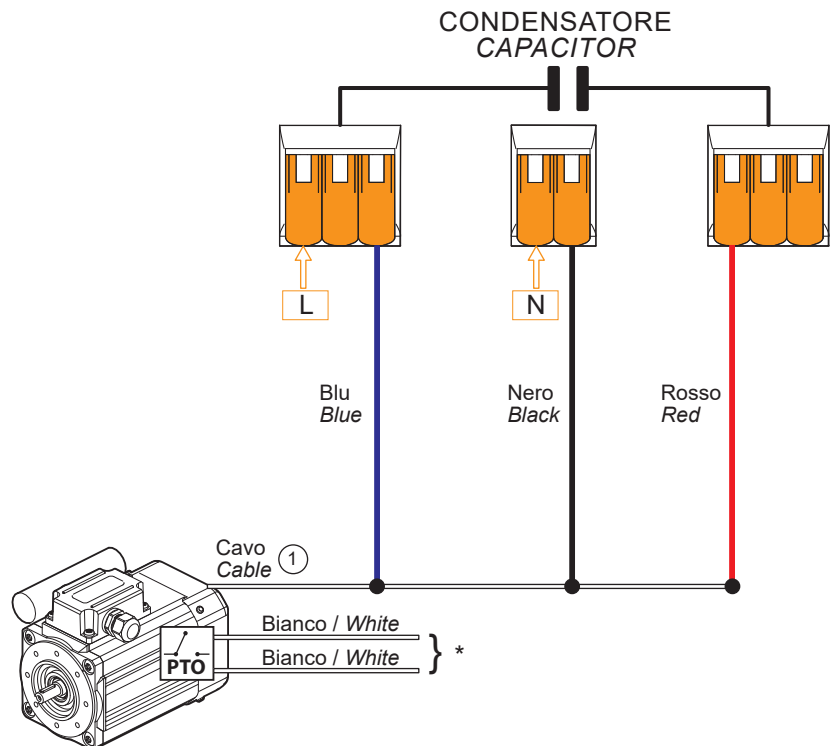
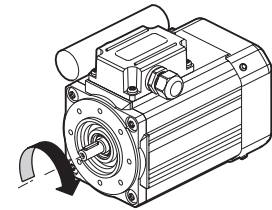
230 V - Monofase / Single phase

Monofase da SMM 56... a SMM 71... / Single phase from SMM 56... to SMM 71...



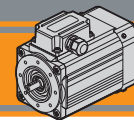
Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

Senso di rotazione orario
Clockwise direction of rotation



*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71

*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71.

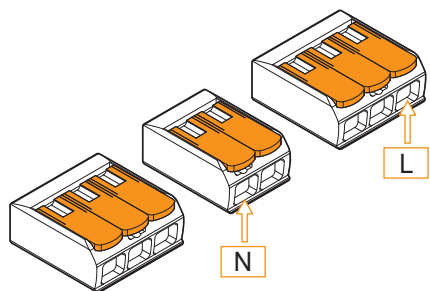


Connessioni e collegamenti

Connection diagram

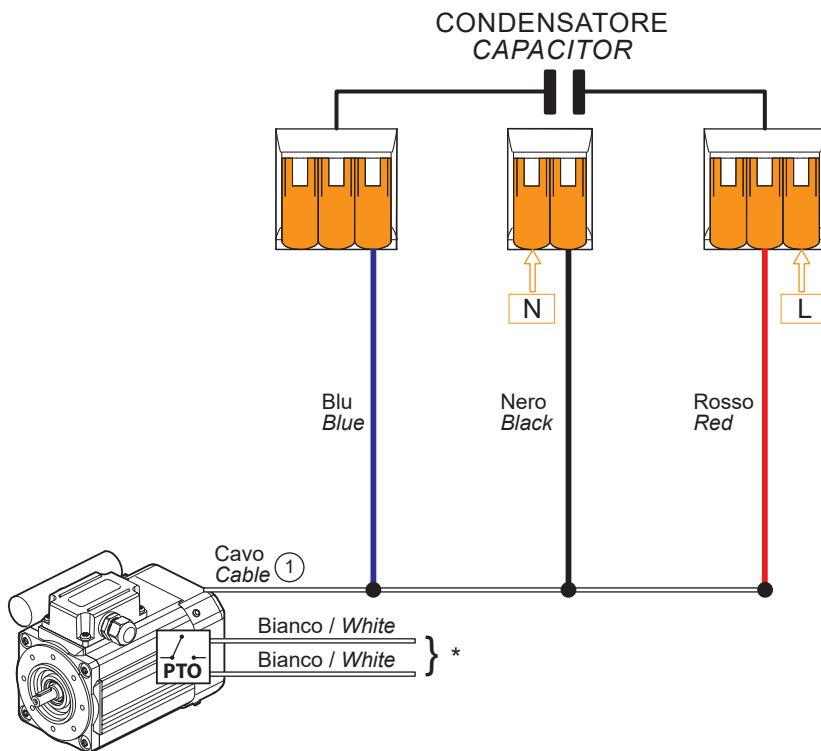
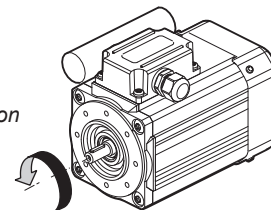
230 V - Monofase / Single phase

Monofase da SMM 56... a SMM 71... / Single phase from SMM 56... to SMM 71...



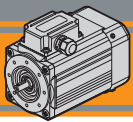
Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

Senso di rotazione antiorario
Counter-clockwise direction of rotation



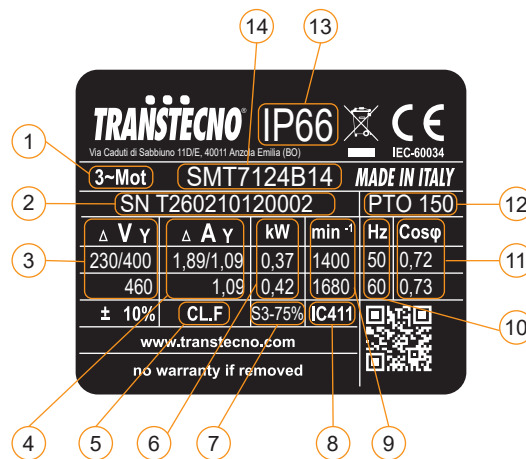
*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71

*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71.



Targhetta

Nameplate



Pos.	Descrizione	Description
1	Tipo di alimentazione	Power supply
2	Numero di serie	Serial number
3	Tensione di alimentazione	Supply voltage
4	Corrente nominale	Rated current
5	Classe di isolamento	Insulation class
6	Potenza nominale	Rated power
7	Servizio	Duty
8	Ventilazione	Fan cooling
9	Velocità nominale	Rated speed
10	Frequenza nominale	Rated frequency
11	Fattore di potenza	Power factor
12	Protezione termica PTO 150°C	PTO 150°C Thermal protection
13	Grado di protezione IP	IP protection rating
14	Tipo motore	Motor type

MINI  **TECNO**™
small but strong

SM..BR



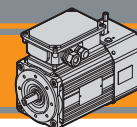
Motori elettrici CA autofrenanti
AC electric motors with brake



AC

MINI  **TECNO**™ brand of
TRANSTECNO®



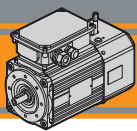


BRAKE

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Cava esagonale	<i>Hexagonal socket</i>	AB5
Opzione guarnizione CA	<i>Rubber gasket option</i>	AB5
Gradi di protezione IP	<i>IP protection rating</i>	AB6
Tipo di servizio IEC	<i>IEC duty cycles</i>	AB7
Classe di isolamento termico	<i>Insulation class</i>	AB7
Tabella pressacavi	<i>Table of cable glands data</i>	AB7
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Targhetta	<i>Nameplate</i>	AB9

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

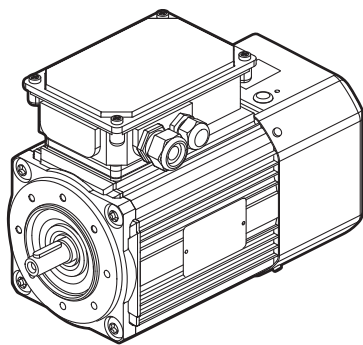
Technical characteristics

I motori autofrenanti delle serie SMT..BR hanno le seguenti caratteristiche principali:

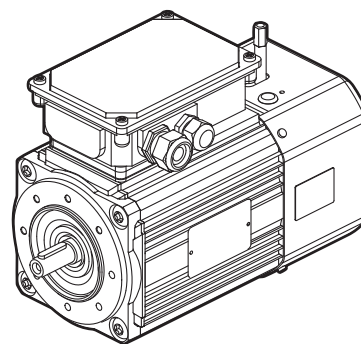
SMT..BR braked motor range has the following main features:

- Costruzione compatta
- Motorizzazioni in corrente alternata trifase
- Carcasa estrusa in alluminio anodizzato nero
- Motore elettrico AC con grado di protezione IP66 (freno IP66 e IP65)
- Rumorosità e vibrazioni contenute
- Isolamento termico di classe F
- Flangia motore IEC B14
- Temperatura ambiente: 0°C / + 40°C (Per utilizzo a temperature diverse contattare il ns. servizio tecnico)
- Disponibili nella versione ventilata TEFC (servizio S1)
- Protezioni termiche PTO 150°C
- Adatti al funzionamento con alimentazione da inverter (Richiedere opzione freno con alimentazione separata)
- Cava esagonale su albero motore lato NDE.
- La tolleranza di tensione è ±10% per tutti i motori
- Il freno è a corrente continua

- *Compact design*
- *AC three phase motors available*
- *Black anodized extruded aluminium housing*
- *AC electric motor in IP66 protection Standard (IP66 and IP65 brake)*
- *Low noise and vibrations*
- *Class F insulation Standard*
- *Motor flange IEC B14*
- *Ambient temperature: 0°C / +40°C (For different temperatures contact Transtecno Technical Dept)*
- *Fan cooled TEFC (duty S1) available*
- *PTO 150°C thermal protection*
- *Suitable for running with frequency converter (Request brake option with separate power supply)*
- *Motor shaft hexagon socket on the NDE side*
- *The voltage tolerance is ±10% for all motors*
- *The brake is DC*



SMT..TEFC BR



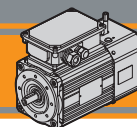
SMT..TEFC BRL



Designazione

Classification

MOTORE TRIFASE AUTOFRENANTE / THREE PHASE BRAKED MOTOR									
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	BR
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Freno - Leva di sblocco Brake - Hand-release lever
SMT	Vedi tabelle See tables	1-2-3-4-5	4	0.18 kW ... 0.55 kW	B14	230-400 V 460V a richiesta on request	50Hz 60Hz	TEFC	BR BRL



Simbologia e formule

Symbols and formulas

P_n	[kW]	Potenza nominale	Rated power
I_n	[A]	Corrente nominale (a 400V)	Rated current (at 400V)
M_n	[Nm]	Coppia nominale	Rated torque
n_n	[rpm]	Velocità nominale	Rated speed
M_s / M_n		Rapporto coppia spunto / coppia nominale	Ratio start torque / rated torque
M_k / M_n		Rapporto coppia massima / coppia nominale	Ratio max torque / rated torque
M_b	[Nm]	Coppia frenante	Braking torque
I_s / I_n		Rapporto corrente di spunto / corrente nominale	Ratio start current / rated current
$\cos\phi$		Fattore di potenza al carico nominale	Power factor at rated torque load
η		Rendimento al carico nominale	Efficiency at rated torque load
Potenza Power	[HP]	Potenza [kW] x 1.341	Power [kW] x 1.341
Potenza resa P_n P_n output power	[kW]	Potenza assorbita x η	Absorbed power x η
Pot. assorbita Absorbed power	[kW]	$\frac{\sqrt{x} \cdot I \cdot x \cdot \cos\phi}{1000}$ (monofase)	$\frac{\sqrt{x} \cdot I \cdot x \cdot \cos\phi}{1000}$ (singlephase)
		$\frac{\sqrt{x} \cdot I \cdot \sqrt{3} \cdot x \cdot \cos\phi}{1000}$ (trifase)	$\frac{\sqrt{x} \cdot I \cdot \sqrt{3} \cdot x \cdot \cos\phi}{1000}$ (threephase)
I_n (230 V)		I_n (400 V) x $\sqrt{3}$	I_n (400 V) x $\sqrt{3}$

Dati tecnici

Technical data

SMT..BR Motori trifase autofrenanti / SMT..BR Three phase motors with brake (230-400 V / 50 Hz) poli / poles 4

TAGLIA SIZE	P_n [kW]	M_n [Nm]	n_n [min ⁻¹]	I_n (400V) [A]	η %	$\cos\phi$	M_s/M_n	I_s/I_n	M_k/M_n	PTO [°C]	Servizio Duty TEFC	IP Motore Motor	M_b [Nm]	IP Freno Brake
SMT6324B14BR(L)	0.18	1.26	1360	0.69	57.0	0.66	2.50	2.90	2.50	PTO 150°	S3 75%	66	4	66
SMT6334B14BR(L)	0.25	1.74	1375	0.94	62.0	0.64	2.80	3.00	2.80				4	66
SMT7124B14BR(L)	0.37	2.52	1400	1.10	67.9	0.72	2.75	4.20	2.75				7,5	65
SMT7134B14BR(L)	0.55	3.76	1395	1.55	70.2	0.73	2.90	4.40	2.90				7,5	65

I freni adottati sono freni elettromagnetici ad azione negativa: l'azione frenante viene quindi esercitata in assenza di alimentazione.

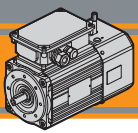
Il freno è a corrente continua e, in configurazione standard, viene alimentato direttamente da una fase del motore, passando attraverso un raddrizzatore alloggiato all'interno della morsettiera. Per le applicazioni in cui si rende necessario, come ad esempio l'azionamento tramite inverter, è possibile richiedere l'alimentazione del freno separata 230Vac ±10% 50Hz. Sono disponibili anche le versioni 400Vac ±10% 50Hz o 24Vdc.

La leva di sblocco è una opzione che va specificata in fase di ordine.

The brakes adopted are negative action electromagnetic brakes: the braking action is performed in the absence of power.

The brake is DC and, in standard configuration, is powered directly by a phase of the motor, passing through a rectifier housed inside the terminal block. For the applications in which it is required, like the ones with motor driven by inverter, it is possible to request 230Vac ± 10% 50Hz separate brake power supply. 400Vac ± 10% 50Hz or 24Vdc power supply are available on request.

The release lever is an option that must be requested when ordering.

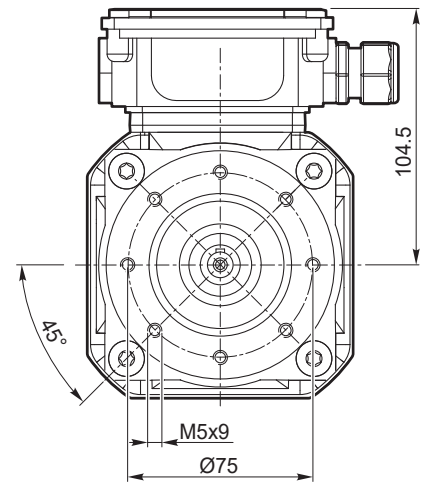
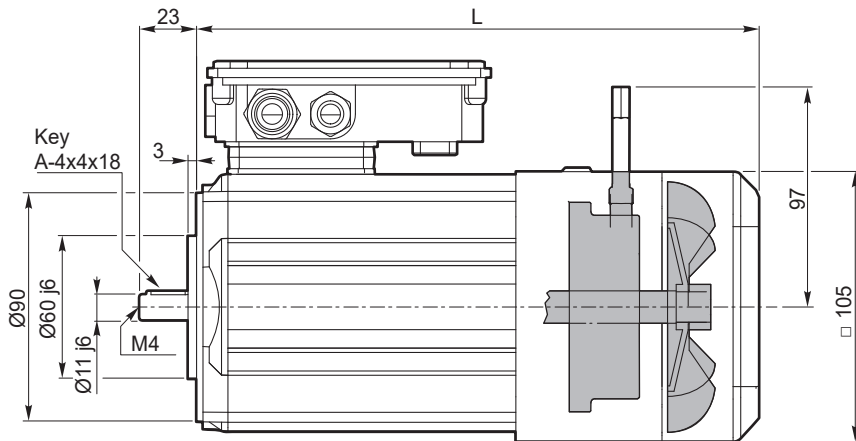


Dimensioni motori trifase

Three phase motors dimensions

3~

SMT63.. - B14 - TEFC - BR (L)



Nota:

La leva di sblocco è una opzione che va specificata in fase di ordine.

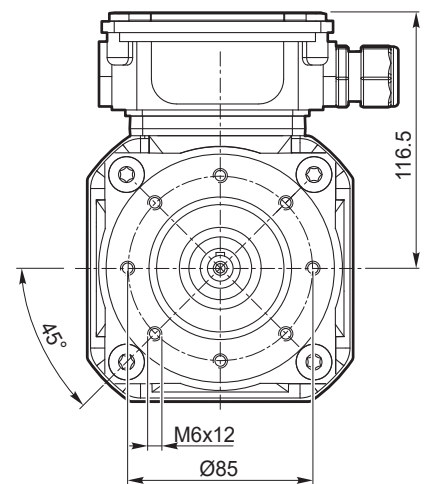
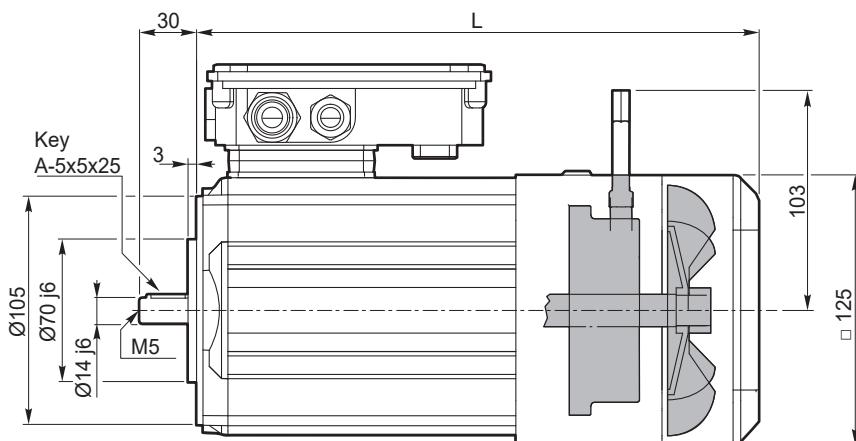
Note:

The release lever is an option that must be requested when ordering.

SMT..BR	... TEFC	
	L	Kg
6324	211	5.8
6334	226	6.5

3~

SMT71.. - B14 - TEFC - BR (L)



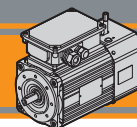
Nota:

La leva di sblocco è una opzione che va specificata in fase di ordine.

Note:

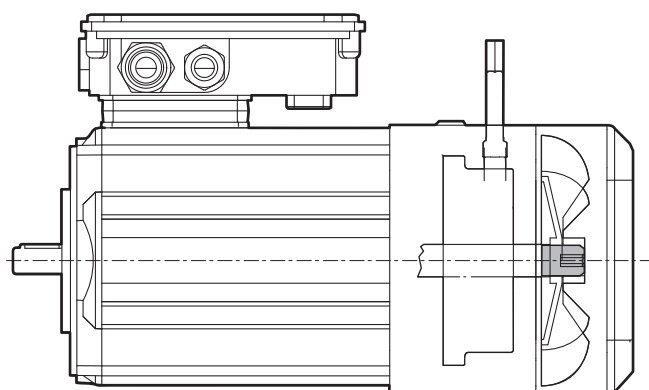
The release lever is an option that must be requested when ordering.

SMT..BR	... TEFC	
	L	Kg
7124	221	7.8
7134	236	8.9



Cava esagonale

Hexagonal socket



Esagono / Hexagon

SM..	E
63	4
71	6

Nota:

Installare a monte dell'alimentazione un dispositivo che assicuri la disconnessione della rete omnipolare, durante le operazioni di rotazione manuale è obbligatorio l'utilizzo di tale sezionatore.

Il quadro elettrico del motore deve essere lucchettabile al fine di evitare il riarmo non previsto alla rete elettrica.

E' severamente vietata la messa in servizio del motore elettrico senza copriventola opportunamente montata.

Note:

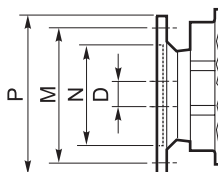
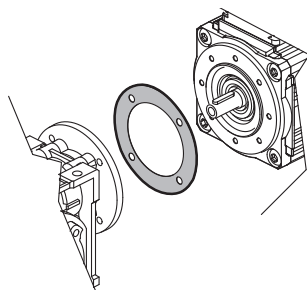
An omnipolar cut-off device must be fitted upstream of the power supply; the use of this device is mandatory during manual rotation operations.

The switchgear for the motor must be padlockable in order to prevent the power supply from being accidentally reset. It is strictly prohibited to put the electric motor into service if the fan cover is not fitted.

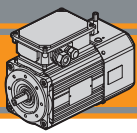
AC

Opzione guarnizione CA

Rubber gasket option



Dimensioni IEC / IEC Dimensions		
	63 B14	71 B14
N	60	70
M	75	85
P	90	105
D	11	14



Grado di protezione IP

IP protection rating

Indica il grado di isolamento meccanico del corpo motore.















1^a cifra protezione alla penetrazione di corpi solidi.

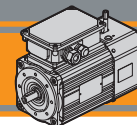
2^a cifra protezione contro la penetrazione d'acqua.

IP protection rating indicates the degree of mechanical insulation of the motor casing.

The 1st figure indicates the level of protection against the intrusion of solid matter.

The 2nd figure indicates to which degree the motor is waterproof.

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



Tipi di servizi IEC

IEC duty cycles

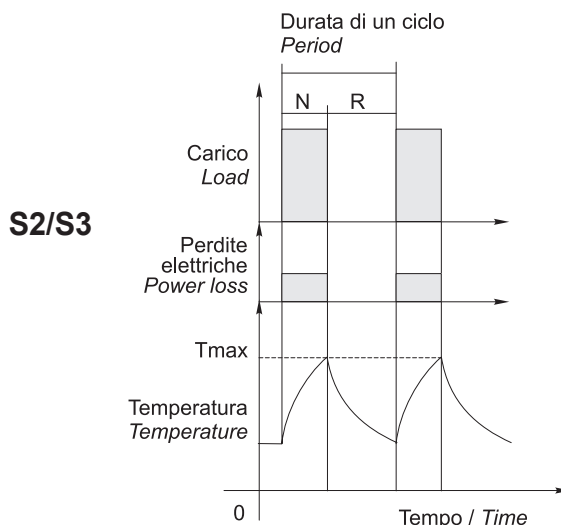
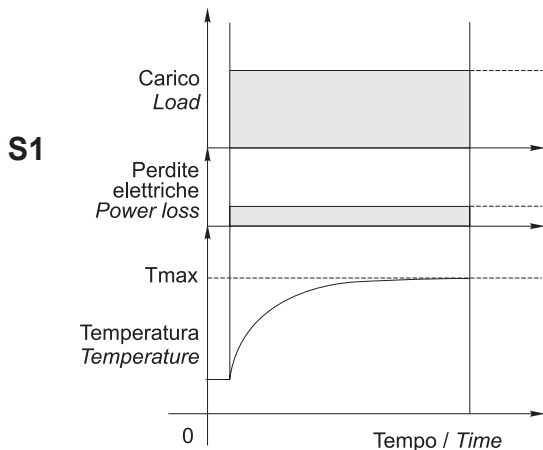
Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

The duty cycle of a motor indicates its use and running cycle.

Grafico servizi più comuni

Most common duty cycles diagram

N = funzionamento / run
R = riposo / rest



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

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

Classe di isolamento termico

Insulation class

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

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

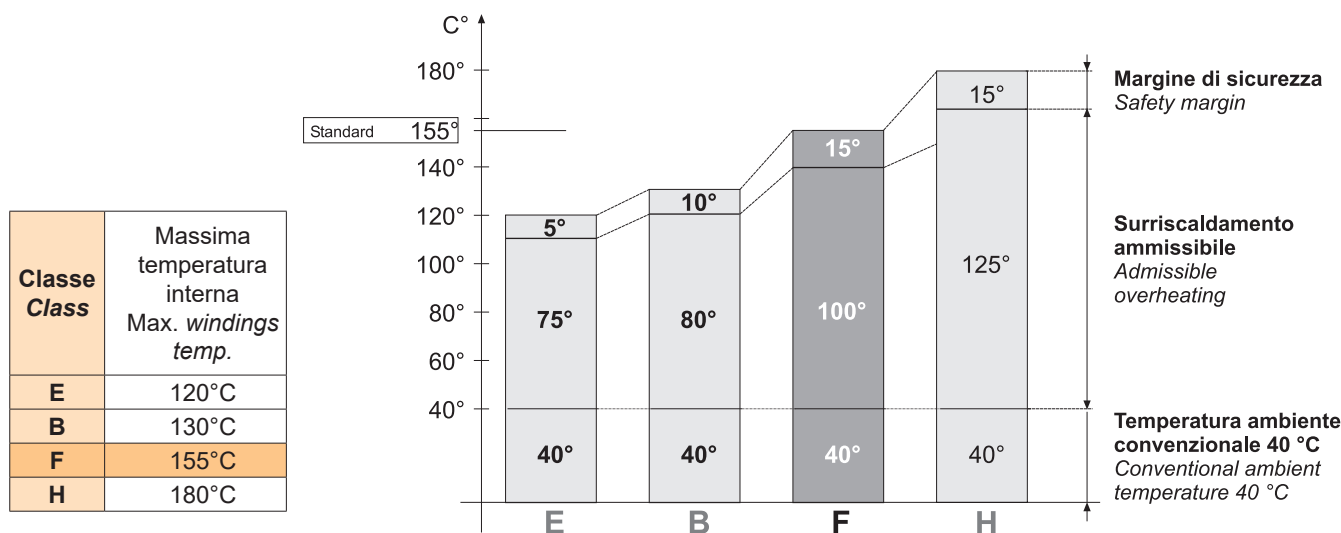
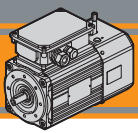


Tabella pressacavi

Table of cable glands data

Serie **SM..BR / SM..BR** Series

TAGLIA SIZE	Pressacavo Cable gland
63 / 71	1x M20x1.5

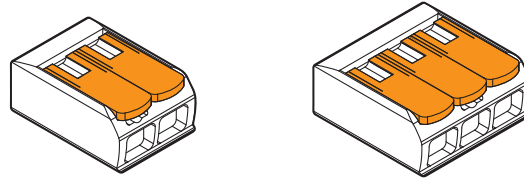


Connessioni e collegamenti

Connection diagram

Riferimenti

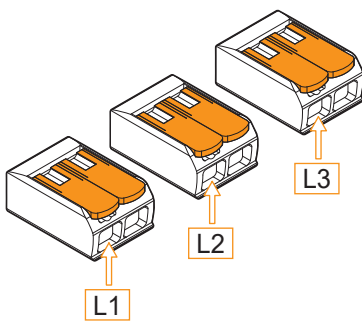
References



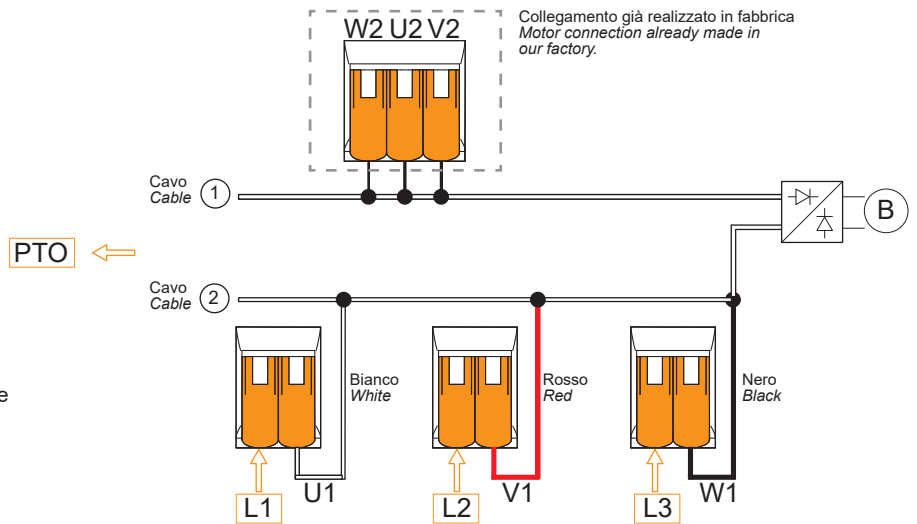
Morsetto di collegamento a leva a 2 e 3 poli
Splicing connector with lever 2 - and 3 - pin.

400/460 V - Trifase / three phase

Collegamento a stella / Star connection

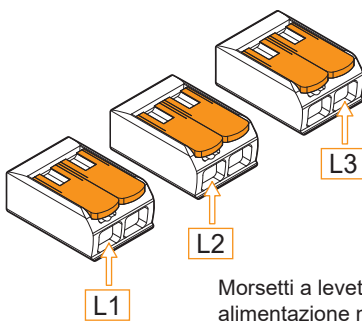


Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source



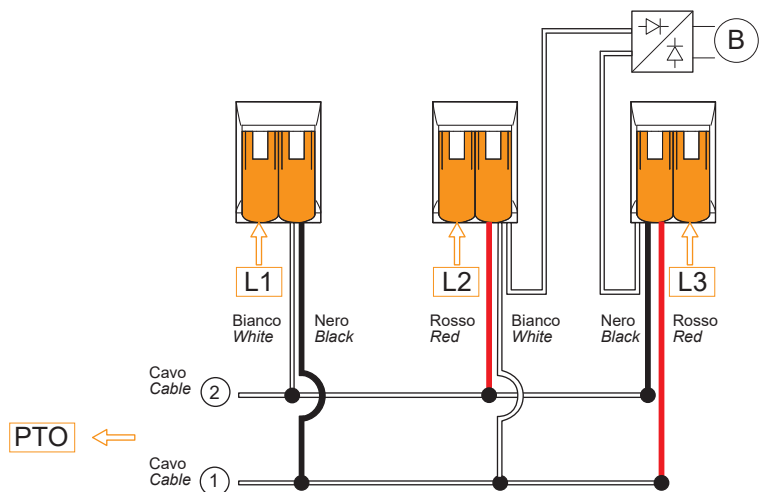
230 V - Trifase / three phase

Collegamento a triangolo / Delta connection



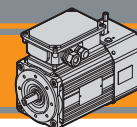
Morsetti a levetta liberi per alimentazione motore

Splicing connector with free-lever for the motor power source



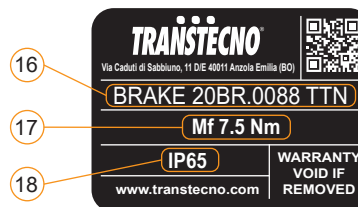
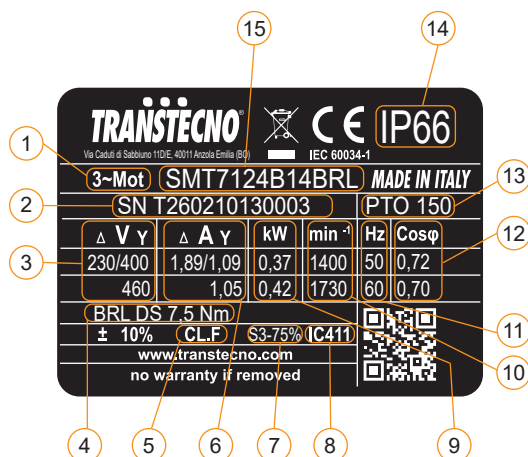
I motori della serie SM sono forniti in collegamento a stella, lo schema di collegamento a triangolo sopra riportato fornisce una chiara indicazione delle modifiche che il cliente può apportare in autonomia. Se necessario contattare il Servizio Tecnico Transtecno.

The SM series is supplied in star connection, the delta connection diagram shown above provides a clear indication of the modification that the customer can make independently. If needed, contact Transtecno Technical Service.



Targhetta

Nameplate



Pos.	Descrizione	Description
1	Tipo di alimentazione	Power supply
2	Numero di serie	Serial number
3	Tensione di alimentazione	Supply voltage
4	Tipo freno	Brake type
5	Classe di isolamento	Insulation class
6	Corrente nominale	Rated current
7	Servizio	Duty
8	Ventilazione	Fan cooling
9	Potenza nominale	Rated power
10	Velocità nominale	Rated speed
11	Frequenza nominale	Rated frequency
12	Fattore di potenza	Power factor
13	Protezione termica PTO 150°C	PTO 150°C Thermal protection
14	Grado di protezione IP motore	Motor IP protection rating
15	Tipo motore	Motor type
16	Codice freno	Brake code
17	Coppia frenante	Braking torque
18	Grado di protezione IP freno	Brake IP protection rating

MINI  **TECNO**™
small but strong

SM..SV



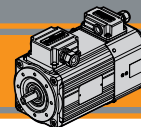
AC

Motori elettrici CA servoventilati
AC electric motors with forced-ventilation



MINI  **TECNO**™ brand of
TRANSTECNO®

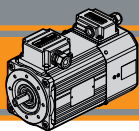




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Designazione	<i>Classification</i>	AC2
Simbologia e formule	<i>Symbols and formulas</i>	AC3
Dati tecnici	<i>Technical data</i>	AC3
Dimensioni motori trifase	<i>Three phase motors dimensions</i>	AC4
Opzione guarnizione CA	<i>Rubber gasket option</i>	AC5
Gradi di protezione IP	<i>IP protection rating</i>	AC5
Tipo di servizio IEC	<i>IEC duty cycles</i>	AC6
Classe di isolamento termico	<i>Insulation class</i>	AC6
Serie SM - Funzionamento a 60 Hz	<i>Series SM - 60 Hz line power supply</i>	AC7
Tabella pressacavi	<i>Table of cable glands data</i>	AC7
Connessioni e collegamenti - Motore	<i>Connection diagram - Motor</i>	AC7
Connessioni e collegamenti - Servoventola	<i>Connection diagram - Servo fan</i>	AC9
Targhetta	<i>Nameplate</i>	AC10

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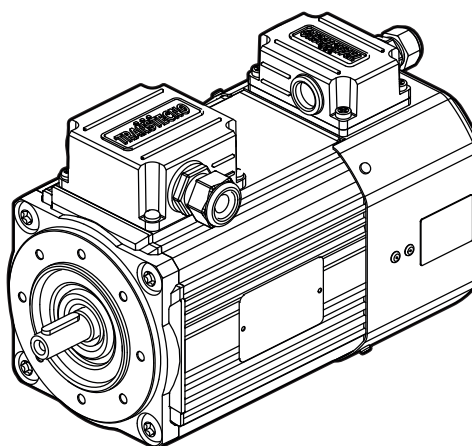
Caratteristiche tecniche

Technical characteristics

I motori delle serie SMT..SV hanno le seguenti caratteristiche principali:

SMT..SV motor range has the following main features:



- Costruzione compatta
 - Motorizzazioni in corrente alternata trifase
 - Carcasa estrusa in alluminio anodizzato nero
 - Motore elettrico AC con grado di protezione IP 66 (solo motore - servoventola con grado di protezione IP44)
 - Rumorosità e vibrazioni contenute
 - Isolamento termico di classe F
 - Flangia motore IEC B14
 - Temperatura ambiente: 0°C / + 40°C (Per utilizzo a temperature diverse contattare il ns. servizio tecnico)
 - Protezioni termiche PTO 150°C
 - Adatti al funzionamento con alimentazione da inverter
 - La tolleranza di tensione è ±10% per tutti i motori
- Compact design
 - AC three phase motors available
 - Black anodized extruded aluminium housing
 - AC Electric motors with IP66 Protection standard (only motor - Servo fan with IP44 protection Standard)
 - Low noise and vibrations
 - Class F insulation Standard
 - Motor flange IEC B14
 - Ambient temperature: 0°C / +40°C (For different temperatures contact Transtecno Technical Dept)
 - PTO 150°C thermal protection
 - Suitable for running with frequency converter
 - The voltage tolerance is ±10% for all motors

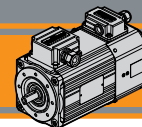


SMT..SV

Designazione

Classification

MOTORE TRIFASE SERVOVENTILATO / THREE PHASE MOTOR WITH FORCED-VENTIATION								
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	SV
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling
SMT	Vedi tabelle See tables	1-2-3-4-5	4	0.18 kW ... 0.75 kW	B14	230-400 V 460V a richiesta on request	50Hz 60Hz	SV
								
								


Simbologia e formule
Symbols and formulas

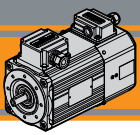
P_n	[kW]	Potenza nominale	Rated power
I_n	[A]	Corrente nominale (a 400V)	Rated current (at 400V)
M_n	[Nm]	Coppia nominale	Rated torque
n_n	[rpm]	Velocità nominale	Rated speed
M_s / M_n		Rapporto coppia spunto / coppia nominale	Ratio start torque / rated torque
M_k / M_n		Rapporto coppia massima / coppia nominale	Ratio max torque / rated torque
I_s / I_n		Rapporto corrente di spunto / corrente nominale	Ratio start current / rated current
$\cos\varphi$		Fattore di potenza al carico nominale	Power factor at rated torque load
η		Rendimento al carico nominale	Efficiency at rated torque load
P_{sf}	[W]	Potenza assorbita servoventola	Electric fan power
Potenza Power	[HP]	Potenza [kW] x 1.341	Power [kW] x 1.341
Potenza resa P_n P_n output power	[kW]	Potenza assorbita x η	Absorbed power x η
Pot. assorbita Absorbed power	[kW]	$\frac{\sqrt{x} \cdot I \cdot \cos\varphi}{1000}$ (monofase)	$\frac{\sqrt{x} \cdot I \cdot \cos\varphi}{1000}$ (singlephase)
		$\frac{\sqrt{x} \cdot I \cdot \sqrt{3} \cdot \cos\varphi}{1000}$ (trifase)	$\frac{\sqrt{x} \cdot I \cdot \sqrt{3} \cdot \cos\varphi}{1000}$ (threephase)
I_n (230 V)		I_n (400 V) x $\sqrt{3}$	I_n (400 V) x $\sqrt{3}$

Dati tecnici
Technical data
SMT..SV Motori trifase servoventilati / SMT..SV Three phase motors with forced-ventilation (230-400 V / 50 Hz) poli / poles 4

TAGLIA SIZE	P_n [kW]	M_n [Nm]	n_n [min ⁻¹]	I_n (400V) [A]	η %	$\cos\varphi$	M_s/M_n	I_s/I_n	M_k/M_n	PTO [°C]	Servizio Duty SV	IP Motore Motor	IP Servoventola Foced vent.	P_{sf} [W]
SMT6324B14.SV	0.18	1.26	1360	0.69	57.0	0.66	2.50	2.90	2.50	PTO 150°	S3 75%	66	44	11-9
SMT6334B14.SV	0.25	1.74	1375	0.94	62.0	0.64	2.80	3.00	2.80				44	11-9
SMT6344B14.SV	0.37	2.60	1360	1.24	65.3	0.66	2.70	3.00	2.70				44	11-9
SMT7124B14.SV	0.37	2.52	1400	1.10	67.9	0.72	2.75	4.20	2.75				44	14-16
SMT7134B14.SV	0.55	3.76	1395	1.55	70.2	0.73	2.90	4.40	2.90				44	14-16
SMT7144B14.SV	0.75	5.09	1405	2.00	74.0	0.73	2.90	5.00	2.90				44	14-16

Alimentazione della servoventola: 200-240 Vac / 50-60 Hz

Forced ventilation supply voltage: 200-240 Vac / 50-60 Hz

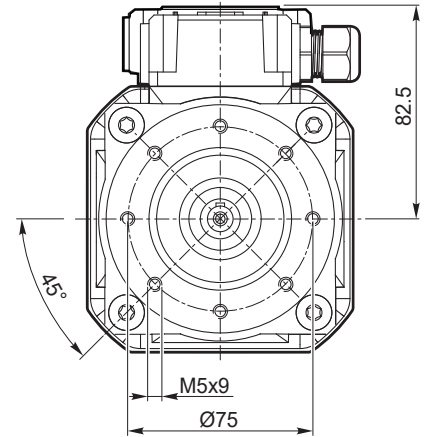
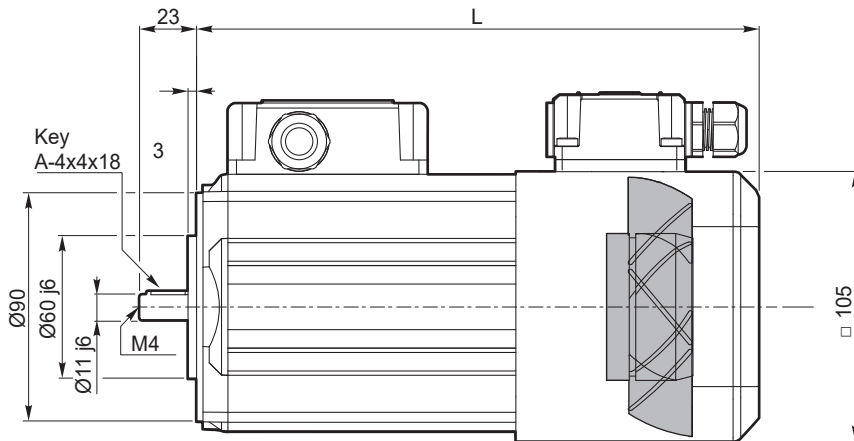


Dimensioni motori trifase

Three phase motors dimensions

3 ~

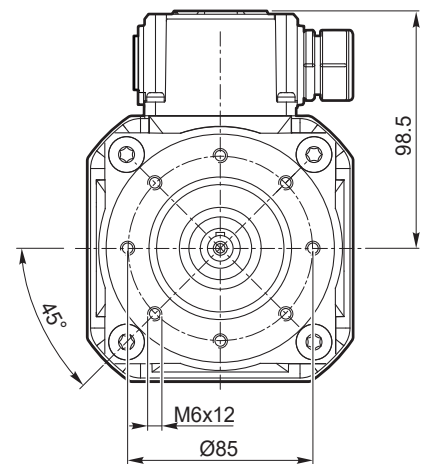
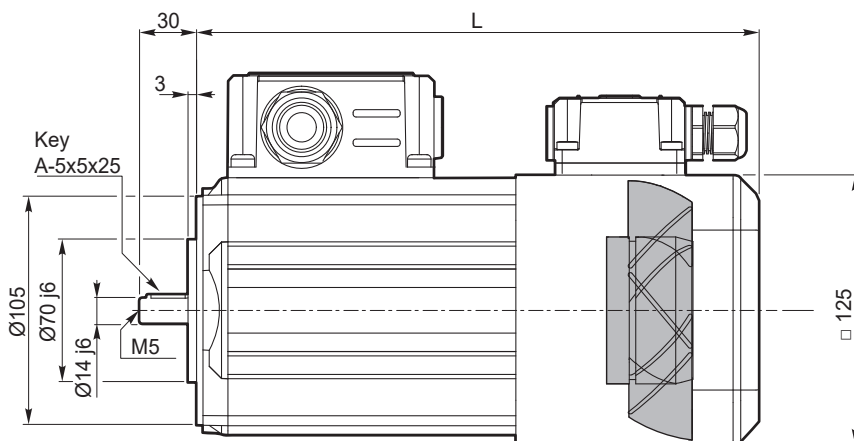
SMT63.. - B14 - SV



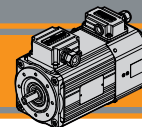
SMT	... SV	
	L	Kg
6324	210	5.0
6334	225	5.7
6344	250	6.8

3 ~

SMT71.. - B14 - SV

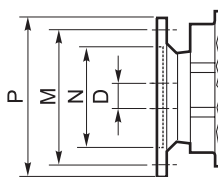
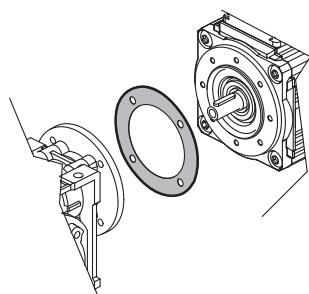


SMT	... SV	
	L	Kg
7124	219	7.5
7134	234	8.5
7144	259	10.2



Opzione guarnizione CA

Rubber gasket option



Dimensioni IEC / IEC Dimensions		
	63 B14	71 B14
N	60	70
M	75	85
P	90	105
D	11	14

Grado di protezione IP

IP protection rating

Indica il grado di isolamento meccanico del corpo motore.















IP protection rating indicates the degree of mechanical insulation of the motor casing.

1^a cifra protezione alla penetrazione di corpi solidi.

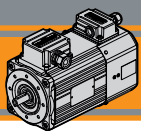
The 1st figure indicates the level of protection against the intrusion of solid matter.

2^a cifra protezione contro la penetrazione d'acqua.

The 2nd figure indicates to which degree the motor is waterproof.

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

AC



Tipi di servizi IEC

IEC duty cycles

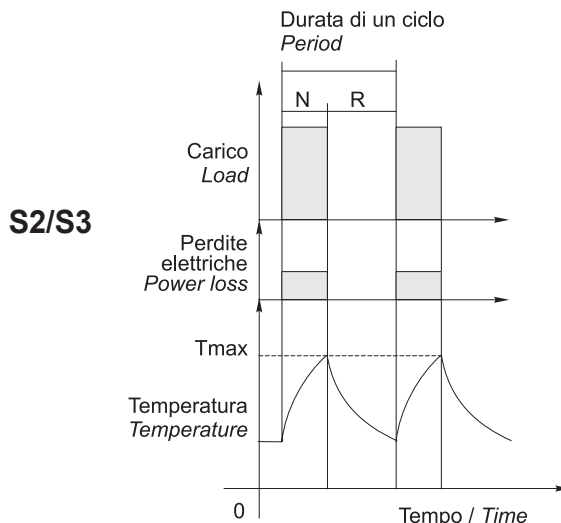
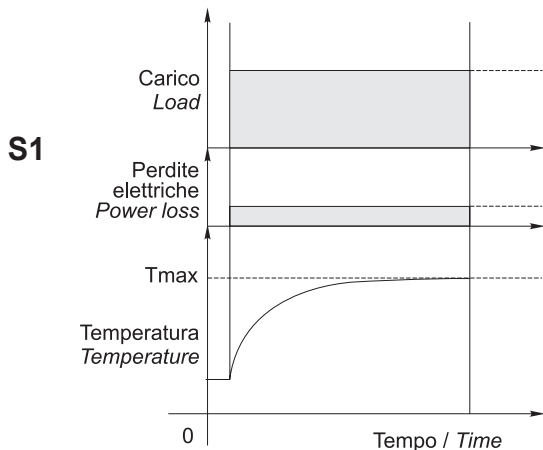
Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

The duty cycle of a motor indicates its use and running cycle.

Grafico servizi più comuni

Most common duty cycles diagram

N = funzionamento / run
R = riposo / rest



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

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

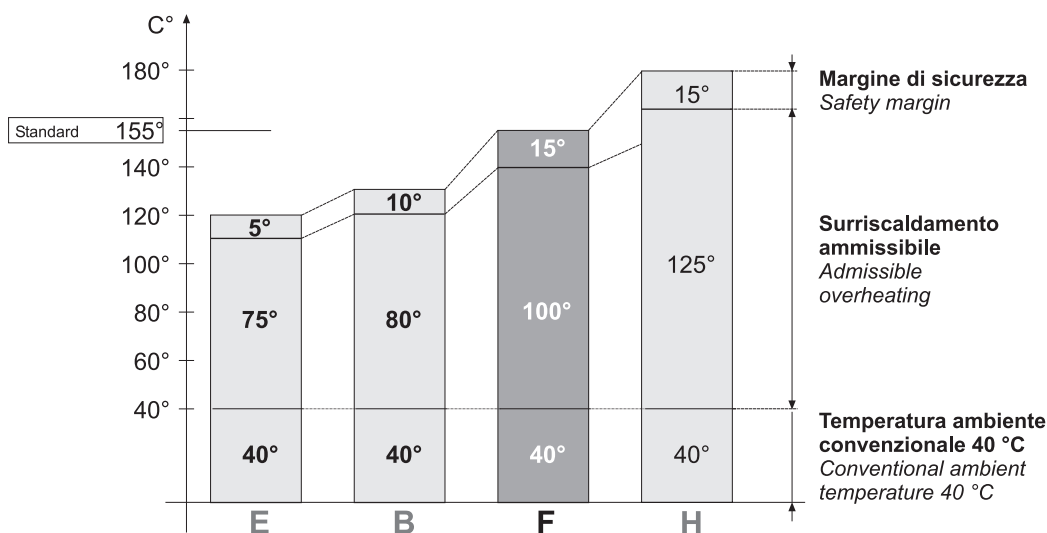
Classe di isolamento termico

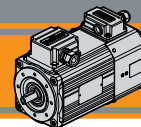
Insulation class

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

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

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






Serie SM - Funzionamento a 60 Hz

Series SM - 60 Hz line power supply

Velocità, coppia e potenza nominale nel funzionamento a 60 Hz varieranno come da tabella:

Speed, torque and rated power in 60 Hz operation is shown in the following table:

	50 Hz	60 Hz
400 V	Vedi dati tecnici / see technical data 	Velocità / speed ≈ + 20% Coppia / torque ≈ -20% Potenza / power ≈ invariata / the same
480 V	Non permesso / not allowed	Velocità / speed ≈ + 20% Coppia / torque ≈ invariata / the same Potenza / power ≈ + 20%

AC

Tabella pressacavi

Table of cable glands data

Serie SM..BR / SM..BR Series

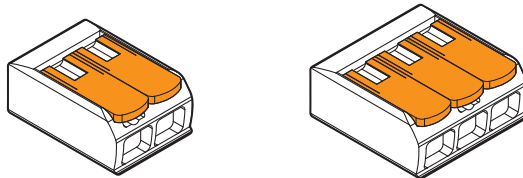
TAGLIA SIZE	Pressacavo Cable gland
63 / 71	1x M20x1.5

Connessioni e collegamenti - Motore

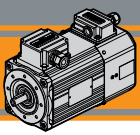
Connection diagram - Motor

Riferimenti

References



Morsetto di collegamento a leva a 2 e 3 poli
Splicing connector with lever 2 - and 3 - pin.

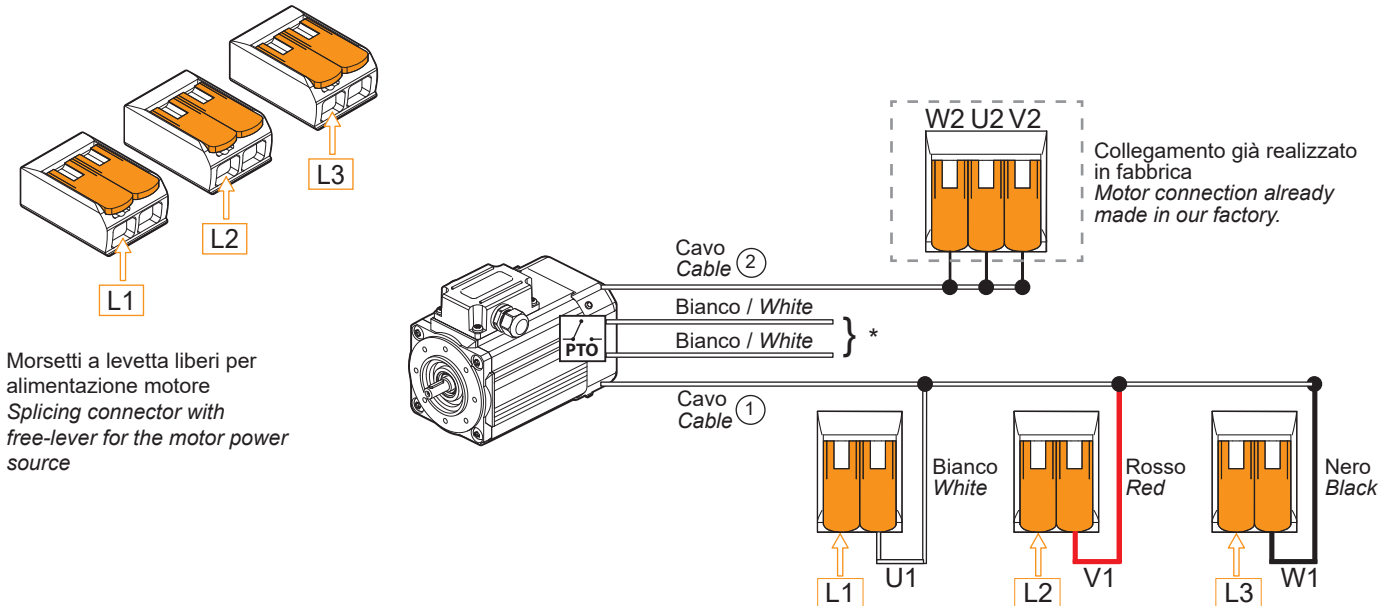


Connessioni e collegamenti - Motore

Connection diagram - Motor

400/460 V - Trifase / three phase

Collegamento a stella / Star connection

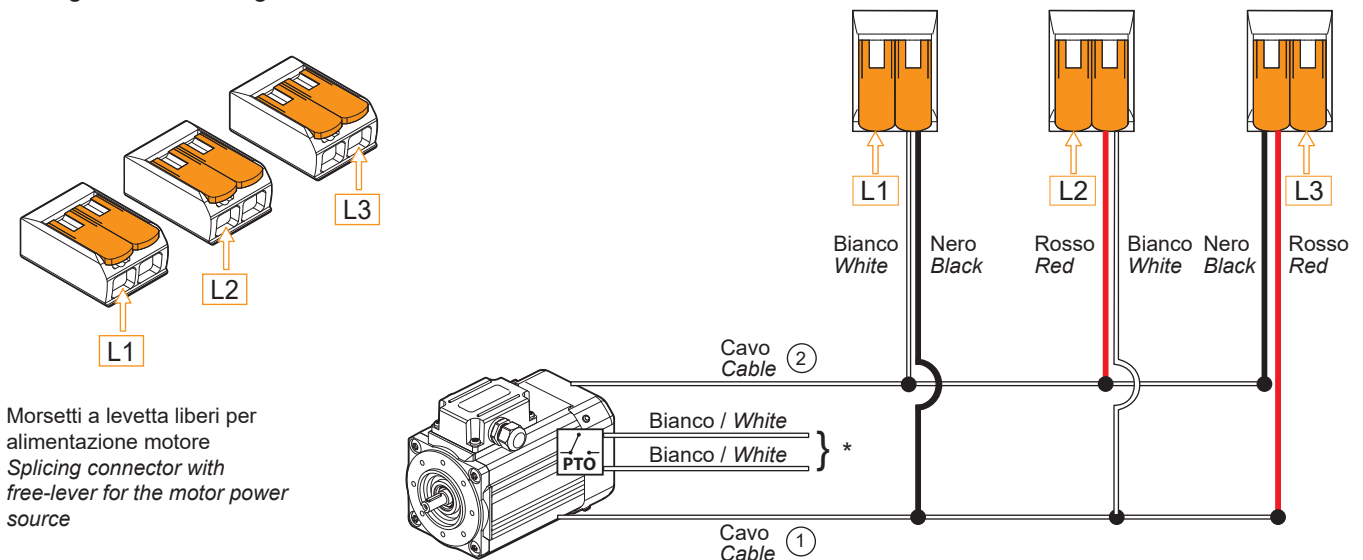


*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71, 80, 90.

*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71, 80, 90.

230 V - Trifase / three phase

Collegamento a triangolo / Delta connection

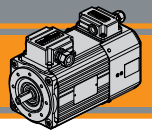


*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71, 80, 90.

*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service. PTO is available for sizes 56, 63, 71, 80, 90.

I motori della serie SM sono forniti in collegamento a stella, lo schema di collegamento a triangolo sopra riportato fornisce una chiara indicazione delle modifiche che il cliente può apportare in autonomia. Se necessario contattare il Servizio Tecnico Transtecno.

The SM series is supplied in star connection, the delta connection diagram shown above provides a clear indication of the modification that the customer can make independently. If needed, contact Transtecno Technical Service.

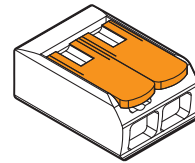
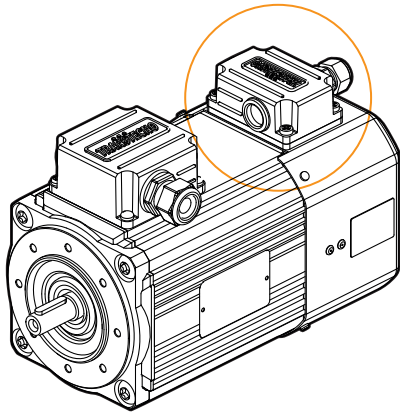


Connessioni e collegamenti - Servoventola

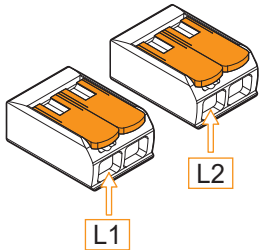
Connection diagram - Servo fan

Riferimenti

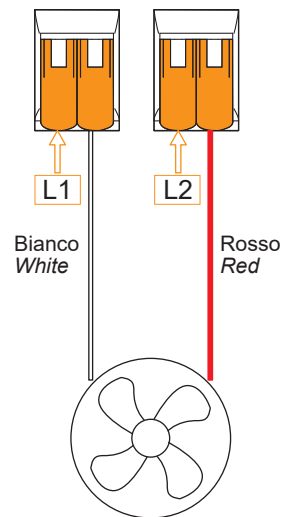
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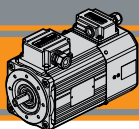


Morsetto di collegamento a leva a 2 poli
Splicing connector with lever 2 pin.



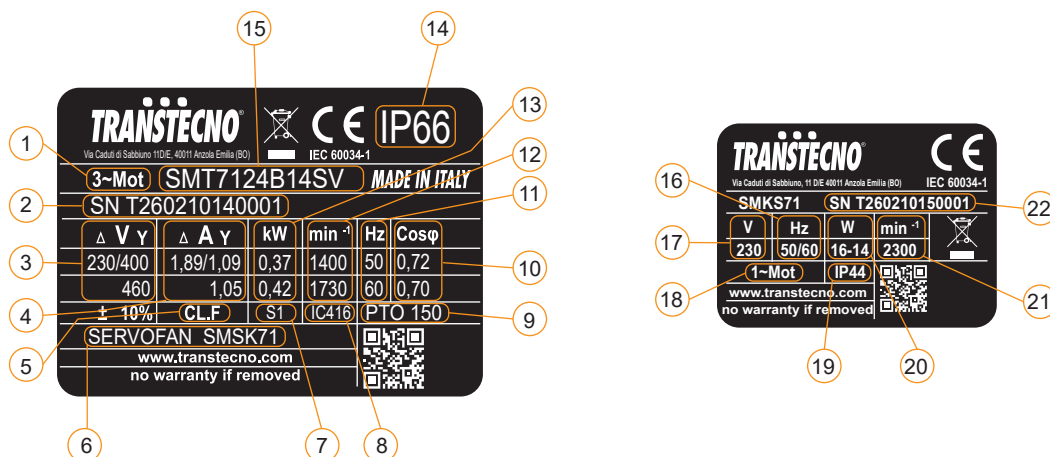
Morsetti a levetta liberi per alimentazione servoventola
Splicing connector with free-lever for the electric fan





Targhetta

Nameplate



Pos.	Descrizione	Description
1	Tipo di alimentazione	Power supply
2	Numero di serie	Serial number
3	Tensione di alimentazione	Supply voltage
4	Corrente nominale	Rated current
5	Classe di isolamento	Insulation class
6	Tipo servoventola	Servo fan type
7	Servizio	Duty
8	Ventilazione	Fan cooling
9	Protezione termica PTO 150°C	PTO 150°C Thermal protection
10	Fattore di potenza	Power factor
11	Frequenza nominale	Rated frequency
12	Velocità nominale	Rated speed
13	Potenza nominale	Rated power
14	Grado di protezione IP motore	Motor IP protection rating
15	Tipo motore	Motor type
16	Frequenza kit servoventola	Servo fan kit frequency
17	Tensione kit servoventola	Servo fan kit voltage
18	Tipo di alimentazione kit servoventola	Servo fan kit power supply
19	Grado di protezione kit servoventola	Servo fan kit IP protection rating
20	Potenza kit servoventola	Servo fan kit power
21	Velocità kit servoventola	Servo fan kit speed
22	Numero di serie kit servoventola	Servo fan kit serial number

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SM..UL/CSA



Motori elettrici asincroni CA
AC asynchronous electric motors

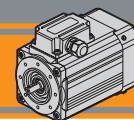
 **US**
File E511911



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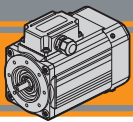
AC



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Designazione	<i>Classification</i>	AD2
Simbologia e formule	<i>Symbols and formulas</i>	AD3
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Tipo di servizio IEC	<i>IEC duty cycles</i>	AD10
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Targhetta	<i>Nameplate</i>	AD13

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Caratteristiche tecniche

Technical characteristics

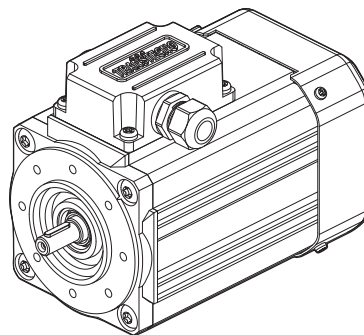
I motori certificati UL/CSA delle serie SMT ed SMM hanno le seguenti caratteristiche principali:

SMT and SMM motor range with UL/CSA Certification has the following main features:

- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa estrusa in alluminio anodizzato nero
- Motore elettrico AC con grado di protezione IP66 (escluso condensatore)
- Rumorosità e vibrazioni contenute
- Isolamento termico di classe F
- Flangia motore IEC B14
- Temperatura ambiente: -20°C/+40°C
- Disponibili nella versione ventilata TEFC (servizio S1).
- Protezione termica PTO 150°C
- Motori trifase SMT dotati di separatori di fase
- Cava esagonale su albero motore lato NDE
- Condensatore di marcia per motori monofase SMM
- La tolleranza di tensione è ±10%
- Standard applicati:
UL1004-1: Rotating Electrical Machines General Requirements
CSA:100-14: Motors and Generators

- Compact design
- AC single phase and three phase motors available
- Black anodized extruded aluminium housing
- AC electric motor in IP66 protection Standard (except capacitor)
- Low noise and vibrations
- Class F insulation Standard
- Motor flange IEC B14
- Ambient temperature: -20°C / +40°C
- Fan cooled TEFC (duty S1)
- PTO 150°C thermal protection
- Three phase motors SMT equipped with phase separators.
- Motor shaft hexagon socket on the NDE side.
- Running capacitor for single phase motors SMM.
- Voltage tolerance ±10%
- Standards applied:
UL1004-1: Rotating Electrical Machines General Requirements
CSA:100-14: Motors and Generators

SM .. TEFC





CU US
File E511911

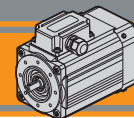


Designazione

Classification

MOTORE TRIFASE / THREE PHASE MOTOR									
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	UL-CSA
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Versione UL UL Version
SMT  3 ~	Vedi tabelle See tables	2 - 3	4	0.09 kW ... 0.66 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC	UL-CSA

MOTORE MONOFASE / SINGLE PHASE MOTOR									
SMM	63	2	4	0.18 kW	B14	115 V	60 Hz	TEFC	UL-CSA
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Versione UL UL Version
SMM  1 ~	Vedi tabelle See tables	2 - 3	4	0.09 kW ... 0.37 kW	B14	115V	60Hz	TEFC	UL-CSA


Simbologia e formule
Symbols and formulas

P_n	[kW]	Potenza nominale	Rated power
I_n	[A]	Corrente nominale	Rated current
M_n	[Nm]	Coppia nominale	Rated torque
n_n	[rpm]	Velocità nominale	Rated speed
M_s / M_n		Rapporto coppia spunto / coppia nominale	Ratio start torque / rated torque
M_k / M_n		Rapporto coppia massima / coppia nominale	Ratio max torque / rated torque
I_s / I_n		Rapporto corrente di spunto / corrente nominale	Ratio start current / rated current
$\cos\varphi$		Fattore di potenza al carico nominale	Power factor at rated torque load
η		Rendimento al carico nominale	Efficiency at rated torque load
f	[Hz]	Frequenza	Frequency
V	[V]	Tensione	Voltage
Potenza Power	[HP]	Potenza [kW] x 1.341	Power [kW] x 1.341
Potenza resa P_n P_n output power	[kW]	Potenza assorbita x η	Absorbed power x η
Pot. assorbita Absorbed power	[kW]	$\frac{V \times I \times \cos\varphi}{1000}$ (monofase)	$\frac{V \times I \times \cos\varphi}{1000}$ (singlephase)
		$\frac{V \times I \times \sqrt{3} \times \cos\varphi}{1000}$ (trifase)	$\frac{V \times I \times \sqrt{3} \times \cos\varphi}{1000}$ (threephase)
I_n (230 V)		I_n (400 V) x $\sqrt{3}$	I_n (400 V) x $\sqrt{3}$

Dati tecnici
Technical data
SMT Motori trifase / SMT Three phase motors

 (230-400 V / 50 Hz) poli / poles **4**

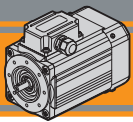
 (460 V / 60 Hz) poli / poles **4**

TAGLIA SIZE	P_n [kW]	M_n [Nm]	n_n [min ⁻¹]	V - f [V - Hz]	I_n (400-460 V) [A]	η %	$\cos\varphi$	M_s/M_n	I_s/I_n	M_k/M_n	PTO [°C]	Servizio Duty TEFC
5624	0.09	0.63	1365	400 - 50	0.45	47.3	0.61	2.50	2.40	2.70	PTO 150°	S1
	0.11		1660	460 - 60		50.3		2.60	2.60			
5634	0.12	0.88	1300	400 - 50	0.45	52.0	0.74	1.90	2.40	1.90		
	0.14	0.83	1600	460 - 60	0.42	59.0	0.71	2.10	2.70	2.10		
6324	0.18	1.26	1360	400 - 50	0.69	57.0	0.66	2.50	2.90	2.50		
	0.22	1.27	1650	460 - 60		59.7	0.67		3.00			
6334	0.25	1.74	1375	400 - 50	0.94	62.0	0.64	2.80	3.00	2.80		
	0.28	1.59	1690	460 - 60		61.3	0.61	3.00	3.20	3.00		
7124	0.37	2.52	1400	400 - 50	1.09	68.0	0.72	2.75	4.20	2.75		
	0.42	2.35	1700	460 - 60		68.1	0.71	2.90	4.50	2.90		
7134	0.55	3.76	1395	400 - 50	1.55	70.2	0.73	2.90	4.40	2.90		
	0.66	3.71	1700	460 - 60		73.2			4.80	2.80		

SMM Motori monofase / SMM Single phase motors

 (115 V / 60 Hz) poli / poles **4**

TAGLIA SIZE	P_n [kW]	M_n [Nm]	n_n [min ⁻¹]	V - f [V - Hz]	I_n (115V) [A]	η %	$\cos\varphi$	M_s/M_n	I_s/I_n	M_k/M_n	Cond/cap [μF]	PTO [°C]	Servizio Duty TEFC
5624	0.09	0.52	1665	115 - 60	1.60	50.0	0.98	0.64	1.95	1.51	20	PTO 150°	S1
6324	0.18	1.09	1570	115 - 60	2.70	58.5	0.99	1.0	2.1	1.50	40		
7124	0.37	2.18	1620	115 - 60	4.70	69.8	0.98	0.64	2.3	1.33	60		

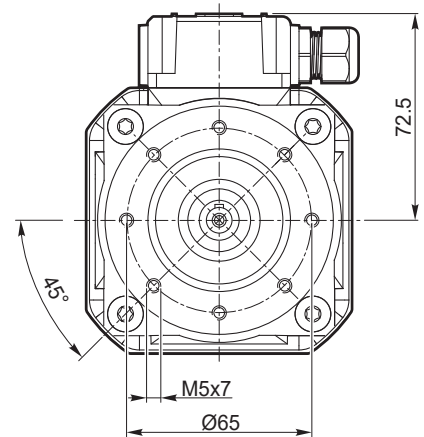
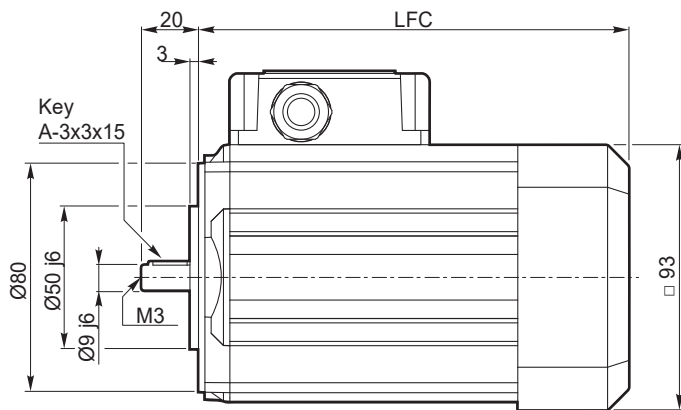


Dimensioni motori trifase

Three phase motors dimensions

3 ~

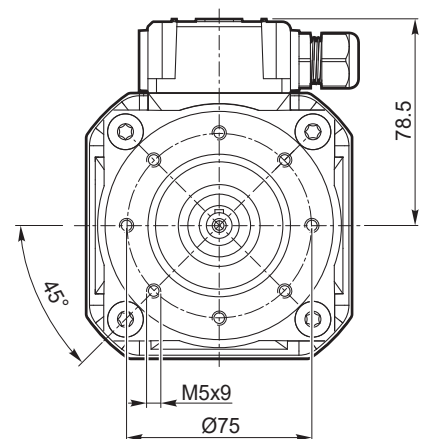
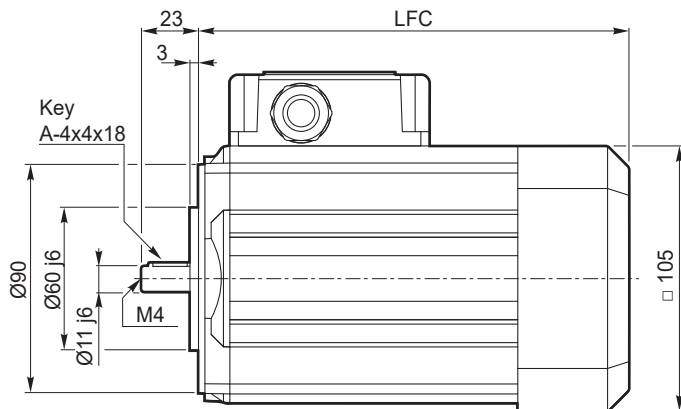
SMT56.. - B14 - TEFC



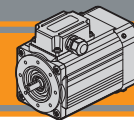
SMT	... TEFC	
	LFC	Kg
5624	186	3.1
5634	186	3.5

3 ~

SMT63.. - B14 - TEFC



SMT	... TEFC	
	LFC	Kg
6324	205.5	4.7
6334	205.5	5.4

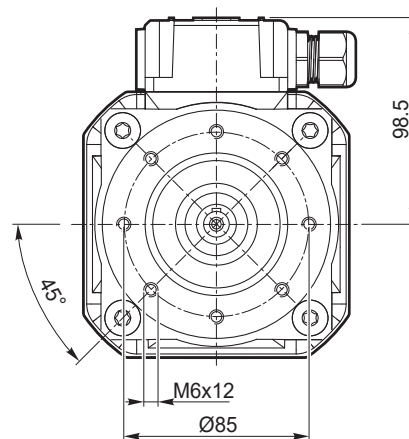
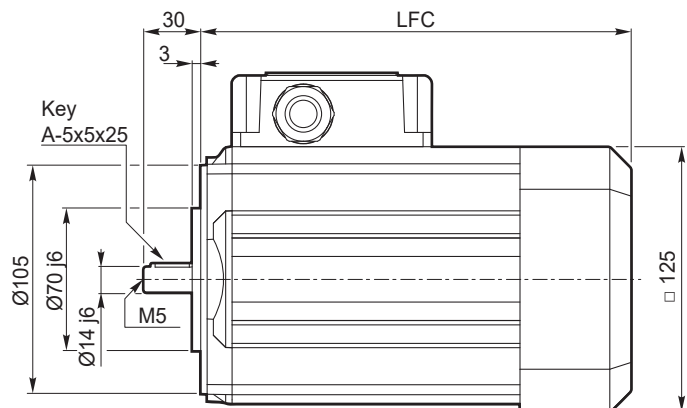



Dimensioni motori trifase

Three phase motors dimensions

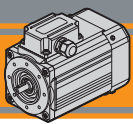
3 ~

SMT71.. - B14 - TEFC



SMT	... TEFC	
	LFC	 Kg
7124	214	7.0
7134	214	8.2

AC

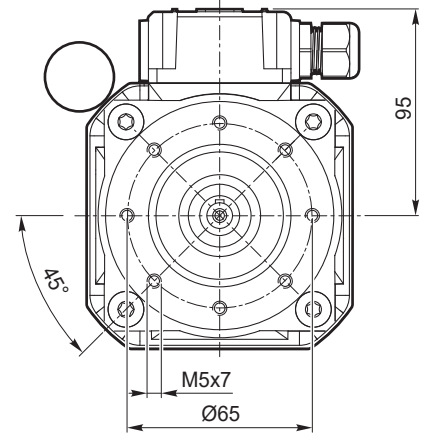
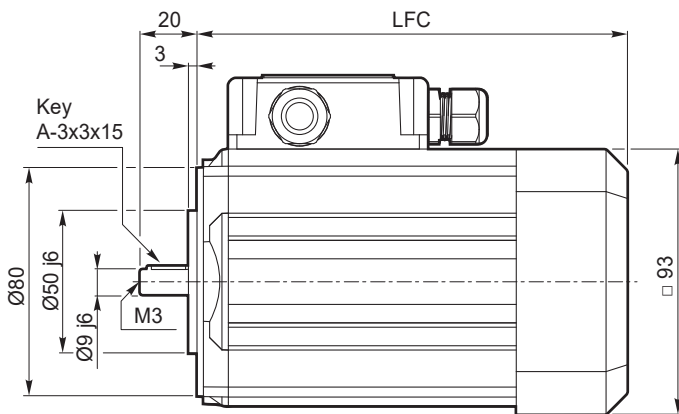


Dimensioni motori monofase

Single phase motors dimensions

1 ~

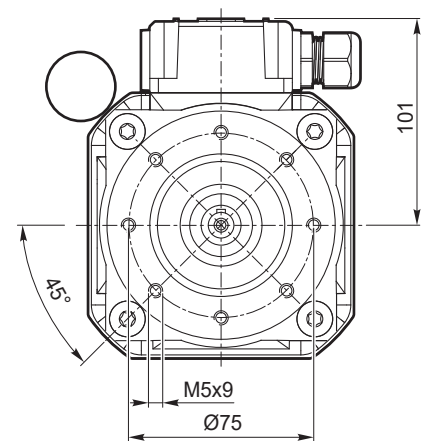
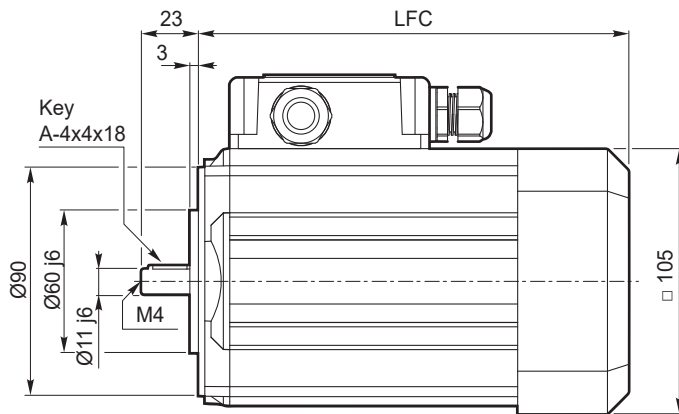
SMM56.. - B14 - TEFC



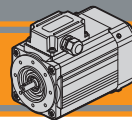
SMM	... TEFC	
	LFC	Kg
5624	186	3.6

1 ~

SMM63.. - B14 - TEFC



SMM	... TEFC	
	LFC	Kg
6324	205.5	5.5

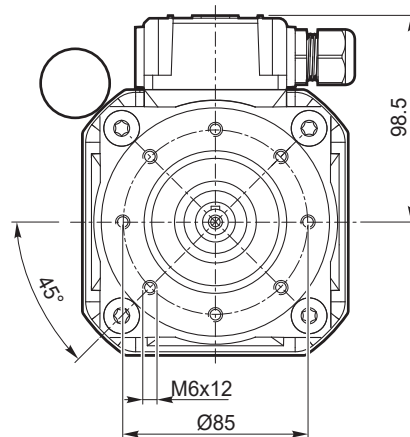
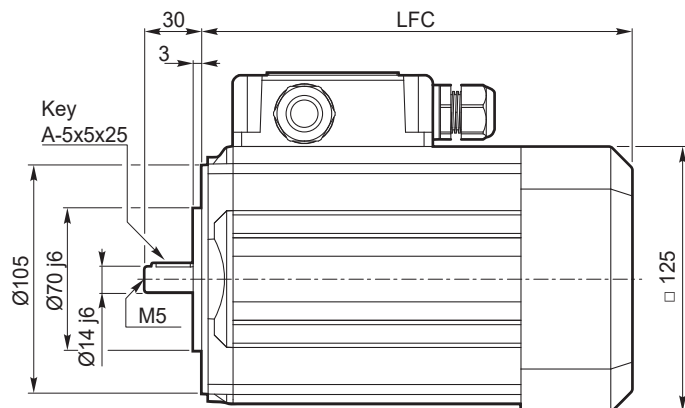


Dimensioni motori monofase

Single phase motors dimensions

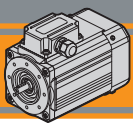
1 ~

SMM71.. - B14 - TEFC



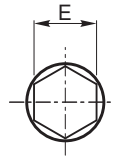
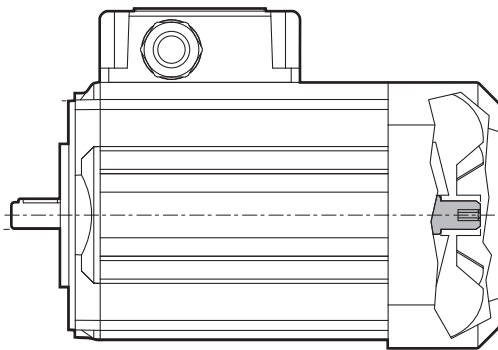
SMM	... TEFC	
	LFC	kg
7124	214	8.0

AC



Cava esagonale

Hexagonal socket



Esagono / Hexagon

SM..	E
56	4
63	4
71	6

Nota:

Installare a monte dell'alimentazione un dispositivo che assicuri la disconnessione della rete omipolare, durante le operazioni di rotazione manuale è obbligatorio l'utilizzo di tale sezionatore.

Il quadro elettrico del motore deve essere lucchettabile al fine di evitare il riarmo non previsto alla rete elettrica.

E' severamente vietata la messa in servizio del motore elettrico senza copriventola opportunamente montata.

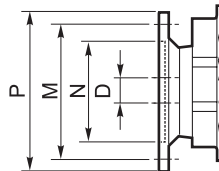
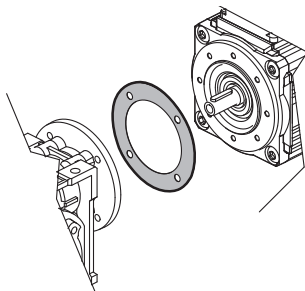
Note:

An omnipolar cut-off device must be fitted upstream of the power supply; the use of this device is mandatory during manual rotation operations.

The switchgear for the motor must be padlockable in order to prevent the power supply from being accidentally reset. It is strictly prohibited to put the electric motor into service if the fan cover is not fitted.

Opzione guarnizione CA

Rubber gasket option



Dimensioni IEC / IEC Dimensions

	56 B14	63 B14	71 B14
N	50	60	70
M	65	75	85
P	80	90	105
D	9	11	14

Versioni opzionali

Optional versions

Versioni opzionali con freno ed encoder disponibili a richiesta su alcuni modelli. Su richiesta sono disponibili grandezze motore superiori a quelle indicate a catalogo.

Si prega di contattare il nostro Servizio Tecnico.

Optional versions with brake and encoder are available on request on some models. Motor sizes bigger than those indicated in the catalogue are available on request.

Please contact our Technical Service.

Certificazione UL / CSA

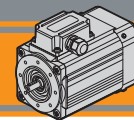
UL / CSA certificate

I motori SM certificati UL/CSA sono marcati secondo la Norma UL 1004-1, Rotating Electrical Machines General Requirements e CSA 100-14, Motors and Generators.

SM motors Certified UL/CSA are marked for approval by UL 1004-1, Rotating Electrical Machines General Requirements and CSA 100-14, Motors and Generators.



File E511911


Grado di protezione IP
IP protection rating

Indica il grado di isolamento meccanico del corpo motore.

1^a cifra protezione alla penetrazione di corpi solidi.

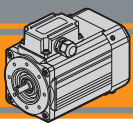
2^a cifra protezione contro la penetrazione d'acqua.

IP protection rating indicates the degree of mechanical insulation of the motor casing.

The 1st figure indicates the level of protection against the intrusion of solid matter.

The 2nd figure indicates to which degree the motor is waterproof.

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



Tipi di servizi IEC

IEC duty cycles

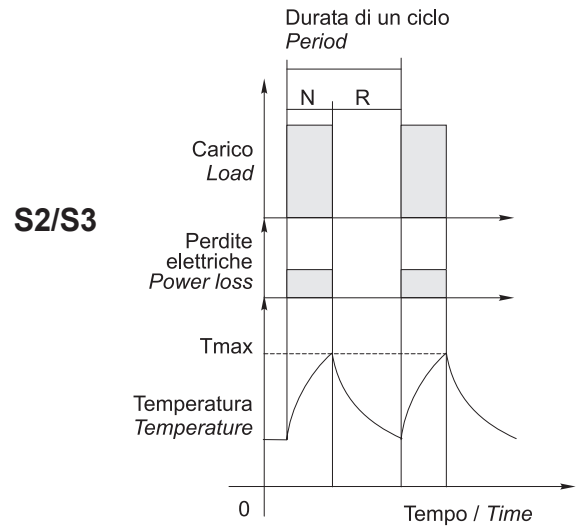
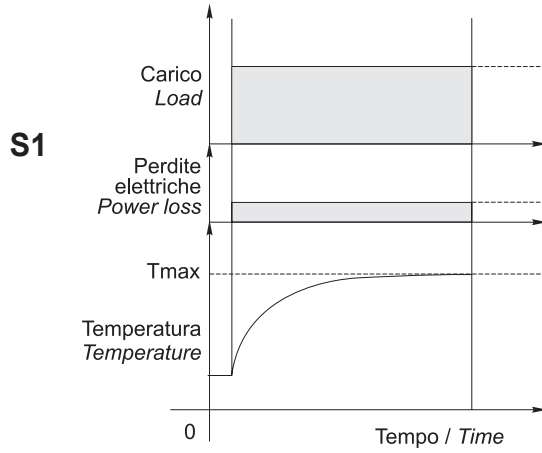
Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

The duty cycle of a motor indicates its use and running cycle.

Grafico servizi più comuni

Most common duty cycles diagram

N = funzionamento / run
R = riposo / rest



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

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

Tabella pressacavi

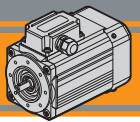
Table of cable glands data

Serie SMT / SMT Series

TAGLIA SIZE	Pressacavo Cable gland
56 / 63	M16x1.5
71	M20x1.5

Serie SMM / SMM Series

TAGLIA SIZE	Pressacavo Cable gland
56 / 63	2 x M16x1.5
71	1x M20x1.5 + 1 x M16x1.5

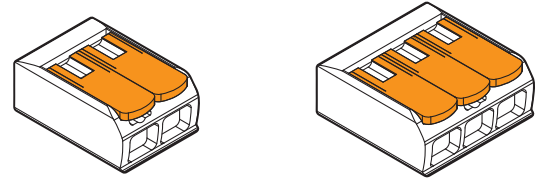
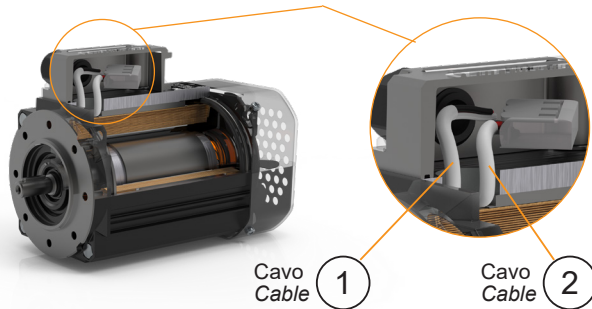


Connessioni e collegamenti

Connection diagram

Riferimenti

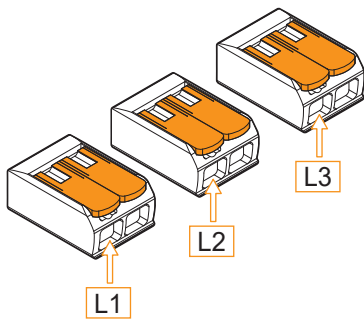
References



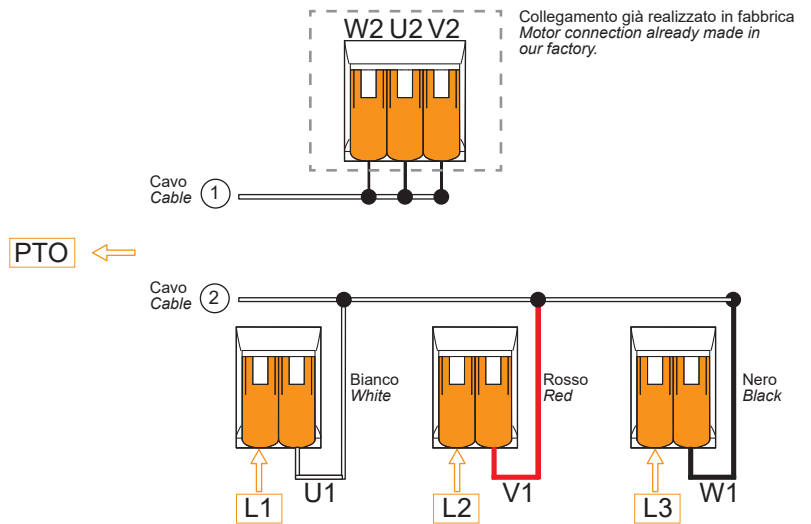
Morsetto di collegamento a leva a 2 e 3 poli
Splicing connector with lever 2- and 3-pin.

400/460 V - Trifase / three phase

Collegamento a stella / Star connection

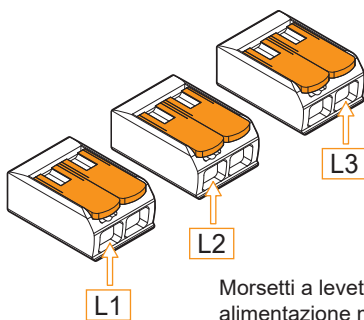


Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source



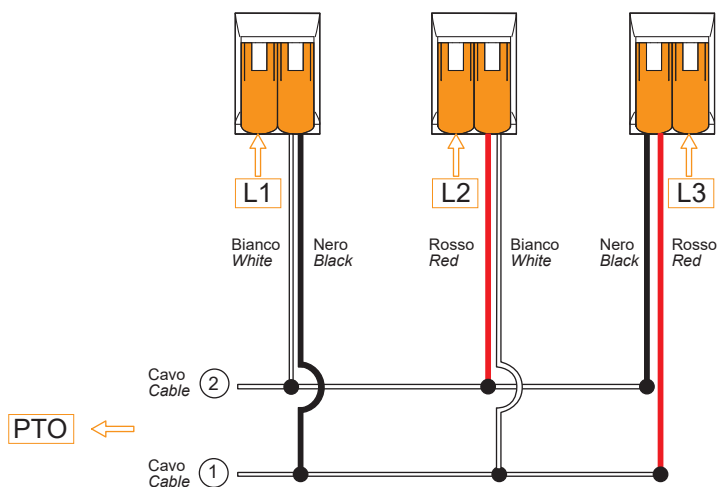
230 V - Trifase / three phase

Collegamento a triangolo / Delta connection



Morsetti a levetta liberi per alimentazione motore

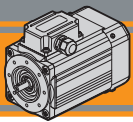
Splicing connector with free-lever for the motor power source



I motori della serie SM sono forniti in collegamento a stella, lo schema di collegamento a triangolo sopra riportato fornisce una chiara indicazione delle modifiche che il cliente può apportare in autonomia. Senecessario contattare il Serziao Tecnico Transtecno.

The SM series is supplied in star connection, the delta connection diagram shown above provides a clear indication of the modification that the customer can make independently. If needed, contact Transtecno Technical Service.

AC

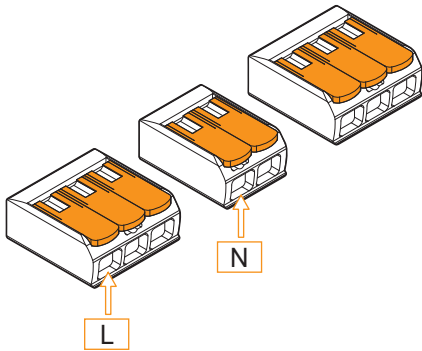


Connessioni e collegamenti

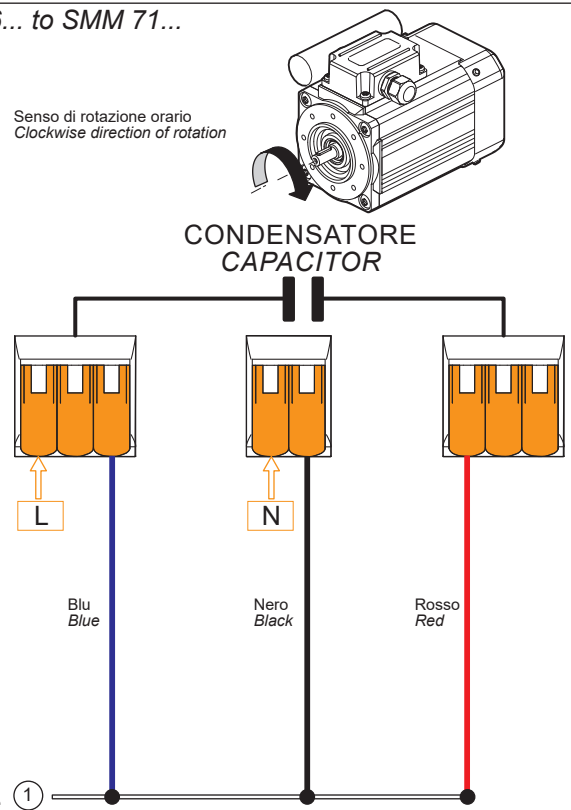
Connection diagram

115 V - Monofase / single phase

Monofase da SMM 56... a SMM 71... / Single phase from SMM 56... to SMM 71...

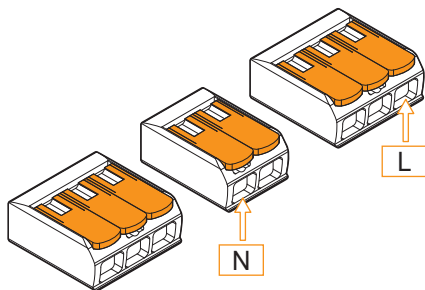


Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source



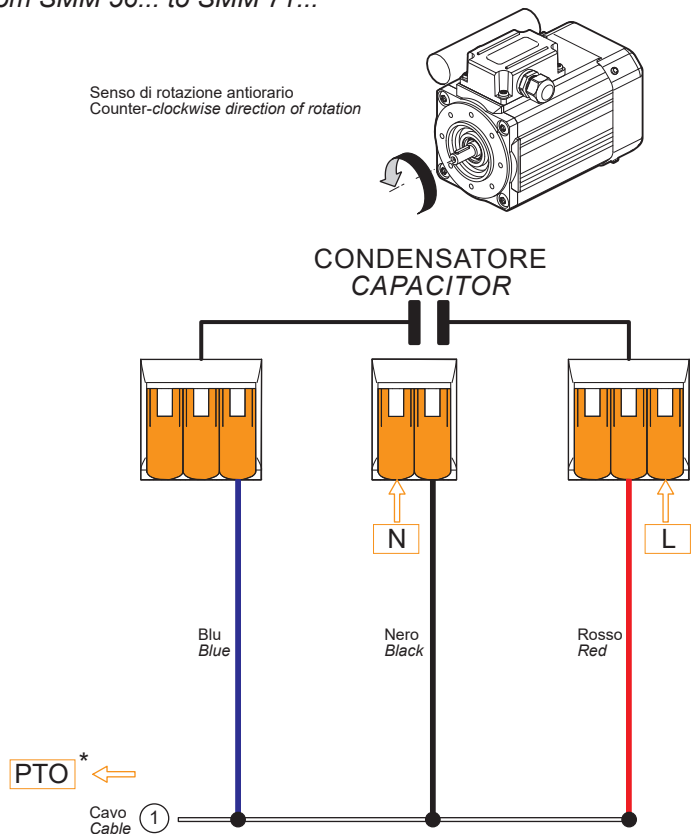
115 V - Monofase / single phase

Monofase da SMM 56... a SMM 71... / Single phase from SMM 56... to SMM 71...



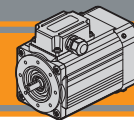
Morsetti a levetta liberi per alimentazione motore

Splicing connector with free-lever for the motor power source



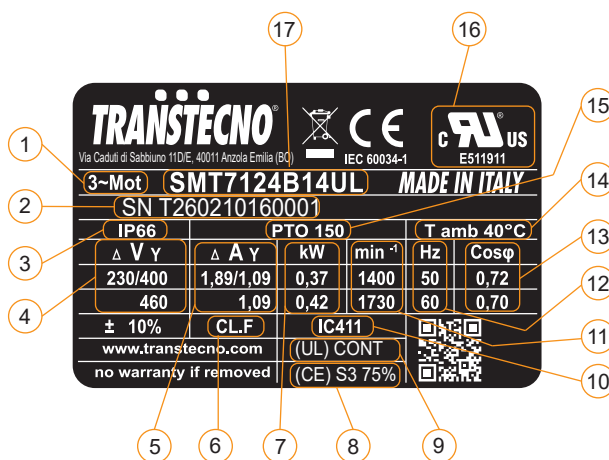
*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno.

*: motor supply connection by the customer. For safety reason Transtecno advises against PTO connected in series. If needed, contact Transtecno Technical Service.



Targhetta

Nameplate



Pos.	Descrizione	Description
1	Tipo di alimentazione	Power supply
2	Numero di serie	Serial number
3	Grado di protezione IP motore	Motor IP protection rating
4	Tensione di alimentazione	Supply voltage
5	Corrente nominale	Rated current
6	Classe di isolamento	Insulation class
7	Potenza nominale	Rated power
8	Servizio per certificazione CE	CE compliance duty
9	Servizio per certificazione UL/CSA	UL/CSA compliance duty
10	Ventilazione	Fan cooling
11	Velocità nominale	Rated speed
12	Frequenza nominale	Rated frequency
13	Fattore di potenza	Power factor
14	Temperatura ambiente massima	Max allowed ambient temperature
15	Protezione termica PTO 150°C	PTO 150°C Thermal protection
16	Certificazione UL/CSA	UL/CSA compliance
17	Tipo di motore	Motor type

MINI  **TECNO**™
small but strong

CMG

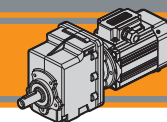
AC

Motoriduttori CA ad ingranaggi cilindrici AC Helical in-line gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®

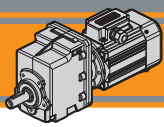




Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	AE2
Designazione	<i>Classification</i>	AE2
Sensi di rotazione	<i>Direction of rotation</i>	AE3
Lubrificazione	<i>Lubrication</i>	AE3
Simbologia	<i>Symbols</i>	AE3
Carichi radiali	<i>Radial loads</i>	AE3
Motori applicabili	<i>IEC Motor adapters</i>	AE4
Dati tecnici	<i>Technical data</i>	AE4
Dimensioni	<i>Dimensions</i>	AE6

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Caratteristiche tecniche

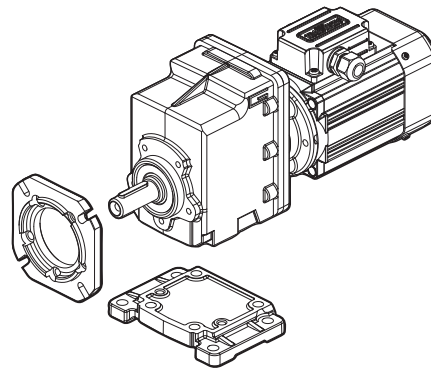
Technical features

Le caratteristiche principali dei motoriduttori CMG sono:

CMG gearmotor range has the following main features:

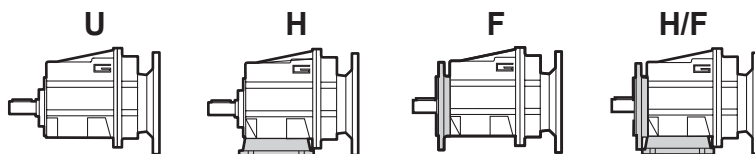
- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa motore estrusa in alluminio anodizzato nero
- Carcasse dei riduttori in pressofusione di alluminio
- Motore elettrico AC con grado di protezione IP66
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezione termica PTO 150°C per le taglie motore 56, 63 e 71.
- SMT56, SMT63 e SMT71 adatti al funzionamento con alimentazione da inverter
- Disponibili nelle versioni autofrenante, servovenilata e con certificazione UL.
- Disponibili con giunto elastico in entrata

- Compact design
- AC single phase and three phase motors available
- Motor extruded aluminum housing black anodized
- Gearbox die-cast aluminum housing
- AC electric motor in IP66 protection Standard
- Permanent synthetic oil long-life lubrication
- Ground-hardened helical gears
- Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available
- PTO 150°C thermal protection for motor sizes 56, 63 and 71.
- SMT56, SMT63 and SMT71 are suitable for inverter duty
- Brake motors, forced ventilation motors and UL compliance versions available.
- Available with input flexible couplin



Designazione

Classification

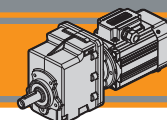


RIDUTTORE / GEARBOX

CMG	00	2	H60	10.16	D20	63	B14	FX
Tipo Type	Grandezza Size	Stadi Stages	Versione Version	Rapporto Ratio	Albero uscita Output shaft	IEC 	Forma costruttiva Version	Giunto elastico Flexible coupling
CMG	00	2 3	U... H... F... H.../F...	vedi tabelle see tables	vedi tabelle see tables	56.. 63.. 71..	B14	FX

MOTORE TRIFASE / THREE PHASE MOTOR

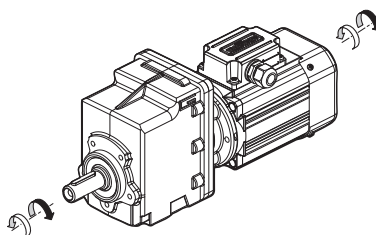
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	BR	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsetti Terminal box pos.
SMT 	Vedere tab. See tab.	1-2-3-4-5	4	0.04 kW ... 0.75 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC TENV		T1 (Std)



MOTORE MONOFASE / SINGLE PHASE MOTOR										
SMM	63	2	4	0.18 kW	B14	230 V	50 Hz	TEFC	UL-CSA	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsetteria Terminal box pos.
SMM	Vedere tab. See tab.	1-2-3-4	4	0.04 kW ... 0.55 kW	B14	230V	50Hz	TEFC TENV	 AD1	 T1 (Std) T4 T2 T3

Sensi di rotazione

Direction of rotation



Lubrificazione

Lubrication

Tutti i riduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

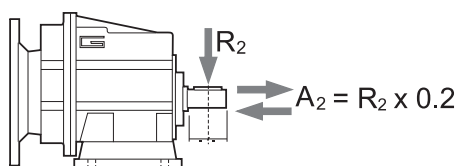
Simbologia

Symbols

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

Carichi radiali

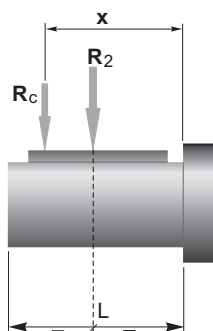
Radial loads



	CMG 002												
n_2 [min ⁻¹]	700	600	500	400	250	180	150	120	100	80	60	40	10
R_2 [N]	416	437	465	501	586	653	748	806	958	1032	1136	1300	1300

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:

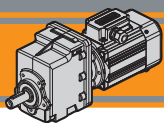


	CMG 002
a	73
b	53
R_{2MAX}	1300

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

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

$$R \leq R_c$$



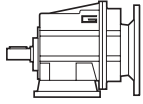
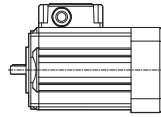
CMG

Motoriduttori CA ad ingranaggi cilindrici
AC Helical in-line gearmotors

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Motori applicabili

IEC Motor adapters

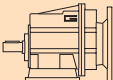
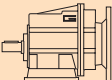






		SMT				SMM			
		5014	5624	6324	7124	5014	5624	6324	7124
		5024	5634	6334	7134	5024	5634	6334	7134
		5034	5644	6344	7144	5034	5644	6344	7144
		5044	5654						
CMG	002	5.03 - 55.10							

5.03 - 55.10 Rapporti di riduzione i / Ratio i

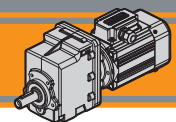
Dati tecnici

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.04						0.09					
SMT5014	279	1	30.4	5.03	CMG002	SMT5034	279	3	13.5	5.03	CMG002
SMM5014	230	2	25.0	6.10		SMM5034	230	4	11.1	6.10	
(1400 min ⁻¹)	187	2	20.4	7.49		SMT5624	187	4	9.1	7.49	
	156	2	21.2	8.99		SMM5624	156	5	9.4	8.99	
	138	3	18.8	10.16		(1400 min ⁻¹)	138	6	8.3	10.16	
	116	3	15.8	12.07			116	7	7.0	12.07	
	105	4	20.0	13.40			105	8	8.9	13.40	
	92	4	17.7	15.14			92	9	7.8	15.14	
	77	5	14.7	18.17			77	11	6.5	18.17	
	65	6	12.4	21.58			65	13	5.5	21.58	
	60	6	11.4	23.51			60	14	5.1	23.51	
	56	7	10.6	25.10			56	15	4.7	25.10	
	52	7	9.9	27.08			52	16	4.4	27.08	
	43	9	8.2	32.49			43	19	3.7	32.49	
	33	11	6.4	42.04		33	25	2.8	42.04		
	31	12	6.0	44.89		31	26	2.6	44.89		
	29	13	5.5	48.86		29	29	2.4	48.86		
	25	14	4.8	55.10		25	32	2.2	55.10		
0.06						0.12					
SMT5024	279	2	20.3	5.03	CMG002	SMT5044	279	4	10.1	5.03	CMG002
SMM5024	230	2	16.7	6.10		SMT5634	230	5	8.3	6.10	
(1400 min ⁻¹)	187	3	13.6	7.49		SMM5634	187	6	6.8	7.49	
	156	4	14.2	8.99		(1400 min ⁻¹)	156	7	7.1	8.99	
	138	4	12.5	10.16			138	8	6.3	10.16	
	116	5	10.5	12.07			116	9	5.3	12.07	
	105	5	13.3	13.40			105	11	6.7	13.40	
	92	6	11.8	15.14			92	12	5.9	15.14	
	77	7	9.8	18.17			77	14	4.9	18.17	
	65	8	8.3	21.58			65	17	4.1	21.58	
	60	9	7.6	23.51			60	18	3.8	23.51	
	56	10	7.1	25.10			56	20	3.5	25.10	
	52	11	6.6	27.08			52	21	3.3	27.08	
	43	13	5.5	32.49			43	26	2.7	32.49	
	33	17	4.2	42.04		33	33	2.1	42.04		
	31	18	4.0	44.89		31	35	2.0	44.89		
	29	19	3.6	48.86		29	38	1.8	48.86		
	25	22	3.2	55.10		25	43	1.6	55.10		



Motori Motors	SMT		SMM	
		5014 5024 5034 5044	5624 5634	5014 5024 5034
IEC	56 B14		56 B14	



Dati tecnici

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
------------------------	--	------------------------	----	---	--

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
------------------------	--	------------------------	----	---	--

0.18

SMT5644	279	6	6.8	5.03	CMG002
SMM5644	230	7	5.6	6.10	
SMT6324	187	9	4.5	7.49	
SMM6324	156	11	4.7	8.99	
(1400 min ⁻¹)	138	12	4.2	10.16	
	116	14	3.5	12.07	
	105	16	4.4	13.40	
	92	18	3.9	15.14	
	77	21	3.3	18.17	
	65	25	2.8	21.58	
	60	28	2.5	23.51	
	56	30	2.4	25.10	
	52	32	2.2	27.08	
	43	38	1.8	32.49	
	33	50	1.4	42.04	
	31	53	1.3	44.89	
	29	58	1.2	48.86	
	25	65	1.1	55.10	

0.37

SMT6344	279	12	3.3	5.03	CMG002
SMT7124	230	15	2.7	6.10	
SMM7124	187	18	2.2	7.49	
(1400 min ⁻¹)	156	22	2.3	8.99	
	138	25	2.0	10.16	
	116	29	1.7	12.07	
	105	32	2.2	13.40	
	92	37	1.9	15.14	
	77	44	1.6	18.17	
	65	52	1.3	21.58	
	60	57	1.2	23.51	
	56	61	1.2	25.10	
	52	66	1.1	27.08	
	43	79	0.9	32.49	

0.25

SMT5654	279	8	4.9	5.03	CMG002
SMT6334	230	10	4.0	6.10	
SMM6334	187	12	3.3	7.49	
(1400 min ⁻¹)	156	15	3.4	8.99	
	138	17	3.0	10.16	
	116	20	2.5	12.07	
	105	22	3.2	13.40	
	92	25	2.8	15.14	
	77	30	2.4	18.17	
	65	35	2.0	21.58	
	60	38	1.8	23.51	
	56	41	1.7	25.10	
	52	44	1.6	27.08	
	43	53	1.3	32.49	
	33	69	1.0	42.04	
	31	73	1.0	44.89	
	29	80	0.9	48.86	
	25	90	0.8	55.10	

0.55

SMT7134	279	18	2.2	5.03	CMG002
SMM7134	230	22	1.8	6.10	
(1400 min ⁻¹)	187	27	1.5	7.49	
	156	32	1.5	8.99	
	138	37	1.4	10.16	
	116	43	1.2	12.07	
	105	48	1.5	13.40	
	92	55	1.3	15.14	
	77	65	1.1	18.17	
	65	78	0.9	21.58	

0.75

SMT7144	279	25	1.6	5.03	CMG002
(1400 min ⁻¹)	230	30	1.3	6.10	
	187	37	1.1	7.49	
	156	44	1.1	8.99	
	138	50	1.0	10.16	
	116	59	0.8	12.07	
	105	66	1.1	13.40	
	92	74	0.9	15.14	

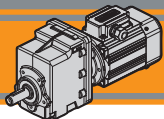


Motori Motors	SMT			SMM		
		5644 5654	6324 6334 6344	7124 7134 7144	5644	6324 6334
IEC	56 B14	63 B14	71 B14	56 B14	63 B14	71 B14

Dati tecnici elettrici

Electrical technical data



**CMG**

Motoriduttori CA ad ingranaggi cilindrici
AC Helical in-line gearmotors

MINI
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Dimensioni

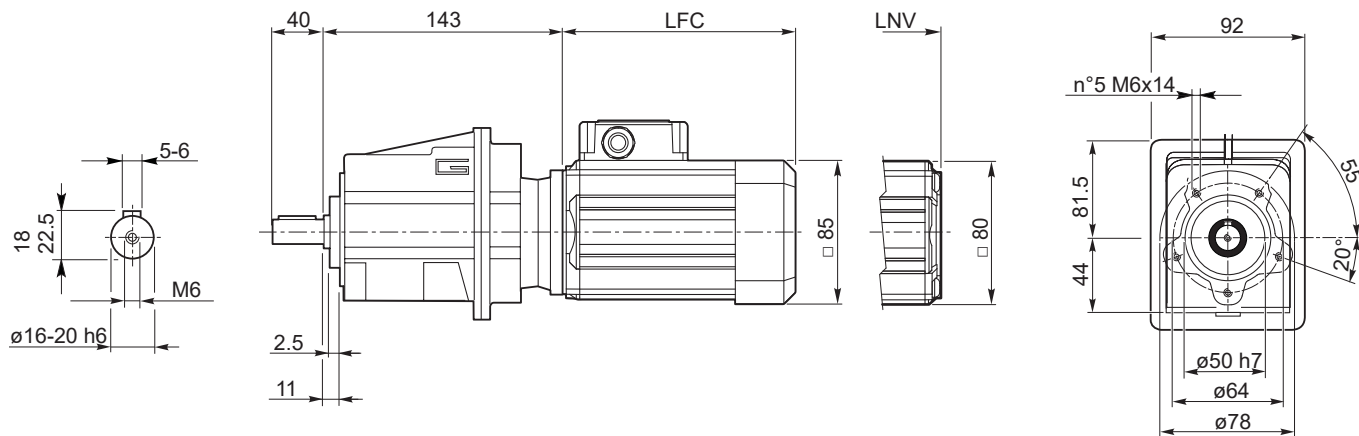
Dimensions

CMG 002 U**CMG 002 U**

SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

S3 servizio 30%
duty



SMT	LFC	LNV	Kg	
5014	135.5	108.5	5.2	
5024	150.5	123.5	5.6	
5034	175.5	148.5	6.4	
5044	200.5	173.5	7.1	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	5.6	
5024	175.5	148.5	6.4	
5034	200.5	173.5	7.1	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CMG...H → AE8

CMG...F → AE8

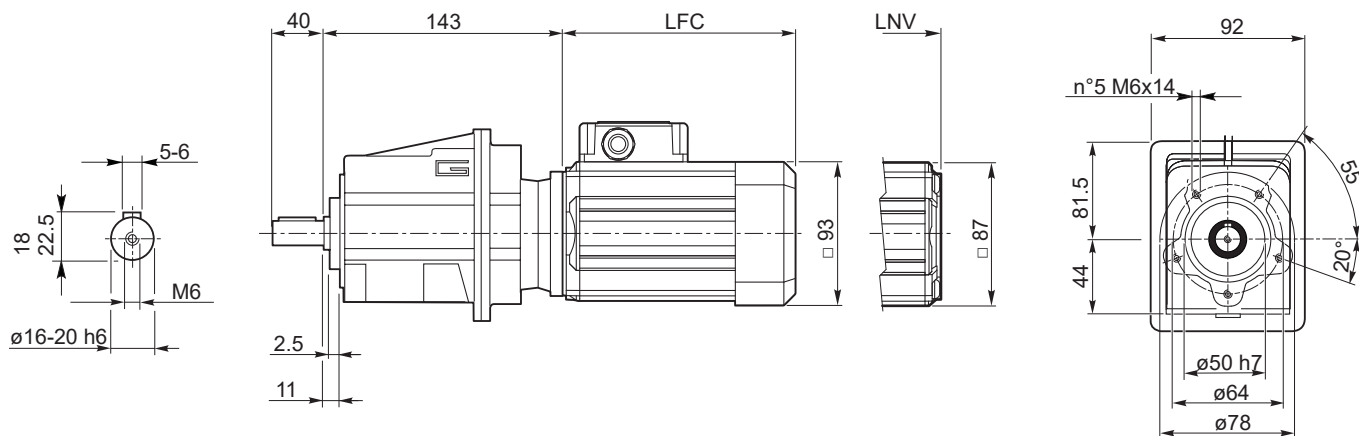
CMG...H/F → AE9

CMG 002 U

SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty



SMT	LFC	LNV	Kg	
5624	141	117	5.7	
5634	151	127	6.1	
5644	186	162	7.3	
5654	206	182	8	

SMM	LFC	LNV	Kg	
5624	151	127	6	
5634	171	147	6.6	
5644	206	182	7.9	

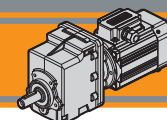
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CMG...H → AE8

CMG...F → AE8

CMG...H/F → AE9

SMT
SMM
OPTIONS → AB1
AC1
AD1



Dimensioni

Dimensions

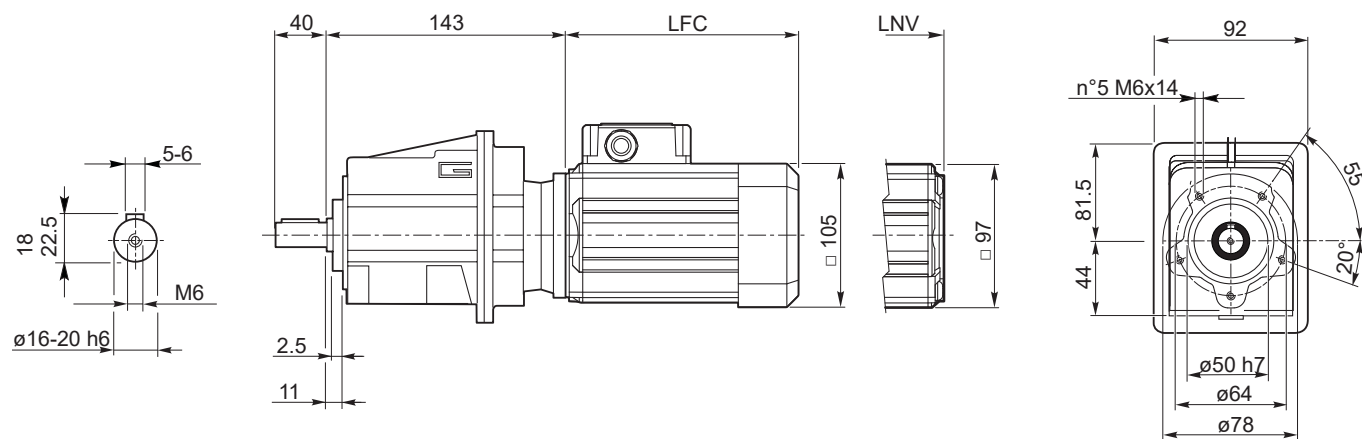
CMG 002 U

CMG 002 U

SMT63...TEFC
SMM63... TEFC

SMT63...TENV
SMM63... TENV

S3 servizio duty 30%



SMT	LFC	LNV	Kg	
6324	165.5	138.5	7.2	
6334	180.5	153.5	7.9	
6344	205.5	178.5	9.1	

SMM	LFC	LNV	Kg	
6324	180.5	153.5	8	
6334	205.5	178.5	9.2	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CMG...H → AE8

CMG...F → AE8

CMG...H/F → AE9

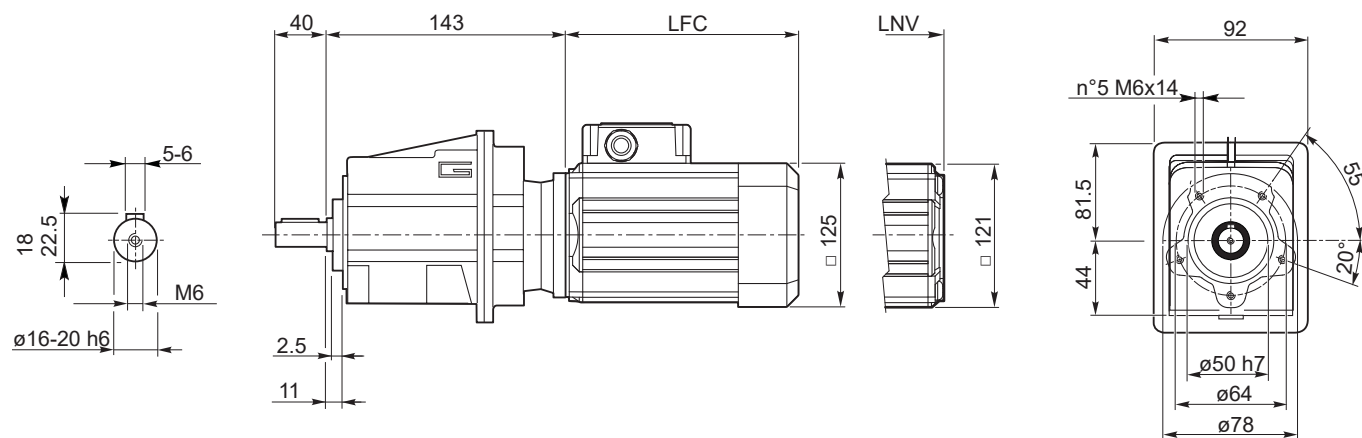
SMT SMM
OPTIONS → AB1 AC1 AD1

CMG 002 U

SMT71...TEFC
SMM71... TEFC

SMT71...TENV
SMM71... TENV

S3 servizio duty 30%



SMT	LFC	LNV	Kg	
7124	174	174	9.4	
7134	189	189	10.5	
7144	214	214	12.2	

SMM	LFC	LNV	Kg	
7124	189	160.5	10.1	
7134	214	185.5	12.1	

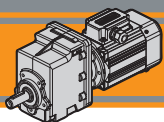
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CMG...H → AE8

CMG...F → AE8

CMG...H/F → AE9

SMT SMM
OPTIONS → AB1 AC1 AD1

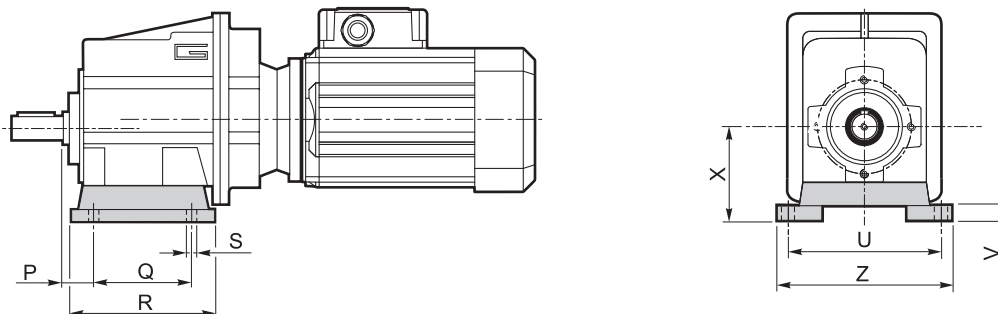


Dimensioni

Dimensions

CMG..H

CMG002 H..

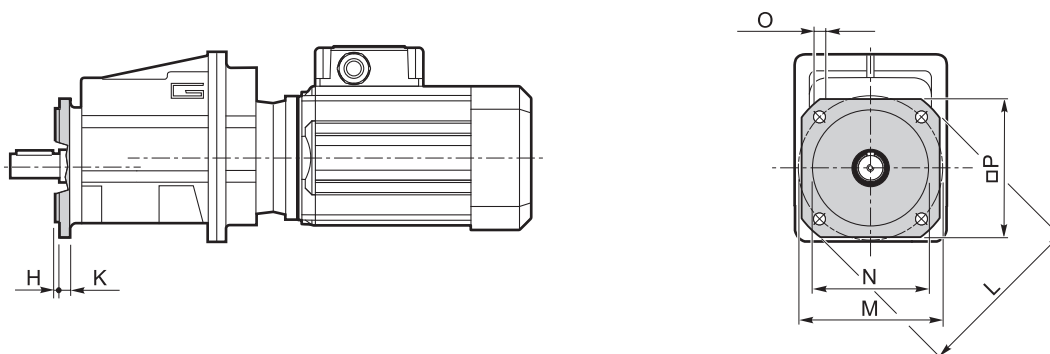


Versione H / H Version										
CMG	P	Q	R	S	U	V	X	Z	Piede / Foot	
									Tipo / Type	Peso / Weight [kg]
002	18	60	80	9	100	10	60	120	H60	0.2
	18	80	104	9	110 - 120	10	75	145	H75	0.3
	18	50 - 87	110	9	110	10	85	135	H85	0.4

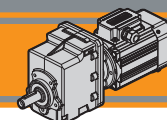
■ Preferenziale / Preferred

CMG..F

CMG002 F..



Versione F / F Version										
CMG	H	K	L	M	N f7	O	P	Flangia / Flange		
								Tipo / Type	Peso / Weight [kg]	
002	3.5	7	105	85	70	6.5	90	F105	0.1	
	3.5	8	120	100	80	9	100	F120	0.2	
	3.5	8	140	115	95	9	115	F140	0.2	

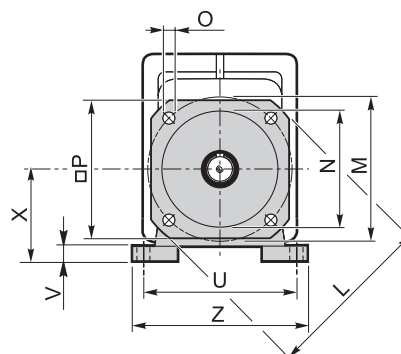
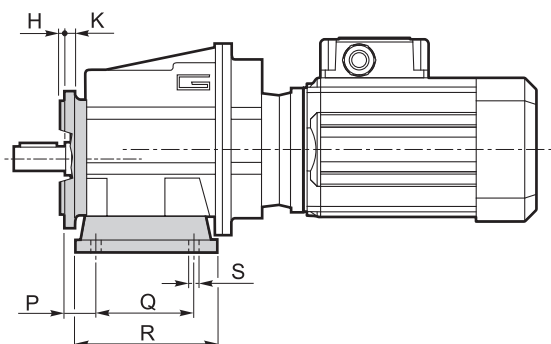


Dimensioni

Dimensions

CMG..H../F..

CMG002 H../F..



Versione H / H Version										Combinazioni possibili H/F Possible combinations H/F							
CMG	P	Q	R	S	U	V	X	Z	Piede / Foot		F105	F120	F140	F160	F200	F250	F300
									Tipo / Type	Peso / Weight [kg]							
002	18	60	80	9	100	10	60	120	H60	0.2	•	•	•				
	18	80	104	9	110 - 120	10	75	145	H75	0.3	•	•	•				
	18	50 - 87	110	9	110	10	85	135	H85	0.4	•	•	•				

Preferenziale / Preferred

• Combinazioni possibili H/F / Possible combinations H/F

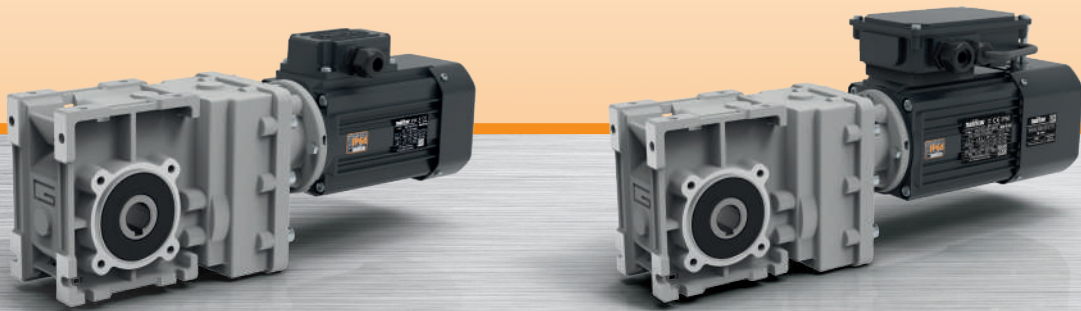
Versione F / F Version									
CMG	H	K	L	M	N f7	O	P	Flangia / Flange	
								Tipo / Type	Peso / Weight [kg]
002	3.5	7	105	85	70	6.5	90	F105	0.1
	3.5	8	120	100	80	7	100	F120	0.2
	3.5	8	140	115	95	9	115	F140	0.2

MINI  **TECNO**™
small but strong

CMB

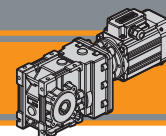
AC

Motoriduttori CA ad assi ortogonali
AC Helical bevel gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®

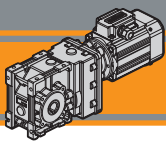




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CMB

Motoriduttori CA ad assi ortogonali
AC Helical bevel gearmotors



Caratteristiche tecniche

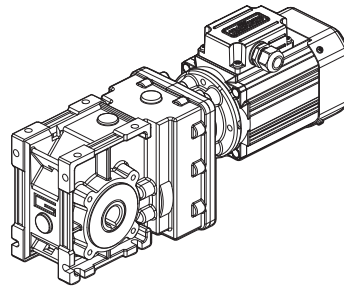
Technical features

Le caratteristiche principali dei motoriduttori CMB sono:

CMB gearmotor range has the following main features:

- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa motore estrusa in alluminio anodizzato nero
- Carcasse dei riduttori in pressofusione di alluminio
- Motore elettrico AC con grado di protezione IP66
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezione termica PTO 150°C per le taglie motore 56, 63 e 71.
- SMT56, SMT63 e SMT71 adatti al funzionamento con alimentazione da inverter
- Disponibili nelle versioni autofrenante, servoventilata e con certificazione UL.
- Disponibili con giunto elastico in entrata

- Compact design
- AC single phase and three phase motors available
- Motor extruded aluminum housing black anodized
- Gearbox die-cast aluminum housing
- AC electric motor in IP66 protection Standard
- Permanent synthetic oil long-life lubrication
- Ground-hardened helical gears
- Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available
- PTO 150°C thermal protection for motor sizes 56, 63 and 71.
- SMT56, SMT63 and SMT71 are suitable for inverter duty
- Brake motors, forced ventilation motors and UL compliance versions available.
- Available with input flexible couplin



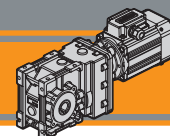
Designazione

Classification

RIDUTTORE / GEARBOX											
CMB	40 2		U	9.81	D20	63	B14	SZDX	BR SX	90	FX
Tipo Type	Grandezza Size	Stadi Stages	Versione Version	Rapporto Ratio	Albero cavo uscita Hollow output shaft	IEC	Forma costruttiva Version	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Giunto elastico Flexible coupling
	40	2	U FD FS FBD FBS FLD FLS	vedi tabelle see tables	vedi tabelle see tables	 56.. 63.. 71..	B14	SZDX SZSX DZ	BRDX BR SX *	0° 90° 180° 270°	FX 17
Versione Riduttore Gearbox Version			Albero di uscita Output shaft			Braccio di reazione Torque arm *		Angolo Angle			
 U FD FS FLD FBD FBS			 SZDX SZSX DZ			 BRDX BR SX		 90° 90° 180° 0° 270° 270°			

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

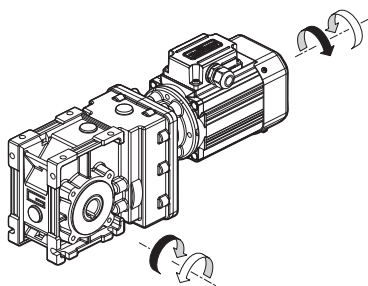
MOTORE TRIFASE / THREE PHASE MOTOR										
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	BR	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsettiere Terminal box pos.
SMT 	Vedere tab. See tab.	1-2-3-4-5	4	0.04 kW ... 0.75 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC TENV	 AB1 AC1 AD1	T1 (Std) T4 T2 T3



MOTORE MONOFASE / SINGLE PHASE MOTOR										
SMM	63	2	4	0.18 kW	B14	230 V	50 Hz	TEFC	UL-CSA	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsetteria Terminal box pos.
SMM	Vedere tab. See tab.	1-2-3-4	4	0.04 kW ... 0.55 kW	B14	230V	50Hz	TEFC TENV	 AD1	 T1 (Std) T4 T2 T3

Sensi di rotazione

Direction of rotation



Simbologia

Symbols

n_1 [min ⁻¹]	Velocità in ingresso / <i>Input speed</i>	M_2 [Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
n_2 [min ⁻¹]	Velocità in uscita / <i>Output speed</i>	sf	Fattore di servizio / <i>Service factor</i>
i	Rapporto di riduzione / <i>Ratio</i>	A_2 [N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>
P_1 [kW]	Potenza in entrata / <i>Input power</i>	R_2 [N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>

Lubrificazione

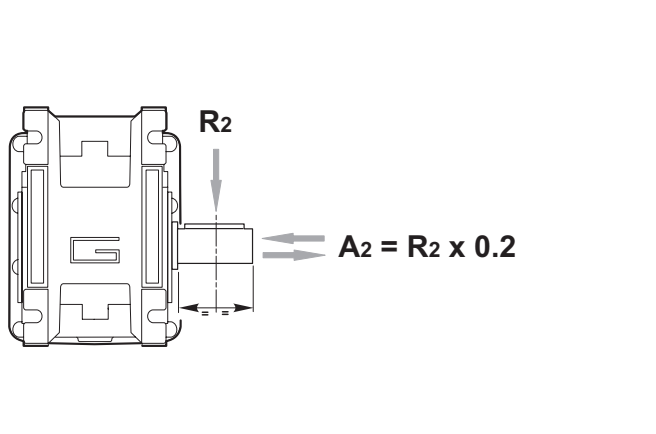
Lubrication

Tutti i riduttori nelle taglie 402 sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use sizes 402 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

Carichi radiali

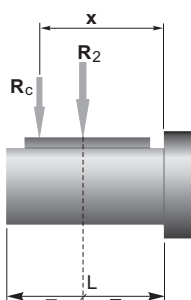
Radial loads



n_2 [min ⁻¹]	R_2 [N]
	CMB 402
400	905
300	996
200	1141
170	1204
140	1414
100	1582
90	1638
60	2047
40	2524
30	2778
20	3180
15	3500
10	3500

Quando il carico radiale risultante non è applicato sulla mezza-ria 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:

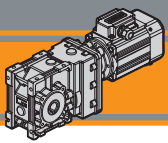


	CMB 402
a	86
b	66
R_{2MAX}	3500

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

$$R \leq R_c$$

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



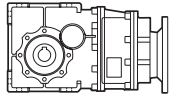
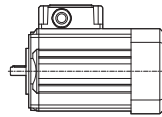
CMB

Motoriduttori CA ad assi ortogonali
AC Helical bevel gearmotors



Motori applicabili

Motor adapters



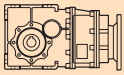
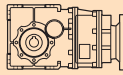
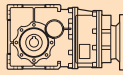




		SMT				SMM			
		5014 5024 5034 5044	5624 5634 5644 5654	6324 6334 6344	7124 7134 7144	5014 5024 5034	5624 5634 5644	6324 6334	7124 7134
CMB	402	6.18 - 72.50							

6.18 - 72.50

Rapporti di riduzione i
Ratio i

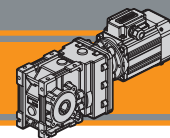
Dati tecnici

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.04						0.06					
SMT5014	227	2	25.3	6.18	CMB402	SMT5024	42	13	5.0	33.57	
SMM5014	187	2	20.8	7.49		SMM5024	39	14	4.7	35.63	
(1400 min ⁻¹)	152	2	16.9	9.20		(1400 min ⁻¹)	33	16	4.0	42.75	
	118	3	14.8	11.83			25	21	3.1	55.31	
	112	3	14.1	12.48			24	23	2.9	59.06	
	94	4	11.8	14.83			22	25	2.6	64.29	
	79	5	10.0	17.63			19	28	2.3	72.50	
	75	5	11.5	18.60							
	63	6	9.6	22.33							
	59	6	9.0	23.91							
	48	7	8.8	28.89							
	45	8	8.2	30.84							
	42	9	7.5	33.57							
	39	9	7.1	35.63							
	33	11	5.9	42.75							
	25	14	4.6	55.31							
	24	15	4.3	59.06							
	22	16	3.9	64.29							
	19	19	3.5	72.50							
0.06						0.09					
SMT5024	227	2	16.8	6.18	CMB402	SMT5034	227	4	11.2	6.18	CMB402
SMM5024	187	3	13.9	7.49		SMM5034	187	4	9.3	7.49	
(1400 min ⁻¹)	152	4	11.3	9.20		(1400 min ⁻¹)	152	5	7.5	9.20	
	118	5	9.9	11.83			118	7	6.6	11.83	
	112	5	9.4	12.48			112	7	6.2	12.48	
	94	6	7.9	14.83			94	9	5.3	14.83	
	79	7	6.6	17.63			79	10	4.4	17.63	
	75	7	7.7	18.60			75	11	5.1	18.60	
	63	9	6.4	22.33			63	13	4.3	22.33	
	59	9	6.0	23.91			59	14	4.0	23.91	
	48	11	5.8	28.89			48	17	3.9	28.89	
	45	12	5.5	30.84			45	18	3.7	30.84	
							42	19	3.4	33.57	
							39	21	3.2	35.63	
							33	25	2.6	42.75	
							25	32	2.0	55.31	
						24	34	1.9	59.06		
						22	37	1.8	64.29		
						19	42	1.6	72.50		



Motori Motors	SMT		SMM	
		5014 5024 5034	5624	5014 5024 5034
IEC	56 B14		56 B14	



Dati tecnici

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.12					
SMT5044	227	5	8.4	6.18	CMB402
SMT5634	187	6	6.9	7.49	
SMM5634	152	7	5.6	9.20	
(1400 min ⁻¹)	118	9	4.9	11.83	
	112	10	4.7	12.48	
	94	11	3.9	14.83	
	79	14	3.3	17.63	
	75	14	3.8	18.60	
	63	17	3.2	22.33	
	59	18	3.0	23.91	
	48	22	2.9	28.89	
	45	24	2.7	30.84	
	42	26	2.5	33.57	
	39	27	2.4	35.63	
	33	33	2.0	42.75	
	25	43	1.5	55.31	
	24	45	1.4	59.06	
	22	49	1.3	64.29	
	19	56	1.2	72.50	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.18					
SMT5644	227	7	5.6	6.18	CMB402
SMM5644	187	9	4.6	7.49	
SMT6324	152	11	3.8	9.20	
SMM6324	118	14	3.3	11.83	
(1400 min ⁻¹)	112	14	3.1	12.48	
	94	17	2.6	14.83	
	79	20	2.2	17.63	
	75	21	2.6	18.60	
	63	26	2.1	22.33	
	59	28	2.0	23.91	
	48	33	1.9	28.89	
	45	36	1.8	30.84	
	42	39	1.7	33.57	
	39	41	1.6	35.63	
	33	49	1.3	42.75	
	25	64	1.0	55.31	
	24	68	0.95	59.06	
	22	74	0.88	64.29	
	19	84	0.8	72.50	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.25					
SMT5654	227	10	4.0	6.18	CMB402
SMT6334	187	12	3.3	7.49	
SMM6334	152	15	2.7	9.20	
(1400 min ⁻¹)	118	19	2.4	11.83	
	112	20	2.2	12.48	
	94	24	1.9	14.83	
	79	28	1.6	17.63	
	75	30	1.8	18.60	
	63	36	1.5	22.33	
	59	38	1.4	23.91	
	48	46	1.4	28.89	
	45	49	1.3	30.84	
	42	54	1.2	33.57	
	39	57	1.1	35.63	
	33	69	0.9	42.75	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.37					
SMT6344	227	15	2.7	6.18	CMB402
SMT7124	187	18	2.3	7.49	
SMM7124	152	22	1.8	9.20	
(1400 min ⁻¹)	118	28	1.6	11.83	
	112	30	1.5	12.48	
	94	35	1.3	14.83	
	79	42	1.1	17.63	
	75	44	1.2	18.60	
	63	53	1.0	22.33	
	59	57	1.0	23.91	
	48	69	0.9	28.89	
	45	73	0.9	30.84	
	42	80	0.8	33.57	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.55					
SMT7134	227	22	1.8	6.18	CMB402
SMM7134	187	26	1.5	7.49	
(1400 min ⁻¹)	152	32	1.2	9.20	
	118	42	1.1	11.83	
	112	44	1.0	12.48	
	94	52	0.9	14.83	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.75					
SMT7144	227	30	1.3	6.18	CMB402
(1400 min ⁻¹)	187	36	1.1	7.49	
	152	44	0.9	9.20	

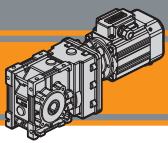


Motori Motors	SMT				SMM		
	5044	5634 5644 5654	6324 6334 6344	7124 7134 7144	5644	6324 6334	7124 7134
IEC	56 B14		63 B14	71 B14	56 B14	63 B14	71 B14

Dati tecnici elettrici

Electrical technical data





CMB

Motoriduttori CA ad assi ortogonali
AC Helical bevel gearmotors

MINI
TECNO

Dimensioni

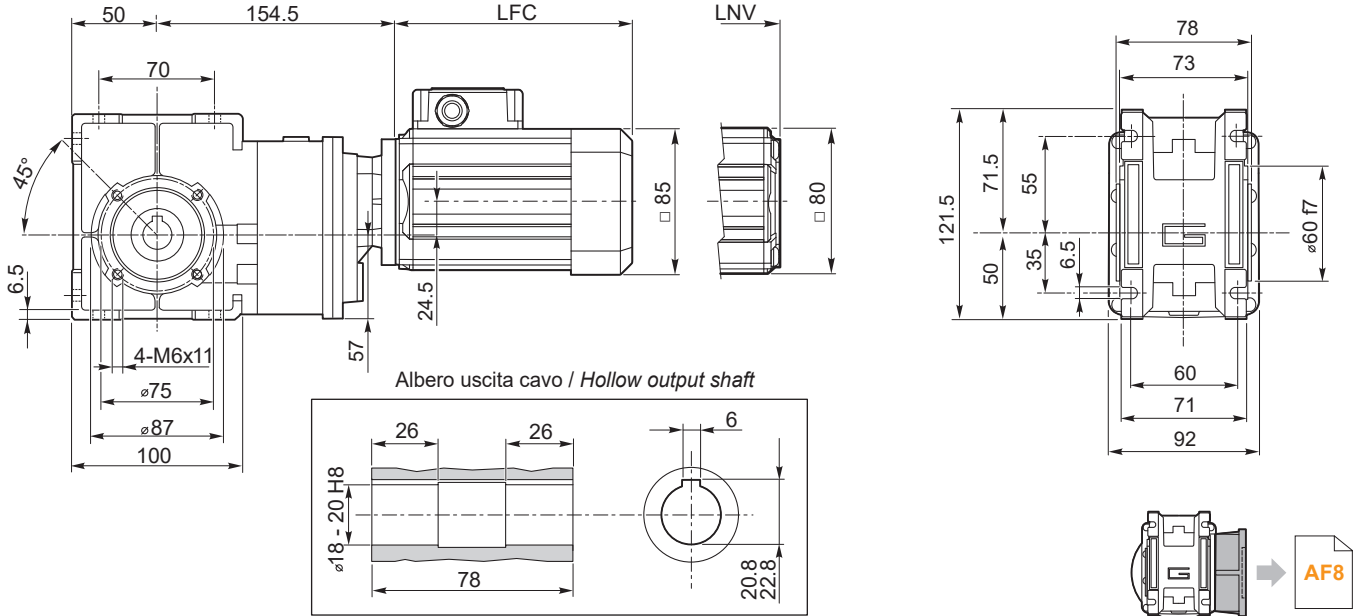
Dimensions

CMB 402 U

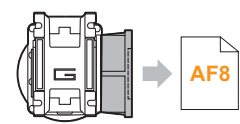
SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

S3 servizio **30%**
duty



Albero uscita cavo / Hollow output shaft



SMT	LFC	LNV	Kg	
5014	135.5	108.5	5.7	
5024	150.5	123.5	6.1	
5034	175.5	148.5	6.9	
5044	200.5	173.5	7.6	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	6.1	
5024	175.5	148.5	6.9	
5034	200.5	173.5	7.6	

Nota:
il condensatore sarà fornito a corredo

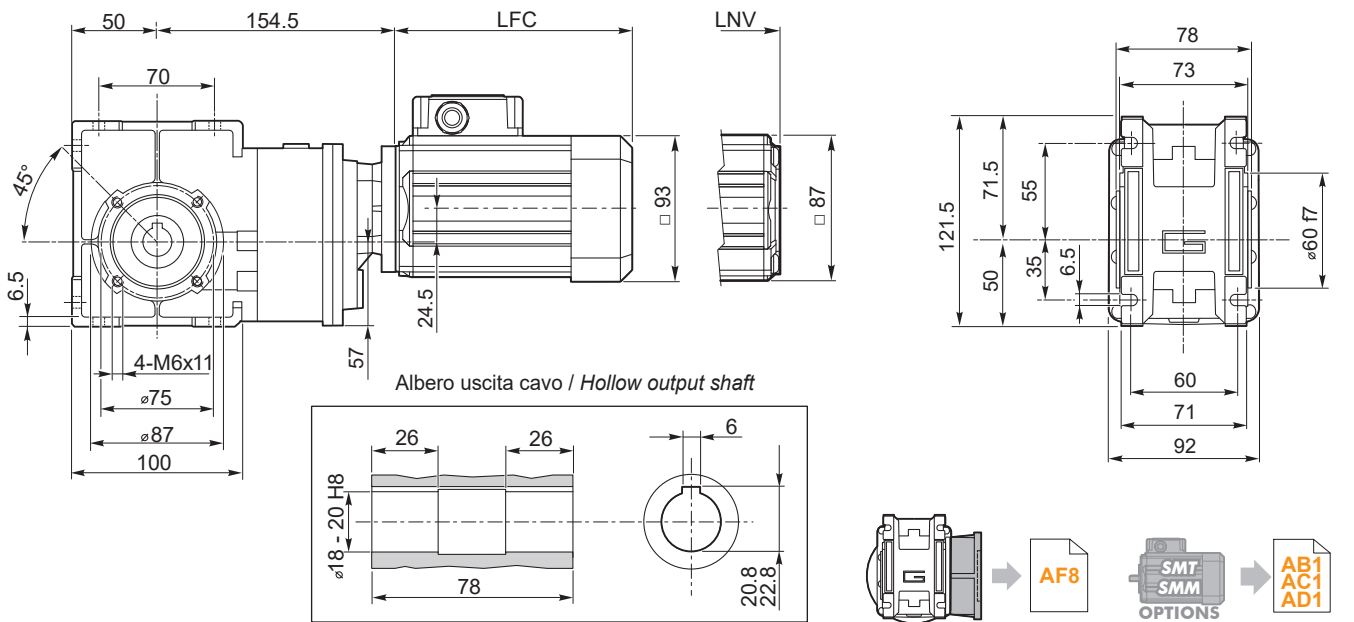
Note:
the capacitor will be supplied separately

CMB 402 U

SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio **30%**
duty



Albero uscita cavo / Hollow output shaft

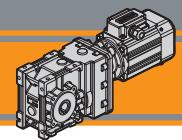


SMT	LFC	LNV	Kg	
5624	141	117	6.2	
5634	151	127	6.6	
5644	186	162	7.8	
5654	206	182	8.5	

SMM	LFC	LNV	Kg	
5624	151	127	6.5	
5634	171	147	7.1	
5644	206	182	8.4	

Nota:
il condensatore sarà fornito a corredo

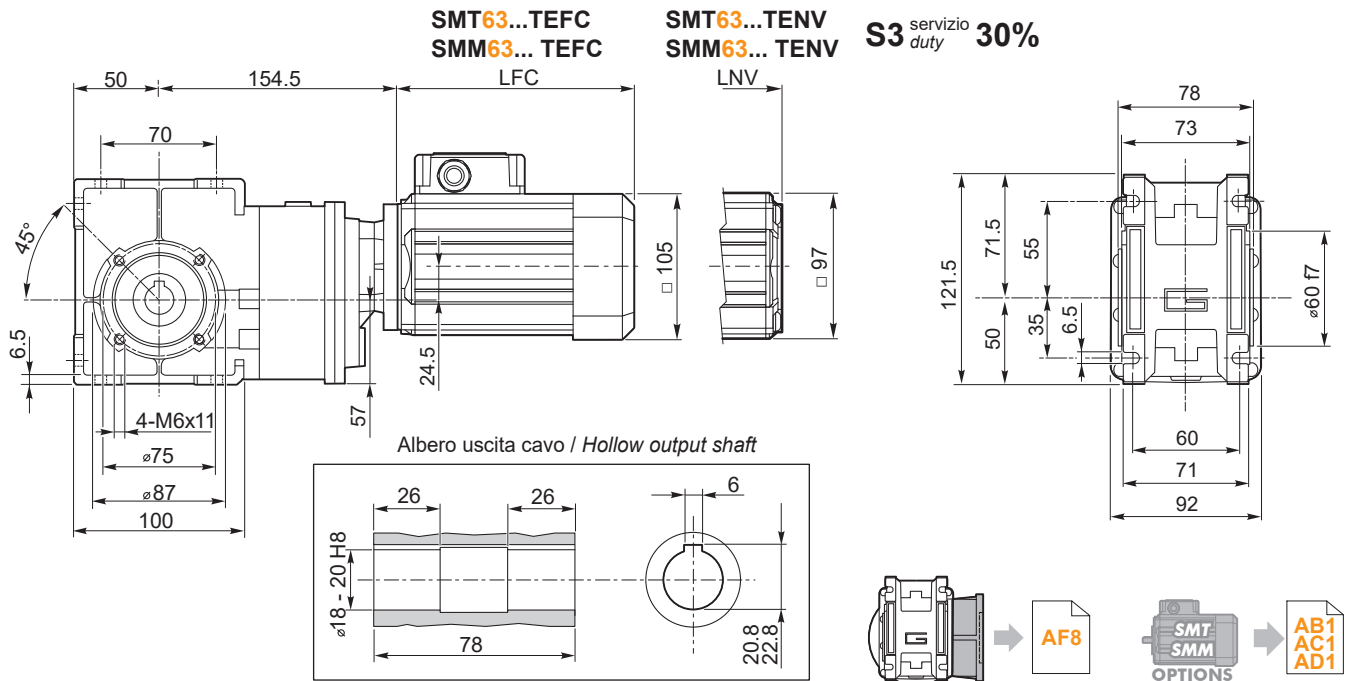
Note:
the capacitor will be supplied separately



Dimensioni

Dimensions

CMB 402 U



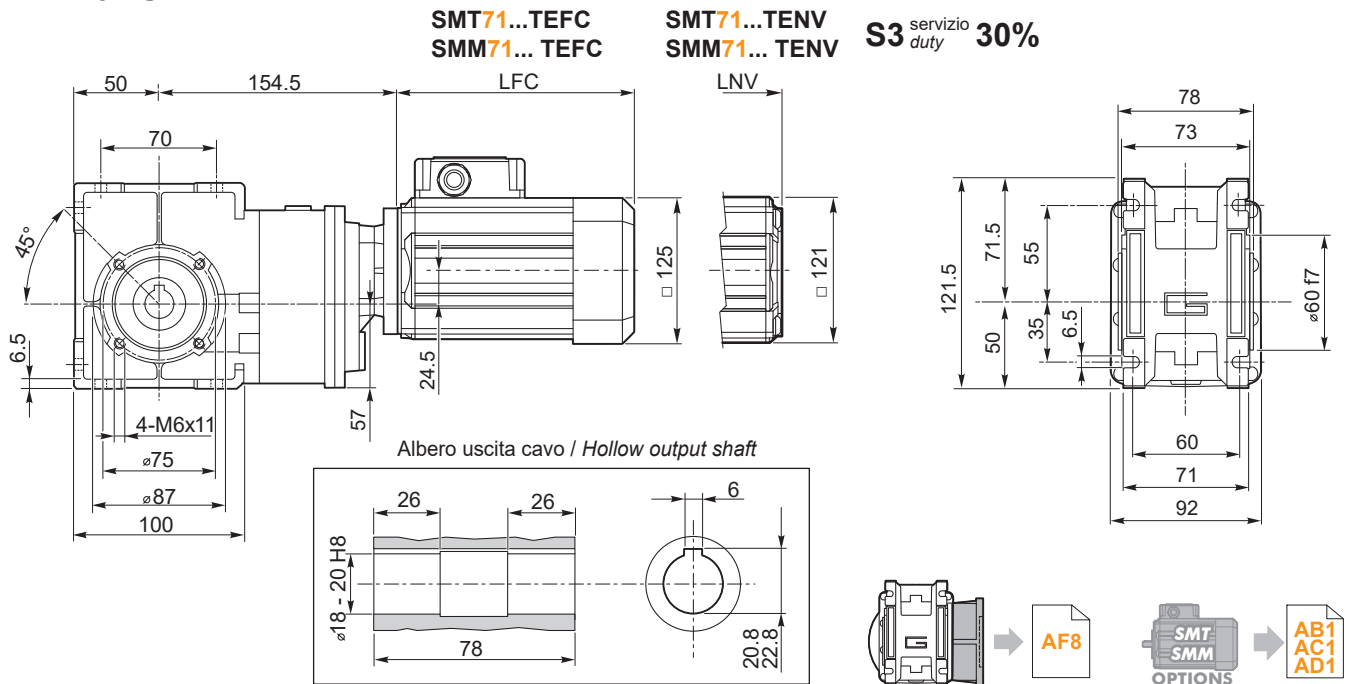
SMT	LFC	LNV	Kg	
6324	165.5	138.5	7.7	
6334	180.5	153.5	8.4	
6344	205.5	178.5	9.6	

SMM	LFC	LNV	Kg	
6324	180.5	153.5	8.5	
6334	205.5	178.5	9.7	

Nota:
il condensatore sarà fornito a corredo

Note:
the capacitor will be supplied separately

CMB 402 U



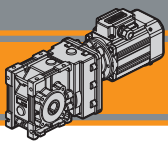
SMT	LFC	LNV	Kg	
7124	174	145.5	9.9	
7134	189	160.5	11	
7144	214	185.5	12.7	

SMM	LFC	LNV	Kg	
7124	189	160.5	10.6	
7134	214	185.5	12.6	

Nota:
il condensatore sarà fornito a corredo

Note:
the capacitor will be supplied separately

AC

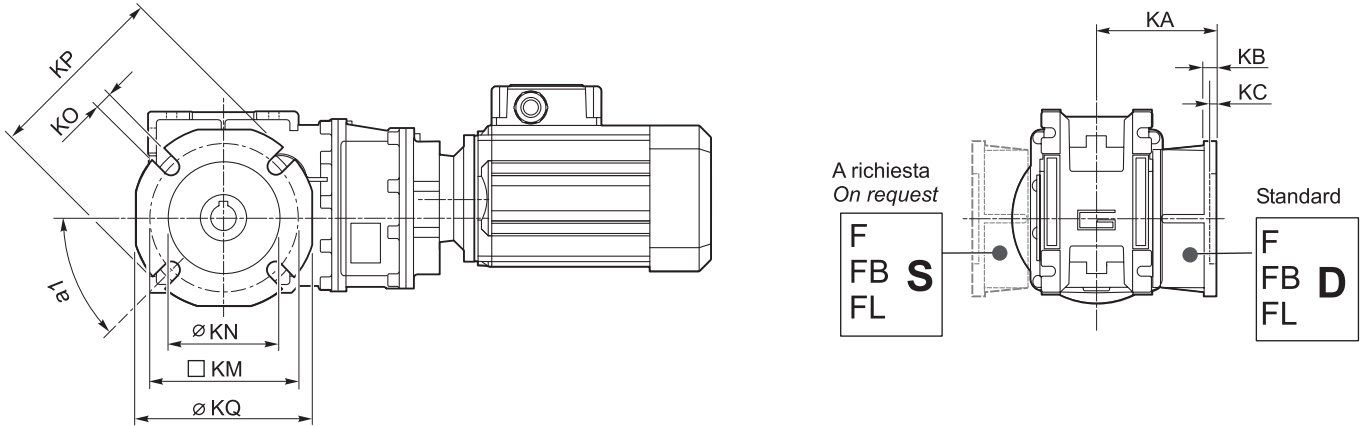


CMB

Motoriduttori CA ad assi ortogonali
AC Helical bevel gearmotors

MINI TECNO

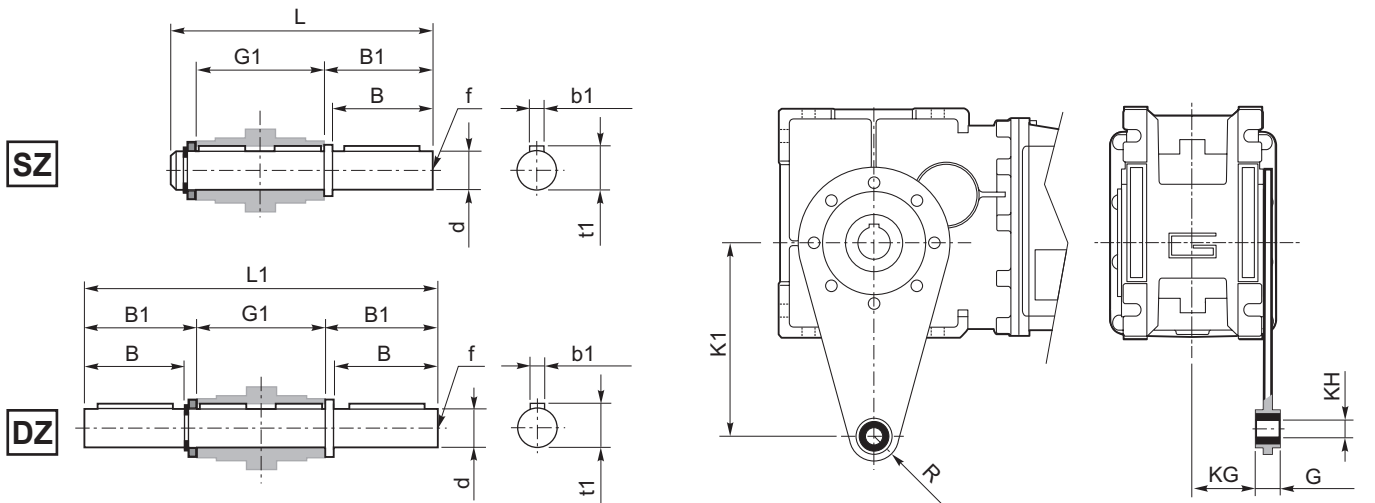
CMB402/ F... Flange uscita / Output flanges



CMB	Flange uscita / Output flanges																										
	F					FL					FB																
	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ
402	45°	67	7.5	4.5	80-95	60	9	110	95	45°	97	7.5	4.5	80-95	60	9	110	95	45°	80	8.5	5	115-125	95	9.5	140	112

Accessori

Accessories



Albero lento / Output shaft

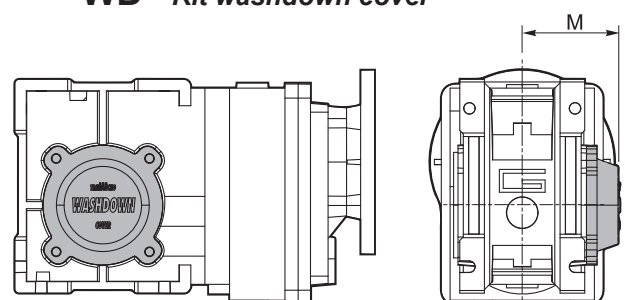
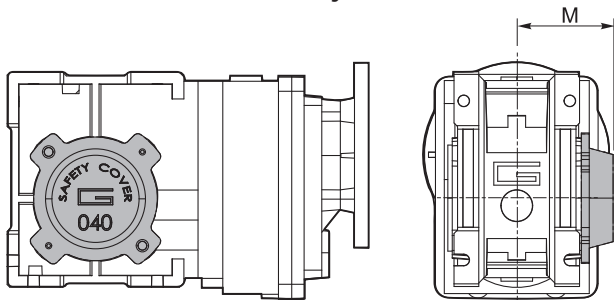
CMB	d h7	B	B1	G1	L	L1	f	b1	t1
402	18	40	43	78	128	164	M6	6	20.5

Braccio di reazione / Torque arm

CMB	K1	G	KG	KH	R
402	100	14	31	10	18

SC - Safety cover

WD - Kit washdown cover



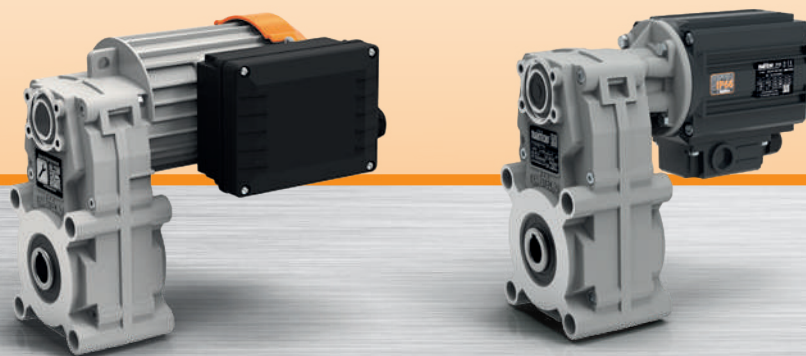
CMB	M
402	54.5

CMB	M
402	55.5

MINI  **TECNO**™
small but strong

KFT105 - FT

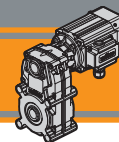
Motoriduttori CA pendolari
AC Helical parallel gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



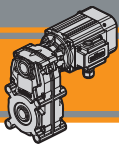
AC



Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	AG2
Designazione	<i>Classification</i>	AG2
Sensi di rotazione	<i>Direction of rotation</i>	AG3
Simbologia	<i>Symbols</i>	AG3
Lubrificazione	<i>Lubrication</i>	AG3
Carichi radiali	<i>Radial loads</i>	AG4
Motori applicabili	<i>Motor adapters</i>	AG4
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Dimensioni	<i>Dimensions</i>	AG8

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**KFT105
FT**

**Motoriduttori CA pendolari
AC Helical parallel gearmotors**



Caratteristiche tecniche

Technical features

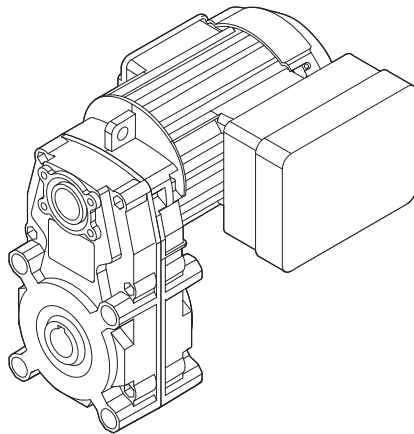
Le caratteristiche principali dei motoriduttori KFT e FT sono:

KFT and FT gearmotor range has the following main features:

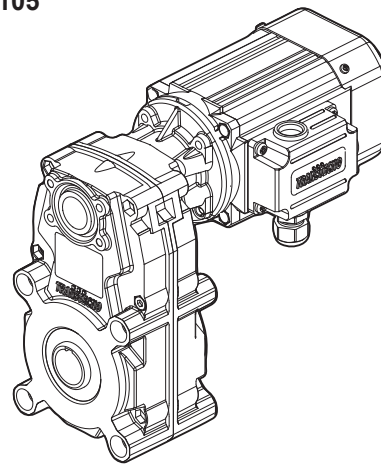
- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcasa motore SMT e SMM estrusa in alluminio anodizzato nero
- Carcasse dei riduttori in pressofusione di alluminio
- Motore elettrico SMT e SMM con grado di protezione IP66
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezione termica PTO 150°C per la taglia motore 56.
- SMT56 adatto al funzionamento con alimentazione da inverter
- SMT e SMM Disponibili nelle versioni autofrenante, servoven-tilata e con certificazione UL.
- Versione KFT105 con motore monofase integrato

- *Compact design*
- *AC single phase and three phase motors available*
- *SMT and SMM motors extruded aluminum housing black ano-dized*
- *Gearbox die-cast aluminum housing*
- *SMT and SMM electric motors in IP66 protection Standard*
- *Permanent synthetic oil long-life lubrication*
- *Ground-hardened helical gears*
- *Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available*
- *PTO 150°C thermal protection for motor size 56.*
- *SMT56 is suitable for inverter duty*
- *Brake motors, forced ventilation motors and UL compliance versions available for SMT and SMM motors.*
- *KFT105 version with integrated single motor phase*

KFT105



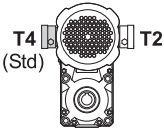
FT105

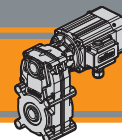


Designazione

Classification

RIDUTTORE / GEARBOX				
KFT	105/3	U	88.87	O20
Tipo Type	Grandezza Size	Versione Version	Rapporto Ratio	Albero cavo uscita Hollow output shaft
KFT 	105/3 105/4	U... F...	vedi tabelle see tables	vedi tabelle see tables

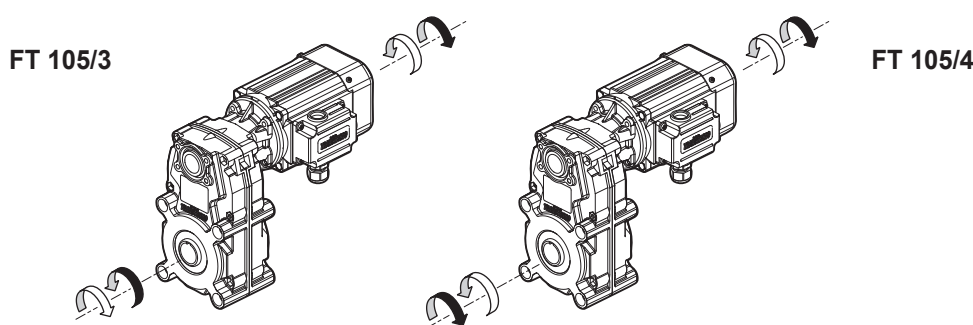
MOTORE / MOTOR						
40W	4p	3ph	230/400V	50Hz	T1	TEFC
Potenza Power	Poli Poles	Fasi Phases	Tensione Voltage	Frequenza Frequency	Pos. morsetti- Terminal box pos.	Ventilazione Fan cooling
vedi tabelle see tables	4p	1ph 3ph	230V ... 230/400V ...	50Hz 60Hz		TEFC TENV


Designazione
Classification

RIDUTTORE / GEARBOX						
FT	105/3	U	77.07	O20	56	B14
Tipo Type	Grandezza Size	Versione Version	Rapporto Ratio	Albero cavo uscita Hollow output shaft	IEC 	Forma costruttiva Version
FT 	105/3 105/4	U...	vedi tabelle see tables	vedi tabelle see tables	56	B14

MOTORE TRIFASE / THREE PHASE MOTOR										
SMT	56	4	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	BR	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsettiera Terminal box pos.
SMT 	Vedere tab. See tab.	1-2-3-4-5	4	0.04 kW ... 0.25 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC TENV	 AB1 AC1 AD1	T1 (Std) T4 T2 T3

MOTORE MONOFASE / SINGLE PHASE MOTOR										
SMM	56	4	4	0.18 kW	B14	230 V	50 Hz	TEFC	UL-CSA	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsettiera Terminal box pos.
SMM 	Vedere tab. See tab.	1-2-3-4	4	0.04 kW ... 0.18 kW	B14	230V	50Hz	TEFC TENV	 AD1	T1 (Std) T4 T2 T3

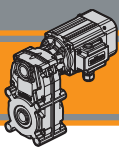
Sensi di rotazione
Direction of rotation

Simbologia
Symbols

n_1	[min^{-1}]	Velocità in ingresso / <i>Input speed</i>
n_2	[min^{-1}]	Velocità in uscita / <i>Output speed</i>
i		Rapporto di riduzione / <i>Ratio</i>
P_1	[kW]	Potenza in entrata / <i>Input power</i>
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
P_{n1}	[kW]	Potenza nominale in entrata / <i>Nominal input power</i>
M_{n2}	[Nm]	Coppia nominale in uscita in funzione di P_{n1} / <i>Nominal output torque referred to P_{n1}</i>
sf		Fattore di servizio / <i>Service factor</i>
R_2	[N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
A_2	[N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>

Lubrificazione
Lubrication

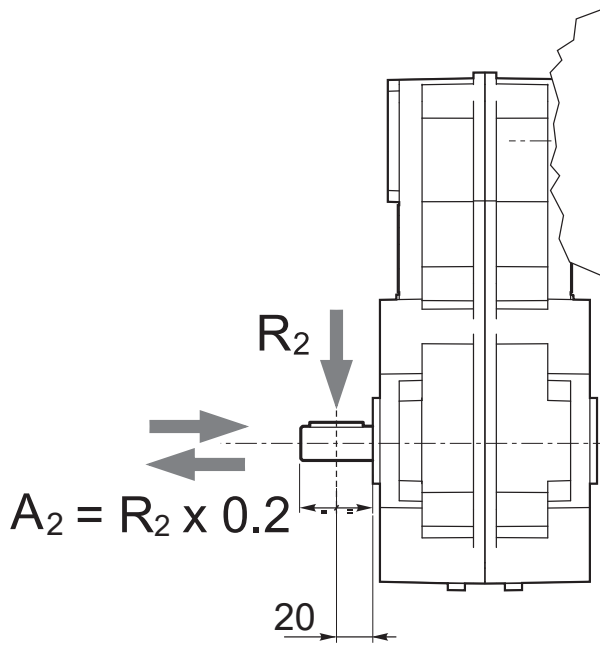
Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.



Carichi radiali

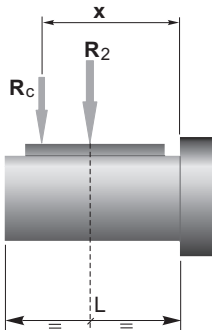
Radial loads



n_2 [min ⁻¹]	R_2 [N]
	KFT105 FT105
70	1500
40	1700
30	1850
20	2000
10	2000
5	2000

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:



	KFT105 FT105
a	82
b	62
R_{2MAX}	2000

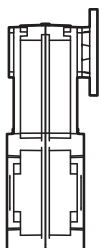
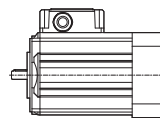
$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

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

$$R \leq R_c$$

Motori applicabili

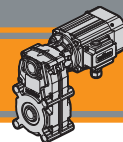
IEC Motor adapters



		SMT		SMM	
		5014	5624	5014	5624
		5024	5634	5024	5634
		5034	5644	5034	5644
		5044	5654		
FT	105/3	20.57 - 315.05			
FT	105/4	368.19 - 929.4			

20.57 - 929.4

Rapporti di riduzione i
Ratio i



Dati tecnici

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	M _n [Nm]	i	
------------------------	--	------------------------	----	------------------------	---	--

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	M _n [Nm]	i	
------------------------	--	------------------------	----	------------------------	---	--

0.025

68	3	12.1	40	20.57	KFT105/3
42	5	9.4	50	33.32	
32	7	9.1	65	44.36	
26	9	7.4	65	54.87	
19	12	5.6	65	71.84	
18	12	5.3	65	77.07	
16	14	4.6	65	88.87	
11	20	3.2	65	124.81	
7.7	29	2.2	65	181.35	
6.2	36	1.8	65	224.32	
4.4	51	1.3	65	315.05	
3.8	58	1.1	65	368.19	KFT105/4
2.6	84	0.8	65	534.98	
2.1	104	0.6	65	661.76	
1.5	120	0.5	65	929.40	

0.09

68	12	3.4	40	20.57	KFT105/3
42	19	2.6	50	33.32	
32	26	2.5	65	44.36	
26	32	2.1	65	54.87	
19	41	1.6	65	71.84	
18	44	1.5	65	77.07	
16	51	1.3	65	88.87	
11	72	0.9	65	124.81	
7.7	105	0.6	65	181.35	
6.2	110	0.6	65	224.32	

0.12

68	16	2.5	40	20.57	KFT105/3
42	26	2.0	50	33.32	
32	34	1.9	65	44.36	
26	42	1.5	65	54.87	
19	55	1.2	65	71.84	
18	59	1.1	65	77.07	
16	68	1.0	65	88.87	
11	96	0.7	65	124.81	
7.7	110	0.6	65	181.35	

0.04

68	5	7.6	40	20.57	KFT105/3
42	9	5.9	50	33.32	
32	11	5.7	65	44.36	
26	14	4.6	65	54.87	
19	18	3.5	65	71.84	
18	20	3.3	65	77.07	
16	23	2.9	65	88.87	
11	32	2.0	65	124.81	
7.7	47	1.4	65	181.35	
6.2	58	1.1	65	224.32	
4.4	81	0.8	65	315.05	
3.8	92	0.7	65	368.19	KFT105/4
2.6	120	0.5	65	534.98	
2.1	120	0.5	65	661.76	

0.06

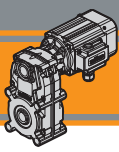
68	8	5.1	40	20.57	KFT105/3
42	13	3.9	50	33.32	
32	17	3.8	65	44.36	
26	21	3.1	65	54.87	
19	28	2.4	65	71.84	
18	30	2.2	65	77.07	
16	34	1.9	65	88.87	
11	48	1.4	65	124.81	
7.7	70	0.9	65	181.35	
6.2	86	0.8	65	224.32	
4.4	110	0.6	65	315.05	
3.8	120	0.5	65	368.19	KFT105/4

N.B.

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

N.B.

Please check that the output torque M₂ does not exceed the value in the grey areas

**FT****Motoriduttori CA pendolari**
AC Helical parallel gearmotors**Dati tecnici****Technical data**

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.04					
SMT5014	68	5	7.6	20.57	FT105/3
SMM5014	42	9	5.9	33.32	
(1400 min ⁻¹)	32	11	5.7	44.36	
	26	14	4.6	54.87	
	19	18	3.5	71.84	
	18	20	3.3	77.07	
	16	23	2.9	88.87	
	11	32	2.0	124.81	
	7.7	47	1.4	181.35	
	6.2	58	1.1	224.32	
	4.4	81	0.8	315.05	
	3.8	92	0.7	368.19	FT105/4
	2.6	120	0.5	534.98	
	2.1	120	0.5	661.76	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.12					
SMT5044	68	16	2.5	20.57	FT105/3
SMT5634	42	26	2.0	33.32	
SMM5624	32	34	1.9	44.36	
(1400 min ⁻¹)	26	42	1.5	54.87	
	19	55	1.2	71.84	
	18	59	1.1	77.07	
	16	68	1.0	88.87	
	11	96	0.7	124.81	
	7.7	110	0.6	181.35	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.06					
SMT5024	68	8	5.1	20.57	FT105/3
SMM5024	42	13	3.9	33.32	
(1400 min ⁻¹)	32	17	3.8	44.36	
	26	21	3.1	54.87	
	19	28	2.4	71.84	
	18	30	2.2	77.07	
	16	34	1.9	88.87	
	11	48	1.4	124.81	
	7.7	70	0.9	181.35	
	6.2	86	0.8	224.32	
	4.4	92	0.7	315.05	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.18					
SMT5644	68	24	1.7	20.57	FT105/3
SMM5644	42	38	1.3	33.32	
(1400 min ⁻¹)	32	51	1.3	44.36	
	26	63	1.0	54.87	
	19	83	0.8	71.84	
	18	89	0.7	77.07	
	16	92	0.7	88.87	
	11	110	0.6	124.81	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.25					
SMT5654	68	33	1.2	20.57	FT105/3
(1400 min ⁻¹)	42	53	0.9	33.32	
	32	71	0.9	44.36	

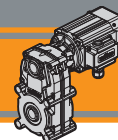
P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.09					
SMT5034	68	12	3.4	20.57	FT105/3
SMM5034	42	19	2.6	33.32	
SMT5624	32	26	2.5	44.36	
SMM5624	26	32	2.1	54.87	
(1400 min ⁻¹)	19	41	1.6	71.84	
	18	44	1.5	77.07	
	16	51	1.3	88.87	
	11	72	0.9	124.81	
	7.7	105	0.6	181.35	
	6.2	110	0.6	224.32	

N.B.
Verificare sempre che la coppia M₂ utilizzata non ecceda il valore indicato nelle caselle in grigio
N.B.
Please check that the output torque M₂ does not exceed the value in the grey areas



Motori Motors	SMT		SMM	
		5014 5024 5034 5044	5624 5634 5644 5654	5014 5024 5034
IEC	56 B14		56 B14	

Dati tecnici elettrici**Electrical technical data**


Dati tecnici elettrici - KFT 105
KFT 105 - Electrical technical data

1 Ph	P _n [W]	V [V]	F [Hz]	I _n [A]	I _s [A]	cosØ	C [µF]	TEFC Servizio Duty	TENV Servizio Duty
	25	230	50	0.42	0.84	0.87	6.0	S1 100%	S3 30%
	40			0.47	0.86	0.91	6.3		
	60			0.74	1.50	0.82	8.0		
	90			0.82	1.60	0.93	12.5		
	120			1.38	3.10	0.81	14.0		

3 Ph	P _n [W]	V [V]	F [Hz]	I _n [A]	I _s [A]	cosØ	TEFC Servizio Duty	TENV Servizio Duty
	25	230	50	0.41	0.97	0.54	S1 100%	S3 30%
		400						
	40	230	50	0.43	0.97	0.62		
		400						
	60	230	50	0.72	1.80	0.48		
		400						
	90	230	50	0.74	1.80	0.60		
		400						
	120	230	50	1.34	3.70	0.50		
		400						

Nota:

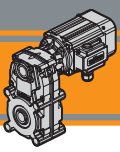
Classe di rendimento Standard IE1

Note:

Standard efficiency IE1

Normative di riferimento
Reference standards

	Europe EN	World IEC	Italy CEI
Requisiti generali per macchine elettriche <i>General requirements electrical machines</i>	EN 60034-1:2010	IEC 60034-1:2010	CEI EN 60034-1:2010
Classificazione del grado di protezione <i>Classification degree of protection provided by enclosures</i>	EN 60034-5:2001	IEC 60034-5:2001	CEI EN 60034-5:2001
Sistema di raffreddamento <i>Cooling system</i>	EN 60034-6:1993	IEC 60034-6:1993	CEI EN 60034-6:1993
Modalità di montaggio <i>Mounting arrangements</i>	EN 60034-7:1993	IEC 60034-7:1993	CEI EN 60034-7:1993



Dimensioni

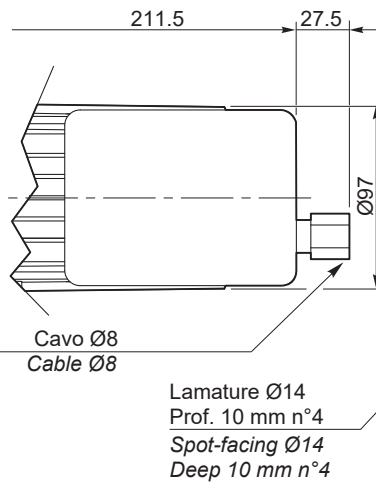
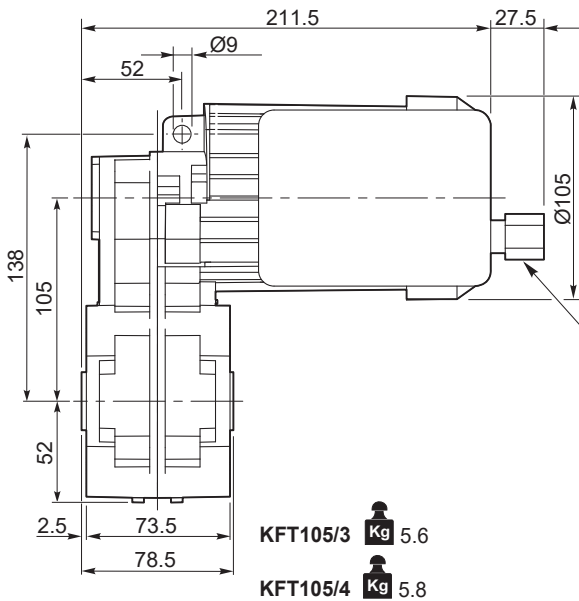
Dimensions

KFT 105... 25W - 40W - 60W - 90W

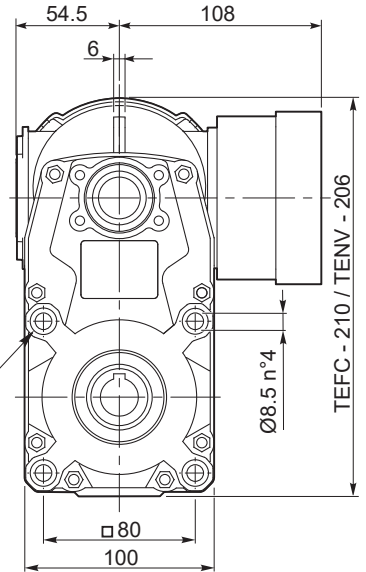
KFT 105...1 Ph...TEFC

KFT 105...1 Ph...TENV

S3 servizio duty 30%



KFT105/3 **Kg** 5.5
KFT105/4 **Kg** 5.7

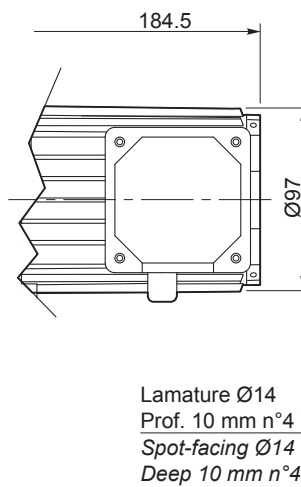
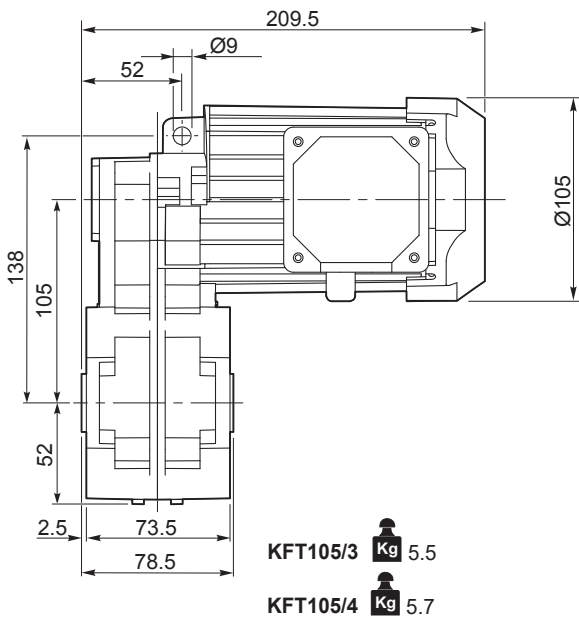


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

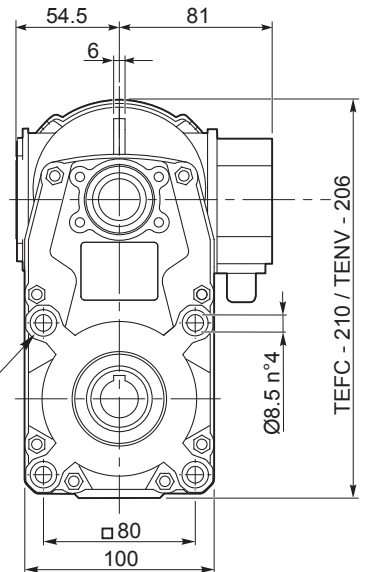
KFT 105...3 Ph... TEFC

KFT 105...3 Ph... TENV

S3 servizio duty 30%

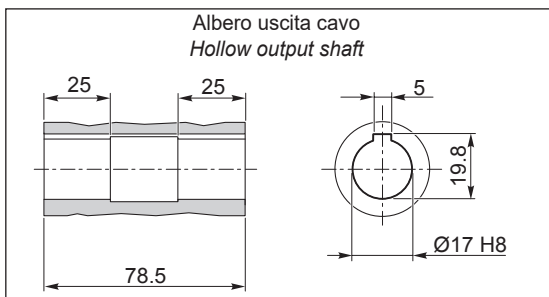


KFT105/3 **Kg** 5.4
KFT105/4 **Kg** 5.6

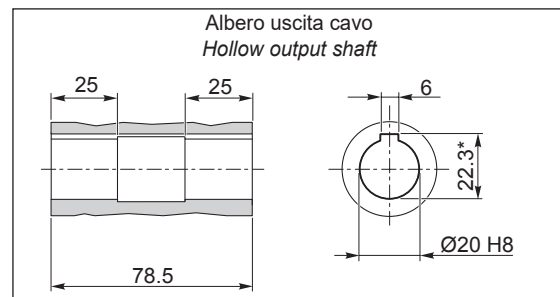


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

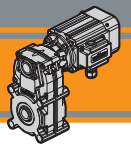
O17



O20



*Sede linguetta ribassata / Special Keyway



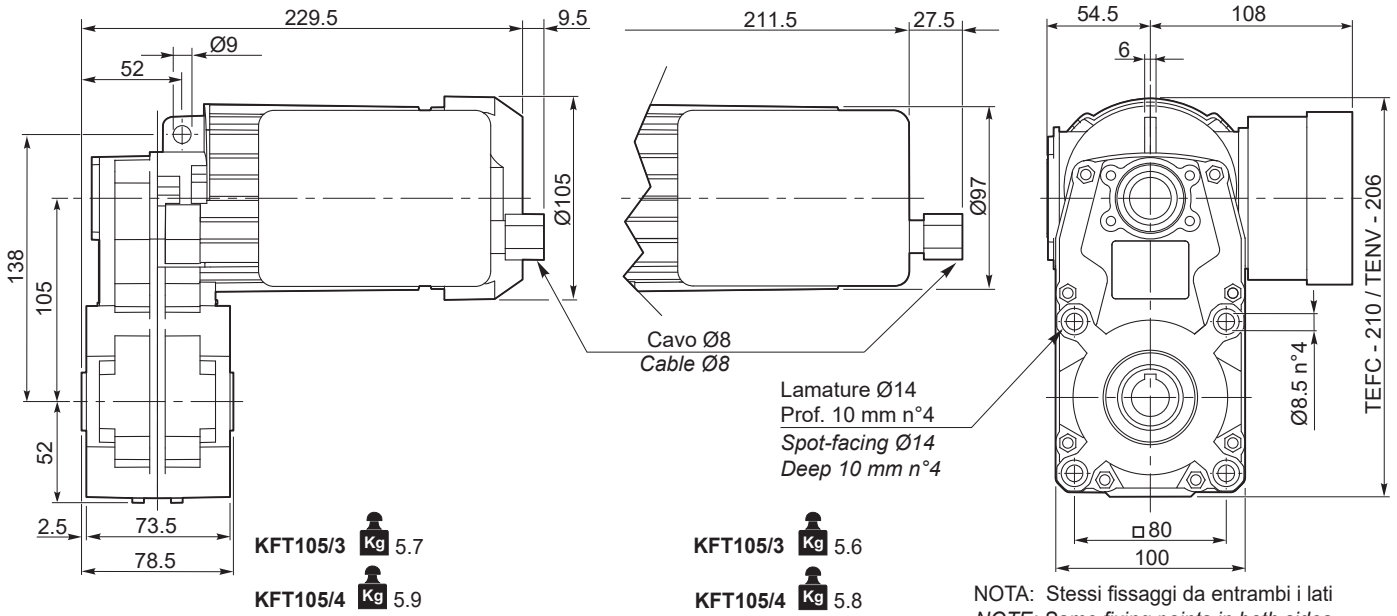
Dimensioni

Dimensions

KFT 105... 120W

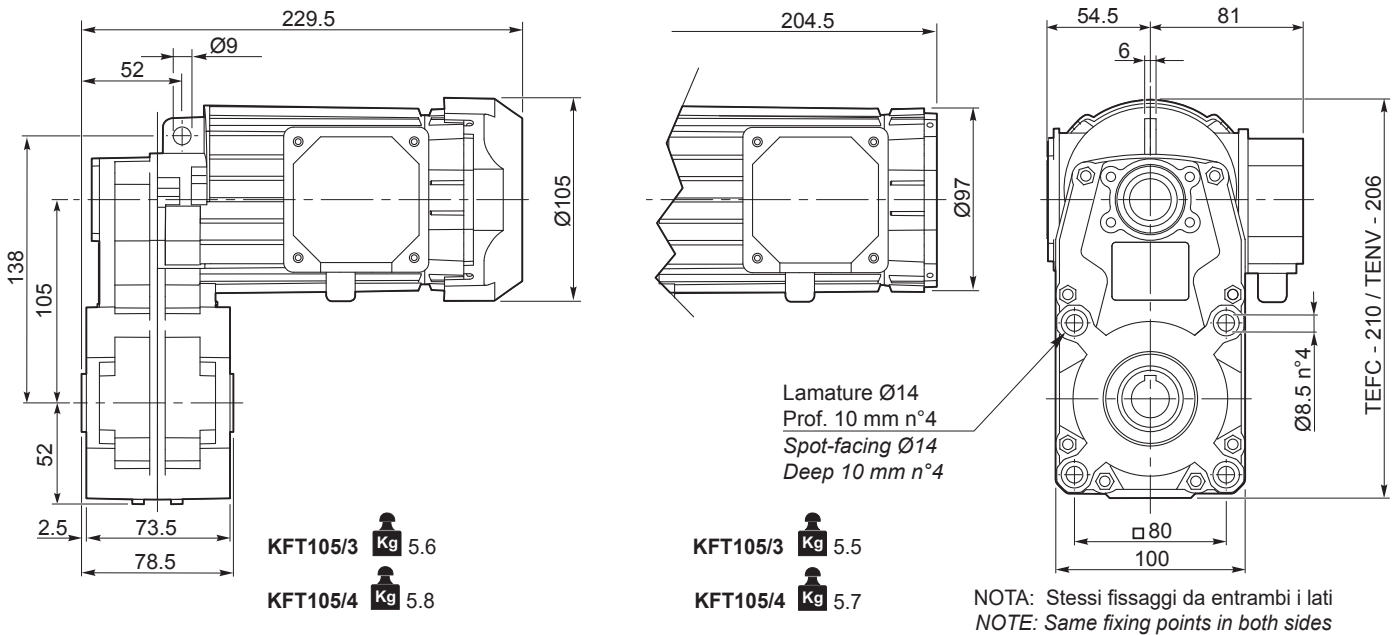
KFT 105...1 Ph... TEFC

KFT 105...1 Ph...TENV S3 servizio duty 30%

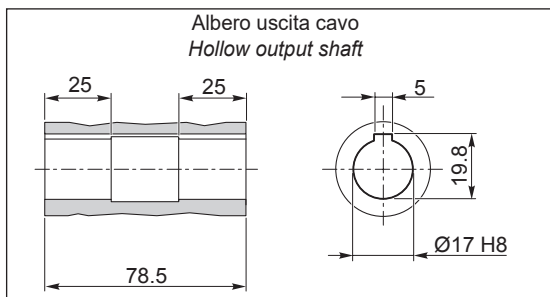


KFT 105...3 Ph... TEFC

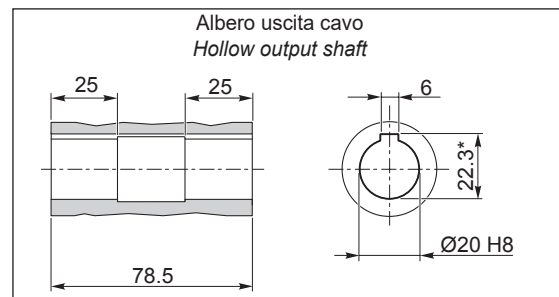
KFT 105...3 Ph... TENV S3 servizio duty 30%



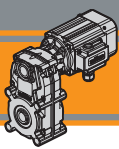
O17



O20



*Sede linguetta ribassata/ Special Keyway



FT

Motoriduttori CA pendolari
AC Helical parallel gearmotors

MINI
TECNO

Dimensioni

Dimensions

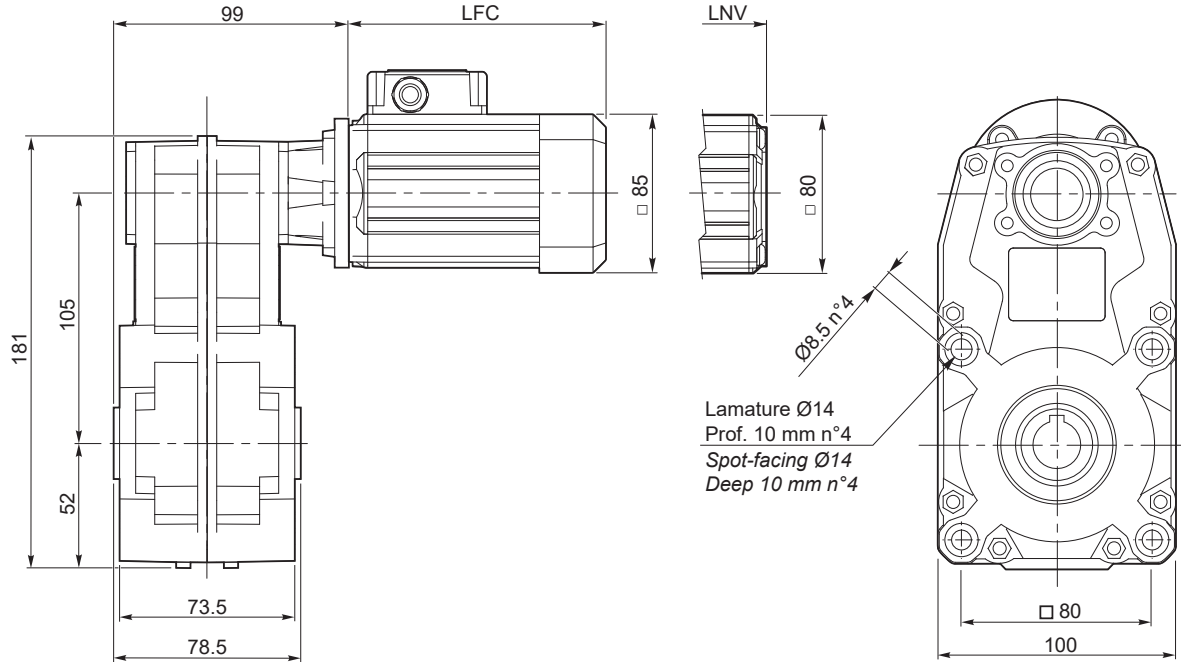
FT105 U

FT 105...U

SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

S3 servizio **30%**
duty

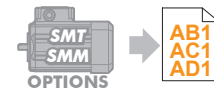


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

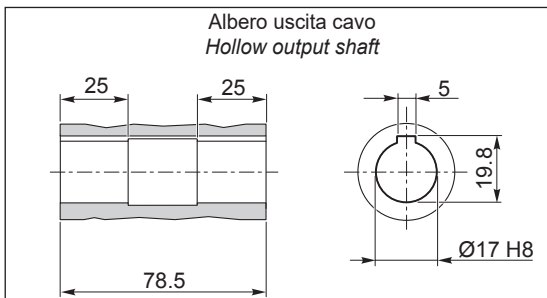
SMT	LFC	LNV	Kg	
5014	135.5	108.5	6.5	
5024	150.5	123.5	6.9	
5034	175.5	148.5	7.7	
5044	200.5	173.5	8.4	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	6.9	
5024	175.5	148.5	7.7	
5034	200.5	173.5	8.4	

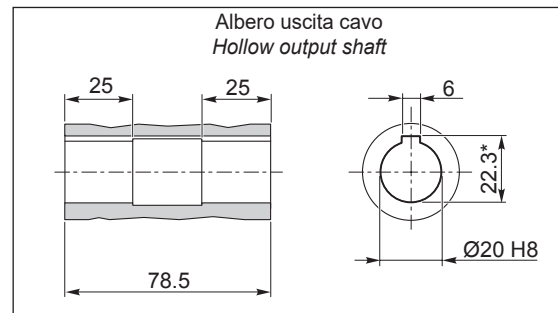
Nota:
il condensatore sarà fornito a corredo
Note:
the capacitor will be supplied separately



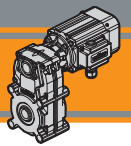
O17



O20



*: Sede linguetta ribassata / Special keyway

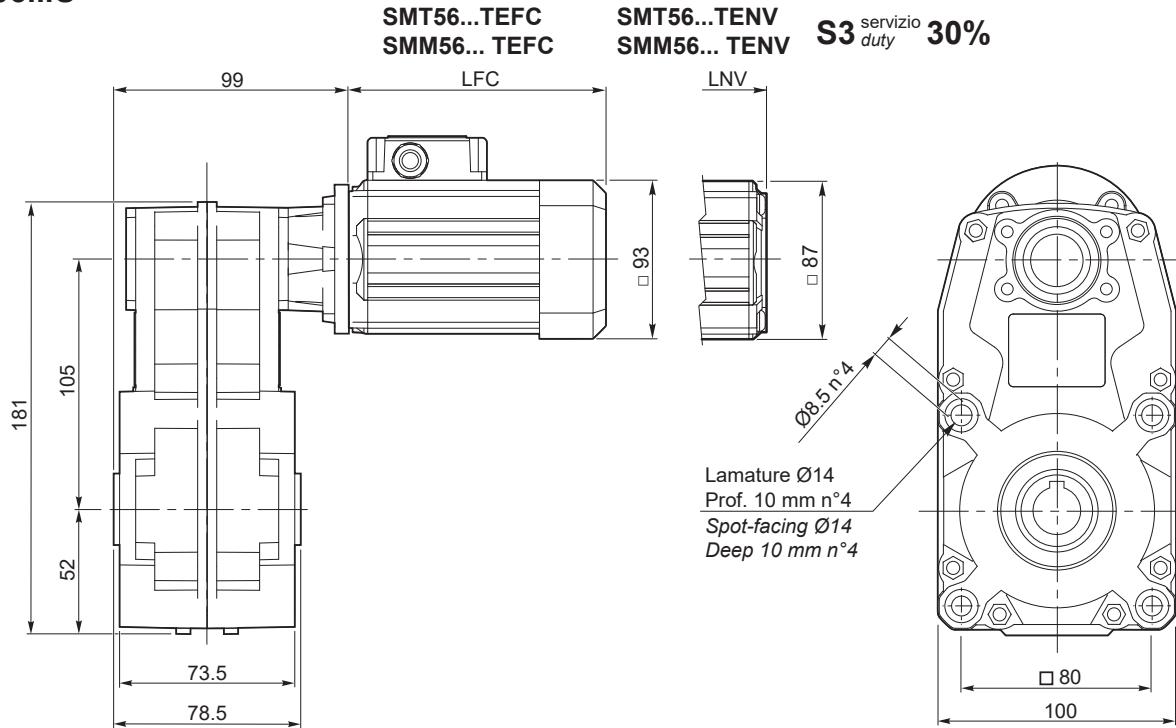


Dimensioni

Dimensions

FT105 U

FT 105...U



S3 servizio duty 30%

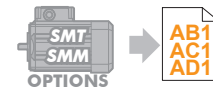
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

SMT	LFC	LNV	Kg	
5624	141	117	7	
5634	151	127	7.4	
5644	186	162	8.6	
5654	206	182	9.3	

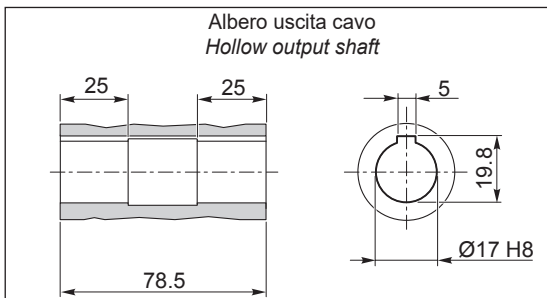
SMM	LFC	LNV	Kg	
5624	151	127	7.3	
5634	171	147	7.9	
5644	206	182	9.2	

Nota:
il condensatore sarà fornito a corredo

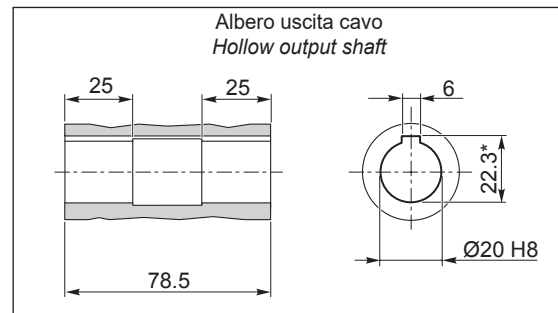
Note:
the capacitor will be supplied separately



O17

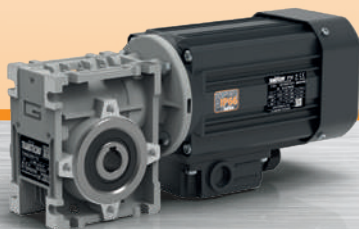


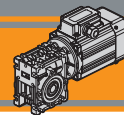
O20



*: Sede linguetta ribassata / Special keyway

Motoriduttori CA a vite senza fine AC Wormgearmotors

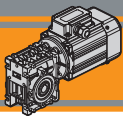




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Designazione	<i>Classification</i>	AH3
Sensi di rotazione	<i>Direction of rotation</i>	AH4
Simbologia	<i>Symbols</i>	AH4
Lubrificazione	<i>Lubrication</i>	AH4
Carichi radiali	<i>Radial loads</i>	AH5
Dati di dentatura	<i>Toothing data</i>	AH5
Rendimento	<i>Efficiency</i>	AH6
Motori applicabili	<i>Motor adapters</i>	AH6
Dati tecnici	<i>Technical</i>	AH7
Dimensioni	<i>Dimensions</i>	AH10
Opzioni	<i>Options</i>	AH20
Accessori	<i>Accessories</i>	AH20

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CM
CMP

Caratteristiche tecniche

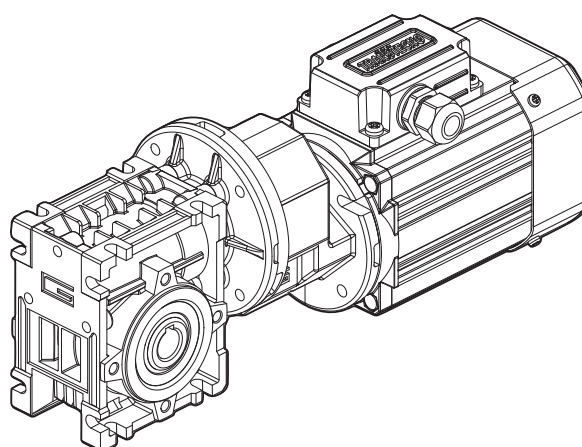
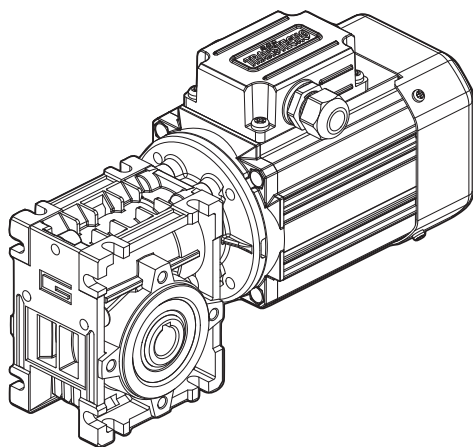
Technical features

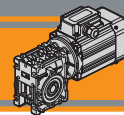
Le caratteristiche principali dei motoriduttori CM e CMP sono:

- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa motore estrusa in alluminio anodizzato nero
- Carcasse dei riduttori in pressofusione di alluminio
- Motore elettrico AC con grado di protezione IP66
- Lubrificazione permanente con olio sintetico
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezione termica PTO 150°C per le taglie motore 56, 63 e 71.
- SMT56, SMT63 e SMT71 adatti al funzionamento con alimentazione da inverter
- Disponibili nelle versioni autofrenante, servovenilata e con certificazione UL.

CM and CMP gearmotors range has the following main features:

- Compact design
- AC single phase and three phase motors available
- Motor extruded aluminum housing black anodized
- Gearbox die-cast aluminum housing
- AC electric motor in IP66 protection Standard
- Permanent synthetic oil long-life lubrication
- Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available
- PTO 150°C thermal protection for motor sizes 56, 63 and 71.
- SMT56, SMT63 and SMT71 are suitable for inverter duty
- Brake motors, forced ventilation motors and UL compliance versions available.





Designazione

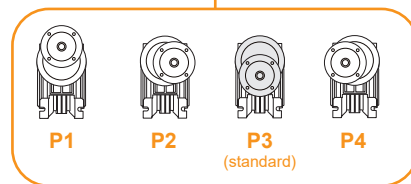
Classification

RIDUTTORI A VITE SENZA FINE / WORMGEARBOXES

RIDUTTORE / GEARBOX									
CM	040	U	10	63	B14	SZDX	BRSX	90	VS
Tipo Type	Grandezza Size	Versione riduttore Gearbox Version	Rapporto Ratio	IEC 	Forma costruttiva Version	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Opzioni Options
	026 026 (D11) 026 (D14) 030 040	U F...	Vedere tabella See tables	56.. 63.. 71..	B14	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	VS

RIDUTTORI A VITE SENZA FINE CON PRECOPPIA / PRE-STAGE WORMGEARBOXES

RIDUTTORE / GEARBOX										
CMP	063/040	U	90	63	B14	SZDX	BRSX	90	P4	VS
Tipo Type	Grandezza Size	Versione Riduttore Gearbox Version	Rapporto Ratio	IEC 	Forma costruttiva Version	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Pos. di montaggio precoppia Pre stage mounting position	Opzioni Options
	056/030 056/040 063/040	U F...	Vedere tabella See tables	56.. 63..	B5 B14	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	P1 P2 P3 (standard) P4	VS

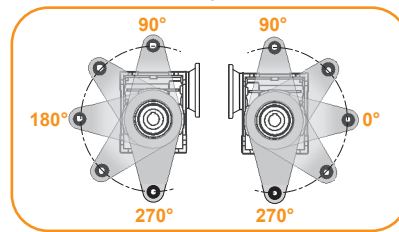
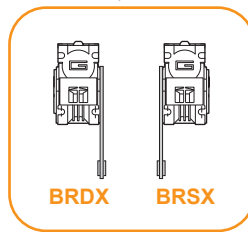
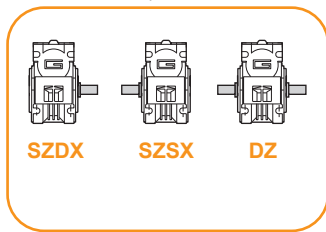
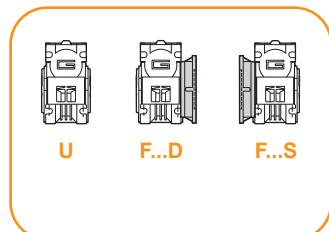


Versione Riduttore
Gearbox Version

Albero di uscita
Output shaft

Braccio di reazione
Torque arm *

Angolo
Angle



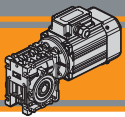
* NOTA: il braccio di reazione viene fornito smontato.
NOTE: the torque arm will be supplied not assembled.

MOTORE TRIFASE / THREE PHASE MOTOR

SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	BR	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsettiera Terminal box pos.
	Vedere tab. See tab.	1-2-3-4-5	4	0.04 kW ... 0.75 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC TENV		T1 (Std) T4 T2 T3

MOTORE MONOFASE / SINGLE PHASE MOTOR

SMM	63	2	4	0.18 kW	B14	230 V	50 Hz	TEFC	UL-CSA	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsettiera Terminal box pos.
	Vedere tab. See tab.	1-2-3-4	4	0.04 kW ... 0.55 kW	B14	230V	50Hz	TEFC TENV		T1 (Std) T4 T2 T3



CM
CMP

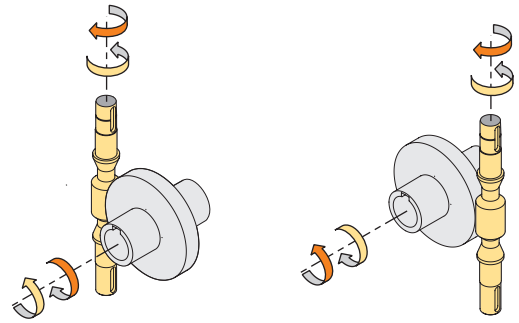
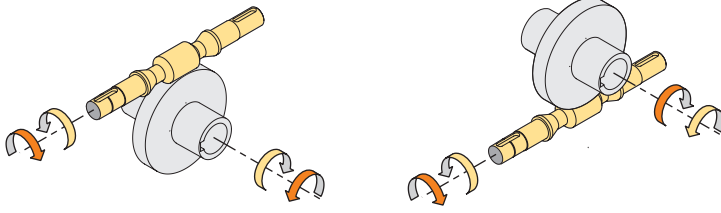
Motoriduttori CA a vite senza fine
AC Wormgearmotors

MINI
TECNO

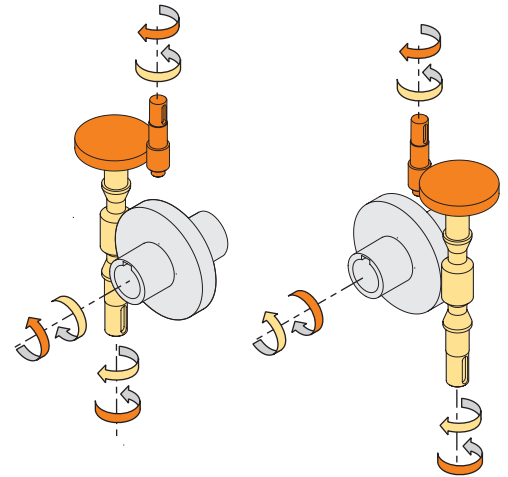
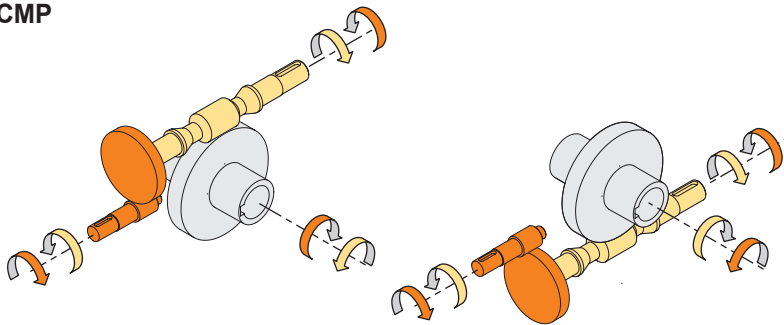
Sensi di rotazione

Direction of rotation

CM



CMP



Simbologia

Symbols

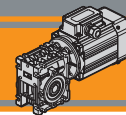
n_1	[min^{-1}]	Velocità in ingresso / <i>Input speed</i>	R_d	%	Rendimento dinamico / <i>Dynamic efficiency</i>
n_2	[min^{-1}]	Velocità in uscita / <i>Output speed</i>	A_2	[N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>
i		Rapporto di riduzione / <i>Ratio</i>	R_s	%	Rendimento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

Lubrificazione

Lubrication

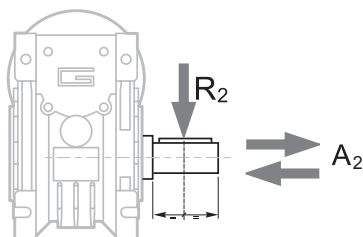
I riduttori a vite senza fine della serie CM sono lubrificati a vita con olio sintetico di viscosità 320 e possono essere installati in qualunque posizione di montaggio.

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



Carichi radiali

Radial loads

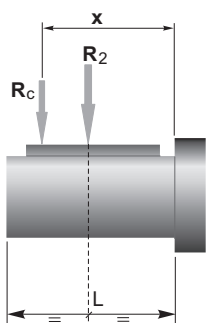


$$A_2 = R_2 \times 0.2$$

n ₂ [min ⁻¹]	R ₂ [N]		
	CM026	CM030	CM040
187	400	674	1264
140	490	743	1392
93	580	851	1596
70	610	936	1754
56	610	1008	1890
47	610	1069	2004
35	610	1179	2210
28	610	1270	2381
23	610	1356	2542
18	610	1471	2759
14	610	1600	3000
		CMP... /030	CMP... /040

Quando il carico radiale risultante non è applicato sulla mezza-
ria 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:



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

$$R \leq R_c$$

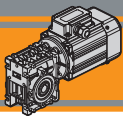
a, b = valori riportati nella tabella
a, b = values given in the table

	CM	CM / CMP	
	026	030	040
a	56	65	84
b	43	50	64
R _{2MAX}	610	1600	3000

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'
CM040	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 19'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'



CM
CMP

Motoriduttori CA a vite senza fine
AC Wormgearmotors



Rendimento

Efficiency

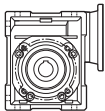
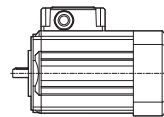
	n_1 [min ⁻¹]	Rendimento Efficiency	Rapporto / Ratio											
			5	7.5	10	15	20	25	30	40	50	60	80	100
CM026	2800	Rd	89	87	85	83	80		73	68	64	60		
	1400		87	84	83	78	74		66	61	57	53		
	900		84	83	80	75	71		61	57	52	48		
		Rs	72	71	68	61	56		46	41	36	34		
CM030	2800	Rd	89	88	86	84	81	78	74	70	65	62	57	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
CM040	2800	Rd	90	89	87	84	83	80	77	73	69	66	60	56
	1400		88	86	84	81	78	74	70	65	60	58	52	46
	900		86	84	82	77	74	70	66	60	57	53	46	41
		Rs	74	71	67	60	55	51	45	40	36	32	28	24



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

Motori applicabili

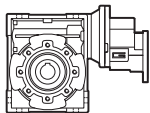
Motor adapters



		SMT				SMM			
		5014 5024 5034 5044	5624 5634 5644 5654	6324 6334 6344	7124 7134 7144	5014 5024 5034	5624 5634 5644	6324 6334	7124 7134
CM	026	5 - 60				5 - 60			
	030	5 - 100		5-50		5 - 100		5-50	
	040	5 - 100			5-30	5 - 100			5-30

5 - 100

Rapporti di riduzione i
Ratio i



		SMT				SMM			
		5014 5024 5034 5044	5624 5634 5644 5654	6324 6334 6344	7124 7134 7144	5014 5024 5034	5624 5634 5644	6324 6334	7124 7134
CMP	056/030	60 - 150				60 - 150			
	056/040	60 - 300				60 - 300			
	063/040			60 - 120				60 - 120	

60 - 300

Rapporti di riduzione i
Ratio i

Dati tecnici

Technical data

P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i			P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i			
0.04							0.06							
SMT5014	280	1.2	11.0	5	CM026		SMT5024	280	1.8	10.2	5	CM030		
SMM5014	187	1.7	8.1	7.5	CM026		SMM5024	187	2.6	7.7	7.5	CM030		
(1400 min ⁻¹)	140	2.3	6.2	10	CM026		(1400 min ⁻¹)	140	3.4	6.1	10	CM030		
	93	3.2	4.4	15	CM026			93	4.9	4.3	15	CM030		
	70	4.0	3.5	20	CM026			70	6.1	3.1	20	CM030		
	47	5.4	2.8	30	CM026			56	7.4	2.7	25	CM030		
	35	6.7	2.1	40	CM026			47	8.2	2.7	30	CM030		
	28	7.8	1.7	50	CM026			35	10	2.0	40	CM030		
	23	8.7	1.4	60	CM026			28	12	1.6	50	CM030		
								23	14	1.3	60	CM030		
	280	1.2	15.3	5	CM030			23	16	1.6	60		CMP056/030	
	187	1.7	11.5	7.5	CM030			19	19	1.4	75		CMP056/030	
	140	2.3	9.2	10	CM030			18	16	1.0	80	CM030		
	93	3.2	6.5	15	CM030			16	21	1.6	90		CMP056/030	
	70	4.1	4.6	20	CM030			14	18	0.8	100	CM030		
	56	4.9	4.1	25	CM030			12	25	1.1	120		CMP056/030	
	47	5.5	4.0	30	CM030			9	29	0.9	150		CMP056/030	
	35	6.8	3.0	40	CM030									
	28	7.9	2.4	50	CM030			35	11	3.9	40	CM040		
	23	9.0	1.9	60	CM030			28	12	3.2	50	CM040		
	23	11	2.4	60		CMP056/030		23	14	2.5	60	CM040		
	19	12	2.1	75		CMP056/030		23	17	3.4	60		CMP056/040	
	18	10	1.4	80	CM030			19	20	2.6	75		CMP056/040	
	16	14	2.3	90		CMP056/030		18	17	1.9	80	CM040		
	14	12	1.2	100	CM030			16	23	3.1	90		CMP056/040	
	12	17	1.7	120		CMP056/030		14	19	1.6	100	CM040		
	9	20	1.4	150		CMP056/030		12	28	2.2	120		CMP056/040	
								9	32	1.8	150		CMP056/040	
	23	9.5	3.8	60	CM040			8	35	1.5	180		CMP056/040	
	23	11	5.2	60		CMP056/040		6	41	1.1	240		CMP056/040	
	19	13	3.9	75		CMP056/040		5	46	0.9	300		CMP056/040	
	18	11	2.9	80	CM040									
	16	15	4.7	90		CMP056/040								
	14	13	2.5	100	CM040									
	12	19	3.3	120		CMP056/040								
	9	21	2.7	150		CMP056/040								
	8	24	2.3	180		CMP056/040								
	6	28	1.7	240		CMP056/040								
	5	30	1.4	300		CMP056/040								

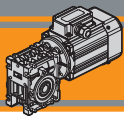
0.06						
SMT5024	280	1.8	7.3	5	CM026	
SMM5024	187	2.6	5.4	7.5	CM026	
(1400 min ⁻¹)	140	3.4	4.1	10	CM026	
	93	4.8	2.9	15	CM026	
	70	6.1	2.3	20	CM026	
	47	8.1	1.9	30	CM026	
	35	10	1.4	40	CM026	
	28	12	1.1	50	CM026	
	23	13	0.9	60	CM026	









0.09						
SMT5034	280	2.7	4.9	5	CM026	
SMM5034	187	3.9	3.6	7.5	CM026	
SMT5624	140	5.1	2.7	10	CM026	
SMM5624	93	7.2	1.9	15	CM026	
(1400 min ⁻¹)	70	9.1	1.5	20	CM026	
	47	12	1.2	30	CM026	
	35	15	0.9	40	CM026	
	28	17	0.7	50	CM026	



Motori Motors	SMT		SMM	
	5014 5024 5034	5624	5014 5024 5034	5624
IEC	56 B14		56 B14	

AC

**CM
CMP****Motoriduttori CA a vite senza fine
AC Wormgearmotors****Dati tecnici****Technical data**

P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i			P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		
0.09							0.12						
SMT5034	280	2.6	6.8	5	CM030		SMT5044	93	10	4.5	15	CM040	
SMM5034	187	3.9	5.1	7.5	CM030		SMT5634	70	13	3.1	20	CM040	
SMT5624	140	5.2	4.1	10	CM030		SMM5634	56	15	2.5	25	CM040	
SMM5624	93	7.3	2.9	15	CM030		(1400 min ⁻¹)	47	17	2.8	30	CM040	
(1400 min ⁻¹)	70	9.2	2.1	20	CM030			35	21	2.0	40	CM040	
	56	11	1.8	25	CM030		28	25	1.6	50	CM040		
	47	12	1.8	30	CM030		23	28	1.3	60	CM040		
	35	15	1.3	40	CM030		23	34	1.7	60		CMP056/040	
	28	18	1.1	50	CM030		19	40	1.3	75		CMP056/040	
	23	20	0.8	60	CM030		18	34	1.0	80	CM040		
	23	24	1.1	60		CMP056/030	16	45	1.6	90		CMP056/040	
	19	29	0.9	75		CMP056/030	14	38	0.8	100	CM040		
	16	32	1.0	90		CMP056/030	12	56	1.1	120		CMP056/040	
							9	64	1.0	150		CMP056/040	
	70	10	4.2	20	CM040		0.18						
	56	11	3.3	25	CM040		SMT5644	280	5.3	2.4	5	CM026	
	47	13	3.7	30	CM040		SMM5644	187	7.7	1.8	7.5	CM026	
	35	16	2.6	40	CM040		(1400 min ⁻¹)	140	10	1.4	10	CM026	
	28	18	2.1	50	CM040			93	14	1.0	15	CM026	
	23	21	1.7	60	CM040		70	18	0.8	20	CM026		
	23	25	2.3	60		CMP056/040							
	19	30	1.7	75		CMP056/040	280	5.3	3.4	5	CM030		
	18	26	1.3	80	CM040		187	7.8	2.6	7.5	CM030		
	16	34	2.1	90		CMP056/040	140	10	2.0	10	CM030		
	14	28	1.1	100	CM040		93	15	1.4	15	CM030		
	12	42	1.5	120		CMP056/040	70	18	1.0	20	CM030		
	9	48	1.2	150		CMP056/040	56	22	0.9	25	CM030		
	8	53	1.0	180		CMP056/040	47	25	0.9	30	CM030		
0.12													
SMT5044	280	3.6	3.7	5	CM026		280	5.4	7.6	5	CM040		
SMT5634	187	5.2	2.7	7.5	CM026		187	7.9	5.6	7.5	CM040		
SMM5634	140	6.8	2.1	10	CM026		140	10	4.4	10	CM040		
(1400 min ⁻¹)	93	10	1.5	15	CM026		93	15	3.0	15	CM040		
	70	12	1.2	20	CM026		70	19	2.1	20	CM040		
	47	16	0.9	30	CM026		56	23	1.7	25	CM040		
	35	20	0.7	40	CM026		47	26	1.9	30	CM040		
	280	3.5	5.1	5	CM030		35	32	1.3	40	CM040		
	187	5.2	3.8	7.5	CM030		28	37	1.1	50	CM040		
	140	6.9	3.1	10	CM030		23	43	0.8	60	CM040		
	93	10	2.2	15	CM030		23	51	1.1	60		CMP056/040	
	70	12	1.5	20	CM030		19	60	0.9	75		CMP056/040	
	56	15	1.4	25	CM030		18	68	1.0	90		CMP056/040	
	47	16	1.3	30	CM030								
	35	20	1.0	40	CM030		280	5.3	3.4	5	CM030		
	28	24	0.8	50	CM030		187	7.8	2.6	7.5	CM030		
	23	32	0.8	60		CMP056/030	140	10	2.0	10	CM030		
							93	15	1.4	15	CM030		
							70	18	1.0	20	CM030		
							56	22	0.9	25	CM030		
							47	25	0.9	30	CM030		



Motori Motors	SMT		SMM	
	5034 5044	5624 5634 5644	5034	5624 5634 5644
IEC	56 B14		56 B14	

Dati tecnici

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
0.18						
SMT6324	280	5.4	7.6	5	CM040	CMP063/040 CMP063/040 CMP063/040
SMM6324	187	7.9	5.6	7.5	CM040	
(1400 min ⁻¹)	140	10	4.4	10	CM040	
	93	15	3.0	15	CM040	
	70	19	2.1	20	CM040	
	56	23	1.7	25	CM040	
	47	26	1.9	30	CM040	
	35	32	1.3	40	CM040	
	28	37	1.1	50	CM040	
	23	43	0.8	60	CM040	
	23	51	1.1	60		
	19	60	0.9	75		
	18	68	1.0	90		

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
0.25						
SMT6334	280	7.5	5.5	5	CM040	CMP063/040
SMM6334	187	11	4.0	7.5	CM040	
(1400 min ⁻¹)	140	14	3.1	10	CM040	
	93	21	2.2	15	CM040	
	70	27	1.5	20	CM040	
	56	32	1.2	25	CM040	
	47	36	1.3	30	CM040	
	35	44	0.9	40	CM040	
	28	51	0.8	50	CM040	
	23	70	0.8	60		

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
0.25						
SMT5654	280	7	1.8	5	CM026	CMP056/040
(1400 min ⁻¹)	187	11	1.3	8	CM026	
	140	14	1.0	10	CM026	
	280	7.3	2.5	5	CM030	
	187	11	1.8	7.5	CM030	
	140	14	1.5	10	CM030	
	93	20	1.0	15	CM030	
	70	26	0.7	20	CM030	
	280	7.5	5.5	5	CM040	
	187	11	4.0	7.5	CM040	
	140	14	3.1	10	CM040	
	93	21	2.2	15	CM040	
	70	27	1.5	20	CM040	
	56	32	1.2	25	CM040	
	47	36	1.3	30	CM040	
	35	44	0.9	40	CM040	
	28	51	0.8	50	CM040	
	23	70	0.8	60		

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
0.37						
SMT6344	280	11	1.7	5	CM030	CMP063/040
(1400 min ⁻¹)	187	16	1.2	7.5	CM030	
	140	21	1.0	10	CM030	
	93	30	0.7	15	CM030	
	280	11	3.7	5	CM040	
	187	16	2.7	7.5	CM040	
	140	21	2.1	10	CM040	
	93	31	1.5	15	CM040	
	70	39	1.0	20	CM040	
	56	47	0.8	25	CM040	
	47	53	0.9	30	CM040	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
0.25						
SMT6334	280	7.3	2.5	5	CM030	CMP063/040
SMM6334	187	11	1.8	7.5	CM030	
(1400 min ⁻¹)	140	14	1.5	10	CM030	
	93	20	1.0	15	CM030	
	70	26	0.7	20	CM030	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
0.55						
SMT7134	280	17	2.5	5	CM040	CMP063/040
SMM7134	187	24	1.8	7.5	CM040	
(1400 min ⁻¹)	140	32	1.4	10	CM040	
	93	46	1.0	15	CM040	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
0.75						
SMT7144	280	23	1.8	5	CM040	CMP063/040
(1400 min ⁻¹)	187	33	1.3	7.5	CM040	
	140	43	1.0	10	CM040	

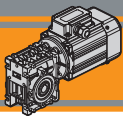


Motori Motors	SMT			SMM	
	5654	6324 6334 6344	7124 7134 7144	6324 6334	7124 7134
IEC	56 B14	63 B14	71 B14	63 B14	71 B14

Dati tecnici elettrici

Electrical technical data





CM
CMP

Dimensioni

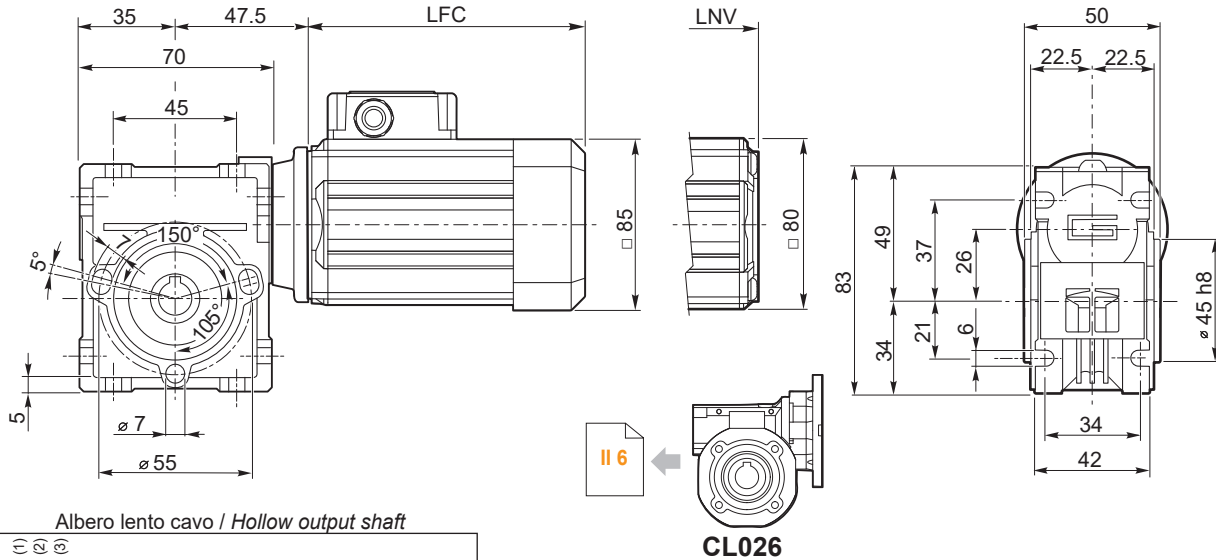
Dimensions

CM 026 .. U

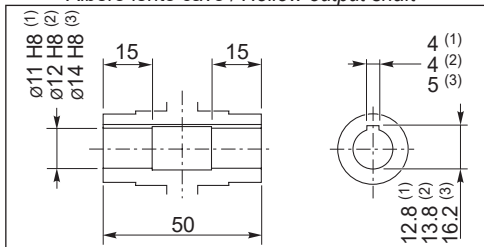
SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

S3 servizio 30%
duty



Albero lento cavo / Hollow output shaft



- (1): CM 120/026 (D11)
- (2): CM 120/026
- (3): CM 120/026 (D14)

SMT	LFC	LNV	Kg	
5014	135.5	108.5	3.1	
5024	150.5	123.5	3.5	
5034	175.5	148.5	4.3	
5044	200.5	173.5	5	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	3.5	
5024	175.5	148.5	4.3	
5034	200.5	173.5	5	

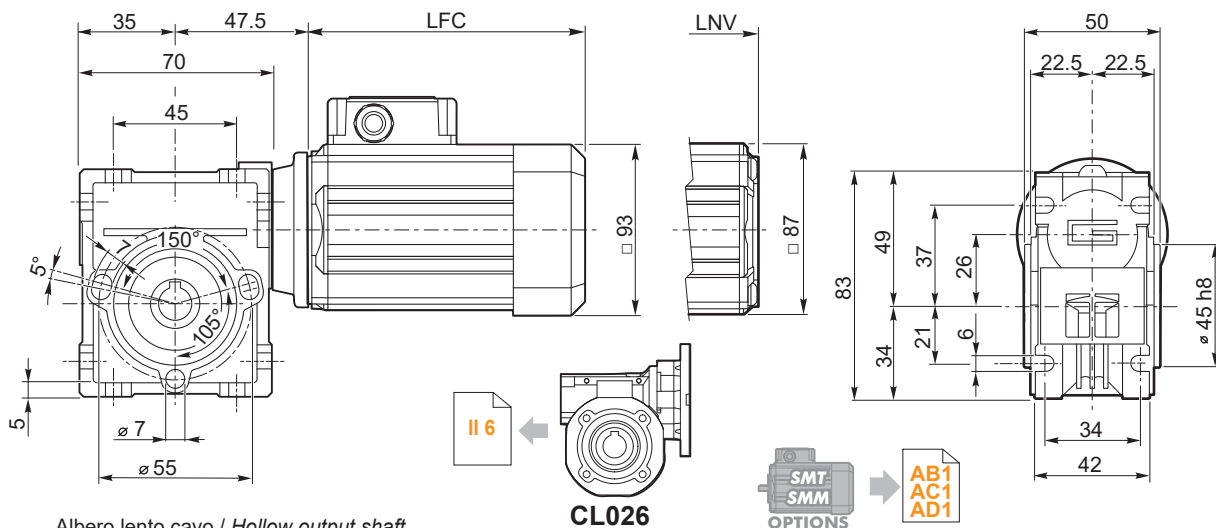
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CM 026 .. U

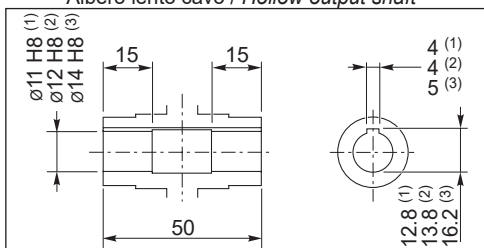
SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty



Albero lento cavo / Hollow output shaft

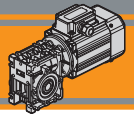


- (1): CM 120/026 (D11)
- (2): CM 120/026
- (3): CM 120/026 (D14)

SMT	LFC	LNV	Kg	
5624	141	117	3.6	
5634	151	127	4	
5644	186	162	5.2	
5654	206	182	5.9	

SMM	LFC	LNV	Kg	
5624	151	127	3.9	
5634	171	147	4.5	
5644	206	182	5.8	

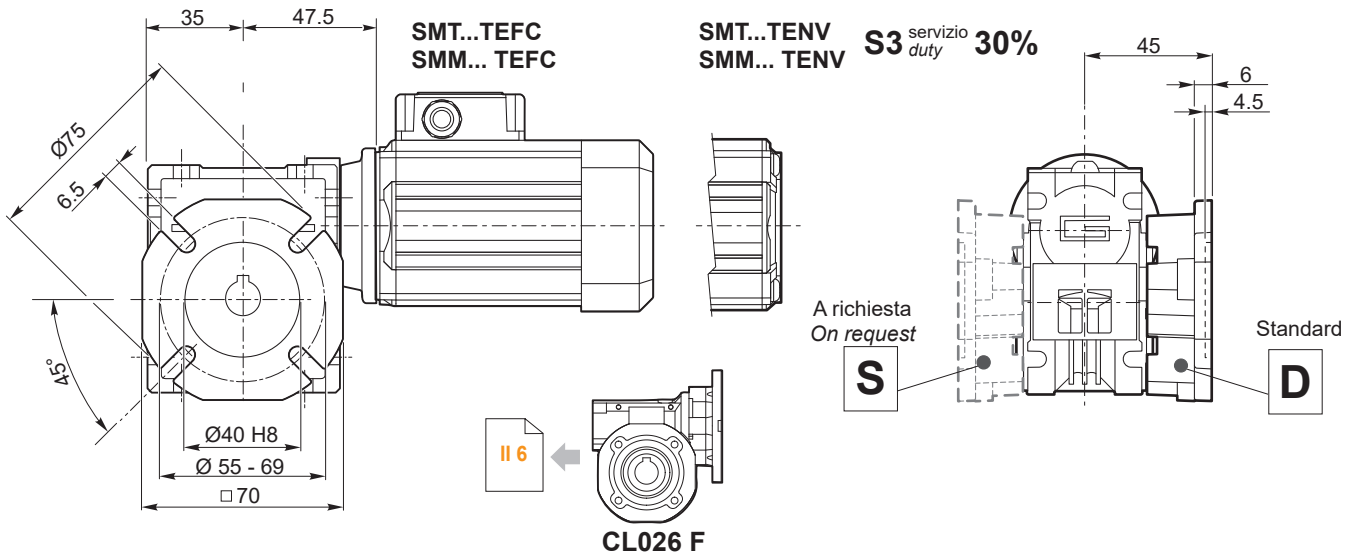
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



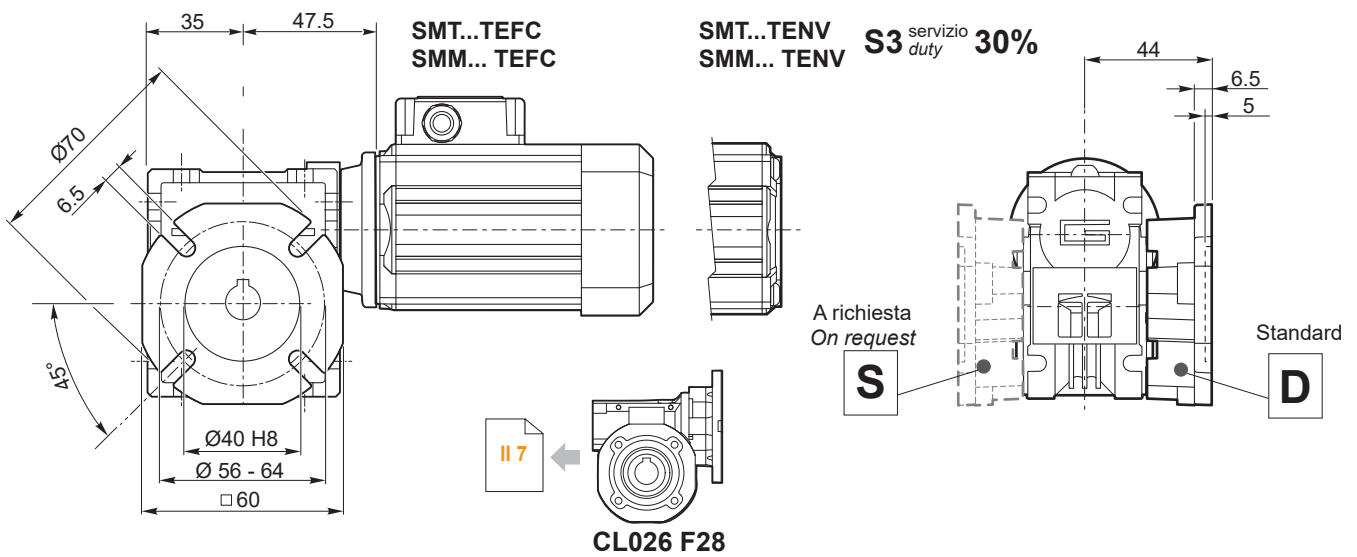
Dimensioni

Dimensions

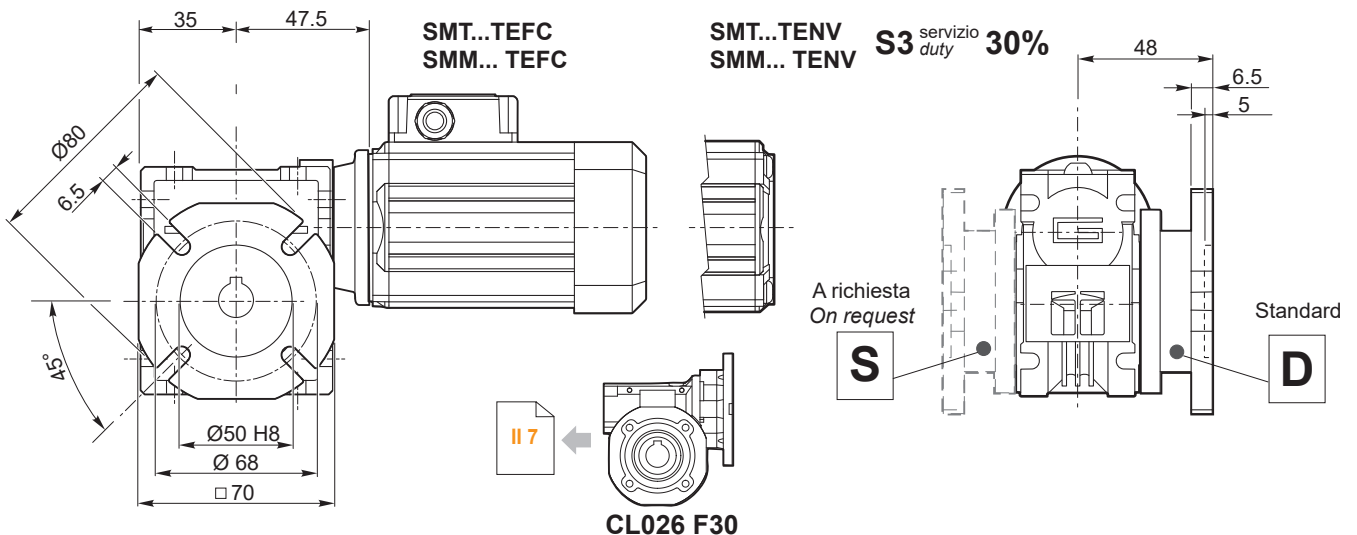
CM 026 .. F



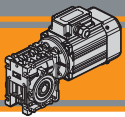
CM 026 .. F28



CM 026 .. F30



AC



CM
CMP

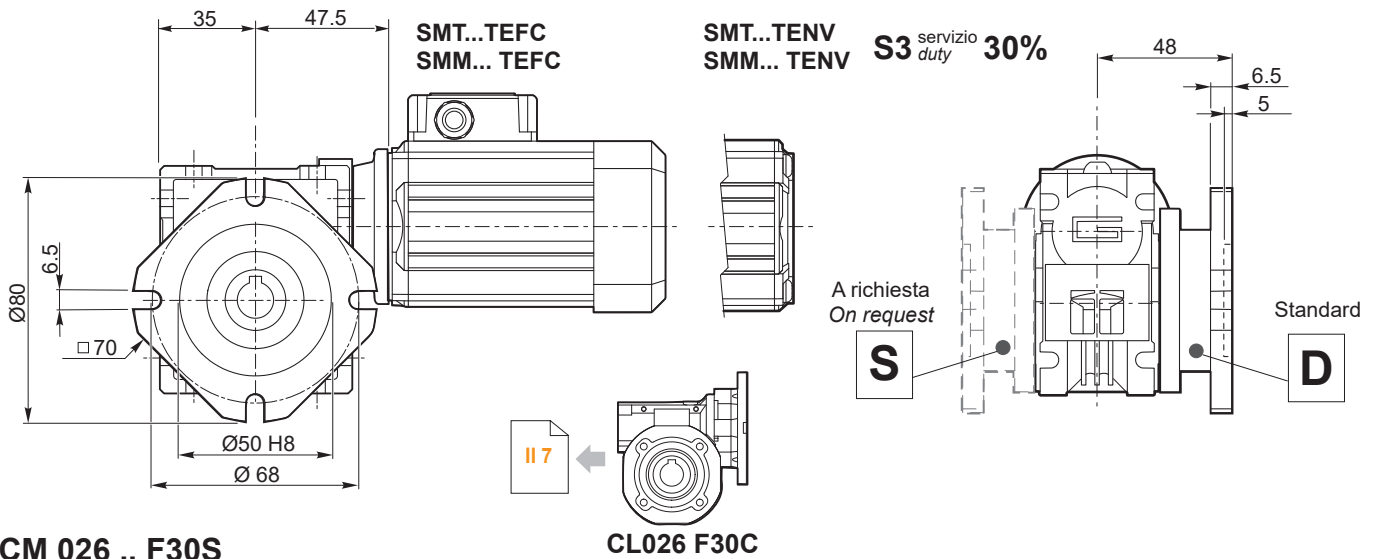
Motoriduttori CA a vite senza fine
AC Wormgearmotors



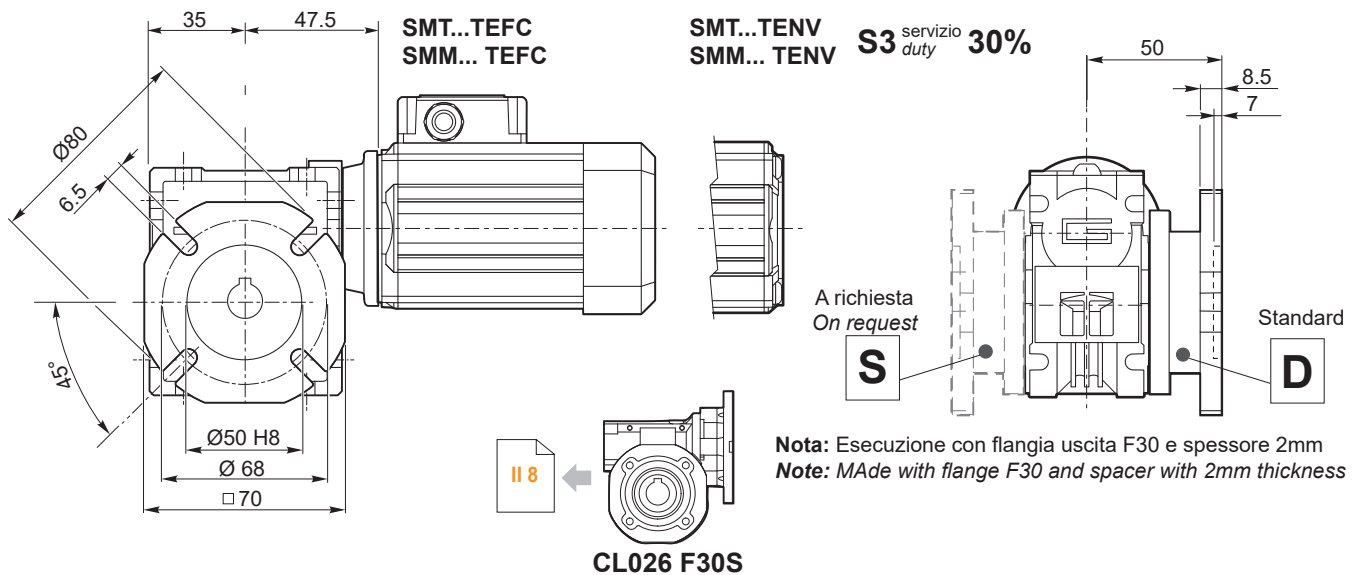
Dimensioni

Dimensions

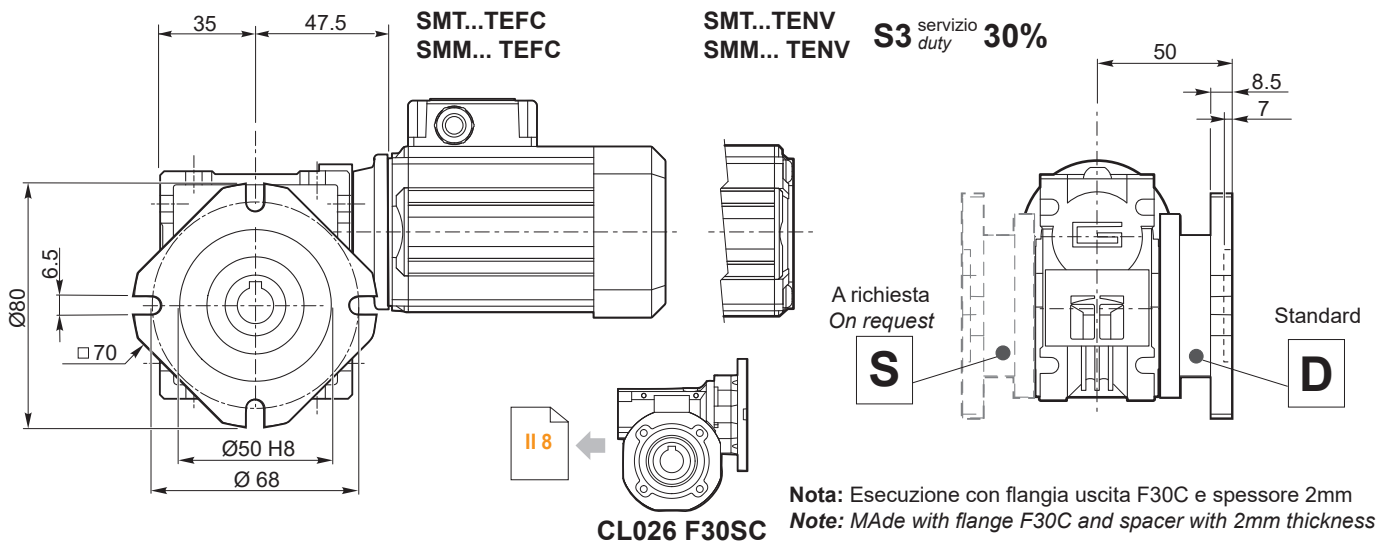
CM 026 .. F30C

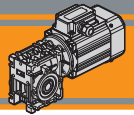


CM 026 .. F30S



CM 026 .. F30SC

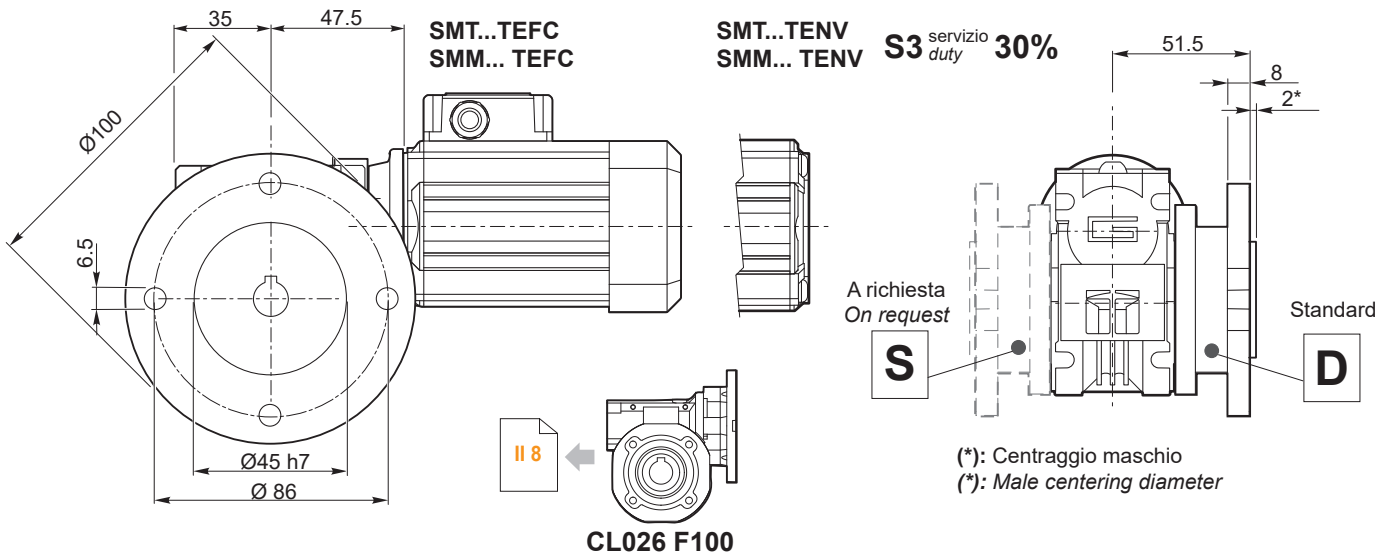




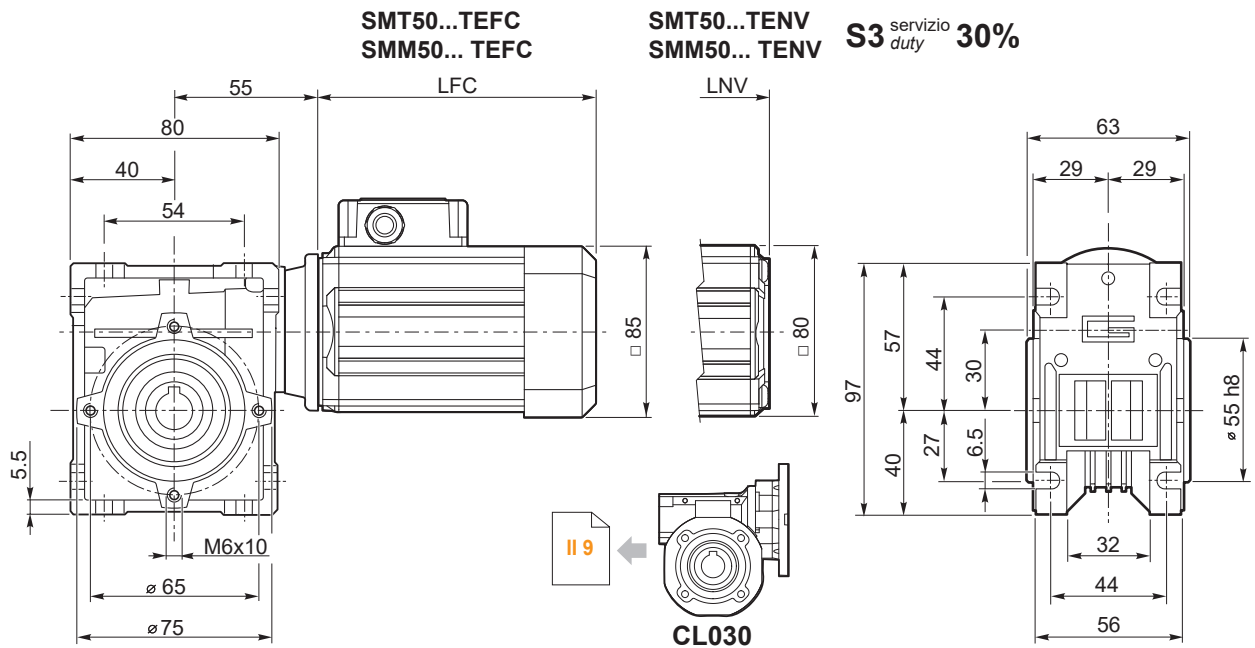
Dimensioni

Dimensions

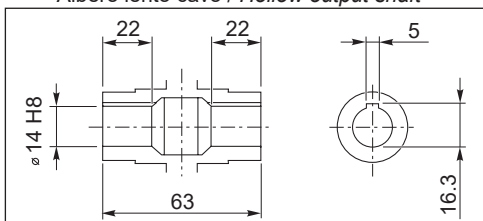
CM 026 .. F100



CM 030 ...U



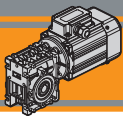
Albero lento cavo / Hollow output shaft



SMT	LFC	LNV	Kg	
5014	135.5	108.5	3.5	
5024	150.5	123.5	3.9	
5034	175.5	148.5	4.7	
5044	200.5	173.5	5.4	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	3.9	
5024	175.5	148.5	4.7	
5034	200.5	173.5	5.4	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



CM
CMP

Motoriduttori CA a vite senza fine
AC Wormgearmotors



Dimensioni

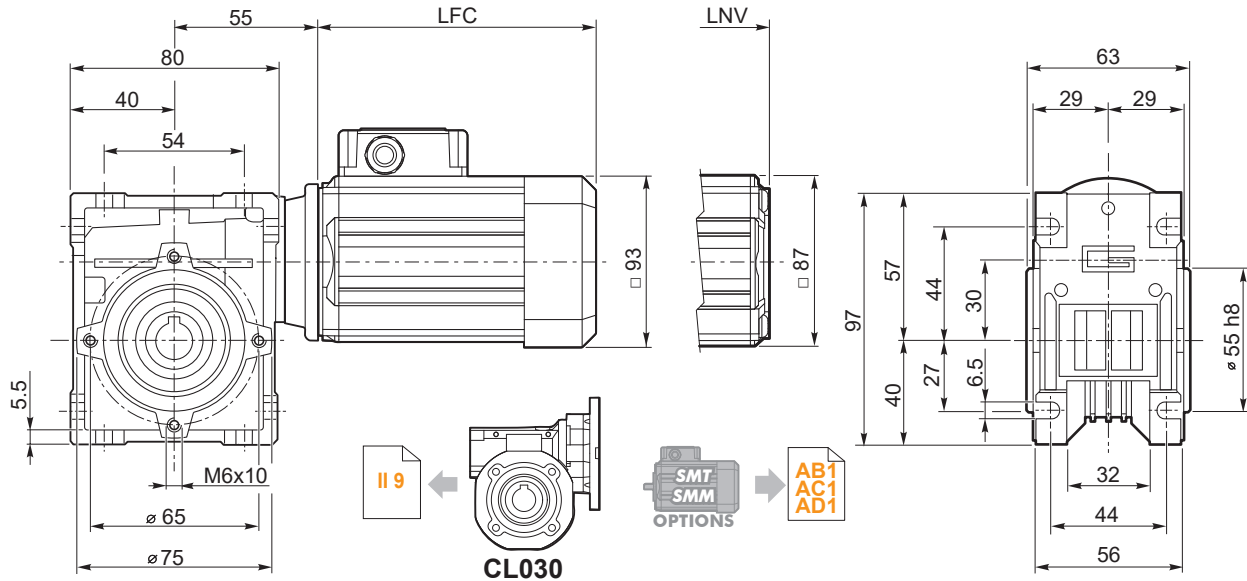
Dimensions

CM 030 ...U

SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty



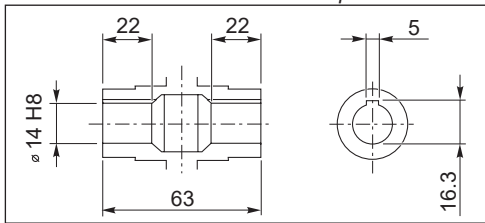
II 9

SMT
SMM
OPTIONS

AB1
AC1
AD1

CL030

Albero lento cavo / Hollow output shaft



SMT	LFC	LNV	Kg	
5624	141	117	4	
5634	151	127	4.4	
5644	186	162	5.6	
5654	206	182	6.3	

SMM	LFC	LNV	Kg	
5624	151	127	4.3	
5634	171	147	4.9	
5644	206	182	6.2	

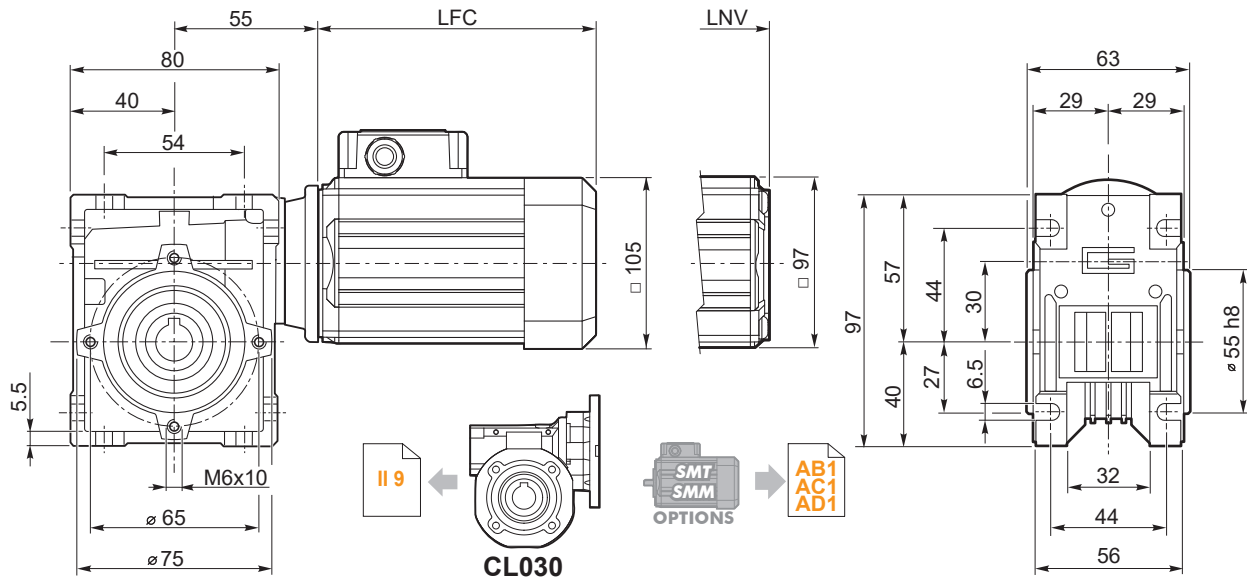
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CM 030 ...U

SMT63...TEFC
SMM63... TEFC

SMT63...TENV
SMM63... TENV

S3 servizio 30%
duty



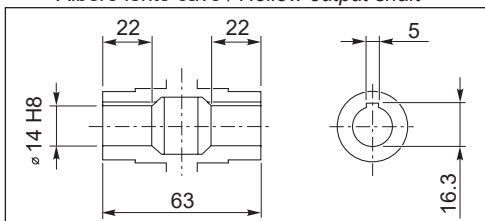
II 9

SMT
SMM
OPTIONS

AB1
AC1
AD1

CL030

Albero lento cavo / Hollow output shaft



SMT	LFC	LNV	Kg	
6324	165.5	138.5	5.5	
6334	180.5	153.5	6.2	
6344	205.5	178.5	7.4	

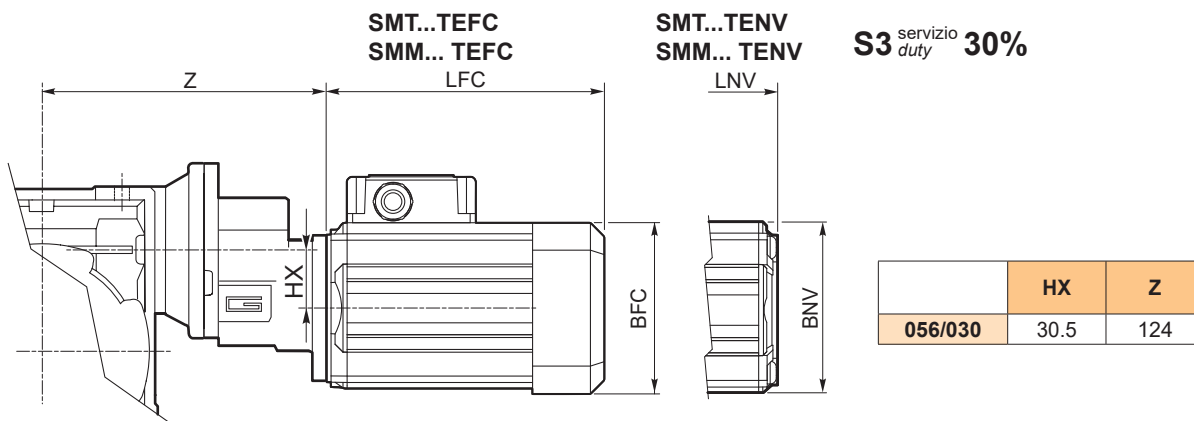
SMM	LFC	LNV	Kg	
6324	180.5	153.5	6.3	
6334	205.5	178.5	7.5	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

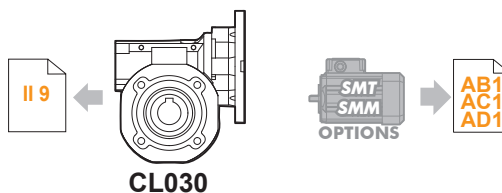
Dimensioni

Dimensions

CMP 056/030 ...U



S3 servizio 30%
duty



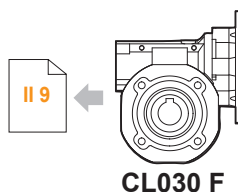
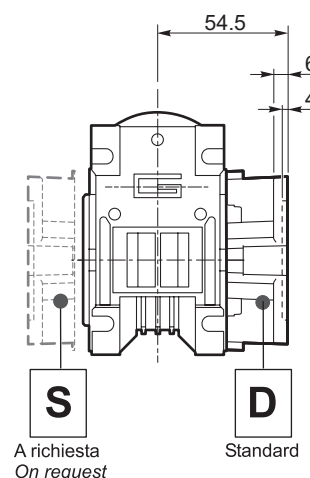
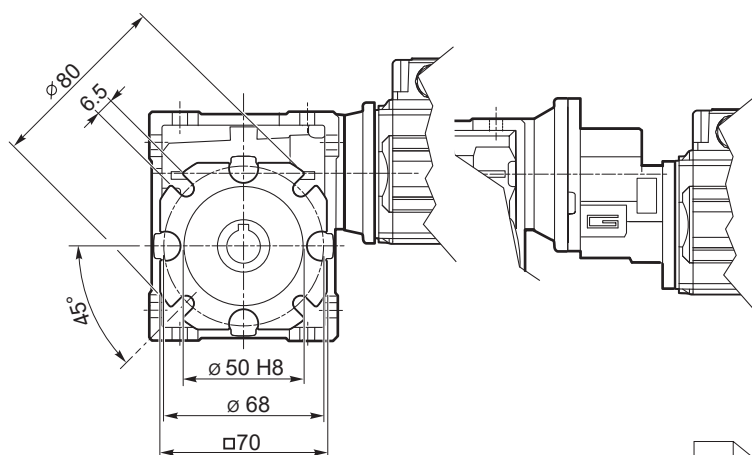
SMT	BFC	BNV	LFC	LNV
5014	□ 85	□ 80	135.5	108.5
5024			150.5	123.5
5034			175.5	148.5
5044			200.5	173.5
5624	□ 93	□ 87	141	117
5634			151	127
5644			186	162
5654			206	182

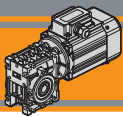
SMM	BFC	BNV	LFC	LNV
5014	□ 85	□ 80	150.5	123.5
5024			175.5	148.5
5034			200.5	173.5
5624			□ 93	□ 87
5634	186	162		
5644	206	182		

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CM 030 ... - F

CMP 056/030 ... - F





CM
CMP

Motoriduttori CA a vite senza fine
AC Wormgearmotors



Dimensioni

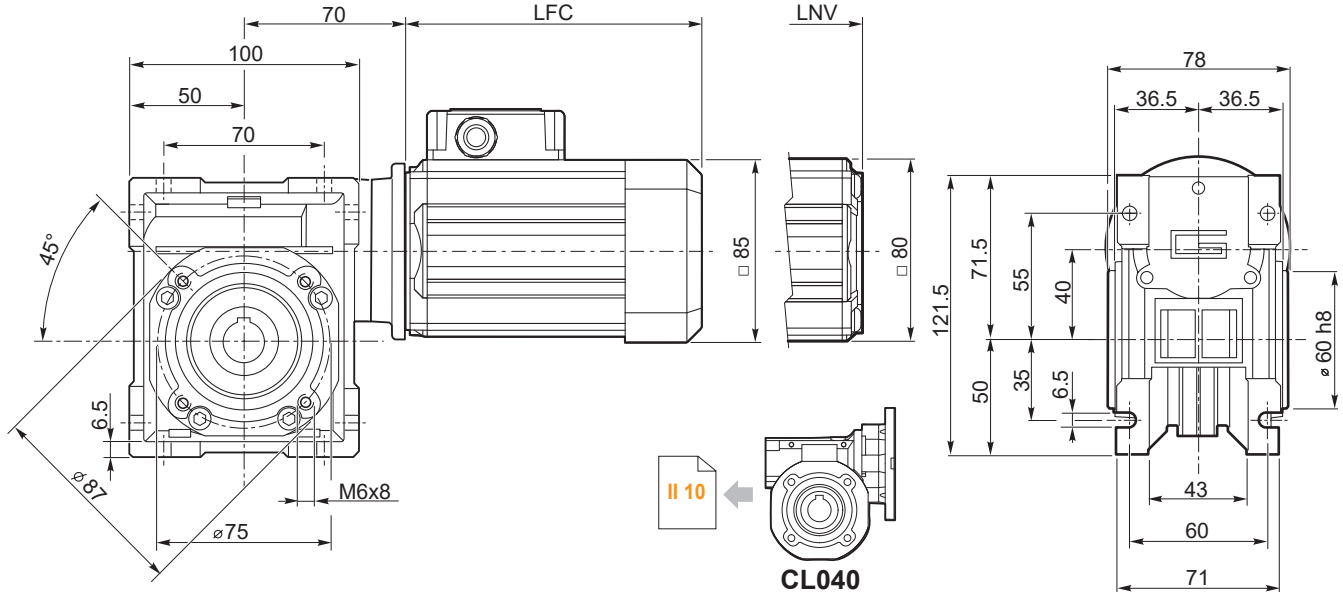
Dimensions

CM 040 ...U

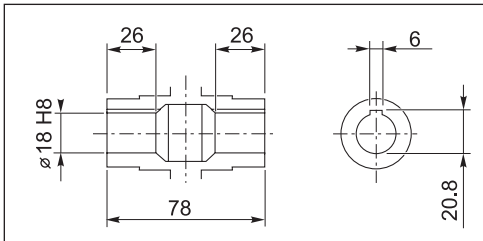
SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

S3 servizio 30%
duty



Albero lento cavo / Hollow output shaft



SMT	LFC	LNV	Kg	
5014	135.5	108.5	4.6	
5024	150.5	123.5	5	
5034	175.5	148.5	5.8	
5044	200.5	173.5	6.5	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	5	
5024	175.5	148.5	5.8	
5034	200.5	173.5	6.5	

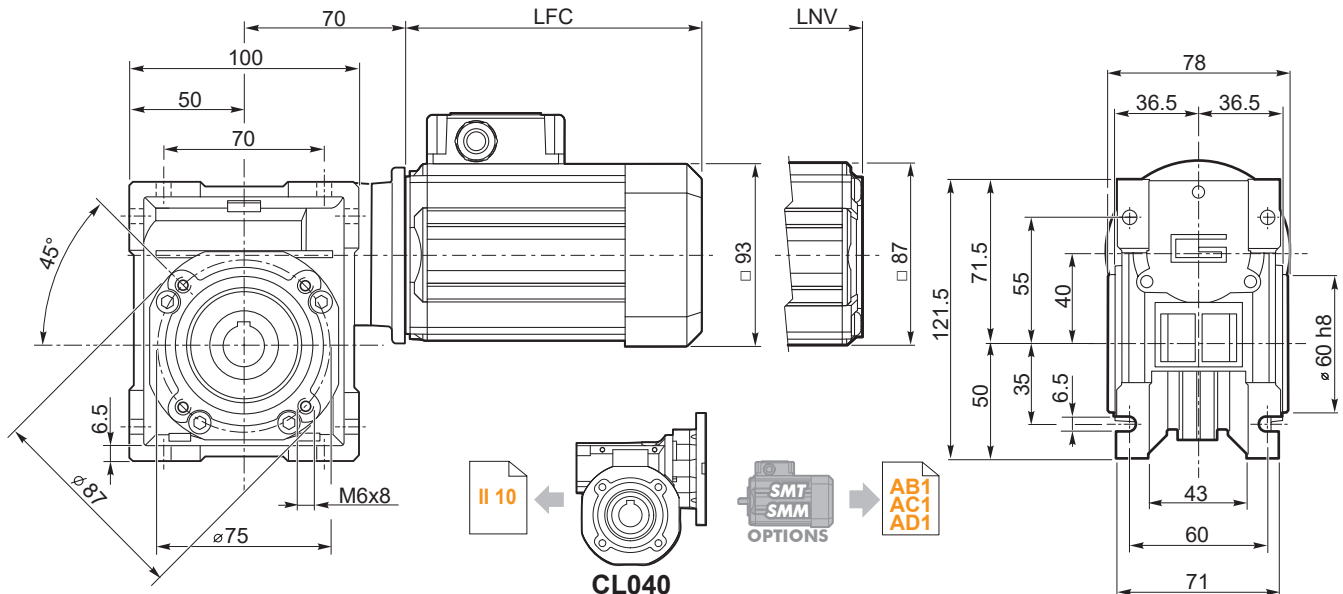
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CM 040 ...U

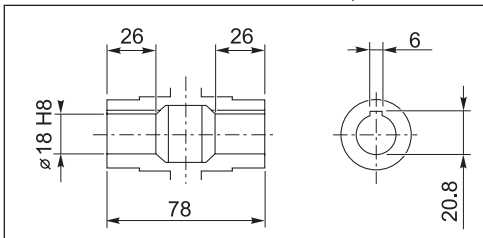
SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty



Albero lento cavo / Hollow output shaft



SMT	LFC	LNV	Kg	
5624	141	117	5.1	
5634	151	127	5.5	
5644	186	162	6.7	
5654	206	182	7.4	

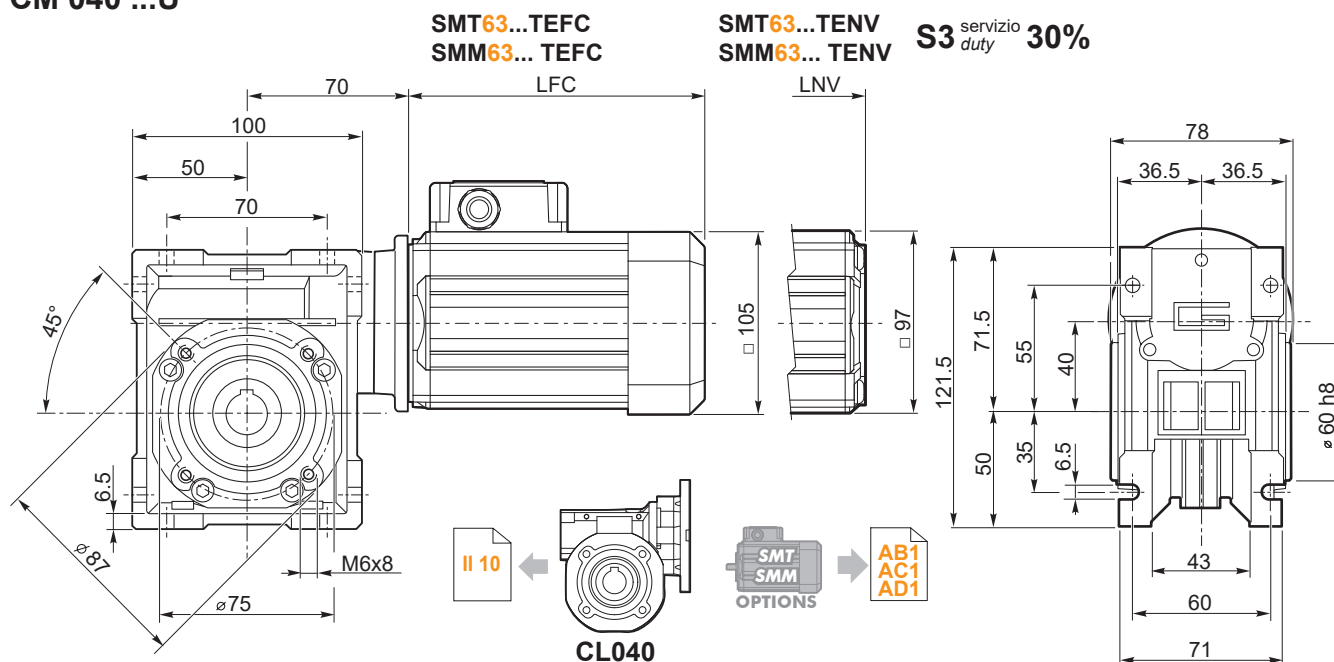
SMM	LFC	LNV	Kg	
5624	151	127	5.4	
5634	171	147	6	
5644	206	182	7.3	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

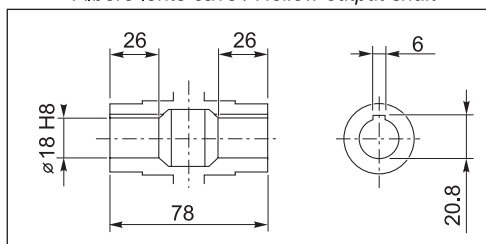
Dimensioni

Dimensions

CM 040 ...U



Albero lento cavo / Hollow output shaft

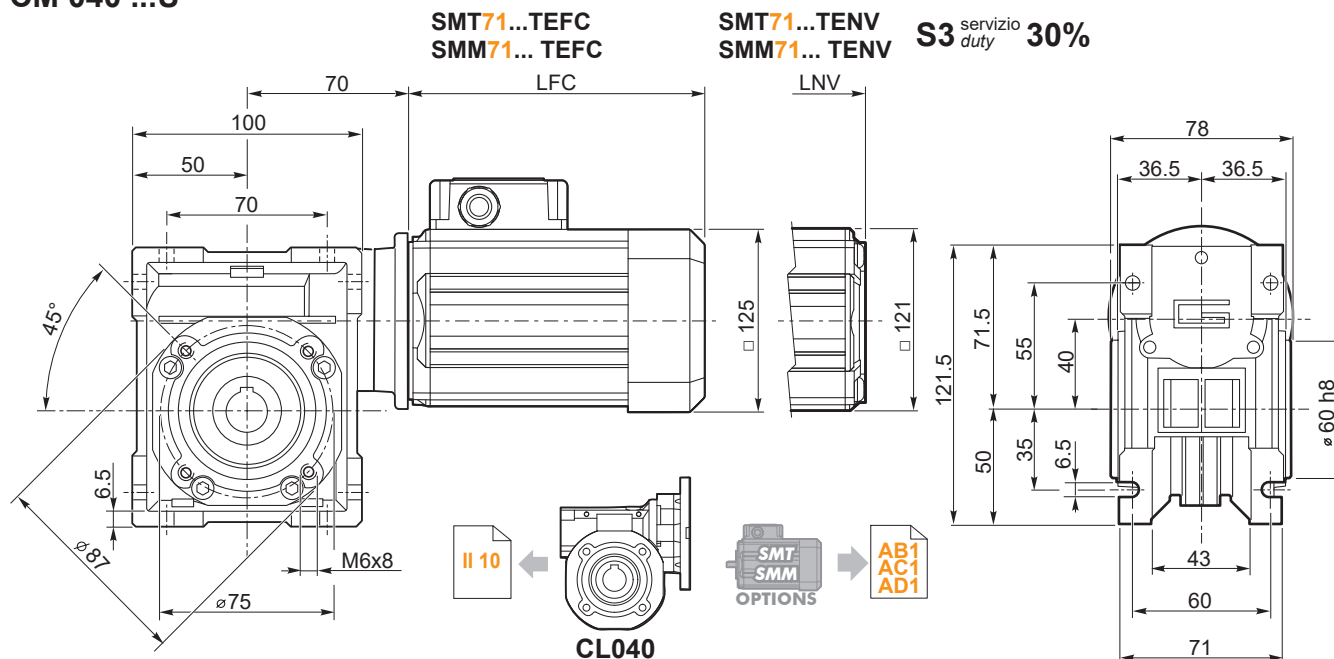


SMT	LFC	LNV	Kg	
6324	165.5	138.5	6.6	
6334	180.5	153.5	7.3	
6344	205.5	178.5	8.5	

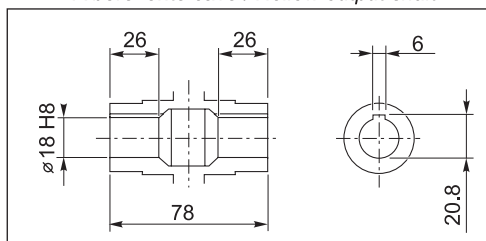
SMM	LFC	LNV	Kg	
6324	180.5	153.5	7.4	
6334	205.5	178.5	8.6	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CM 040 ...U



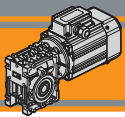
Albero lento cavo / Hollow output shaft



SMT	LFC	LNV	Kg	
7124	174	145.5	8.8	
7134	189	160.5	9.9	
7144	214	185.5	11.6	

SMM	LFC	LNV	Kg	
7124	189	160.5	9.5	
7134	214	185.5	11.5	

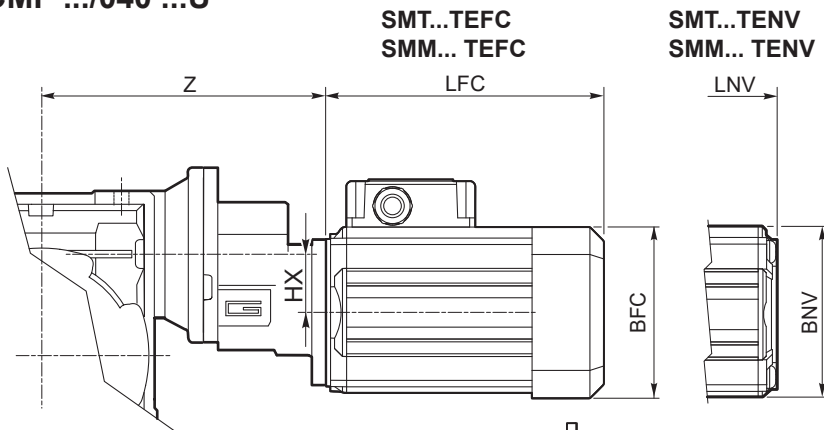
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



Dimensioni

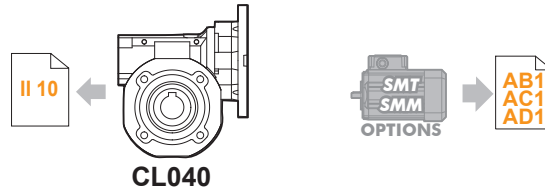
Dimensions

CMP .../040 ...U



S3 servizio duty 30%

	HX	Z
056/040	30.5	139
063/040	30.5	142



CL040

SMT	BFC	BNV	LFC	LNV
5014	□ 85	□ 80	135.5	108.5
5024			150.5	123.5
5034			175.5	148.5
5044			200.5	173.5
5624	□ 93	□ 87	141	117
5634			151	127
5644			186	162
5654			206	182
6324	□ 105	□ 97	165.5	138.5
6334			180.5	153.5
6344			205.5	178.5

SMM	BFC	BNV	LFC	LNV
5014	□ 85	□ 80	150.5	123.5
5024			175.5	148.5
5034			200.5	173.5
5624	□ 93	□ 87	151	127
5634			186	162
5644			206	182
6324	□ 105	□ 97	180.5	153.5
6334			205.5	178.5

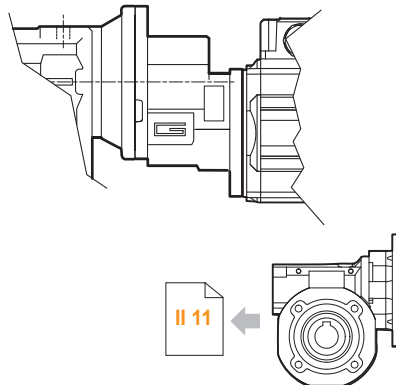
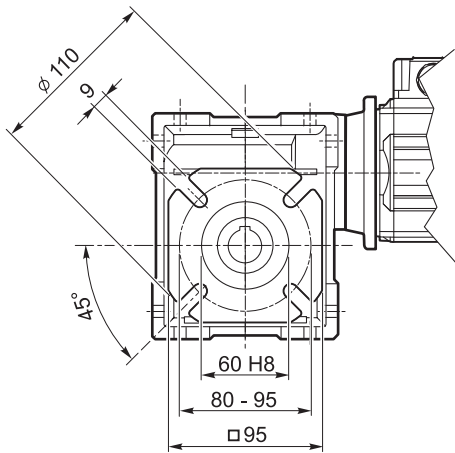
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

Dimensioni

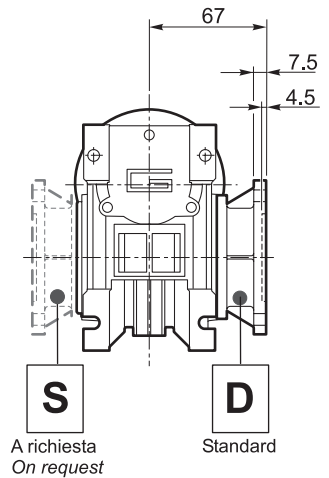
Dimensions

CM 040 ... - F

CMP .../040 ... - F

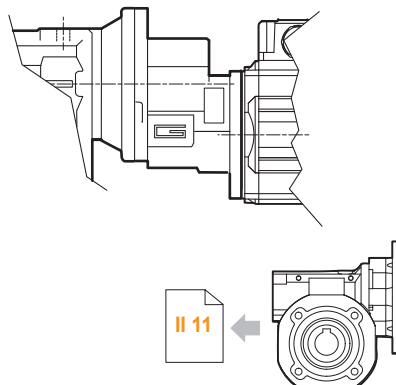
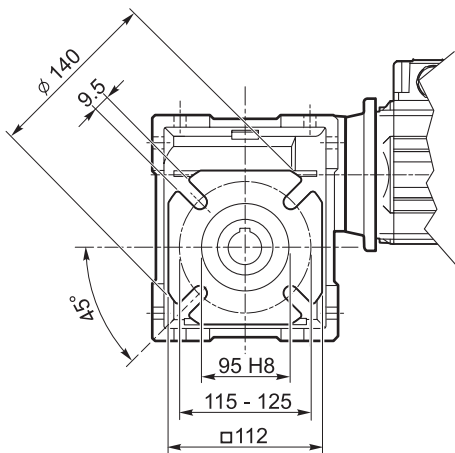


CL040 F

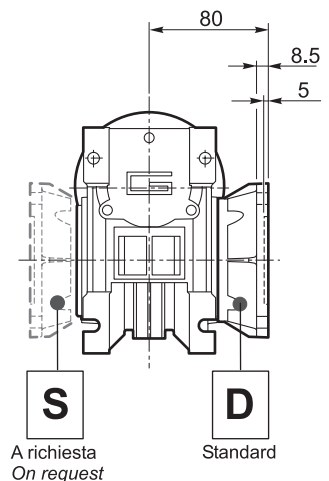


CM 040 ... - FB

CMP .../040 ... - FB

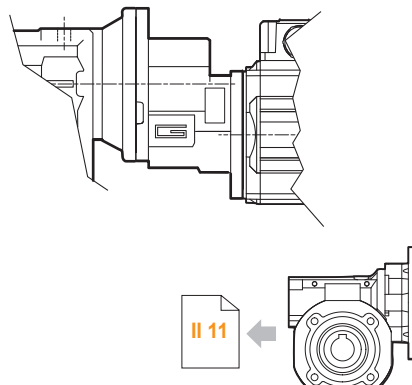
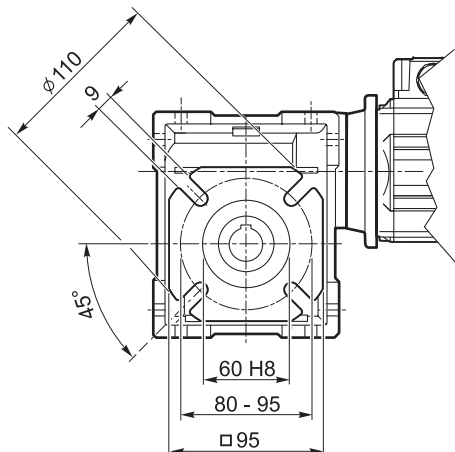


CL040 FB

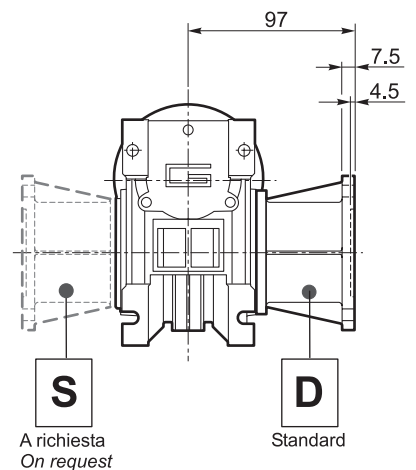


CM 040 ... - FL

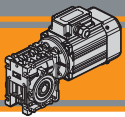
CMP .../040 ... - FL



CL040 FL



AC

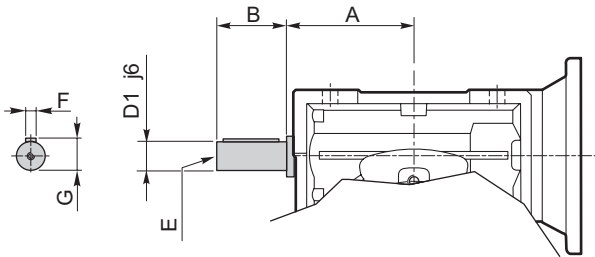


**CM
CMP**

Opzioni

Options

VS - Vite sporgente / Extended input shaft



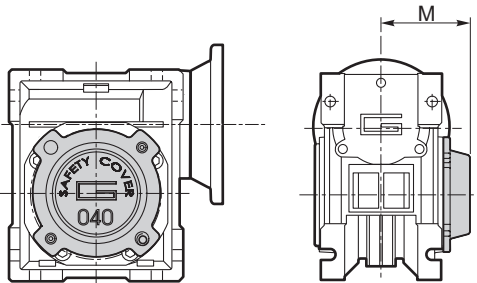
CM	CMP	A	B	D ₁ j6	E	F	G
030	056/030	45	20	9	M4	3	10.2
040	056/040 063/040	53	23	11	M5	4	12.5

Costruito su richiesta
Built on request

Accessori

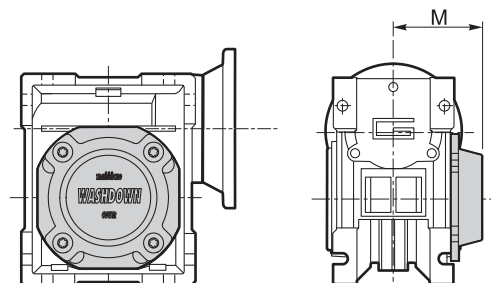
Accessories

SC - Safety cover



CM	CMP	M
030	056/030	47
040	056/040 063/040	54.5

WD - Kit washdown cover



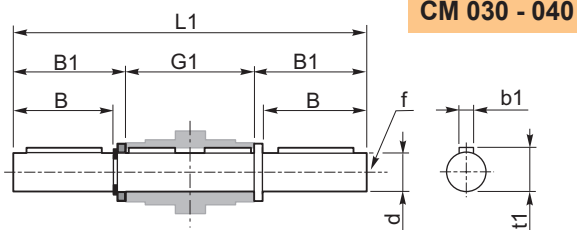
CM	CMP	M
030	056/030	48
040	056/040 063/040	55.5

Accessori

Accessories

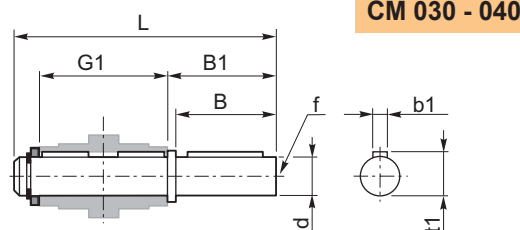
Albero lento

Output shaft



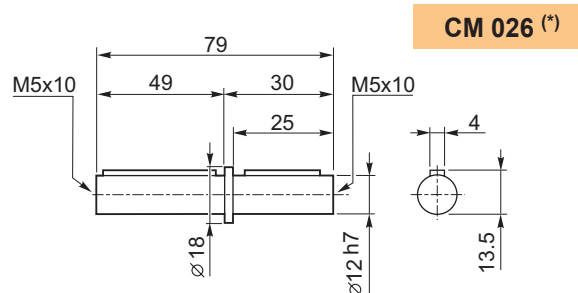
CM 030 - 040

SZ



CM 030 - 040

CM	CMP	d _{h7}	B	B1	G1	L	L1	f	b1	t1
030	056/030	14	30	32.5	63	102	128	M6	5	16
040	056/040 063/040	18	40	43	78	128	164	M6	6	20.5



CM 026 (*)

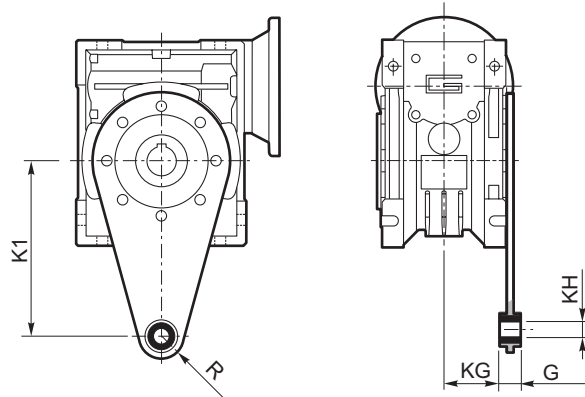
(*)
Nota: disponibile solo per cavo uscita Ø12
Note: available for output hollow shaft Ø12 only

Braccio di reazione

Torque arm

CM	CMP	K1	G	KG	KH	R
030	056/030	85	14	23	8	15
040	056/040 063/040	100	14	31	10	18

DZ



MINI  **TECNO**™
small but strong

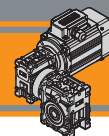
CMM

Motoriduttori CA combinati a vite senza fine
AC Double reduction wormgearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®

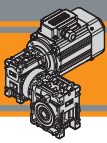




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Simbologia	<i>Symbols</i>	A14
Esecuzioni di montaggio	<i>Mounting executions</i>	A14
Combinazioni rapporti	<i>Combination ratio</i>	A14
Lubrificazione	<i>Lubrication</i>	A14
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Motori applicabili	<i>Motor adapters</i>	A17
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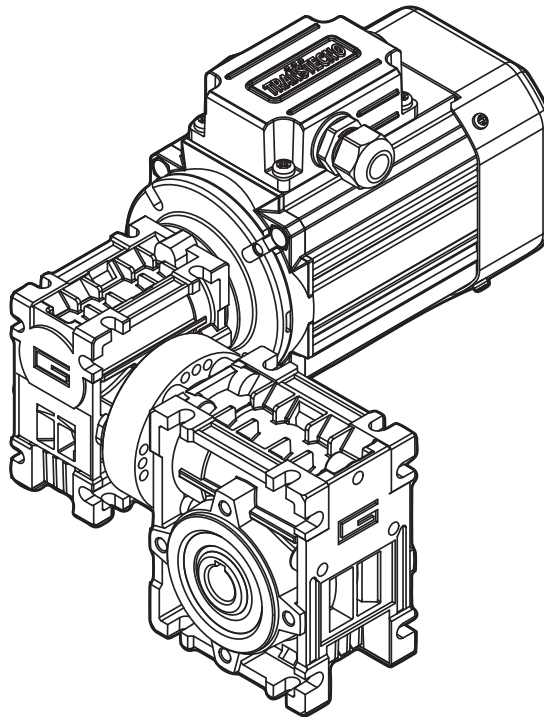
**Caratteristiche tecniche****Technical features**

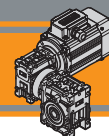
Le caratteristiche principali dei motoriduttori CMM sono:

- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa motore estrusa in alluminio anodizzato nero
- Carcasse dei riduttori in pressofusione di alluminio
- Motore elettrico AC con grado di protezione IP66
- Lubrificazione permanente con olio sintetico
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezione termica PTO 150°C per le taglie motore 56 e 63.
- SMT56 e SMT63 adatti al funzionamento con alimentazione da inverter
- Disponibili nelle versioni autofrenante, servoventilata e con certificazione UL.

CMM gearmotors range has the following main features:

- *Compact design*
- *AC single phase and three phase motors available*
- *Motor extruded aluminum housing black anodized*
- *Gearbox die-cast aluminum housing*
- *AC electric motor in IP66 protection Standard*
- *Permanent synthetic oil long-life lubrication*
- *Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available*
- *PTO 150°C thermal protection for motor sizes 56 and 63.*
- *SMT56 and SMT63 are suitable for inverter duty*
- *Brake motors, forced ventilation motors and UL compliance versions available.*





Designazione

Classification

RIDUTTORE / GEARBOX										
CMM	030/040	FD	150	63	B5	SZDX	BRSX	90	US1	VS
Tipo Type	Grandezza Size	Versione Version	Rapporto Ratio	IEC 	Forma costruttiva Version	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Esecuzione di montaggio Mounting execution	Opzioni Options
	026/026 026/026 (D11) 026/026 (D14) 026/030 026/040 030/040	U F...	vedi tabelle see tables	56.. 63..	B5 B14	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	UB1 UB2 US1 US2 UV1 UV2 UC1 UC2	VS1 VS2

NOTA: il braccio di reazione viene fornito smontato.

* NOTE: the torque arm will be supplied not assembled.

Versione Riduttore
Gearbox Version

U F...D F...S

Albero di uscita
Output shaft

SZDX SZSX DZ

Braccio di reazione
Torque arm *

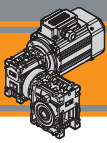
BRDX BRSX

Angolo
Angle

90° 90°
180° 0°
270° 270°

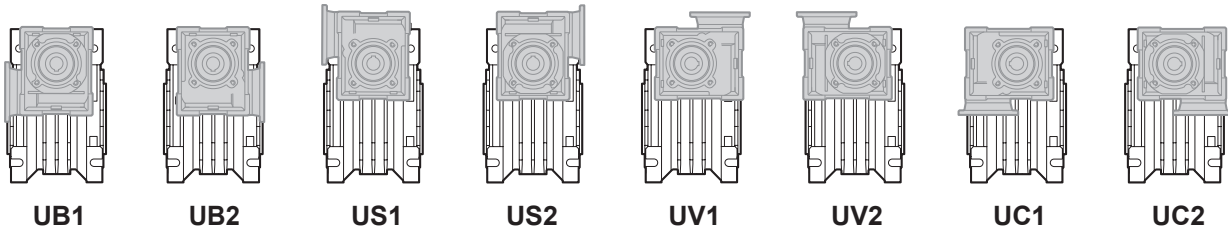
MOTORE TRIFASE / THREE PHASE MOTOR										
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	BR	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsettiera Terminal box pos.
	Vedere tab. See tab.	1-2-3-4	4	0.04 kW ... 0.25 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC TENV		T1 (Std) T4 T2 T3

MOTORE MONOFASE / SINGLE PHASE MOTOR										
SMM	63	2	4	0.18 kW	B14	230 V	50 Hz	TEFC	UL-CSA	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsettiera Terminal box pos.
	Vedere tab. See tab.	1-2-3-4	4	0.04 kW ... 0.25 kW	B14	230V	50Hz	TEFC TENV		T1 (Std) T4 T2 T3

**Simbologia****Symbols**

n_1	[min ⁻¹]	Velocità in ingresso / <i>Input speed</i>
n_2	[min ⁻¹]	Velocità in uscita / <i>Output speed</i>
i		Rapporto di riduzione / <i>Ratio</i>
P_1	[kW]	Potenza in entrata / <i>Input power</i>

M_2	[Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
sf		Fattore di servizio / <i>Service factor</i>
R_2	[N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
A_2	[N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>

Esecuzioni di montaggio**Mounting executions****Combinazioni rapporti****Combination ratio**

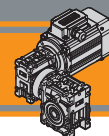
CMM 026/026 - CMM 026/030 - CMM 026/040												
$i (i_1 \times i_2)$												
	150	225	300	450	600	900	1200	1500	1800	2400	3000	3600
i_1	10	15	10	15	20	30	40	50	60	60	60	60
i_2	15	15	30	30	30	30	30	30	30	40	50	60

CMM 030/040														
$i (i_1 \times i_2)$														
	150	200	250	300	400	500	600	750	900	1200	1500	1800	2400	3000
i_1	10	10	10	10	10	10	20	25	30	40	50	60	60	60
i_2	15	20	25	30	40	50	30	30	30	30	30	30	40	50

Lubrificazione**Lubrication**

Tutti i motoriduttori nelle taglie 26, 30, 40 sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors size 26, 30, 40 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.



Dati tecnici

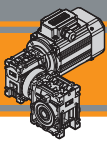
Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i					
0.04						0.06									
SMT5014	9.3	23	1.1	150	CMM 026/026	SMT5024	9.3	33	0.8	150	CMM 026/026				
SMM5014	6.2	32	0.8	225		SMM5024	6.2	33	0.8	225					
(1400 min ⁻¹)	4.7	34	0.8	300			9.3	34	1.1	150	CMM 026/030				
	3.1	34	0.8	450			6.2	48	0.8	225					
	2.3	34	0.8	600			4.7	50	0.8	300					
	1.6	34	0.8	900			9.3	35	2.5	150	CMM 026/040				
	1.2	34	0.8	1200			6.2	50	1.8	225					
	0.9	34	0.8	1500			4.7	58	1.5	300					
	0.8	34	0.8	1800			3.1	82	1.1	450	CMM 030/040				
	0.6	28	0.8	2400			2.3	104	0.9	600					
	0.5	25	0.8	3000			1.6	113	0.8	900					
	0.4	23	0.8	3600			9.3	36	2.4	150	CMM 030/040				
	9.3	23	1.7	150	7.0	46	1.6	200							
	6.2	32	1.2	225	5.6	55	1.2	250							
	4.7	37	1.1	300	4.7	59	1.5	300							
	3.1	50	0.8	450	3.5	72	1.0	400							
	2.3	50	0.8	600	2.8	81	0.8	500							
	1.6	50	0.8	900	2.3	105	0.9	600							
	1.2	50	0.8	1200	1.9	113	0.8	750							
	0.9	50	0.8	1500	1.6	113	0.8	900							
	0.8	50	0.8	1800											
	0.6	43	0.8	2400											
	0.5	38	0.8	3000											
	0.4	34	0.8	3600											
	9.3	23	3.7	150	CMM 026/040	0.09									
	6.2	33	2.6	225		SMT5034	9.3	49	0.8	150	CMM 026/030				
	4.7	39	2.3	300		SMM5034	6.2	49	0.8	225					
	3.1	55	1.6	450		SMT5624		9.3	53	1.6	150	CMM 026/040			
	2.3	69	1.3	600		SMM5624							6.2	74	1.2
	1.6	92	1.0	900		(1400 min ⁻¹)						4.7	87	1.0	300
	1.2	113	0.8	1200								3.1	113	0.8	450
	0.9	113	0.8	1500		2.3						113	0.8	600	
	0.8	113	0.8	1800		9.3						53	1.6	150	CMM 030/040
	0.6	93	0.8	2400		7.0						69	1.1	200	
	0.5	85	0.8	3000		5.6						83	0.8	250	
	0.4	78	0.8	3600		4.7						88	1.0	300	
	9.3	24	3.7	150	3.5	93						0.8	400		
	7.0	31	2.4	200	2.8	85	0.8	500							
	5.6	37	1.8	250	2.3	113	0.8	600							
	4.7	39	2.3	300											
	3.5	48	1.6	400											
	2.8	54	1.3	500											
	2.3	70	1.3	600											
	1.9	84	1.1	750											
	1.6	94	1.0	900											
	1.2	113	0.8	1200											
	0.9	113	0.8	1500											
	0.8	113	0.8	1800											
	0.6	93	0.8	2400											
	0.5	85	0.8	3000											

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


Motori Motors	SMT		SMM	
		5014 5024 5034	5624	5014 5024 5034
IEC	56 B14		56 B14	







Dati tecnici

Technical data


P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
------------------------	--	------------------------	----	---	---

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
------------------------	--	------------------------	----	---	---

0.12

SMT5044	9.3	70	1.2	150	CMM 026/040
SMT5634	6.2	99	0.9	225	
SMM5634 (1400 min ⁻¹)	4.7	113	0.8	300	
	9.3	71	1.2	150	CMM 030/040
	7.0	92	0.8	200	
	5.6	84	0.8	250	
4.7	113	0.8	300		


0.18

SMT6324	9.3	107	0.8	150	CMM 030/040
SMM6324 (1400 min ⁻¹)	7.0	93	0.8	225	
					

0.25

SMT5654	9.3	109	0.8	150	CMM 030/040
SMT6334					
SMM6334 (1400 min ⁻¹)					

0.18

SMT5644	9.3	105	0.8	150	CMM 026/040
SMM5644 (1400 min ⁻¹)	6.2	109	0.8	225	
	9.3	107	0.8	150	CMM 030/040
	7.0	93	0.8	200	

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

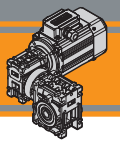


Motori Motors	SMT			SMM	
	5044	5644 5654	6324 6334	5634 5644	6324 6334
IEC	56 B14		63 B14	56 B14	63 B14

Dati tecnici elettrici

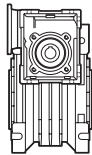
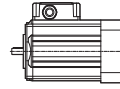
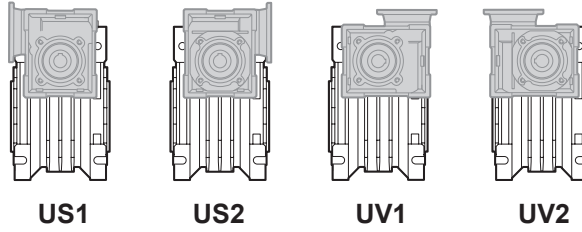
Electrical technical data





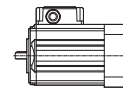
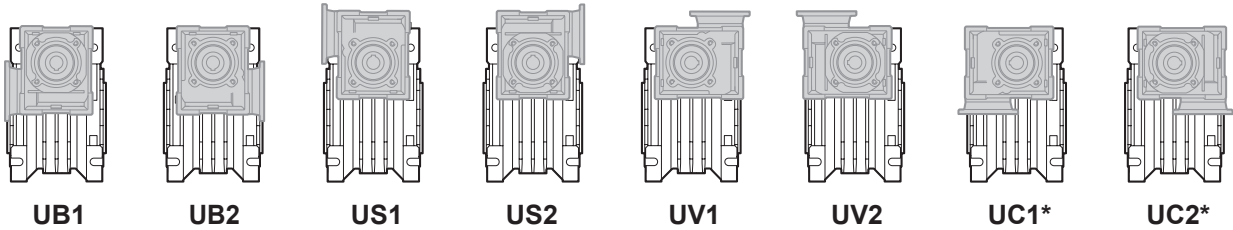
Motori applicabili

Motor adapters

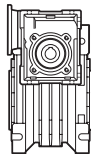


		SMT		SMM	
		5014	5624	5014	5624
		5024	5634	5024	5634
		5034	5644	5034	5644
		5044	5654		
CM	026/026	150 - 3600		150 - 3600	

150 - 3600 Rapporti di riduzione i / Ratio i

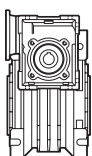
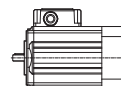
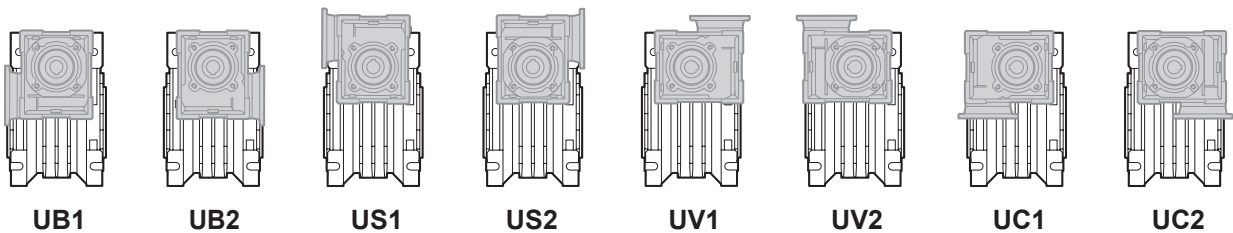


*: Solo / only SMT 50 - SMM50



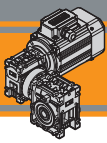
		SMT		SMM	
		5014	5624	5014	5624
		5024	5634	5024	5634
		5034	5644	5034	5644
		5044	5654		
CM	026/030	150 - 3600		150 - 3600	
	026/040				

150 - 3600 Rapporti di riduzione i / Ratio i



		SMT			SMM		
		5014	5624	6324	5014	5624	6314
		5024	5634	6334	5024	5634	6324
		5034	5644	6344	5034	5644	6334
		5044	5654				
CM	030/040	75 - 3600		75-1500	75 - 3600		75-1500

75 - 3600 Rapporti di riduzione i / Ratio i



Dimensioni

Dimensions

CMM..U - CMM..F...																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{h8}	N1	N2
026/026 (D11)			11														
026/026	45	70	12	83	22	47.5	50	35	34	26	26	34	42	55	45	22.5	21
026/026 (D14)			14														
026/030	54	80	14	97	32	47.5	63	40	34	30	26	44	56	65	55	29	21
026/040	70	100	18	121.5	43	47.5	78	50	34	40	26	60	71	75	60	36.5	21

CMM..U - CMM..F...														
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg
026/026 (D11)												4	12.8	
026/026	6	—	37	49	49	5	15	21	76	7	—	4	13.8	1.6
026/026 (D14)												5	16.2	
026/030	6.5	75	44	57	49	5.5	22	27	81	M6x10(n.4)	90°	5	16.3	2.4
026/040	6.5	87	55	71.5	49	6.5	26	35	91.5	M6x8(n.4)	45°	6	20.8	3.5

	CMM..F						CMM..F28						CMM..F30						CMM..F30S ⁽¹⁾														
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
026 (D11)	45°	45	6	4.5	55-69	40	6.5 (n.4)	75	70	44	6.5	5	56-64	40	6.5	70	60	48	6.5	5	68	50	6.5	80	70	50	8.5	7	68	50	6.5	80	70
026																																	
026 (D14)																																	

(1): F30S eseguita con F30 e distanziale di spessore 2 mm / F30S made with F30 and spacer with 2mm thickness

	CMM..F30C						CMM..F30SC ⁽²⁾						CMM..F100												
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC *	KM	KN _{H7}	KO	KP	KQ
026 (D11)	-	48	6.5	7	68	50	6.5	80	70	50	8.5	7	68	50	6.5	80	70	51.5	8	2 *	86	45	6.5	100	-
026																									
026 (D14)																									

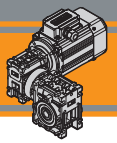
(2): F30SC eseguita con F30C e distanziale di spessore 2 mm / F30SC made with F30C and spacer with 2mm thickness

	CMM..F						CMM..FB						CMM..FL												
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
026/030	45°	54.5	6	4	68	50	6.5(n.4)	80	70								—								
026/040	45°	67	7.5	4.5	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	9(n.4)	110	95

SMT	BFC	BNV	LFC	LNV
5014	□ 85	□ 80	135.5	108.5
5024			150.5	123.5
5034			175.5	148.5
5044			200.5	173.5
5624	□ 93	□ 87	141	117
5634			151	127
5644			186	162
5654			206	182

SMM	BFC	BNV	LFC	LNV
5014	□ 85	□ 80	150.5	123.5
5024			175.5	148.5
5034			200.5	173.5
5624			151	127
5634	□ 93	□ 87	186	162
5644			206	182

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



Dimensioni

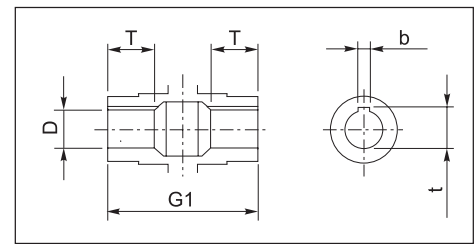
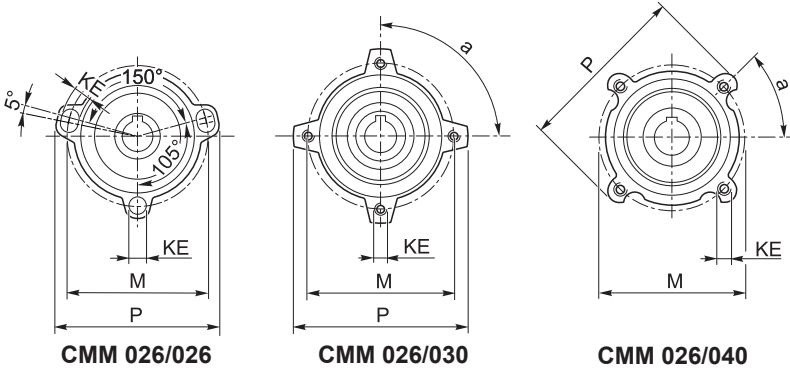
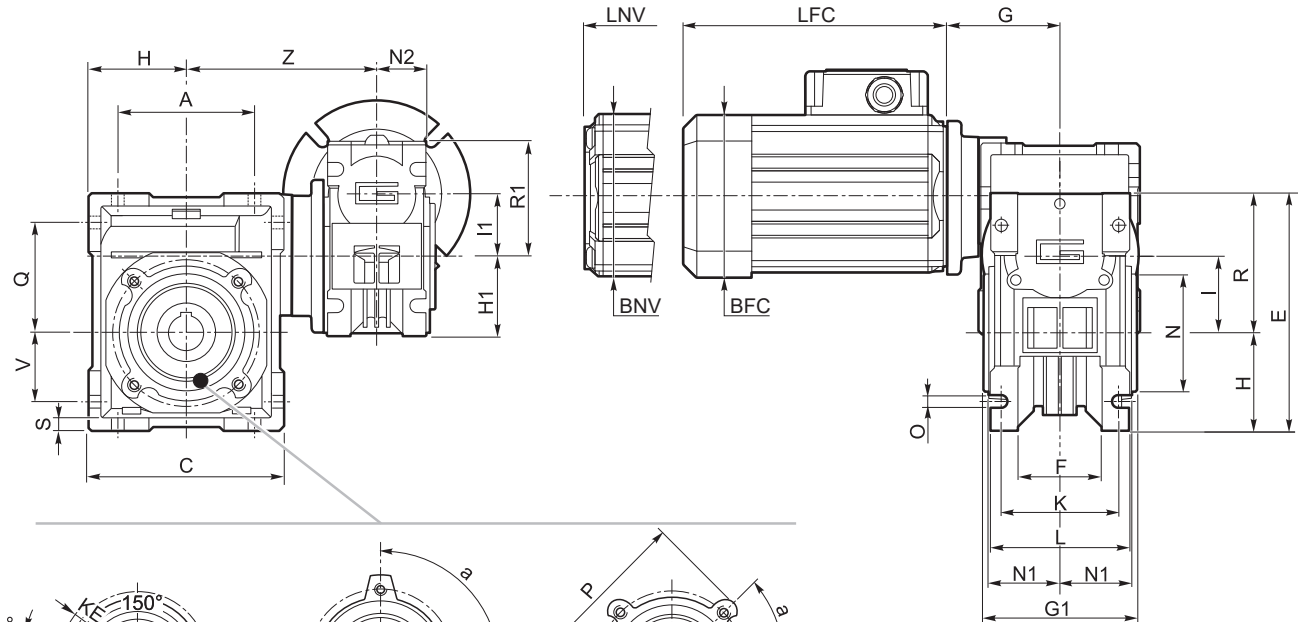
Dimensions

CMM 026/... U

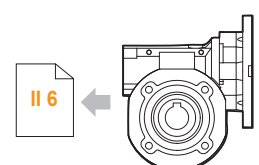
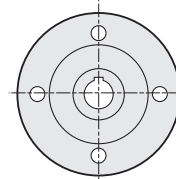
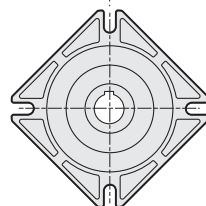
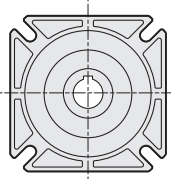
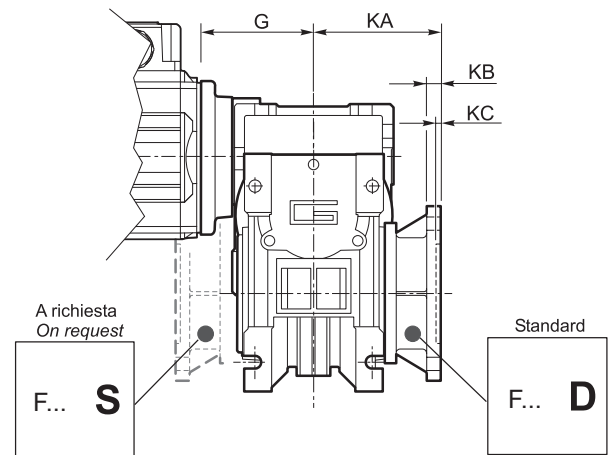
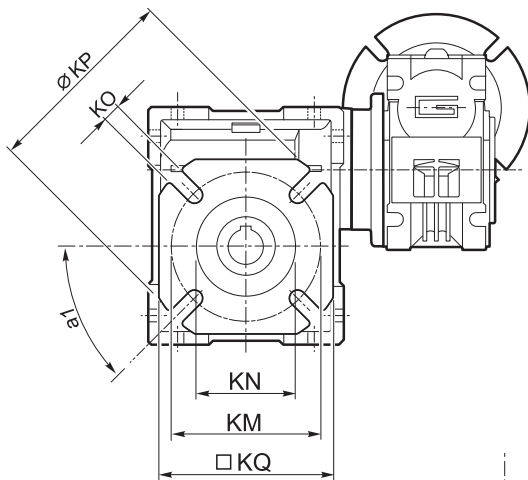
S3 servizio 30%
duty

SMT...TENV
SMM... TENV

SMT...TEFC
SMM... TEFC



Albero lento cavo / Hollow output shaft



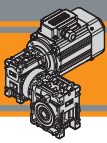
CMM026/026.. F
CMM026/026.. F28
CMM026/026.. F30
CMM026/026.. F30S
CMM026/030.. F.
CMM026/040.. F..

CMM026/026.. F30C
CMM026/026.. F30SC

CMM026/026.. F100

CL026
CL030
CL040





Dimensioni

Dimensions

CMM.. - CMM..F - CMM..FB - CMM..FL																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{H8}	N1	N2
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29

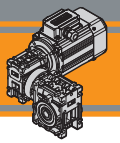
CMM.. - CMM..F - CMM..FB - CMM..FL															
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg	
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8 (21.8)	3.9	

	CMM..F								CMM..FB								CMM..FL								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
030/040	45°	67	7.5	4	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	9(n.4)	110	95

SMT	BFC	BNV	LFC	LVN
5014	□ 85	□ 80	135.5	108.5
5024			150.5	123.5
5034			175.5	148.5
5044			200.5	173.5
5624	□ 93	□ 87	141	117
5634			151	127
5644			186	162
5654			206	182
6324	□ 105	□ 97	165.5	138.5
6334			180.5	153.5
6344			205.5	178.5

SMM	BFC	BNV	LFC	LVN
5014	□ 85	□ 80	150.5	123.5
5024			175.5	148.5
5034			200.5	173.5
5624	□ 93	□ 87	151	127
5634			186	162
5644			206	182
6324	□ 105	□ 97	180.5	153.5
6334			205.5	178.5

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



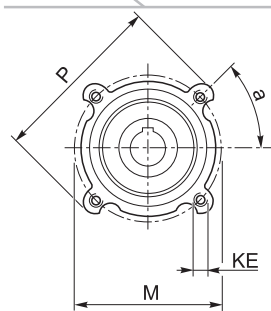
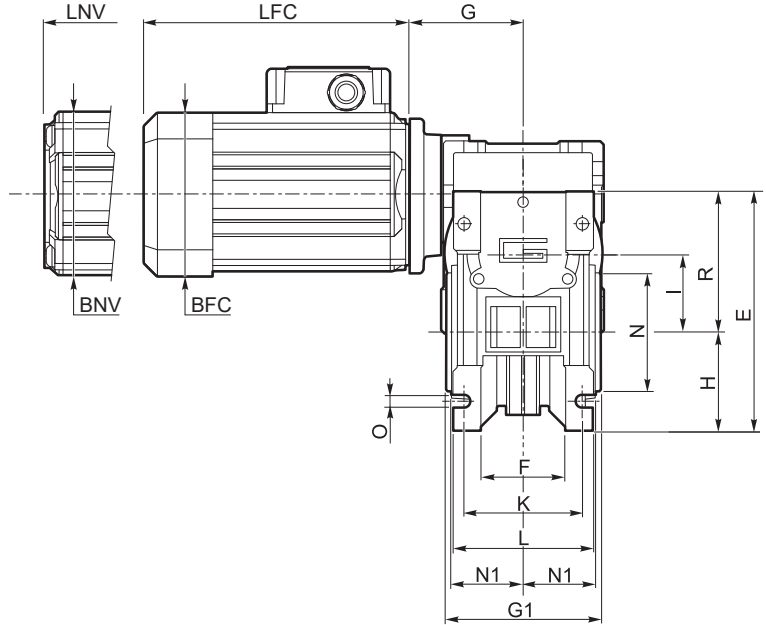
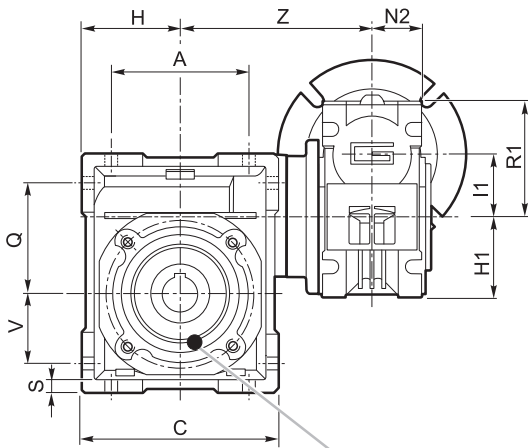
Dimensioni

Dimensions

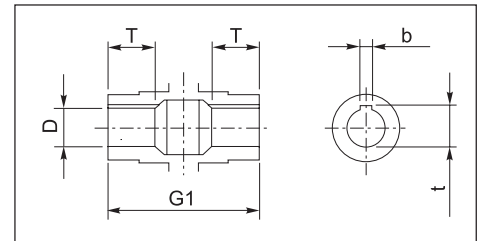
CMM 030/040 U

S3 servizio duty 30% SMT...TENV SMM... TENV

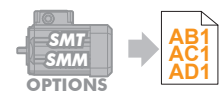
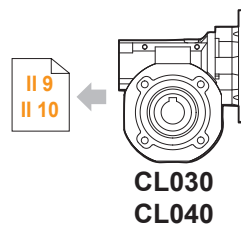
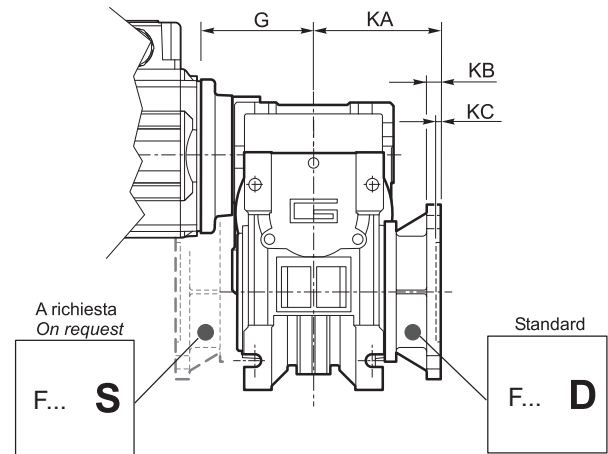
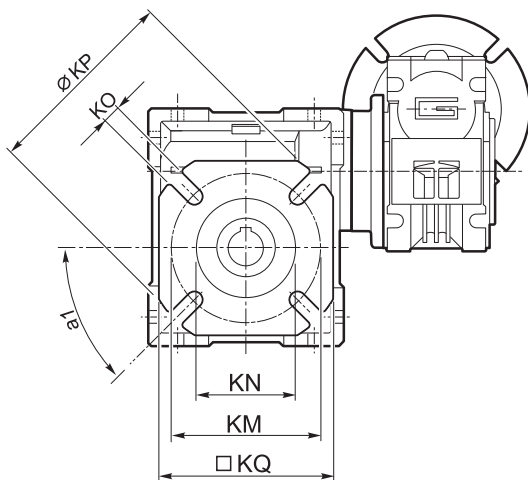
SMT...TEFC SMM... TEFC



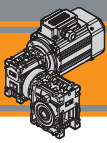
CMM 030/040



Albero lento cavo / Hollow output shaft



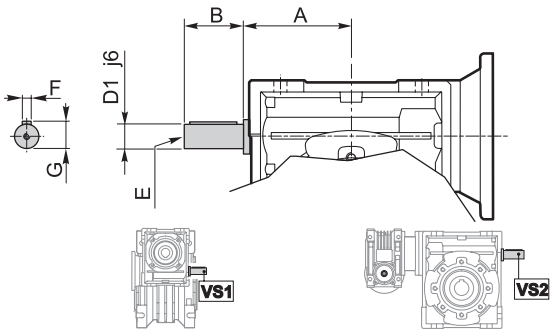
AC



Opzioni

Options

VS1 - VS2 - Vite sporgente / Extended input shaft



CMM	VS1						VS2					
	A	B	D ₁ j6	E	F	G	A	B	D ₁ j6	E	F	G
026/030	—	—	—	—	—	—	45	20	9	M4	3	10.2
026/040	—	—	—	—	—	—	53	23	11	M5	4	12.5
030/040	45	20	9	M4	3	10.2	53	23	11	M5	4	12.5

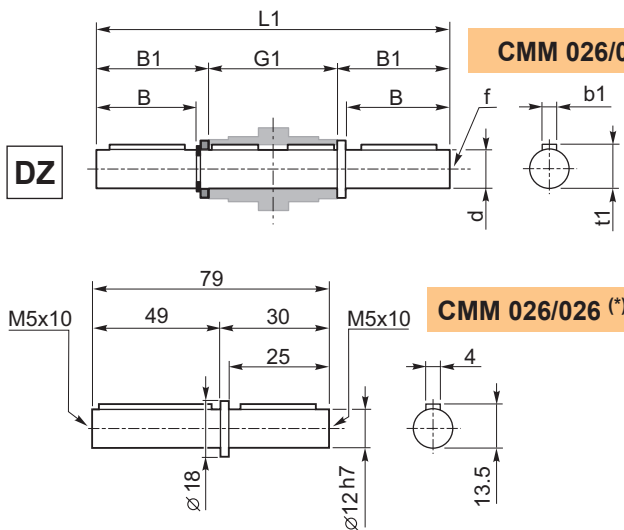
Costruito su richiesta
Built on request

Accessori

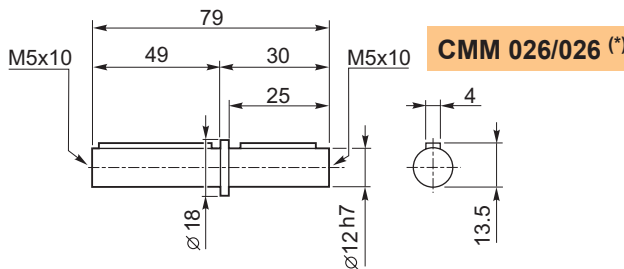
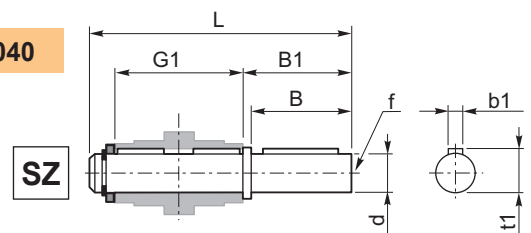
Accessories

Albero lento semplice e doppio

Single and double output shaft



CMM 026/030 - CMM 030/040



CMM 026/026 (*)

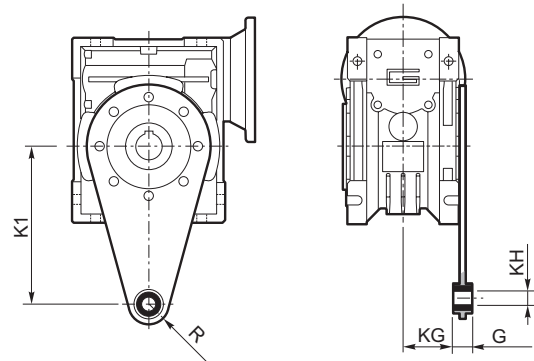
CMM	d h7	B	B1	G1	L	L1	f	b1	t1
026/030	14	30	32.5	63	102	128	M6	5	16
026/040 030/040	18	40	43	78	128	164	M6	6	20.5

(*)
Nota: disponibile solo per cavo uscita Ø12
Note: available for output hollow shaft Ø12 only

Braccio di reazione

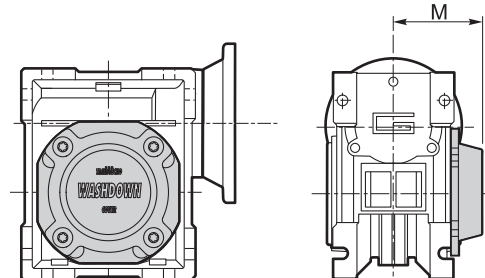
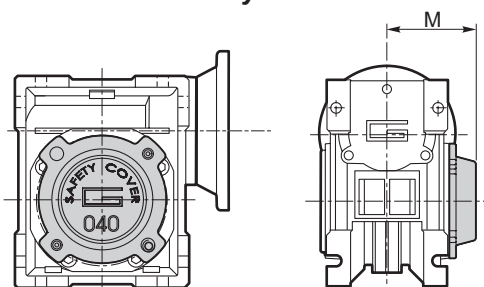
Torque arm

CMM	K1	G	KG	KH	R
026/030	85	14	23	8	15
026/040 030/040	100	14	31	10	18



SC - Safety cover

WD - Kit washdown cover



M	CM	
	30	40
M	47	54.5

M	CM	
	30	40
M	48	55.5

MINI  **TECNO**™
small but strong

PM

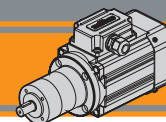
AC

Motoriduttori CA epicicloidali
AC Planetary gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®

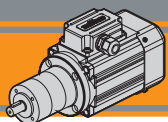




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Carichi radiali	<i>Radial loads</i>	AL3
Rapporti	<i>Ratios</i>	AL3
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Motori applicabili	<i>IEC Motor adapters</i>	AL8
Dimensioni	<i>Dimensions</i>	AL8

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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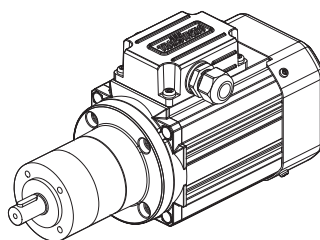
**PM****Motoriduttori CA epicicloidali**
AC planetary gearmotors**MINI**
TECNO**Caratteristiche tecniche****Technical features**

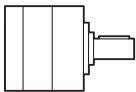
Le caratteristiche principali dei motoriduttori PM sono:



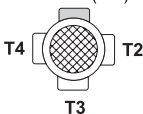
- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa motore estrusa in alluminio anodizzato nero
- Motore elettrico AC con grado di protezione IP66
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezione termica PTO 150°C per le taglie motore 56 e 63.
- SMT56 e SMT63 adatti al funzionamento con alimentazione da inverter
- Disponibili nelle versioni autofrenante, servoventilata e con certificazione UL.



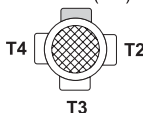
PM gearmotors gearmotors have the following main features:

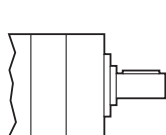
- Compact design
- AC single phase and three phase motors available
- Motor extruded aluminum housing black anodized
- AC electric motor in IP66 protection Standard
- Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available
- PTO 150°C thermal protection for motor sizes 56 and 63.
- SMT56 and SMT63 are suitable for inverter duty
- Brake motors, forced ventilation motors and UL compliance versions available.

**Designazione****Classification**

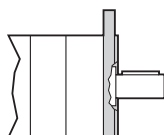
RIDUTTORE / GEARMOTOR				
PM	52	2	C80	34.97
Tipo Type	Grandezza Size	Stadi riduttore Gearbox stages	Versione riduttore Gearbox Version	Rapporto Ratio
PM 	52 62	1 2 3	U C80 C90 C105 C120	Vedere tabella See tables

MOTORE TRIFASE / THREE PHASE MOTOR										
SMT	63	2	4	0.18 kW	B14	230-400 V	50 Hz	TEFC	BR	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsettiera Terminal box pos.
SMT 	Vedere tab. See tab.	1-2-3-4-5	4	0.04 kW ... 0.37 kW	B14	230-400 V 460V	50Hz 60Hz	TEFC TENV	 AB1 AC1 AD1	T1 (Std)  T4 T2 T3

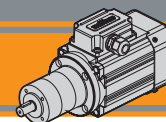
MOTORE MONOFASE / SINGLE PHASE MOTOR										
SMM	63	2	4	0.18 kW	B14	230 V	50 Hz	TEFC	UL-CSA	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Opzioni Options	Pos. Morsettiera Terminal box pos.
SMM 	Vedere tab. See tab.	1-2-3-4	4	0.04 kW ... 0.25 kW	B14	230V	50Hz	TEFC TENV	 AD1	T1 (Std)  T4 T2 T3

Versioni**Versions**

U



C

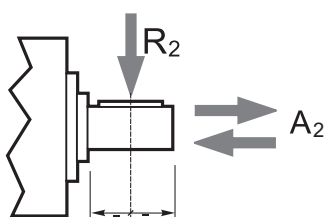

Simbologia
Symbols

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

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]	
	PM52	PM62
1	200	240
2	320	360
3	450	520

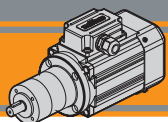
Numero di stadi Stages number	Carichi Assiali A_2 [N] / Axial Load A_2 [N]	
	PM52	PM62
1	60	70
2	100	100
3	150	150

Rapporti
Ratios

Numero di stadi Stages number	Per tutte le grandezze di riduttori della serie PM For all gearbox sizes of PM 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 PM52, PM62.
Preferred ratios for PM52, PM62.

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



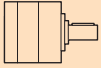

PM

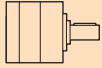

**Motoriduttori CA epicicloidali
AC planetary gearmotors**


**MINI
TECNO**

Dati tecnici

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
0.04						
SMT5014	378	0.8	6.3	3.7	PM521	
SMM5014	327	0.9	5.4	4.28		
(1400 min ⁻¹)	270	1.1	4.5	5.18		
	207	1.5	3.4	6.75		
	102	3	5.4	13.73	PM522	
	88	3	4.7	15.88		
	76	4	4.0	18.36		
	73	4	3.9	19.2		
	63	5	3.3	22.2		
	56	5	3.0	25.01		
	52	5	2.8	26.85		
	48	6	2.6	28.93		
	40	7	2.1	34.97		
	31	9	1.6	45.56		
	28	10	3.3	50.89		PM523
	24	11	2.8	58.85		
	21	13	2.4	68.06		
	20	14	2.3	71.16		
	18	15	2.1	78.71		
	15	18	1.8	92.7		
	15	18	1.7	95.17		
	14	19	1.7	99.5		
	13	20	1.5	107.2		
	12	22	1.4	115.07		
	11	24	1.3	123.97		
	11	25	1.3	129.62		
	10	27	1.2	139.13		
	9.3	29	1.1	149.9		
	8.3	32	1.0	168.84		
	7.7	35	0.9	181.24		
	7.2	37	0.8	195.26		
	5.9	45	0.7	236.09		
	4.6	45	0.7	307.54		
	56	5	6.2	25.01	PM622	
	52	5	5.8	26.85		
	48	6	5.3	28.93		
	40	7	4.4	34.97		
	31	9	3.4	45.56		

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.04					
SMT5014	28	10	6.5	50.89	PM623
SMM5014	24	11	5.6	58.85	
(1400 min ⁻¹)	21	13	4.9	68.06	
	20	14	4.7	71.16	
	18	15	4.2	78.71	
	15	18	3.6	92.7	
	15	18	3.5	95.17	
	14	19	3.3	99.5	
	13	20	3.1	107.2	
	12	22	2.9	115.07	
	11	24	2.7	123.97	
	11	25	2.6	129.62	
	10	27	2.4	139.13	
	9.3	29	2.2	149.9	
	8.3	32	2.0	168.84	
	7.7	35	1.8	181.24	
	7.2	37	1.7	195.26	
	5.9	45	1.4	236.09	
	4.6	59	1.1	307.54	

0.06						
SMT5024	378	1	4.2	3.7	PM521	
SMM5024	327	1	3.6	4.28		
(1400 min ⁻¹)	270	2	3.0	5.18		
	207	2	2.3	6.75		
	102	4	3.6	13.73	PM522	
	88	5	3.1	15.88		
	76	6	2.7	18.36		
	73	6	2.6	19.2		
	63	7	2.2	22.2		
	56	8	2.0	25.01		
	52	8	1.8	26.85		
	48	9	1.7	28.93		
	40	11	1.4	34.97		
	31	14	1.1	45.56		
	28	15	2.2	50.89		PM523
	24	17	1.9	58.85		
	21	19	1.6	68.06		
	20	20	1.6	71.16		
	18	23	1.4	78.71		
	15	27	1.2	92.7		
	15	27	1.2	95.17		
	14	29	1.1	99.5		
	13	31	1.0	107.2		
	12	33	1.0	115.07		
	11	36	0.9	123.97		
	11	37	0.9	129.62		
	10	40	0.8	139.13		
	9.3	45	0.7	149.9		
	8.3	45	0.7	168.84		
	7.7	45	0.7	181.24		
	7.2	45	0.7	195.26		

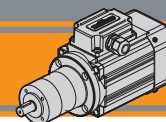
Motoriduttori preferenziali / Preferred gearmotors

NOTA
Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

NOTE
For sf=0.7 check that the duty torque does not exceed the value M2



Motori Motors	SMT	SMM
		5014 5024
IEC	56 B14	56 B14



Dati tecnici

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.06						0.09					
SMT5024	56	8	4.1	25.01	PM622	SMT5034	56	12	2.7	25.01	PM622
SMM5024	52	8	3.8	26.85		SMM5034	52	12	2.6	26.85	
(1400 min ⁻¹)	48	9	3.6	28.93		SMT5624	48	13	2.4	28.93	
	40	11	2.9	34.97		SMM5624	40	16	2.0	34.97	
	31	14	2.3	45.56		(1400 min ⁻¹)	31	21	1.5	45.56	
	28	15	4.3	50.89	PM623		28	22	2.9	50.89	PM623
	24	17	3.8	58.85			24	25	2.5	58.85	
	21	19	3.2	68.06			21	29	2.2	68.06	
	20	20	3.1	71.16			20	31	2.1	71.16	
	18	23	2.8	78.71			18	34	1.9	78.71	
	15	27	2.4	92.7			15	40	1.6	92.7	
	15	27	2.3	95.17			15	41	1.5	95.17	
	14	29	2.2	99.5			14	43	1.5	99.5	
	13	31	2.1	107.2			13	46	1.4	107.2	
	12	33	1.9	115.07			12	49	1.3	115.07	
	11	36	1.8	123.97			11	53	1.2	123.97	
	11	37	1.7	129.62			11	56	1.1	129.62	
	10	40	1.6	139.13			10	60	1.1	139.13	
	9.3	43	1.5	149.9			9.3	64	1.0	149.9	
	8.3	48	1.3	168.84			8.3	73	0.9	168.84	
	7.7	52	1.2	181.24		7.7	78	0.8	181.24		
	7.2	56	1.1	195.26		7.2	84	0.8	195.26		
	5.9	68	0.9	236.09		5.9	90	0.7	236.09		
	4.6	88	0.7	307.54		4.6	90	0.7	307.54		

0.09						0.12						
SMT5034	378	2	2.8	3.7	PM521	SMT5044	378	2	2.1	3.7	PM521	
SMM5034	327	2	2.4	4.28		SMT5634	327	3	1.8	4.28		
SMT5624	270	3	2.0	5.18		SMM5634	270	3	1.5	5.18		
SMM5624	207	3	1.5	6.75		(1400 min ⁻¹)	207	4	1.1	6.75		
(1400 min ⁻¹)	102	6	2.4	13.73	PM522		102	8	1.8	13.73	PM522	
	88	7	2.1	15.88			88	10	1.6	15.88		
	76	8	1.8	18.36			76	11	1.3	18.36		
	73	9	1.7	19.2			73	12	1.3	19.2		
	63	10	1.5	22.2			63	14	1.1	22.2		
	56	12	1.3	25.01			56	15	1.0	25.01		
	52	12	1.2	26.85			52	16	0.9	26.85		
	48	13	1.1	28.93			48	18	0.9	28.93		
	40	16	0.9	34.97			40	22	0.7	34.97		
	31	21	0.7	45.56			31	22	0.7	45.56		
	28	22	1.4	50.89		PM523						
	24	25	1.3	58.85								
	21	29	1.1	68.06								
	20	31	1.0	71.16								
	18	34	0.9	78.71								
	15	40	0.8	92.7								
	15	41	0.8	95.17								
	14	45	0.7	99.5								
	13	45	0.7	107.2								
	12	45	0.7	115.07								
	11	45	0.7	123.97								
	11	45	0.7	129.62								
	10	45	0.7	139.13								

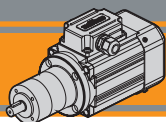
NOTA
Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

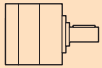
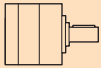



NOTE
For sf=0.7 check that the duty torque does not exceed the value M2

Motoriduttori preferenziali / Preferred gearmotors



Motori Motors	SMT		SMM	
		5014 5024 5034 5044	5624 5634	5024 5034
IEC	56 B14		56 B14	

**PM****Motoriduttori CA epicicloidali
AC planetary gearmotors****MINI
TECNO****Dati tecnici****Technical data**

P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		P_1 [kW]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		
0.12						0.18						
SMT5044	28	29	1.1	50.89	PM523	SMT5644	378	4	1.4	3.7	PM521	
SMT5634	24	34	0.9	58.85		SMM5644	327	4	1.2	4.28		
SMM5634	21	39	0.8	68.06		(1400 min ⁻¹)	270	5	1.0	5.18		
(1400 min ⁻¹)	20	41	0.8	71.16			207	7	0.8	6.75		
	18	45	0.7	78.71		102	13	1.2	13.73	PM522		
15	45	0.7	92.7	88		15	1.0	15.88				
15	45	0.7	95.17	76		17	0.9	18.36				
14	45	0.7	99.5	73		18	0.9	19.2				
13	45	0.7	107.2	63		22	0.7	22.2				
12	45	0.7	115.07	56		22	0.7	25.01				
11	45	0.7	123.97	52	22	0.7	26.85					
11	45	0.7	129.62	48	22	0.7	28.93					
10	45	0.7	139.13									
	378	2	4.2	3.7	PM621	28	45	0.7	50.89	PM523		
	327	3	3.6	4.28		24	45	0.7	58.85			
	270	3	3.0	5.18		21	45	0.7	68.06			
	207	4	2.3	6.75		20	45	0.7	71.16			
	102	8	3.8	13.73	PM622	0.18						
	88	10	3.2	15.88		SMT5644	378	4	2.8	3.7	PM621	
	76	11	2.8	18.36		SMM5644	327	4	2.4	4.28		
	73	12	2.7	19.2		SMT6324	270	5	2.0	5.18		
	63	14	2.3	22.2		SMM6324	207	7	1.5	6.75		
	56	15	2.1	25.01		(1400 min ⁻¹)	102	13	2.5	13.73		PM622
	52	16	1.9	26.85			88	15	2.2	15.88		
	48	18	1.8	28.93		76	17	1.9	18.36			
	40	21	1.5	34.97		73	18	1.8	19.2			
	31	28	1.1	45.56		63	20	1.5	22.2			
					56	23	1.4	25.01	PM623			
	28	29	2.2	50.89	52	25	1.3	26.85				
	24	34	1.9	58.85	48	27	1.2	28.93				
	21	39	1.6	68.06	40	32	1.0	34.97				
	20	41	1.6	71.16	31	42	0.8	45.56				
	18	45	1.4	78.71								
	15	53	1.2	92.7	28	44	1.4	50.89				
	15	55	1.2	95.17	24	51	1.3	58.85				
	14	57	1.1	99.5	21	58	1.1	68.06				
	13	61	1.0	107.2	20	61	1.0	71.16				
	12	66	1.0	115.07	18	68	0.9	78.71				
	11	71	0.9	123.97	15	80	0.8	92.7				
	11	74	0.9	129.62	15	82	0.8	95.17				
	10	80	0.8	139.13	14	86	0.7	99.5				
	9.3	90	0.7	149.9	13	90	0.7	107.2				
	8.3	90	0.7	168.84	12	90	0.7	115.07				
	7.7	90	0.7	181.24	11	90	0.7	123.97				
	7.2	90	0.7	195.26	11	90	0.7	129.62				
					10	90	0.7	139.13				

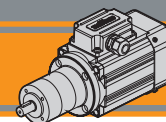
NOTA
Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

NOTE
For sf=0.7 check that the duty torque does not exceed the value M2

 Motoriduttori preferenziali / Preferred gearmotors



Motori Motors	SMT			SMM	
	5044	5634 5644	6324	5634 5644	6324
IEC	56 B14			63 B14	



Dati tecnici

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.25						0.37					
SMT5654 (1400 min ⁻¹)	378	4	1.4	3.7	PM521	SMT6344 (1400 min ⁻¹)	378	7	1.4	3.7	PM621
	327	4	1.2	4.28		327	9	1.2	4.28		
	270	5	1.0	5.18		270	10	1.0	5.18		
	207	7	0.8	6.75		207	14	0.7	6.75		
	102	18	0.9	13.73	PM522	102	26	1.2	13.73	PM622	
	88	20	0.7	15.88		88	30	1.1	15.88		
	76	22	0.7	18.36		76	35	0.9	18.36		
	73	22	0.7	19.2		73	36	0.9	19.2		
						63	42	0.8	22.2		
					56	45	0.7	25.01	PM623		
					52	45	0.7	26.85			
					48	45	0.7	28.93			
0.25											
SMT5654	378	5	2.0	3.7	PM621	28	90	0.7	50.89	PM623	
SMT6334	327	6	1.7	4.28		24	90	0.7	58.85		
SMM6334	270	7	1.4	5.18	21	90	0.7	68.06			
(1400 min ⁻¹)	207	9	1.1	6.75	20	90	0.7	71.16			
	102	18	1.8	13.73	PM622						
	88	20	1.6	15.88							
	76	23	1.3	18.36							
	73	25	1.3	19.2							
	63	28	1.1	22.2							
	56	32	1.0	25.01							
	52	34	0.9	26.85							
	48	37	0.9	28.93							
	40	45	0.7	34.97							
	31	45	0.7	45.56							
	28	61	1.0	50.89	PM623						
	24	70	0.9	58.85							
	21	81	0.8	68.06							
	20	85	0.7	71.16							
	18	90	0.7	78.71							
	15	90	0.7	92.7							
	15	90	0.7	95.17							
	14	90	0.7	99.5							

NOTA

Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.



Motoriduttori preferenziali / Preferred gearmotors

NOTE

For sf=0.7 check that the duty torque does not exceed the value M2

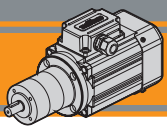


Motori Motors	SMT		SMM
		5654	6334 6344
IEC	56 B14	63 B14	63 B14

Dati tecnici elettrici

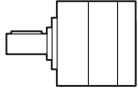
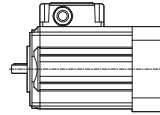
Electrical technical data





Motori applicabili

IEC Motor adapters



		SMT		SMM		SMT		SMM	
		5014	5624	5014	5624	6324		6324	
		5024	5634	5024	5634	6334		6334	
		5034	5644	5034	5644	6344			
		5044	5654						
PM	52...								
	62...								



Flangia di combainzione
Combination flange

Dimensioni

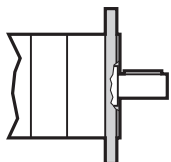
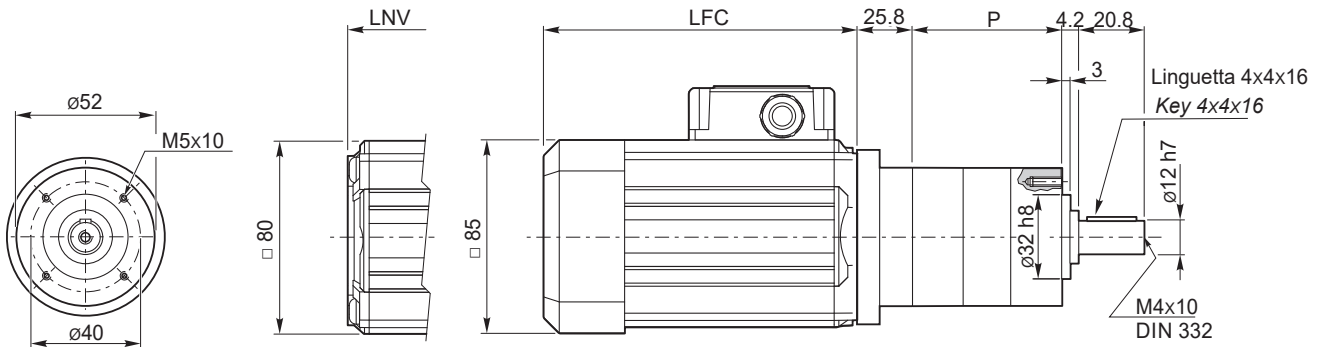
Dimensions

PM52 ... U

S3 servizio 30%
duty

SMT50...TENV
SMM50... TENV

SMT50...TEFC
SMM50... TEFC



PM52...C

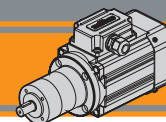
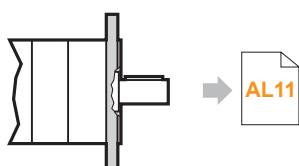
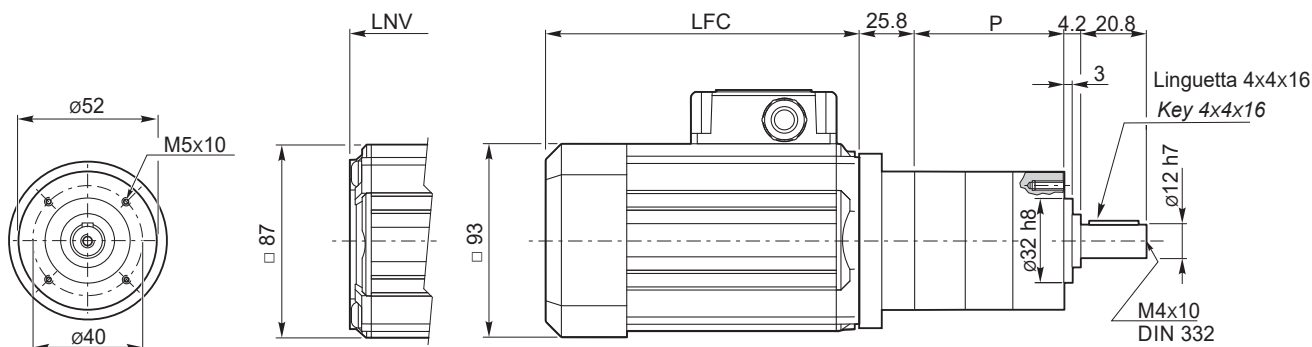


Tipo Type	Numero di stadi Stages number	P
PM52...	1	47.2
	2	61.3
	3	75.6

SMT	LFC	LNV	Kg	
5014	135.5	108.5	3.4	
5024	150.5	123.5	3.8	
5034	175.5	148.5	4.6	
5044	200.5	173.5	5.3	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	3.8	
5024	175.5	148.5	4.6	
5034	200.5	173.5	5.3	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

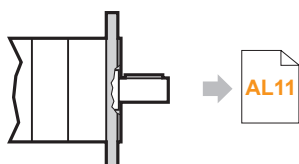
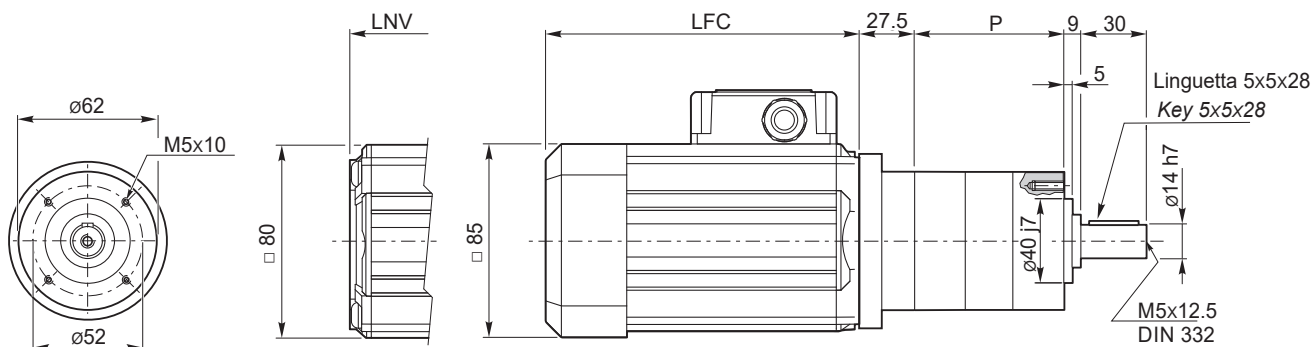

Dimensioni
Dimensions
PM52 ... U
S3 servizio duty 30% **SMT56...TENV**
SMM56... TENV
SMT56...TEFC
SMM56... TEFC

PM52...C


Tipo Type	Numero di stadi Stages number	P
PM52...	1	47.2
	2	61.3
	3	75.6

SMT	LFC	LNV	Kg	
5624	141	117	3.9	
5634	151	127	4.3	
5644	186	162	5.5	
5654	206	182	6.2	

SMM	LFC	LNV	Kg	
5624	151	127	4.2	
5634	171	147	4.8	
5644	206	182	6.1	

 Nota: il condensatore sarà fornito a corredo
 Note: the capacitor will be supplied separately

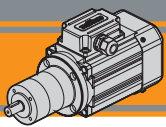
PM62 ... U
S3 servizio duty 30% **SMT50...TENV**
SMM50... TENV
SMT50...TEFC
SMM50... TEFC

PM62...C

Tipo Type	Numero di stadi Stages number	P
PM62...	1	45.3
	2	62.2
	3	79.2

SMT	LFC	LNV	Kg	
5014	135.5	108.5	3.9	
5024	150.5	123.5	4.3	
5034	175.5	148.5	5.1	
5044	200.5	173.5	5.8	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	4.3	
5024	175.5	148.5	5.1	
5034	200.5	173.5	5.8	

 Nota: il condensatore sarà fornito a corredo
 Note: the capacitor will be supplied separately



PM

Motoriduttori CA epicicloidali
AC planetary gearmotors

MINI
TECNO

Dimensioni

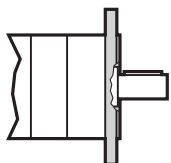
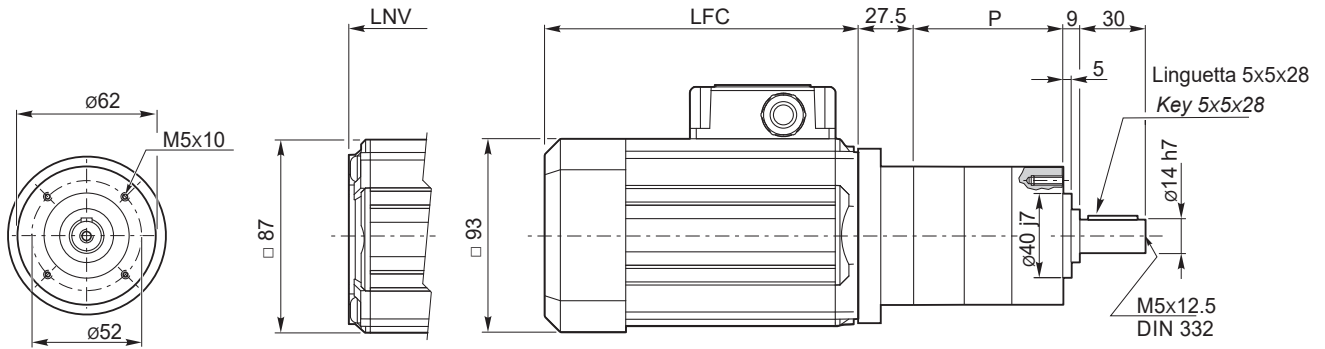
Dimensions

PM62 ... U

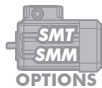
S3 servizio 30%
duty

SMT56...TENV
SMM56... TENV

SMT56...TEFC
SMM56... TEFC



PM62...C



Tipo Type	Numero di stadi Stages number	P
PM62...	1	45.3
	2	62.2
	3	79.2

SMT	LFC	LNV	Kg	
5624	141	117	4.4	
5634	151	127	4.8	
5644	186	162	6	
5654	206	182	6.7	

SMM	LFC	LNV	Kg	
5624	151	127	4.7	
5634	171	147	5.3	
5644	206	182	6.6	

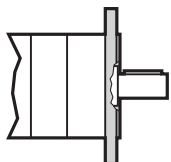
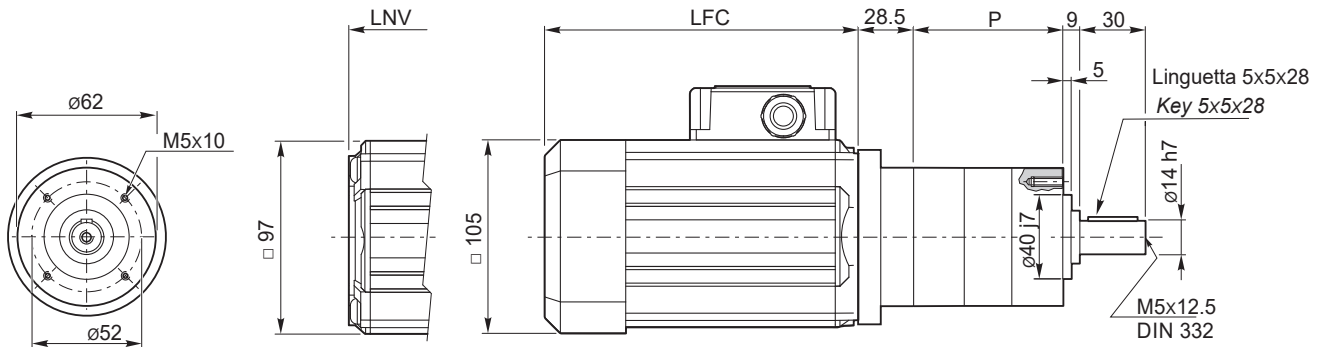
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

PM62 ... U

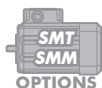
S3 servizio 30%
duty

SMT63...TENV
SMM63... TENV

SMT63...TEFC
SMM63... TEFC



PM62...C

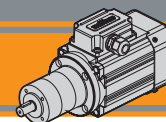


Tipo Type	Numero di stadi Stages number	P
PM62...	1	45.3
	2	62.2
	3	79.2

SMT	LFC	LNV	Kg	
6324	165.5	138.5	5.9	
6334	180.5	153.5	6.6	
6344	205.5	178.5	7.8	

SMM	LFC	LNV	Kg	
6324	180.5	153.5	6.7	
6334	205.5	178.5	7.9	

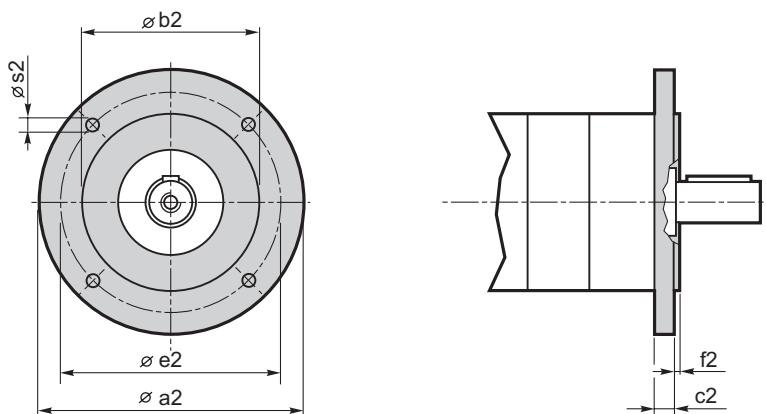
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



Dimensioni

Dimensions

PM.../... C... Flange uscita / Output flanges



Dimensioni / Dimensions							
PM	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

MINI  **TECNO**™
small but strong

WMP

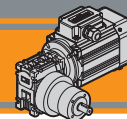
Motoriduttori CA combinati
AC Double reduction gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



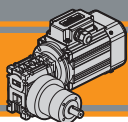
AC



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Versioni	<i>Versions</i>	AM2
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Lubrificazione	<i>Lubrication</i>	AM3
Carichi radiali	<i>Radial loads</i>	AM3
Rapporti	<i>Ratios</i>	AM3
Dati tecnici	<i>Technical data</i>	AM4
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Dimensioni	<i>Dimensions</i>	AM5

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Caratteristiche tecniche

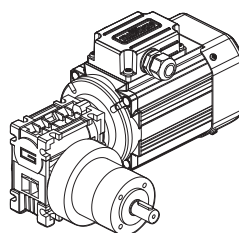
Technical features

Le caratteristiche principali dei motoriduttori WMP sono:

- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa motore estrusa in alluminio anodizzato nero
- Motore elettrico AC con grado di protezione IP66
- Disponibili sia nella versione ventilata TEFC (servizio S1) che non ventilata TENV (servizio S3)
- Protezione termica PTO 150°C per le taglie motore 56.
- SMT56 adatto al funzionamento con alimentazione da inverter
- Disponibili nelle versioni autofrenante, servoventilata e con certificazione UL.

WMP gearmotors gearmotors have the following main features:

- Compact design
- AC single phase and three phase motors available
- Motor extruded aluminum housing black anodized
- AC electric motor in IP66 protection Standard
- Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available
- PTO 150°C thermal protection for motor sizes 56.
- SMT56 is suitable for inverter duty
- Brake motors, forced ventilation motors and UL compliance versions available.



Designazione

Classification

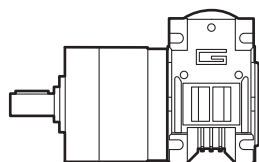
RIDUTTORE / GEARMOTOR					
WMP	026/52	2	C	202.5	56 B14
Tipo Type	Grandezza Size	Numero stadi epicicloidale Planetary stages number	Versione riduttore Gearbox Version	Rapporto Ratio	IEC 56 B14
WMP 	026/52 026/62	1 2 3	US UD CS80...120 CD80...120	Vedere tabella See tables	

MOTORE TRIFASE / THREE PHASE MOTOR									
SMT	56	3	4	0.12 kW	B14	230-400 V	50 Hz	TEFC	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Pos. Morsettiera Terminal box pos.
SMT 	Vedere tab. See tab.	1-2-3-4	4	0.04 kW ... 0.18 kW	B14	230-400 V 460V	50Hz 60Hz	 TEFC TENV	 T1 (Std) T4 T2 T3

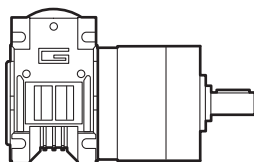
MOTORE MONOFASE / SINGLE PHASE MOTOR									
SMM	56	3	4	0.12 kW	B14	230 V	50 Hz	TEFC	T1
Tipo Type	Grandezza Size	Indicativo potenza Power coefficient	Poli Poles	Potenza Power	Forma costruttiva Version	Tensione Voltage	Frequenza Frequency	Ventilazione Fan cooling	Pos. Morsettiera Terminal box pos.
SMM 	Vedere tab. See tab.	1-2-3	4	0.04 kW ... 0.18 kW	B14	230V	50Hz	TEFC TENV	 T1 (Std) T4 T2 T3

Versioni

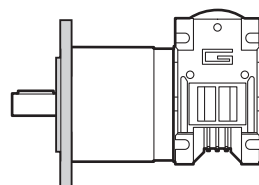
Versions



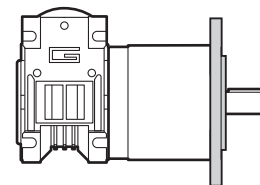
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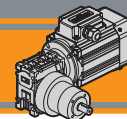
UD



CS



CD

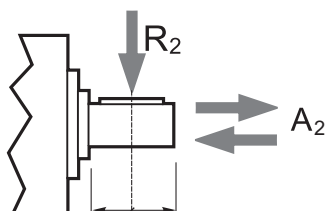

Simbologia
Symbols

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

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.

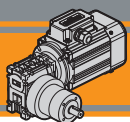
Carichi radiali
Radial loads


Numero di stadi <i>Stages number</i>	Carichi Radiali R_2 [N] / <i>Radial Load R_2 [N]</i>	
	PM52	PM62
1	200	240
2	320	360
3	450	520

Numero di stadi <i>Stages number</i>	Carichi Assiali A_2 [N] / <i>Axial Load A_2 [N]</i>	
	PM52	PM62
1	60	70
2	100	100
3	150	150

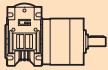

Rapporti
Ratios

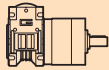

Motoriduttore <i>Gearmotor</i>	Numero stadi epicicloidale <i>Planetary stages number</i>	Rapporto epicicloidale <i>Planetary ratio</i>	Rapporto vite senza fine <i>Wormgearbox ratio</i>	Rapporto finale <i>Total ratio</i>
WMP 026/052 WMP 026/062	1	6.75	10	67.5
			15	101.3
			20	135
			30	202.5
			40	270
			50	337.5
	2	25.01	10	250.1
			15	375.15
			20	500.2
			30	750.3
			40	1000.4
			50	1250.5
			60	1500.6
	45.56	60	2734	

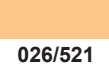



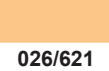

Dati tecnici

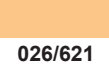

Technical data

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		
0.04						
SMT5014	20.7	12.2	2.0	67.5	026/521	
SMM5014	13.8	17.2	1.4	101.3		
(1400 min ⁻¹)	10.4	21.8	1.1	135		
	6.9	25.0	1.0	202.5		
	5.2	25.0	1.0	270		
	4.1	25.0	1.0	337.5		
	3.5	25.0	1.0	405		
	5.6	25.0	1.0	250.1		026/522
	3.7	25.0	1.0	375.15		
	2.8	25.0	1.0	500.2		
	1.9	25.0	1.0	750.3		
	1.4	25.0	1.0	1000.4		
	1.1	25.0	1.0	1250.5		
	0.9	25.0	1.0	1500.6		
	0.5	25.0	1.0	2734		
	20.7	12.2	3.3	67.5	026/621	
	13.8	17.2	2.3	101.3		
	10.4	21.8	1.8	135		
	6.9	29.2	1.4	202.5		
	5.2	36.0	1.1	270		
	4.1	40.0	1.0	337.5		
	3.5	40.0	1.0	405		
	5.6	42.5	1.2	250.1		026/622
	3.7	50.0	1.0	375.15		
	2.8	50.0	1.0	500.2		
	1.9	50.0	1.0	750.3		
	1.4	50.0	1.0	1000.4		
	1.1	50.0	1.0	1250.5		
	0.9	50.0	1.0	1500.6		
	0.5	50.0	1.0	2734		

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.06					
SMT5024	20.7	18.3	1.4	67.5	026/521
SMM5024	13.8	25.0	1.0	101.3	
(1400 min ⁻¹)	10.4	25.0	1.0	135	
	20.7	18.3	2.2	67.5	026/621
	13.8	25.9	1.5	101.3	
	10.4	32.7	1.2	135	
	6.9	40.0	1.0	202.5	
	5.2	40.0	1.0	270	
	5.6	50.0	1.0	250.1	

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.09					
SMT5034	20.7	25.0	1.0	67.5	026/521
SMM5034	13.8	27.5	1.5	67.5	
SMT5624	20.7	27.5	1.5	67.5	026/621
SMM5624	13.8	38.8	1.0	101.3	
(1400 min ⁻¹)	10.4	40.0	1.0	135	
					

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.12					
SMT5044	20.7	36.7	1.1	67.5	026/621
SMT5634	13.8	40.0	1.0	101.3	
SMM5634	13.8	40.0	1.0	101.3	026/622
(1400 min ⁻¹)					
					

P ₁ [kW]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i	
0.18					
SMT5644	20.7	40.0	1.0	67.5	026/621
SMM5644	13.8	40.0	1.0	101.3	
(1400 min ⁻¹)					
					

N.B.
Verificare sempre che la coppia M₂ utilizzata non ecceda il valore indicato nelle caselle in grigio.

N.B.
Please check that the output torque M₂ does not exceed the value in the grey areas.

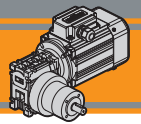


Motori Motors	SMT			SMM		
	5014 5024 5034 5044	5624 5634	6324	5024 5034	5624 5634	6324
IEC	56 B14			56 B14		

Dati tecnici elettrici

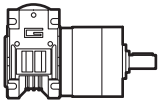
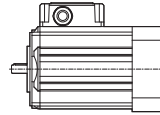
Electrical technical data





Motori applicabili

IEC Motor adapters



		SMT		SMM	
		5014	5624	5014	5624
		5024	5634	5024	5634
		5034	5644	5034	5644
		5044	5654		
WMP	026/52	67.5 - 2734		67.5 - 2734	
	026/62	67.5 - 2734		67.5 - 2734	

67.5 - 2734

Rapporti di riduzione i
Ratio i

Dimensioni

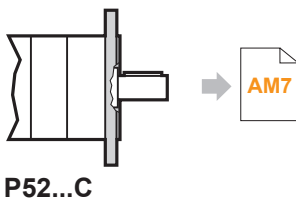
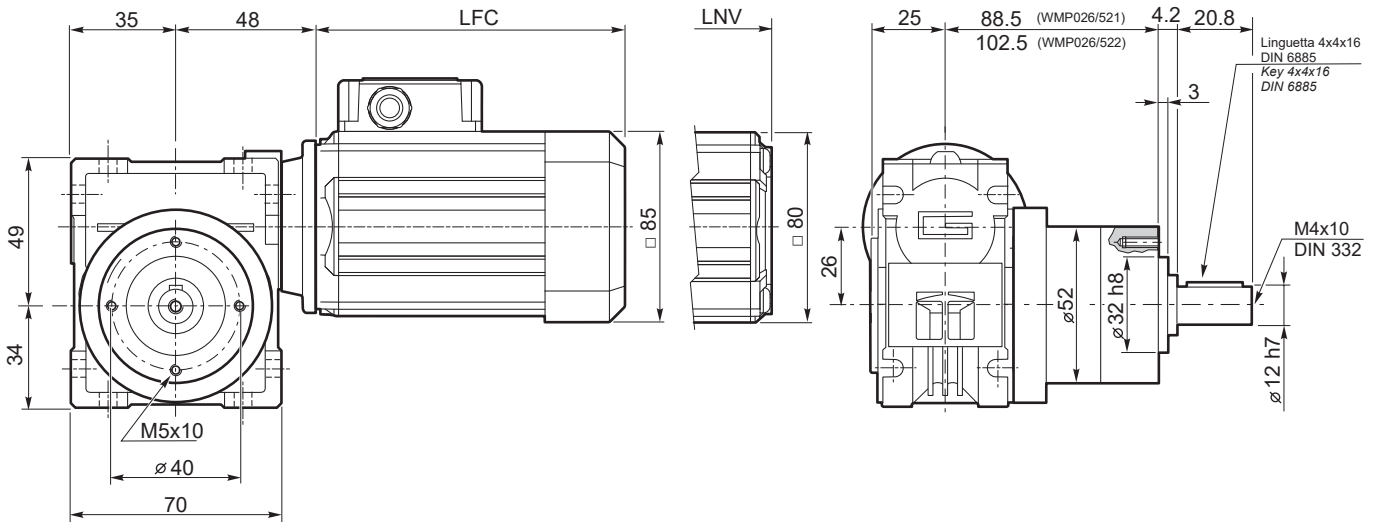
Dimensions

WMP 026/521
WMP 026/522

SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

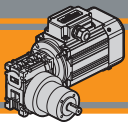
S3 servizio **30%**
duty



SMT	LFC	LNV	Kg	
5014	135.5	108.5	4.1	
5024	150.5	123.5	4.5	
5034	175.5	148.5	5.3	
5044	200.5	173.5	6	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	4.5	
5024	175.5	148.5	5.3	
5034	200.5	173.5	6	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



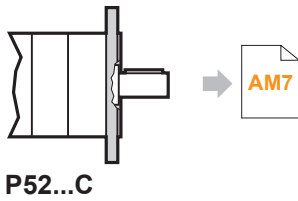
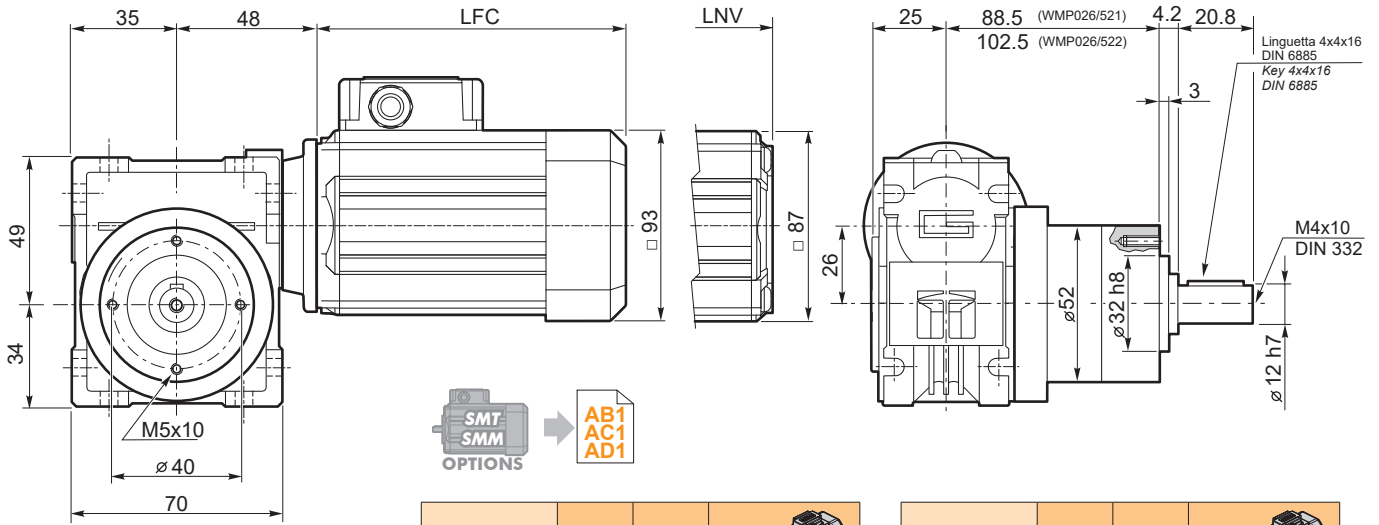
Dimensioni

Dimensions

WMP 026/521
WMP 026/522

SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV S3 servizio duty 30%



SMT	LFC	LNV	Kg	
5624	141	117	4.6	
5634	151	127	5	
5644	186	162	6.2	
5654	206	182	6.9	

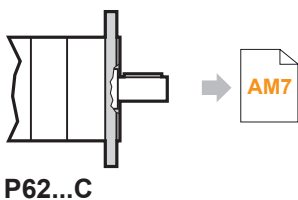
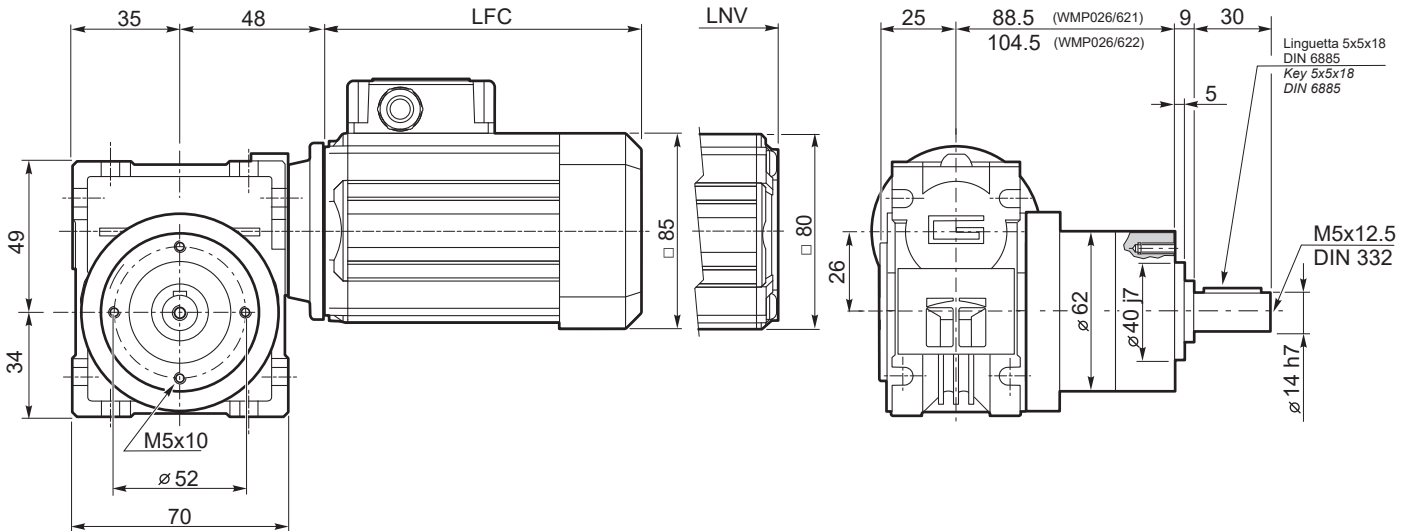
SMM	LFC	LNV	Kg	
5624	151	127	4.9	
5634	171	147	5.5	
5644	206	182	6.8	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

WMP 026/621
WMP 026/622

SMT50...TEFC
SMM50... TEFC

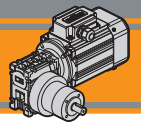
SMT50...TENV
SMM50... TENV S3 servizio duty 30%



SMT	LFC	LNV	Kg	
5014	135.5	108.5	4.4	
5024	150.5	123.5	4.8	
5034	175.5	148.5	5.6	
5044	200.5	173.5	6.3	

SMM	LFC	LNV	Kg	
5014	150.5	123.5	4.8	
5024	175.5	148.5	5.6	
5034	200.5	173.5	6.3	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



Dimensioni

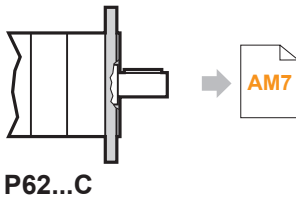
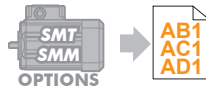
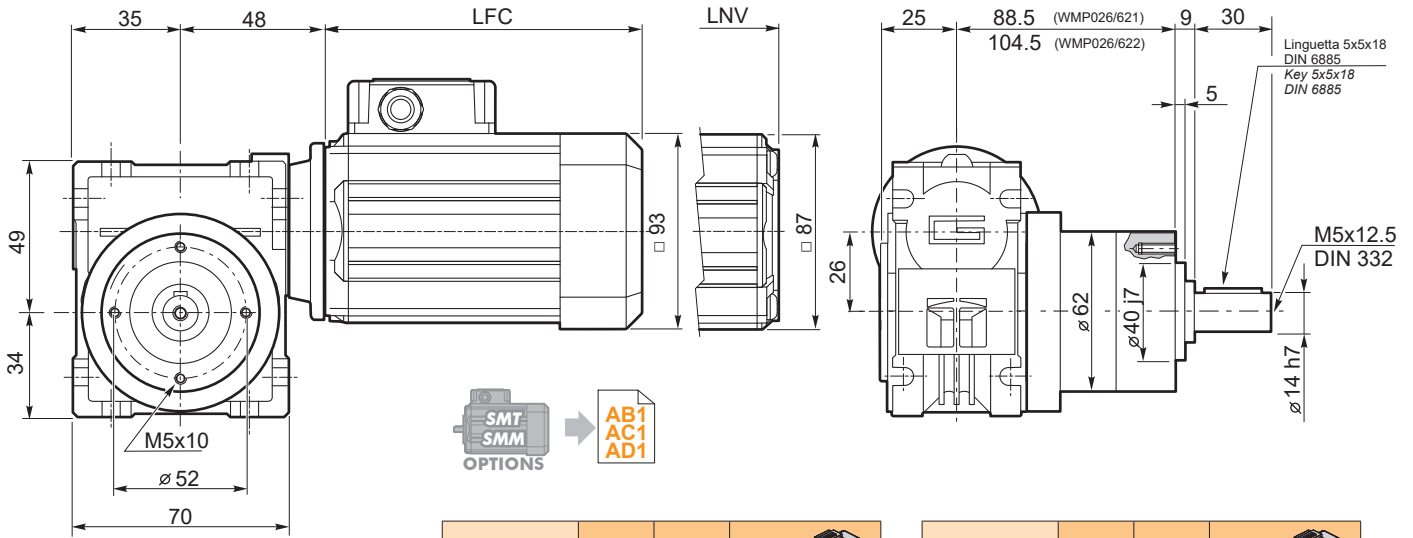
Dimensions

WMP 026/621
WMP 026/622

SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio duty 30%

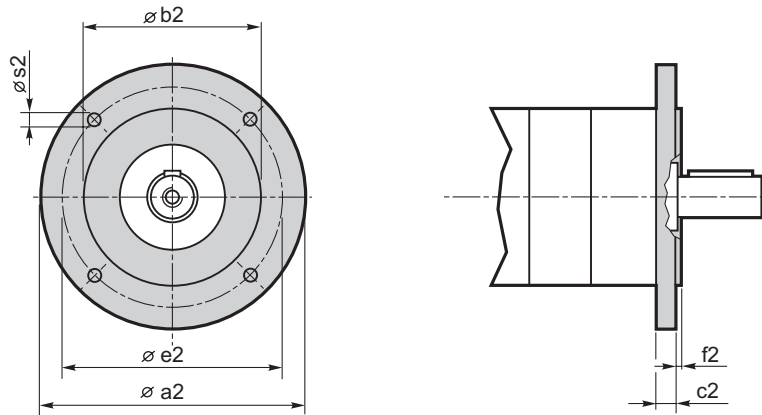


SMT	LFC	LNV	Kg	
5624	141	117	4.9	
5634	151	127	5.3	
5644	186	162	6.5	
5654	206	182	7.2	

SMM	LFC	LNV	Kg	
5624	151	127	5.2	
5634	171	147	5.8	
5644	206	182	7.1	

Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

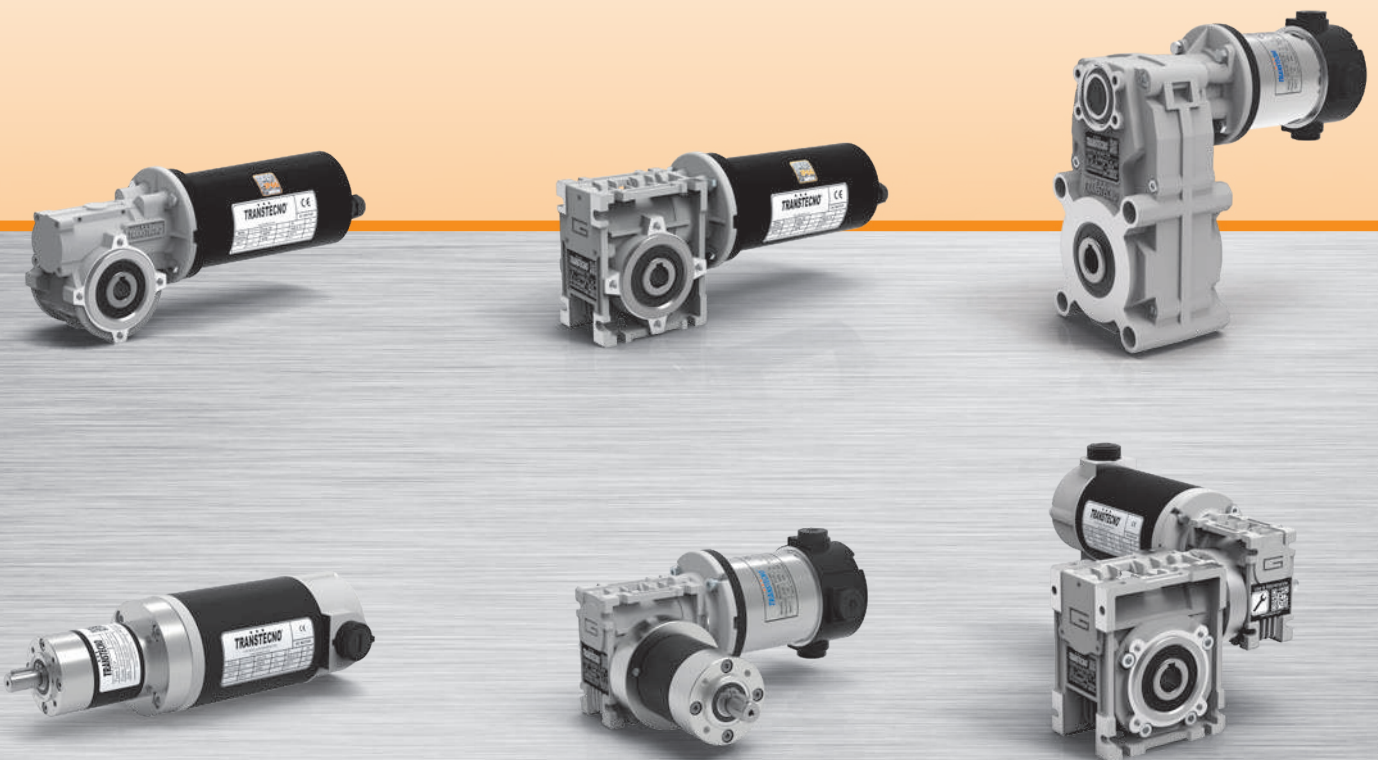
P.../... C... Flange uscita / Output flanges



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

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small but strong


















Motoriduttori CC
DC gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



DC

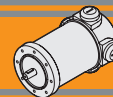
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	B-B Motori elettrici CC - Ferrite EC	DC Electric motors - Ferrite EC	B-B1
 	B-C Motori elettrici CC IP66 - Ferrite EC IP66	IP66 DC Electric motors - Ferrite EC IP66	B-C1
 	B-D Motoriduttori CC ad ingranaggi cilindrici NDCMG - ECMG	DC Helical in-line garmotors NDCMG - ECMG	B-D1
 	B-E Motoriduttori CC ad assi ortogonali NDCMB - ECMB	DC Helical bevel gearmotors NDCMB - ECMB	B-E1
 	B-F Motoriduttori CC pendolari NDFT - ECFT	DC Helical parallel gearmotors NDFT - ECFT	B-F1
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Motori elettrici CC - Neodimio
DC electric motors - Neodymium

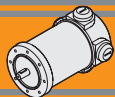




	Indice	Index	Pag. Page
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	Grado di protezione IP	<i>IP enclosures protection indexes</i>	BA3
	Classe di isolamento termico	<i>Insulation class</i>	BA3
	Tipi di servizio IEC	<i>IEC duty cycle ratings</i>	BA3
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ND120.240	Dimensioni	<i>Dimensions</i>	BA4
	Prestazioni	<i>Performances</i>	BA5
ND180.120	Caratteristiche	<i>Features</i>	BA6
ND180.240	Dimensioni	<i>Dimensions</i>	BA6
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Caratteristiche tecniche

I magneti in Neodimio (NdFeB) fanno parte dei magneti a terre rare e sono attualmente i magneti più potenti in produzione. Dotati di alta forza coercitiva (resistenza alla smagnetizzazione) ed alto valore di saturazione magnetica, sono in grado di immagazzinare moltissima energia magnetica. Pertanto, i motori CC dotati di magneti in Neodimio forniscono alti valori di coppia pur in dimensioni ridotte, grazie all'alta densità di flusso del campo magnetico.

Le caratteristiche principali dei motori elettrici CC a magneti permanenti in neodimio ND sono:

- Campo magnetico generato da magneti permanenti in Neodimio (NdFeB)
- Costruzione tubolare senza ventilazione
- Disponibili in una grandezza diametro 65
- Alimentazione a bassa tensione 12 o 24 Vcc
- Potenza 160W e 250W S2
- Elevata coppia di spunto
- Maggiori coppie e potenze rispetto ai corrispettivi motori a magneti permanenti standard (a parità di dimensioni)
- Predisposizione encoder / freno

Classe di isolamento termico

Gli avvolgimenti del rotore sono soggetti a surriscaldamento, come pure altre parti del motore. Il grado di isolamento indica la massima temperatura ammissibile oltre la quale l'isolante della matassa e l'isolante di tutte le parti soggette ad elevato riscaldamento perde le caratteristiche di buon isolante, con pericolo di danneggiamento del motore.

Servizio

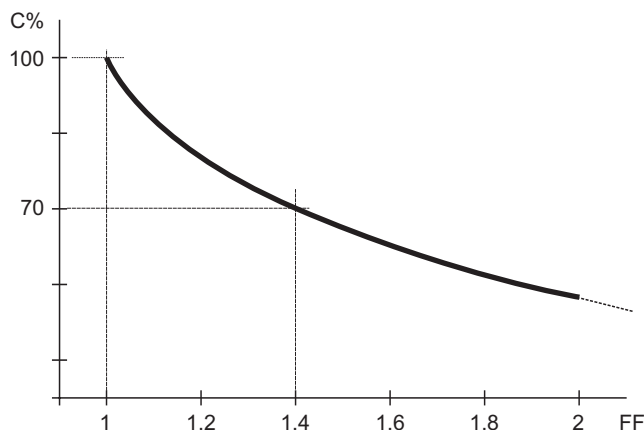
Rappresenta la relazione tra il tempo di lavoro ed il tempo di riposo del motore. Servizio continuo (S1) = funzionamento continuo del motore a pieno carico.

Servizio intermittente (S2, S3, etc...) = periodi alternati di lavoro e di riposo tali da raffreddare il motore. Dato un motore, la potenza espressa per servizio continuo è inferiore a quella per servizio intermittente.

Fattore di forma

Indica quanta componente spuria alternata è presente nella alimentazione CC del motore. Più alto è il fattore ed inferiore è l'efficienza del motore. Alimentatori ad SCR = F.F 1.40. Alimentazione pura da batteria = FF 1 Alimentazione da transistori (modulazione PWM) = FF 1.05.

Qualitativamente l'andamento della coppia (percentuale) rispetto al fattore di forma è indicato nel grafico seguente:



Technical features

Neodymium magnet (NdFeB) is a type of rare-earth magnet and is currently the strongest type of permanent magnets. Due to high coercivity resistance to being demagnetized and high saturation magnetization, they have potential for storing large amounts of magnetic energy. Therefore permanent Neodymium magnets DC motors can provide high torque in compact size due to the high density flux of magnet field.

The main features of ND neodymium permanent magnets DC electric motors range are:

- *Magnetic field generated by Neodymium (NdFeB) permanent magnets*
- *Tubular construction without fan*
- *Available in one size diameter 65*
- *Low voltage power supply 12 or 24 Vdc*
- *Power ratings available 160W and 250W S2*
- *High starting torque*
- *Higher torque and higher power than standard permanent magnet D.C. motors.*
- *Suitable for encoder / brake assembly*

Thermal insulation class

The windings of the rotor can overheat just like other parts of the motor too. The degree of insulation indicates the maximum allowable temperature above which the insulation of the windings, as well as that of all the parts which heat up to a high temperature, loses its insulating properties and the motor therefore risks being damaged.

Duty cycle

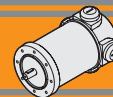
This represents the relationship between the time the motor operates and the time it remains stationary. Continuous operation (S1) = the motor operates non-stop under full load.

Intermittent operation (S2, S3, etc.) = alternating periods of work and rest so that the motor can cool down. The output power for continuous operation is lower than that for intermittent operation.

Form factor

It indicates how much spurious alternating current is present in the D.C. motor power supply. The higher the factor, the lower the motor's efficiency. SCR power supplies = F.F 1.40. Battery supply = FF 1 Transistor supply (PWM modulation) = FF 1.05.

The graph below indicates the torque trend (percentage) in relation to the form factor:


Grado di protezione IP
IP enclosures protection indexes

Indica il grado di isolamento meccanico del corpo motore.

Indicates the degree of mechanical insulation of the motor body.

1^a cifra: protezione alla penetrazione di corpi solidi.

1st figure: indicating level of protection against the penetration of solid bodies.

2^a cifra: protezione contro la penetrazione d'acqua.

2nd figure: indicating degree to which the motor is waterproof.

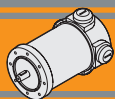
0	Non protetto / No protection	0	Non protetto / No protection
1	Protetto da corpi solidi superiori a Ø 50 mm. <i>Protected against solid matters (over Ø 50 mm)</i>	1	Protetto contro la caduta verticale di gocce d'acqua. <i>Protected against drops of water falling vertically</i>
2	Protetto da corpi solidi superiori a Ø 12 mm. <i>Protected against solid matters (over Ø 12 mm)</i>	2	Protetto contro la caduta verticale di gocce d'acqua con inclinazione max di 15° <i>Protected against drops of water falling up to 15°</i>
3	Protetto da corpi solidi superiori a Ø 2.5 mm. <i>Protected against solid matters (over Ø 2.5 mm)</i>	3	Protetto contro la pioggia. <i>Rain proof fixture</i>
4	Protetto da corpi solidi superiori a Ø 1 mm. <i>Protected against solid matters (over Ø 1 mm)</i>	4	Protetto contro gli spruzzi. <i>Splash proof fixture</i>
5	Protetto contro la polvere <i>Dust proof</i>	5	Protetto contro getti d'acqua <i>Water jet proof</i>
6	Totalmente protetto contro la polvere <i>Fully dust proof</i>	6	Protetto dalle ondate <i>Wave proof</i>
7	N.A.	7	Protetto contro immersione <i>Watertight immersion fixture.</i>
8	N.A.	8	Protetto contro immersione/sommersione prolungata <i>Watertight immersion fixture for a long time.</i>

Classe di isolamento termico
Insulation class

Classe / Class	Δt °C Temp. ambiente: 40°C Ambient temperature: 40°C
A	65°C
B	90°C
F	115°C
H	140°C

Tipi di servizio IEC
IEC duty cycle ratings

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



ND120.120 - ND120.240

Caratteristiche

Features

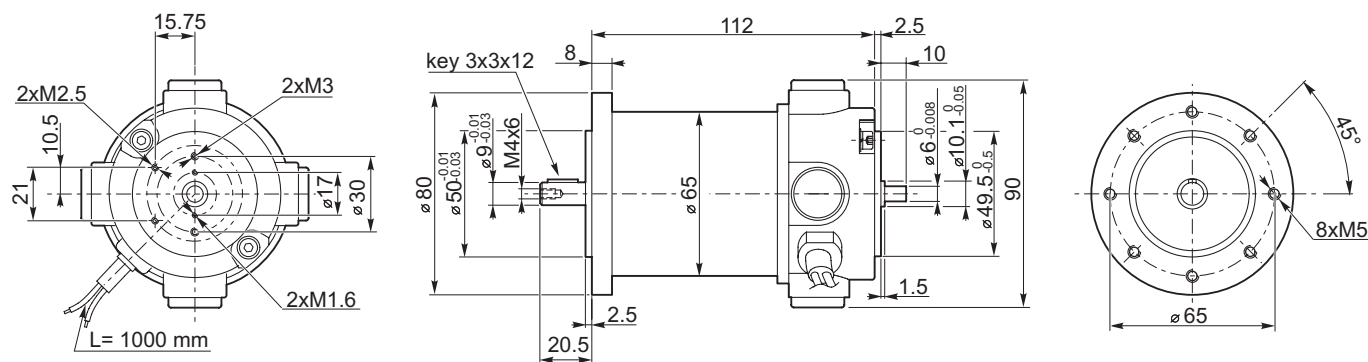
Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 65 mm
Potenza	160 W S2 (120 W S1)
Magneti	4 magneti in terre rare
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 4 di composto grafite-rame
Cavo di alimentazione	Lunghezza: 1000 mm
Bisporgenza	Standard

Construction	Tubular, without fan
Size	Ø 65 mm
Power	160 W S2 (120 W S1)
Magnets	4 rare earth magnets
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Brushes	4 brushes made of graphite/copper composite
Electric cable	Length: 1000 mm
Rear Shaft	Standard

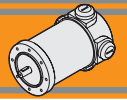
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
ND120.120	S1	120	12	13.9	F	1	0.38	3000	20	1.6
	S2 20'	160		19			0.51			
ND120.240	S1	120	24	6.9			0.38			
	S2 20'	160		9.0			0.51			

Dimensioni

Dimensions



- Freno / Brake → BA9
- Encoder → BA9

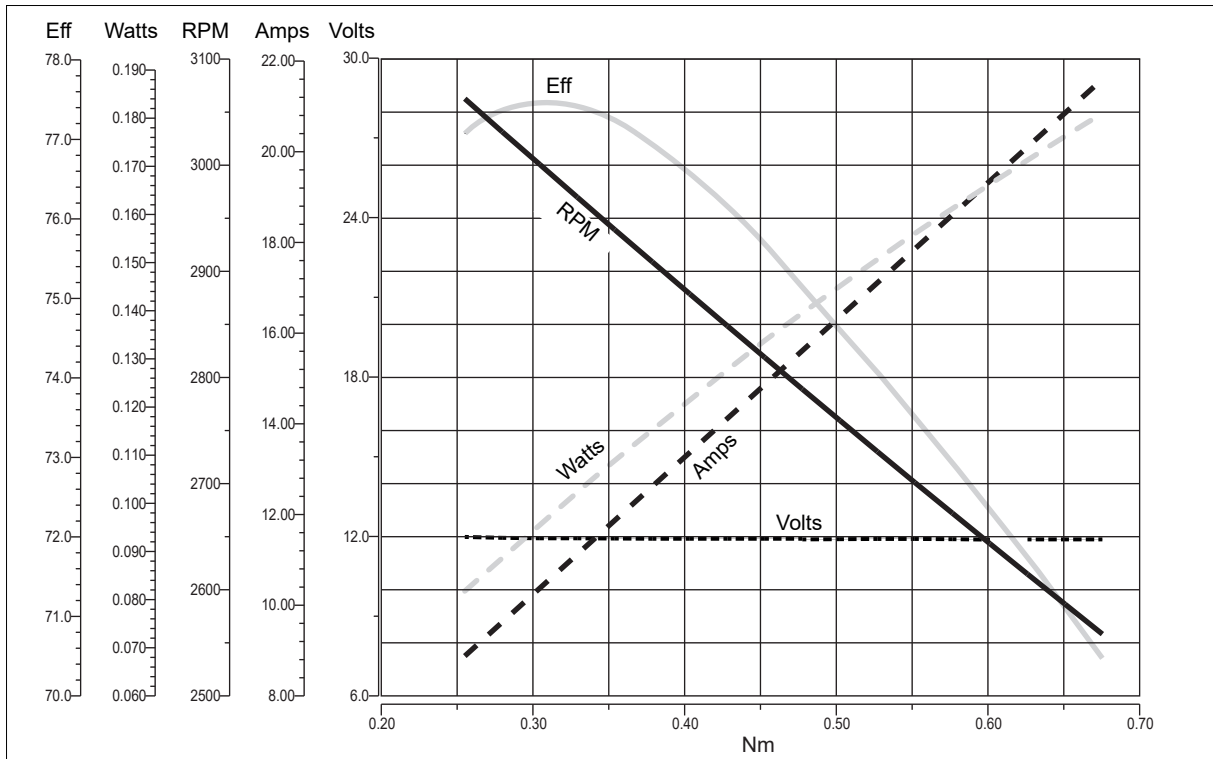


ND120.120 - ND120.240

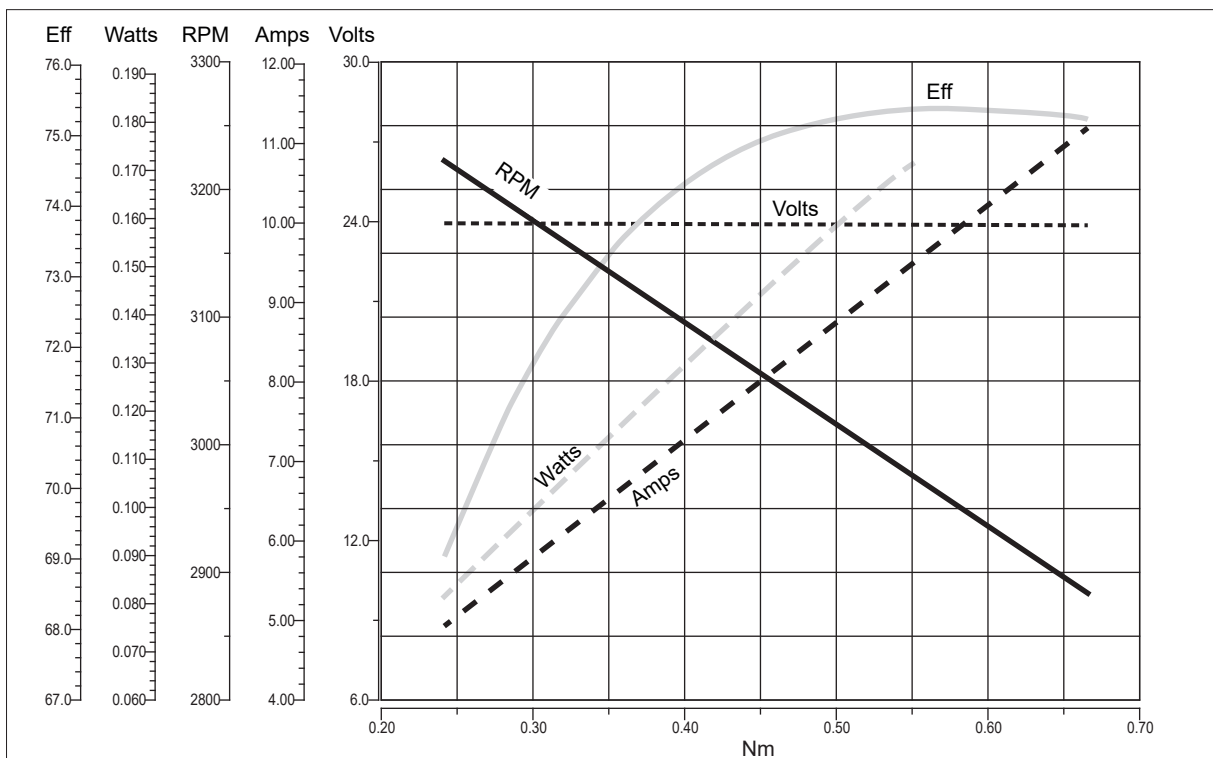
Prestazioni

Performances

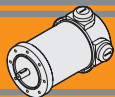
ND120.120



ND120.240



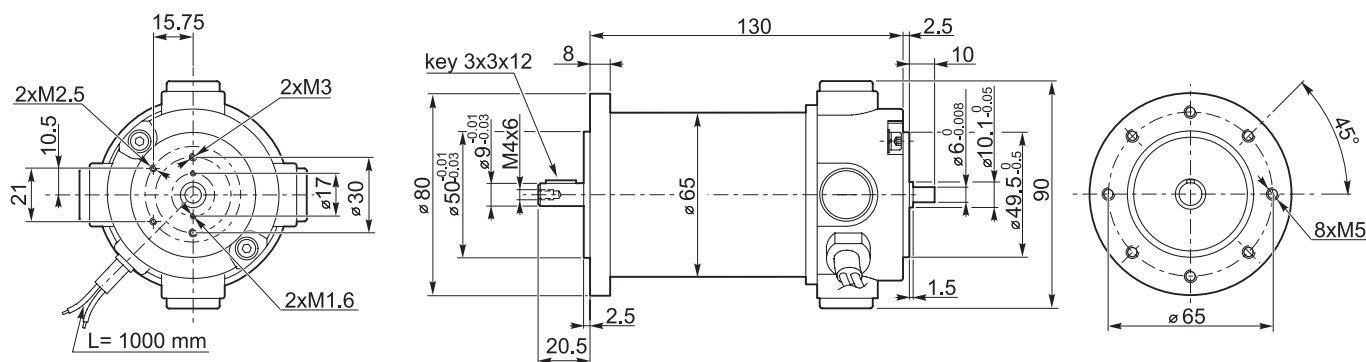
DC

**ND****Motori elettrici CC - Neodimio**
DC Electric motors - Neodymium**MINI**
TECNO**ND180.120 - ND180.240****Caratteristiche****Features**

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 65 mm
Potenza	250 W S2 (180 W S1)
Magneti	4 magneti in terre rare
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 4 di composto grafite-rame
Cavo di alimentazione	Lunghezza: 1000 mm
Bisporgenza	Standard

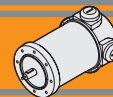
Construction	Tubular, without fan
Size	Ø 65 mm
Power	250 W S2 (180 W S1)
Magnets	4 rare earth magnets
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Brushes	4 brushes made of graphite/copper composite
Electric cable	Length: 1000 mm
Rear Shaft	Standard

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg	
ND180.120	S1	180	12	20	F	1	0.57	3000	20	1.95	
	S2 20'	250		30			0.80				
ND180.240	S1	180	24	10							
	S2 20'	250		14			0.57				
							0.80				

Dimensioni**Dimensions**

Freno / Brake → BA9

Encoder → BA9

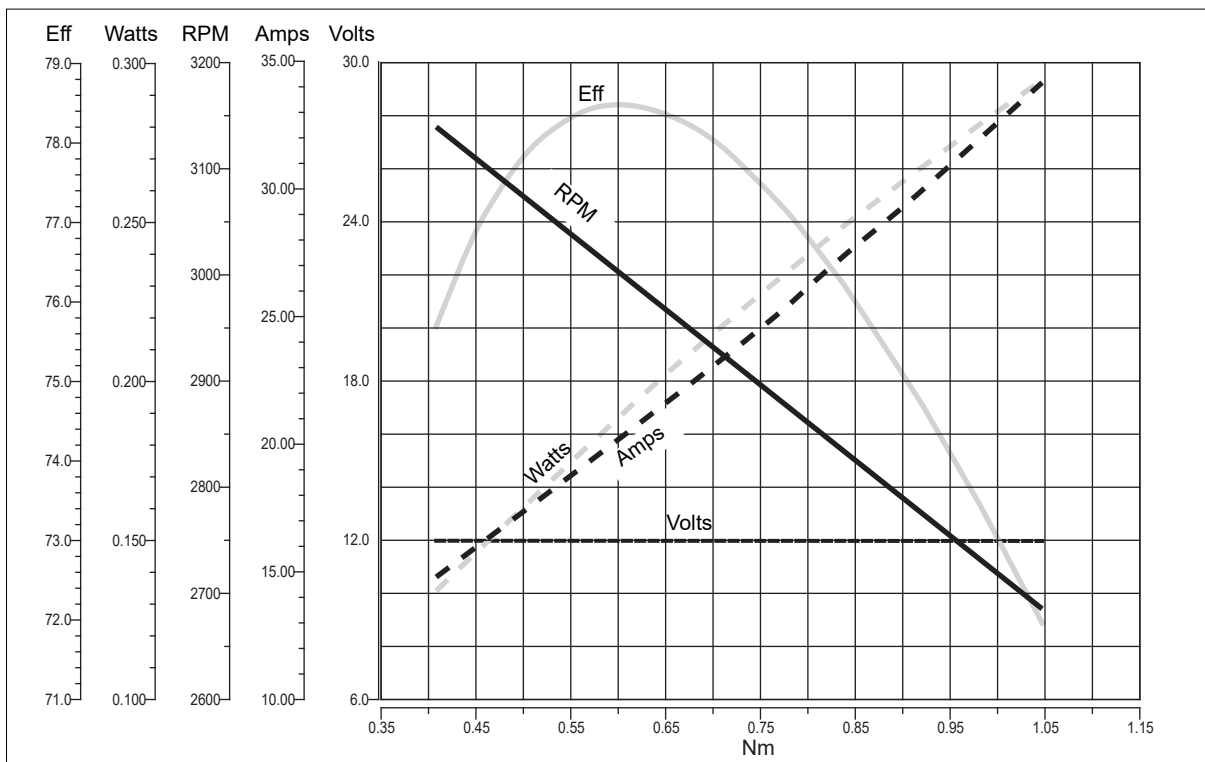


ND180.120 - ND180.240

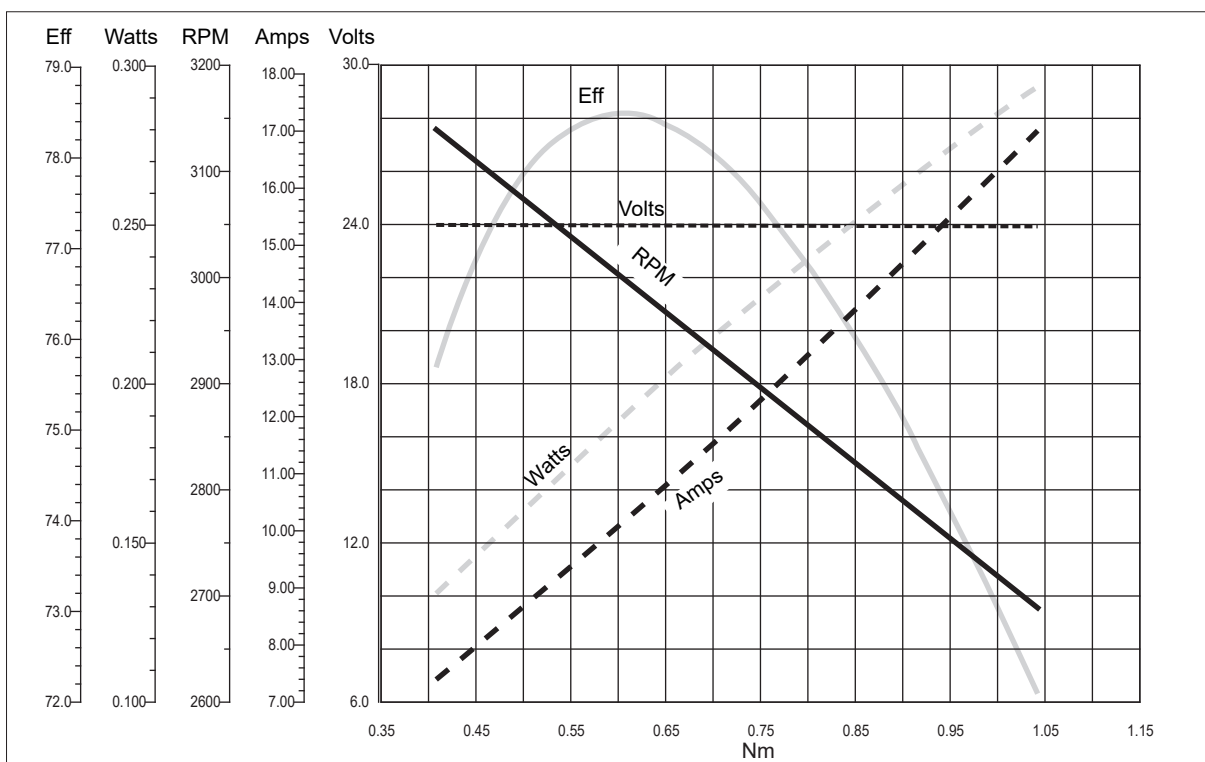
Prestazioni

Performances

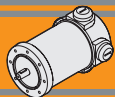
ND180.120



ND180.240



DC

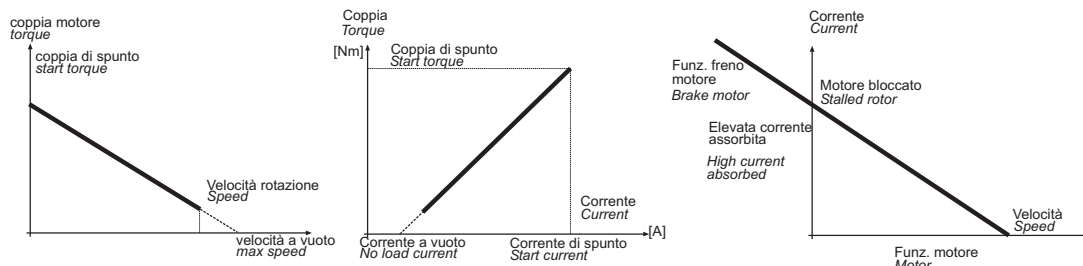


Legenda / Glossario dei grafici

Key / Diagram Glossary

Dato un motore in CC, la velocità di rotazione è funzione lineare della coppia; così pure la corrente assorbita è una funzione lineare della coppia. Velocità e corrente variano in maniera sensibile al variare del carico.

With a DC motor, the rotational speed is a linear function of the torque. In the same way, the absorbed current is also a linear function of the torque. Speed and current change a lot against applied torque.

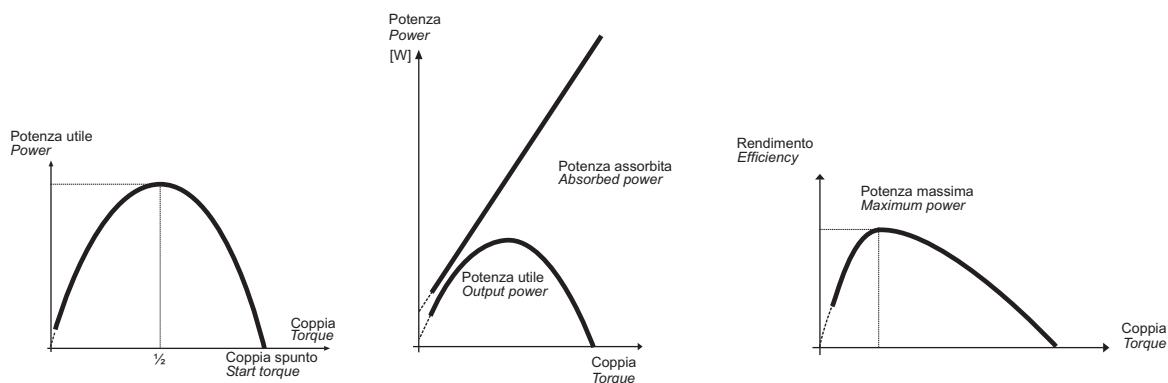


La potenza utile (potenza all'albero) si ricava dalla formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$

The output power is calculated using the formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$



Poiché la tensione di alimentazione è costante mentre la corrente è linearmente crescente al crescere della coppia, l'andamento della potenza assorbita è una retta crescente. Dal rapporto tra la potenza meccanica e la potenza assorbita si ottiene il grafico dell'efficienza.

Since the supply voltage is constant, whereas the current increases in a linear manner as the torque increases, the absorbed power trend is a straight line going up. Efficiency is shown from the ratio between the output power and the absorbed power.

Formule utili

Useful formulas

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

$$P_n = V \cdot I \cdot \eta$$

$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

$$P_n = V \cdot I \cdot \eta$$

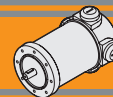
$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

[HP] · 746 = [W].
Esempio 2 HP = circa 1500 W.

[HP] · 746 = [W].
Example 2 HP = approx. 1500 W.

S	—	Servizio	Duty
P_n	[W]	Potenza in uscita	Rated power
P_a	[W]	Potenza assorbita	Absorbed power
M_n	[Nm]	Coppia nominale	Rated torque
V	[V]	Tensione	Voltage
I	[A]	Corrente assorbita	Absorbed current
n₁	[min ⁻¹]	Numero giri motore	Motor speed
S_v	[rad/s]	Velocità angolare	Angular speed
IC	—	Classe d'isolamento termico	Thermal insulation class
FF	—	Fattore di forma	Form factor
IP	—	Classe di protezione	Protection class
η	—	Rendimento	Efficiency
Kg	—	Peso	Weight

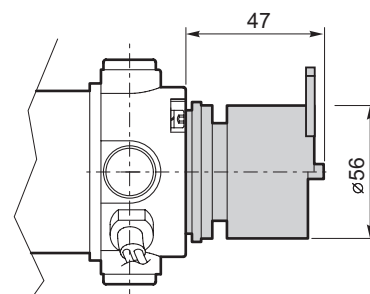
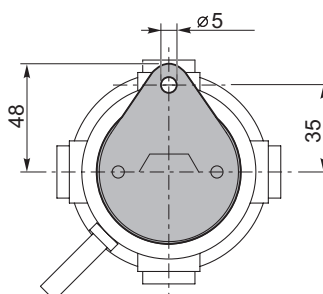
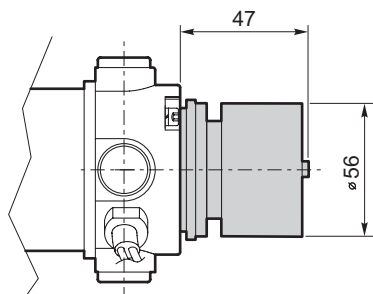


Freno

Brake

ND...BR Freno / Brake

ND...BRL Freno con leva di sblocco/ Brake with hand release

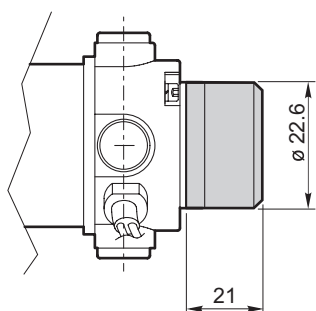


	Pn [W]	V [V]	Mn [Nm]	n ₁ [min ⁻¹]
Caratteristiche del freno / Break features	14	12	2	3000
		24		

Encoder

Encoder

ND...ME22



Nota: Fornito con cavo lungo 300 mm

Note: Supplie with cavle 300 mm long

Risoluzione Encoder (CPR) / Encoder Resolution (CPR)	Numero di canali / Number of channels	Tensione d'alimentazione / Power supply
001	2	5 VdC - TTL
100		
300		

Per risoluzioni encoder non standard, si prega di contattare il nostro Servizio Tecnico.

For non-standard encoder resolution, please contact our Technical Department.

MINI  **TECNO**™
small but strong

EC

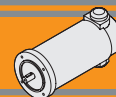
Motori elettrici CC - Ferrite
DC electric motors - Ferrite



MINI  **TECNO**™ brand of
TRANSTECNO®



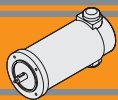
DC



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	Simbologia	<i>Symbols</i>	BB2
	Grado di protezione IP	<i>IP enclosures protection indexes</i>	BB3
	Classe di isolamento termico	<i>Insulation class</i>	BB3
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EC020.120	Caratteristiche	<i>Features</i>	BB4
EC020.24E	Dimensioni	<i>Dimensions</i>	BB4
	Prestazioni	<i>Performances</i>	BB5
EC035.120	Caratteristiche	<i>Features</i>	BB6
EC035.240	Dimensioni	<i>Dimensions</i>	BB6
	Prestazioni	<i>Performances</i>	BB7
EC050.12E	Caratteristiche	<i>Features</i>	BB8
EC050.24E	Dimensioni	<i>Dimensions</i>	BB8
	Prestazioni	<i>Performances</i>	BB9
EC070.12E	Caratteristiche	<i>Features</i>	BB10
EC070.24E	Dimensioni	<i>Dimensions</i>	BB10
	Prestazioni	<i>Performances</i>	BB11
EC100.120	Caratteristiche	<i>Features</i>	BB12
EC100.240	Dimensioni	<i>Dimensions</i>	BB12
EC100.24E	Prestazioni	<i>Performances</i>	BB13
EC180.120	Caratteristiche	<i>Features</i>	BB14
EC180.240	Dimensioni	<i>Dimensions</i>	BB14
EC180.24E	Prestazioni	<i>Performances</i>	BB15
EC250.120	Caratteristiche	<i>Features</i>	BB16
EC250.240	Dimensioni	<i>Dimensions</i>	BB16
	Prestazioni	<i>Performances</i>	BB17
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EC350.240	Dimensioni	<i>Dimensions</i>	BB18
	Prestazioni	<i>Performances</i>	BB19
EC600.120	Caratteristiche	<i>Features</i>	BB20
EC600.240	Dimensioni	<i>Dimensions</i>	BB20
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Caratteristiche tecniche

Technical features

Le caratteristiche principali dei motori elettrici CC a magneti permanenti in ferrite EC sono:

- Campo magnetico generato da magneti permanenti in ferrite
- Costruzione tubolare, senza ventilazione
- Disponibili in 6 grandezze: diametro 42, 52, 65, 81, 104, 110 mm
- Alimentazione a bassa tensione, 12 o 24 Vcc
- Potenze disponibili da 30 a 800 W S2
- Elevate coppie di spunto
- Elevate coppie e potenze in dimensioni compatte

The main features of EC ferrite permanent magnets DC electric motors range are:

- Magnetic field generated by permanent ferrite magnets
- Tubular construction, without fan
- Available in 6 sizes: diameter 42, 52, 65, 81, 104, 110 mm
- Low voltage power supply, 12 or 24 Vdc
- Power ratings available from 30 to 800 W S2
- High starting torque
- High torque and output power with compact package

Classe di isolamento termico

Gli avvolgimenti del rotore sono soggetti a surriscaldamento, come pure altre parti del motore. Il grado di isolamento indica la massima temperatura ammissibile oltre la quale l'isolante della matassa e l'isolante di tutte le parti soggette ad elevato riscaldamento perde le caratteristiche di buon isolante, con pericolo di danneggiamento del motore.

Thermal insulation class

The windings of the rotor can overheat just like other parts of the motor too. The degree of insulation indicates the maximum allowable temperature above which the insulation of the windings, as well as that of all the parts which heat up to a high temperature, loses its insulating properties and the motor therefore risks being damaged.

Servizio

Rappresenta la relazione tra il tempo di lavoro ed il tempo di riposo del motore. Servizio continuo (S1) = funzionamento continuo del motore a pieno carico.

Servizio intermittente (S2, S3, etc...) = periodi alternati di lavoro e di riposo tali da raffreddare il motore. Dato un motore, la potenza espressa per servizio continuo è inferiore a quella per servizio intermittente.

Duty cycle

This represents the relationship between the time the motor operates and the time it remains stationary. Continuous operation (S1) = the motor operates non-stop under full load.

Intermittent operation (S2, S3, etc...) = alternating periods of work and rest so that the motor can cool down. The output power for continuous operation is lower than that for intermittent operation.

Fattore di forma

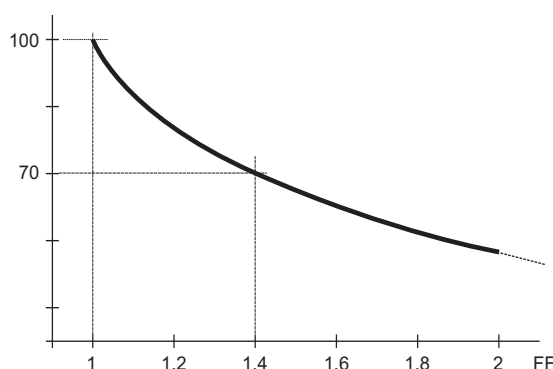
Indica quanta componente spuria alternata è presente nella alimentazione CC del motore. Più alto è il fattore ed inferiore è l'efficienza del motore. Alimentatori ad SCR = F.F 1.40. Alimentazione pura da batteria = FF 1. Alimentazione da transistori (modulazione PWM) = FF 1.05.

Qualitativamente l'andamento della coppia (percentuale) rispetto al fattore di forma è indicato nel grafico seguente:

Form factor

It indicates how much spurious alternating current is present in the D.C. motor power supply. The higher the factor, the lower the motor's efficiency. SCR power supplies = F.F 1.40. Battery supply = FF 1 Transistor supply (PWM modulation) = FF 1.05.

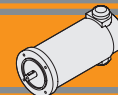
The graph below indicates the torque trend (percentage) in relation to the form factor.



Simbologia

Symbols

S	—	Servizio / Duty	M_{Br}	[Nm]	Coppia nominale del freno / Brake motor torque
P_n	[W]	Potenza in uscita / Rated power	n_{1 max}	[min ⁻¹]	Velocità massima / Max speed
P_a	[W]	Potenza assorbita / Absorbed power	T_r	[ms]	Tempo di inserzione / Engaging time
M_n	[Nm]	Coppia nominale / Rated torque	T_f	[ms]	Tempo di disimpegno / Disengaging time
V	[V]	Tensione / Voltage	IC	—	Classe d'isolamento termico / Thermal insulation class
I	[A]	Corrente assorbita / Absorbed current	FF	—	Fattore di forma / Form factor
n₁	[min ⁻¹]	Numero giri motore / Motor speed	IP	—	Classe di protezione / Protection class
S_v	[rad/s]	Velocità angolare / Angular speed	η	—	Rendimento / Efficiency
P_e	[W]	Potenza elettrica del freno / Brake electric power	K_g	—	Peso / Weight


Grado di protezione IP
IP enclosures protection indexes

Indica il grado di isolamento meccanico del corpo motore.

Indicates the degree of mechanical insulation of the motor body.
1st figure indicating level of protection against the penetration of solid bodies.

1^a cifra protezione alla penetrazione di corpi solidi.

2nd figure: indicating degree to which the motor is waterproof.

2^a cifra protezione contro la penetrazione d'acqua.

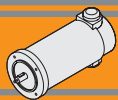
0	Non protetto / No protection	0	Non protetto / No protection
1	Protetto da corpi solidi superiori a Ø 50 mm. <i>Protected against solid matters (over Ø 50 mm)</i>	1	Protetto contro la caduta verticale di gocce d'acqua. <i>Protected against drops of water falling vertically</i>
2	Protetto da corpi solidi superiori a Ø 12 mm. <i>Protected against solid matters (over Ø 12 mm)</i>	2	Protetto contro la caduta verticale di gocce d'acqua con inclinazione max di 15° <i>Protected against drops of water falling up to 15°</i>
3	Protetto da corpi solidi superiori a Ø 2,5 mm. <i>Protected against solid matters (over Ø 2,5 mm)</i>	3	Protetto contro la pioggia. <i>Rain proof fixture</i>
4	Protetto da corpi solidi superiori a Ø1 mm. <i>Protected against solid matters (over Ø1 mm)</i>	4	Protetto contro gli spruzzi. <i>Splash proof fixture</i>
5	Protetto contro la polvere <i>Dust proof</i>	5	Protetto contro getti d'acqua <i>Water jet proof</i>
6	Totalmente protetto contro la polvere <i>Fully dust proof</i>	6	Protetto dalle ondate <i>Wave proof</i>
7	N.A.	7	Protetto contro immersione <i>Watertight immersion fixture.</i>
8	N.A.	8	Protetto contro immersione/sommersione prolungata <i>Watertight immersion fixture for a long time.</i>

Classe di isolamento termico
Insulation class

Classe / Class	Δt °C Temp. ambiente: 40°C <i>Ambient temperature: 40°C</i>
A	65°C
B	90°C
F	115°C
H	140°C

Tipi di servizio IEC
IEC duty cycle ratings

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



EC020.120 - EC020.24E

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 42 mm
Potenza	30 W S2 (20 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 di composto grafite-rame
Cavo di alimentazione	Connettori faston (0.8 x 2.8 mm)

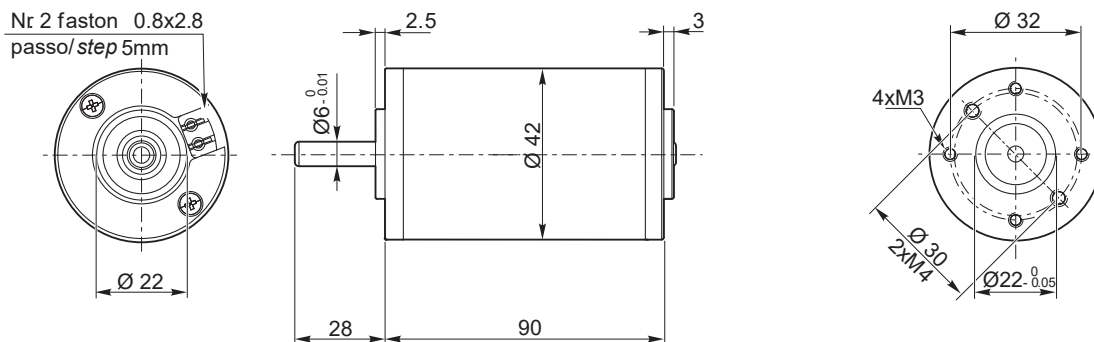
Construction	Tubular, without fan
Size	Ø 42 mm
Power	30 W S2 (20 W S1)
Magnets	2
Bearings	Ball bearing
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 brushes made of graphite/copper composite
Electric cable	Faston terminals (0.8 x 2.8 mm)

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg					
EC020.120	S1	20	12	2.6	B	1	0.06	2850	20	0.4					
	S2 6'	30		3.5			0.08								
EC020.24E	S1	20	24	1.4								0.06			
	S2 6'	30		1.9								0.08			

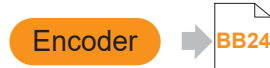
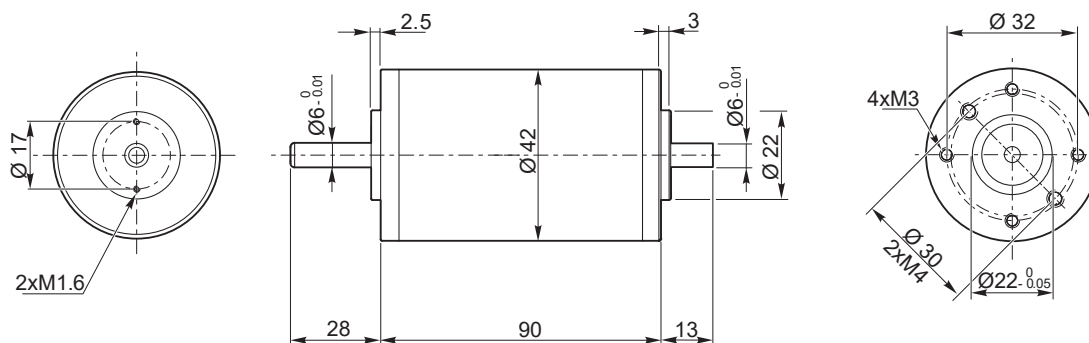
Dimensioni

Dimensions

EC020.120



EC020.24E



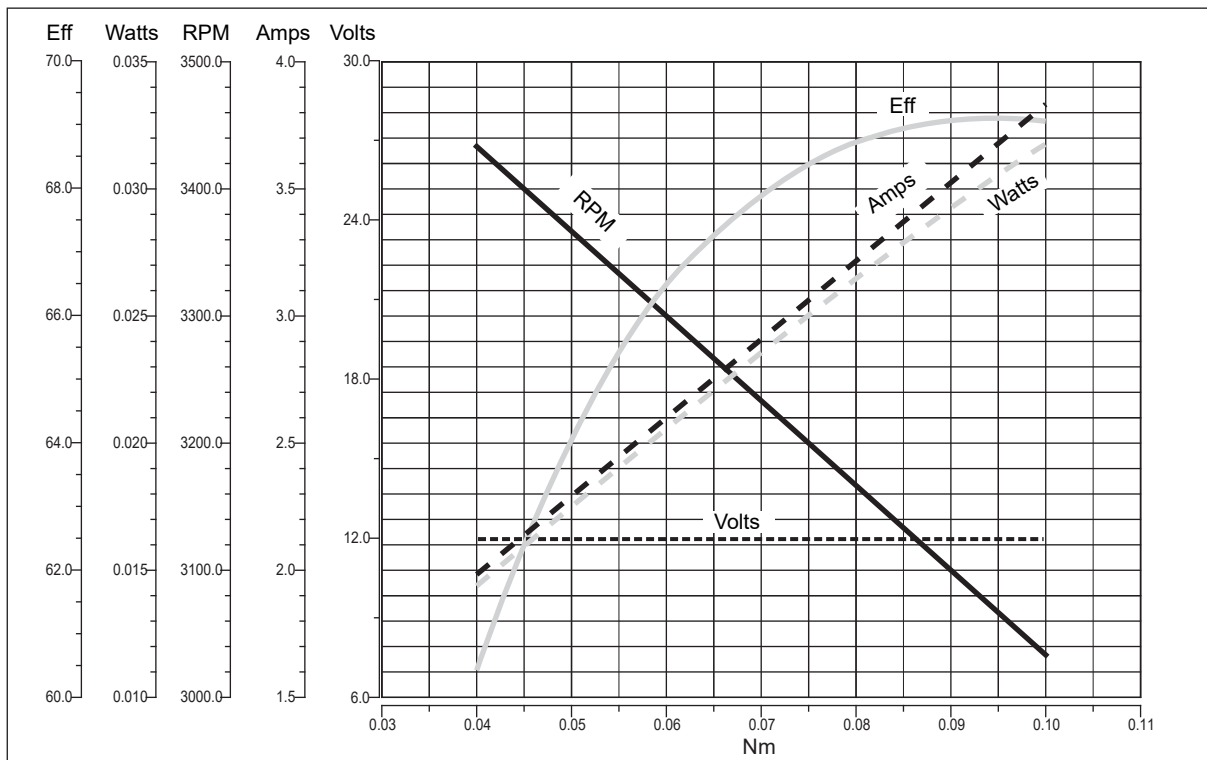


EC020.120 - EC020.24E

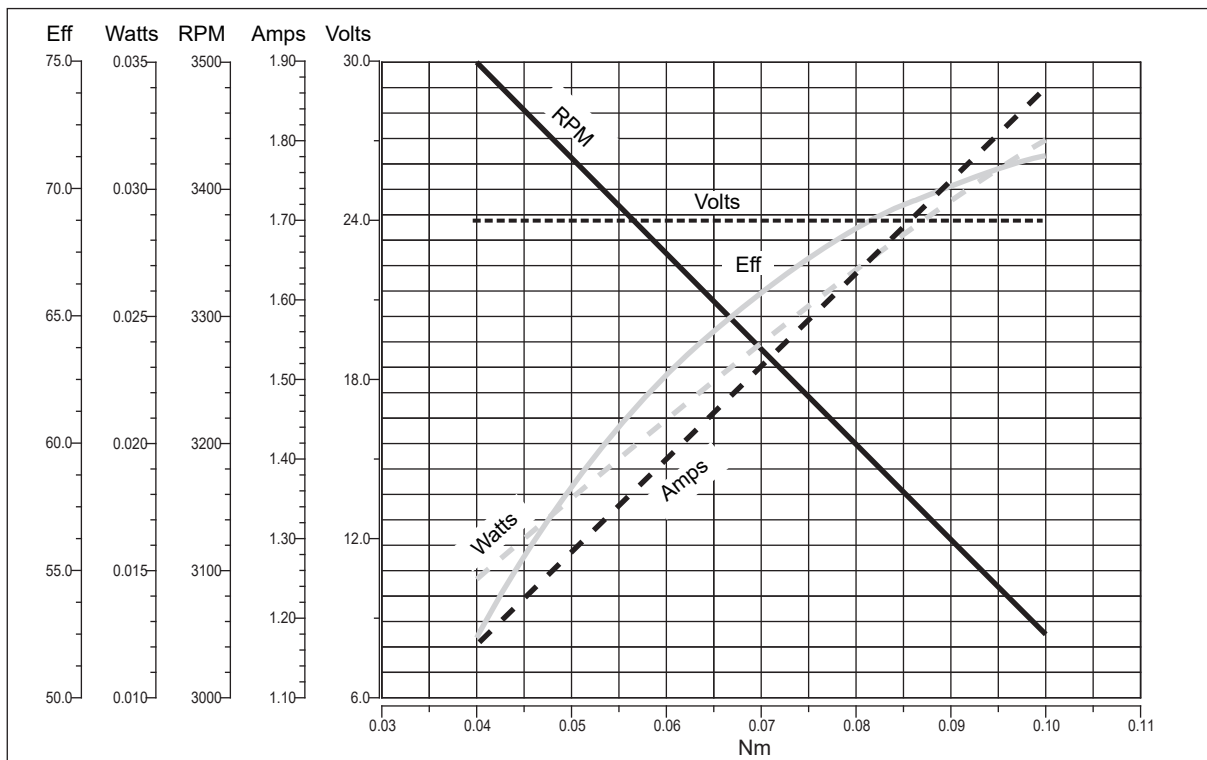
Prestazioni

Performances

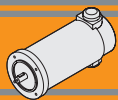
EC020.120



EC020.24E



DC



EC035.120 - EC035.240

Caratteristiche

Features

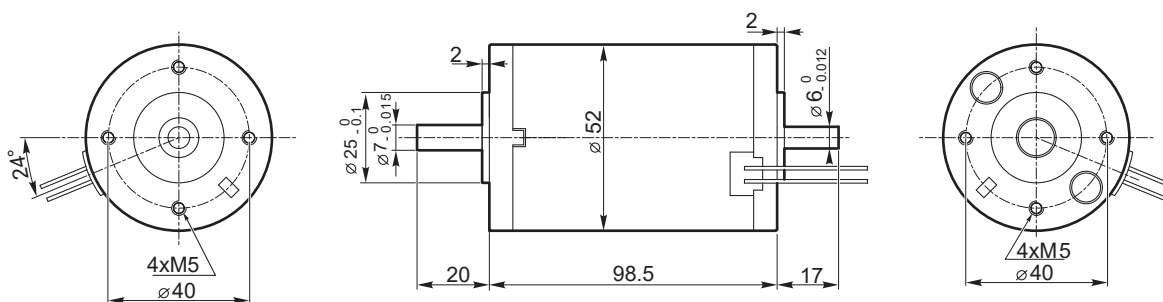
Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 52 mm
Potenza	55 W S2 (35 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 interne di composto grafite-rame
Cavo di alimentazione	Lunghezza: 200 mm

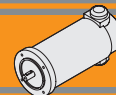
Construction	Tubular, without fan
Size	Ø 52 mm
Power	55 W S2 (35 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 inside brushes made of graphite/copper composite
Electric cable	Length: 200 mm

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC035.120	S1	35	12	5.2	F	1	0.11	3000	20	0.8
	S2 9'	55		8.0			0.18			
EC035.240	S1	35	24	2.6	F	1	0.11		20	0.8
	S2 9'	55		4.0			0.18			

Dimensioni

Dimensions



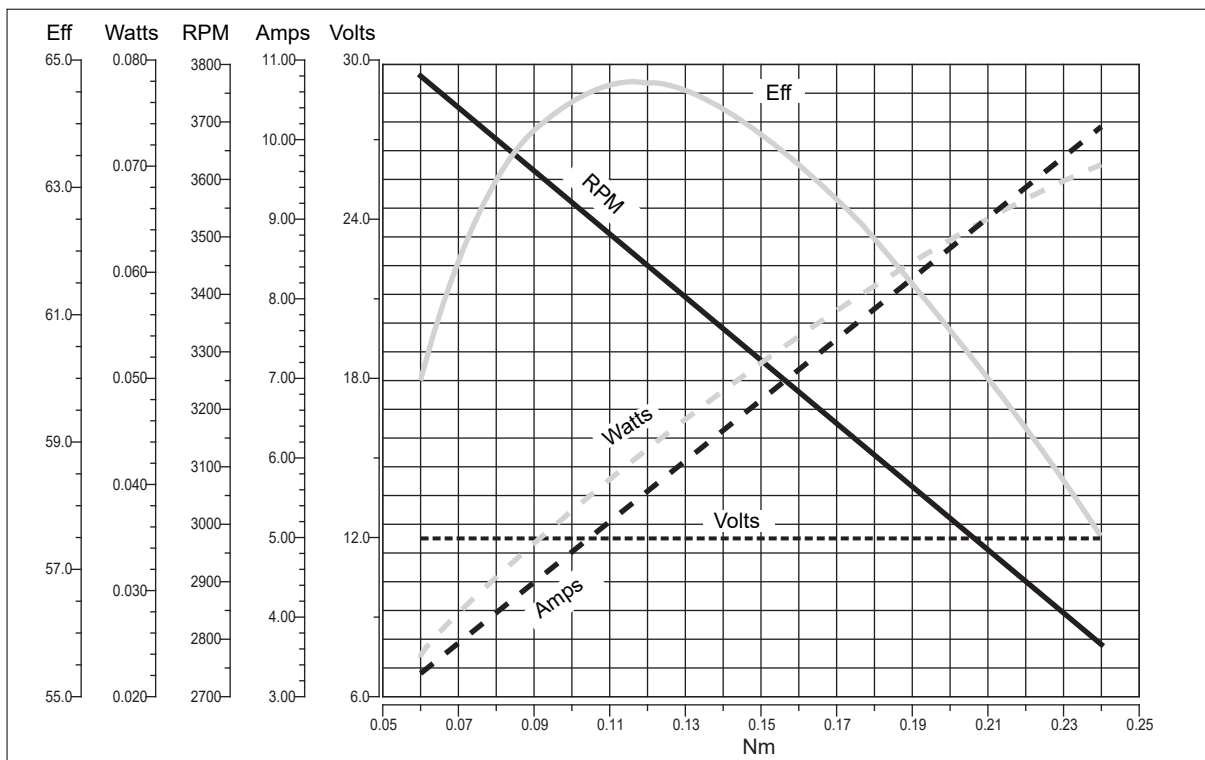


EC035.120 - EC035.240

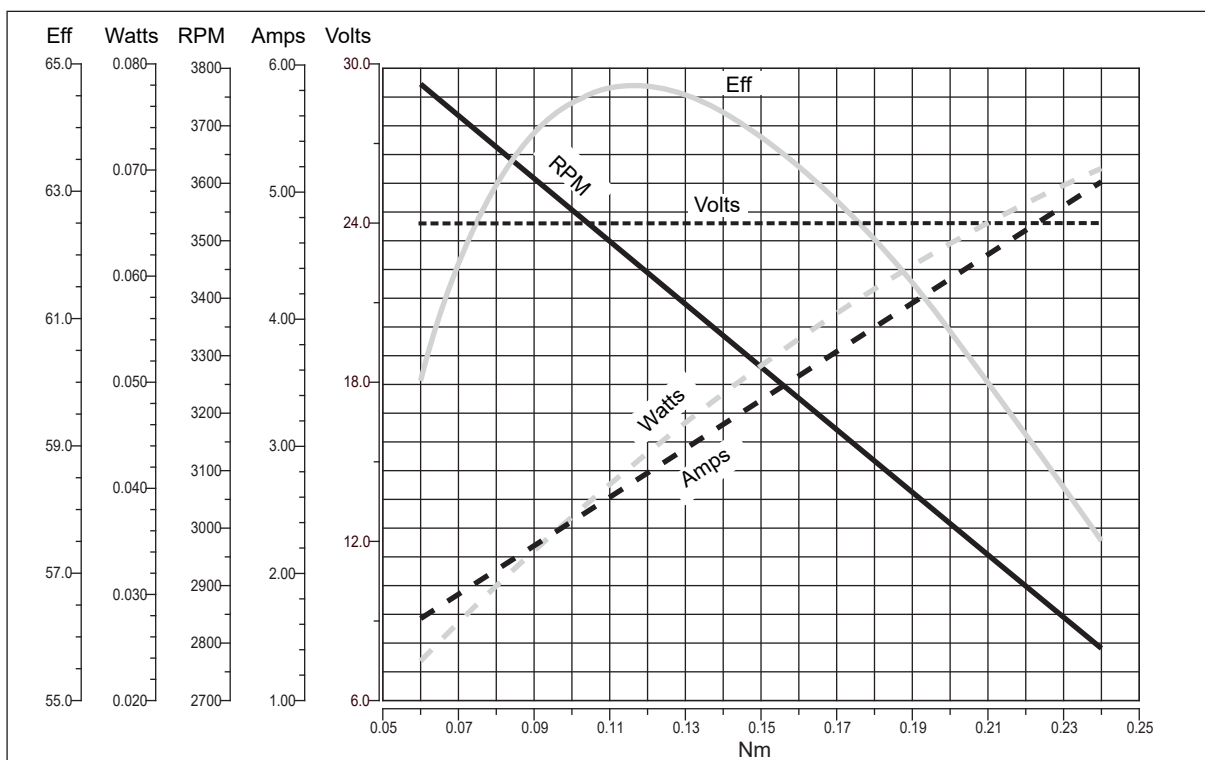
Prestazioni

Performances

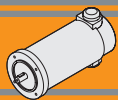
EC035.120



EC035.240



DC



EC050.12E - EC050.24E

Caratteristiche

Features

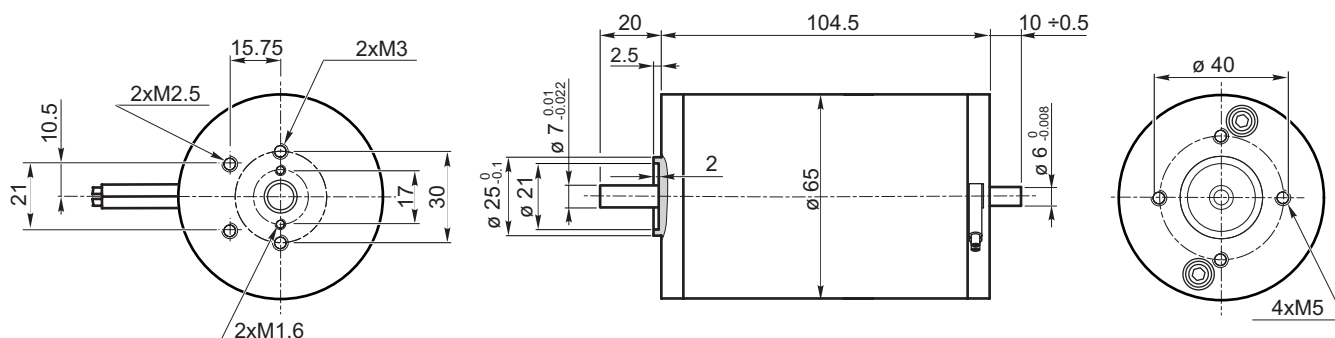
Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 65 mm
Potenza	70 W S2 (50 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 interne di composto grafite-rame
Cavo di alimentazione	Lunghezza: 200 mm
Bisporgenza	Standard

Construction	Tubular, without fan
Size	Ø 65 mm
Power	70 W S2 (50 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 inside brushes made of graphite/copper composite
Electric cable	Length: 200 mm
Rear Shaft	Standard

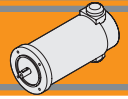
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC050.12E	S1	50	12	6.5	F	1	0.16	3000	20	1.2
	S2 30'	70		9.0			0.22			
EC050.24E	S1	50	24	3.2			0.16			
	S2 30'	70		4.5			0.22			

Dimensioni

Dimensions



- Freno / Brake** → **BB23**
- Encoder** → **BB24**

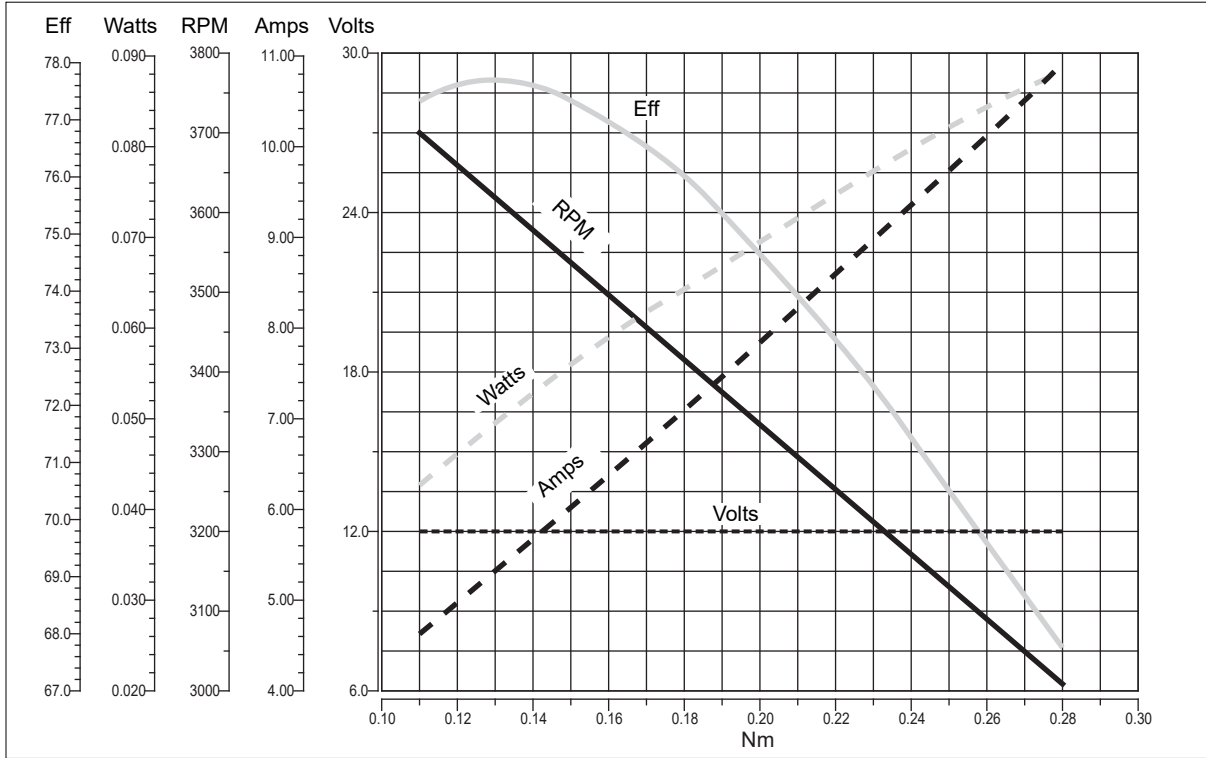


EC050.12E - EC050.24E

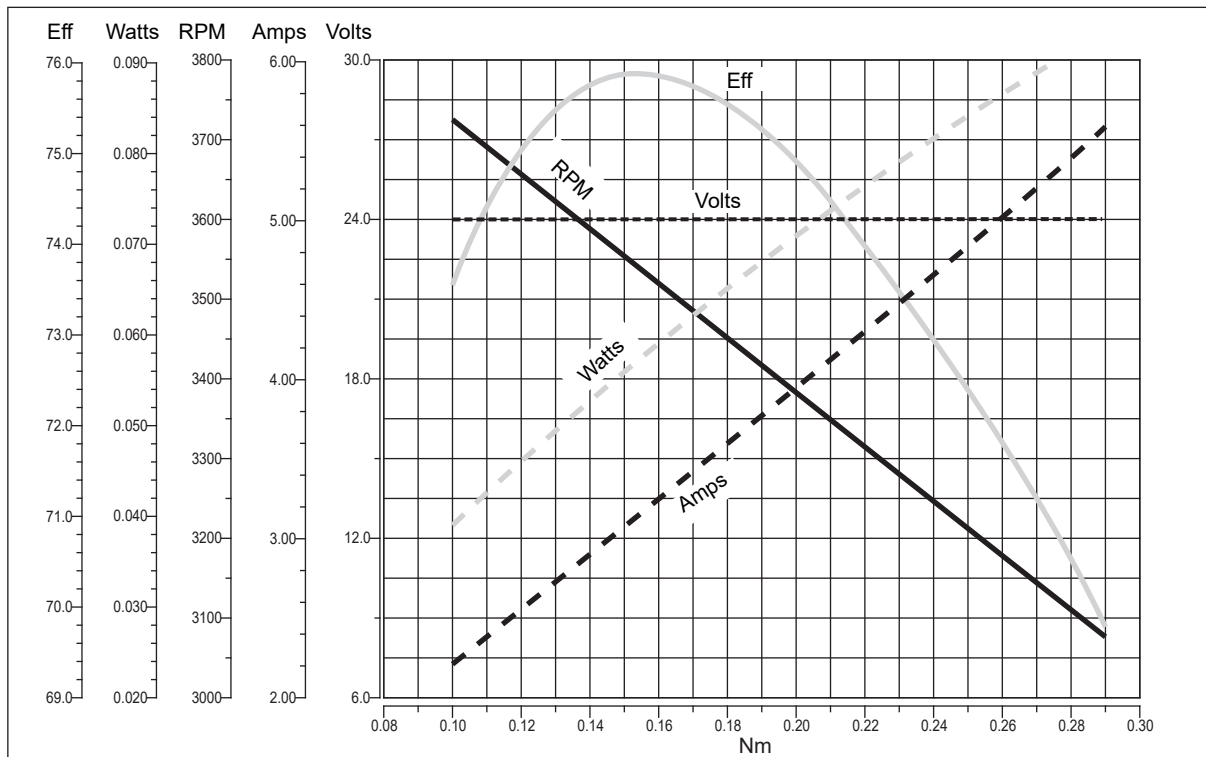
Prestazioni

Performances

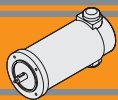
EC050.12E



EC050.24E



DC



EC070.12E - EC070.24E

Caratteristiche

Features

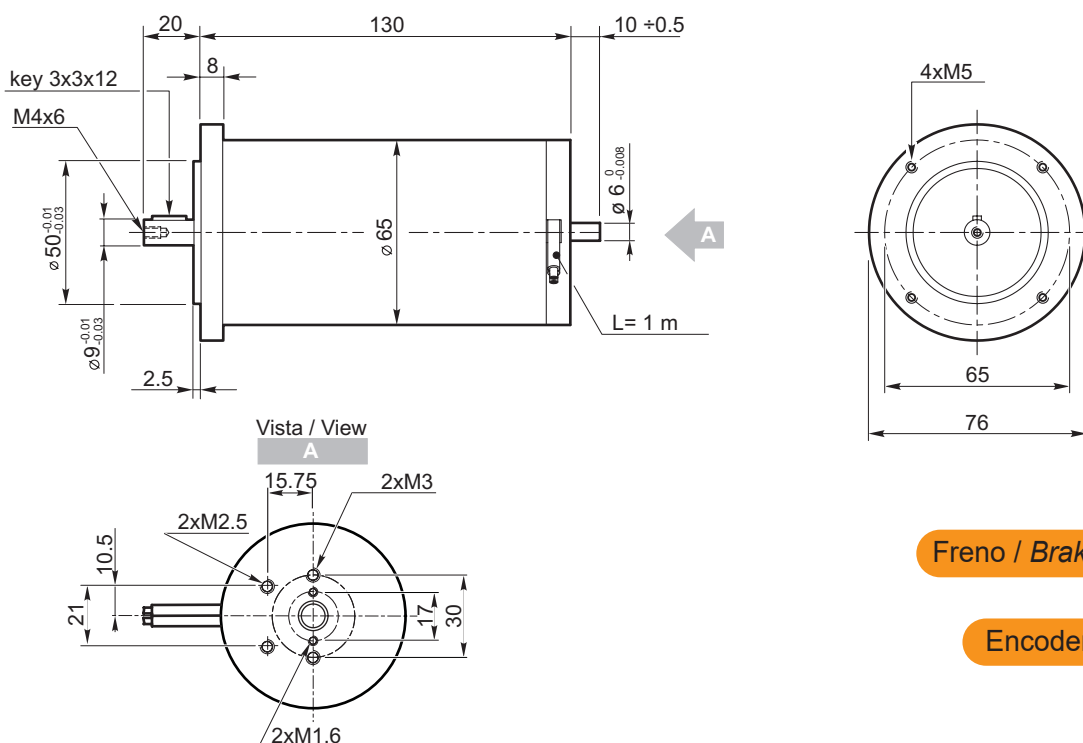
Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 65 mm
Potenza	100 W S2
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 interne di composto grafite-rame
Cavo di alimentazione	Lunghezza: 1000 mm

Construction	Tubular, without fan
Size	Ø 65 mm
Power	100 W S2
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 inside brushes made of graphite/copper composite
Electric cable	Length: 1000 mm

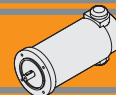
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC070.12E	S1	70	12	8.4	F	1	0.22	3000	20	1.7
	S2 30'	100		11.8			0.31			
EC070.24E	S1	70	24	4.2			0.22			
	S2 30'	100		5.9			0.31			

Dimensioni

Dimensions



- Freno / Brake** → **BB23**
- Encoder** → **BB24**

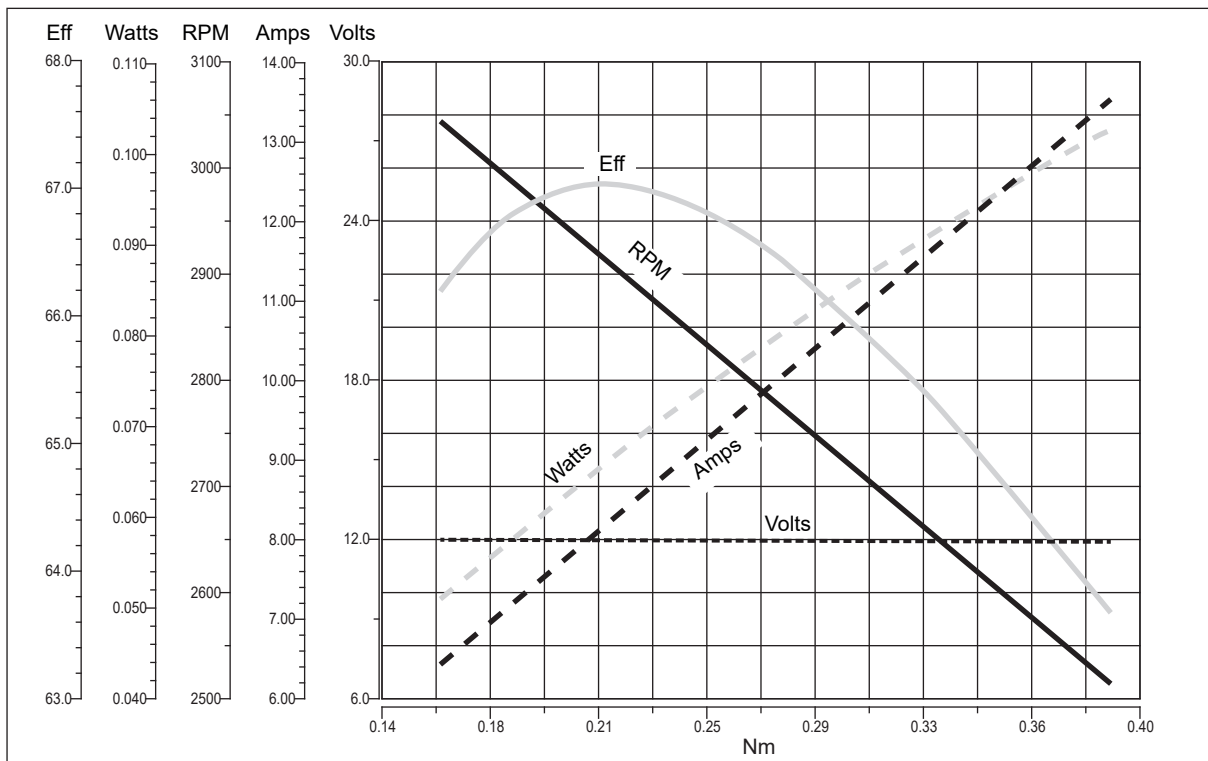


EC070.12E - EC070.24E

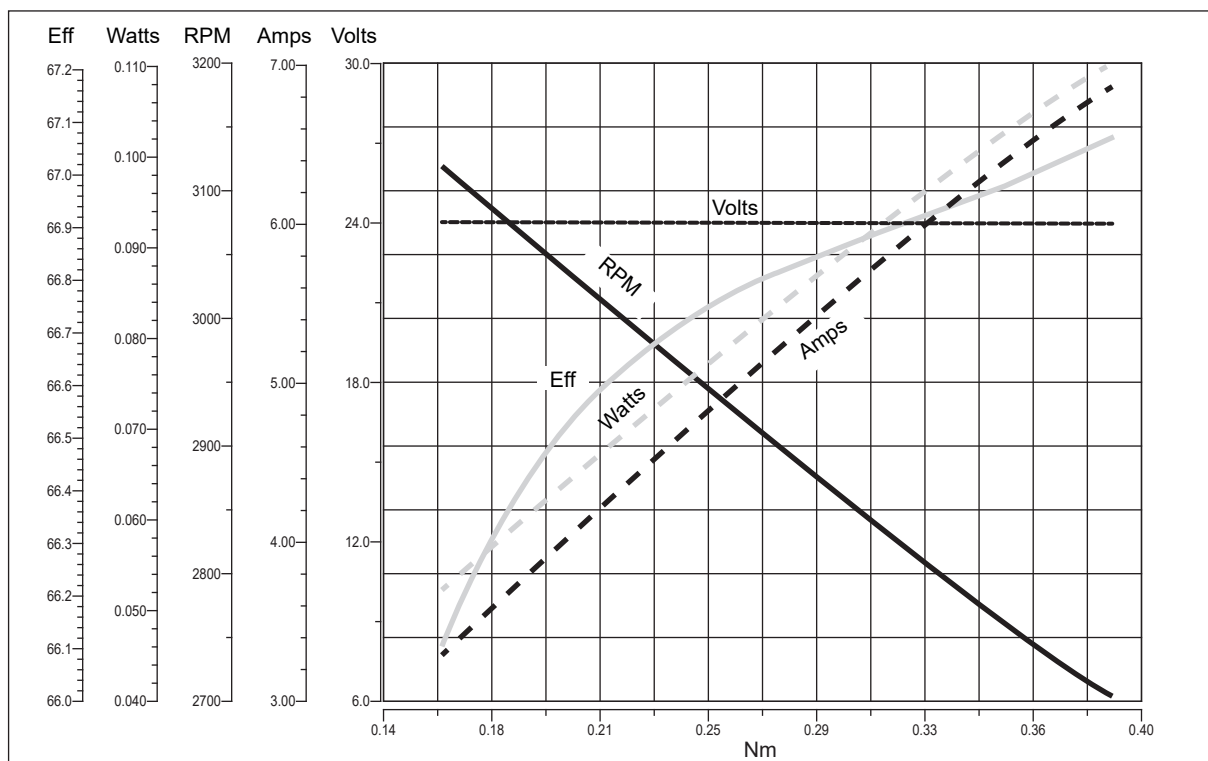
Prestazioni

Performances

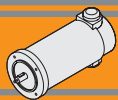
EC070.12E



EC070.24E



DC



EC100.120 - EC100.240 - EC100.24E

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 80 mm
Potenza	140 W S2 (100 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 di composto grafite-rame
Dimensione spazzole	LxPxH = 17.1 x 6.5 x 16.7 mm
Cavo di alimentazione	Lunghezza: 1000 mm
Bisporgenza	Standard solo EC100.24E

Construction	Tubular, without fan
Size	Ø 80 mm
Power	140 W S2 (100 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 inside brushes made of graphite/copper composite
Brushes size	LxWxH = 17.1 x 6.5 x 16.7 mm
Electric cable	Length: 1000 mm
Rear shaft	Standard only EC100.24E

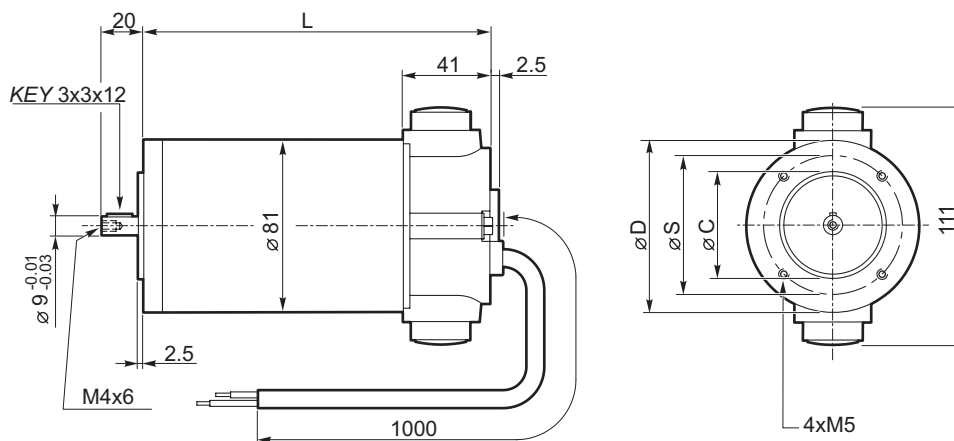
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC100.120	S1	100	12	12	F	1	0.31	3000	40	2.7
	S2 25'	140		16.8			0.43			
EC100.240	S1	100	24	6			0.31			
	S2 25'	140		8.4			0.43			
EC100.24E	S1	100	24	6			0.31		20	
	S2 25'	140		8.4			0.43			

Dimensioni

Dimensions

**EC100.120
EC100.240**

56 B14	
L	153
D	80
S	65
C (-0.03 / -0.01)	50
63B14*	
L	155
D	90
S	75
C (-0.03 / -0.01)	60

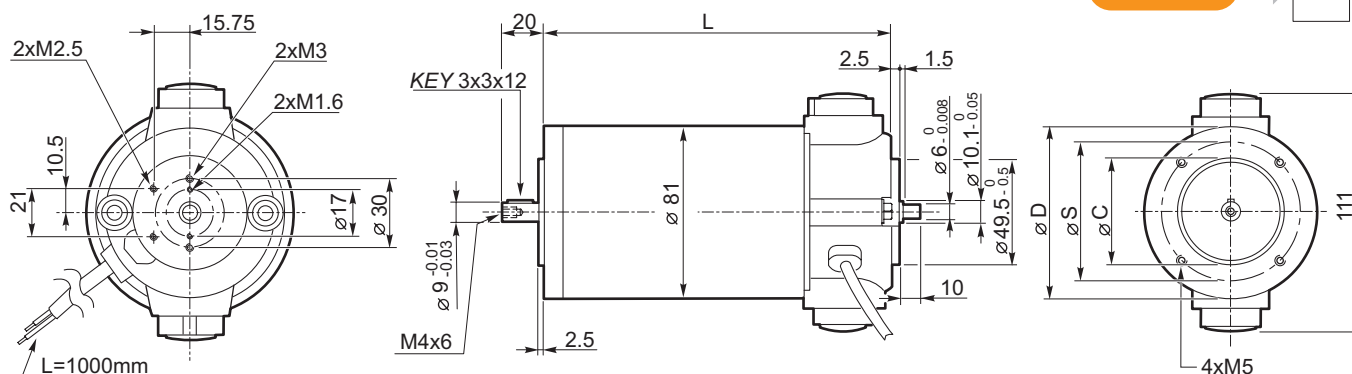


* Usare boccola 9/11
* Use sleeve 9/11

Freno / Brake → BB23

Encoder → BB24

EC100.24E



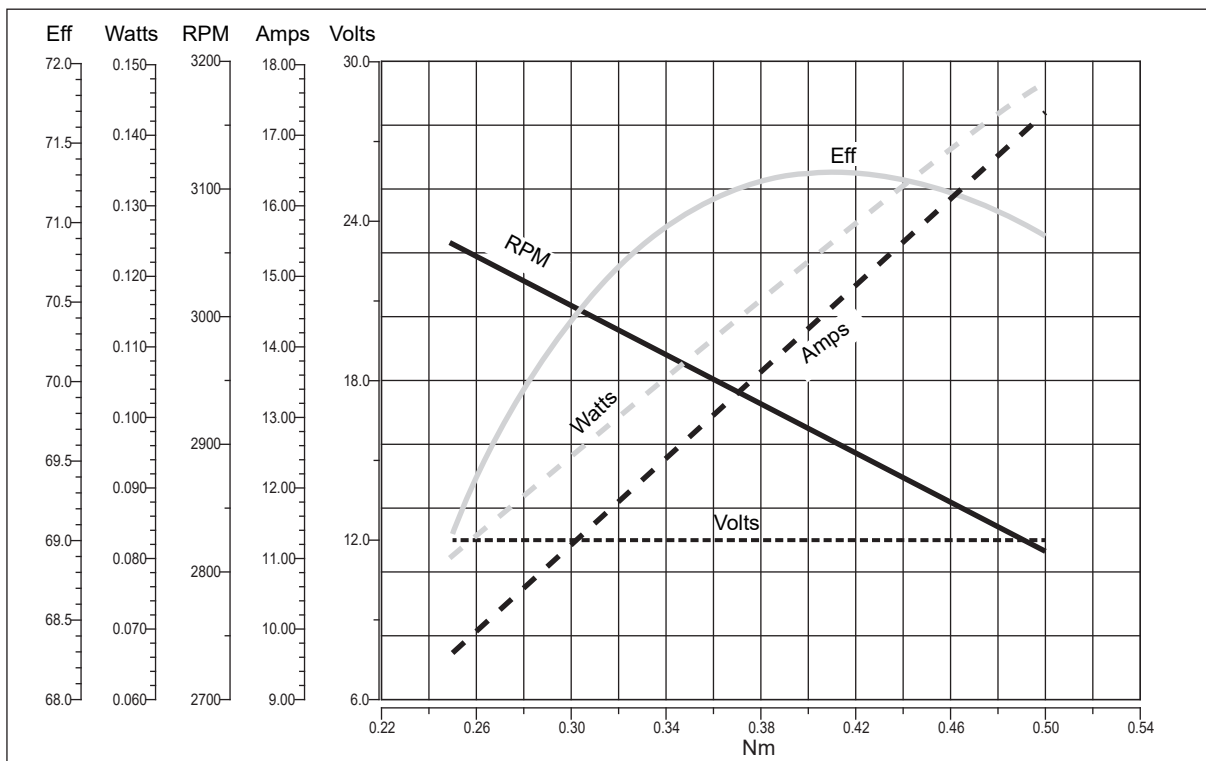


EC100.120 - EC100.240 - EC100.24E

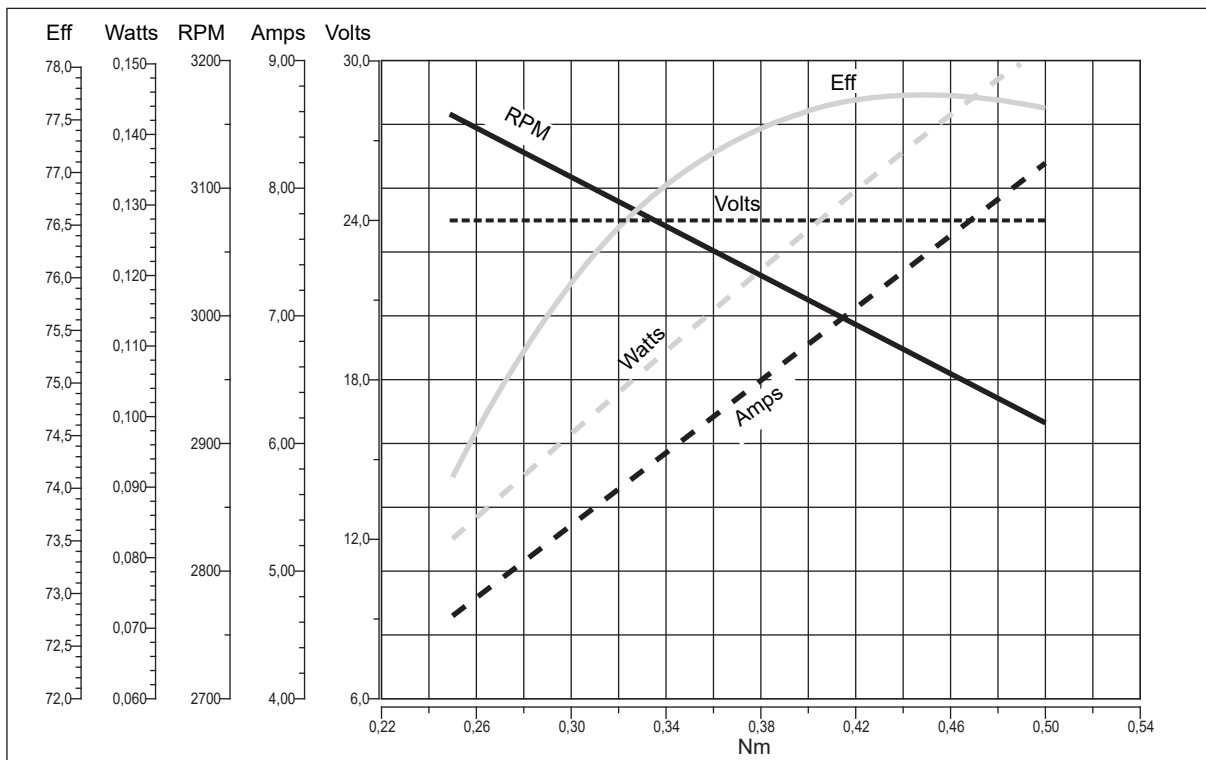
Prestazioni

Performances

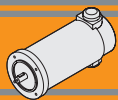
EC100.120



EC100.240 - EC100.24E



DC



EC180.120 - EC180.240 - EC180.24E

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 80 mm
Potenza	250 W S2 (180 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 di composto grafite-rame
Dimensione spazzole	LxPxH = 17.1 x 6.5 x 16.7 mm
Cavo di alimentazione	Lunghezza: 1000 mm
Bisporgenza	Standard solo EC180.24E

Construction	Tubular, without fan
Size	Ø 80 mm
Power	250 W S2 (180 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 inside brushes made of graphite/copper composite
Brushes size	LxPxH = 17.1 x 6.5 x 16.7 mm
Electric cable	Length: 1000 mm
Rear shaft	Standard only EC180.24E

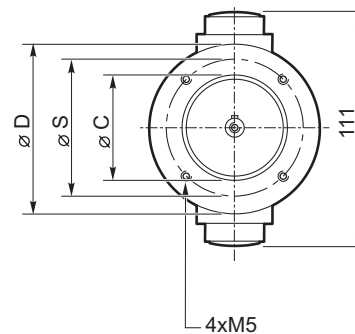
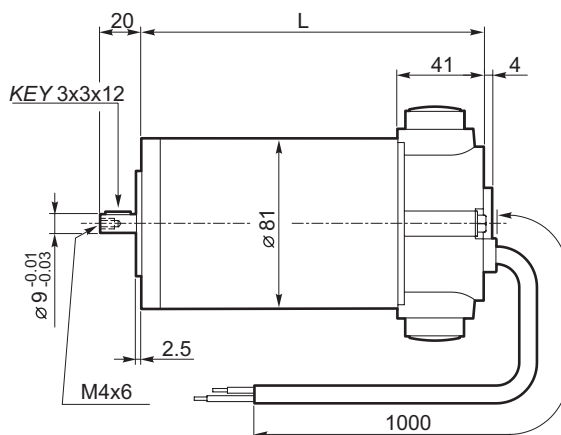
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC180.120	S1	180	12	21.5	F	1	0.57	3000	40	3.4
	S2 25'	250		30			0.8			
EC180.240	S1	180	24	10.8			0.57			
	S2 25'	250		15			0.8			
EC180.24E	S1	180		10.8			0.57		20	
	S2 25'	250		15			0.8			

Dimensioni

Dimensions

**EC180.120
EC180.240**

56 B14	
L	185
D	80
S	65
C (-0.03 / -0.01)	50
63B14*	
L	187
D	90
S	75
C (-0.03 / -0.01)	60

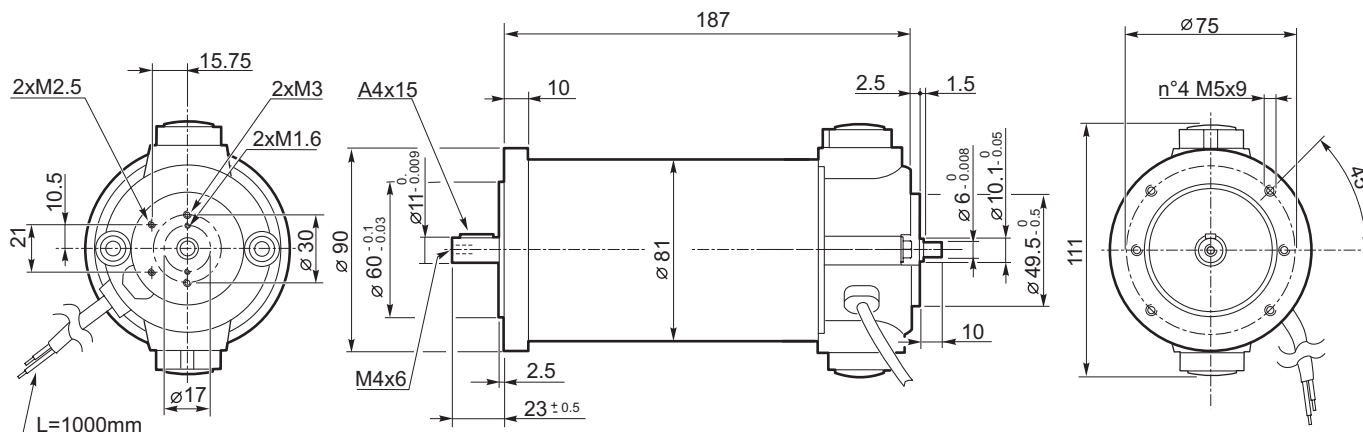


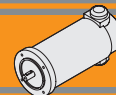
* Usare boccola 9/11
* Use sleeve 9/11

Freno / Brake → BB23

Encoder → BB24

EC180.24E



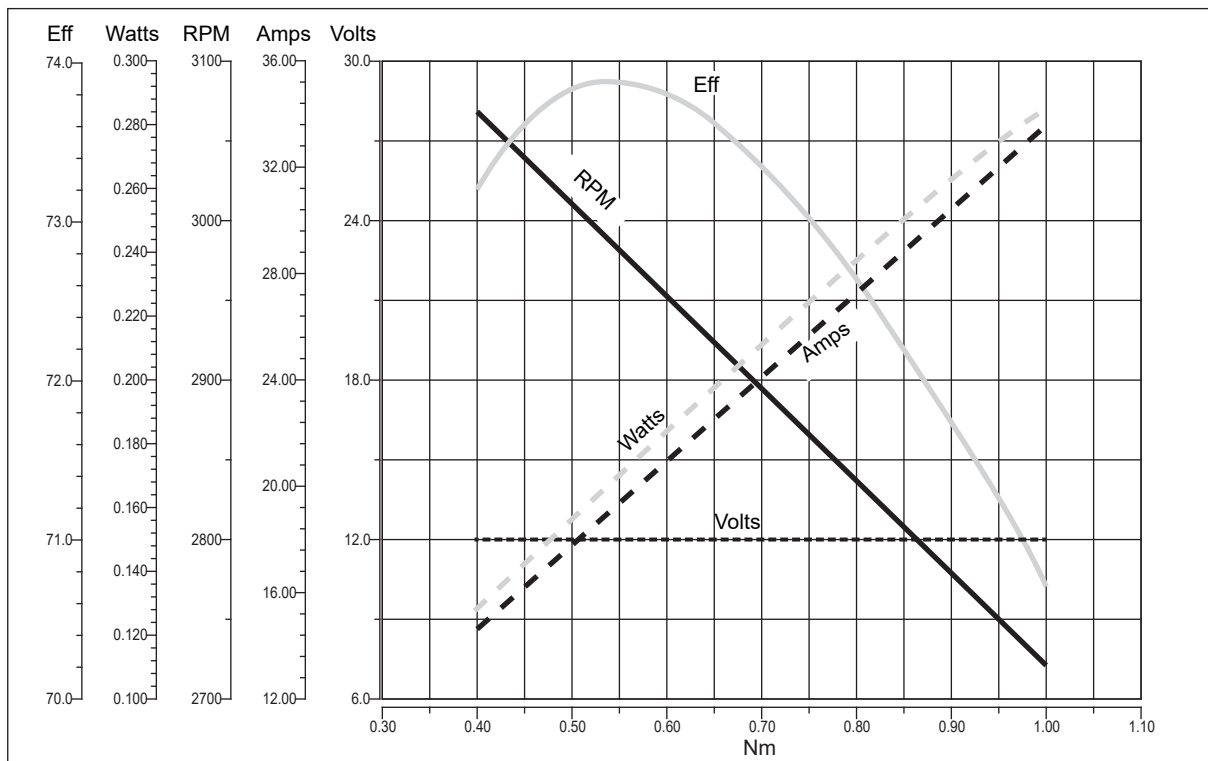


EC180.120 - EC180.240 - EC180.24E

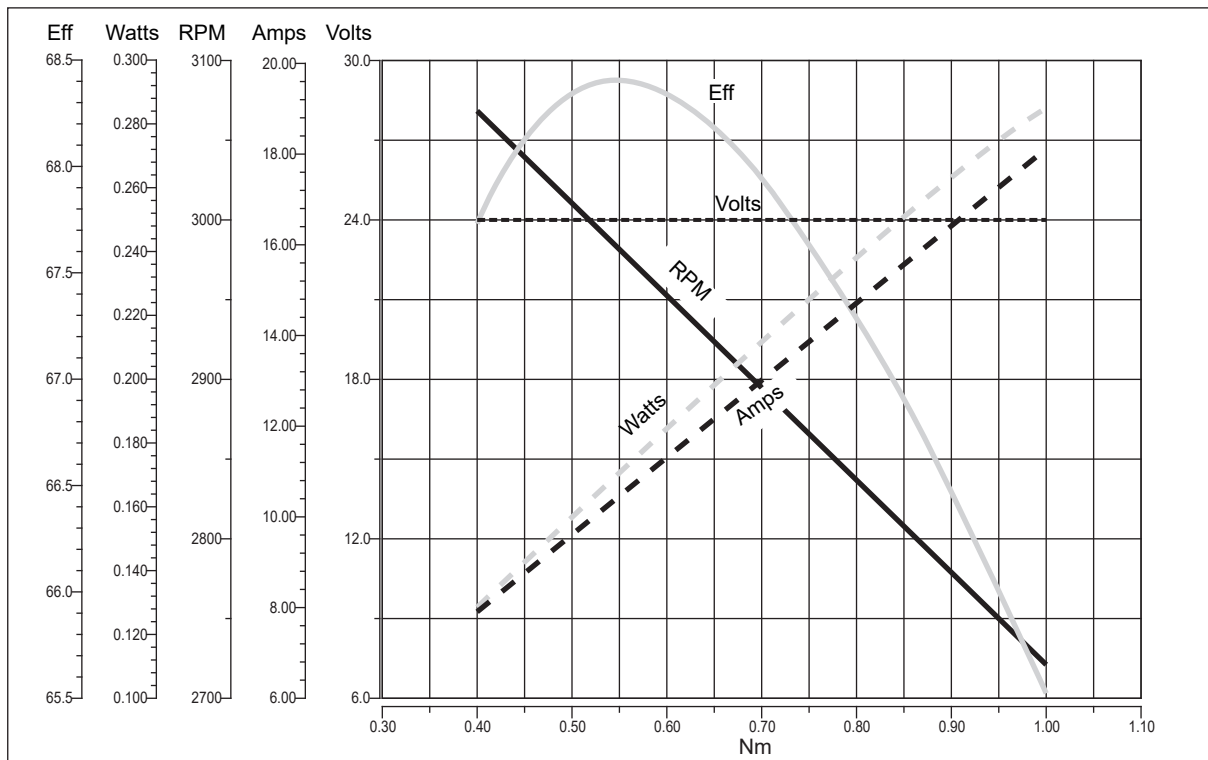
Prestazioni

Performances

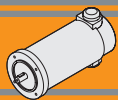
EC180.120



EC180.240 - EC180.24E



DC



EC250.120 - EC250.240

Caratteristiche

Features

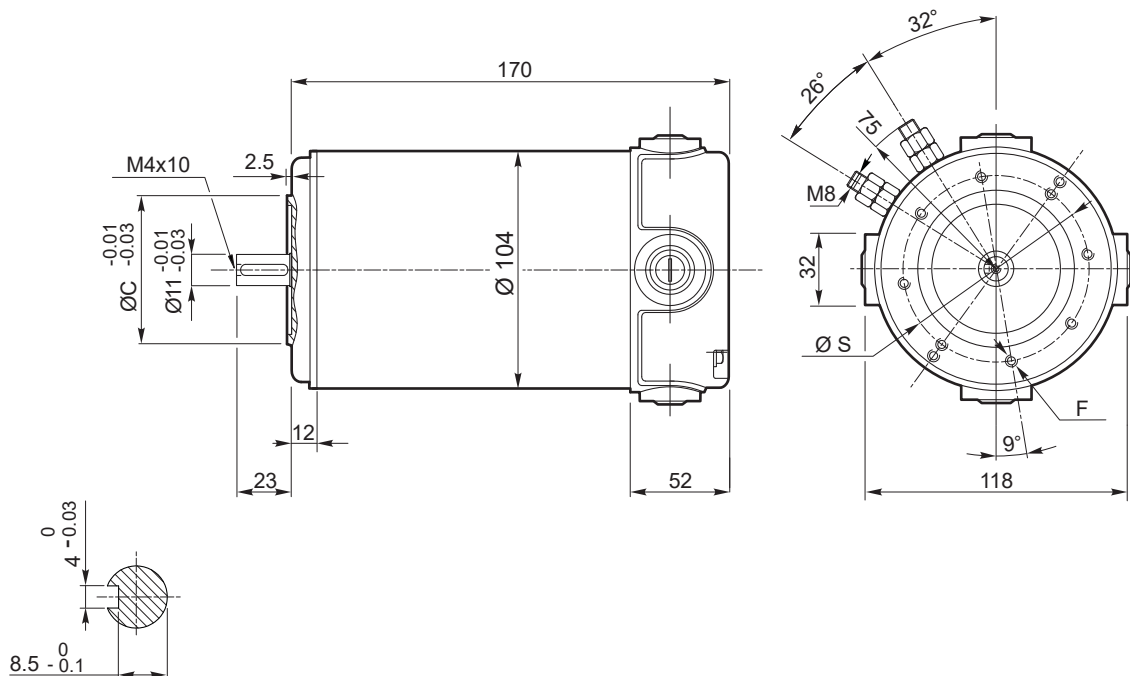
Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 104 mm
Potenza	350 W S2 (250 W S1)
Magneti	4
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 4 di composto grafite-rame
Dimensione spazzole	LxPxH = 18.9 x 9.5 x 16.7 mm
Terminali	2 con doppio dado di fissaggio

Construction	Tubular, without fan
Size	Ø 104 mm
Power	350 W S2 (250 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Brushes	4 inside brushes made of graphite/copper composite
Brushes size	LxPxH = 18.9 x 9.5 x 16.7 mm
Leads terminals	2, with double nut

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC250.120	S1	250	12	30	F	1	0.8	3000	40	4.15
	S2 25'	350		38.5			1.12			
EC250.240	S1	250	24	15			0.8			
	S2 25'	350		20.5			1.12			

Dimensioni

Dimensions



	63 B14	71 B14*
S	75	85
C (-0.03 / -0.01)	60	70
F	8 - M5	8 - M6

* Usare boccola 11/14
* Use sleeve 11/14

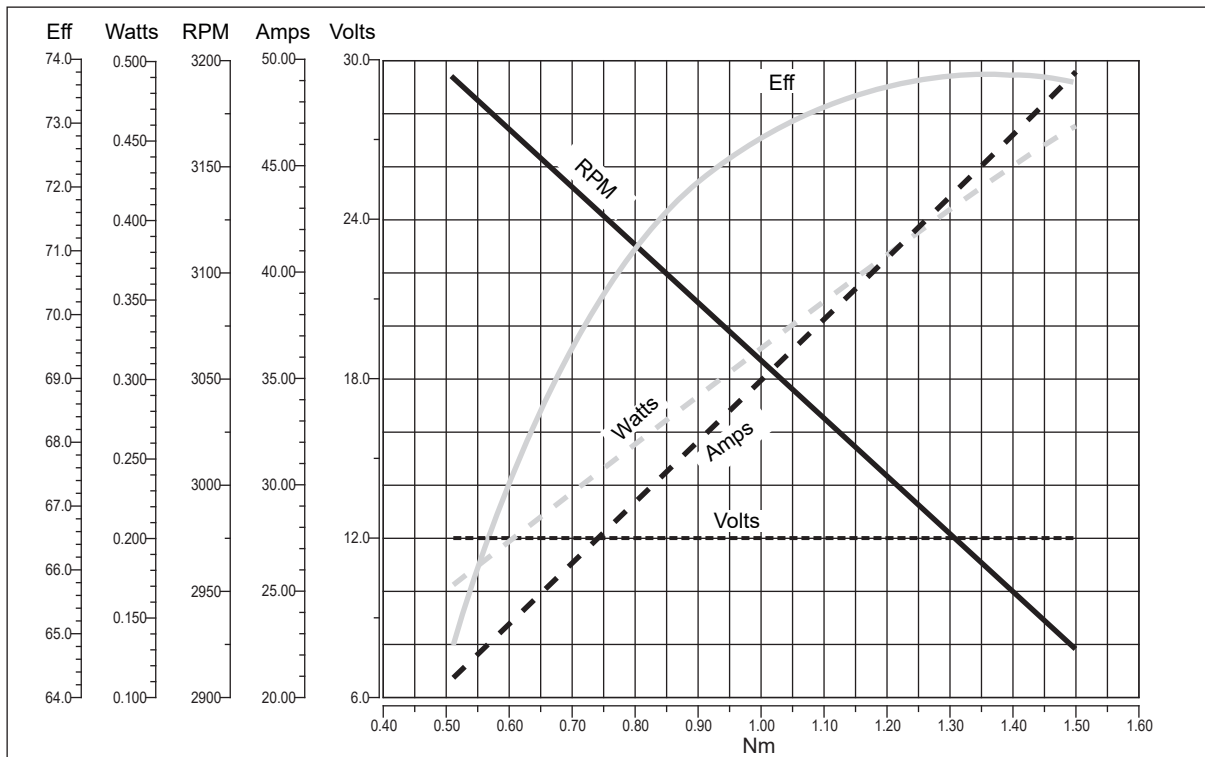


EC250.120 - EC250.240

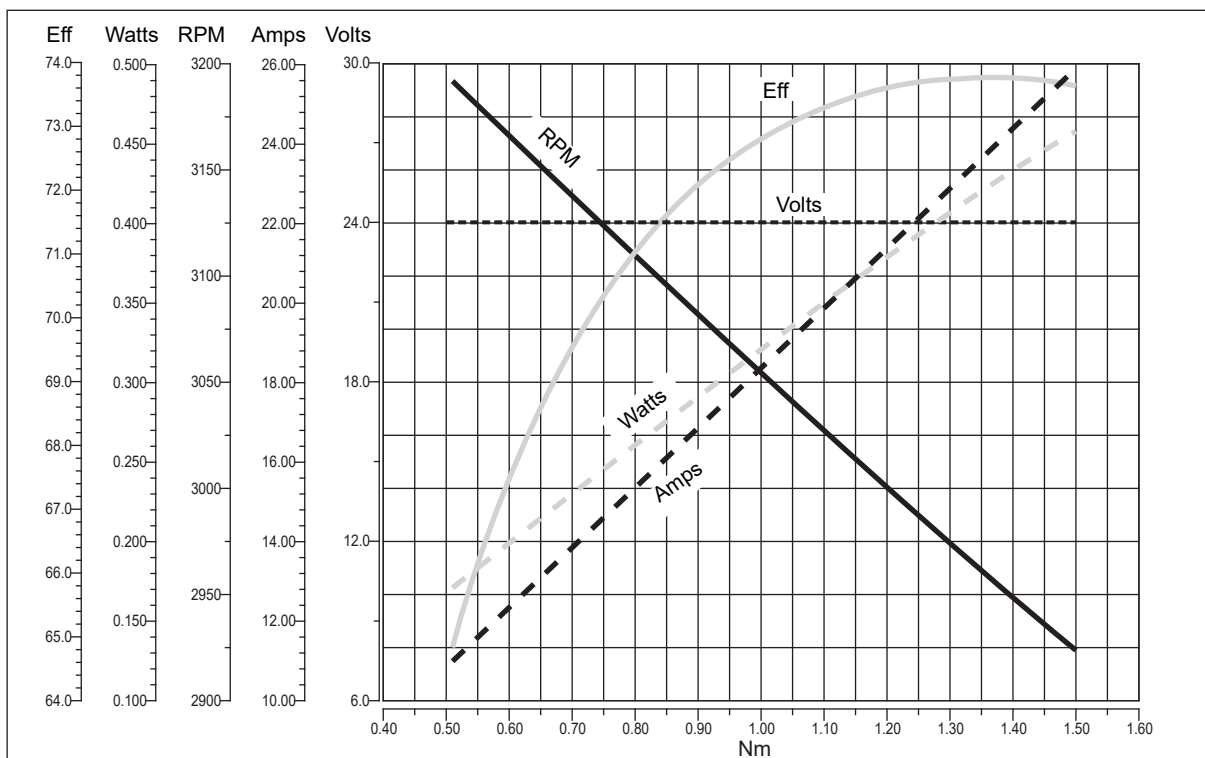
Prestazioni

Performances

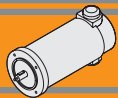
EC250.120



EC250.240



DC



EC350.120 - EC350.240

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 110 mm
Potenza	500 W S2 (350 W S1)
Magneti	4
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 4 di composto grafite-rame
Dimensione spazzole	LxPxH = 18.9 x 9.5 x 16.7 mm
Terminali	2 con dadi di fissaggio

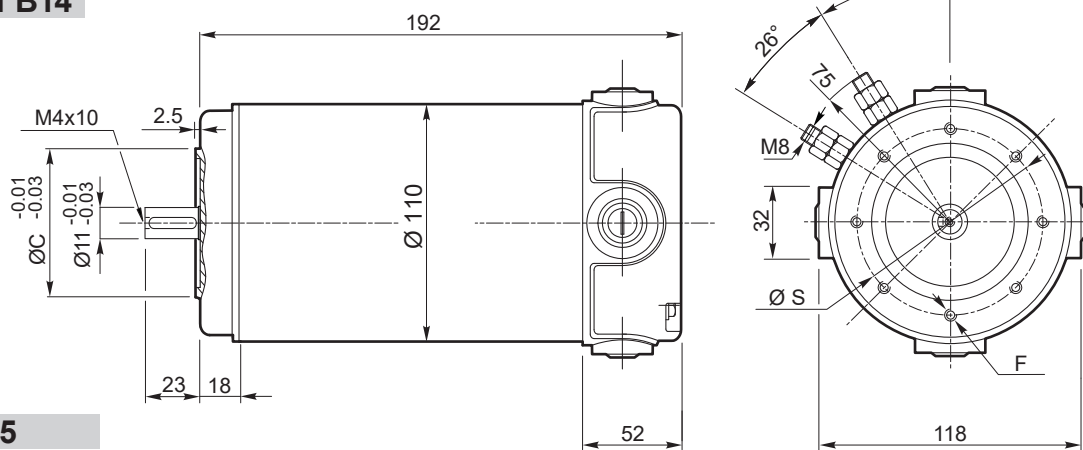
Construction	Tubular, without fan
Size	Ø 110 mm
Power	500 W S2 (350 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Brushes	4 brushes made of graphite/copper composite
Brushes size	LxPxH = 18.9 x 9.5 x 16.7 mm
Leads terminals	2, with double nut

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC350.120	S1	350	12	42	F	1	1.12	3000	40	5.1
	S2 30'	500		58.8			1.57			
EC350.240	S1	350	24	21			1.12		40	5.3
	S2 30'	500		29.4			1.57			

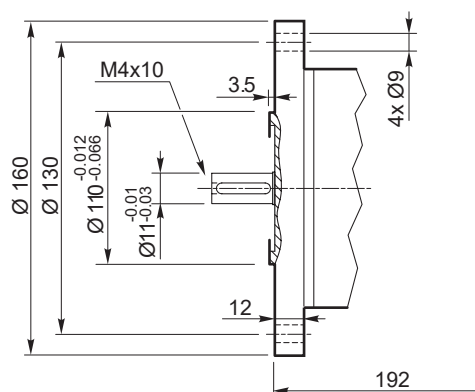
Dimensioni

Dimensions

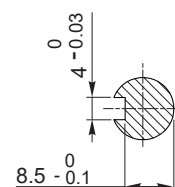
63 B14 - 71 B14



71 B5

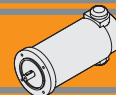


Freno / Brake



	63 B14	71 B14*
S	75	85
C (-0.03 / -0.01)	60	70
F	8 - M5	8 - M6

* Usare boccola 11/14
* Use sleeve 11/14

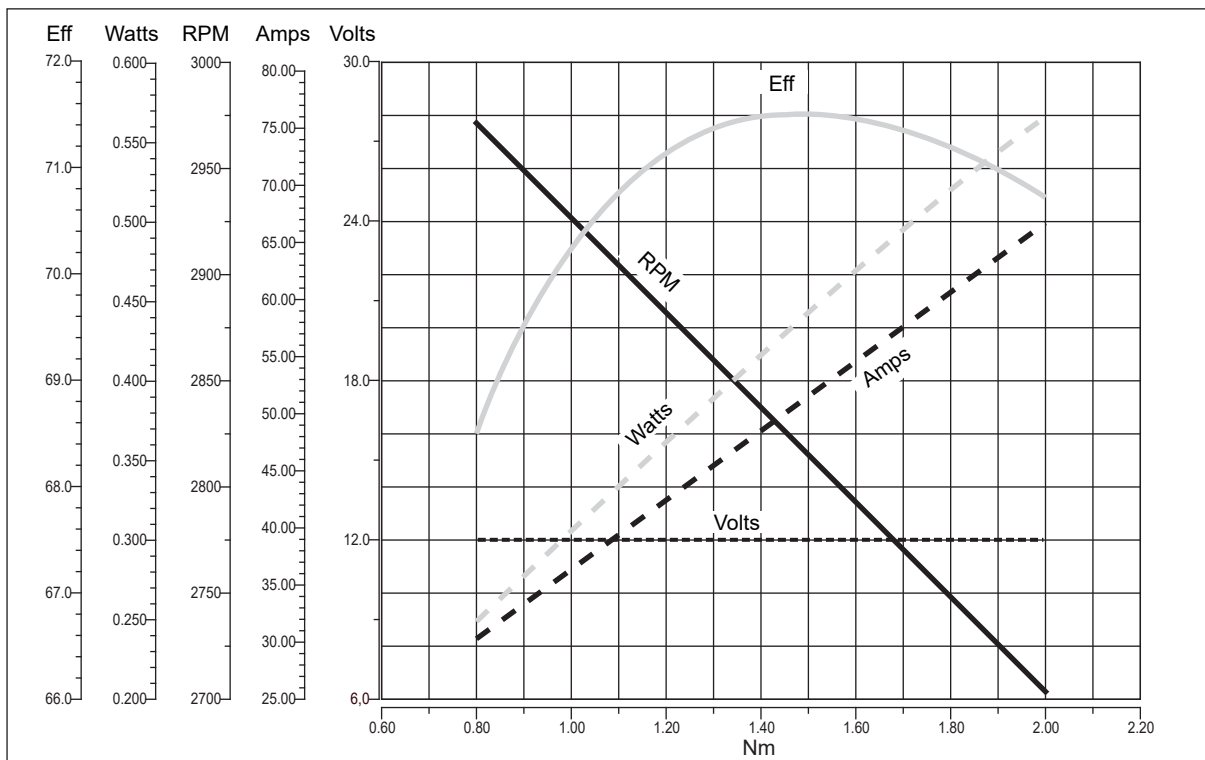


EC350.120 - EC350.240

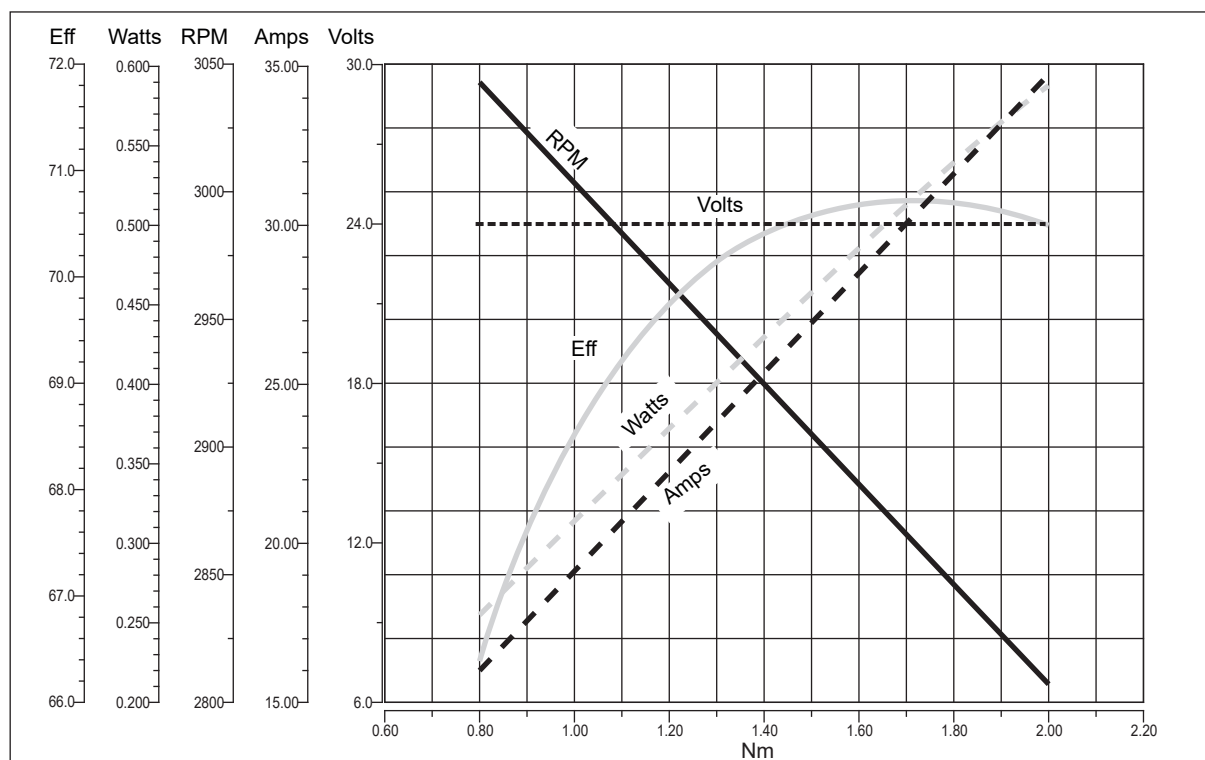
Prestazioni

Performances

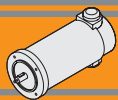
EC350.120



EC350.240



DC



EC600.120 - EC600.240

Caratteristiche

Features

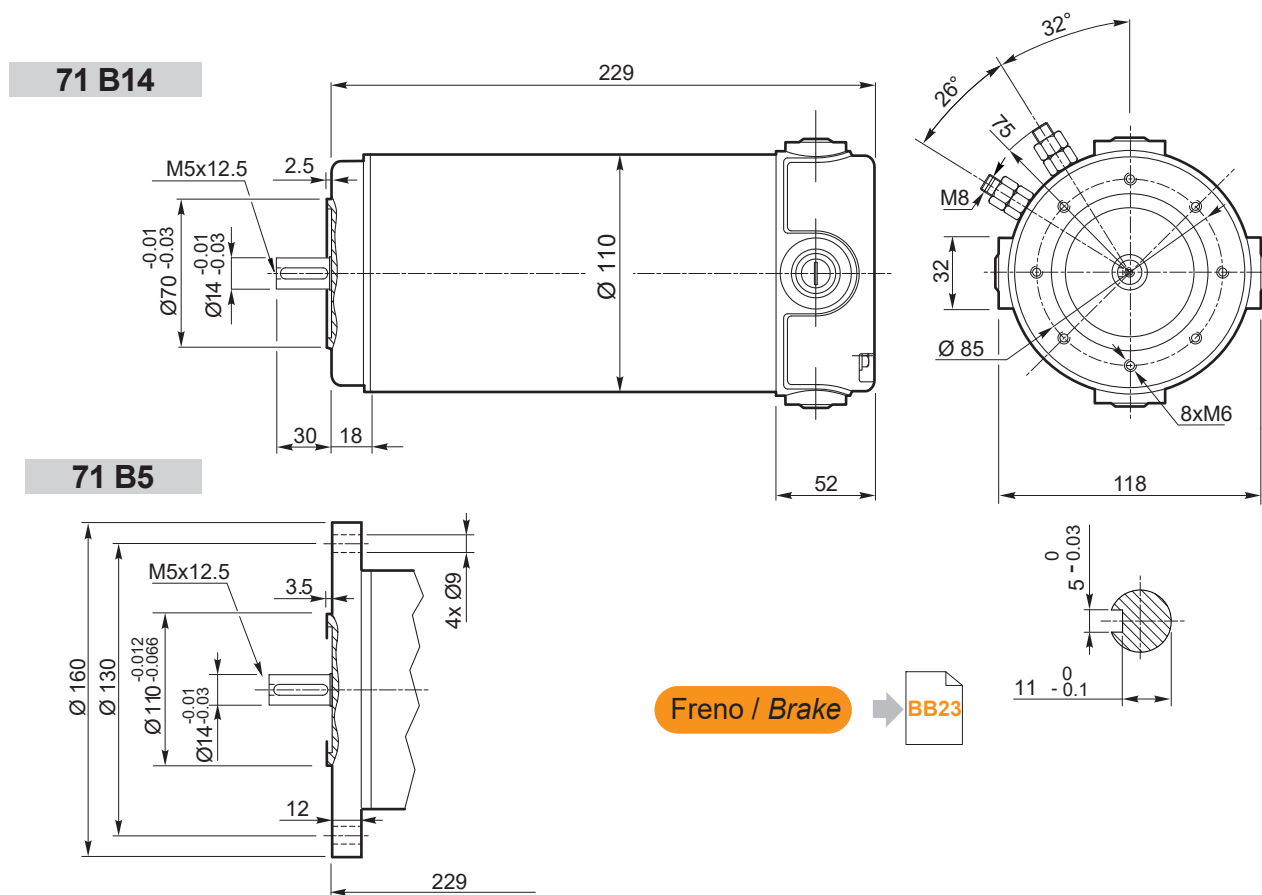
Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 110 mm
Potenza	800 W S2 (600 W S1)
Magneti	4
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 4 di composto grafite-rame
Dimensione spazzole	LxPxH = 18.9 x 9.5 x 16.7 mm
Terminali	2 con doppio dado di fissaggio

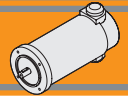
Construction	Tubular, without fan
Size	Ø 110 mm
Power	800 W S2 (600 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Brushes	4 brushes made of graphite/copper composite
Brushes size	LxPxH = 18.9 x 9.5 x 16.7 mm
Leads terminals	2, with double nut

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg	
EC600.120	S1	600	12	71	F	1	1.91	3000	40	6.6	
	S2 30'	800		94.4			2.54				
EC600.240	S1	600	24	35.5			1.91		40		7.1
	S2 30'	800		47.2			2.54				

Dimensioni

Dimensions



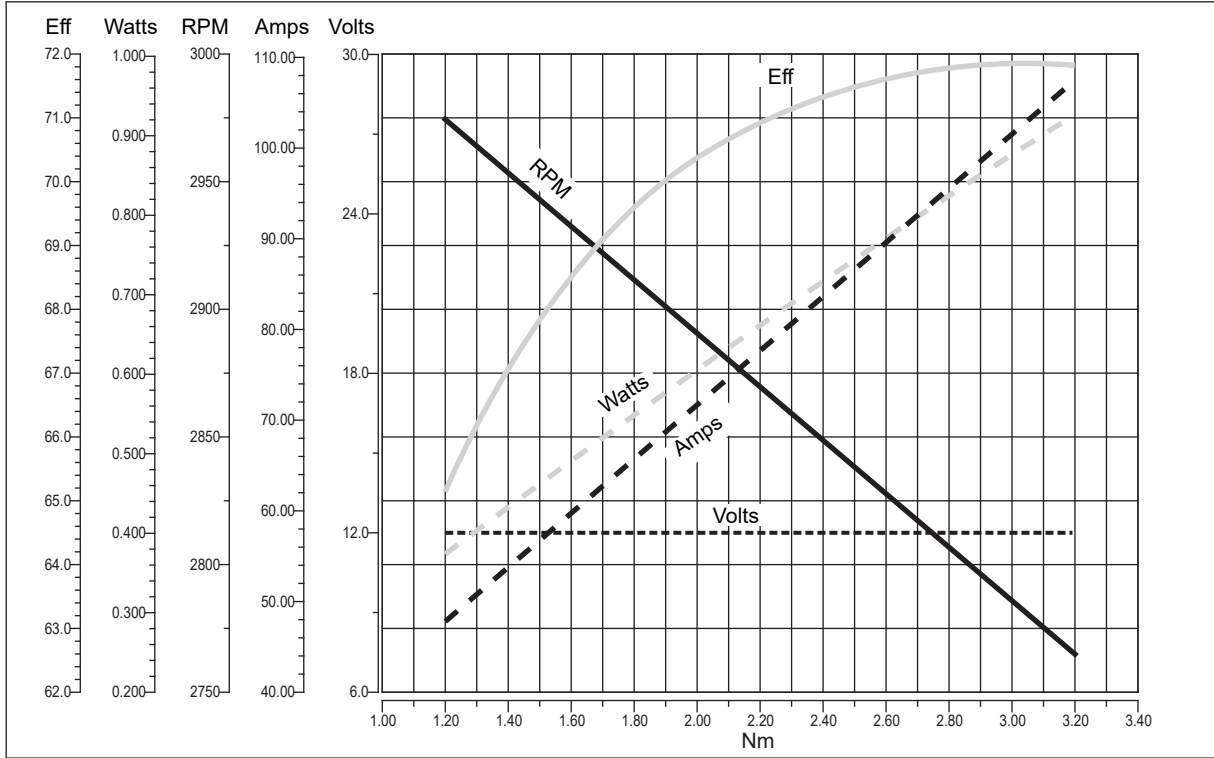


EC600.120 - EC600.240

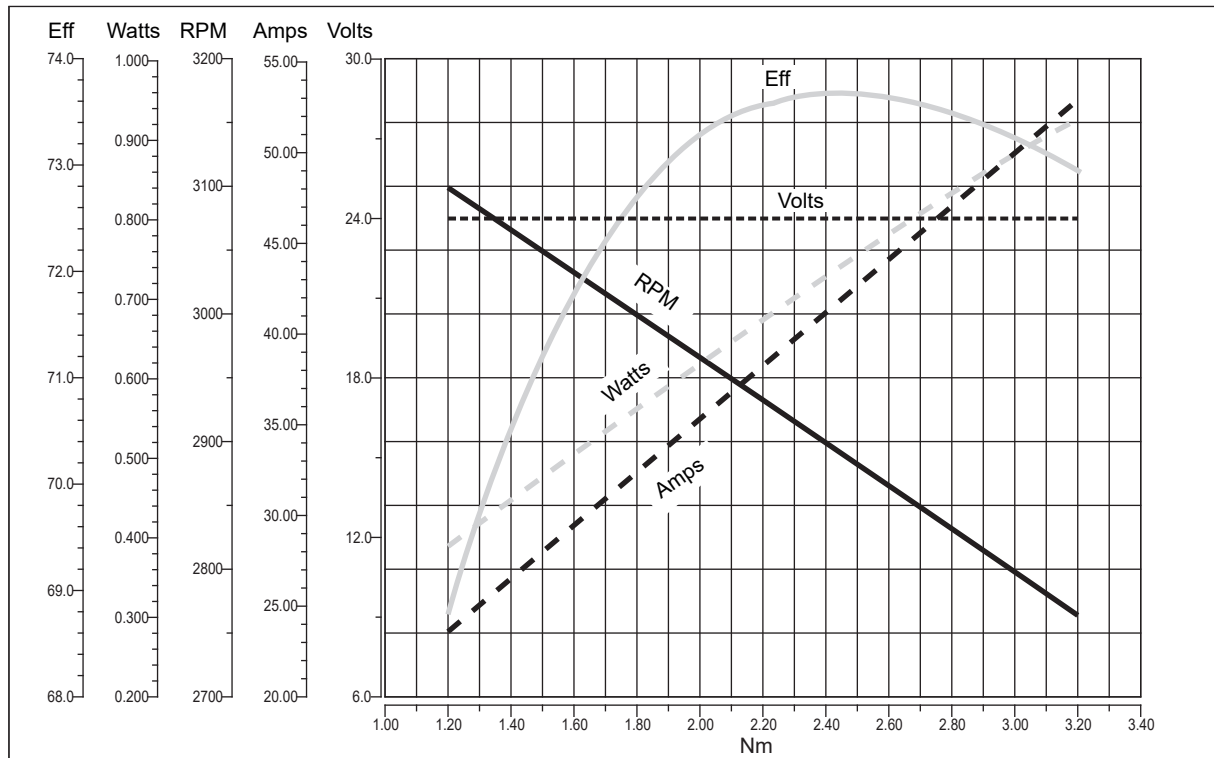
Prestazioni

Performances

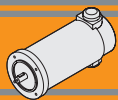
EC600.120



EC600.240



DC

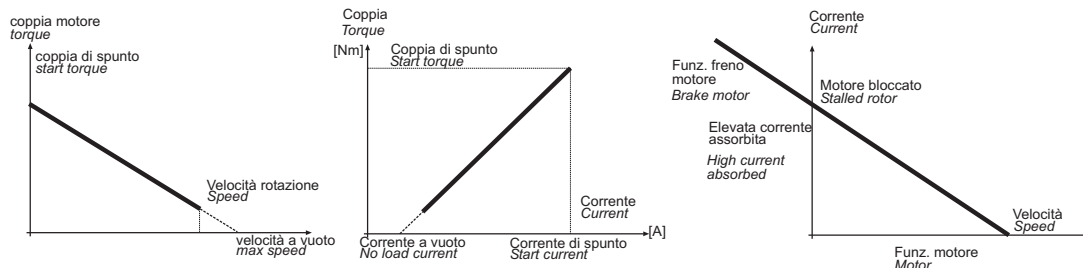


Legenda / Glossario dei grafici

Key / Diagram Glossary

Dato un motore in C.C, la velocità di rotazione è funzione lineare della coppia; così pure la corrente assorbita è una funzione lineare della coppia. Velocità e corrente variano in maniera sensibile al variare del carico.

With a D.C. motor, the rotational speed is a linear function of the torque. In the same way, the absorbed current is also a linear function of the torque. Speed and current change a lot against applied torque.

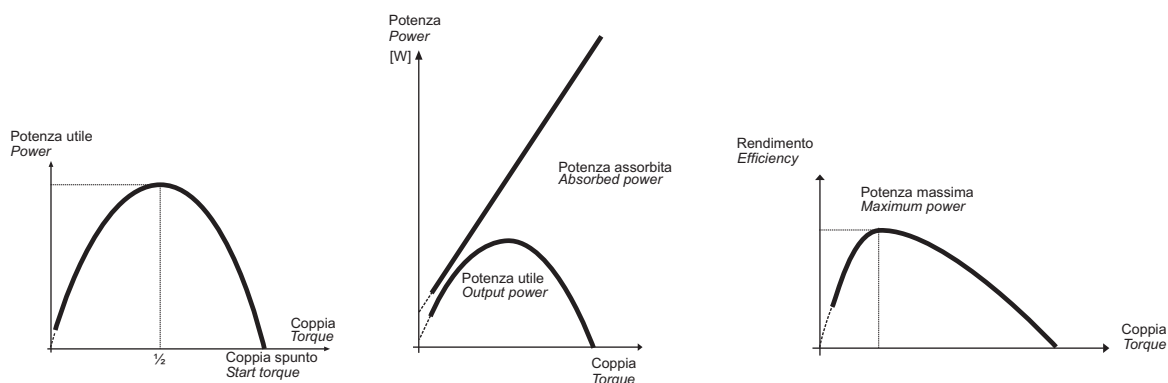


La potenza utile (potenza all' albero) si ricava dalla formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$

The output power is calculated using the formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$



Poiché la tensione di alimentazione è costante mentre la corrente è linearmente crescente al crescere della coppia, l'andamento della potenza assorbita è un retta crescente. Dal rapporto tra la potenza meccanica e la potenza assorbita si ottiene il grafico dell'efficienza.

Since the supply voltage is constant, whereas the current increases in a linear manner as the torque increases, the absorbed power trend is a straight line going up. Efficiency is shown from the ratio between the output power and the absorbed power.

Formule utili

Useful formulas

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

$$P_n = V \cdot I \cdot \eta$$

$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

$$[HP] \cdot 746 = [W].$$

Esempio 2 HP = circa 1500 W.

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

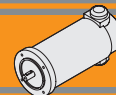
$$P_n = V \cdot I \cdot \eta$$

$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

$$[HP] \cdot 746 = [W].$$

Example 2 HP = approx. 1500 W.



Freno

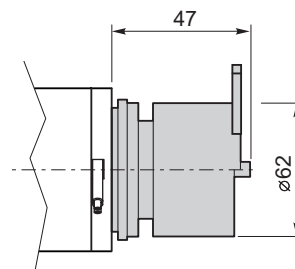
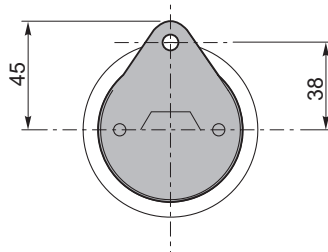
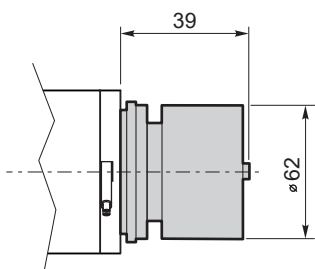
Brake

Freno / Brake

Freno con leva di sblocco/ Brake with hand release

EC050...BR
EC070...BR

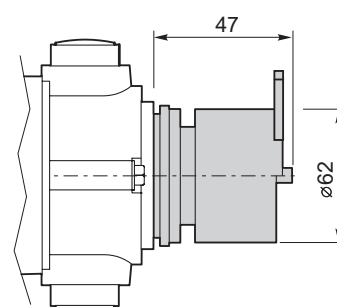
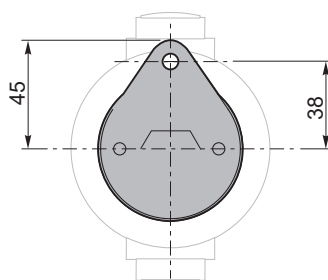
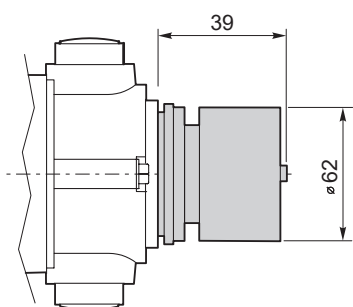
EC050...BRL
EC070...BRL



	Pn [W]	V [V]	Mn [Nm]	n ₁ [min ⁻¹]
Caratteristiche del freno / Break features	14	12	1.8	3000
		24		

EC100.24E BR
EC180.24E BR

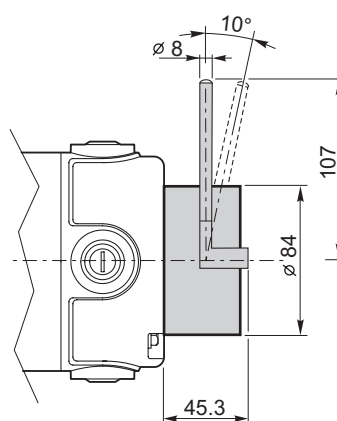
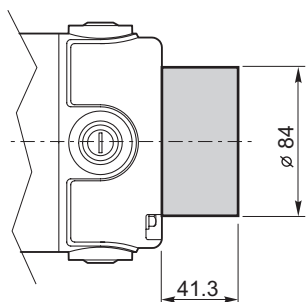
EC100.24E BRL
EC180.24E BRL



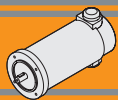
	Pn [W]	V [V]	Mn [Nm]	n ₁ [min ⁻¹]
Caratteristiche del freno / Break features	14	12	1.8	3000
		24		

EC350...BR
EC600...BR

EC350...BRL
EC600...BRL



	Pn [W]	V [V]	Mn [Nm]	n ₁ [min ⁻¹]
Caratteristiche del freno / Break features	25	12	5	3000
		24		



Encoder

Encoder

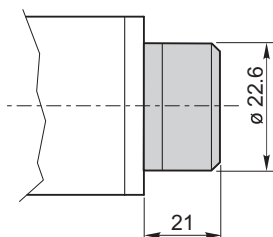
EC020.24E ME22

EC050.12E ME22

EC050.24E ME22

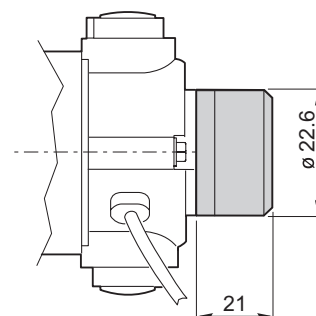
EC070.12E ME22

EC070.24E ME22



EC100.24E ME22

EC180.24E ME22



Risoluzione Encoder (CPR) / Encoder Resolution (CPR)	Numero di canali / Number of channels	Tensione d'alimentazione / Power supply
001	2	5 VdC - TTL
100		
300		

Per risoluzioni encoder non standard, si prega di contattare il nostro Servizio Tecnico.

For non-standard encoder resolution, please contact our Technical Department.

Nota: Fornito con cavo lungo 300 mm

Note: Supplie with cavle 300 mm long

MINI  **TECNO**™
small but strong

EC IP66



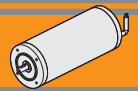
Motori elettrici CC IP66 - Ferrite
IP66 DC electric motors - Ferrite



MINI  **TECNO**™ brand of
TRANSTECNO®



DC



	Indice	Index	Pag. Page
EC070.120.66 EC070.240.66	Caratteristiche	<i>Features</i>	BC2
	Dimensioni	<i>Dimensions</i>	BC2
	Prestazioni	<i>Performances</i>	BC3
EC100.120.66 EC100.240.66	Caratteristiche	<i>Features</i>	BC4
	Dimensioni	<i>Dimensions</i>	BC4
	Prestazioni	<i>Performances</i>	BC4
EC180.120.66 EC180.240.66	Caratteristiche	<i>Features</i>	BC6
	Dimensioni	<i>Dimensions</i>	BC6
	Prestazioni	<i>Performances</i>	BC6
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	Dimensioni	<i>Dimensions</i>	BC8
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EC350.120.66 EC350.240.66	Caratteristiche	<i>Features</i>	BC10
	Dimensioni	<i>Dimensions</i>	BC10
	Prestazioni	<i>Performances</i>	BC11
EC600.120.66 EC600.240.66	Caratteristiche	<i>Features</i>	BC12
	Dimensioni	<i>Dimensions</i>	BC12
	Prestazioni	<i>Performances</i>	BC13

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EC070.120.66 - EC070.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 65 mm
Potenza	100 W S2 (70 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Spazzole	N° 2 interne di composto grafite-rame
Cavo di alimentazione	Lunghezza: 1000 mm

Construction	Tubular, without fan
Size	Ø 65 mm
Power	100 W S2 (70 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Brushes	2 inside brushes made of graphite/copper composite
Electric cable	Length: 1000 mm

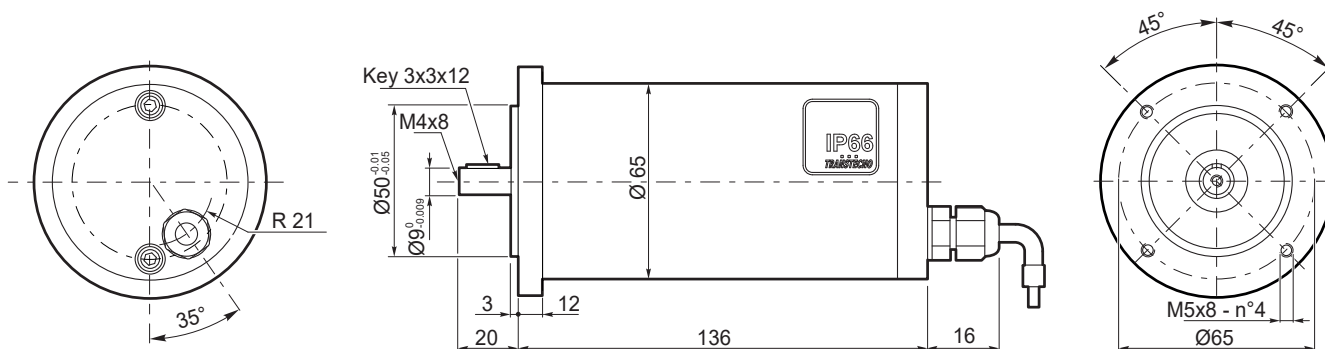
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC070.120.66	S1	70	12	8.4	F	1	0.22	3000	66	1.7
	S2 30'	100		11.8			0.31			
EC070.240.66	S1	70	24	4.2						
	S2 30'	100		5.9			0.31			

Dimensioni

Dimensions

EC070.120.66

EC070.240.66



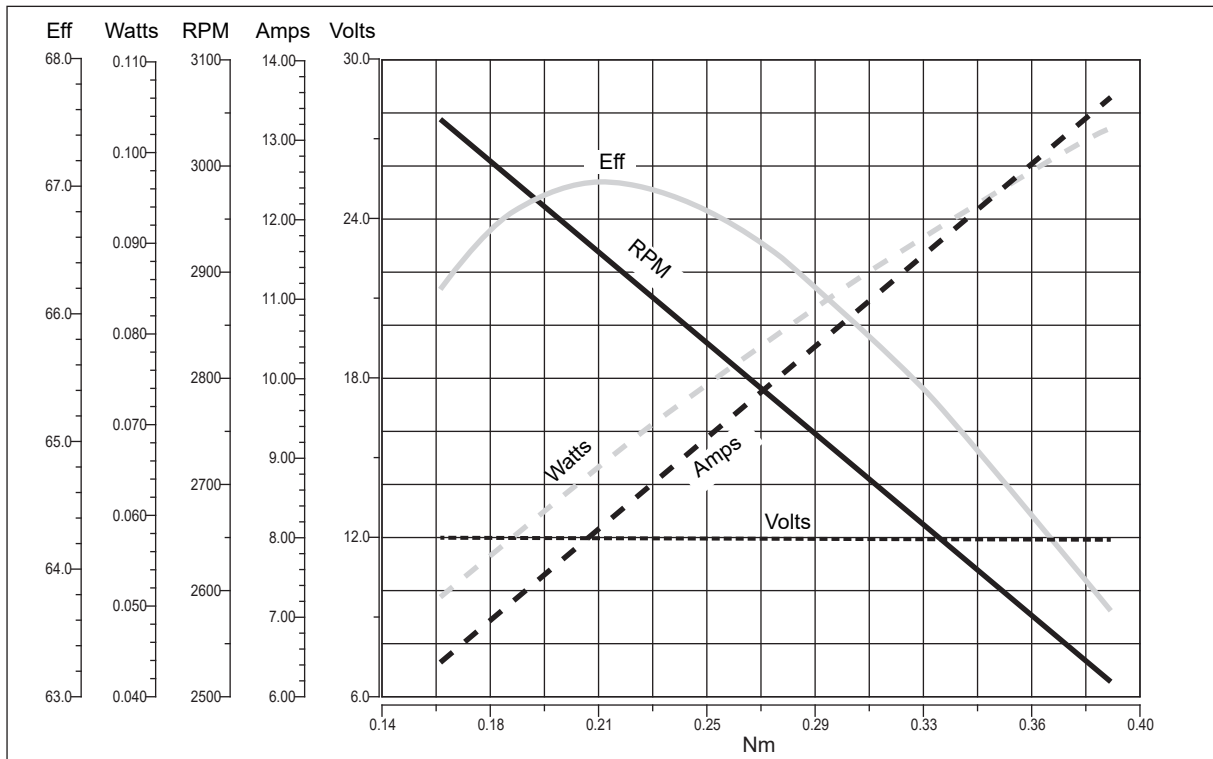


EC070.120.66 - EC070.240.66

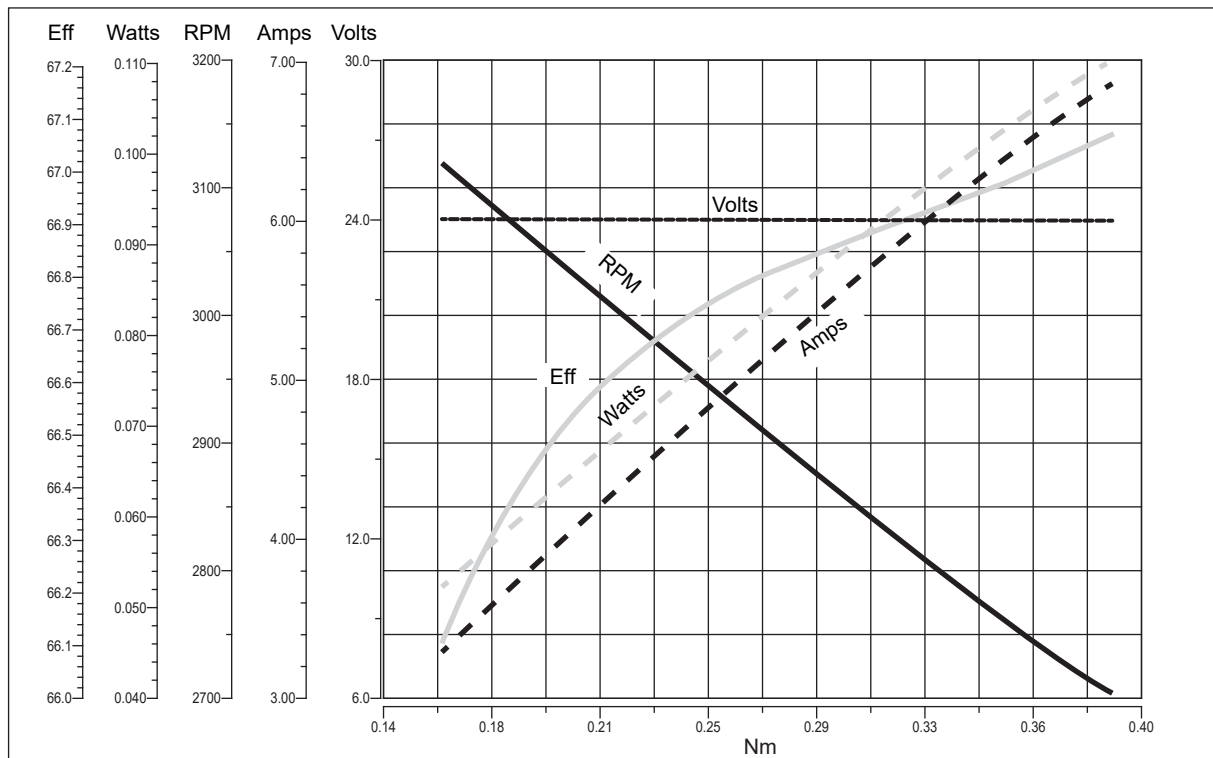
Prestazioni

Performances

EC070.120.66



EC070.240.66



DC



EC100.120.66 - EC100.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 80 mm
Potenza	140 W S2 (100 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Cavo di alimentazione	Lunghezza: 1000 mm

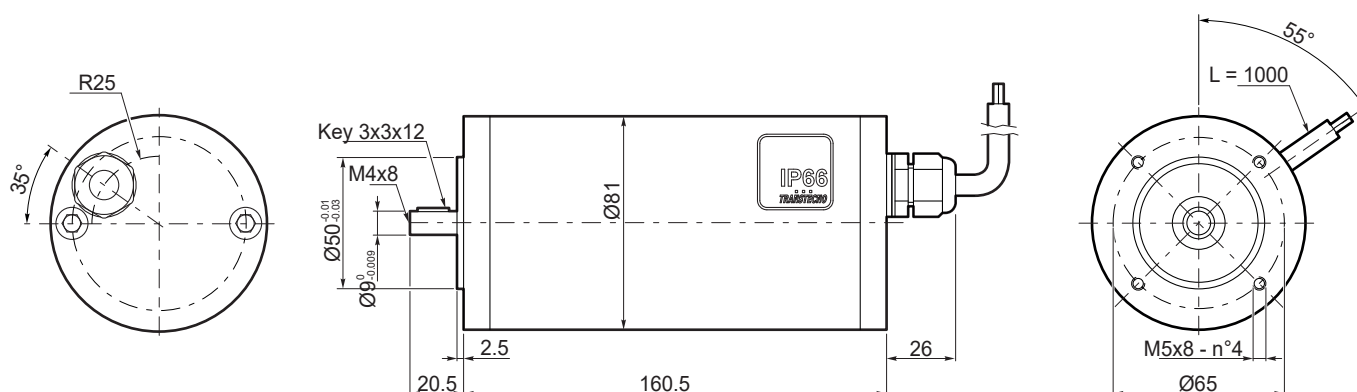
Construction	Tubular, without fan
Size	Ø 80 mm
Power	140 W S2 (100 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Electric cable	Length: 1000 mm

Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC100.120.66	S1	100	12	12	F	1	0.31	3000	66	2.7
	S2 25'	140		16.8			0.43			
EC100.240.66	S1	100	24	6						
	S2 25'	140		8.4			0.43			

Dimensioni

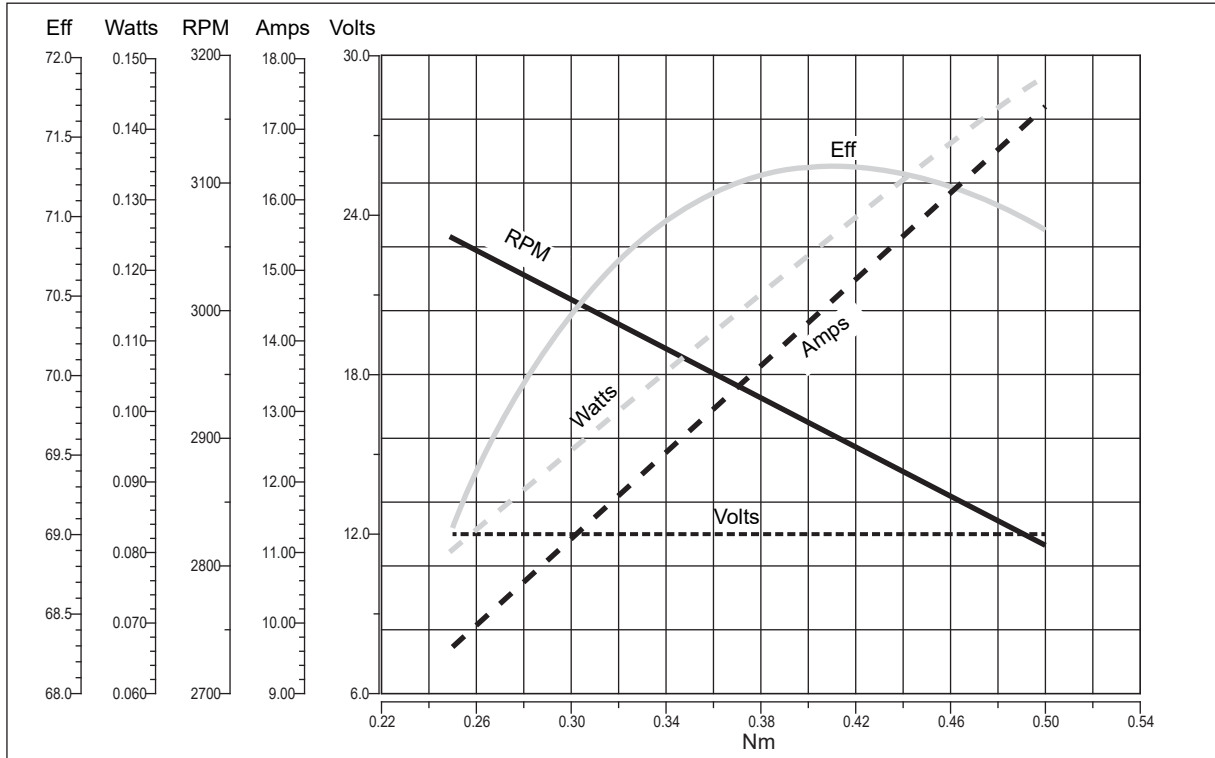
Dimensions

EC100.120.66
EC100.240.66

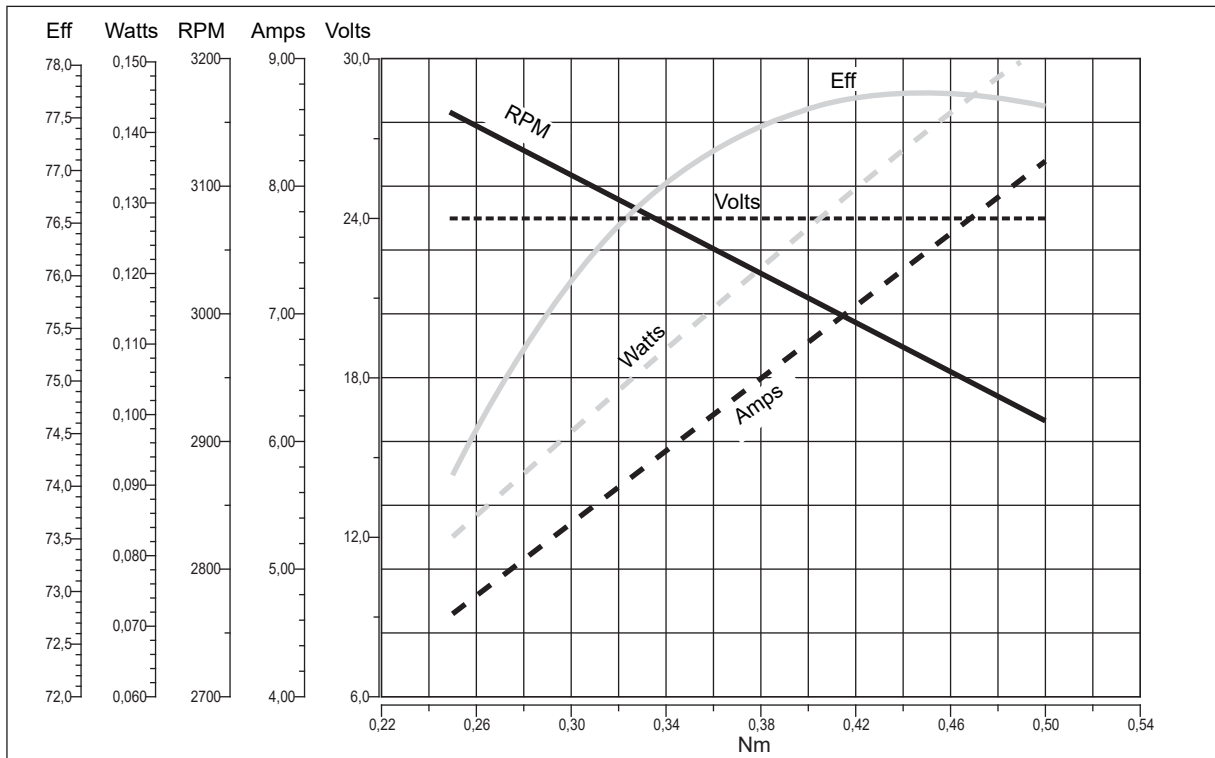




EC100.120.66



EC100.240.66



DC



EC180.120.66 - EC180.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 80 mm
Potenza	250 W S2 (180 W S1)
Magneti	2
Supporti	Cuscinetti a sfera
Fori di montaggio	4
Alimentazione	Bassa tensione, 12 o 24 Vcc
Cavo di alimentazione	Lunghezza: 1000 mm

Construction	Tubular, without fan
Size	Ø 80 mm
Power	250 W S2 (180 W S1)
Magnets	2
Bearings	Ball bearings
Mounting holes	4
Power supply	Low voltage, 12 or 24 Vdc
Electric cable	Length: 1000 mm

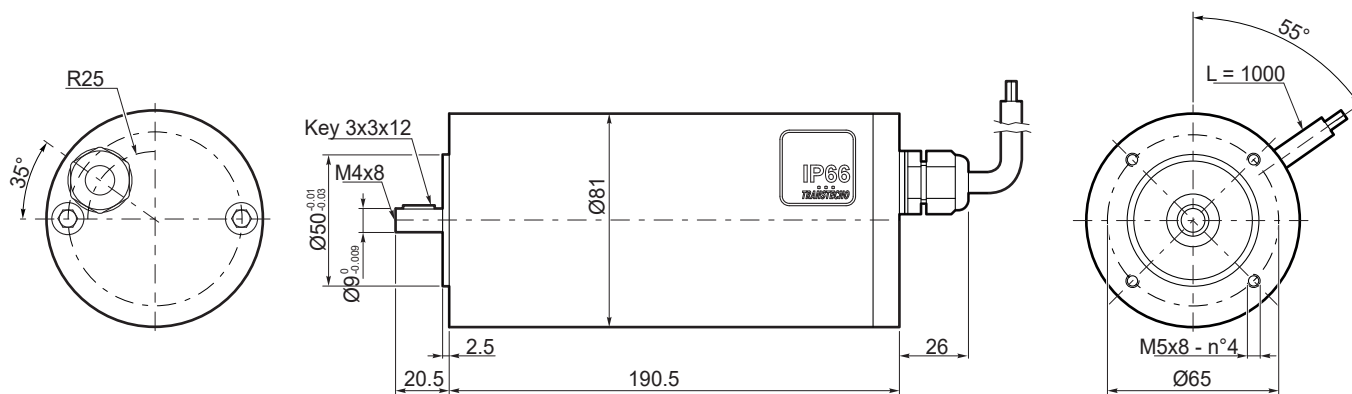
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC180.120.66	S1	180	12	21.5	F	1	0.57	3000	66	3.4
	S2 25'	250		30			0.8			
EC180.240.66	S1	180	24	10.8						
	S2 25'	250		15			0.8			

Dimensioni

Dimensions

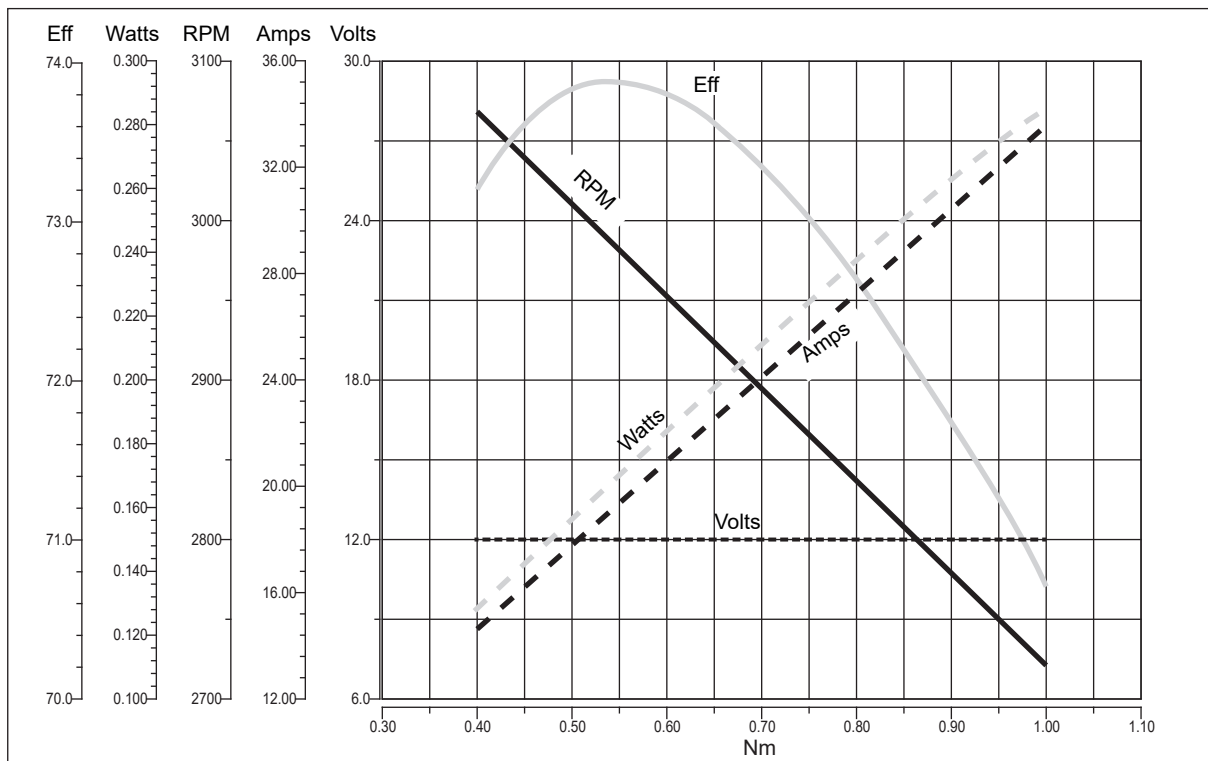
EC180.120.66

EC180.240.66

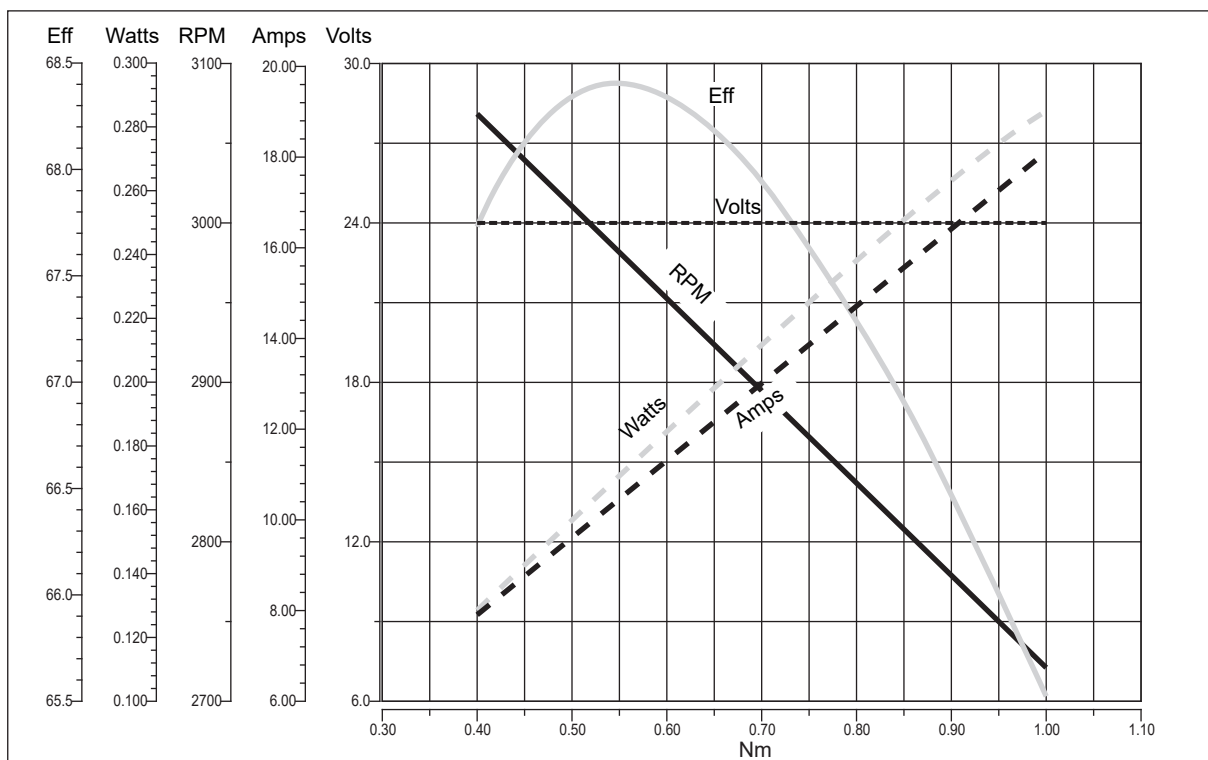




EC180.120.66



EC180.240.66





EC250.120.66 - EC250.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 104 mm
Potenza	350 W S2 (250 W S1)
Magneti	4
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Terminali	2 con doppio dado di fissaggio

Construction	Tubular, without fan
Size	Ø 104 mm
Power	350 W S2 (250 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Leads terminals	2, with double nut

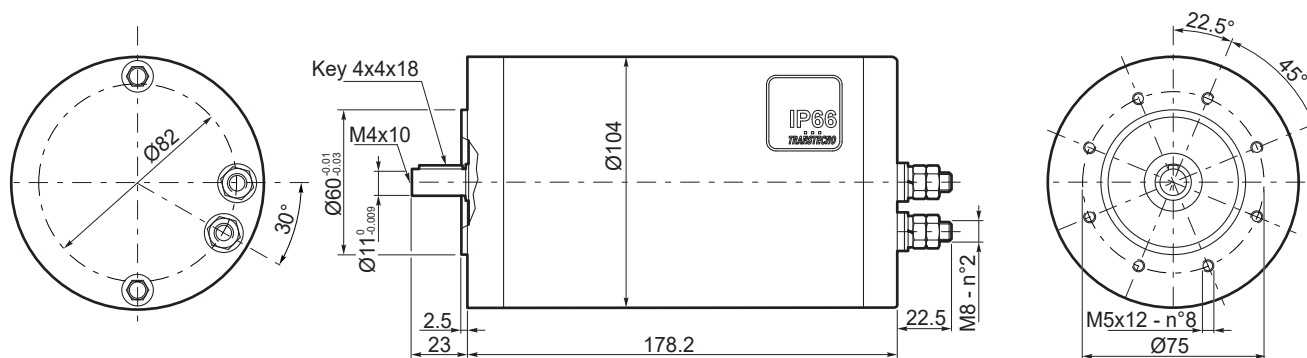
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC250.120.66	S1	250	12	30	F	1	0.8	3000	66	4.15
	S2 25'	350		38.5			1.12			
EC250.240.66	S1	250	24	15						
	S2 25'	350		20.5			1.12			

Dimensioni

Dimensions

EC250.120.66

EC250.240.66

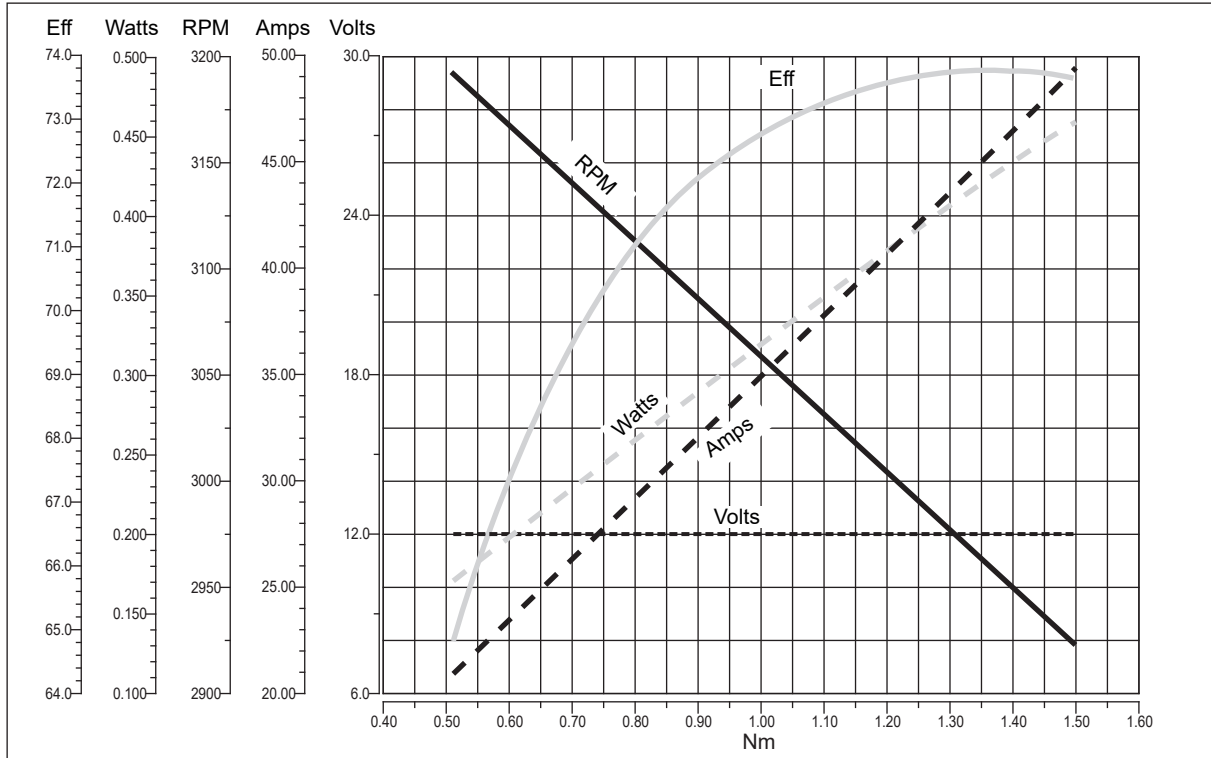




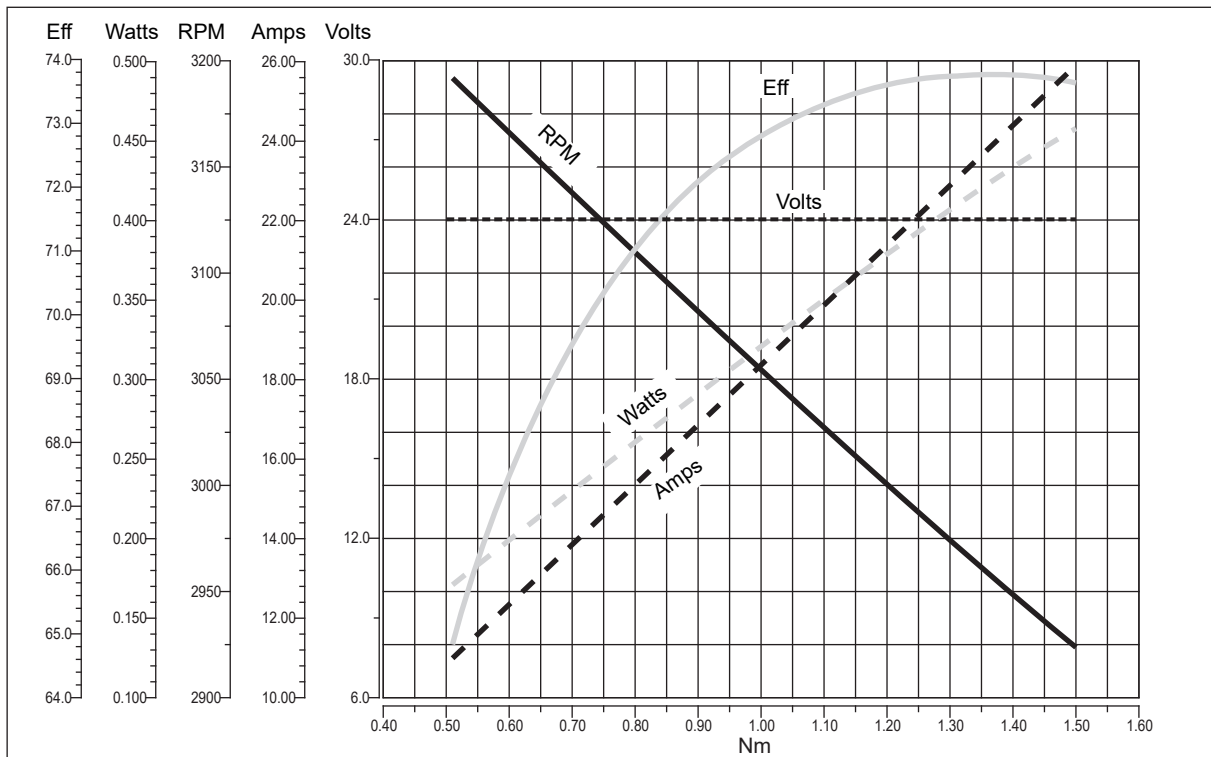
Prestazioni

Performances

EC250.120.66



EC250.240.66



DC



EC350.120.66 - EC350.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 110 mm
Potenza	500 W S2 (350 W S1)
Magneti	4
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Terminali	2 con dadi di fissaggio

Construction	Tubular, without fan
Size	Ø 110 mm
Power	500 W S2 (350 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Leads terminals	2, with double nut

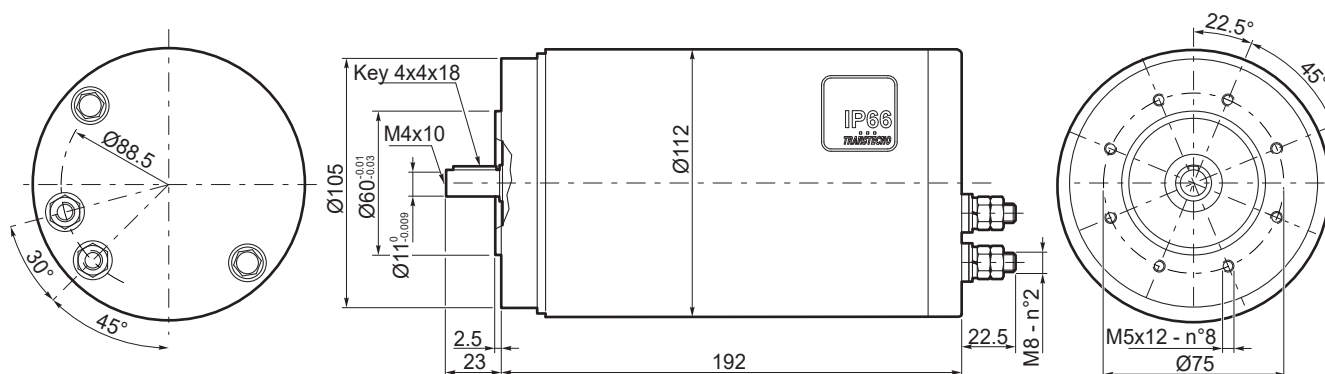
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC350.120.66	S1	350	12	42	F	1	1.12	3000	66	5.1
	S2 30'	500		58.8			1.57			
EC350.240.66	S1	350	24	21			1.12			5.3
	S2 30'	500		29.4			1.57			

Dimensioni

Dimensions

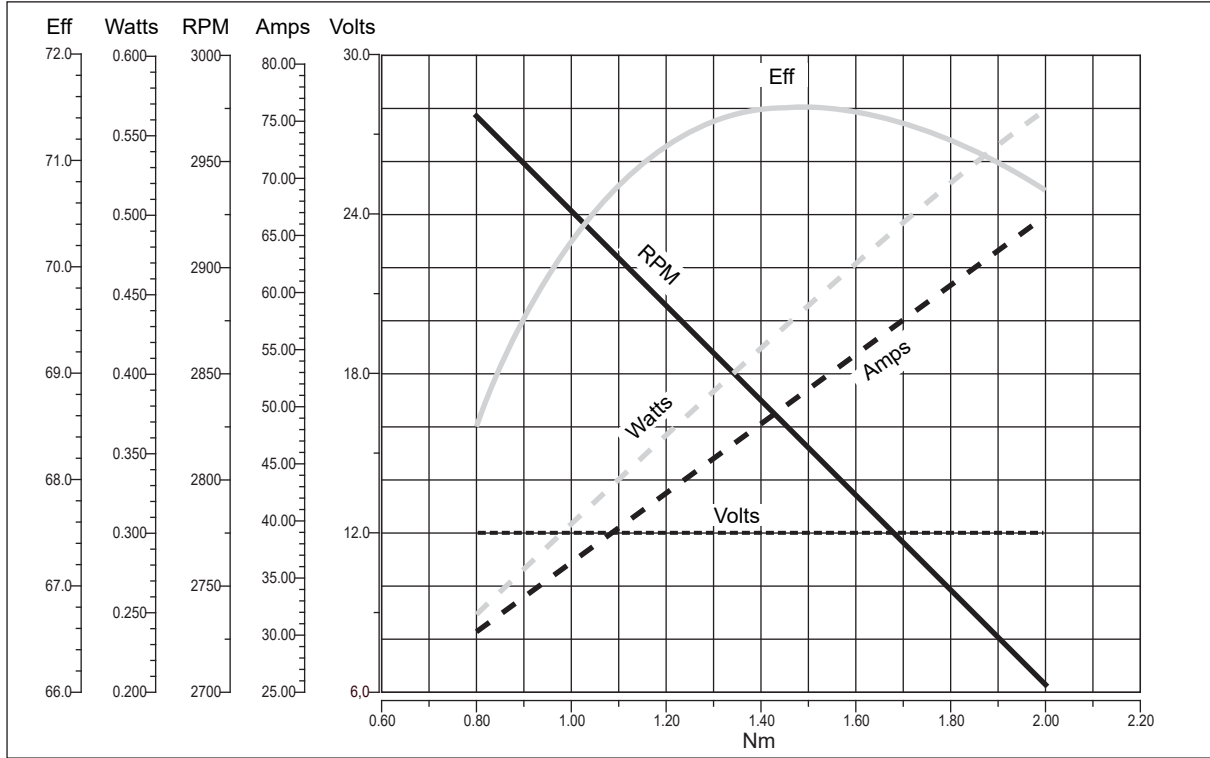
EC350.120.66

EC350.240.66

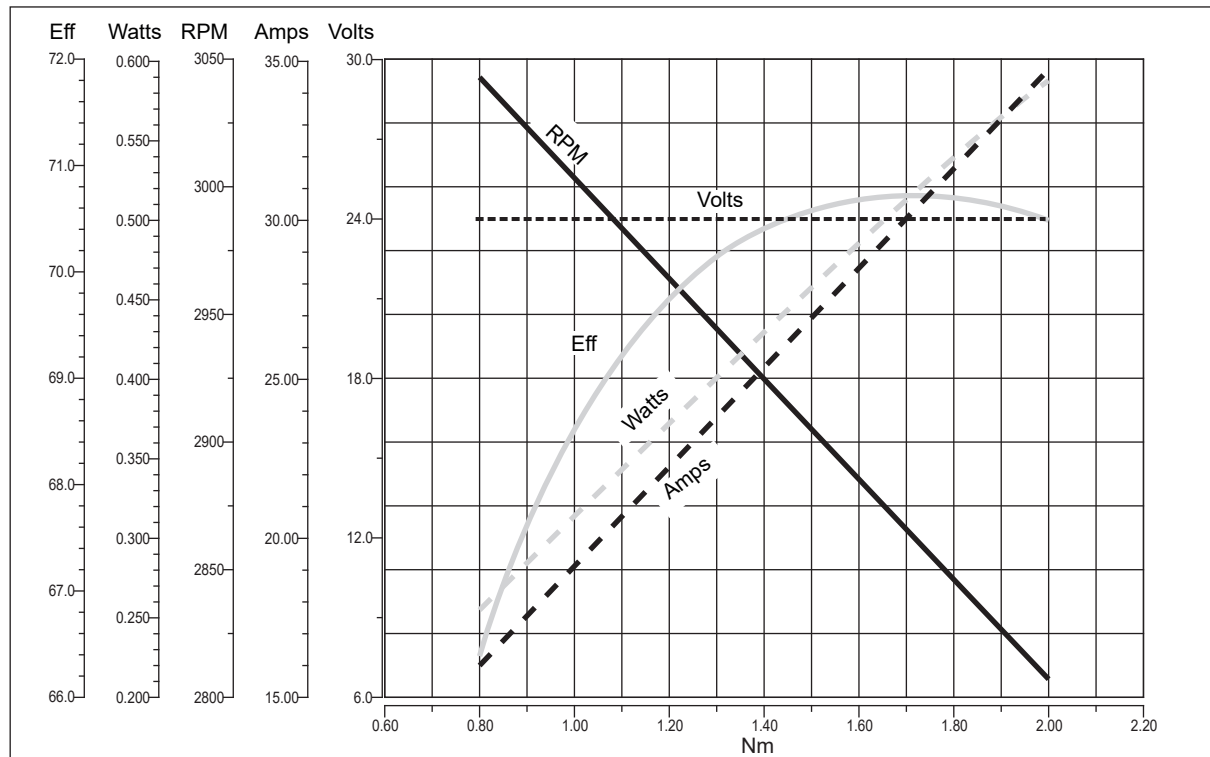




EC350.120.66



EC350.240.66



DC



EC600.120.66 - EC600.240.66

Caratteristiche

Features

Costruzione	Tubolare, senza ventilazione
Grandezza	Ø 110 mm
Potenza	800 W S2 (600 W S1)
Magneti	4
Supporti	Cuscinetti a sfera
Fori di montaggio	8
Alimentazione	Bassa tensione, 12 o 24 Vcc
Terminali	2 con doppio dado di fissaggio

Construction	Tubular, without fan
Size	Ø 110 mm
Power	800 W S2 (600 W S1)
Magnets	4
Bearings	Ball bearings
Mounting holes	8
Power supply	Low voltage, 12 or 24 Vdc
Leads terminals	2, with double nut

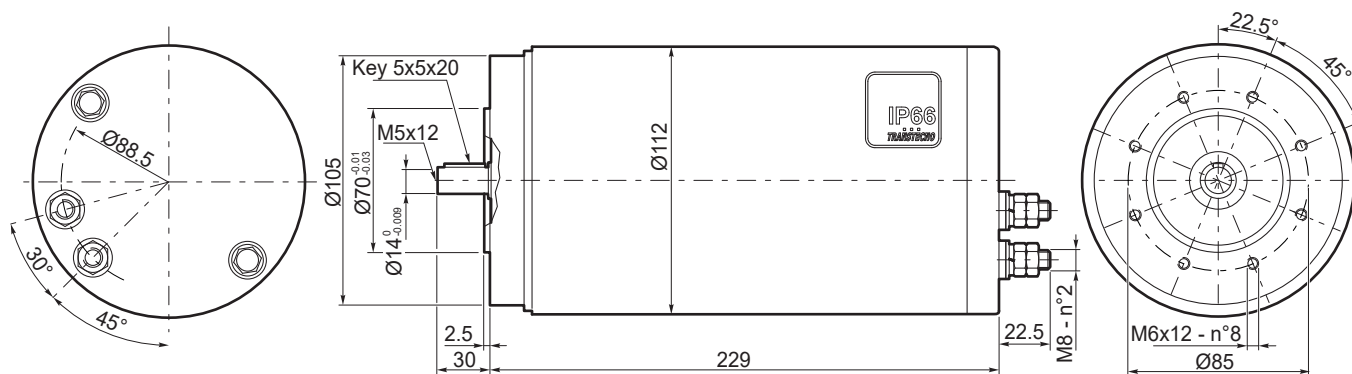
Tipo Type	S	Pn [W]	V [V]	I [A]	IC	FF	Mn [Nm]	n ₁ [min ⁻¹]	IP	Kg
EC600.120.66	S1	600	12	71	F	1	1.91	3000	66	6.6
	S2 30'	800		94.4			2.54			
EC600.240.66	S1	600	24	35.5			1.91			7.1
	S2 30'	800		47.2			2.54			

Dimensioni

Dimensions

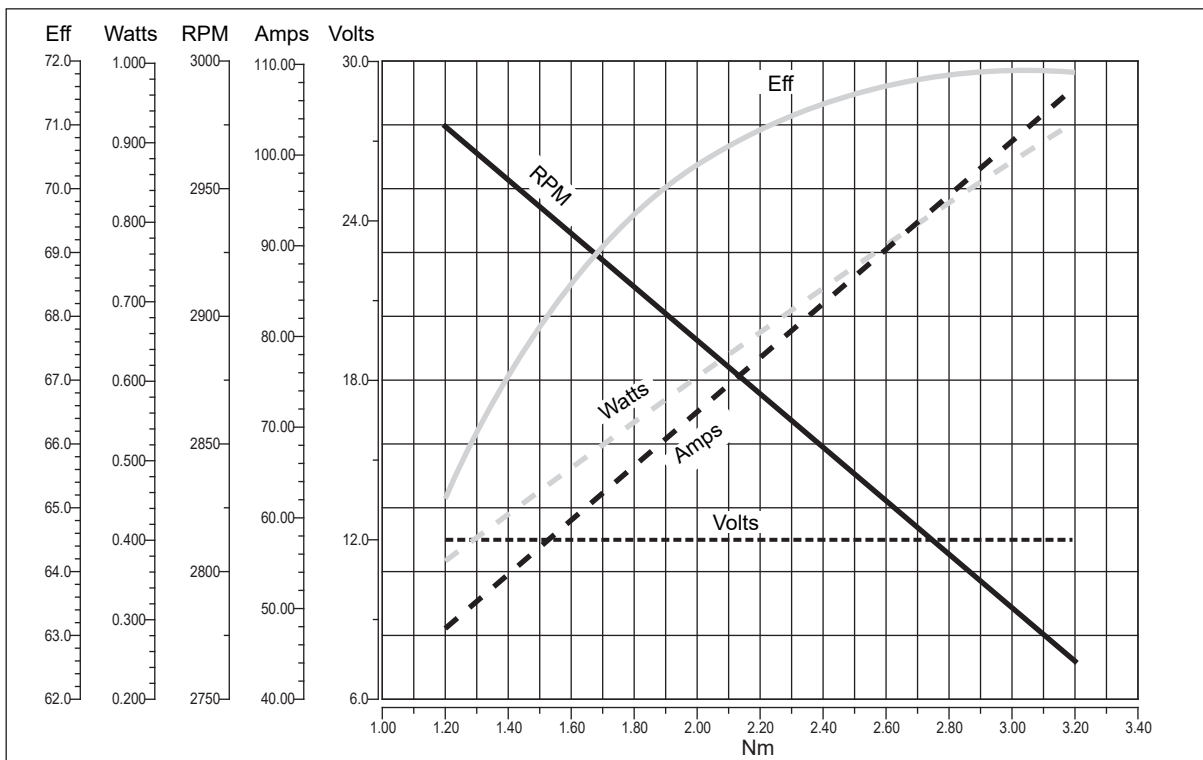
EC600.120.66

EC600.240.66

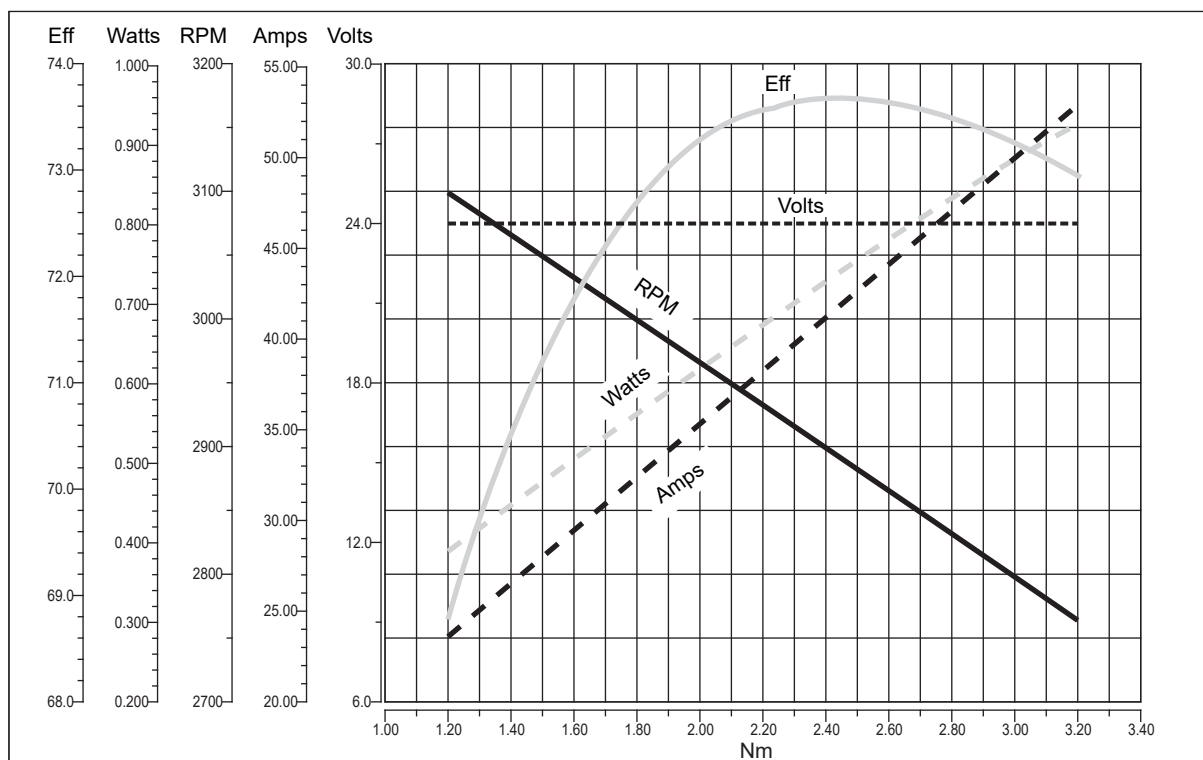




EC600.120.66

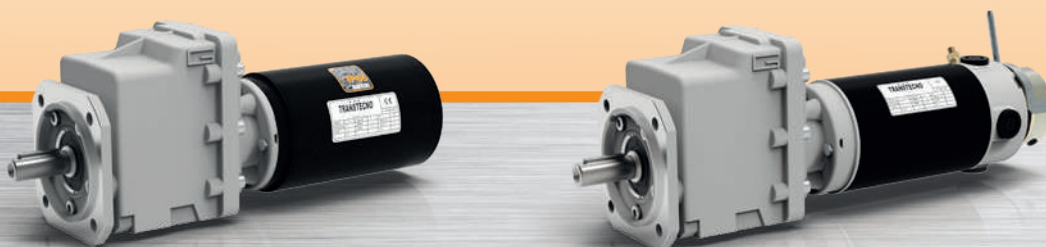


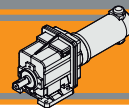
EC600.240.66



DC

Motoriduttori CC ad ingranaggi cilindrici
DC helical in-line gearmotors

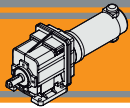




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Carichi radiali	<i>Radial loads</i>	BD4
Motori applicabili	<i>IEC Motor adapters</i>	BD4
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	BD5
Dimensioni	<i>Dimensions</i>	BD7

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

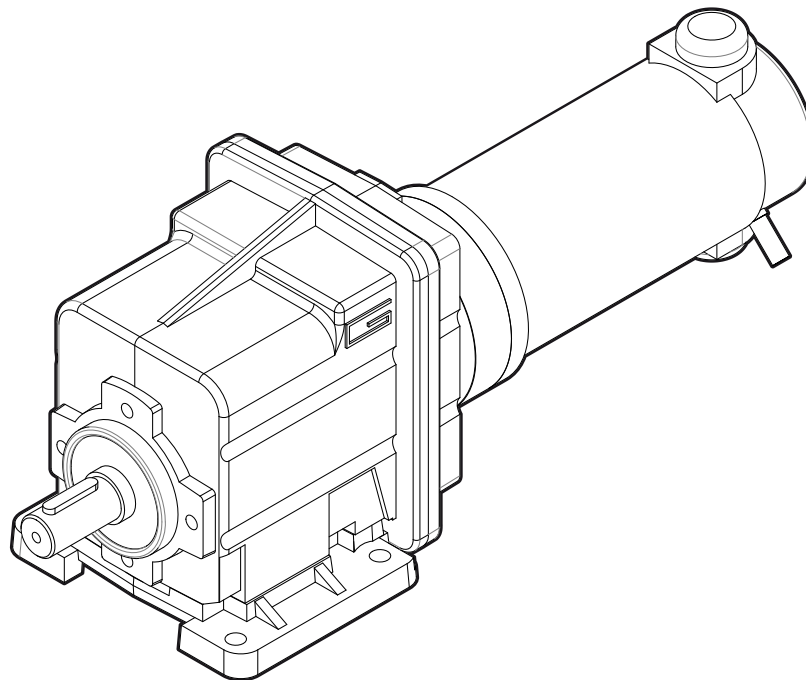
I motoriduttori CC ad ingranaggi cilindrici a magneti permanenti in neodimio **NDCMG** e in ferrite **ECMG** hanno le seguenti caratteristiche principali:

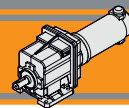
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 800W S2
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati
- Disponibili con giunto elastico in entrata

Technical features

NDCMG neodymium permanent magnets and **ECMG** ferrite permanent magnets DC helical in-line gearmotors range has the following main features:

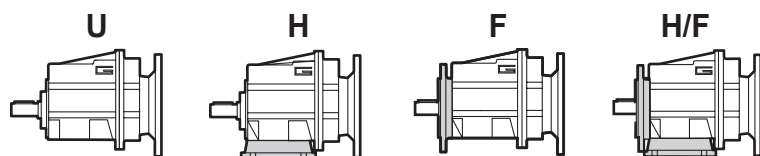
- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 to 800W S2
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Ground-hardened helical gears
- Available with input flexible couplin

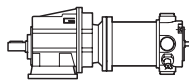


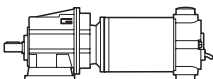



Designazione

Classification

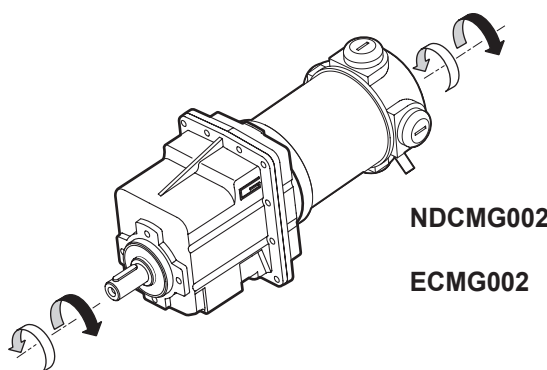


MOTORIDUTTORE / GEARMOTOR						
NDCMG	120/002	U	8.99	D20	240	
Tipo Type	Grandezza Size	Versione Version	Rapporto Ratio	Albero uscita Output shaft	Versione motore Motor version	
NDCMG 	120/002 180/002	U... H... F... H.../F...	vedi tabelle see tables	vedi tabelle see tables	120 240	

MOTORIDUTTORE / GEARMOTOR						
ECMG	100/002	U	8.99	D20	240	FX
Tipo Type	Grandezza Size	Versione Version	Rapporto Ratio	Albero uscita Output shaft	Versione motore Motor version	Giunto elastico Flexible coupling
ECMG 	070/002 100/002 180/002 250/002 350/002 600/002	U... H... F... H.../F...	vedi tabelle see tables	vedi tabelle see tables	120 240 24E	FX 

Sensi di rotazione

Direction of rotation



NDCMG002

ECMG002

Lubrificazione

Lubrication

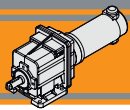
Tutti i riduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

Simbologia

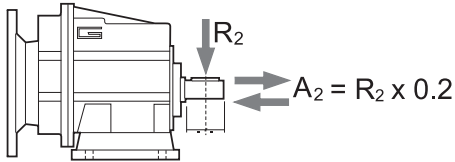
Symbols

n_1	[min ⁻¹]	Velocità in ingresso / <i>Input speed</i>
n_2	[min ⁻¹]	Velocità in uscita / <i>Output speed</i>
i		Rapporto di riduzione / <i>Ratio</i>
P_1	[kW]	Potenza in entrata / <i>Input power</i>
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
sf		Fattore di servizio / <i>Service factor</i>
R_2	[N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
A_2	[N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>



Carichi radiali

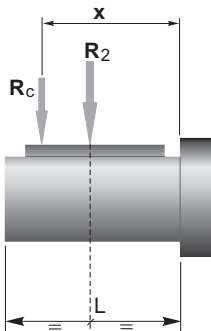
Radial loads



n ₂ [min ⁻¹]	R ₂ [N]
	CMG 002
700	416
600	437
500	465
400	501
250	586
180	653
150	748
120	806
100	958
80	1032
60	1136
40	1300
10	1300

Quando il carico radiale risultante non è applicato sulla mezza-
ria 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:



	CMG 002
a	73
b	53
R _{2MAX}	1300

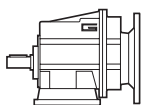
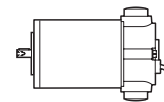
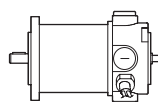
$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

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

$$R \leq R_c$$

Motori applicabili

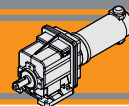
IEC Motor adapters



CMG	002	ND		EC						
		120.120 120.240	180.120 180.240	070.12E 070.24E	100.120 100.240 100.24E	180.120 180.240	180.24E	250.120 250.240	350.120 350.240	600.120 600.240
		5.03 - 55.10								

5.03 - 55.10

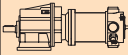
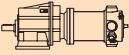
Rapporti di riduzione i
Ratio i



Dati tecnici per servizio S2

NDCMG

Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
160							250						
(3000 min ⁻¹)	596	2.5	12.6	5.03	120/002	120/240	(3000 min ⁻¹)	596	3.8	8.1	5.03	180/002	120/240
	492	3.0	10.4	6.10				492	4.7	6.7	6.10		
	401	3.7	8.5	7.49				401	5.7	5.4	7.49		
	334	4.4	8.9	8.99				334	6.9	5.7	8.99		
	295	5.0	7.9	10.16				295	7.8	5.0	10.16		
	249	5.9	6.6	12.07				249	9.2	4.2	12.07		
	224	6.6	8.4	13.40				224	10	5.4	13.40		
	198	7.4	7.4	15.14				198	12	4.8	15.14		
	165	8.9	6.2	18.17				165	14	4.0	18.17		
	139	11	5.2	21.58				139	17	3.3	21.58		
	128	12	4.8	23.51				128	18	3.1	23.51		
	120	12	4.5	25.10				120	19	2.9	25.10		
	111	13	4.2	27.08				111	21	2.7	27.08		
	92	16	3.5	32.49				92	25	2.2	32.49		
	71	21	2.7	42.04				71	32	1.7	42.04		
	67	22	2.5	44.89				67	34	1.6	44.89		
	61	24	2.3	48.86				61	37	1.5	48.86		
	54	27	2.0	55.10				54	42	1.3	55.10		

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

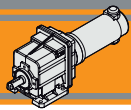
NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici

Electrical technical data

ND 120 → 

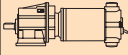
ND 180 → 

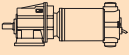


Dati tecnici per servizio S2

ECMG

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)	596	1.5	20.2	5.03	070/002	12E/24E
	492	1.9	16.6	6.10		
	401	2.3	13.5	7.49		
	334	2.7	14.2	8.99		
	295	3.1	12.6	10.16		
	249	3.7	10.6	12.07		
	224	4.1	13.4	13.40		
	198	4.6	11.9	15.14		
	165	5.5	9.9	18.17		
	139	6.6	8.3	21.58		
	128	7.2	7.7	23.51		
	120	7.7	7.2	25.10		
	111	8.3	6.6	27.08		
	92	9.9	5.5	32.49		
	71	13	4.3	42.04		
	67	14	4.0	44.89		
	61	15	3.7	48.86		
	54	17	3.3	55.10		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
350						
(3000 min ⁻¹)	596	5.4	5.8	5.03	250/002	120/240
	492	6.5	4.8	6.10		
	401	8.0	3.9	7.49		
	334	10	4.1	8.99		
	295	11	3.6	10.16		
	249	13	3.0	12.07		
	224	14	3.8	13.40		
	198	16	3.4	15.14		
	165	19	2.8	18.17		
	139	23	2.4	21.58		
	128	25	2.2	23.51		
	120	27	2.0	25.10		
	111	29	1.9	27.08		
	92	35	1.6	32.49		
	71	45	1.2	42.04		
	67	48	1.1	44.89		
	61	52	1.1	48.86		
	54	59	0.9	55.10		

140						
(3000 min ⁻¹)	596	2.2	14.4	5.03	100/002	120/240/24E
	492	2.6	11.9	6.10		
	401	3.2	9.7	7.49		
	334	3.8	10.1	8.99		
	295	4.3	9.0	10.16		
	249	5.2	7.6	12.07		
	224	5.7	9.6	13.40		
	198	6.5	8.5	15.14		
	165	7.8	7.1	18.17		
	139	9.2	6.0	21.58		
	128	10	5.5	23.51		
	120	11	5.1	25.10		
	111	12	4.7	27.08		
	92	14	4.0	32.49		
	71	18	3.1	42.04		
	67	19	2.9	44.89		
	61	21	2.6	48.86		
	54	24	2.3	55.10		

500						
(3000 min ⁻¹)	596	7.7	4.0	5.03	350/002	120/240
	492	9.3	3.3	6.10		
	401	11	2.7	7.49		
	334	14	2.8	8.99		
	295	16	2.5	10.16		
	249	18	2.1	12.07		
	224	20	2.7	13.40		
	198	23	2.4	15.14		
	165	28	2.0	18.17		
	139	33	1.7	21.58		
	128	36	1.5	23.51		
	120	38	1.4	25.1		
	111	41	1.3	27.08		
	92	50	1.1	32.49		
	71	64	0.9	42.04		
	67	69	0.8	44.89		
	61	75	0.7	48.86		

250						
(3000 min ⁻¹)	596	3.8	8.1	5.03	180/002	120/240/24E
	492	4.7	6.7	6.10		
	401	5.7	5.4	7.49		
	334	6.9	5.7	8.99		
	295	7.8	5.0	10.16		
	249	9.2	4.2	12.07		
	224	10	5.4	13.40		
	198	12	4.8	15.14		
	165	14	4.0	18.17		
	139	17	3.3	21.58		
	128	18	3.1	23.51		
	120	19	2.9	25.10		
	111	21	2.7	27.08		
	92	25	2.2	32.49		
	71	32	1.7	42.04		
	67	34	1.6	44.89		
	61	37	1.5	48.86		
	54	42	1.3	55.10		

800						
(3000 min ⁻¹)	596	12	2.5	5.03	600/002	120/240
	492	15	2.1	6.10		
	401	18	1.7	7.49		
	334	22	1.8	8.99		
	295	25	1.6	10.16		
	249	30	1.3	12.07		
	224	33	1.7	13.40		
	198	37	1.5	15.14		
	165	44	1.2	18.17		
	139	53	1.0	21.58		
	128	57	1.0	23.51		
	120	61	0.9	25.10		
	111	66	0.8	27.08		
	92	79	0.7	32.49		
	71	79	0.7	42.04		
	67	79	0.7	44.89		

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 in the grey areas

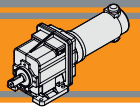
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici

Electrical technical data

EC070 → 	EC100 → 	EC180 → 	EC250 → 	EC350 → 	EC600 → 
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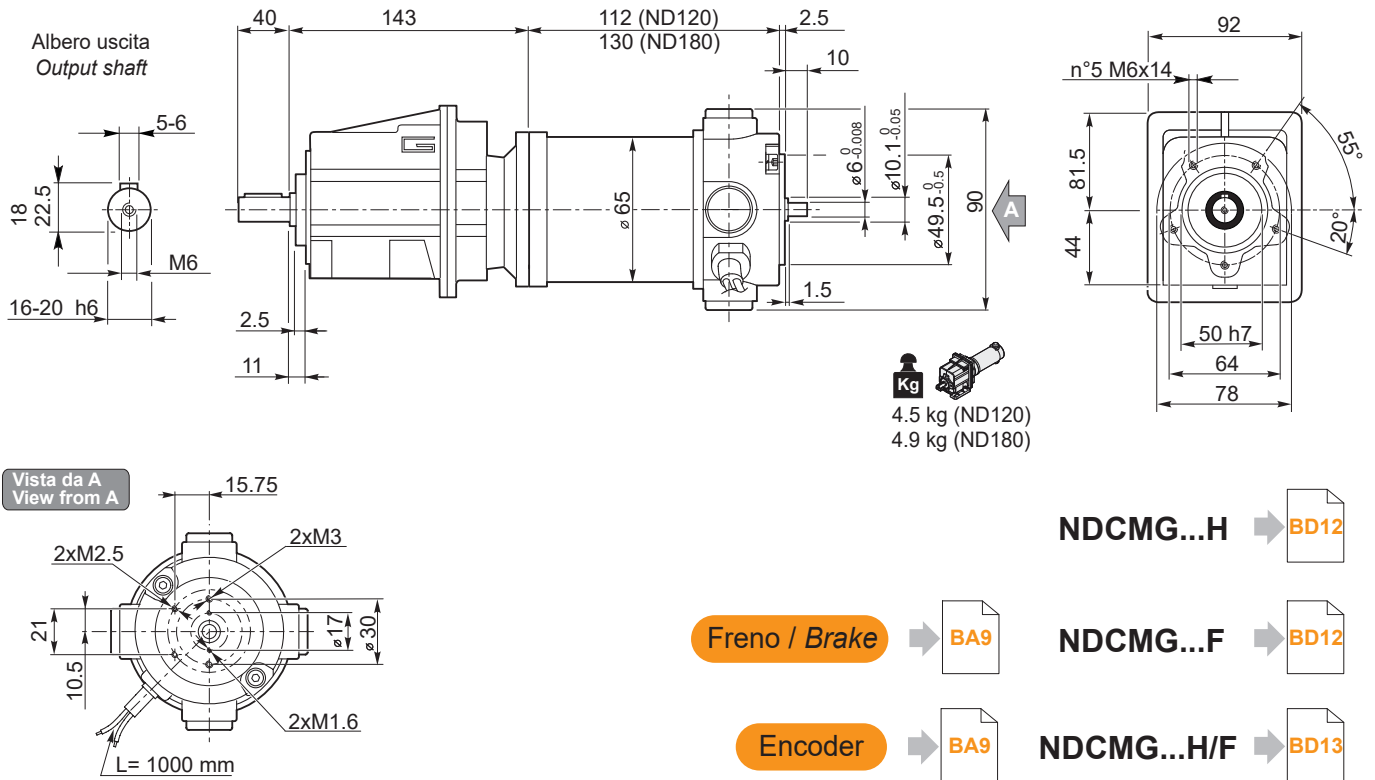


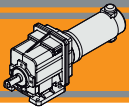
Dimensioni

Dimensions

NDCMG..U

NDCMG120/002 U
NDCMG180/002 U



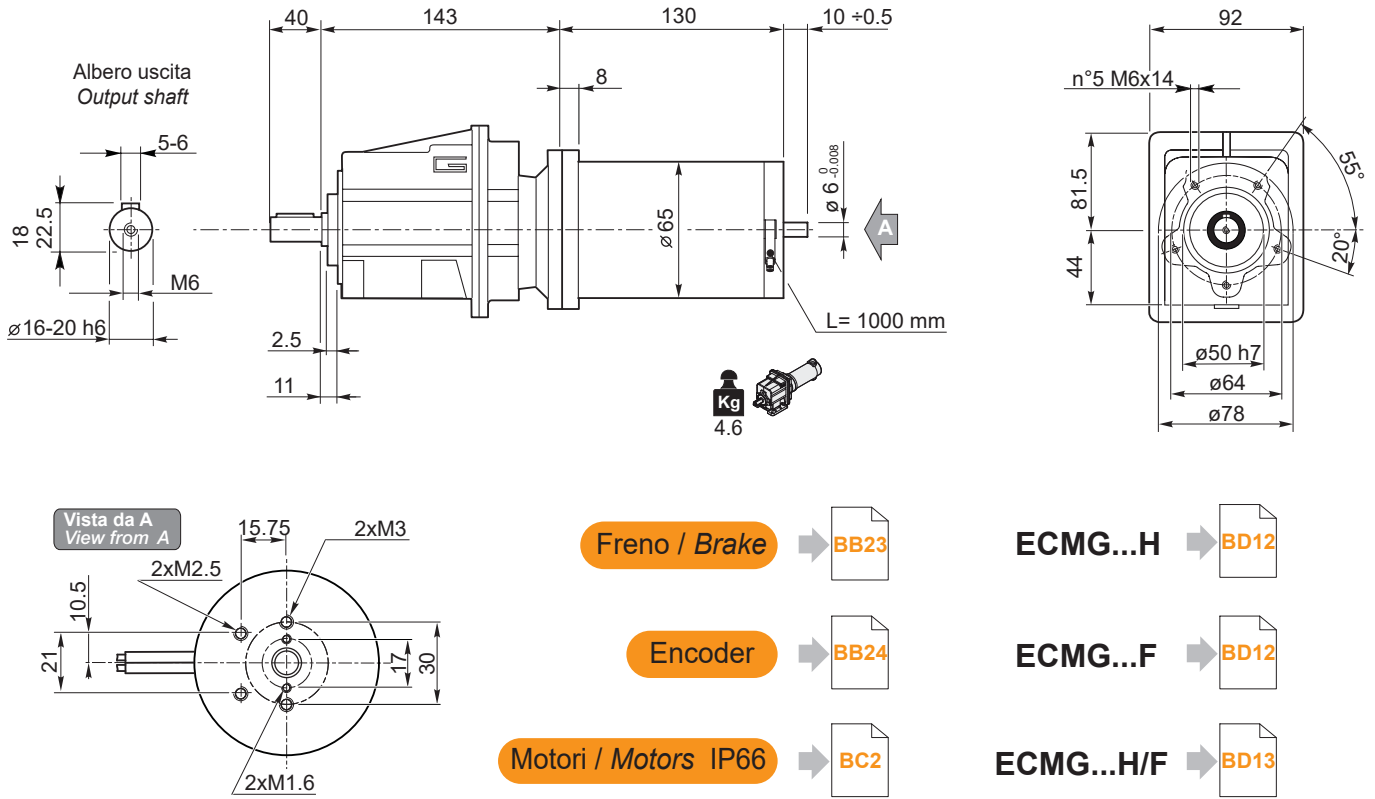


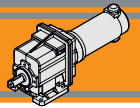
Dimensioni

Dimensions

ECMG..U

ECMG070/002 U



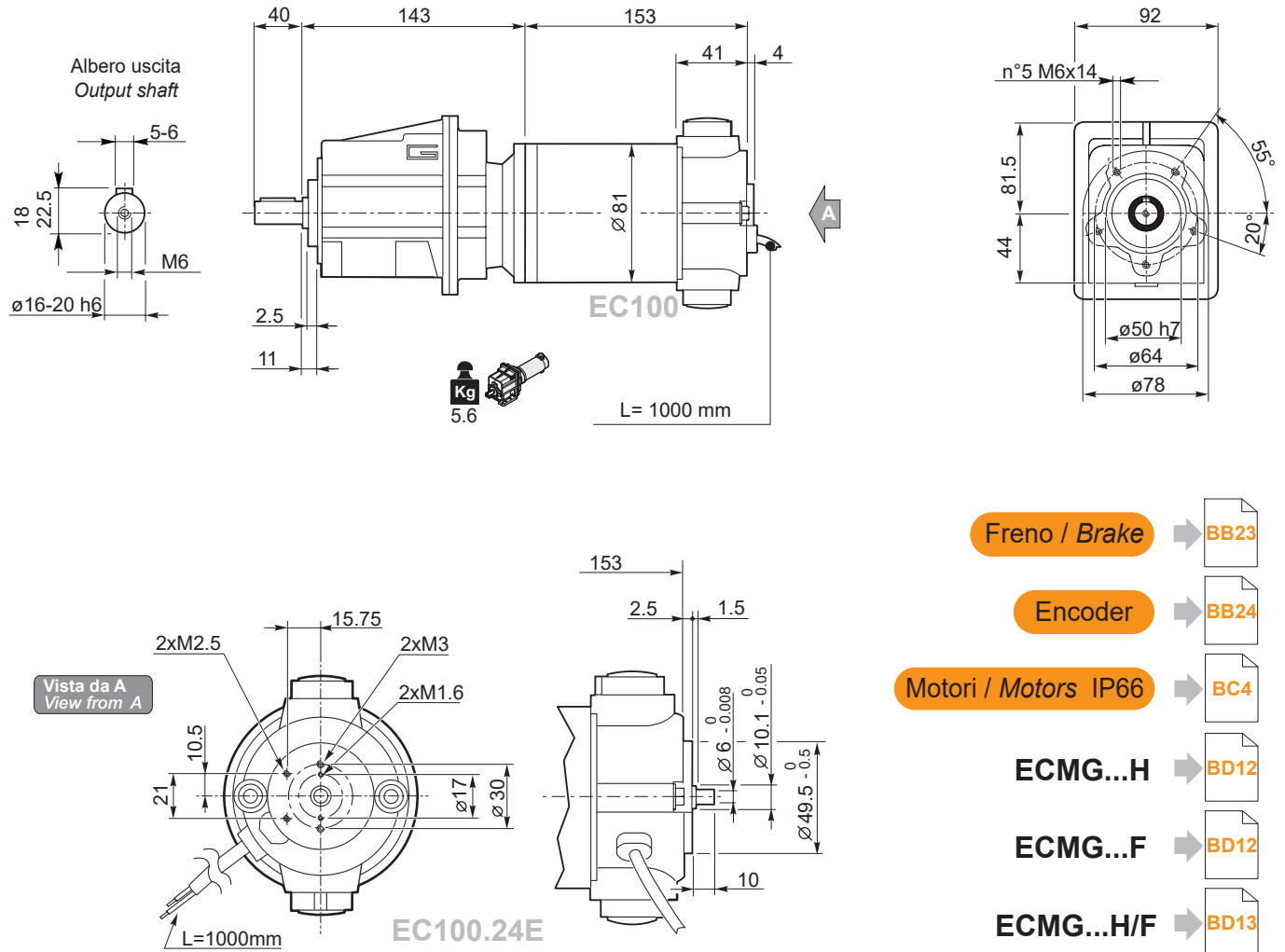


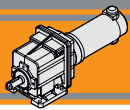
Dimensioni

Dimensions

ECMG..U

ECMG100/002 U



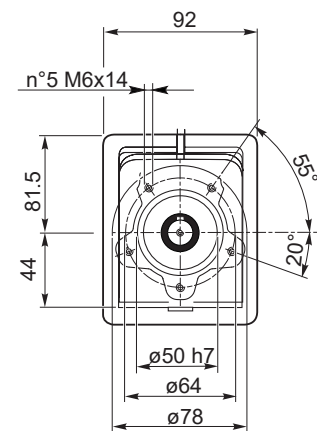
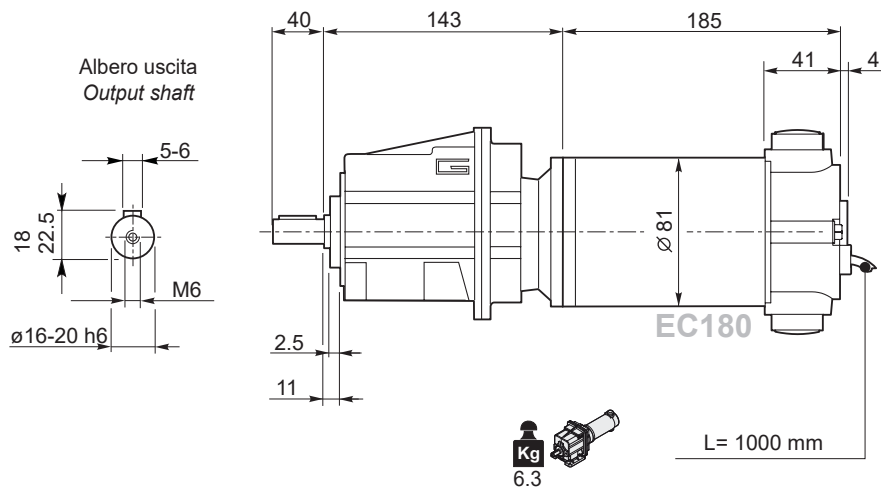


Dimensioni

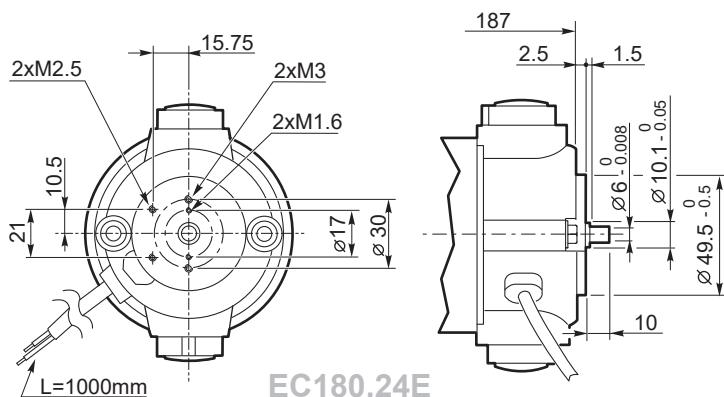
Dimensions

ECMG..U

ECMG180/002 U



Vista da A
View from A



Freno / Brake → [BB23](#)

Encoder → [BB24](#)

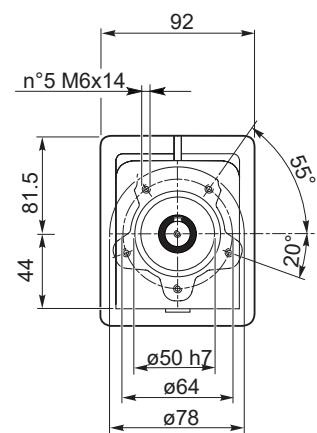
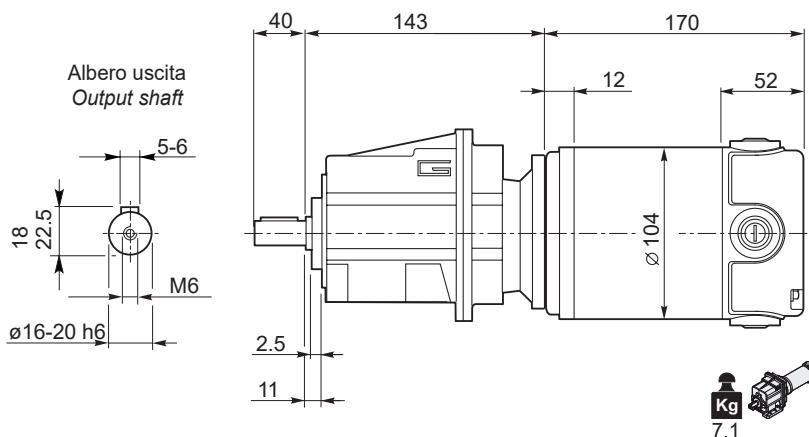
Motori / Motors IP66 → [BC6](#)

ECMG...H → [BD12](#)

ECMG...F → [BD12](#)

ECMG...H/F → [BD13](#)

ECMG250/002 U

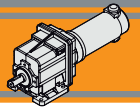


Motori / Motors IP66 → [BC8](#)

ECMG...H → [BD12](#)

ECMG...F → [BD12](#)

ECMG...H/F → [BD13](#)

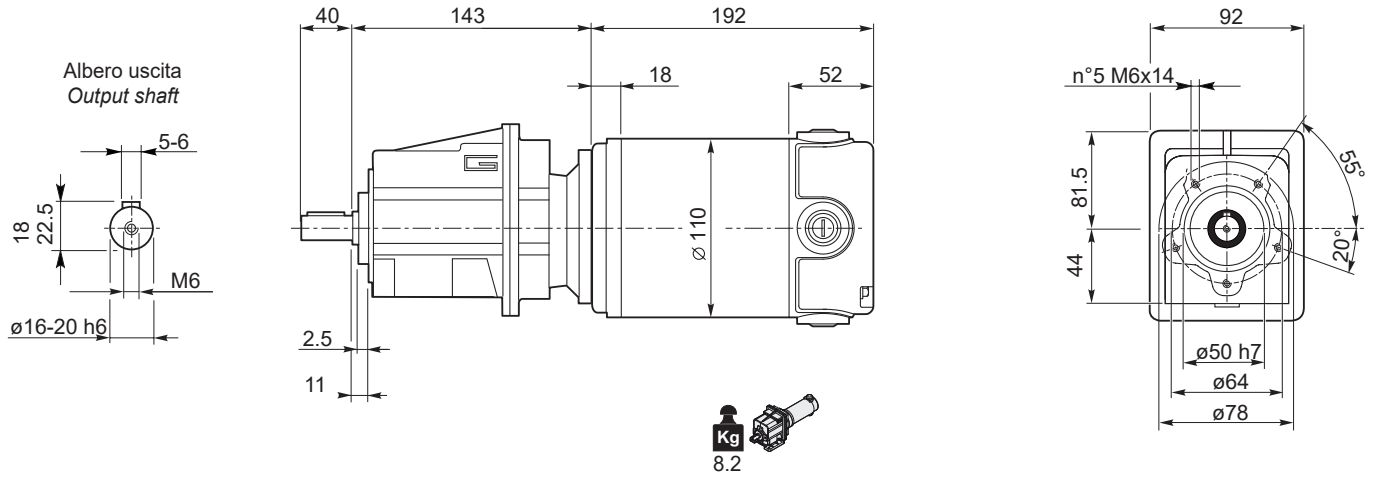


Dimensioni

Dimensions

ECMG..U

ECMG350/002 U



Freno / Brake



Motori / Motors IP66



ECMG...H



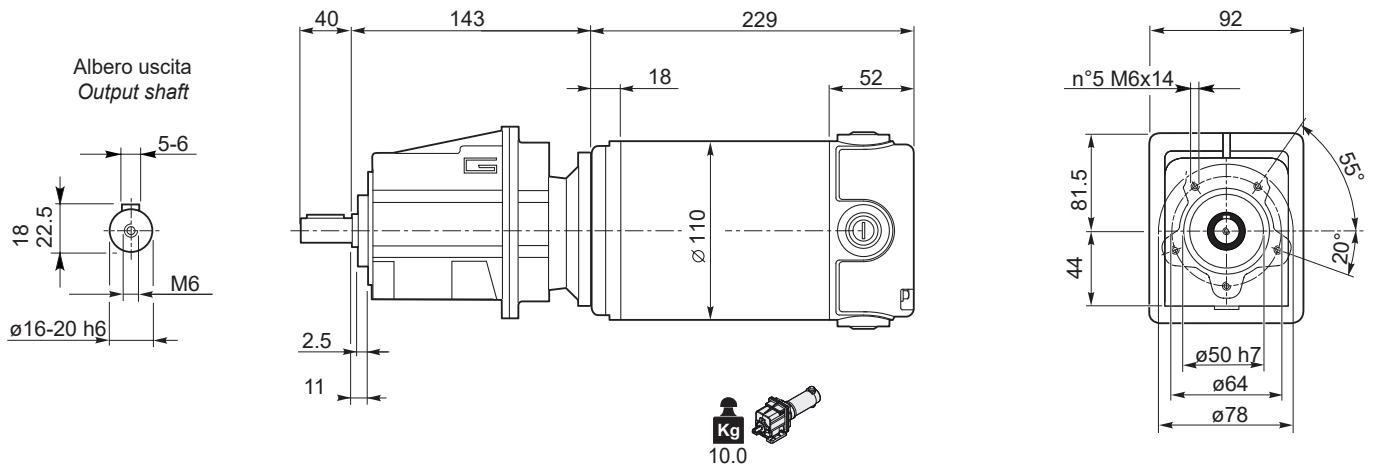
ECMG...F



ECMG...H/F



ECMG600/002 U



Freno / Brake



Motori / Motors IP66



ECMG...H



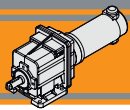
ECMG...F



ECMG...H/F



DC

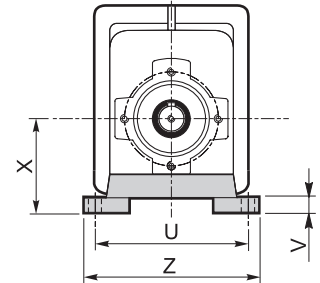
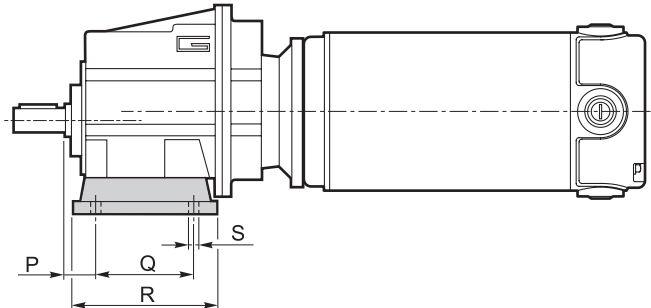


Dimensioni

Dimensions

NDCMG..H - ECMG..H

**NDCMG..2 H..
ECMG..2 H..**

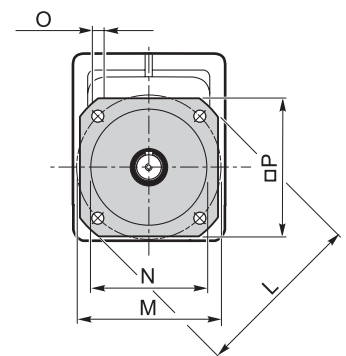
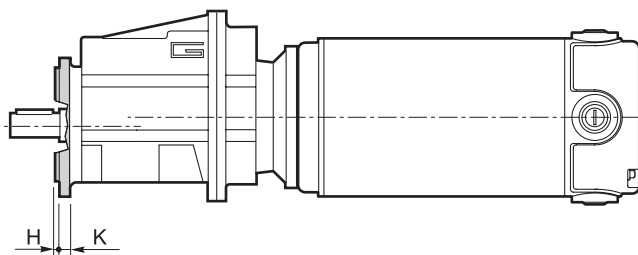


Versione H / H Version										
CMG	P	Q	R	S	U	V	X	Z	Piede / Foot	
									Tipo / Type	Kg
002	18	60	80	9	100	10	60	120	H60	0.2
	18	80	104	9	110 - 120	10	75	145	H75	0.3
	18	50 - 87	110	9	110	10	85	135	H85	0.4

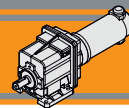
Preferenziale / Preferred

NDCMG..F - ECMG..F

**NDCMG..2 F..
ECMG..2 F..**



Versione F / F Version										
CMG	H	K	L	M	N f7	O	P	Flangia / Flange		
								Tipo / Type	Kg	
002	3.5	7	105	85	70	6.5	90	F105	0.1	
	3.5	8	120	100	80	7	100	F120	0.2	
	3.5	8	140	115	95	9	115	F140	0.2	

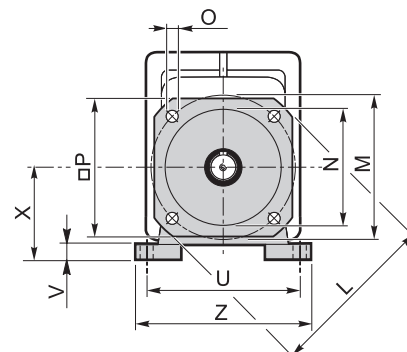
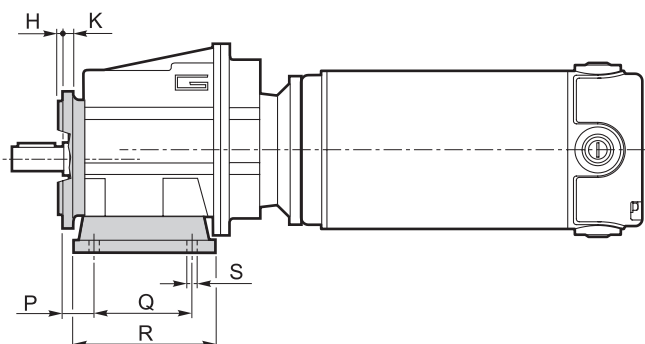


Dimensioni

Dimensions

NDCMG..H../F.. - ECMG..H../F..

NDCMG..2 H../F..
ECMG..2 H../F..



Versione H / H Version									Combinazioni possibili H/F Possible combinations H/F				
CMG	P	Q	R	S	U	V	X	Z	Piede / Foot		F105	F120	F140
									Tipo / Type	Peso / Weight [kg]			
002	18	60	80	9	100	10	60	120	H60	0.2	•	•	•
	18	80	104	9	110 - 120	10	75	145	H75	0.3	•	•	•
	18	50 - 87	110	9	110	10	85	135	H85	0.4	•	•	•

Preferenziale / Preferred

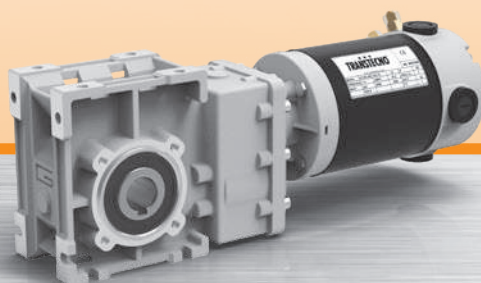
• Combinazioni possibili H/F / Possible combinations H/F

Versione F / F Version									
CMG	H	K	L	M	N f7	O	P	Flangia / Flange	
								Tipo / Type	kg
002	3.5	7	105	85	70	6.5	90	F105	0.1
	3.5	8	120	100	80	7	100	F120	0.2
	3.5	8	140	115	95	9	115	F140	0.2

MINI  **TECNO**™
small but strong

NDCMB
ECMB

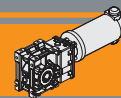
Motoriduttori CC ad assi ortogonali
DC helical bevel gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



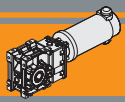
DC



Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	BE2
Designazione	<i>Classification</i>	BE2
Sensi di rotazione	<i>Direction of rotation</i>	BE3
Simbologia	<i>Symbols</i>	BE3
Lubrificazione	<i>Lubrication</i>	BE3
Carichi radiali	<i>Radial loads</i>	BE3
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	BE4
Motori applicabili	<i>Motor adapters</i>	BE6
Dimensioni	<i>Dimensions</i>	BE6
Accessori	<i>Accessories</i>	BE12

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Caratteristiche tecniche

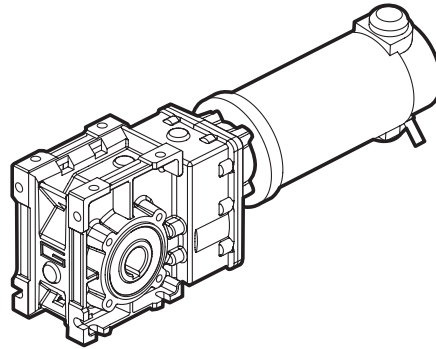
Technical features

I motoriduttori CC ortogonali a magneti permanenti in neodimio **NDCMB** e in ferrite **ECMB** hanno le seguenti caratteristiche principali:

NDCMB neodymium permanent magnets and **ECMB** ferrite permanent magnets DC helical bevel gearmotors range has the following main features:

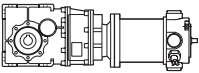
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 800W S2
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati
- Disponibili con giunto elastico in entrata

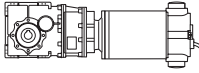

- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 to 800W S2
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Ground-hardened helical gears
- Available with input flexible couplin

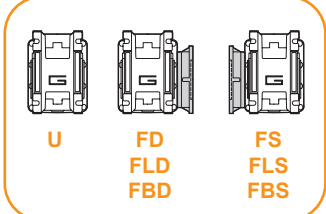
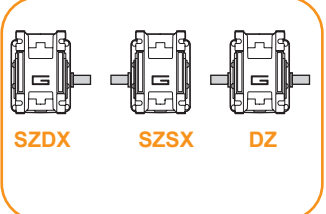
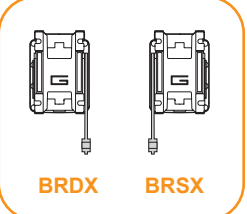
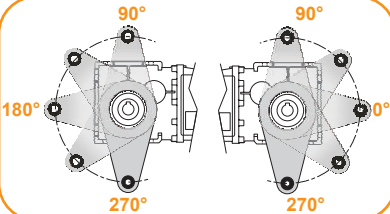


Designazione

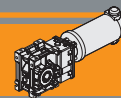
Classification

MOTORIDUTTORE / GEARMOTOR								
NDCMB	120/402	U	9.2	D20	SZDX	BRSX	90	240
Tipo Type	Grandezza Size	Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version
NDCMB 	120/402 180/402	U FD FS FLD FLS FBD FBS	Vedere tabella <i>See tables</i>	Vedere tabella <i>See tables</i>	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	120 240

MOTORIDUTTORE / GEARMOTOR									
ECMB	100/402	U	9.2	D20	SZDX	BRSX	90	240	FX
Tipo Type	Grandezza Size	Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version	Giunto elastico Flexible coupling
ECMB 	070/402 100/402 180/402 250/402 350/402 600/402	U FD FS FLD FLS FBD FBS	Vedere tabella <i>See tables</i>	Vedere tabella <i>See tables</i>	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	120 240 24E	FX 

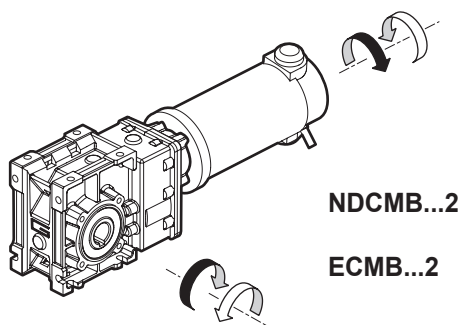
<p>Versione Riduttore Gearbox Version</p> 	<p>Albero di uscita Output shaft</p> 	<p>Braccio di reazione Torque arm *</p> 	<p>Angolo Angle</p> 
---	--	--	---

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



Sensi di rotazione

Direction of rotation



Simbologia

Symbols

n_1 [min ⁻¹]	Velocità in ingresso / <i>Input speed</i>	M_2 [Nm]	Coppia in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
n_2 [min ⁻¹]	Velocità in uscita / <i>Output speed</i>	sf	Fattore di servizio / <i>Service factor</i>
i	Rapporto di riduzione / <i>Ratio</i>	A_2 [N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>
P_1 [kW]	Potenza in entrata / <i>Input power</i>	R_2 [N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>

Lubrificazione

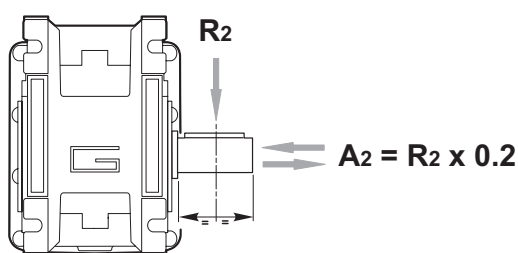
Lubrication

Tutti i riduttori nelle taglie 402 sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use sizes 402 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

Carichi radiali

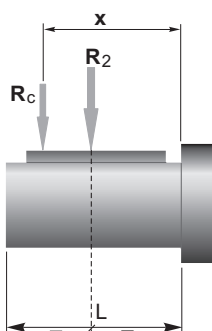
Radial loads



n_2 [min ⁻¹]	R_2 [N]
	CMB 402
400	905
300	996
200	1141
170	1204
140	1414
100	1582
90	1638
60	2047
40	2524
30	2778
20	3180
15	3500
10	3500

Quando il carico radiale risultante non è applicato sulla mezza-ria 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:

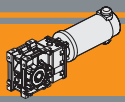


	CMB 402
a	86
b	66
R_{2MAX}	3500

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

$$R \leq R_c$$

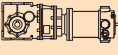
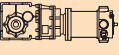
*a, b = valori riportati nella tabella
a, b = values given in the table*



Dati tecnici per servizio S2

NDCMB

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version	P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
160							250						
(3000 min ⁻¹)	485	3.0	10.5	6.18	120/402	120/240	(3000 min ⁻¹)	485	4.6	6.7	6.18	180/402	120/240
	401	3.6	8.6	7.49									
	326	4.4	7.0	9.20									
	254	5.7	6.2	11.83									
	240	6.0	5.9	12.48									
	202	7.1	4.9	14.83									
	170	8.4	4.1	17.63									
	161	8.9	4.8	18.60									
	134	10	4.0	22.33									
	125	11	3.8	23.91									
	104	14	3.7	28.89									
	97	15	3.5	30.84									
	89	16	3.2	33.57									
	84	17	3.0	35.63									
	70	21	2.5	42.75									
	54	27	1.9	55.31									
	51	29	1.8	59.06									
	47	31	1.7	64.29									
	41	35	1.5	72.50									

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

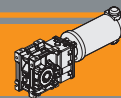
NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici

Electrical technical data

ND 120 → 

ND 180 → 



Dati tecnici per servizio S2

ECMB

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)	485	1.8	16.8	6.18		12E/24E
	401	2.2	13.8	7.49		
	326	2.8	11.3	9.20		
	254	3.5	9.9	11.83		
	240	3.7	9.4	12.48		
	202	4.4	7.9	14.83		
	170	5.3	6.6	17.63		
	161	5.6	7.7	18.60		
	134	6.7	6.4	22.33		
	125	7.2	6.0	23.91		
	104	8.6	5.9	28.89		
	97	9.2	5.5	30.84		
	89	10	5.1	33.57		
	84	11	4.8	35.63		
	70	13	4.0	42.75		
	54	17	3.1	55.31		
	51	18	2.9	59.06		
	47	19	2.7	64.29		
	41	22	2.4	72.50		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
350						
(3000 min ⁻¹)	485	6.5	4.8	6.18		250/402
	401	7.8	4	7.49		
	326	9.6	3.2	9.20		
	254	12	2.8	11.83		
	240	13	2.7	12.48		
	202	16	2.3	14.83		
	170	19	1.9	17.63		
	161	20	2.2	18.60		
	134	23	1.8	22.33		
	125	25	1.7	23.91		
	104	30	1.7	28.89		
	97	32	1.6	30.84		
	89	35	1.5	33.57		
	84	37	1.4	35.63		
	70	45	1.1	42.75		
	54	58	0.9	55.31		
	51	62	0.8	59.06		
	47	67	0.8	64.29		
	41	72	0.7	72.50		

140						
(3000 min ⁻¹)	485	2.6	12.0	6.18		100/402
	401	3.1	9.9	7.49		
	326	3.9	8.0	9.20		
	254	5.0	7.1	11.83		
	240	5.2	6.7	12.48		
	202	6.2	5.6	14.83		
	170	7.4	4.7	17.63		
	161	7.8	5.5	18.60		
	134	9.4	4.6	22.33		
	125	10	4.3	23.91		
	104	12	4.2	28.89		
	97	13	3.9	30.84		
	89	14	3.6	33.57		
	84	15	3.4	35.63		
	70	18	2.8	42.75		
	54	23	2.2	55.31		
	51	25	2.1	59.06		
	47	27	1.9	64.29		
	41	30	1.7	72.50		

500						
(3000 min ⁻¹)	485	9	3.4	6.18		350/402
	401	11	2.8	7.49		
	326	14	2.3	9.2		
	254	18	2.0	11.83		
	240	19	1.9	12.48		
	202	22	1.6	14.83		
	170	26	1.3	17.63		
	161	28	1.5	18.6		
	134	33	1.3	22.33		
	125	36	1.2	23.91		
	104	43	1.2	28.89		
	97	46	1.1	30.84		
	89	50	1.0	33.57		
	84	53	1.0	35.63		
	70	64	0.8	42.75		
	54	73	0.7	55.31		
	51	73	0.7	59.06		
	47	73	0.7	64.29		

250						
(3000 min ⁻¹)	485	4.6	6.7	6.18		180/402
	401	5.6	5.5	7.49		
	326	6.9	4.5	9.20		
	254	8.8	4.0	11.83		
	240	9.3	3.7	12.48		
	202	11	3.2	14.83		
	170	13	2.7	17.63		
	161	14	3.1	18.60		
	134	17	2.6	22.33		
	125	18	2.4	23.91		
	104	22	2.4	28.89		
	97	23	2.2	30.84		
	89	25	2.0	33.57		
	84	27	1.9	35.63		
	70	32	1.6	42.75		
	54	41	1.2	55.31		
	51	44	1.2	59.06		
	47	48	1.1	64.29		
	41	54	0.9	72.50		

800						
(3000 min ⁻¹)	485	15	2.1	6.18		600/402
	401	18	1.7	7.49		
	326	22	1.4	9.20		
	254	28	1.2	11.83		
	240	30	1.2	12.48		
	202	36	1.0	14.83		
	170	42	0.8	17.63		
	161	45	1.0	18.60		
	134	53	0.8	22.33		
	125	57	0.8	23.91		
	104	69	0.7	28.89		
	97	73	0.7	30.84		
	89	73	0.7	33.57		
	84	73	0.7	35.63		
	70	73	0.7	42.75		

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 in the grey areas

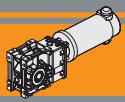
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici

Electrical technical data

EC070 →	EC100 →	EC180 →	EC250 →	EC350 →	EC600 →
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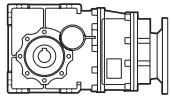
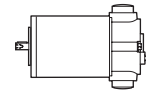
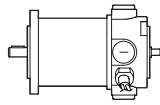
NDCMB
ECMB

Motoriduttori CC ad assi ortogonali
DC Helical bevel gearmotors



Motori applicabili

Motor adapters



		ND		EC					
		120.120	180.120	070.12E	100.120	180.120	250.120	350.120	600.120
		120.240	180.240	070.24E	100.240	180.240	250.240	350.240	600.240
CMB	402	6.18 - 72.50							

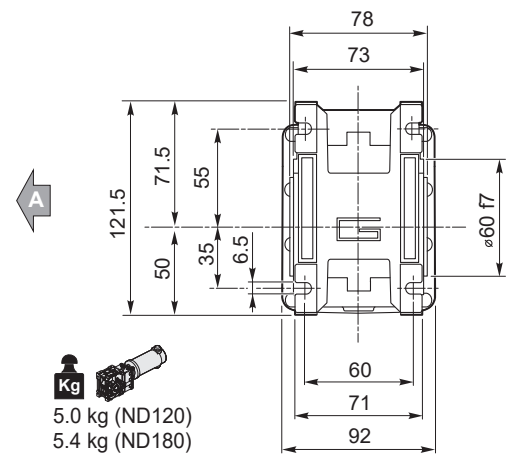
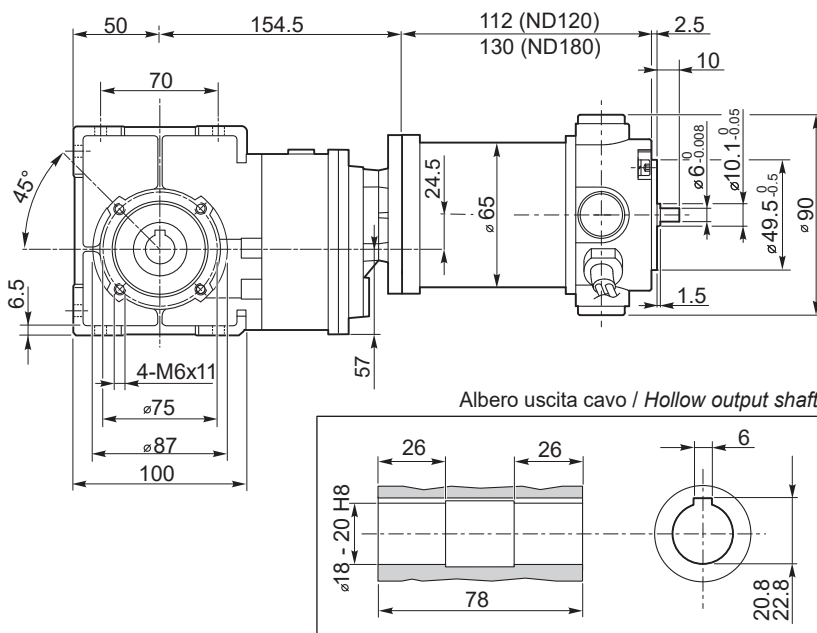
6.18 - 72.50

Rapporti di riduzione *i*
Ratio *i*

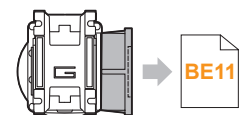
Dimensioni

Dimensions

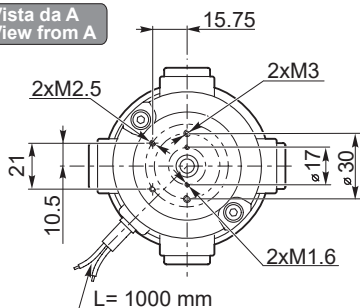
NDCMB120/402 U
NDCMB180/402 U



Kg
5.0 kg (ND120)
5.4 kg (ND180)

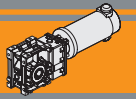


Vista da A
View from A



Freno / Brake → BA9

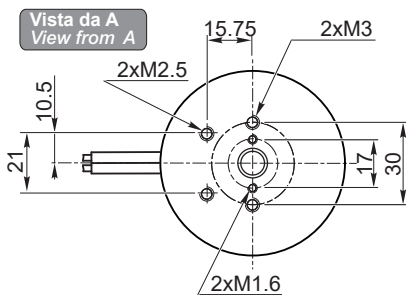
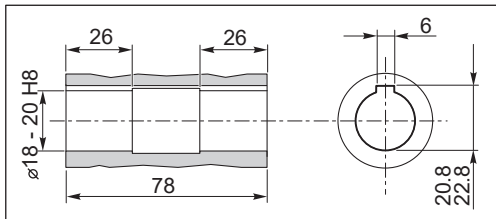
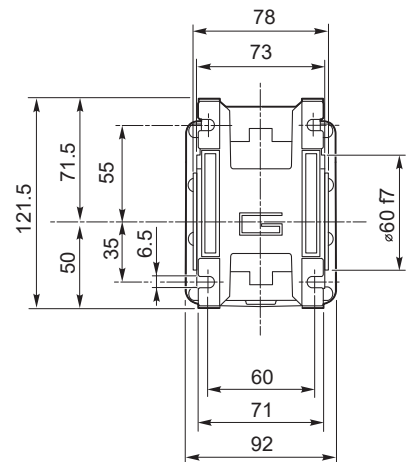
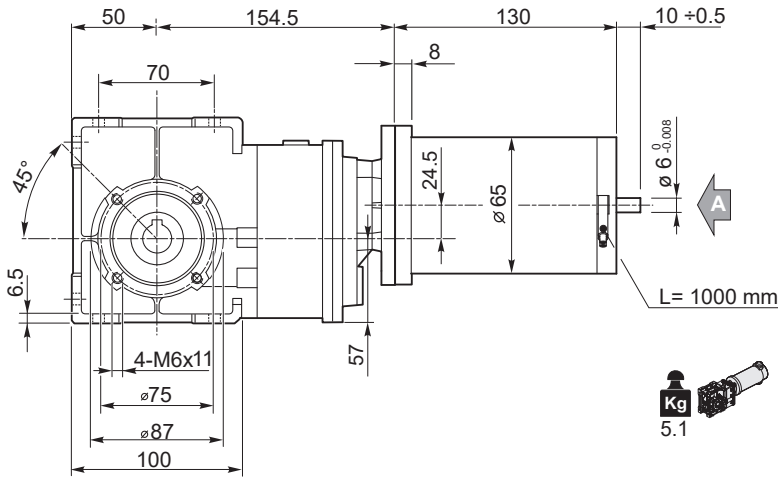
Encoder → BA9



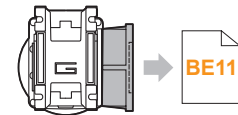
Dimensioni

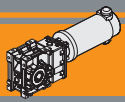
Dimensions

ECMB070/402 U



- Freno / Brake** → **BB23**
- Encoder** → **BB24**
- Motori / Motors IP66** → **BC2**

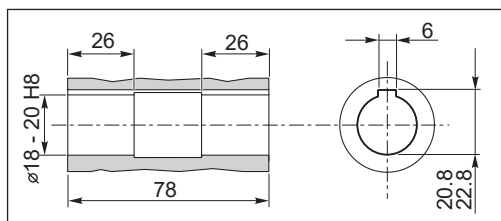
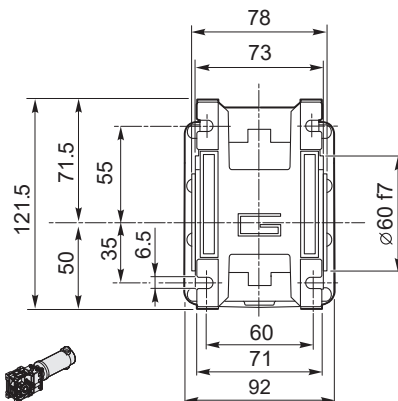
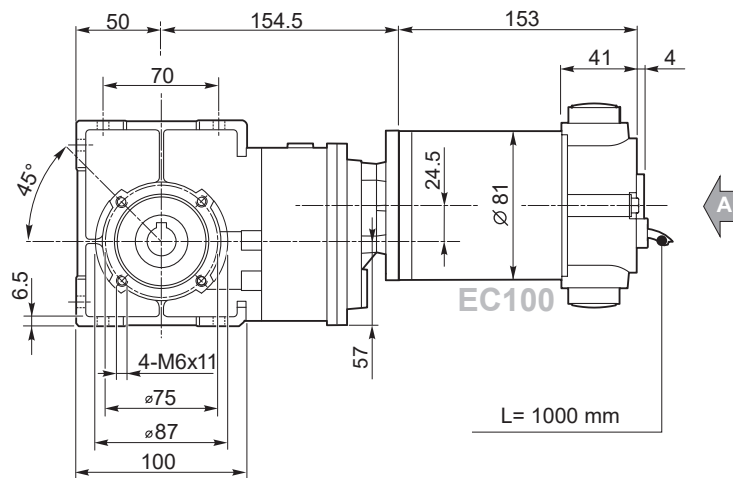




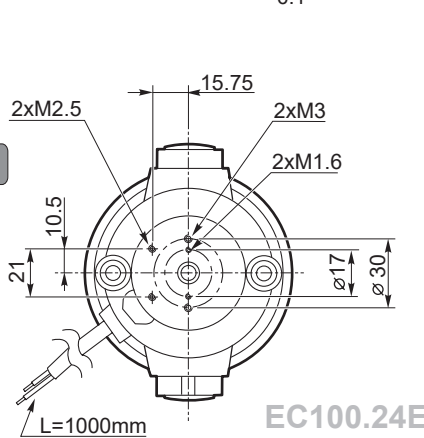
Dimensioni

Dimensions

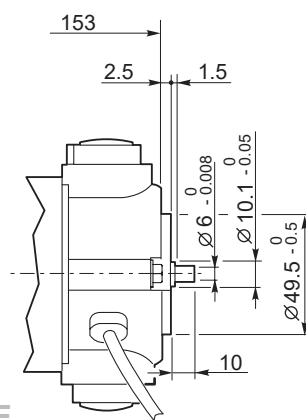
ECMB100/402 U



Vista da A
View from A



EC100.24E



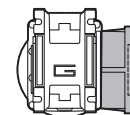
Motori / Motors IP66



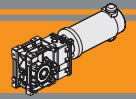
Encoder



Freno / Brake



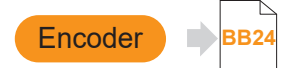
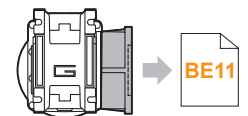
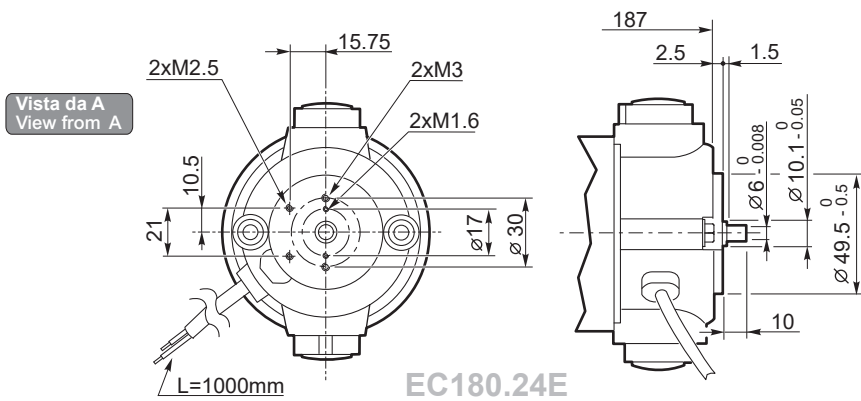
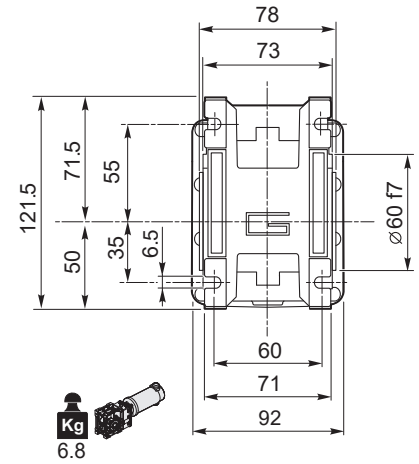
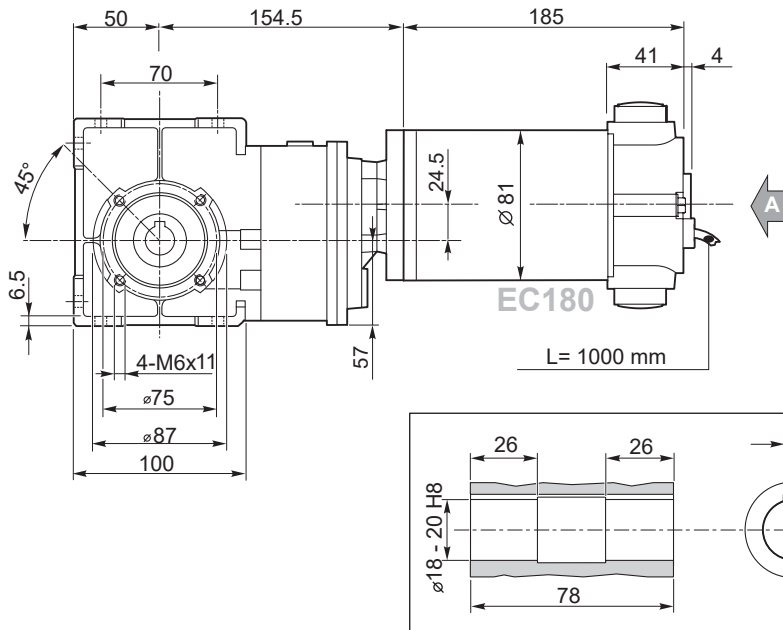
BE11

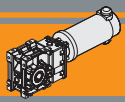


Dimensioni

Dimensions

ECMB180/402 U

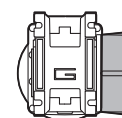
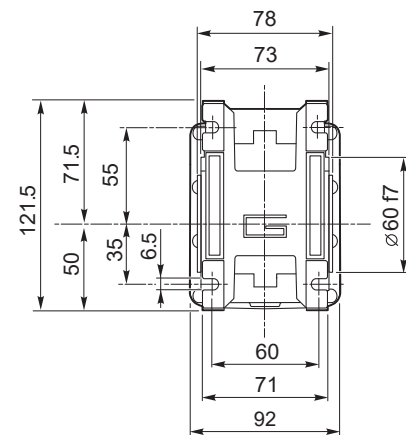
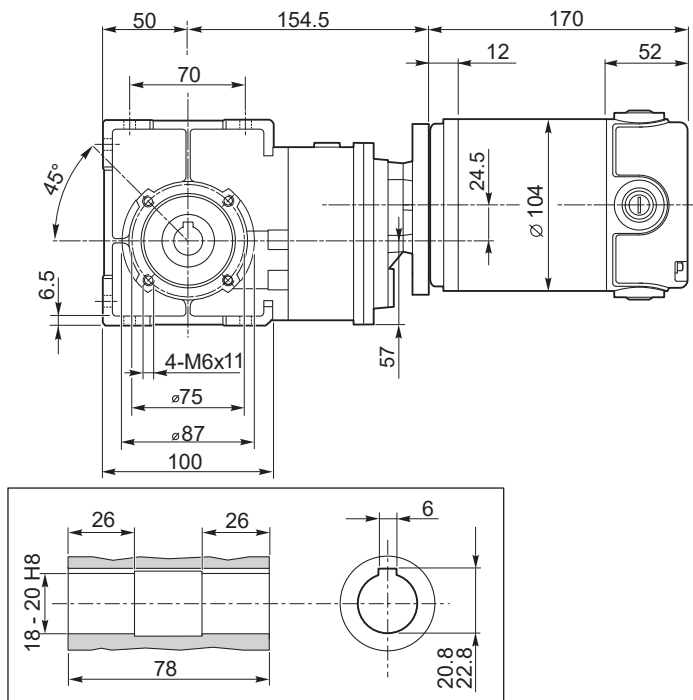




Dimensioni

Dimensions

ECMB250/402 U

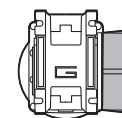
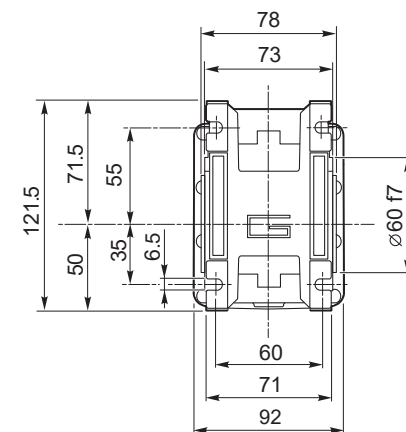
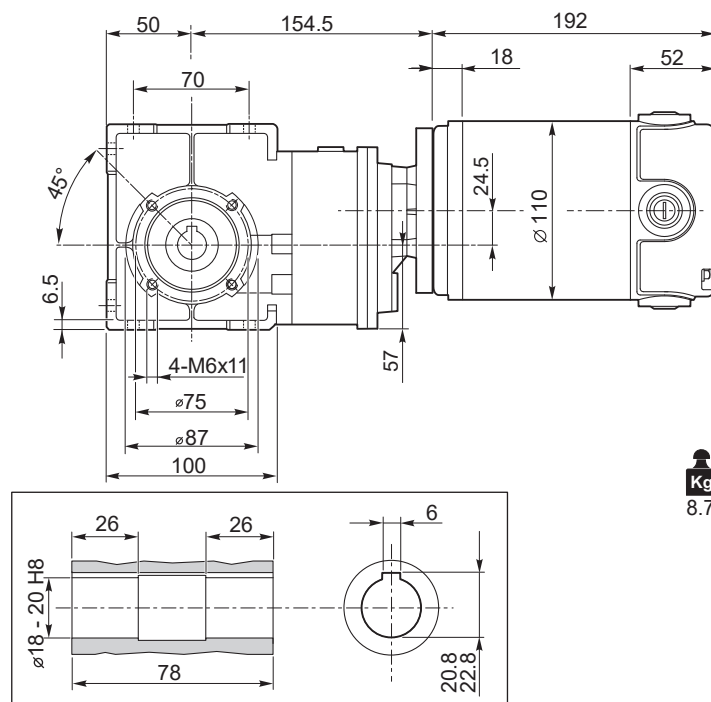


BE11

Motori / Motors IP66

BC8

ECMB350/402 U



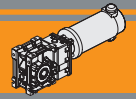
BE11

Freno / Brake

BB24

Motori / Motors IP66

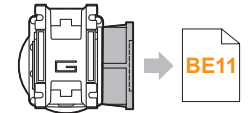
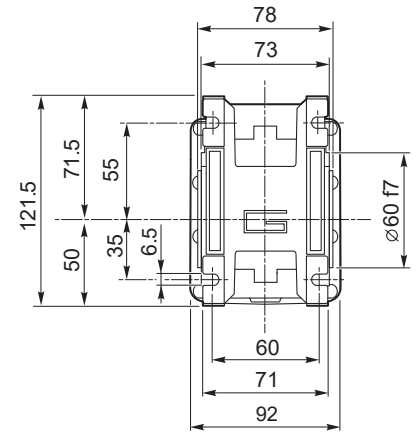
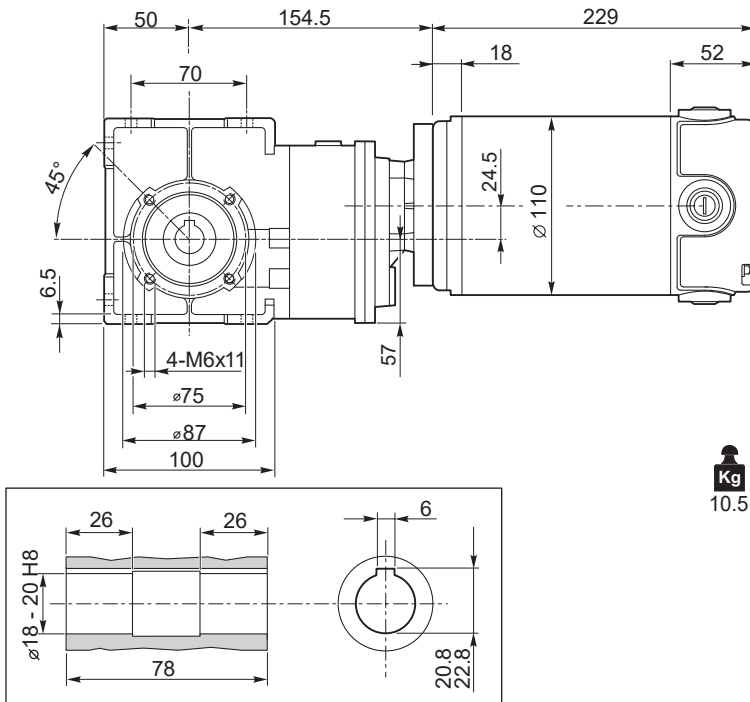
BC10



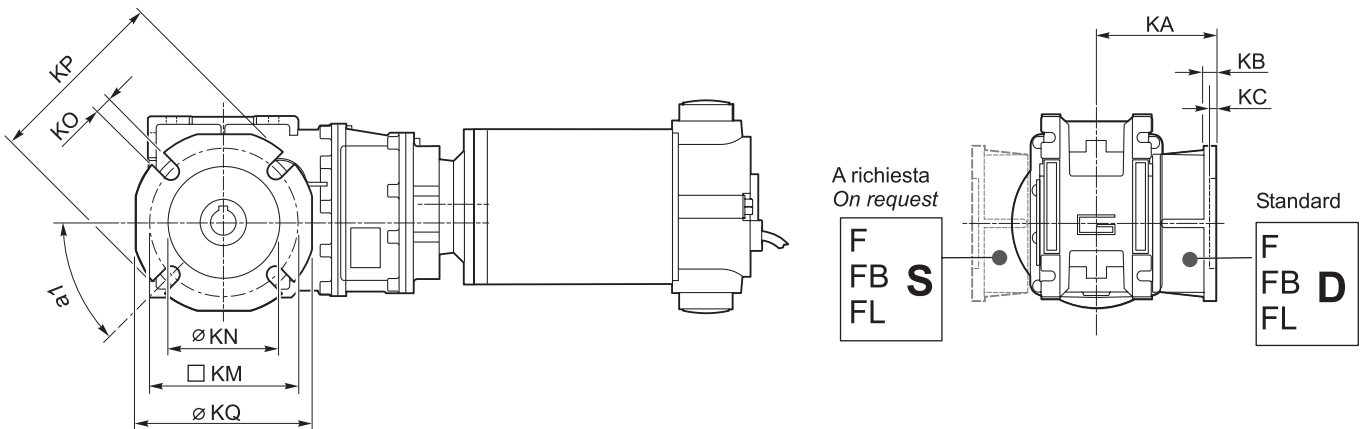
Dimensioni

Dimensions

ECMB600/402 U

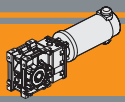


NDCMB.../ F... - ECMB.../... F... Flange uscita / Output flanges



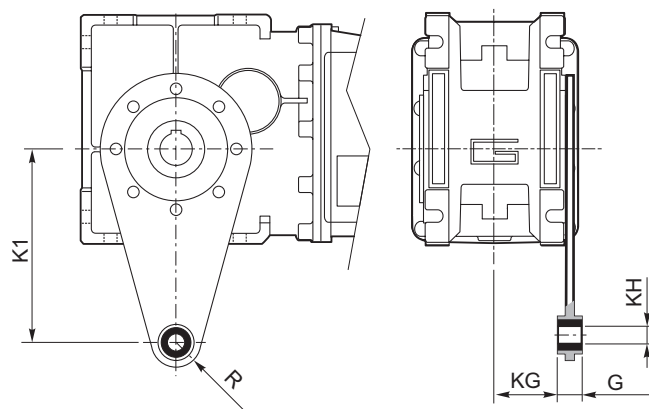
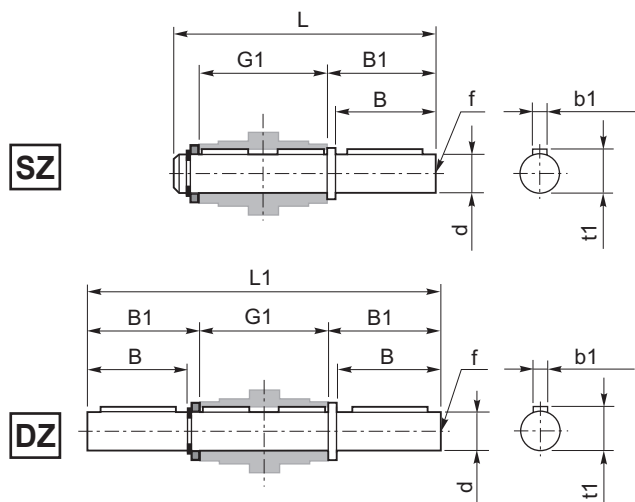
CMB	Flange uscita / Output flanges																										
	F					FL					FB																
	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ
402	45°	67	7.5	4.5	80-95	60	9	110	95	45°	97	7.5	4.5	80-95	60	9	110	95	45°	80	8.5	5	115-125	95	9.5	140	112

DC



Accessori

Accessories



Albero lento / Output shaft

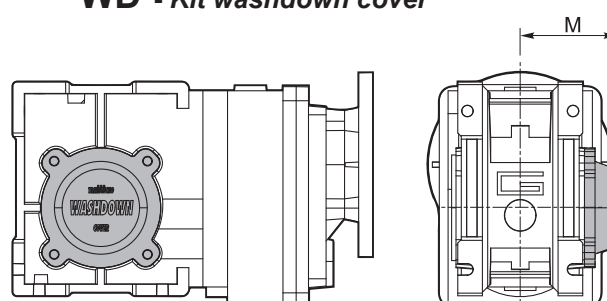
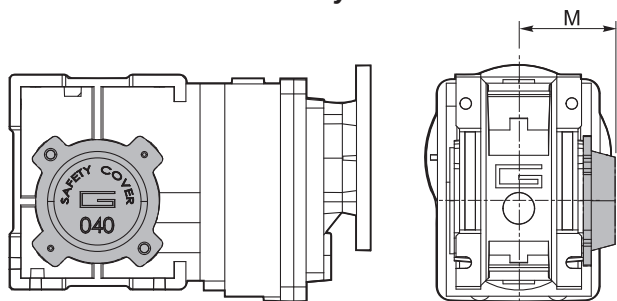
Braccio di reazione / Torque arm

CMB	d h7	B	B1	G1	L	L1	f	b1	t1
402	18	40	43	78	128	164	M6	6	20.5

CMB	K1	G	KG	KH	R
402	100	14	31	10	18

SC - Safety cover

WD - Kit washdown cover



CMB	M
402	54.5

CMB	M
402	55.5

MINI  **TECNO**™
small but strong

NDFT
ECFT

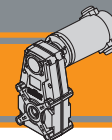
Motoriduttori CC pendolari
DC Helical parallel gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



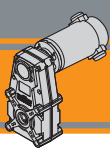
DC



Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	BF2
Designazione	<i>Classification</i>	BF2
Sensi di rotazione	<i>Direction of rotation</i>	BF3
Simbologia	<i>Symbols</i>	BF3
Lubrificazione	<i>Lubrication</i>	BF3
Carichi radiali	<i>Radial loads</i>	BF4
Dati tecnici	<i>Technical data</i>	BF5
Motori applicabili	<i>Motor adapters</i>	BF6
Dimensioni	<i>Dimensions</i>	BF7

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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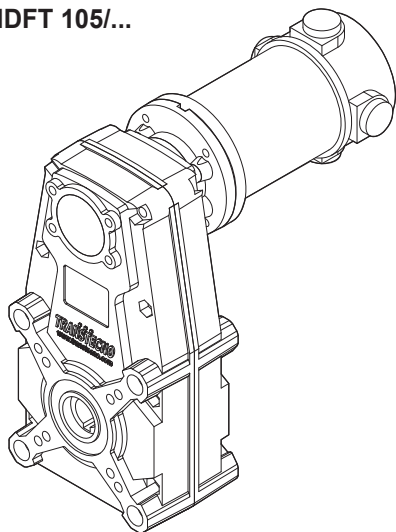
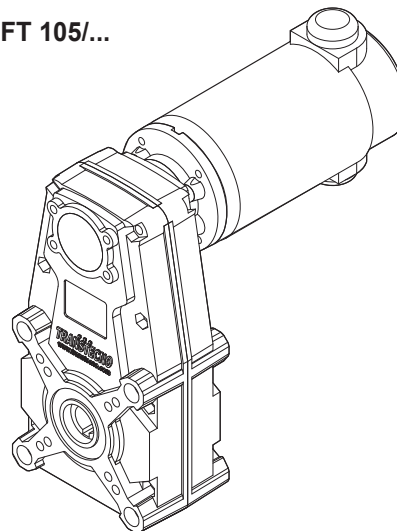
**NDFT
ECFT****Motoriduttori CC pendolari
DC Helical parallel gearmotors****Caratteristiche tecniche****Technical features**

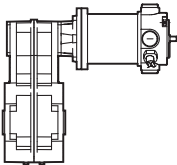
I motoriduttori CC pendolari a magneti permanenti in neodimio **NDFT** e in ferrite **ECFT** hanno le seguenti caratteristiche principali:

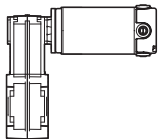
NDFT neodymium permanent magnets and **ECFT** ferrite permanent magnets DC helical parallel gearmotors range has the following main features:

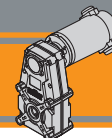
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 800W S2
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali.

- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 160 to 250W S2
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- helical gears.

NDFT 105/...**ECFT 105/...****Designazione****Classification**

MOTORIDUTTORE / GEARMOTOR					
NDFT	120/105	U	60.63	O20	240
Tipo Type	Grandezza Size	Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Versione Motore Motor Version
NDFT 	120/105... 180/105...	U...	Vedere tabella See tables	Vedere tabella See tables	120 240

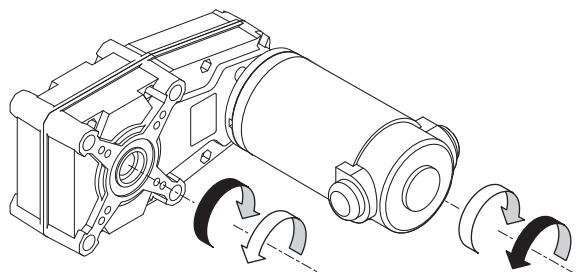
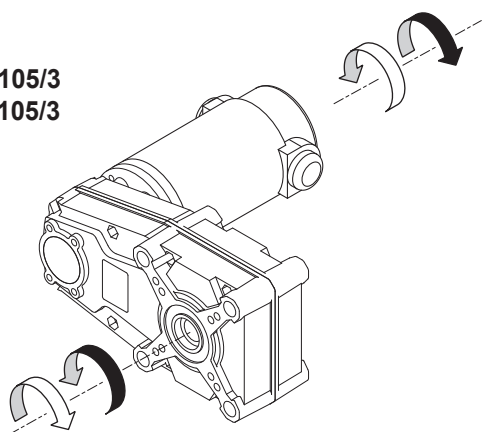
MOTORIDUTTORE / GEARMOTORS					
ECFT	180/105	U	60.63	O20	240
Tipo Type	Grandezza Size	Versione Version	Rapporto Ratio	Albero cavo uscita Hollow output shaft	Versione motore Motor version
ECFT 	070/105... 100/105... 180/105...	U...	vedi tabelle see tables	vedi tabelle see tables	120 240 12E 24E



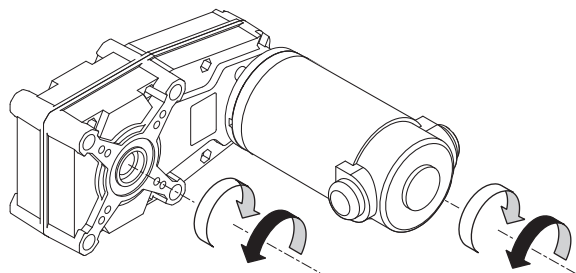
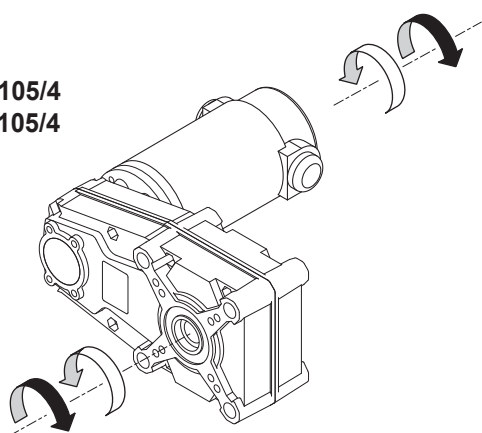
Sensi di rotazione

Direction of rotation

NDFT 105/3
ECFT 105/3



NDFT 105/4
ECFT 105/4



Simbologia

Symbols

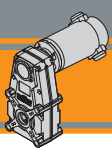
n_1	[min^{-1}]	Velocità in ingresso / <i>Input speed</i>
n_2	[min^{-1}]	Velocità in uscita / <i>Output speed</i>
i		Rapporto di riduzione / <i>Ratio</i>
P_1	[kW]	Potenza in entrata / <i>Input power</i>
M_2	[Nm]	Coppia nominale in uscita in funzione di P_1 / <i>Output torque referred to P_1</i>
P_{n1}	[kW]	Potenza nominale in entrata / <i>Nominal input power</i>
M_{n2}	[Nm]	Coppia nominale in uscita in funzione di P_{n1} / <i>Nominal output torque referred to P_{n1}</i>
sf		Fattore di servizio / <i>Service factor</i>
R_2	[N]	Carico radiale ammissibile in uscita / <i>Permitted output radial load</i>
A_2	[N]	Carico assiale ammissibile in uscita / <i>Permitted output axial load</i>

Lubrificazione

Lubrication

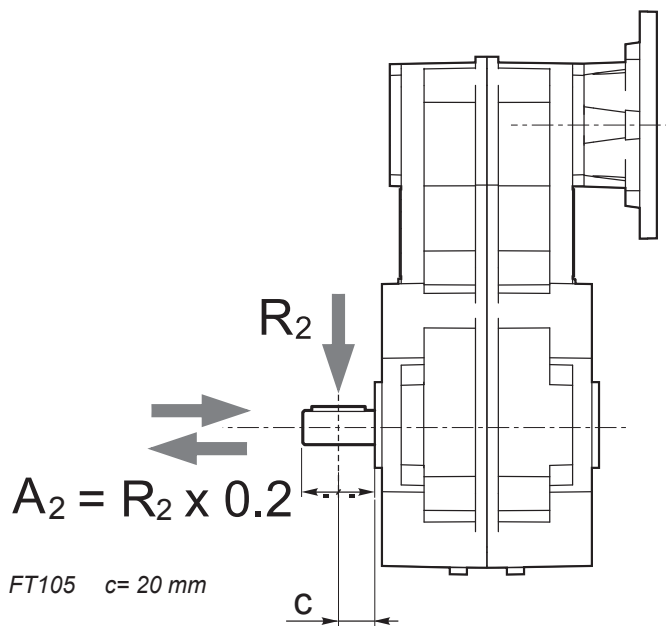
Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.



Carichi radiali

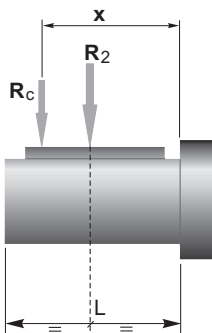
Radial loads



n_2 [min ⁻¹]	R_2 [N]
	FT105
70	1500
40	1700
30	1850
20	2000
10	2000
5	2000

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:

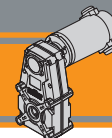




	FT105
a	82
b	62
R_{2MAX}	2000

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

$$R \leq R_c$$

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


Dati tecnici
NDFT
Technical data

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
160							250						
(3000 min ⁻¹)	146	10	3.2	20.57	120/105/3	120/240	(3000 min ⁻¹)	146	15	2.0	20.57	180/105/3	120/240
	90	16	2.4	33.32				90	25	1.6	33.32		
	68	21	2.4	44.36				68	33	1.5	44.36		
	55	26	1.9	54.87				55	41	1.2	54.87		
	42	34	1.5	71.84				42	54	0.9	71.84		
	39	37	1.4	77.07				39	58	0.9	77.07		
	34	43	1.2	88.87				34	66	0.8	88.87		
	24	60	0.8	124.81									
	17	86	0.6	181.35									
	13	86	0.6	224.32									
	9.5	86	0.6	315.05									
	8.1	86	0.6	368.19	120/105/4	120/240							
	5.6	86	0.6	534.98									
	4.5	86	0.6	661.76									
	3.2	86	0.6	929.40									

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 in the grey areas

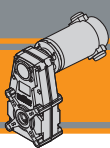
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici
Electrical technical data

ND 120 → 

ND 180 → 



Dati tecnici

ECFT

Technical data

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
-----------------------	--	------------------------	----	---	---	----------------------------------

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
-----------------------	--	------------------------	----	---	---	----------------------------------

100

(3000 min ⁻¹)	P ₁	n ₂	M ₂	sf	i	Versione motore
	146	6	5.1	20.57	070/105/3	12E/24E
	90	10	3.9	33.32		
	68	13	3.8	44.36		
	55	16	3.1	54.87		
	42	21	2.4	71.84		
	39	23	2.2	77.07		
	34	27	1.9	88.87		
	24	37	1.4	124.81		
	17	54	0.9	181.35		
	13	67	0.8	224.32		
	9.5	86	0.6	315.05	070/105/4	12E/24E
	8.1	86	0.6	368.19		
	5.6	86	0.6	534.98		
	4.5	86	0.6	661.76		
	3.2	86	0.6	929.40		

250

(3000 min ⁻¹)	P ₁	n ₂	M ₂	sf	i	Versione motore
	146	15	2.0	20.57	180/105/3	120/240
	90	25	1.6	33.32		
	68	33	1.5	44.36		
	55	41	1.2	54.87		
	42	54	0.9	71.84		
	39	58	0.9	77.07		
	34	66	0.8	88.87		

140

(3000 min ⁻¹)	P ₁	n ₂	M ₂	sf	i	Versione motore
	146	9	3.6	20.57	100/105/3	120/240/24E
	90	14	2.8	33.32		
	68	19	2.7	44.36		
	55	23	2.2	54.87		
	42	30	1.7	71.84		
	39	32	1.6	77.07		
	34	37	1.4	88.87		
	24	52	1.0	124.81		
	16.5	76	0.7	181.35		

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 in the grey areas

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

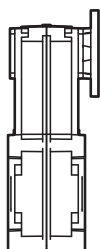
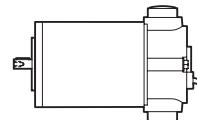
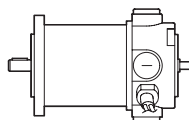
Dati tecnici elettrici

Electrical technical data



Motori applicabili

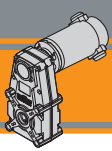
Motor adapters



		ND		EC		
		120.120 120.240	180.120 180.240	070.12E 070.24E	100.120 100.240 100.24E	180.120 180.240
FT	105/3	20.57 - 315.05				
	105/4	368.19 - 929.4				

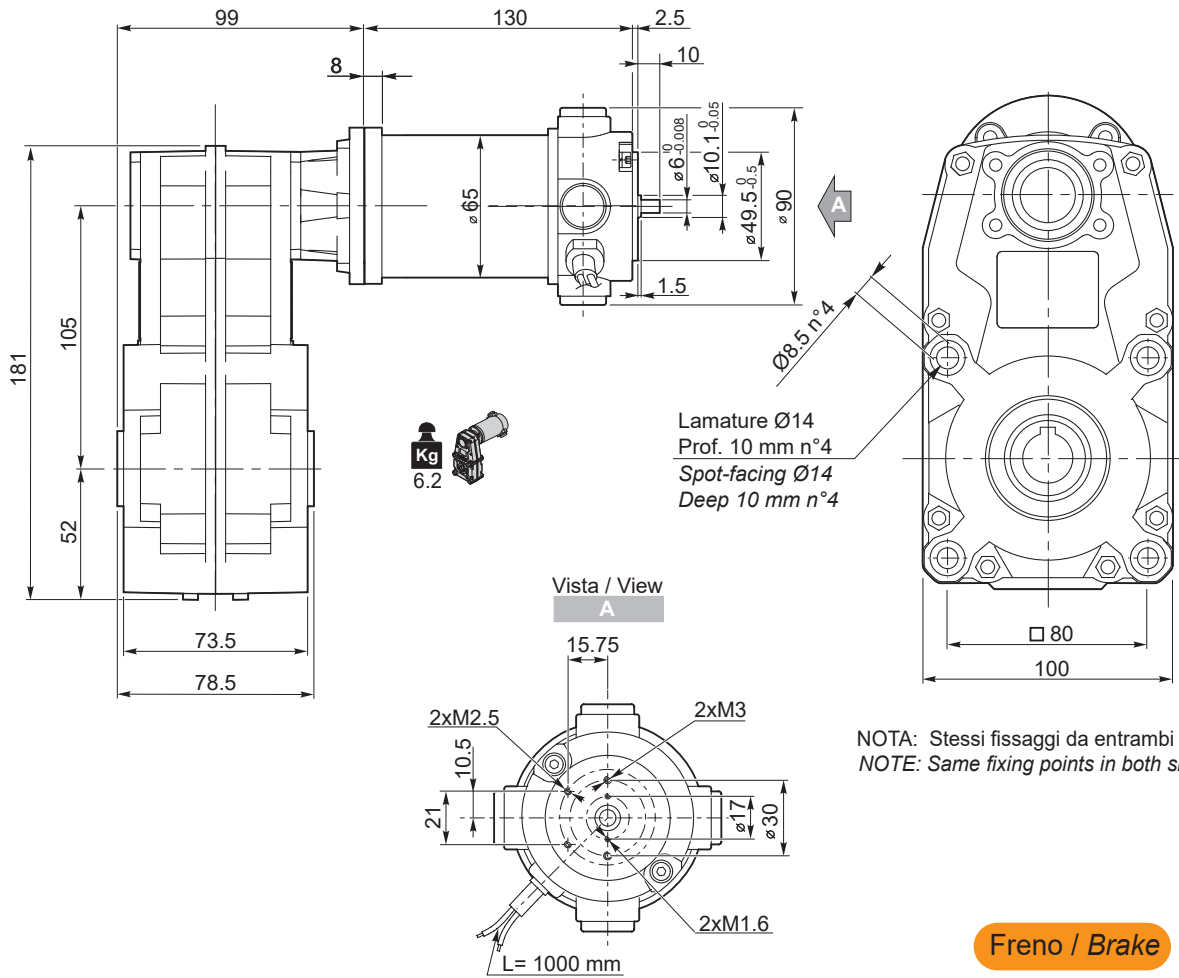
20.57 - 315.05

Rapporti di riduzione i
Ratio i



NDFT 180/105

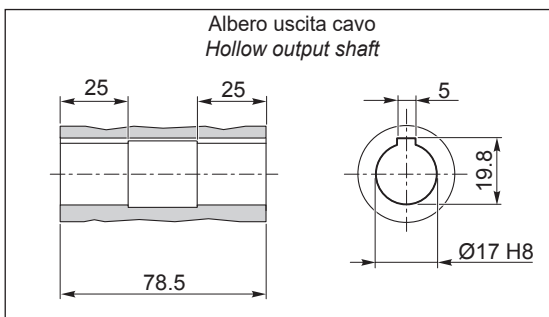
NDFT 180/105...U



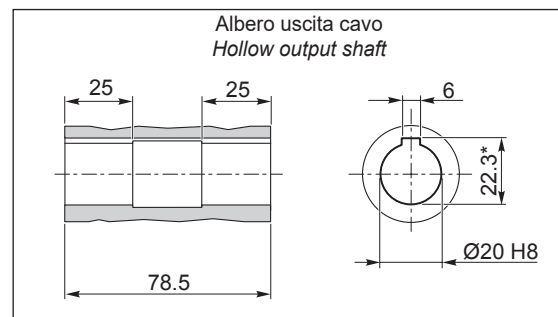
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

- Freno / Brake → BA9
- Encoder → BA9

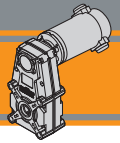
O17



O20



*: Sede linguetta ribassata / Special keyway

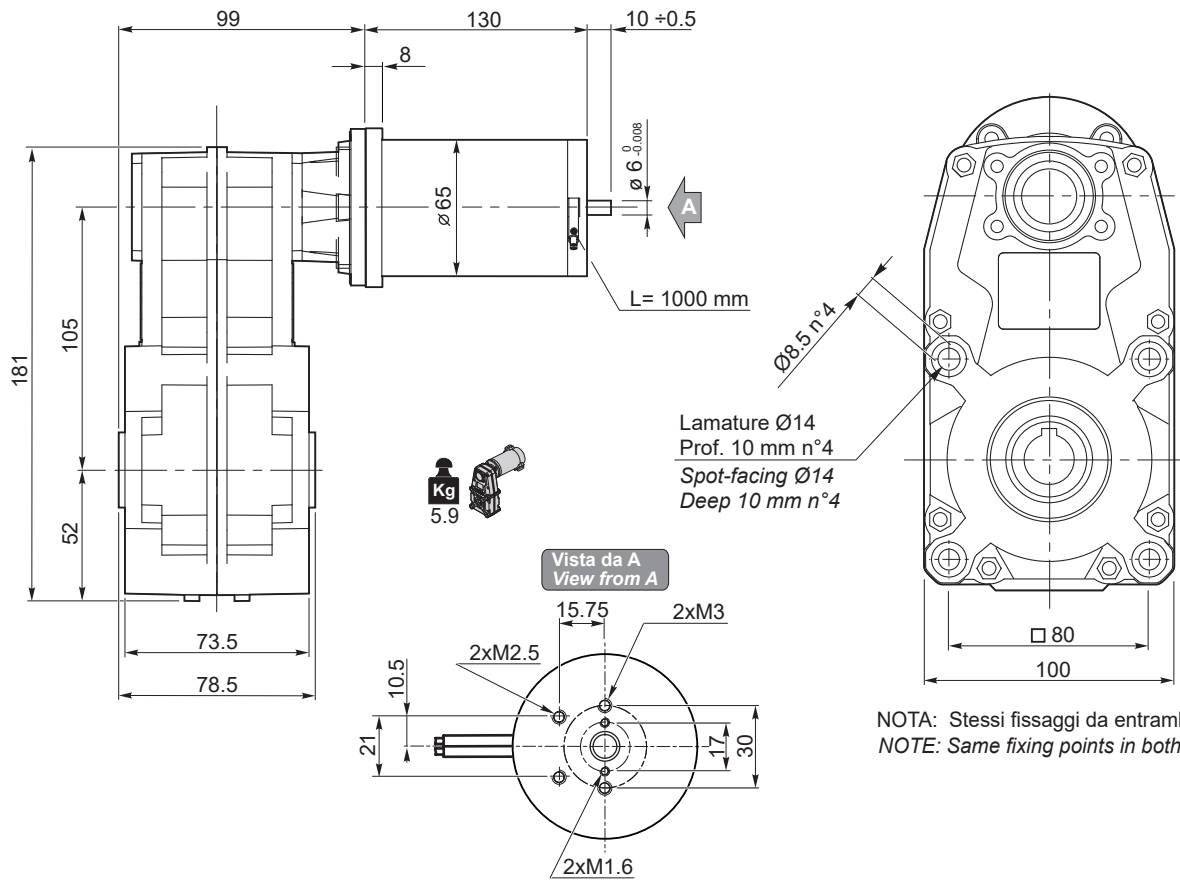


Dimensioni

Dimensions

ECFT 070/105

ECFT 070/105...U

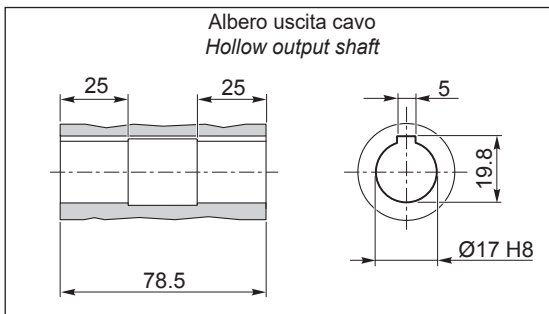


Freno / Brake → BB23

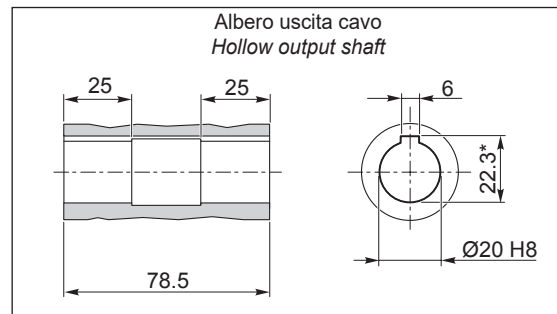
Encoder → BB24

Motori / Motors IP66 → BC2

O17

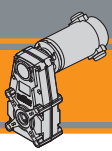


O20



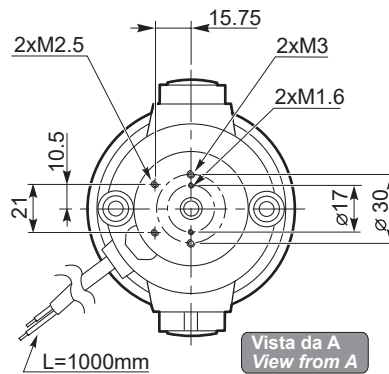
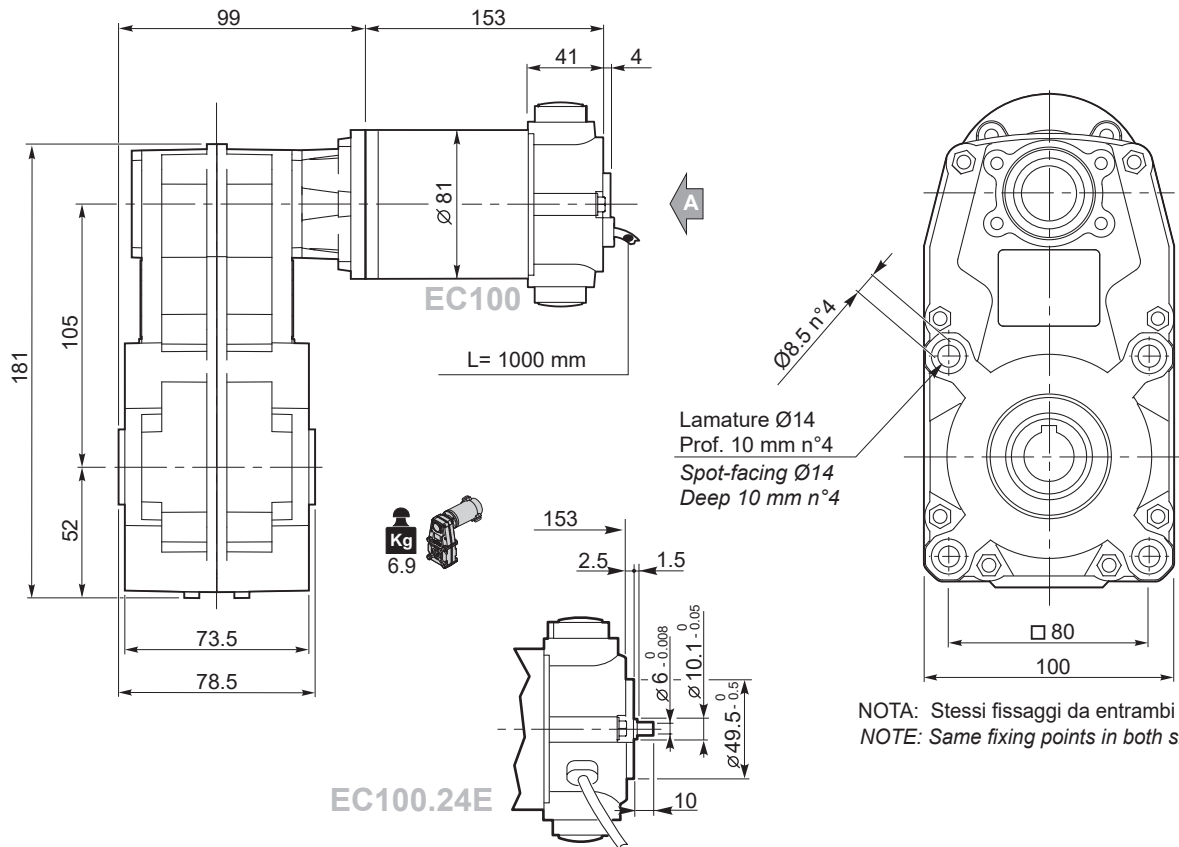
*: Sede linguetta ribassata / Special keyway

DC



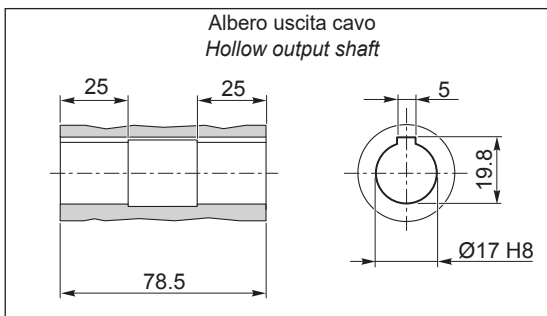
ECFT 100/105

ECFT 100/105...U

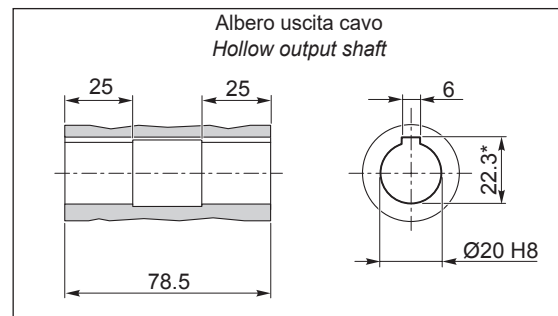


- Freno / Brake → BB23
- Encoder → BB24
- Motori / Motors IP66 → BC4

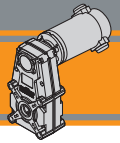
O17



O20



*: Sede linguetta ribassata / Special keyway

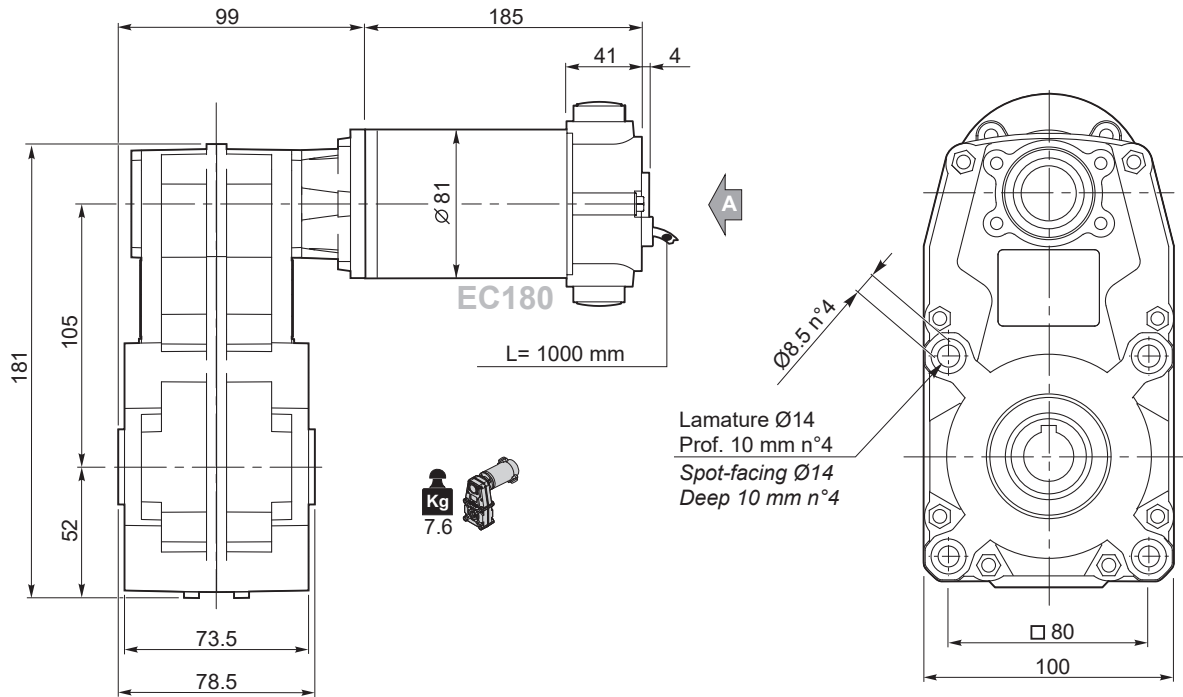


Dimensioni

Dimensions




ECFT 180/105

ECFT 180/105...U

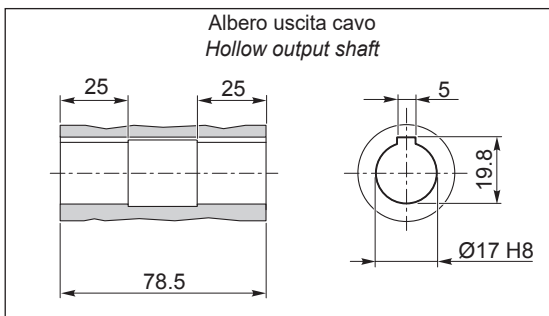


Lamature $\varnothing 14$
Prof. 10 mm n°4
Spot-facing $\varnothing 14$
Deep 10 mm n°4

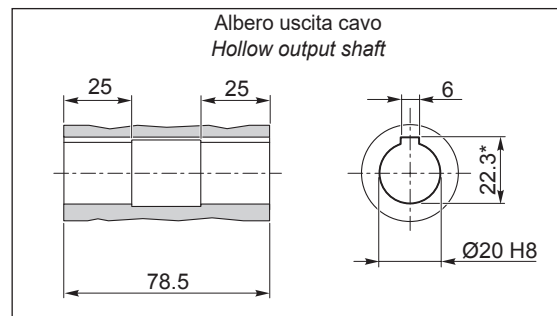
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

- Freno / Brake →  **BB23**
- Encoder →  **BB24**
- Motori / Motors IP66 →  **BC6**

O17



O20



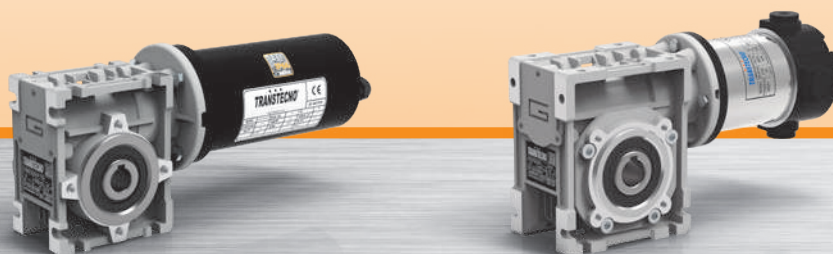
*: Sede linguetta ribassata / Special keyway

DC

MINI  **TECNO**™
small but strong

NDCM
ECM

Motoriduttori CC a vite senza fine
DC wormgearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



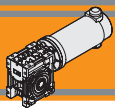
DC



Indice	Index	Pag. Page
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Designazione	<i>Classification</i>	BG2
Simbologia	<i>Symbols</i>	BG3
Lubrificazione	<i>Lubrication</i>	BG3
Carichi radiali	<i>Radial loads</i>	BG3
Dati di dentatura	<i>Toothing data</i>	BG4
Rendimento	<i>Efficiency</i>	BG4
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	BG5
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Opzioni	<i>Options</i>	BG23
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Caratteristiche tecniche

Technical features

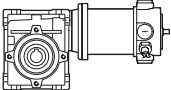
I motoriduttori CC a vite senza fine a magneti permanenti in neodimio **NDCM** e in ferrite **ECM** hanno le seguenti caratteristiche principali:

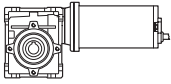
NDCM neodymium permanent magnets and **ECM** ferrite permanent magnets DC wormgearmotors range has the following main features:

- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 800 W S2
- Carcasce dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 to 800 W S2
- Die-cast aluminum housing
- Permanent synthetic oil long life lubrication

Designazione

Classification

MOTORIDUTTORE / GEARMOTOR									
NDCM	120/030		U	10	SZDX	BRSX	90	240	VS
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	Opzioni Options
 <p>NDCM</p>	120/026	180/026	U F...	Vedere tabella See tables	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	120 — 240	VS
	120/026 (D11)	180/026 (D11)							
	120/026 (D14)	180/026 (D14)							
	120/030	180/030							
	120/040	180/040							

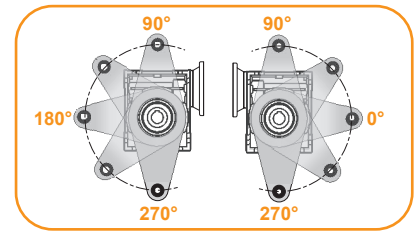
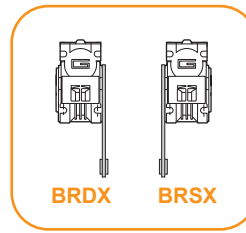
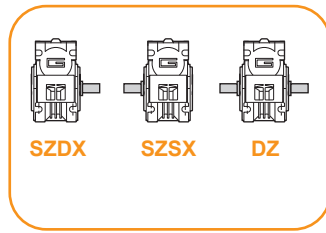
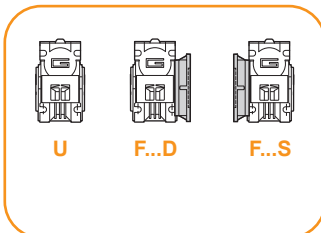
MOTORIDUTTORE / GEARMOTOR											
ECM	070/026				U	10	SZDX	BRSX	90	240	VS
Tipo Type	Grandezza Size				Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Versione Motore Motor Version	Opzioni Options
 <p>ECM</p>	035/026	070/026	100/026	180/026	U F...	Vedere tabella See tables	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	120	VS
	035/026 (D11)	070/026 (D11)	100/026 (D11)	180/026 (D11)							
	035/026 (D14)	070/026 (D14)	100/026 (D14)	180/026 (D14)							
	035/030	070/030	100/030	180/030							
	050/026		100/040	180/040							
	050/026 (D11)				350/030				240		
	050/026 (D14)				350/040					24E	
	050/030				600/040						

Versione Riduttore
Gearbox Version

Albero di uscita
Output shaft

Braccio di reazione
Torque arm *

Angolo
Angle



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



Simbologia

Symbols

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

Lubrificazione

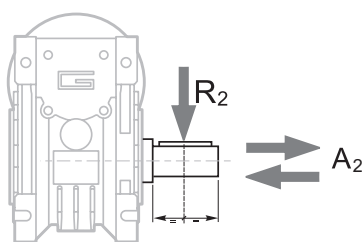
Lubrication

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.

Carichi radiali

Radial loads

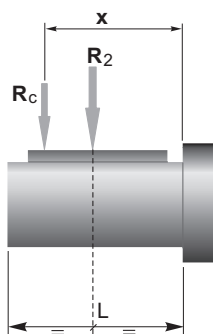


$$A_2 = R_2 \times 0.2$$

n_2 [min ⁻¹]	R_2 [N]		
	CM026	CM030	CM040
187	400	674	1264
140	490	743	1392
93	580	851	1596
70	610	936	1754
56	610	1008	1890
47	610	1069	2004
35	610	1179	2210
28	610	1270	2381
23	610	1356	2542
18	610	1471	2759
14	610	1600	3000

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:

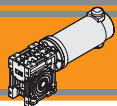


$$R_c = \frac{R_2 \cdot a}{(b + x)} \leq R_{2MAX}$$

$$R \leq R_c$$

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

	CM		
	026	030	040
a	56	65	84
b	43	50	64
R_{2MAX}	610	1600	3000



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'
CM040	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 19'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'

Rendimento

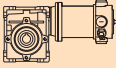
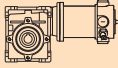
Efficiency

	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
CM040	2800	Rd	90	89	87	84	83	80	77	73	69	66	60	56
	1400		88	86	84	81	78	74	70	65	60	58	52	46
	900		86	84	82	77	74	70	66	60	57	53	46	41
		Rs	74	71	67	60	55	51	45	40	36	32	28	24



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


Dati tecnici per servizio S2
NDCM
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
160							250						
(3000 min ⁻¹)	600	2	4.4	5	120/026	120/240	(3000 min ⁻¹)	600	4	2.8	5	180/026	120/240
	400	3	3.3	7.5	120/026			400	5	2.1	7.5	180/026	
	300	4	2.5	10	120/026			300	7	1.6	10	180/026	
	200	6	1.7	15	120/026			200	10	1.1	15	180/026	
	150	8	1.3	20	120/026			150	13	0.9	20	180/026	
	100	11	1.1	30	120/026			100	17	0.7	30	180/026	
	75	14	0.8	40	120/026			75	16	0.7	40	180/026	
	60	14	0.7	50	120/026			60	14	0.7	50	180/026	
	50	13	0.7	60	120/026			50	13	0.7	60	180/026	
	600	2	5.7	5	120/030	120/240		600	4	3.7	5	180/030	120/240
	400	3	4.5	7.5	120/030			400	5	2.9	7.5	180/030	
	300	4	3.7	10	120/030			300	7	2.3	10	180/030	
	200	6	2.5	15	120/030			200	10	1.6	15	180/030	
	150	8	1.7	20	120/030			150	13	1.1	20	180/030	
	120	10	1.5	25	120/030			120	16	1.0	25	180/030	
	100	11	1.6	30	120/030			100	18	1.0	30	180/030	
	75	14	1.1	40	120/030			75	22	0.7	40	180/030	
	60	17	0.9	50	120/030			60	21	0.7	50	180/030	
	50	20	0.7	60	120/030			50	20	0.7	60	180/030	
	38	17	0.7	80	120/030			38	17	0.7	80	180/030	
	30	16	0.7	100	120/030			30	16	0.7	100	180/030	
	150	8	3.7	20	120/040	120/240		600	4	8.1	5	180/040	120/240
	120	10	2.7	25	120/040			400	5	5.8	7.5	180/040	
	100	12	3.2	30	120/040			300	7	4.8	10	180/040	
	75	15	2.3	40	120/040			200	10	3.5	15	180/040	
	60	18	1.8	50	120/040			150	13	2.3	20	180/040	
	50	20	1.4	60	120/040			120	16	1.8	25	180/040	
	38	24	1.1	80	120/040			100	18	2.1	30	180/040	
	30	29	0.8	100	120/040			75	23	1.5	40	180/040	
								60	27	1.2	50	180/040	
								50	32	0.9	60	180/040	
								38	38	0.7	80	180/040	
								30	34	0.7	100	180/040	

N.B.

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

N.B.

 Please check that the output torque M_2 does not exceed the value in the grey areas

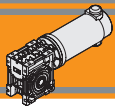
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici
Electrical technical data

 ND 120 → 




 ND 180 → 








Dati tecnici per servizio S2




ECM

Technical data 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		
	400	1.2	13.0	7.5		ECM035/030 120/240
	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
100						
(3000 min ⁻¹)	600	1.4	7.1	5		ECM070/026 12E/24E
	400	2.1	5.3	7.5		
	300	2.7	4.1	10		
	200	4.0	2.8	15		
	150	5.1	2.2	20		
	100	7.0	1.7	30		
	75	8.7	1.3	40		
	60	10	1.0	50		
	50	11	0.8	60		
	600	1.4	9.2	5		
	400	2.1	7.1	7.5		ECM070/030 12E/24E
	300	2.7	5.8	10		
	200	4.0	4.0	15		
	150	5.2	2.7	20		
	120	6.2	2.4	25		
	100	7.1	2.5	30		
	75	8.9	1.8	40		
	60	10	1.4	50		
	50	12	1.2	60		
	38	15	0.8	80		
	30	17	0.7	100		

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		
	400	1.5	10.2	7.5		ECM050/030 120/240
	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		

140						
(3000 min ⁻¹)	600	2.0	5.0	5		ECM100/026 120/240/24E
	400	2.9	3.8	7.5		
	300	3.8	2.9	10		
	200	5.5	2.0	15		
	150	7.1	1.5	20		
	100	10	1.2	30		
	75	12	0.9	40		
	60	14	0.7	50		
	50	13	0.7	60		
	200	5.6	2.8	15		
	150	7.2	1.9	20		ECM100/030 120/240/24E
	120	8.7	1.7	25		
	100	10	1.8	30		
	75	12	1.3	40		
	60	14	1.0	50		
	50	17	0.8	60		
	38	17	0.7	80		
	30	16	0.7	100		
	100	10	3.7	30		
	75	13	2.6	40		
	60	15	2.1	50		ECM100/040 120/240/24E
	50	18	1.6	60		
	38	21	1.3	80		
	30	25	1.0	100		

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 in the grey areas

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici

Electrical technical data





Dati tecnici per servizio S2

ECM

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
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P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
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250

(3000 min ⁻¹)	600	3.5	2.8	5	ECM180/026	120/240
	400	5.2	2.1	7.5		
	300	6.8	1.6	10		
	200	10	1.1	15		
	150	13	0.9	20		
	100	17	0.7	30		
	75	16	0.7	40		
	60	14	0.7	50		
	50	13	0.7	60		
	600	3.5	3.7	5		
	400	5.3	2.9	7.5		
	300	6.8	2.3	10		
	200	10	1.6	15		
	150	13	1.1	20		
	120	16	1.0	25		
	100	18	1.0	30		
	75	22	0.7	40		
	60	21	0.7	50		
	50	20	0.7	60		
	38	17	0.7	80		
	30	16	0.7	100		
	600	3.5	3.7	5		
	400	5.3	2.9	7.5		
	300	6.8	2.3	10		
	200	10	1.6	15		
	150	13	1.1	20		
	120	16	1.0	25		
	100	18	1.0	30		
	75	22	0.7	40		
	60	21	0.7	50		
	50	20	0.7	60		
	38	17	0.7	80		
	30	16	0.7	100		
	200	10	3.5	15		
	150	13	2.3	20		
	120	16	1.8	25		
	100	18	2.1	30		
	75	23	1.5	40		
	60	27	1.2	50		
	50	32	0.9	60		
	38	38	0.7	80		
	30	34	0.7	100		
	600	3.5	3.7	5		
	400	5.3	2.9	7.5		
	300	6.8	2.3	10		
	200	10	1.6	15		
	150	13	1.1	20		
	120	16	1.0	25		
	100	18	1.0	30		
	75	22	0.7	40		
	60	21	0.7	50		
	50	20	0.7	60		
	38	17	0.7	80		
	30	16	0.7	100		
	200	10	3.5	15		
	150	13	2.3	20		
	120	16	1.8	25		
	100	18	2.1	30		
	75	23	1.5	40		
	60	27	1.2	50		
	50	32	0.9	60		
	38	38	0.7	80		
	30	34	0.7	100		

500

(3000 min ⁻¹)	600	7.1	1.8	5	ECM350/030	120/240
	400	11	1.4	7.5		
	300	14	1.2	10		
	200	20	0.8	15		
	150	20	0.7	20		
	120	21	0.7	25		
	100	26	0.7	30		
	75	23	0.7	40		
	60	21	0.7	50		
	600	7.2	4.0	5		
	400	11	2.9	7.5		
	300	14	2.4	10		
	200	20	1.7	15		
	150	26	1.2	20		
	120	32	0.9	25		
	100	37	1.0	30		
	75	46	0.7	40		
	60	46	0.7	50		
	50	41	0.7	60		
	38	39	0.7	80		
	30	34	0.7	100		

800

(3000 min ⁻¹)	600	11	2.5	5	ECM600/040	120/240
	400	17	1.8	7.5		
	300	22	1.5	10		
	200	32	1.1	15		
	150	42	0.7	20		
	120	40	0.7	25		
	100	54	0.7	30		
	75	49	0.7	40		

350

(3000 min ⁻¹)	600	5.0	2.6	5	ECM250/030	120/240
	400	7.4	2.0	7.5		
	300	10	1.7	10		
	200	14	1.1	15		
	150	18	0.8	20		
	120	22	0.7	25		
	100	25	0.7	30		
	75	22	0.7	40		
	60	21	0.7	50		
	200	14	2.5	15		
	150	18	1.7	20		
	120	22	1.3	25		
	100	26	1.5	30		
	75	33	1.0	40		
	60	38	0.8	50		
	50	44	0.7	60		
	38	38	0.7	80		
	30	35	0.7	100		
	200	14	2.5	15		
	150	18	1.7	20		
	120	22	1.3	25		
	100	26	1.5	30		
	75	33	1.0	40		
	60	38	0.8	50		
	50	44	0.7	60		
	38	38	0.7	80		
	30	35	0.7	100		

N.B.
Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio
N.B.
Please check that the output torque M2 does not exceed the value in the grey areas

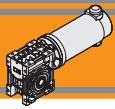
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici

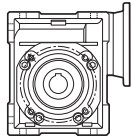
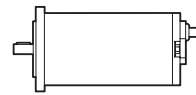
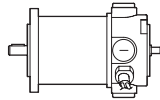
Electrical technical data

EC180 →	EC250 →	EC350 →	EC600 →
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Motori applicabili

Motor adapters



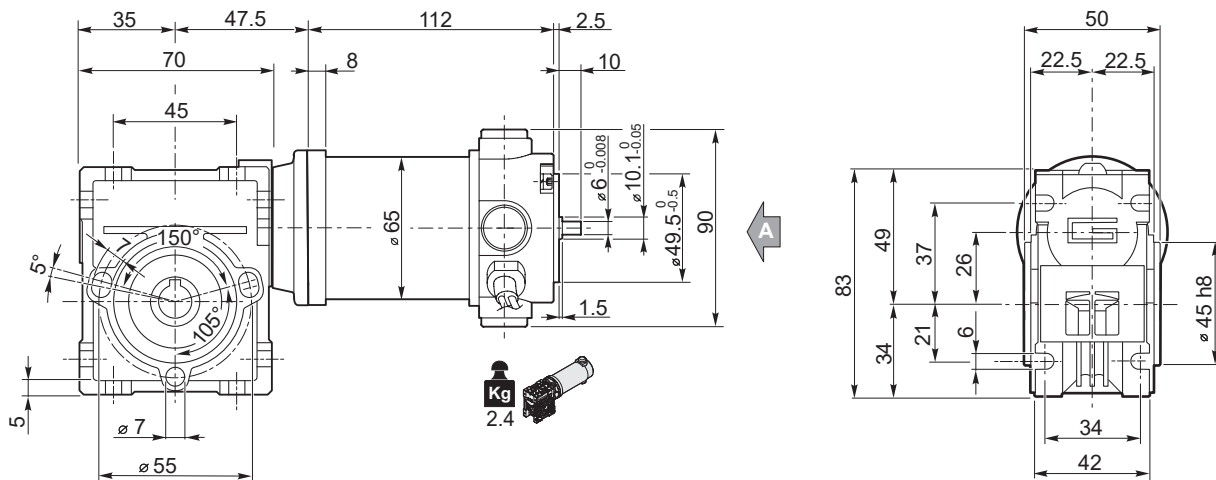
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		120.120 120.240	180.120 180.240	035.12E 035.24E	050.12E 050.24E	070.12E 070.24E	100.120 100.240 100.24E	180.120 180.240	180.24E	250.120 250.240	350.120 350.240	600.120 600.240
CM	026	5-60	5-60	5-60	5-60	5-60	5-60	5-60				
	030	5-100	5-100	5-100	5-100	5-100	5-100	5-100	5-50	5-50	5-50	
	040	5-100	5-100			5-100	5-100	5-100	5-100	5-100	5-100	5-40

5-100 Rapporti di riduzione i
Ratio i

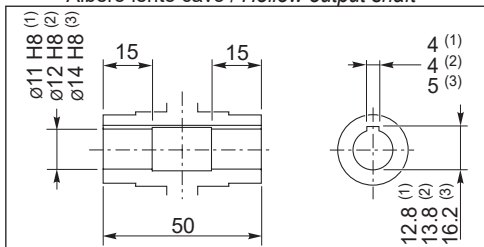
Dimensioni

Dimensions

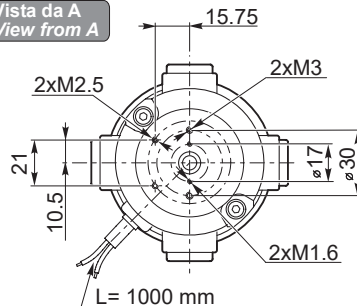
NDCM120/026 U



Albero lento cavo / Hollow output shaft



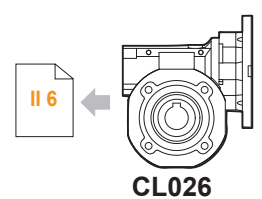
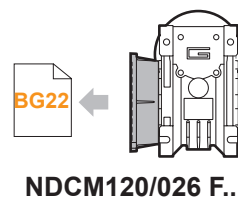
Vista da A
View from A

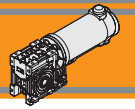


Freno / Brake → BA9

Encoder → BA9

- (1): NDCM 120/026 (D11)
- (2): NDCM 120/026
- (3): NDCM 120/026 (D14)

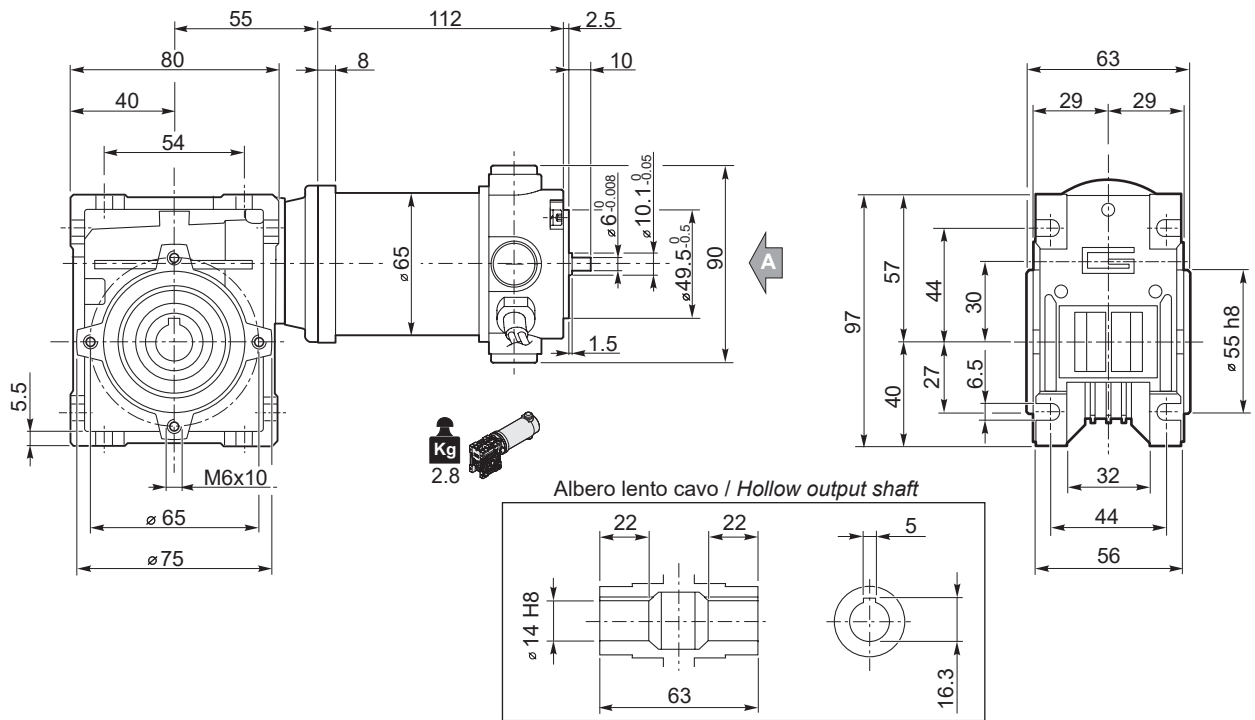




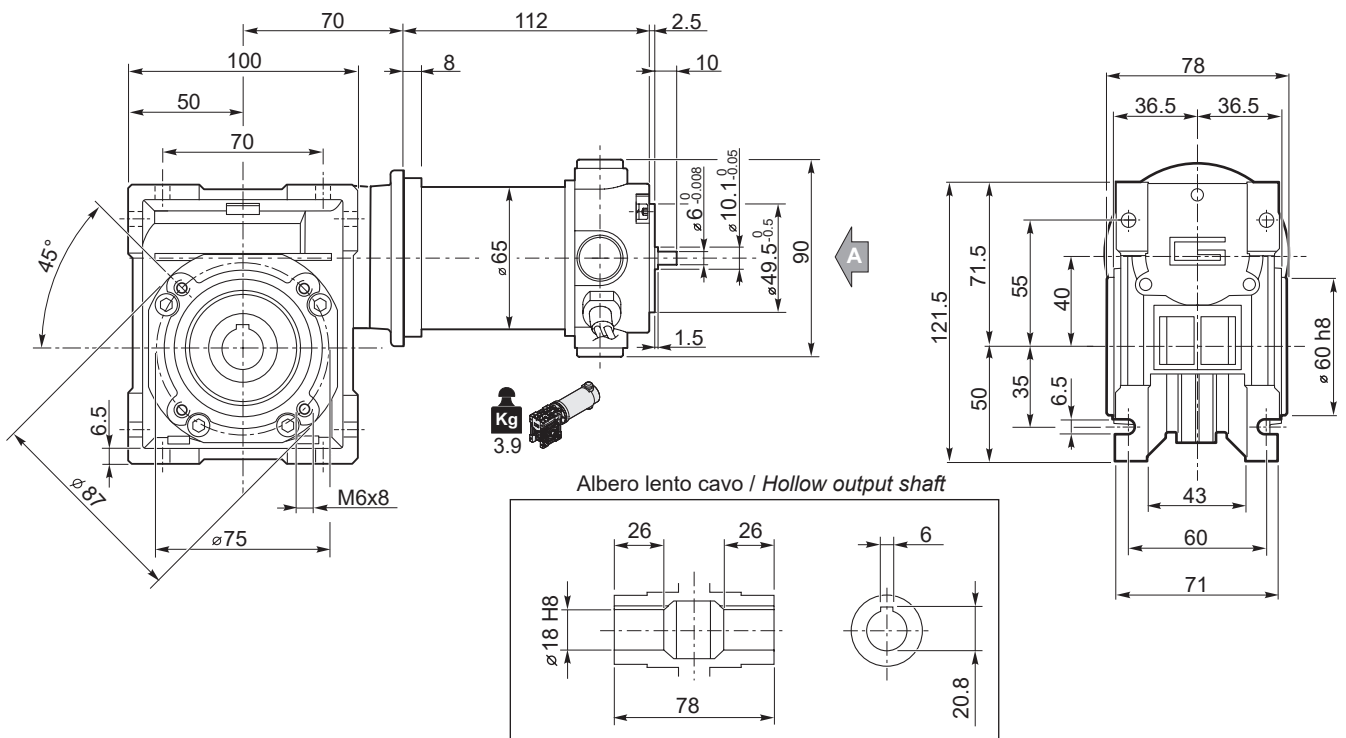
Dimensioni

Dimensions

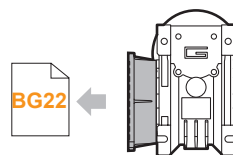
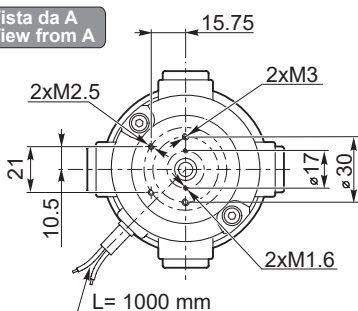
NDCM120/030 U



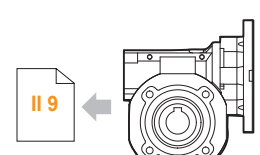
NDCM120/040 U



Vista da A
View from A



NDCM120/030 F
NDCM120/040 F...



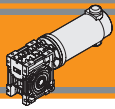
CL030
CL040

Freno / Brake



Encoder

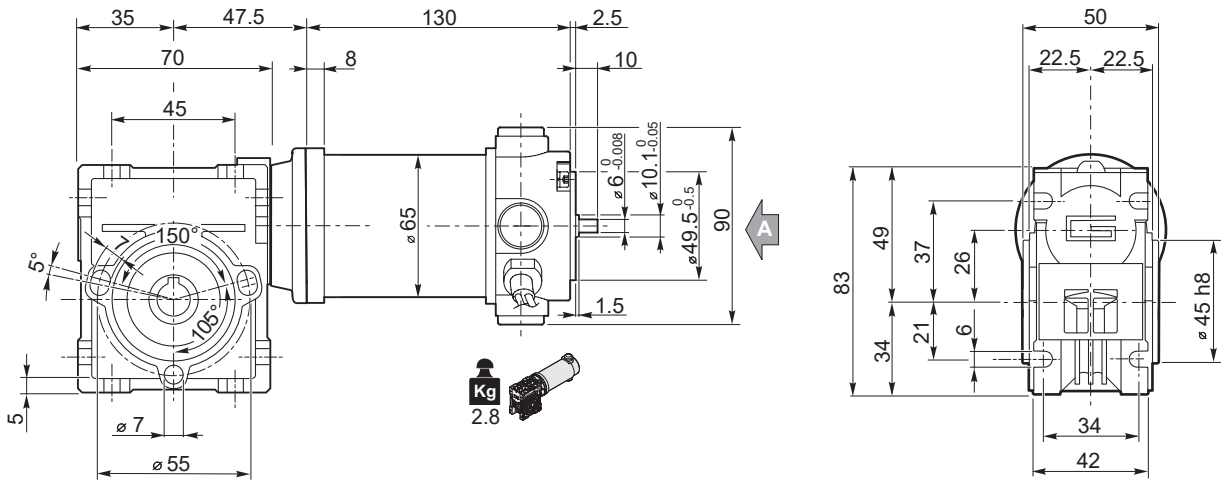




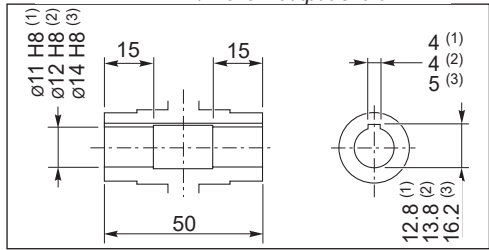
Dimensioni

Dimensions

NDCM180/026 U

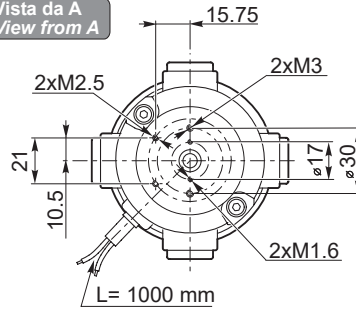


Albero lento cavo / Hollow output shaft



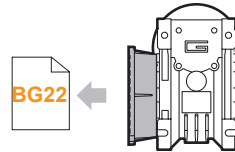
- (1): NDCM 180/026 (D11)
- (2): NDCM 180/026
- (3): NDCM 180/026 (D14)

Vista da A View from A

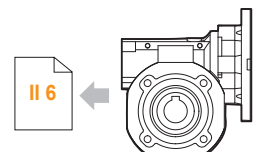


Freno / Brake → BA9

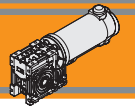
Encoder → BA9



NDCM180/026 F...



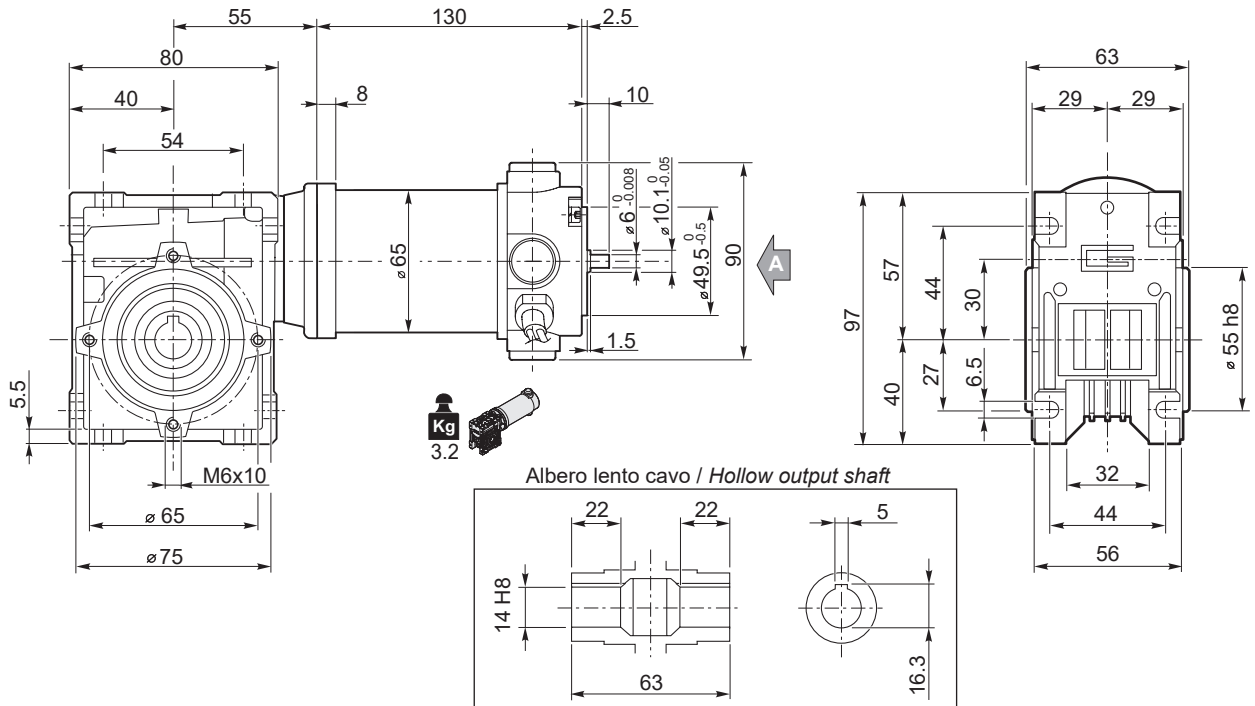
CL026



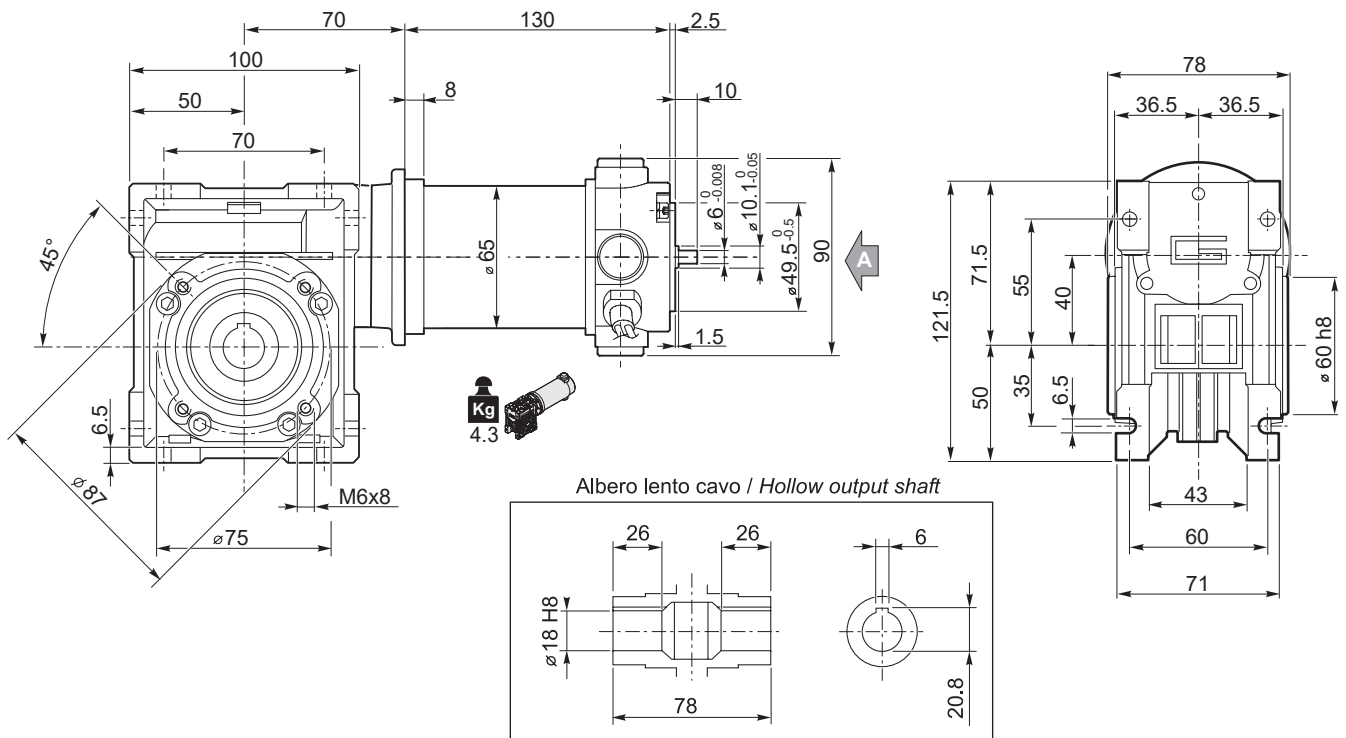
Dimensioni

Dimensions

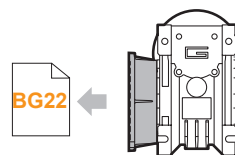
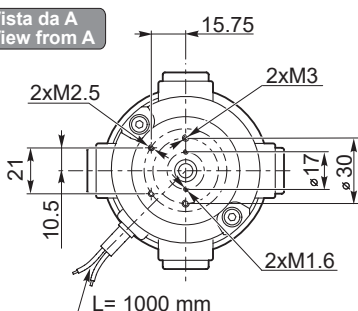
NDCM180/030 U



NDCM180/040 U

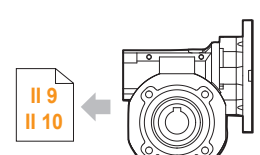


Vista da A
View from A



BG22

NDCM180/030 F
NDCM180/040 F...



II 9
II 10

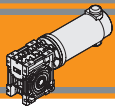
CL030
CL040

Freno / Brake



Encoder

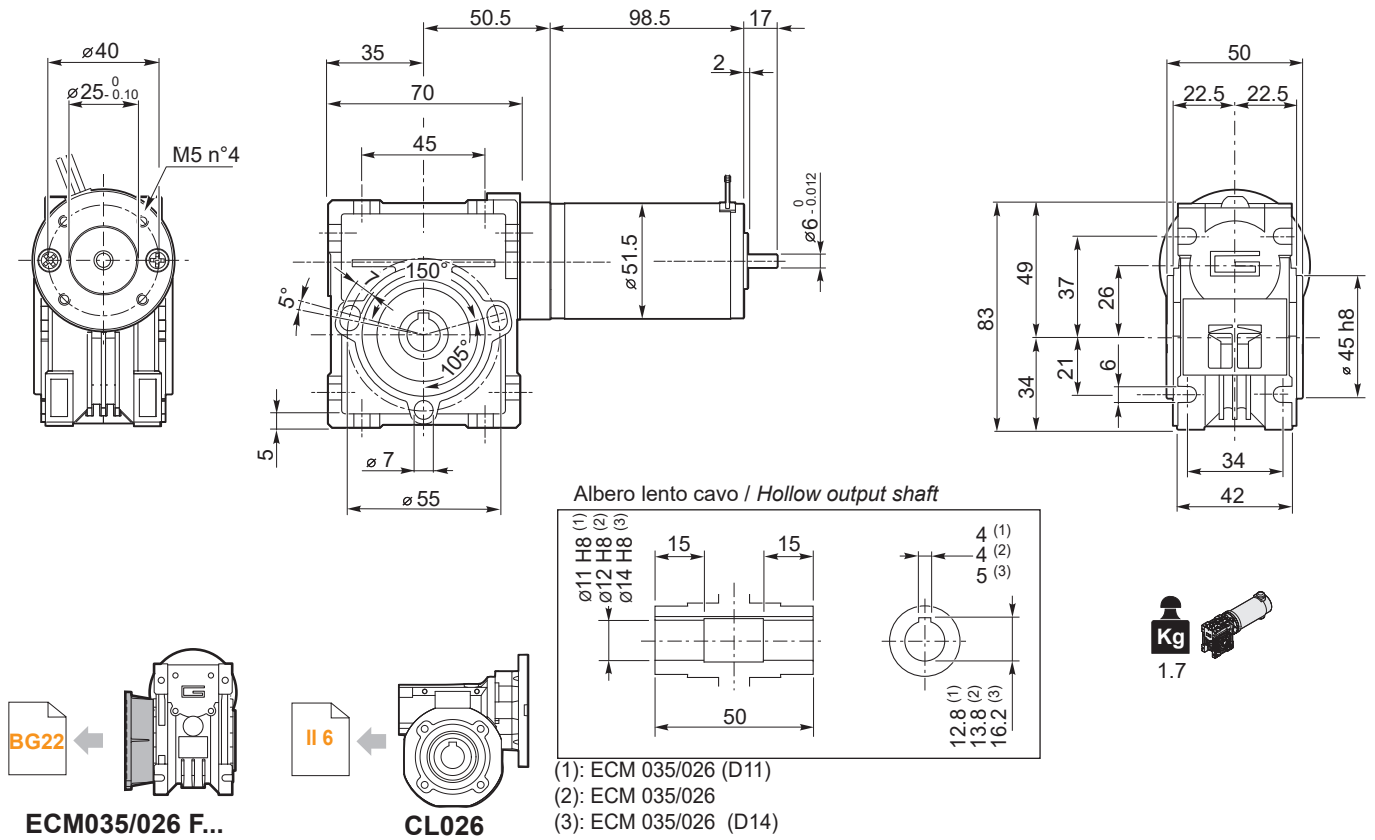




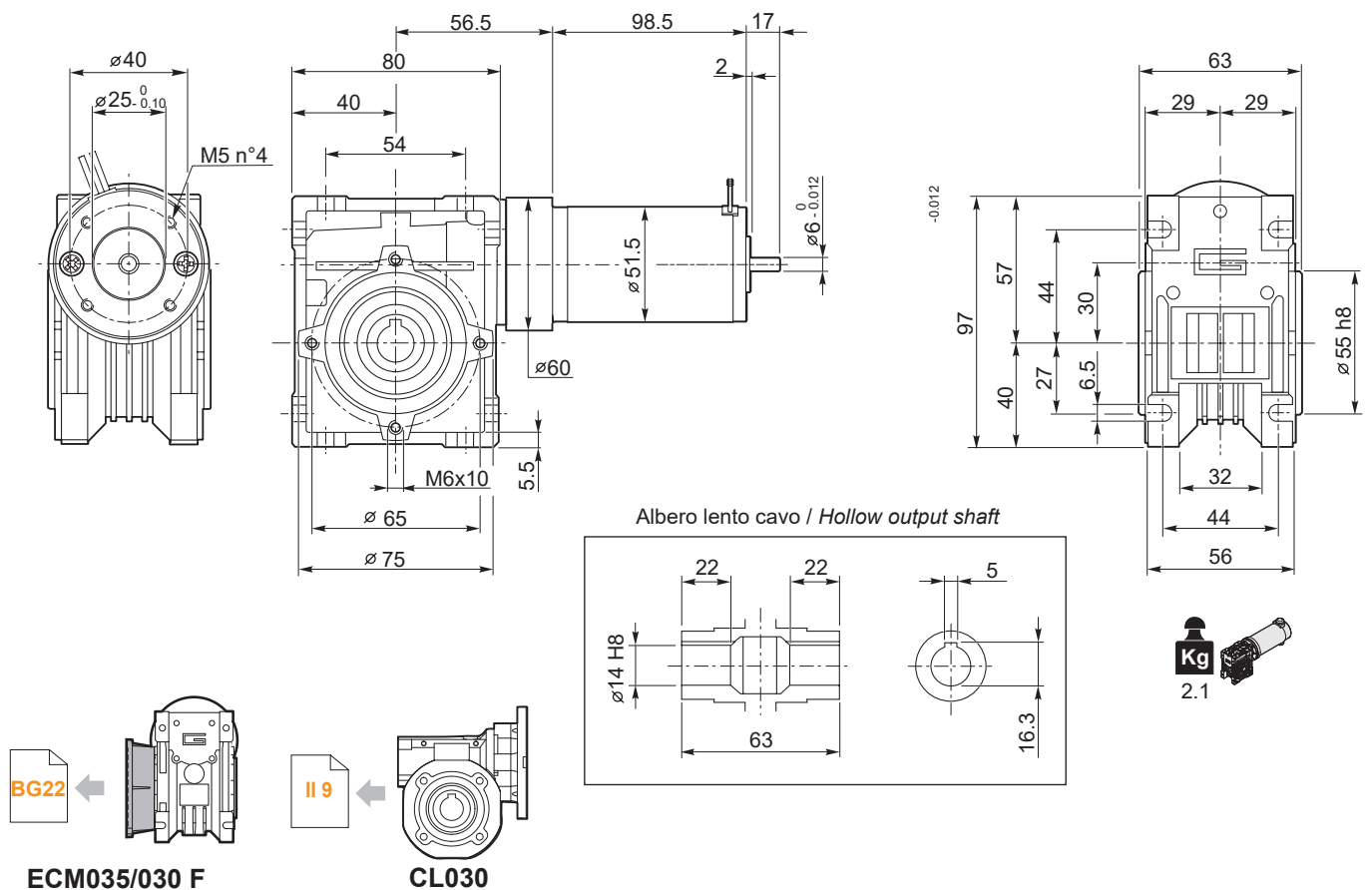
Dimensioni

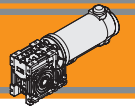
Dimensions

ECM035/026 U



ECM035/030 U

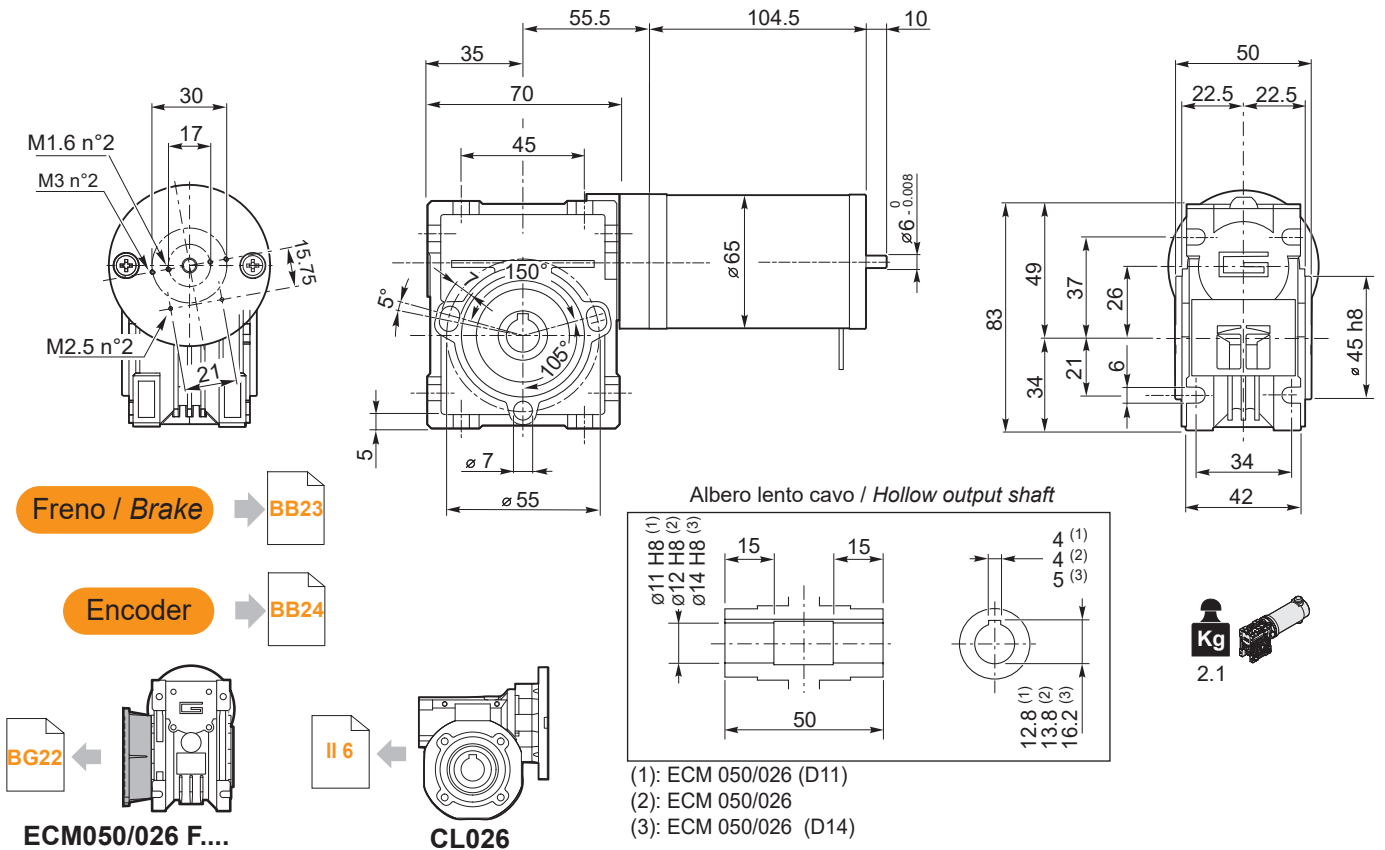




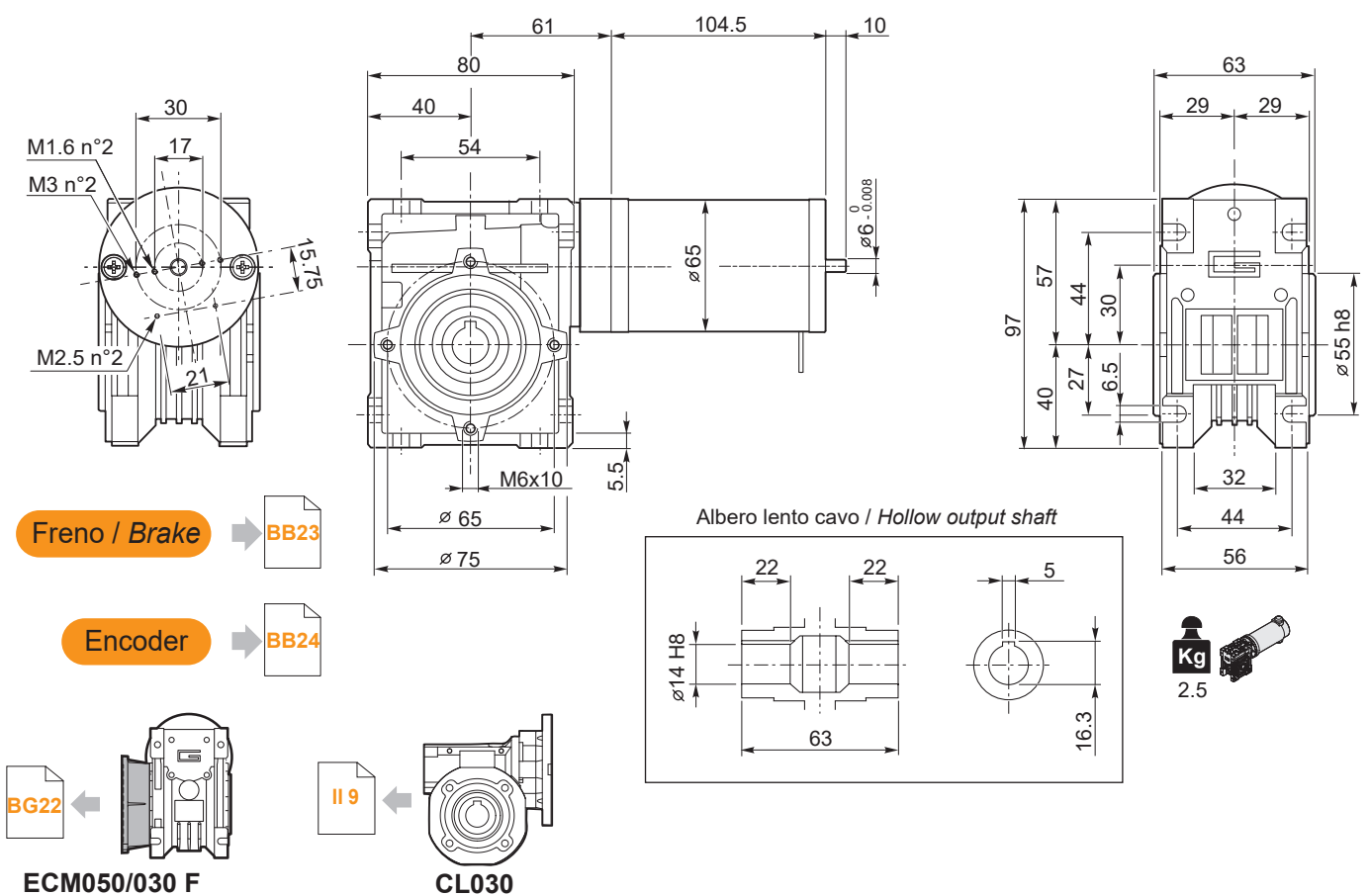
Dimensioni

Dimensions

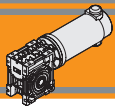
ECM050/026 U



ECM050/030 U



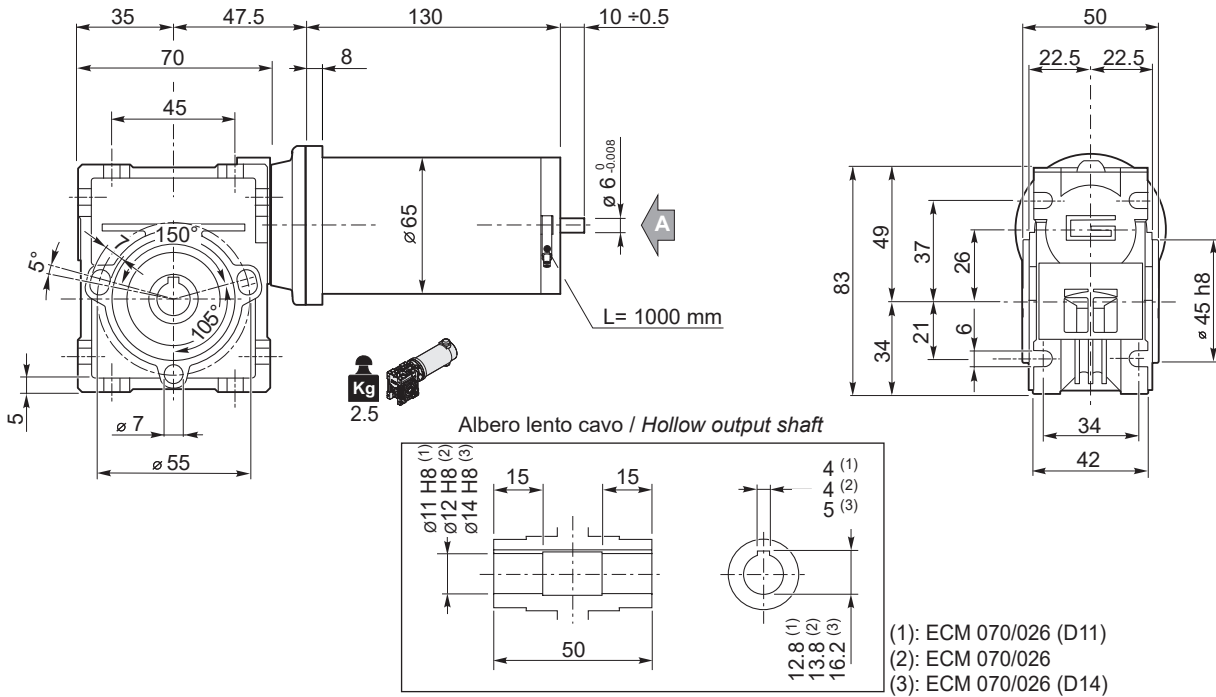
DC



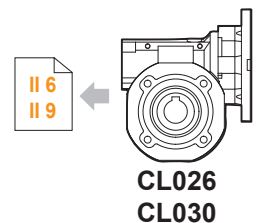
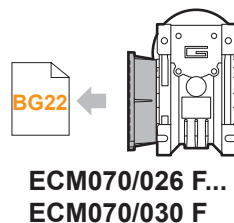
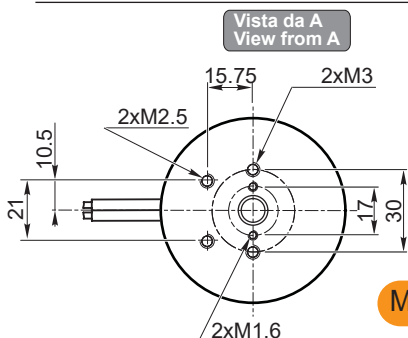
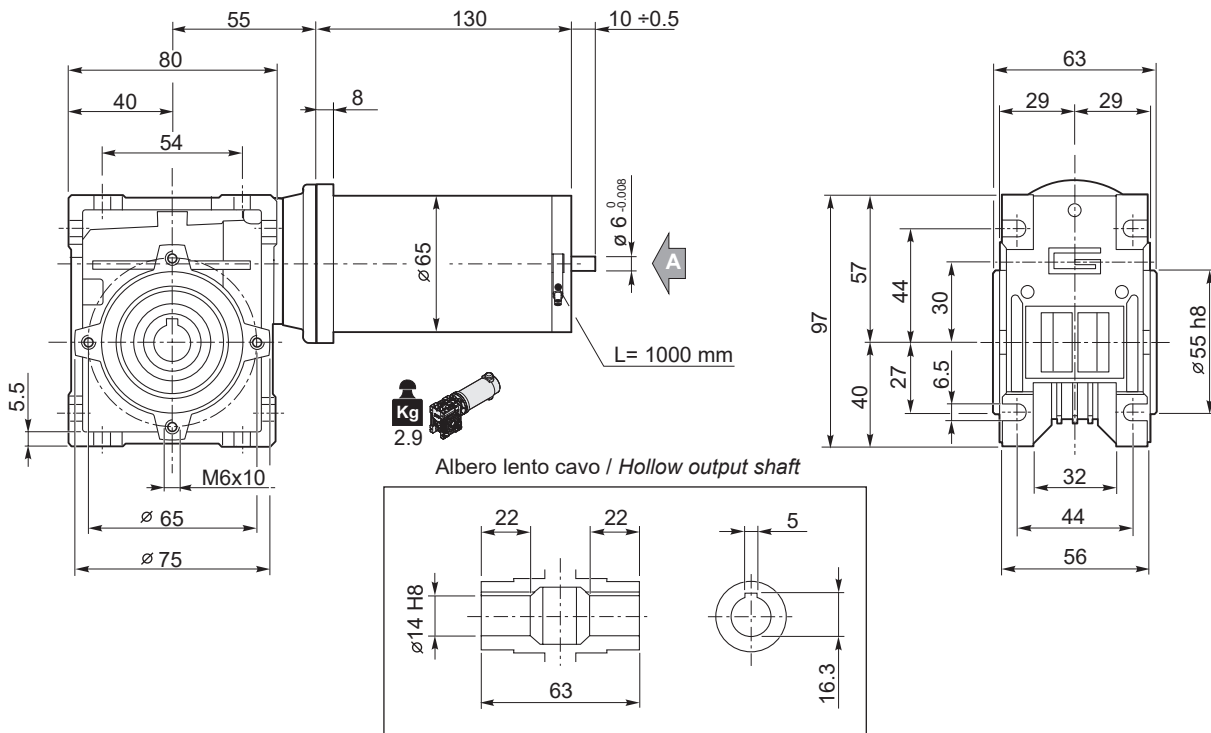
Dimensioni

Dimensions

ECM070/026 U



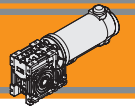
ECM070/030 U



Motori / Motors IP66 → BC2

Freno / Brake → BB23

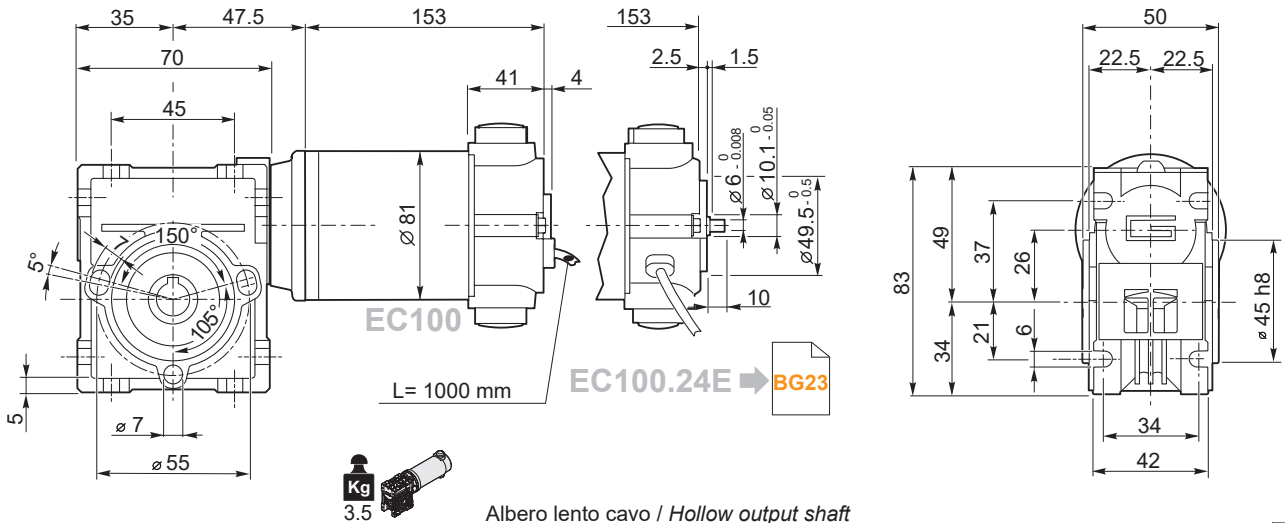
Encoder → BB24



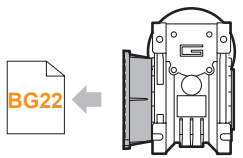
Dimensioni

Dimensions

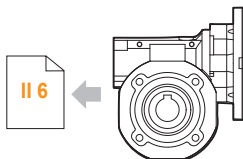
ECM100/026 U



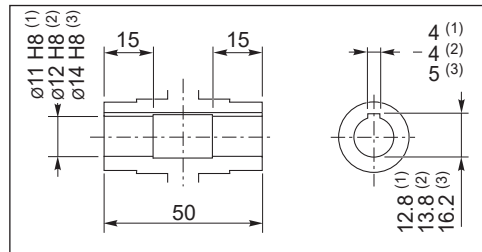
Albero lento cavo / Hollow output shaft



ECM100/026 F...



CL026

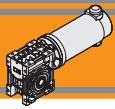


- (1): ECM 100/026 (D11)
- (2): ECM 100/026
- (3): ECM 100/026 (D14)

Motori / Motors IP66 → **BC4**

Freno / Brake → **BB23**

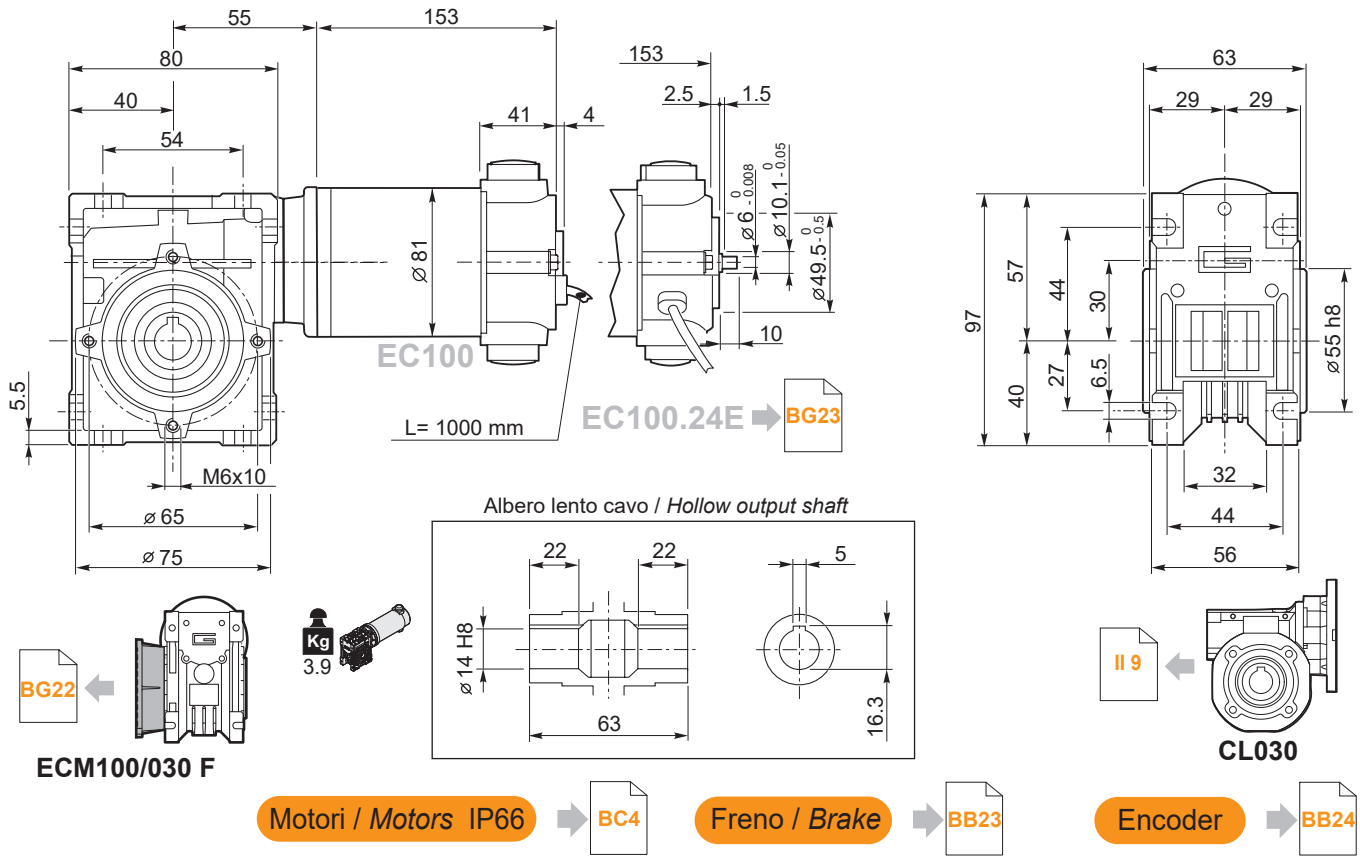
Encoder → **BB24**



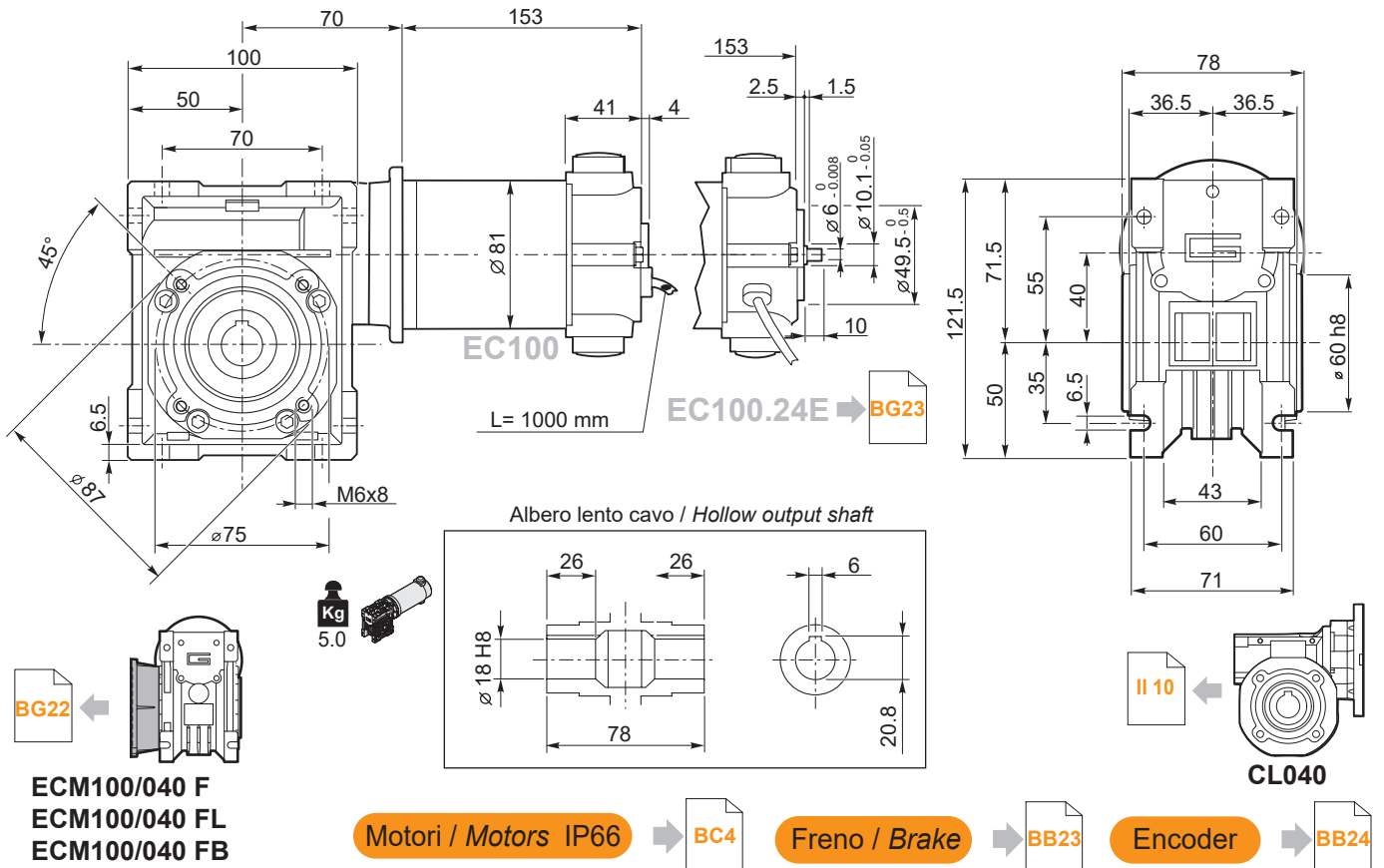
Dimensioni

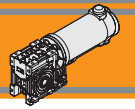
Dimensions

ECM100/030 U



ECM100/040 U

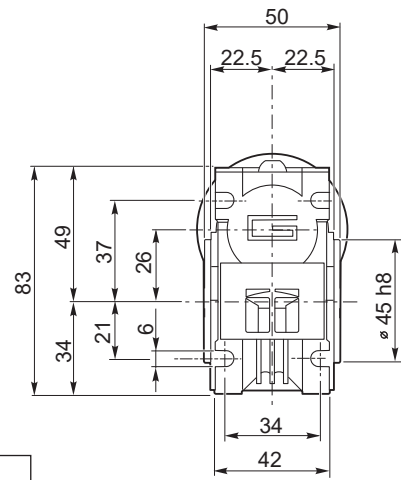
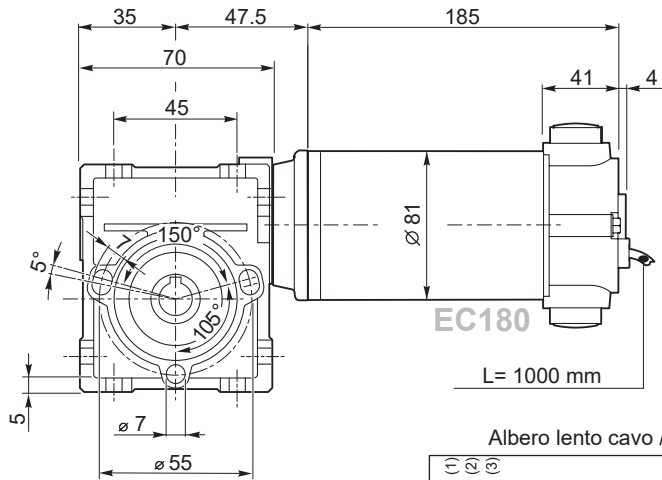




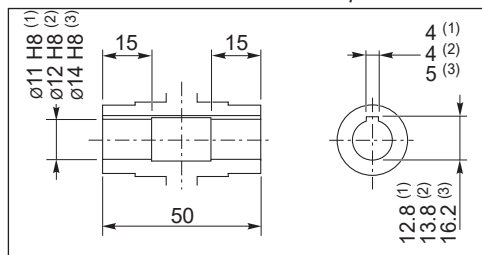
Dimensioni

Dimensions

ECM180/026 U



Albero lento cavo / Hollow output shaft

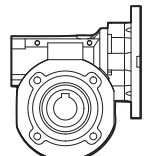


- (1): ECM 180/026 (D11)
- (2): ECM 180/026
- (3): ECM 180/026 (D14)



ECM180/026 F...

Motori / Motors IP66



CL026

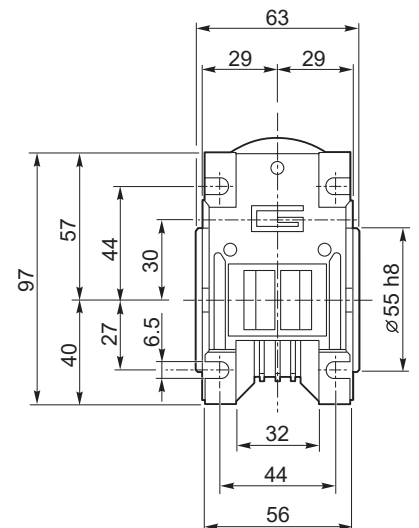
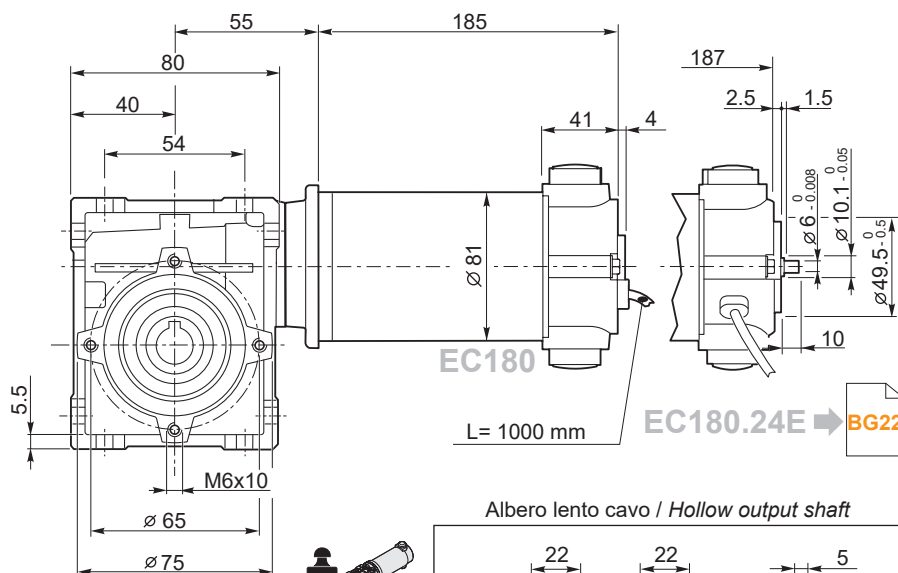
Freno / Brake



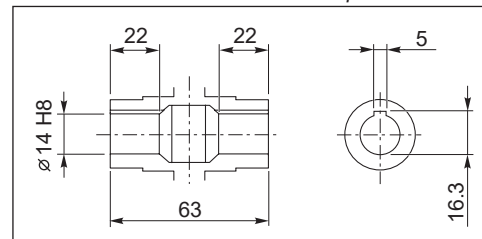
Encoder



ECM180/030 U



Albero lento cavo / Hollow output shaft



ECM180/030 F

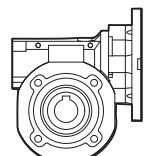
Motori / Motors IP66



Freno / Brake

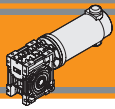


Encoder



CL030

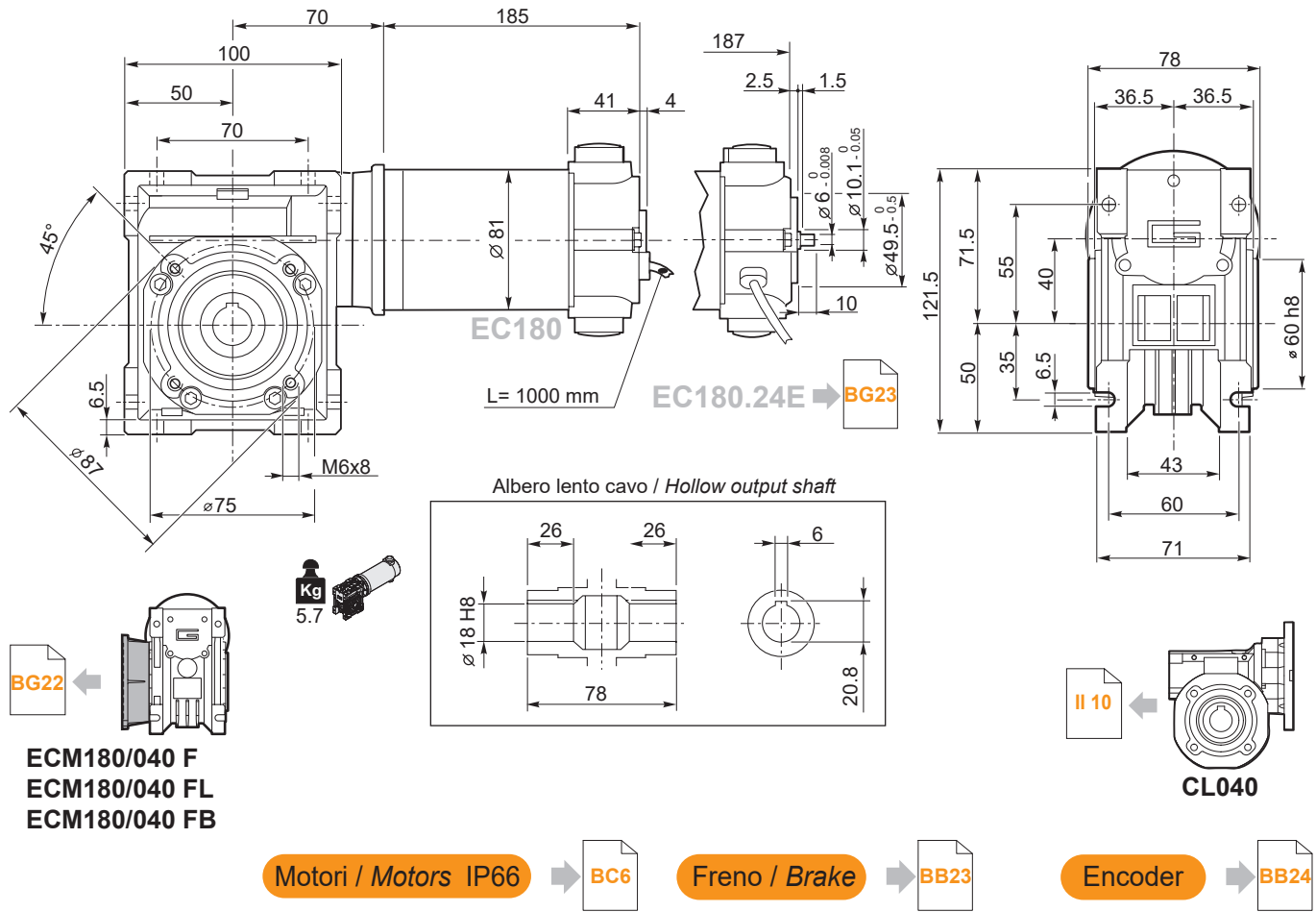
DC

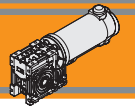


Dimensioni

Dimensions

ECM180/040 U

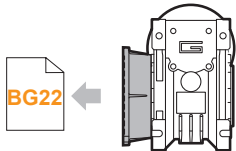
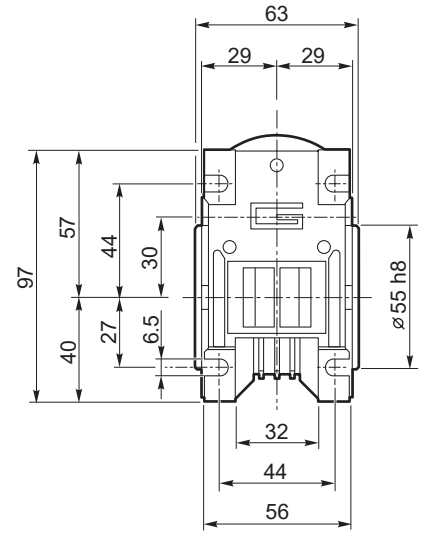
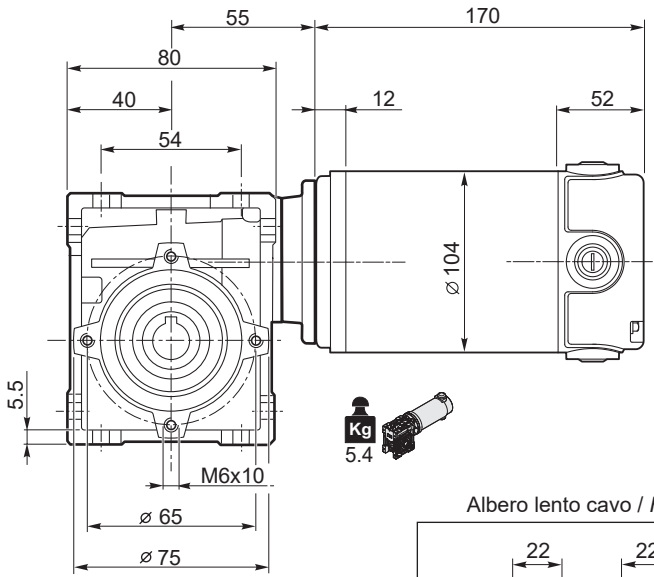




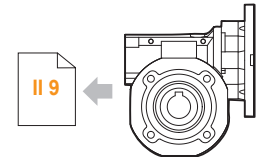
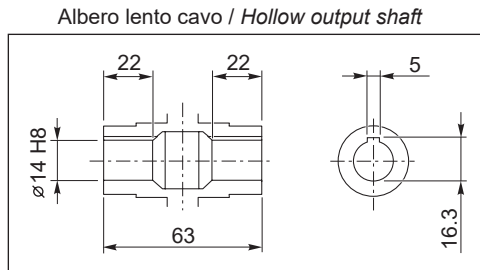
Dimensioni

Dimensions

ECM250/030 U



ECM250/030 F

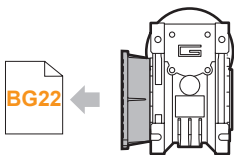
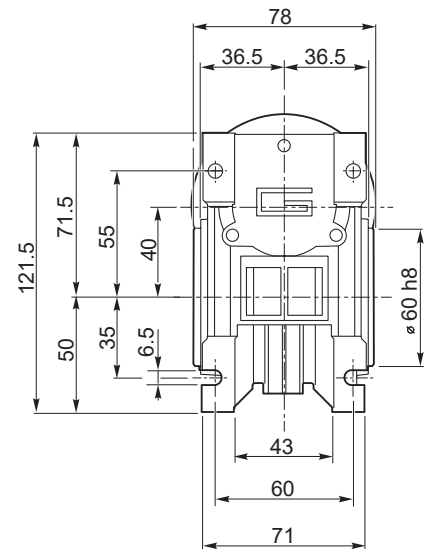
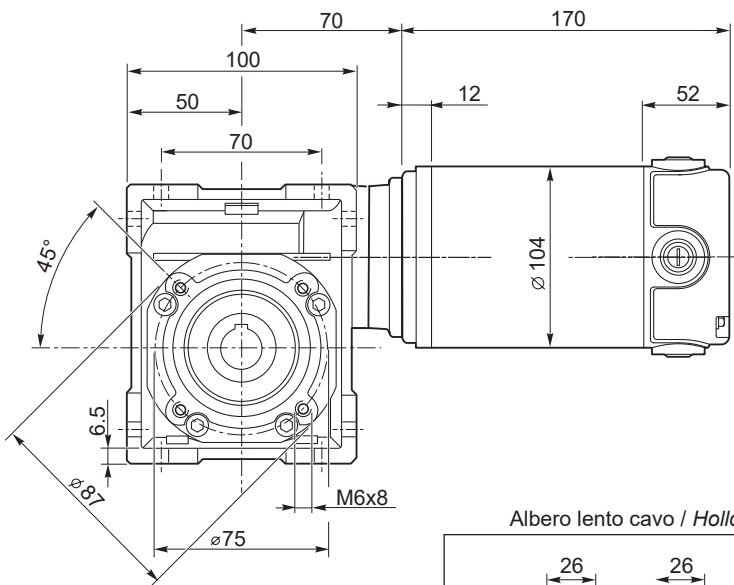


CL030

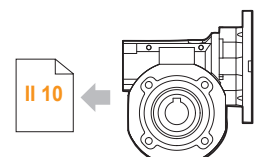
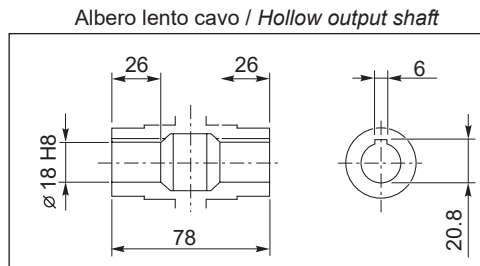
Motori / Motors IP66

BC8

ECM250/040 U



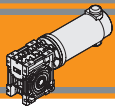
ECM250/040 F
ECM250/040 FL
ECM250/040 FB



CL040

Motori / Motors IP66

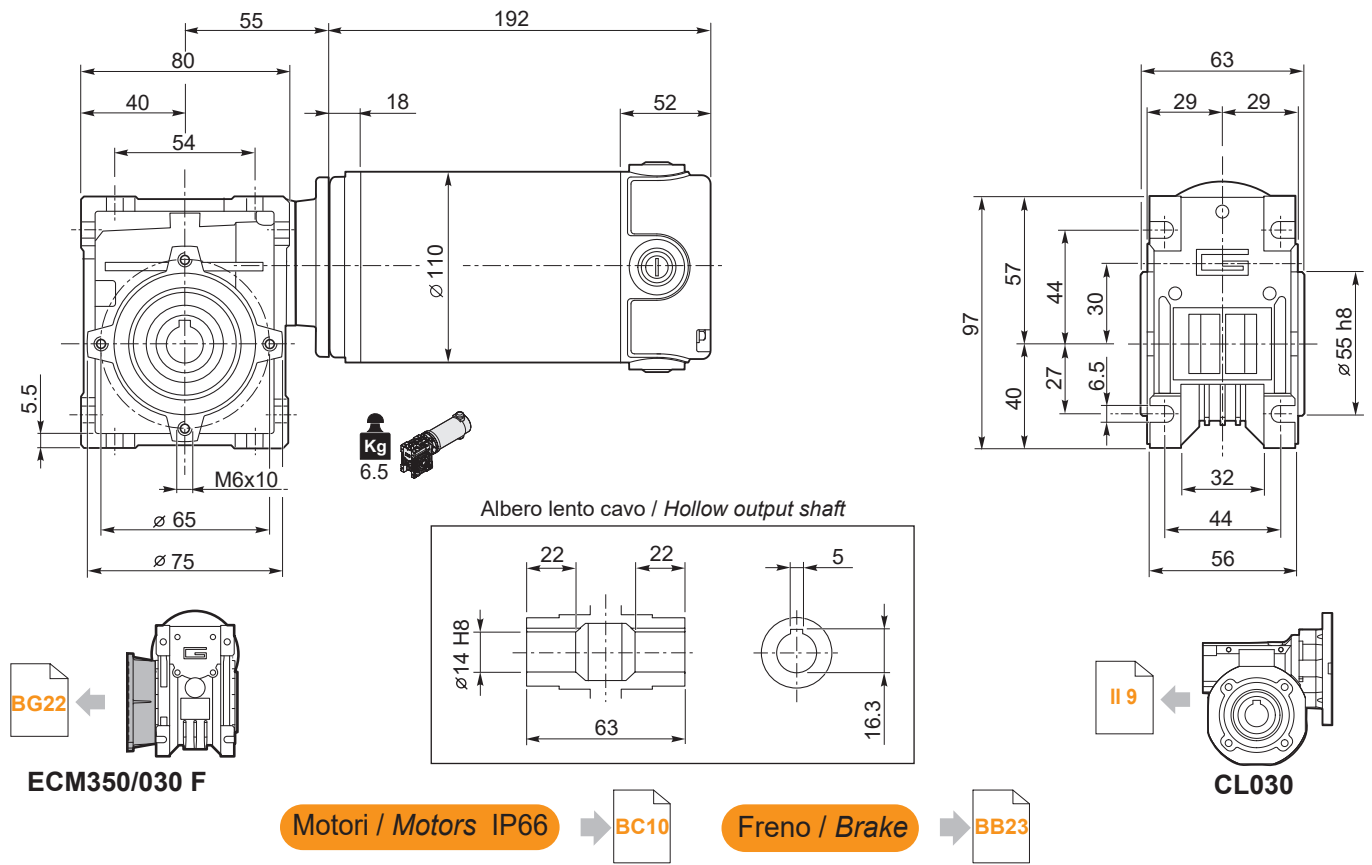
BC8



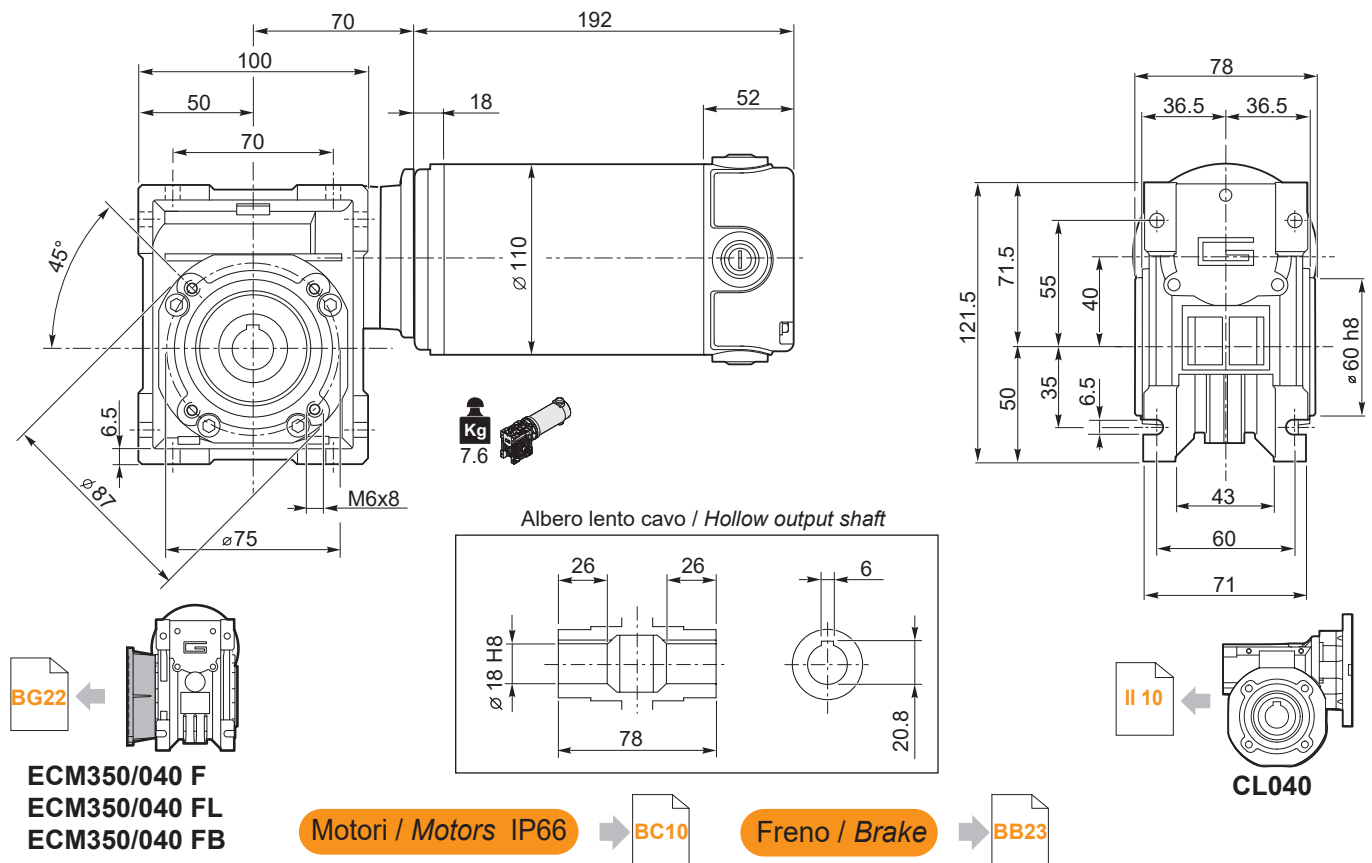
Dimensioni

Dimensions

ECM350/030 U



ECM350/040 U

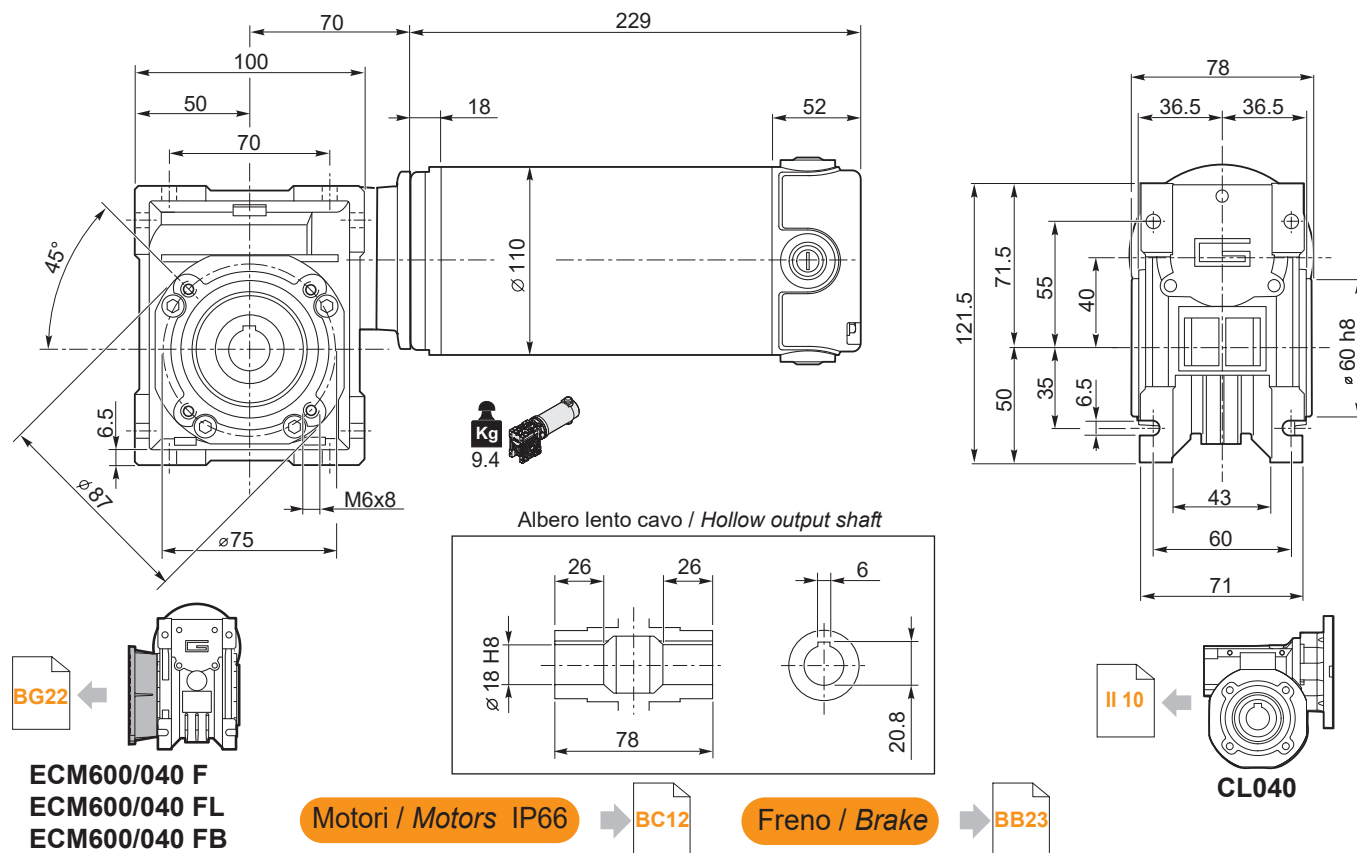


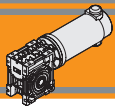


Dimensioni

Dimensions

ECM600/040 U

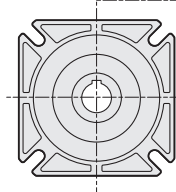
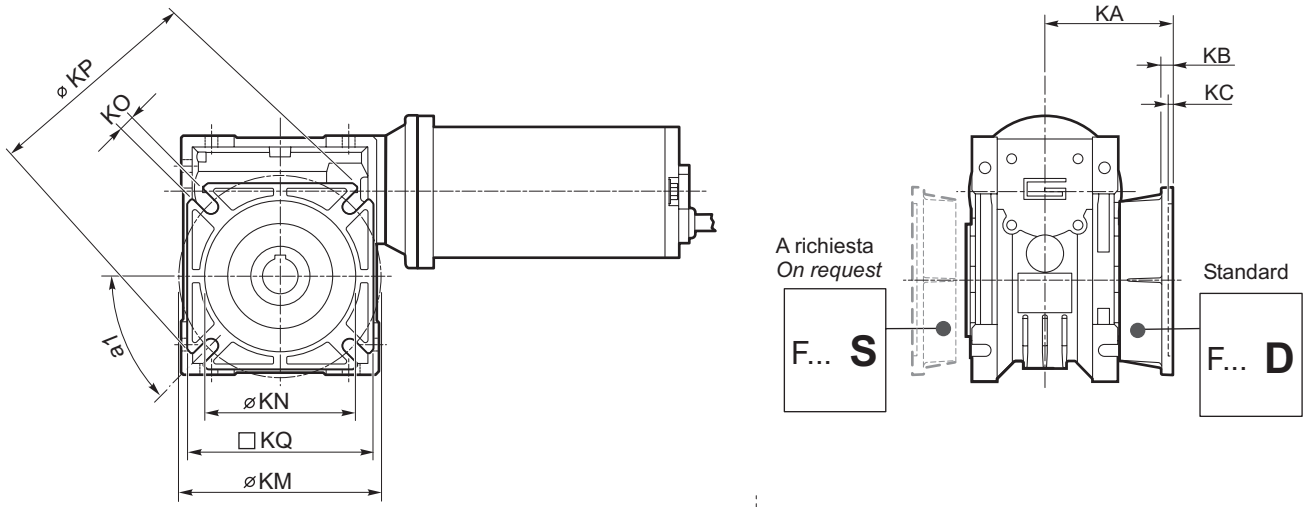




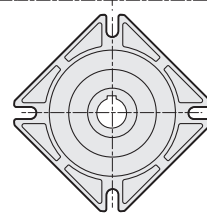
Dimensioni

Dimensions

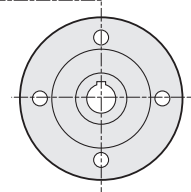
NDCM.../.... F... - ECM.../... F... Flange uscita / Output flanges



- ..CM026 ../. F
- ..CM026 ../. F28
- ..CM026 ../. F30
- ..CM026 ../. F30S
- ..CM030 ../. F..
- ..CM040 ../. F..



- ..CM026 ../. F30C
- ..CM026 ../. F30SC



- ..CM026 ../. F100

	CM..F							CM..F28							CM..F30							CM..F30S ⁽¹⁾											
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
026 (D11)	45°	45	6	4.5	55-69	40	6.5	75	70	44	6.5	5	56-64	40	6.5	70	60	48	6.5	5	68	50	6.5	80	70	50	8.5	7	68	50	6.5	80	70
026 (D14)							(n.4)																										

(1): F30S eseguita con F30 e distanziale di spessore 2 mm / F30S made with F30 and spacer with 2mm thickness

	CM..F30C							CM..F30SC ⁽²⁾							CM..F100										
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC *	KM	KN _{h7}	KO	KP	KQ
026 (D11)	-	48	6.5	7	68	50	6.5	80	70	50	8.5	7	68	50	6.5	80	70	51.5	8	2 *	86	45	6.5	100	-
026 (D14)																									

(2): F30SC eseguita con F30C e distanziale di spessore 2 mm / F30SC made with F30C and spacer with 2mm thickness

*: Centraggio maschio / Male centering diameter

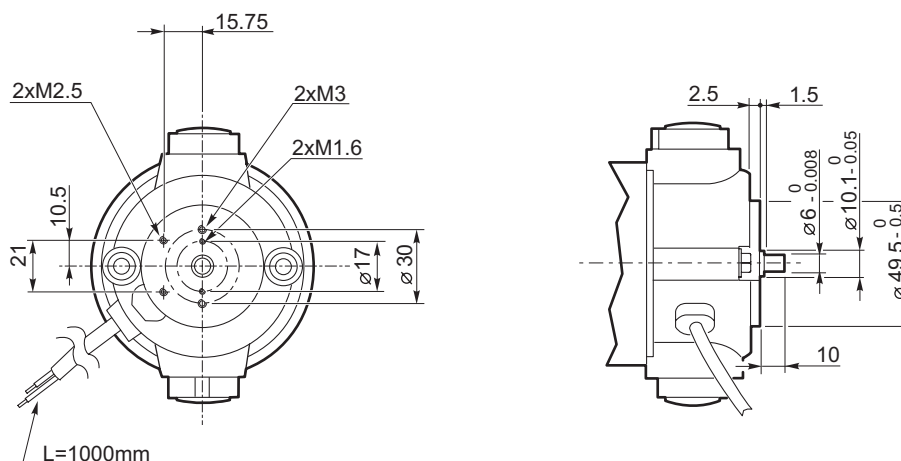
CM	CM..F							CM..FB							CM..FL										
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
040	45°	67	7.5	4	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	9 (n.4)	110	95



Dimensioni

Dimensions

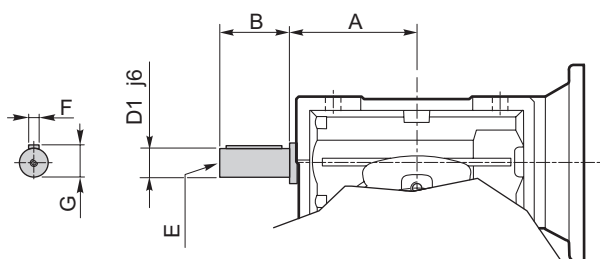
EC100.24E
EC180.24E



Opzioni

Options

VS - Vite sporgente / Extended input shaft



	A	B	D ₁ j6	E	F	G
CM 030	45	20	9	M4	3	10.2
CM 040	53	23	11	M5	4	12.5

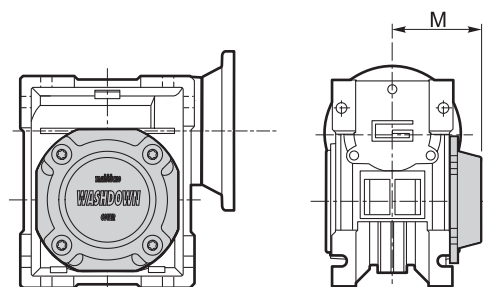
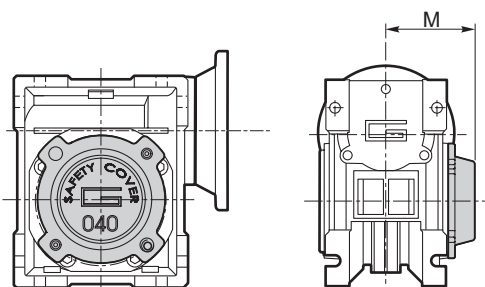
Costruito su richiesta
Built on request

Accessori

Accessories

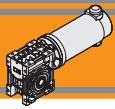
SC - Safety cover

WD - Kit washdown cover



	M
CM 030	47
CM 040	54.5

	M
CM 030	48
CM 040	55.5

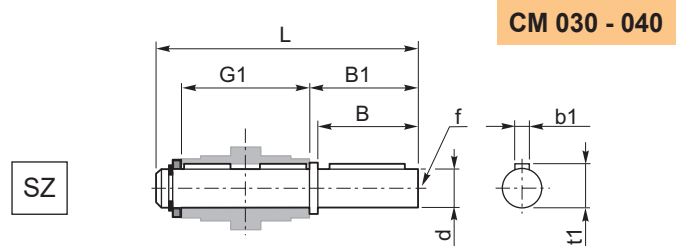
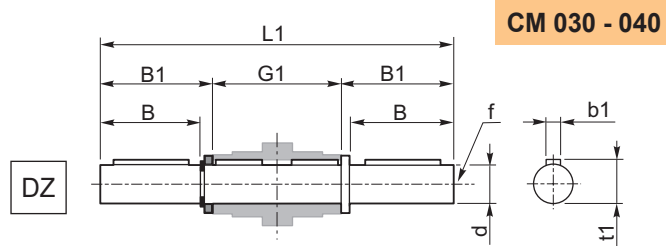


Accessori

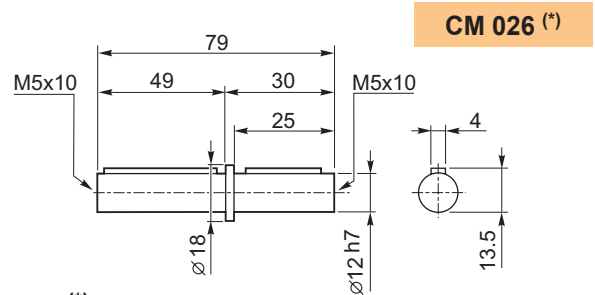
Accessories

Albero lento

Output shaft



	d h7	B	B1	G1	L	L1	f	b1	t1
CM 030	14	30	32.5	63	102	128	M6	5	16
CM 040	18	40	43	78	128	164	M6	6	20.5

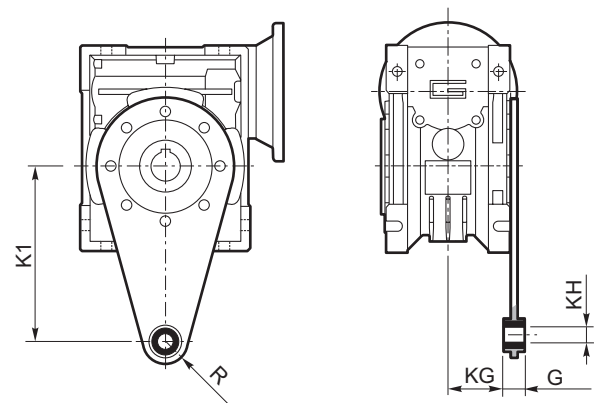


(*)
Nota: disponibile solo per cavo uscita Ø12
Note: available for output hollow shaft Ø12 only

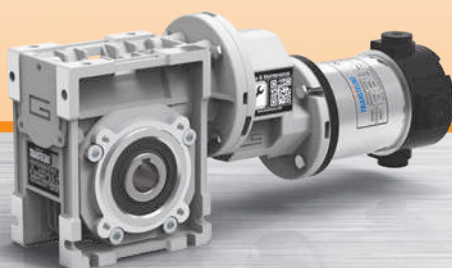
Braccio di reazione

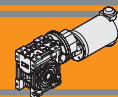
Torque arm

	K1	G	KG	KH	R
CM 030	85	14	23	8	15
CM 040	100	14	31	10	18



Motoriduttori CC a vite senza fine con precoppia
DC pre stage wormgearmotors

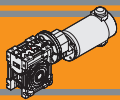




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Designazione	<i>Classification</i>	BH2
Simbologia	<i>Symbols</i>	BH3
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Carichi radiali	<i>Radial loads</i>	BH3
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	BH4
Motori applicabili	<i>Motor adapters</i>	BH5
Dimensioni	<i>Dimensions</i>	BH6
Opzioni	<i>Options</i>	BH13
Accessori	<i>Accessories</i>	BH13

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NDCMP
ECMP

Motoriduttori CC a vite senza fine con precoppia DC Pre stage wormgearmotors



Caratteristiche tecniche

Technical features

I motoriduttori CC a vite senza fine con precoppia a magneti permanenti in neodimio **NDCMP** e in ferrite **ECMP** hanno le seguenti caratteristiche principali:

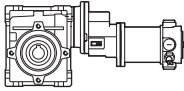
NDCMP neodymium permanent magnets and **ECMP** ferrite permanent magnets DC pre stage wormgearmotors range has the following main features:

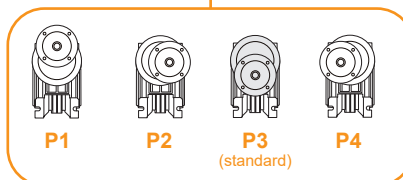
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 350W S2
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico

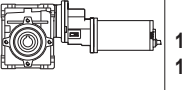
- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 up to 350W S2
- Die-cast aluminum housings
- Permanent synthetic oil long-life lubrication.

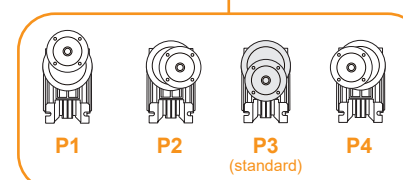
Designazione

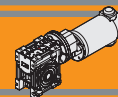
Classification

MOTORIDUTTORE / GEARMOTOR										
NDCMP	120/056/030		U	90	SZDX	BRSX	90	P4	240	VS
Tipo Type	Grandezza Size		Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Pos. di montaggio precoppia Pre stage mounting position	Versione Motore Motor Version	Opzioni Options
	120/056/030	180/056/030	U FD FS FLD FLS FBD FBS	Vedere tabella See tables	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	P1 P2 P3 (standard) P4	120 — 240	VS
	120/056/040	180/056/040								



MOTORIDUTTORE / GEARMOTOR										
ECMP	070/056/030		U	90	SZDX	BRSX	90	P4	240	VS
Tipo Type	Grandezza Size		Versione Riduttore Gearbox Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Pos. di montaggio precoppia Pre stage mounting position	Versione Motore Motor Version	Opzioni Options
	070/056/030	180/056/030	U FD FS FLD FLS FBD FBS	Vedere tabella See tables	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	P1 P2 P3 (standard) P4	120 240 24E	VS
	070/056/040	180/056/040 180/063/040								
	100/056/030	250/063/040								
	100/056/040									





Designazione

Classification

Versione Riduttore Gearbox Version U FD FS FLD FLS FBD FBS	Albero di uscita Output shaft SZDX SZSX DZ	Braccio di reazione * Torque arm BRDX BRSX	Angolo Angle
---	---	--	-------------------------

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

Simbologia

Symbols

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

Lubrificazione

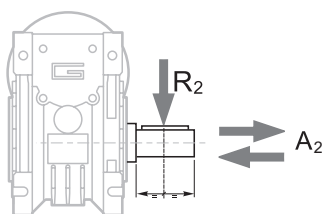
Lubrication

I riduttori a vite senza fine con precoppia della serie CMP 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 CMP range in all mounting positions.

Carichi radiali

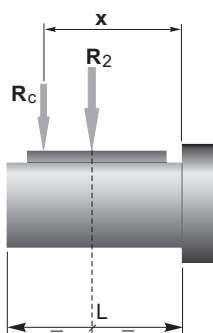
Radial loads



n_2 [min ⁻¹]	R_2 [N]	
	CM030	CM040
35	1179	2210
28	1270	2381
23	1356	2542
18	1471	2759
14	1600	3000

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:

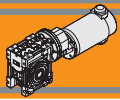


$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

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




	CM	
	030	040
a	65	84
b	50	64
R_{2MAX}	1600	3000






Dati tecnici per servizio S2

NDCMP

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)	50	21	1.0	60		120/056/030
	40	25	0.9	75		
	33	28	1.0	90		
	25	35	0.7	120		
	20	31	0.7	150		
	50	22	2.0	60		120/056/040
	40	26	1.7	75		
	33	30	1.9	90		
	25	36	1.3	120		
	20	43	1.1	150		
	17	48	0.9	180		
	13	55	0.7	240		
	10	51	0.7	300		

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
250						
(3000 min ⁻¹)	50	31	0.7	60		180/056/030
	40	31	0.7	75		
	33	39	0.7	90		
	25	33	0.7	120		
	20	31	0.7	150		
	50	35	1.3	60		180/056/040
	40	41	1.1	75		
	33	46	1.2	90		
	25	56	0.9	120		
	20	66	0.7	150		
	17	61	0.7	180		
	13	57	0.7	240		
	10	51	0.7	300		

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 in the grey areas

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

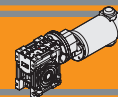
NOTE: for continuous or highly intermittent duty, please contact our technical service

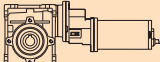
Dati tecnici elettrici

Electrical technical data

ND 120 → 

ND 180 → 


Dati tecnici per servizio S2
ECMP
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
--------------	-------------------------------	---------------	----	---	---	----------------------------------

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version
--------------	-------------------------------	---------------	----	---	---	----------------------------------

100

(3000 min ⁻¹)	50	13	1.7	60	ECMP070/056/030	12E/24E
	40	16	1.4	75		
	33	17	1.6	90		
	25	22	1.1	120		
	20	25	0.9	150		
	50	14	3.2	60	ECMP070/056/040	12E/24E
	40	16	2.7	75		
	33	19	3.0	90		
	25	22	2.1	120		
	20	27	1.7	150		
	17	30	1.4	180		
	13	34	1.2	240		
	10	38	0.9	300		

250

(3000 min ⁻¹)	50	33	0.7	60	ECMP180/056/030	120/240			
	40	31	0.7	75					
	33	39	0.7	90					
	25	33	0.7	120					
	20	31	0.7	150					
	50	35	1.3	60	ECMP180/056/040	120/240			
	40	41	1.1	75					
	33	46	1.2	90					
	25	56	0.9	120					
	20	67	0.7	150					
	17	61	0.7	180					
	13	57	0.7	240					
	10	51	0.7	300					
		50	35	1.3			60	ECMP180/063/040	24E
		40	41	1.1			75		
33		46	1.2	90					
25		56	0.9	120					

140

(3000 min ⁻¹)	50	19	1.2	60	ECMP100/056/030	120/240/24E
	40	22	1.0	75		
	33	24	1.1	90		
	25	30	0.8	120		
	20	31	0.7	150		
	50	19	2.3	60	ECMP100/056/040	120/240/24E
	40	23	1.9	75		
	33	26	2.2	90		
	25	31	1.5	120		
	20	37	1.2	150		
	17	42	1.0	180		
	13	48	0.8	240		
	10	54	0.7	300		

350

(3000 min ⁻¹)	50	48	0.9	60	ECMP250/063/040	120/240
	40	57	0.8	75		
	33	65	0.9	90		
	25	69	0.7	120		

NOTA

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

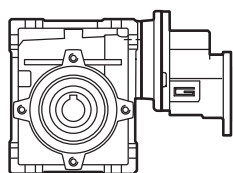
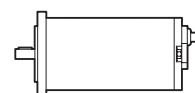
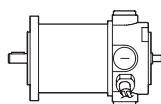
NOTE

Please check that the output torque M_2 does not exceed the value in the grey areas

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

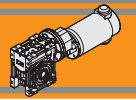
Dati tecnici elettrici
Electrical technical data

Motori applicabili
Motor adapters


		ND		EC					
		120.120 120.240	180.120 180.240	070.12E 070.24E	100.120 100.240 100.24E	180.120 180.240	180.24E	250.120 250.240	350.120 350.240
CMP	056/030	150	150	150	150	150			
	056/040	300	300	300	300	300			
	063/040						120	120	120

150

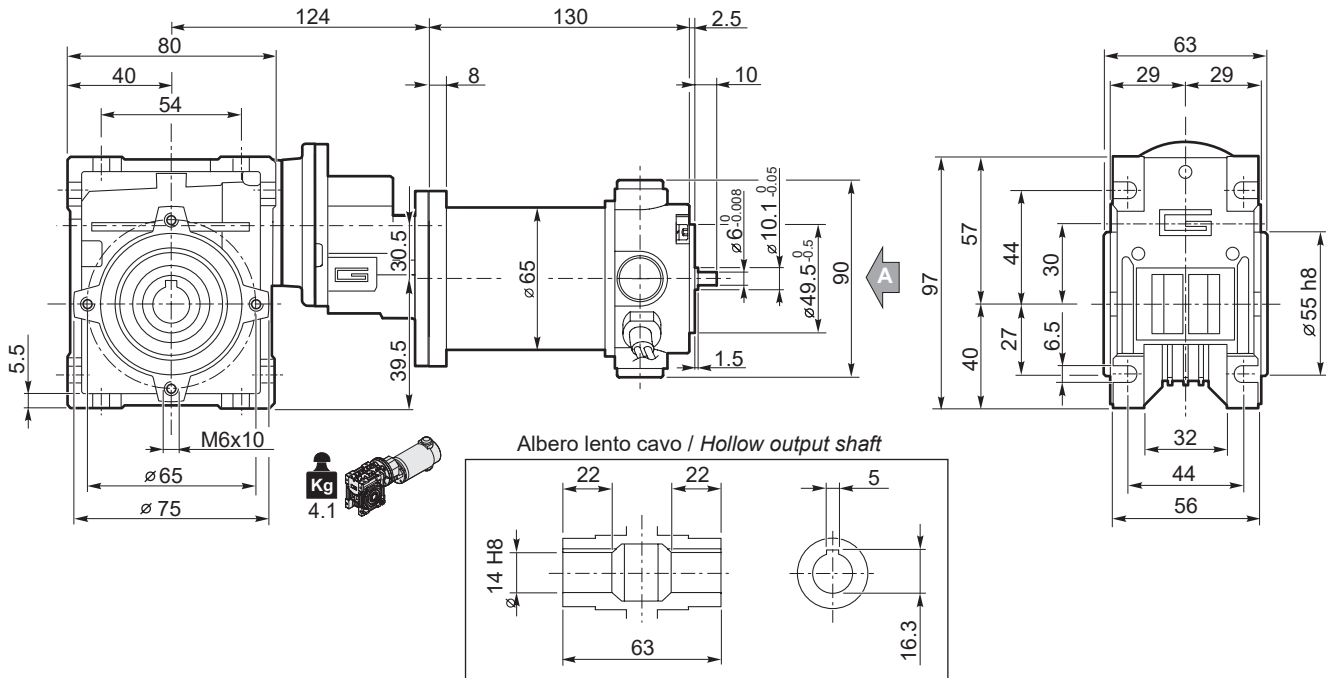
Rapporto di riduzione massimo i_{max}
Maximum ratio i_{max}



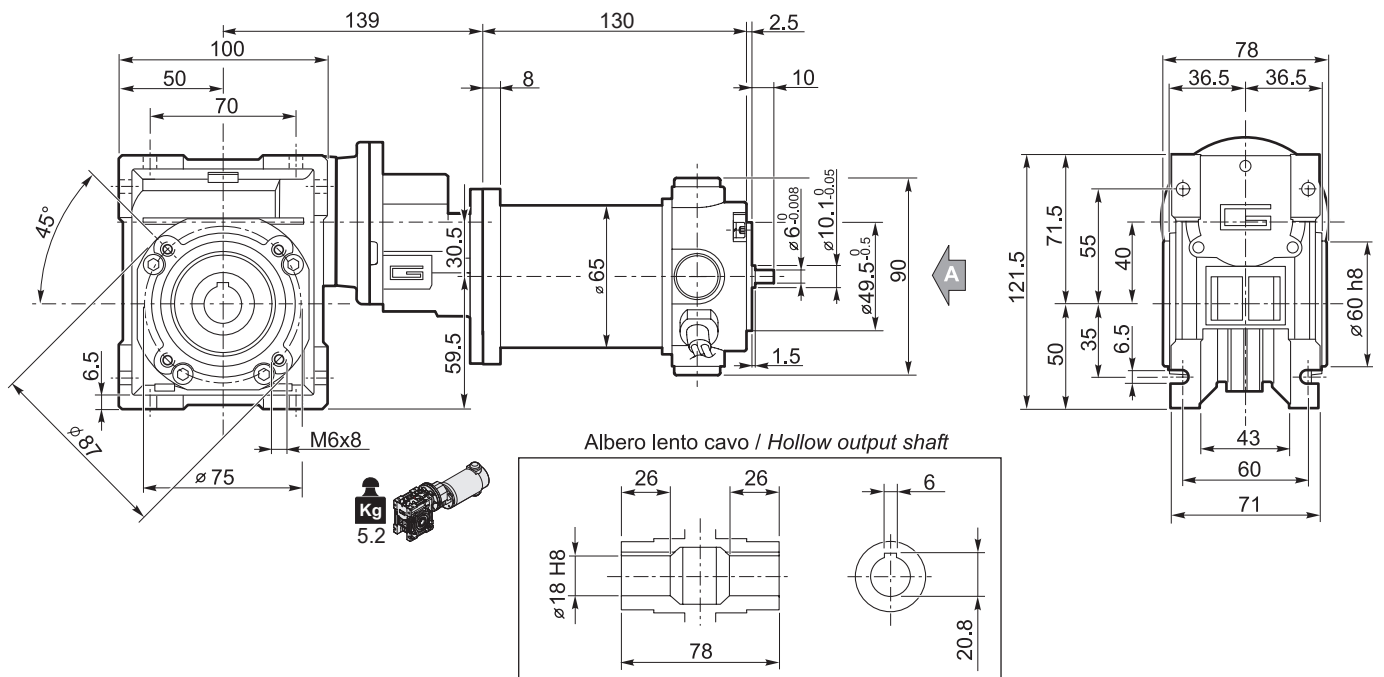
Dimensioni

Dimensions

NDCMP180/056/030 U

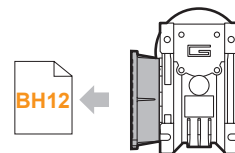
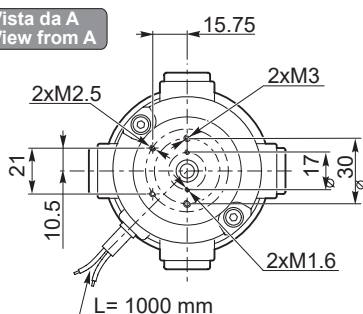


NDCMP180/056/040 U

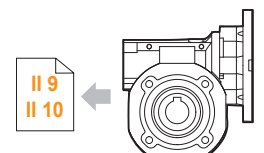


DC

Vista da A
View from A



NDCMP180/056/030 F
NDCMP180/056/040 F..



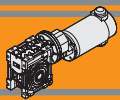
CL030
CL040

Freno / Brake



Encoder

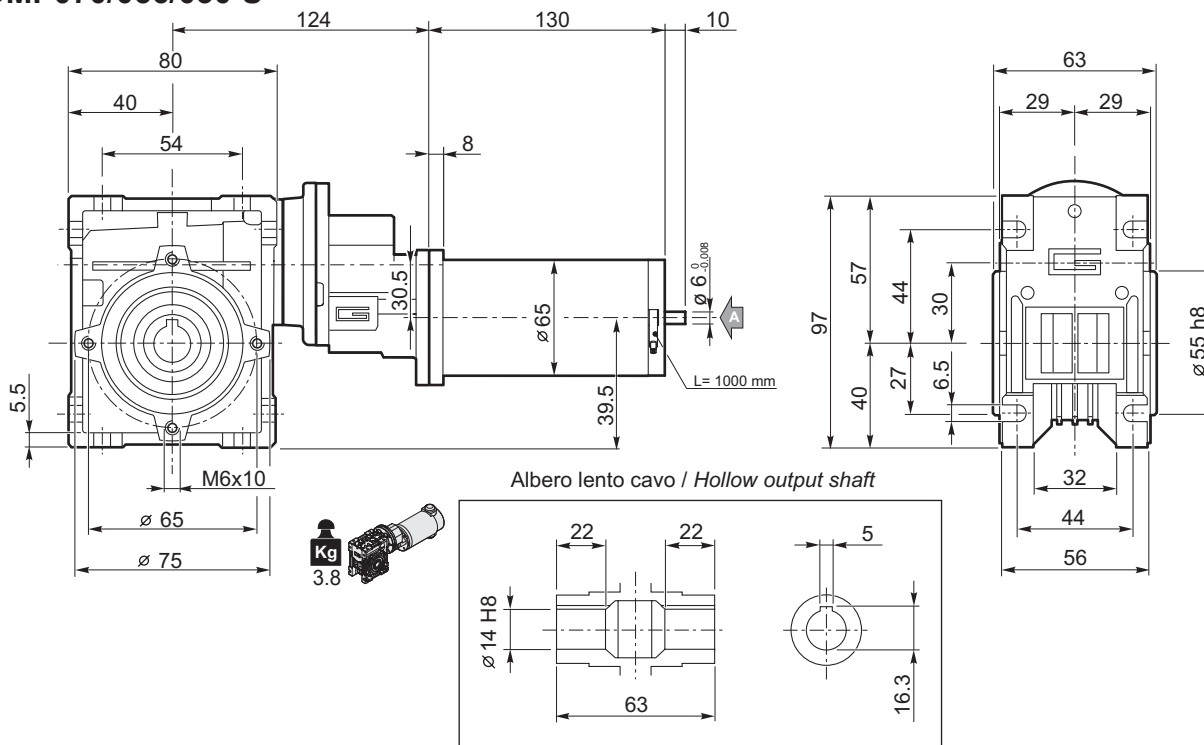




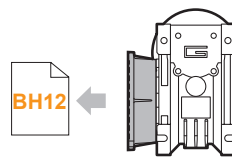
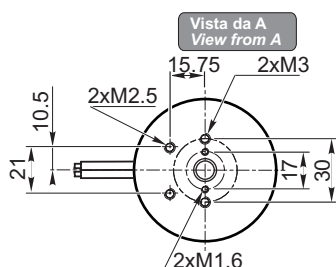
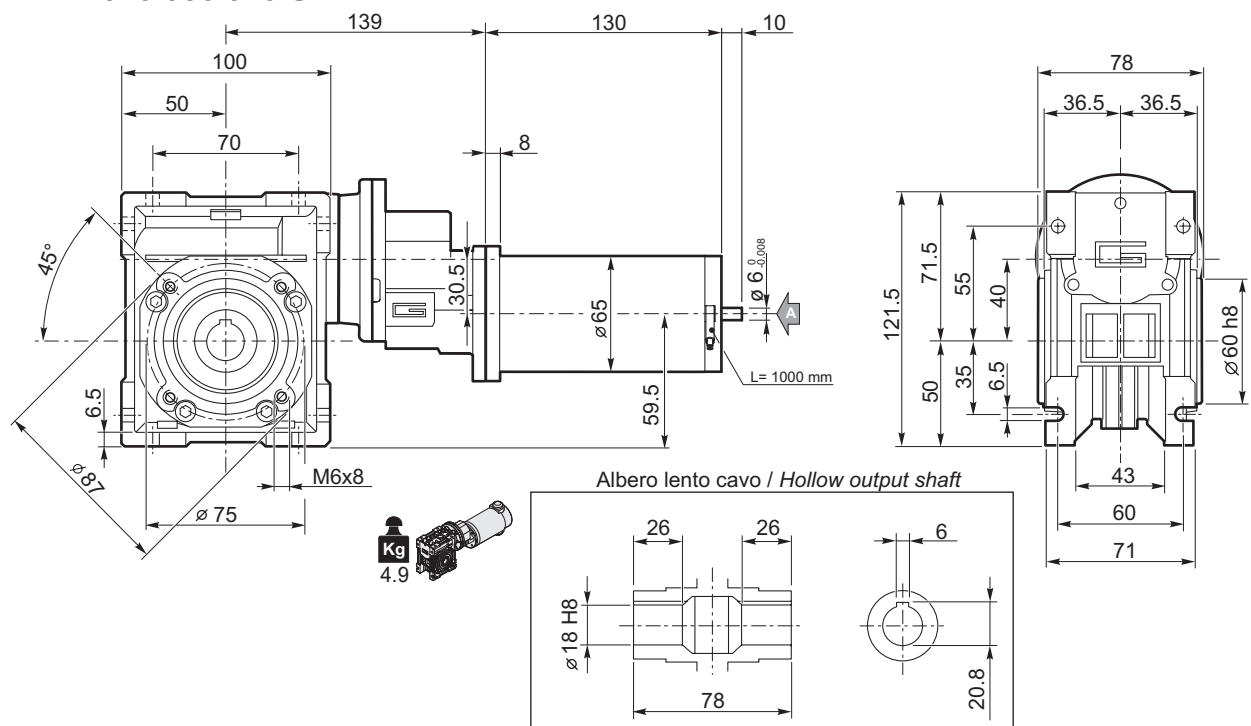
Dimensioni

Dimensions

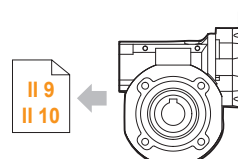
ECMP070/056/030 U



ECMP070/056/040 U



ECMP070/056/030 F
ECMP070/056/040 F..



CL030
CL040

Motori / Motors IP66

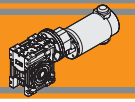


Freno / Brake



Encoder

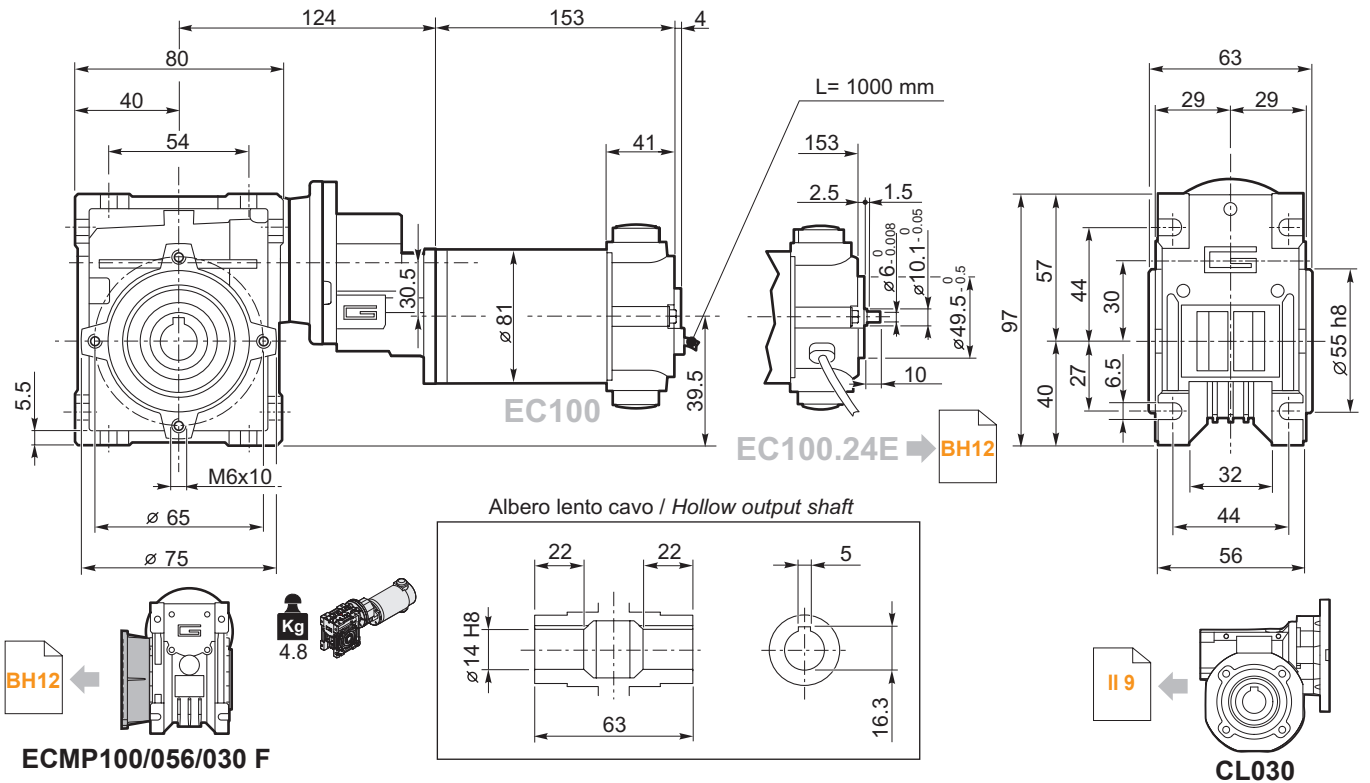




Dimensioni

Dimensions

ECMP100/056/030 U



Motori / Motors IP66

BC4

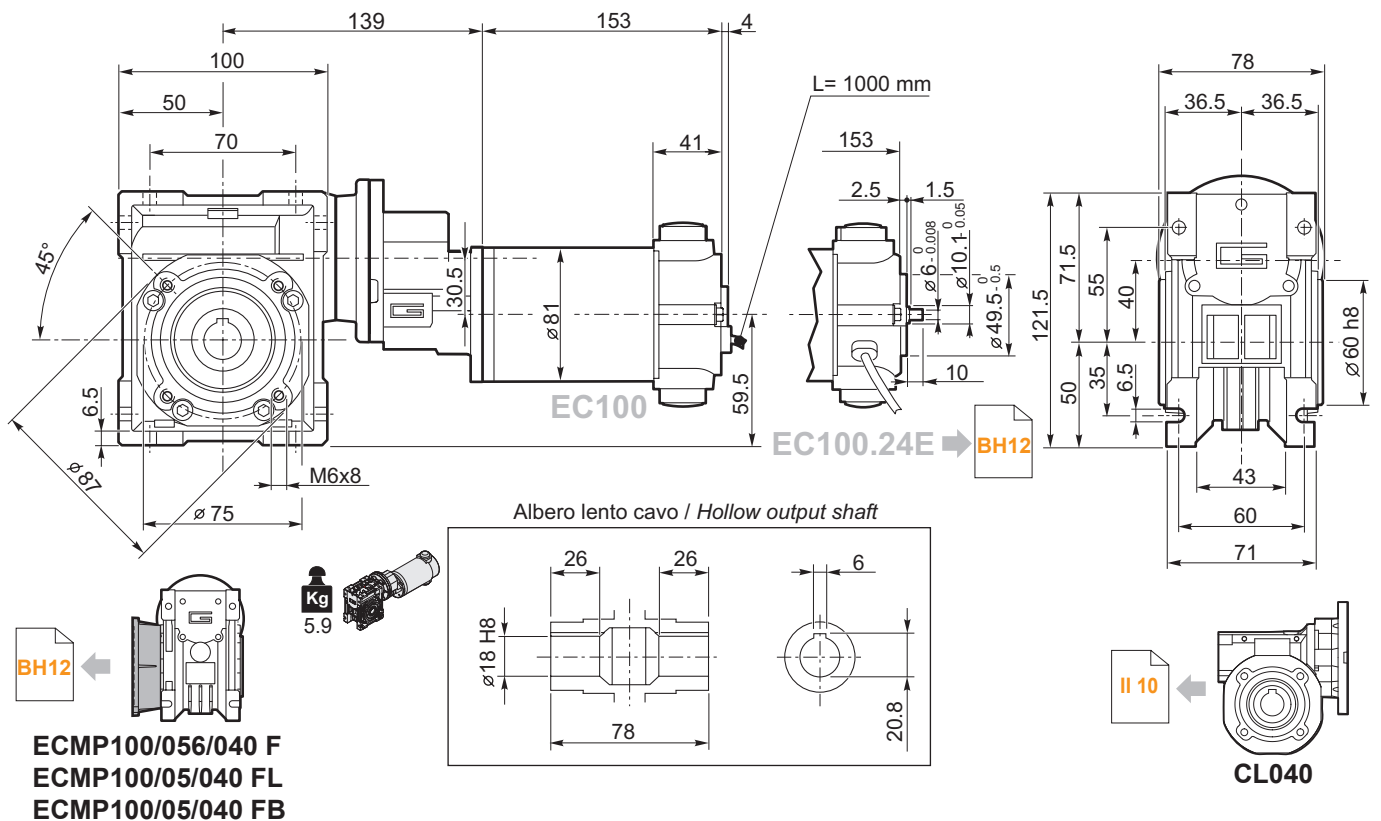
Freno / Brake

BB23

Encoder

BB24

ECMP100/056/040 U



Motori / Motors IP66

BC4

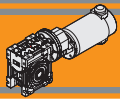
Freno / Brake

BB23

Encoder

BB24

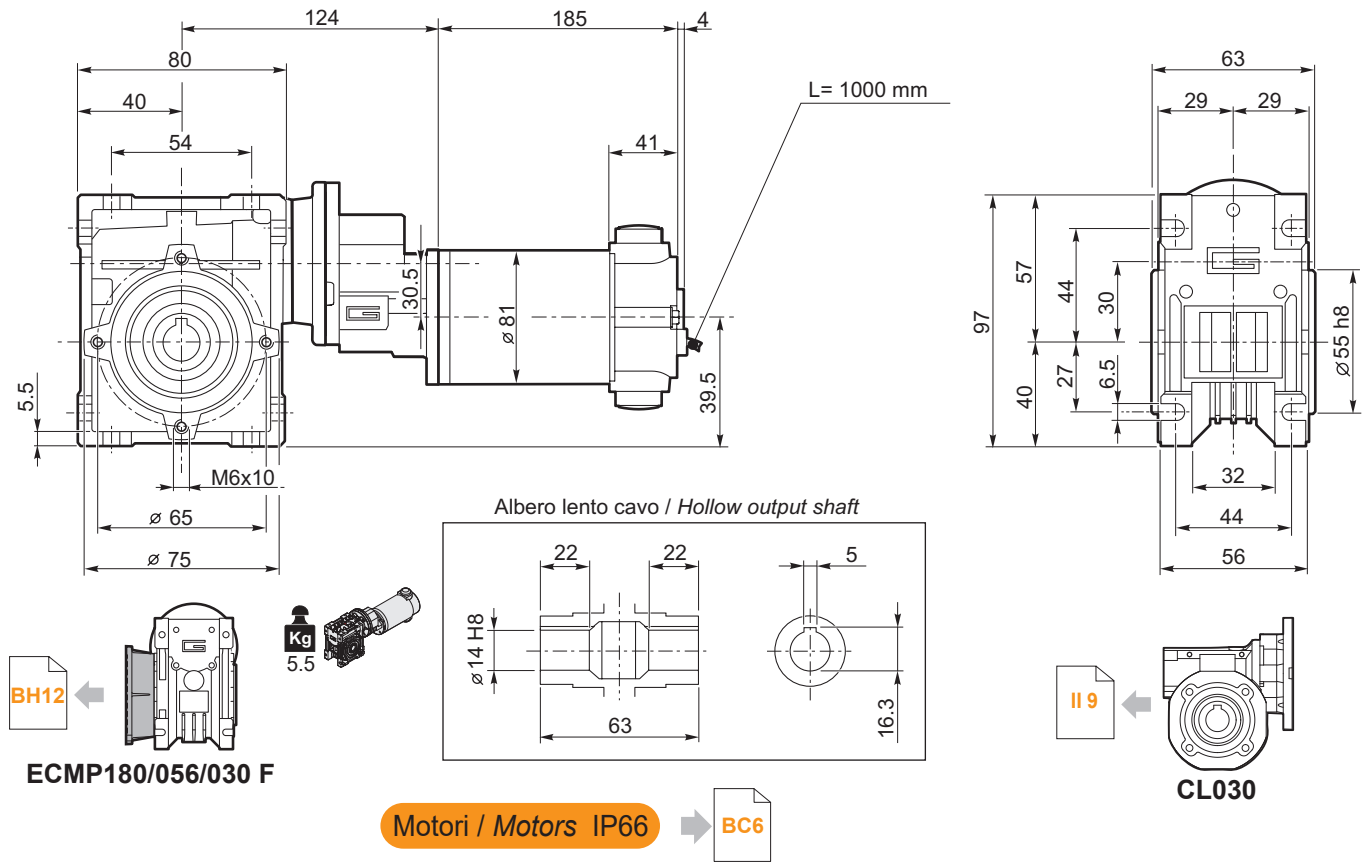
DC



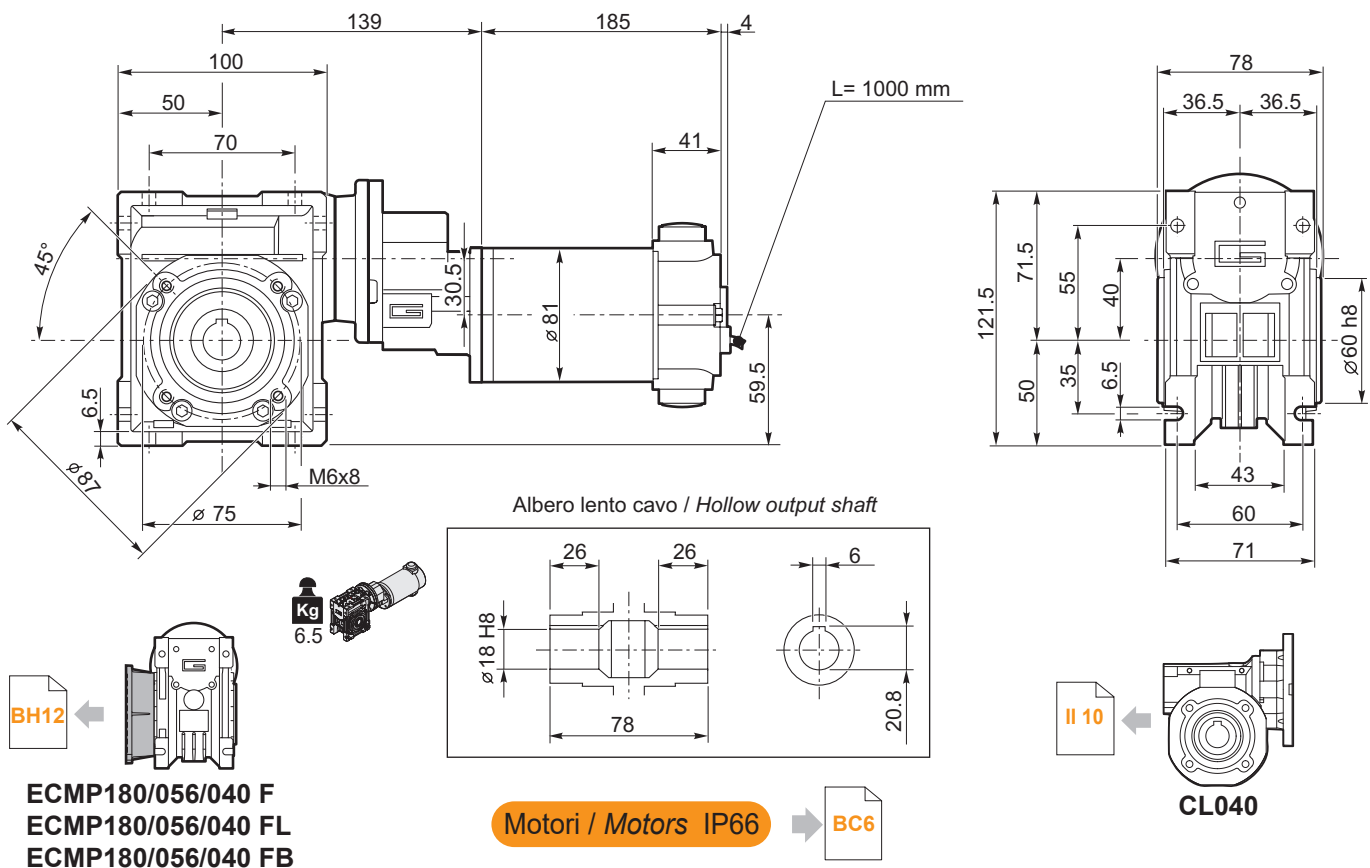
Dimensioni

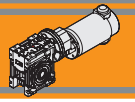
Dimensions

ECMP180/056/030 U



ECMP180/056/040 U

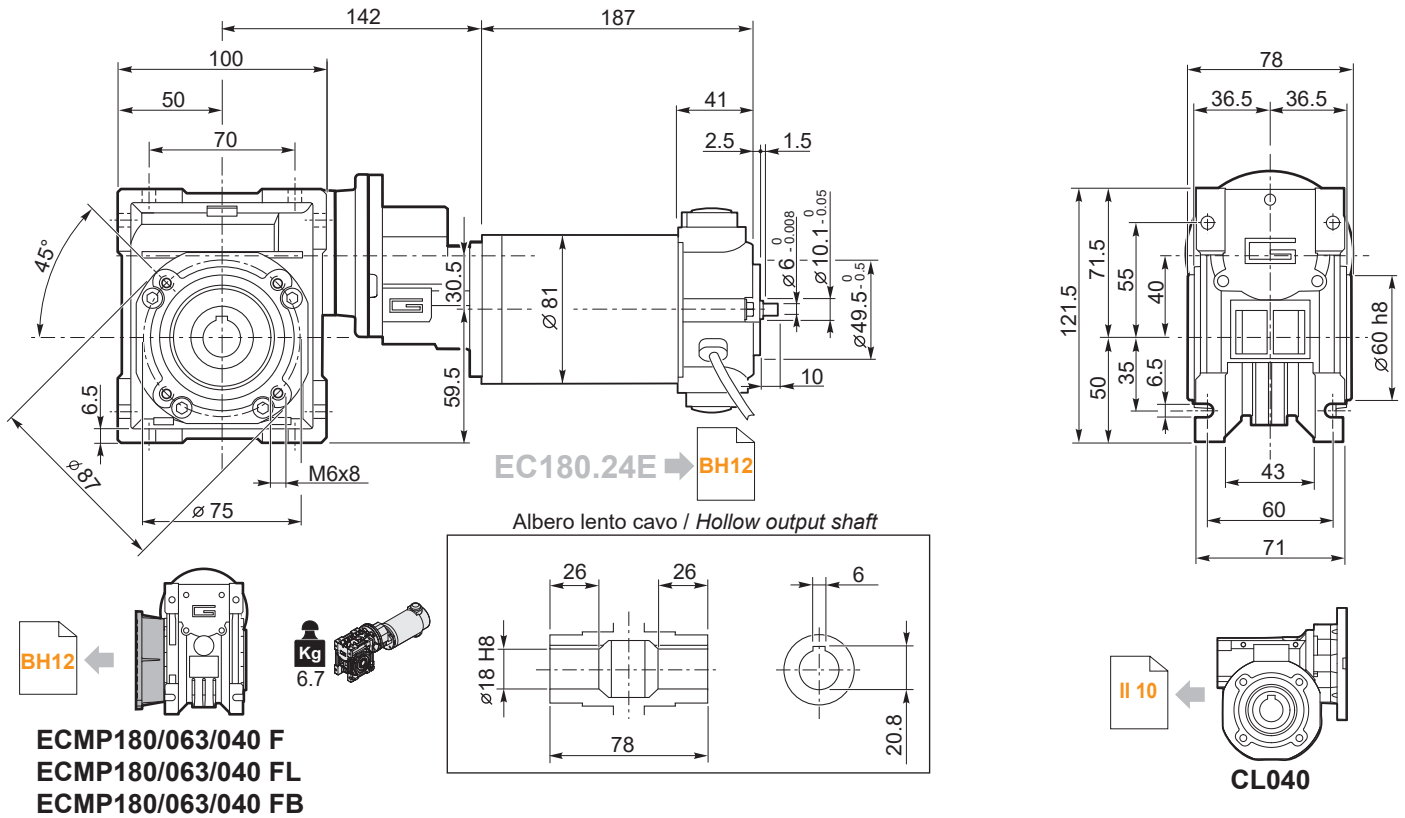




Dimensioni

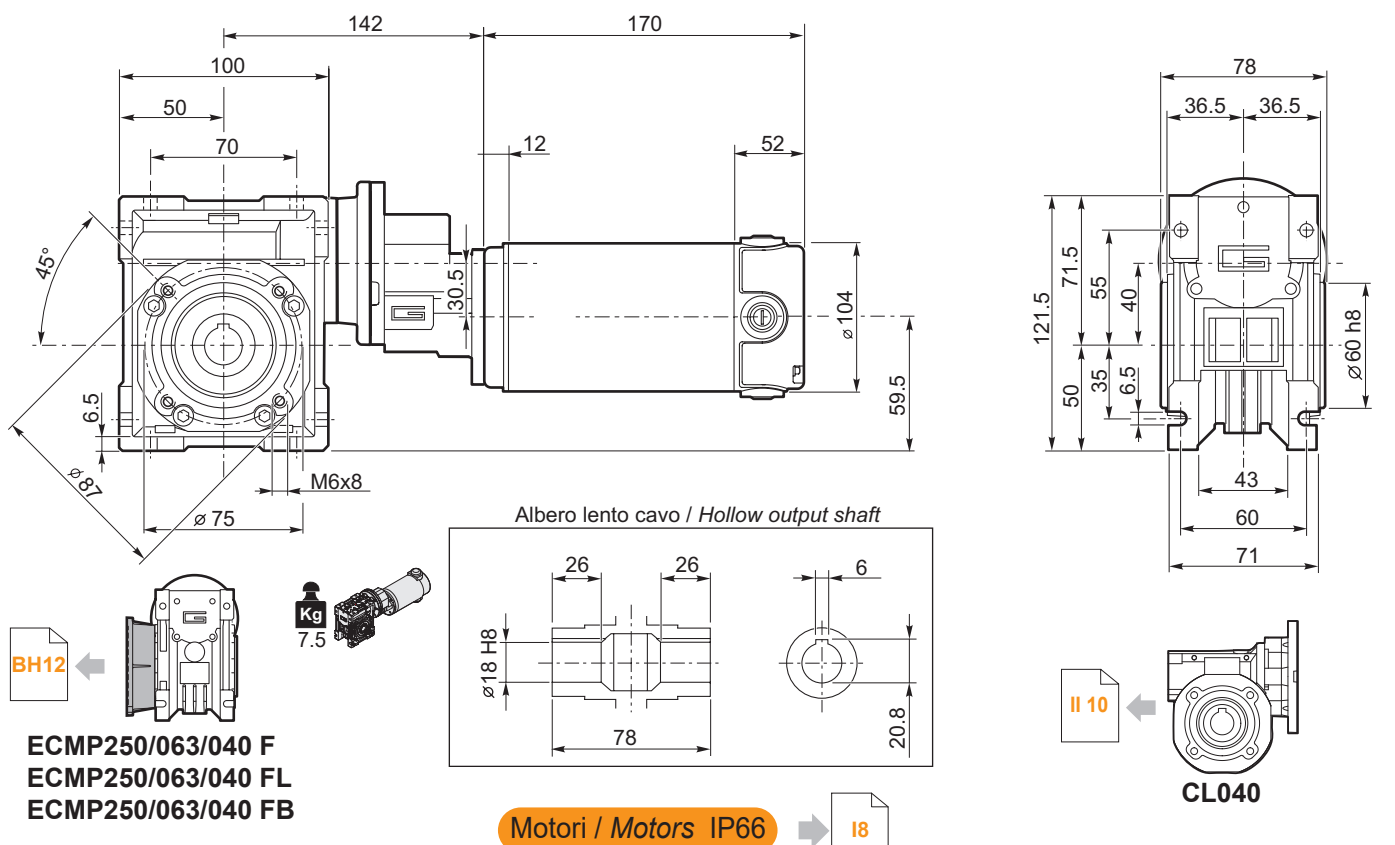
Dimensions

ECMP180/063/040 U



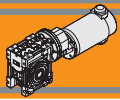
- Motors / Motors IP66 → BC6
- Brake / Freno → BB23
- Encoder → BB24

ECMP250/063/040 U



- Motors / Motors IP66 → I8

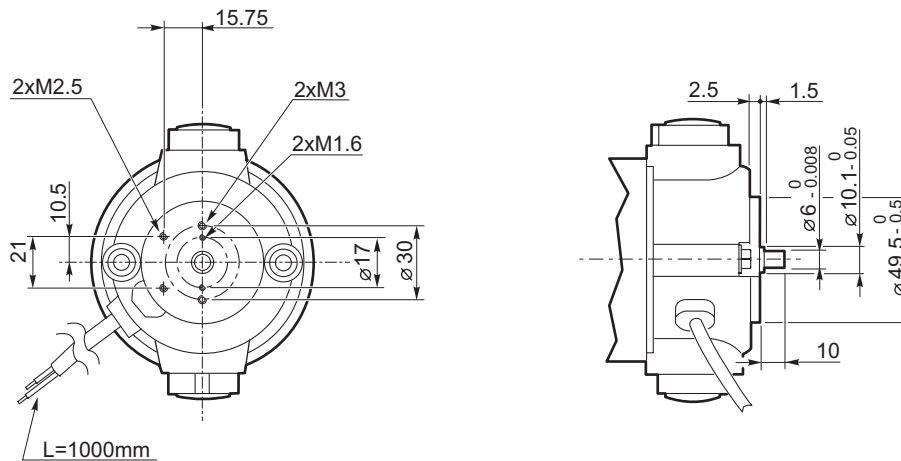
DC



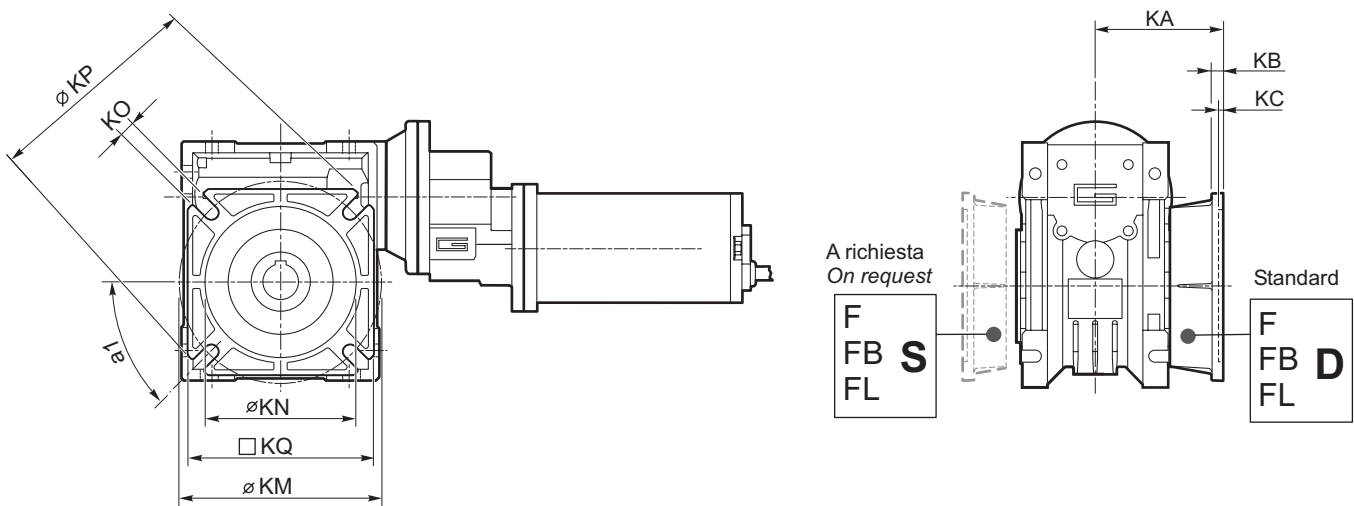
Dimensioni

Dimensions

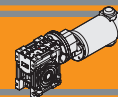
**EC100.24E
EC180.24E**



ECMP.../... F... Flange uscita / Output flanges



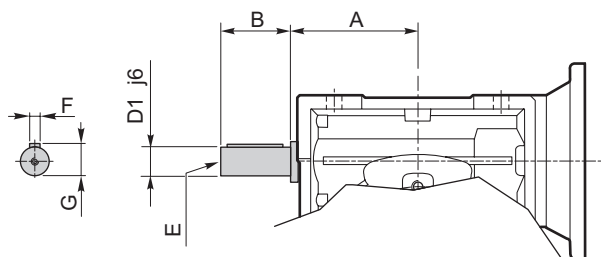
CMP	CMP..F								CMP..FB								CMP..FL								
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
056/030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
056/040 063/040	45°	67	7.5	4	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	9(n.4)	110	95



Opzioni

Options

VS - Vite sporgente / *Extended input shaft*



CMP	A	B	D ₁ j ₆	E	F	G
056/030	45	20	9	M4	3	10.2
056/040 063/040	53	23	11	M5	4	12.5

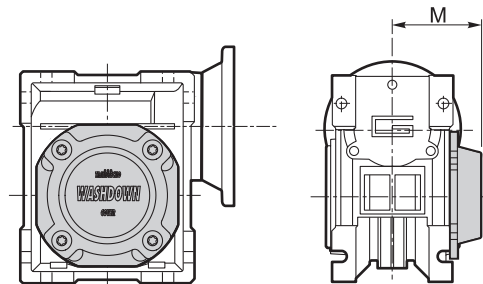
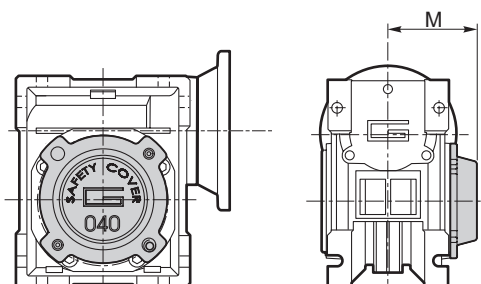
Costruito su richiesta
Built on request

Accessori

Accessories

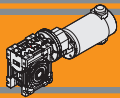
SC - Safety cover

WD - Kit washdown cover



	M
CM 030	47
CM 040	54.5

	M
CM 030	48
CM 040	55.5



Accessori

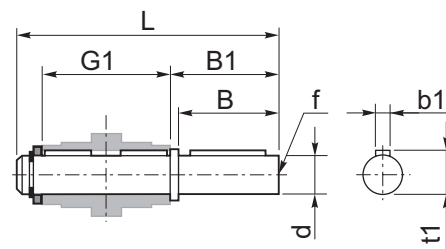
Accessories

Albero lento semplice e doppio

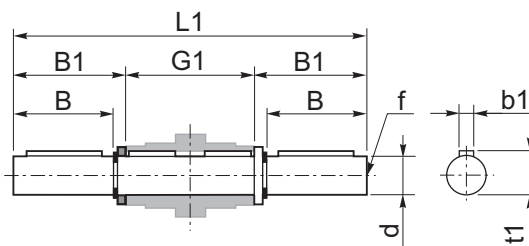
Single and double output shaft

CMP	d _{h7}	B	B1	G1	L	L1	f	b1	t1
056/030	14	30	32.5	63	102	128	M6	5	16
056/040 063/040	18	40	43	78	128	164	M6	6	20.5

SZ



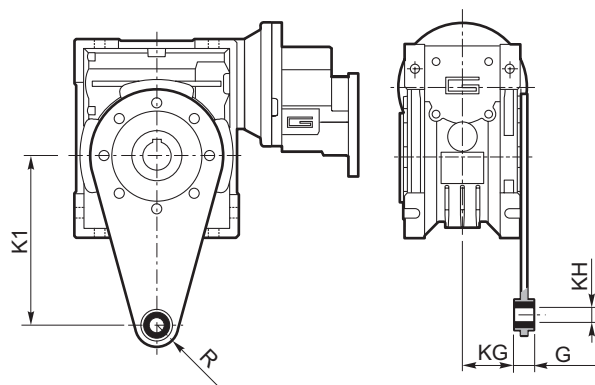
DZ



Braccio di reazione

Torque arm

CMP	K1	G	KG	KH	R
056/030	85	14	23	8	15
056/040 063/040	100	14	31	10	18



MINI  **TECNO**™
small but strong

ECMM

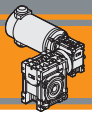
Motoriduttori CC a vite senza fine combinati
DC double reduction wormgearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



DC



Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	B12
Designazione	<i>Classification</i>	B12
Simbologia	<i>Symbols</i>	B12
Esecuzioni di montaggio	<i>Mounting executions</i>	B12
Combinazioni rapporti	<i>Combination ratio</i>	B13
Lubrificazione	<i>Lubrication</i>	B13
Dati tecnici per servizio S2	<i>Technical data for S2 duty</i>	B14
Motori applicabili	<i>Motor adapters</i>	B15
Dimensioni	<i>Dimensions</i>	B16
Opzioni	<i>Options</i>	BI15
Accessori	<i>Accessories</i>	BI15

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Caratteristiche tecniche

Technical features

I motoriduttori CC a vite senza fine combinati a magneti permanenti in ferrite ECMM hanno le seguenti caratteristiche principali:

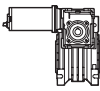
ECMM ferrite permanent magnets DC double reduction wormgearmotors range has the following main features:

- Alimentazione in bassa tensione 12/24Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 500W S2
- Carcassa dei riduttori in pressofusione di alluminio.
- Lubrificazione permanente con olio sintetico

- Low voltage power supply 12/24Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 up to 800W S2
- Die cast aluminium housing
- Permanent synthetic oil long life lubrication

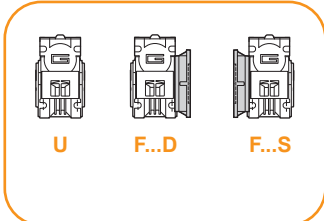
Designazione

Classification

MOTORIDUTTORE / GEARMOTOR													
ECMM	100/026/026				U	150	SZDX	BRSX	90	B3	UB1	120	VS1
Tipo Type	Grandezza Size				Versione Version	Rapporto Ratio	Albero di uscita Output shaft	Braccio di reazione Torque arm	Angolo Angle	Pos. di montaggio Mounting position	Esecuzione di montaggio Mounting execution	Versione motore Motor version	Opzioni Options
	070/026/026	100/026/026	180/026/040	250/030/040	U F...	vedi tabelle see tables	SZDX SZSX DZ	BRDX BRSX *	0° 90° 180° 270°	B3 B8 B6 B7 V5 V6	UB1 UB2 US1 US2 UV1 UV2 UC1 UC2	120 240 24E	VS1 VS2
	070/026/026 (D11)	100/026/026 (D11)	180/030/040	350/030/040									
	070/026/026 (D14)	100/026/026 (D14)											
	070/026/030	100/026/030											
	070/026/040	100/026/040											

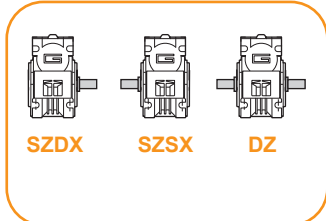
* NOTA: il braccio di reazione viene fornito smontato.
NOTE: the torque arm will be supplied not assembled.

Versione Riduttore
Gearbox Version



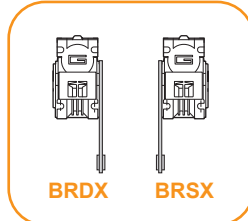
U F...D F...S

Albero di uscita
Output shaft



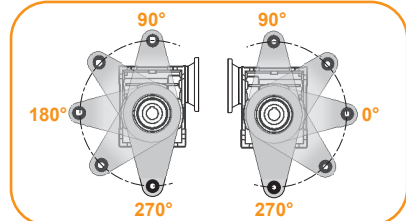
SZDX SZSX DZ

Braccio di reazione
Torque arm



BRDX BRSX

Angolo
Angle

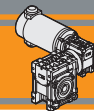


90° 90°
180° 0°
270° 270°

Simbologia

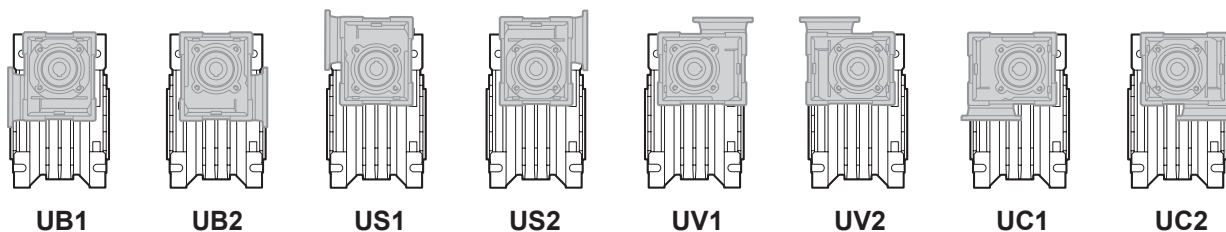
Symbols

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



Esecuzioni di montaggio

Mounting executions



Combinazioni rapporti

Combination ratio

CMM 026/026 - CMM 026/030 - CMM 026/040												
i (i ₁ x i ₂)												
	150	225	300	450	600	900	1200	1500	1800	2400	3000	3600
i ₁	10	15	10	15	20	30	40	50	60	60	60	60
i ₂	15	15	30	30	30	30	30	30	30	40	50	60

CMM 030/040																
i (i ₁ x i ₂)																
	75	100	150	200	250	300	400	500	600	750	900	1200	1500	1800	2400	3000
i ₁	7.5	10	10	10	10	10	10	10	20	25	30	40	50	60	60	60
i ₂	10	10	15	20	25	30	40	50	30	30	30	30	30	30	40	50



Lubrificazione

Lubrication

Tutti i motoriduttori nelle taglie 26, 30, 40 sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors size 26, 30, 40 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

**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	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version			
100							140									
(3000 min ⁻¹)	20.0	26	1.0	150	ECMM 070/026/026	12E/24E	(3000 min ⁻¹)	20.0	26	1.0	150	ECMM 100/026/026	120/240/24E			
	13.3	26	1.0	225					13.3	26	1.0			225		
	10.0	27	1.0	300					10.0	27	1.0			300		
	6.7	27	1.0	450					6.7	27	1.0			450		
	5.0	27	1.0	600					5.0	27	1.0			600		
	3.3	27	1.0	900					3.3	27	1.0			900		
	2.5	27	1.0	1200					2.5	27	1.0			1200		
	2.0	27	1.0	1500					2.0	27	1.0			1500		
	1.7	27	1.0	1800					1.7	27	1.0			1800		
	1.3	22	1.0	2400					1.3	22	1.0			2400		
	1.0	20	1.0	3000					1.0	20	1.0			3000		
	0.8	18	1.0	3600					0.8	18	1.0			3600		
	20.0	26	1.5	150			ECMM 070/026/030	12E/24E		20.0	37			1.1	150	ECMM 100/026/030
	13.3	39	1.0	225					13.3	39	1.0	225				
	10.0	40	1.0	300					10.0	40	1.0	300				
	6.7	40	1.0	450					6.7	40	1.0	450				
	5.0	40	1.0	600					5.0	40	1.0	600				
	3.3	40	1.0	900					3.3	40	1.0	900				
	2.5	40	1.0	1200					2.5	40	1.0	1200				
	2.0	40	1.0	1500					2.0	40	1.0	1500				
	1.7	40	1.0	1800					1.7	40	1.0	1800				
	1.3	34	1.0	2400					1.3	34	1.0	2400				
	1.0	30	1.0	3000					1.0	30	1.0	3000				
	0.8	27	1.0	3600					0.8	27	1.0	3600				
	20.0	27	3.2	150	ECMM 070/026/040	12E/24E				20.0	38	2.3	150	ECMM 100/026/040	120/240/24E	
	13.3	40	2.2	225					13.3	55	1.6	225				
	10.0	45	2.0	300					10.0	63	1.4	300				
	6.7	66	1.4	450					6.7	92	1.0	450				
	5.0	85	1.1	600					5.0	90	1.0	600				
	3.3	90	1.0	900					3.3	90	1.0	900				
	2.5	90	1.0	1200					2.5	90	1.0	1200				
	2.0	90	1.0	1500					2.0	90	1.0	1500				
	1.7	90	1.0	1800					1.7	90	1.0	1800				
	1.3	74	1.0	2400					1.3	74	1.0	2400				
	1.0	68	1.0	3000					1.0	68	1.0	3000				
	0.8	62	1.0	3600					0.8	62	1.0	3600				
	40.0	15	5.5	75			ECMM 070/030/040	12E/24E		40.0	21	3.9	75			ECMM 100/030/040
	30.0	20	4.2	100					30.0	28	3.0	100				
	20.0	28	3.2	150					20.0	38	2.3	150				
	15.0	36	2.1	200					15.0	50	1.5	200				
	12.0	43	1.6	250					12.0	59	1.1	250				
	10.0	46	2.0	300					10.0	63	1.4	300				
	7.5	55	1.3	400					7.5	77	1.0	400				
	6.0	63	1.1	500					6.0	87	0.8	500				
	5.0	86	1.0	600					5.0	119	0.8	600				
	4.0	103	0.9	750					4.0	90	1.0	750				
	3.3	118	0.8	900					3.3	90	1.0	900				
	2.5	74	1.0	1200					2.5	74	1.0	1200				
	2.0	90	1.0	1500					2.0	90	1.0	1500				
	1.7	90	1.0	1800			1.7	90	1.0	1800						
	1.3	74	1.0	2400			1.3	74	1.0	2400						
	1.0	68	1.0	3000			1.0	68	1.0	3000						

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

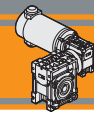
NOTE: for continuous or highly intermittent duty, please contact our technical service

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 in the grey areas



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)	20.0	70	1.2	150		ECMM 180/026/040 120/240
	13.3	103	0.8	225		
	10.0	116	0.8	300		
	40.0	40	2.1	75		ECMM 180/030/040 120/240/24E
	30.0	52	1.6	100		
	20.0	71	1.2	150		
	15.0	92	0.8	200		
	12.0	67	1.0	250		
	10.0	90	1.0	300		
	7.5	74	1.0	400		
	6.0	68	1.0	500		
	5.0	90	1.0	600		
	4.0	90	1.0	750		
	3.3	90	1.0	900		

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
350						
(3000 min ⁻¹)	40.0	55	1.5	75		ECMM 250/030/040 120/240
	30.0	72	1.2	100		
	20.0	100	0.9	150		
	15.0	74	1.0	200		
	500					
(3000 min ⁻¹)	40.0	78	1.1	75		ECMM 350/030/040 120/240
	30.0	101	0.8	100		
	20.0	87	1.0	150		

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

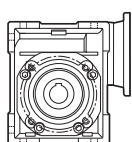
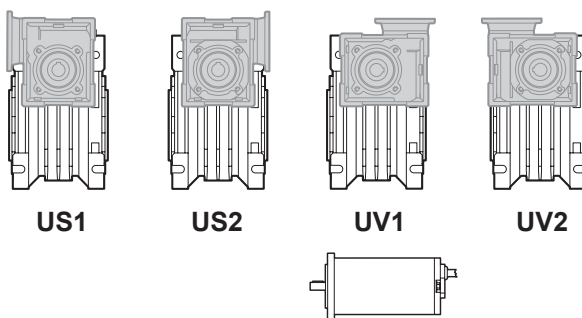
Dati tecnici elettrici

Electrical technical data



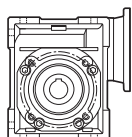
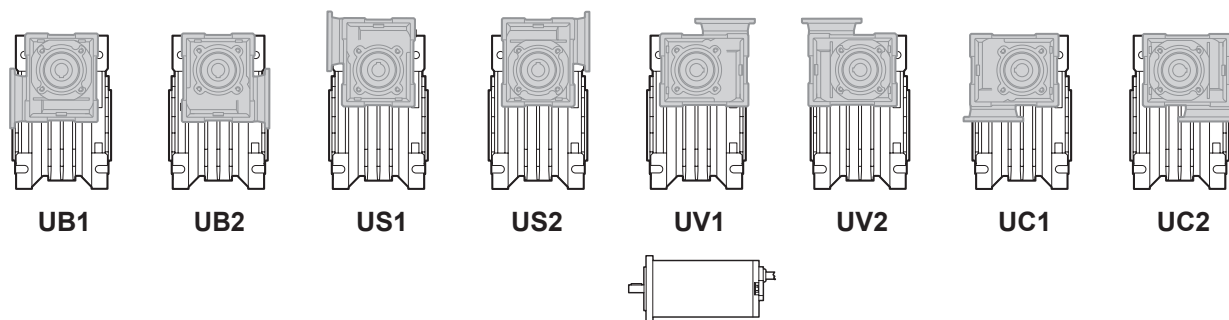
Motori applicabili

Motor adapters



		EC			
		070.12E 070.24E	100.120 100.240	100.24E	180.120 180.240
CMM	026/026	150 - 3600	150 - 3600	150 - 3600	150 - 3600

150 - 3600 Rapporti di riduzione i / Ratio i




		EC						
		070.12E 070.24E	100.120 100.240	100.24E	180.120 180.240	180.24E	250.120 250.240	350.120 350.240
CMM	026/030	150 - 3600	150 - 3600	150 - 3600	150 - 3600			
	026/040	150 - 3600	150 - 3600	150 - 3600	150 - 3600			
	030/040	75 - 3000	75 - 3000	75 - 3000	75 - 3000	75 - 1500	75 - 1500	75 - 1500

75 - 1500 Rapporti di riduzione i / Ratio i

**Dimensioni****Dimensions**

CMM..U - CMM..F..																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{h8}	N1	N2
026/026 (D11)	45	70	11	83	22	47.5	50	35	34	26	26	34	42	55	45	22.5	21
026/026			12														
026/026 (D14)			14														
026/030	54	80	14	97	32	47.5	63	40	34	30	26	44	56	65	55	29	21
026/040	70	100	18	121.5	43	47.5	78	50	34	40	26	60	71	75	60	36.5	21
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29

CMM..U - CMM..F..															
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	 (*)	
026/026 (D11)	6	—	37	49	49	5	15	21	76	7	—	4	12.8	3.3	
026/026												4	13.8		
026/026 (D14)												5	16.2		
026/030	6.5	75	44	57	49	5.5	22	27	81	M6x10(n.4)	90°	5	16.3	4.1	
026/040	6.5	87	55	71.5	49	6.5	26	35	91.5	M6x8(n.4)	45°	6	20.8	5.2	
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8	5.6	

(*) **Nota:** Il peso in kg si riferisce al motoriduttore ECMM 070 /...

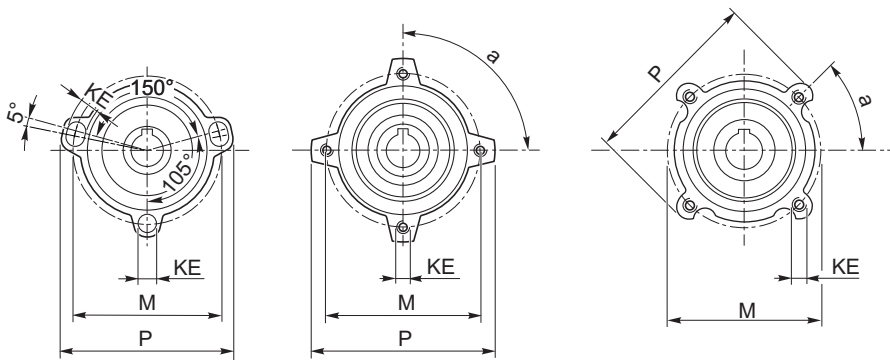
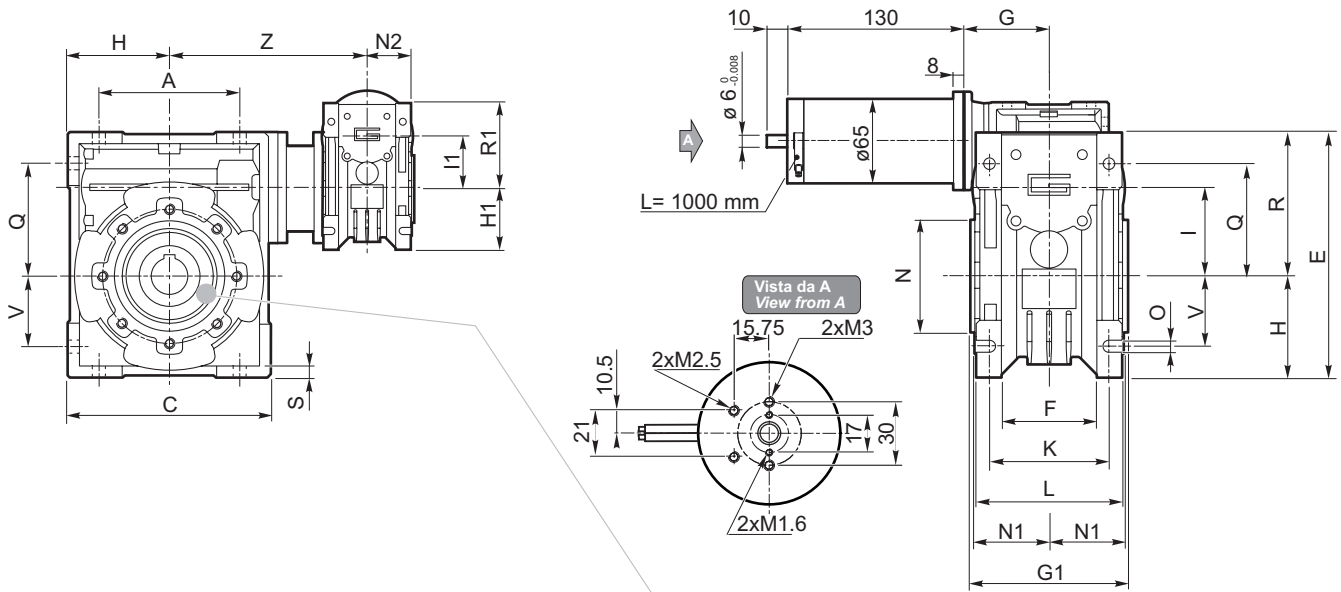
Note: The weight in kg is referred to the gearmotor ECMM 070 /...



Dimensioni

Dimensions

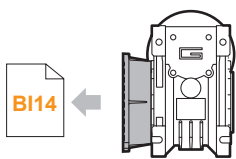
ECMM070/...U



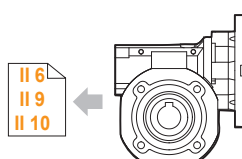
..026/026

..026/030

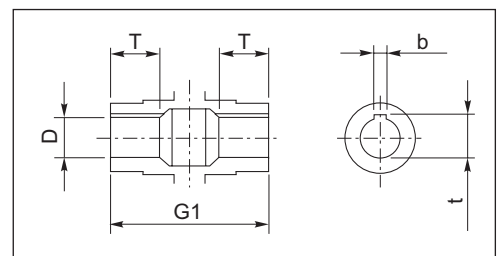
..026/040
..030/040



ECMM070/... F...
ECMM070/... FL
ECMM070/... FB



CL026
CL030
CL040



Albero lento cavo / Hollow output shaft

Motori / Motors IP66

BC2

Freno / Brake

BB23

Encoder

BB24



Dimensioni

Dimensions

CMM..U - CMM..F...																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{H8}	N1	N2
026/026 (D11)	45	70	11	83	22	47.5	50	35	34	26	26	34	42	55	45	22.5	21
026/026			12														
026/026 (D14)			14														
026/030	54	80	14	97	32	47.5	63	40	34	30	26	44	56	65	55	29	21
026/040	70	100	18	121.5	43	47.5	78	50	34	40	26	60	71	75	60	36.5	21
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29

CMM..U - CMM..F...															
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg (*)	
026/026 (D11)	6	—	37	49	49	5	15	21	76	7	—	4	12.8	3.3	
026/026												4	13.8		
026/026 (D14)												5	16.2		
026/030	6.5	75	44	57	49	5.5	22	27	81	M6x10(n.4)	90°	5	16.3	5.1	
026/040	6.5	87	55	71.5	49	6.5	26	35	91.5	M6x8(n.4)	45°	6	20.8	6.2	
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8	6.6	

(*) **Nota:** Il peso in kg si riferisce al motoriduttore ECMM 100 /...
Note: The weight in kg is referred to the gearmotor ECMM 100 /...



Dimensioni

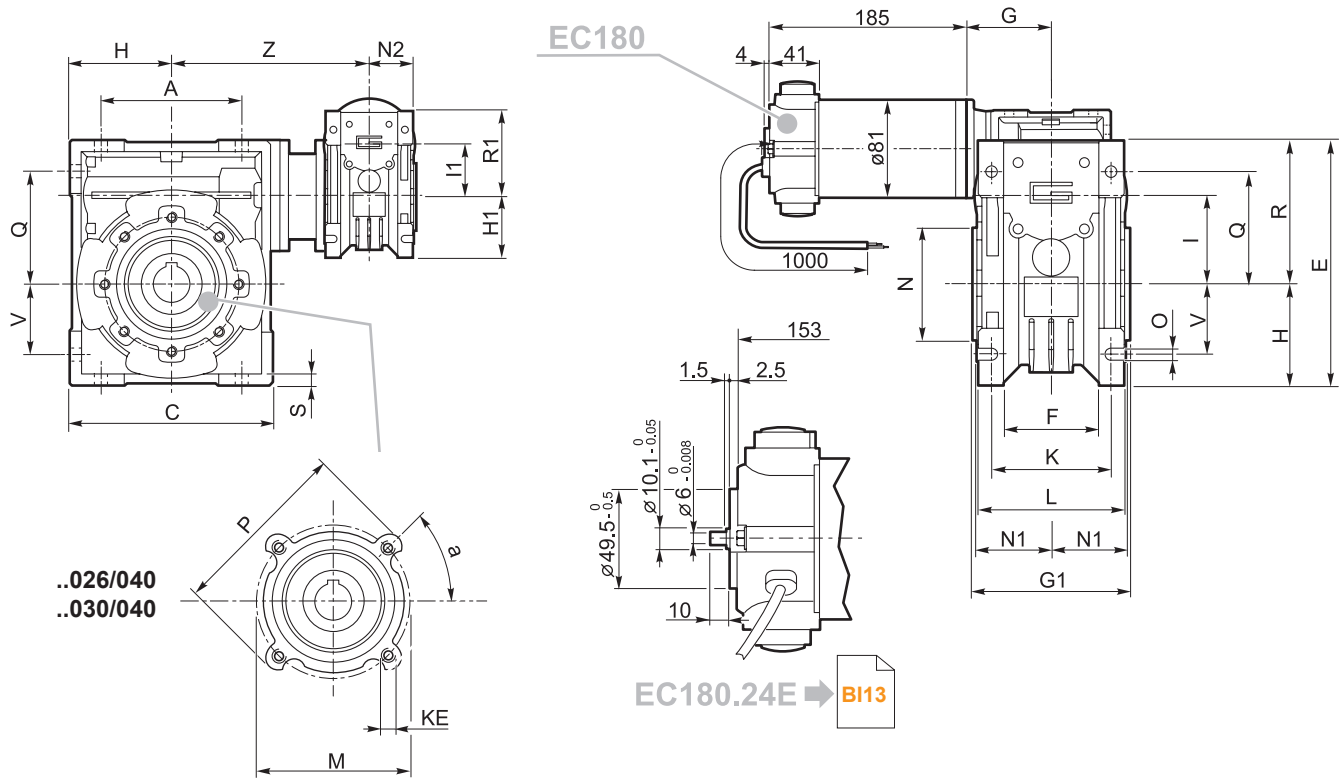
Dimensions

CMM..U - CMM..F - CMM..FB - CMM..FL																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{H8}	N1	N2
026/040	70	100	18	121.5	43	47.5	78	50	34	40	26	60	71	75	60	36.5	21
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29

CMM..U - CMM..F - CMM..FB - CMM..FL														
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg (*)
026/040	6.5	87	55	71.5	49	6.5	26	35	91.5	M6x8(n.4)	45°	6	20.8	6.9
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8	7.3

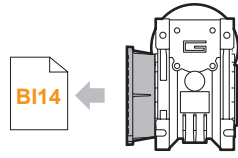
(*) **Nota:** Il peso in kg si riferisce al motoriduttore ECMM 180 /...
Note: The weight in kg is referred to the gearmotor ECMM 180 /...

ECMM180/...U

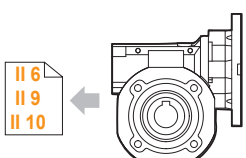


..026/040
..030/040

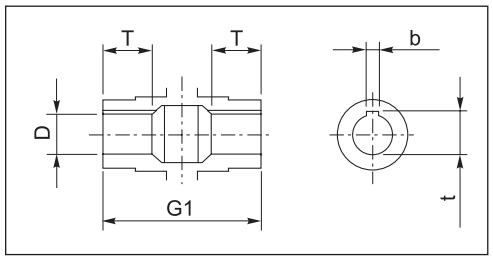
EC180.24E → BI13



ECMM180/... F
ECMM180/... FL
ECMM180/... FB



CL026
CL030
CL040

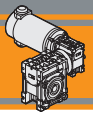


Albero lento cavo / Hollow output shaft

Motori / Motors IP66 → BC6

Freno / Brake → BB23

Encoder → BB24



Dimensioni

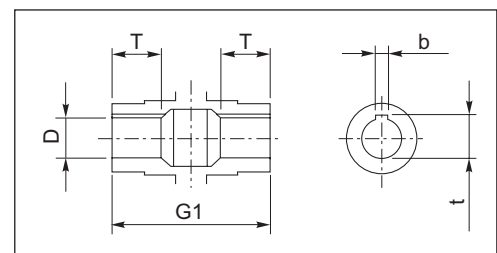
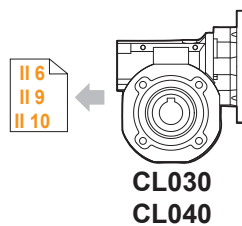
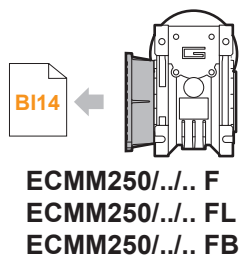
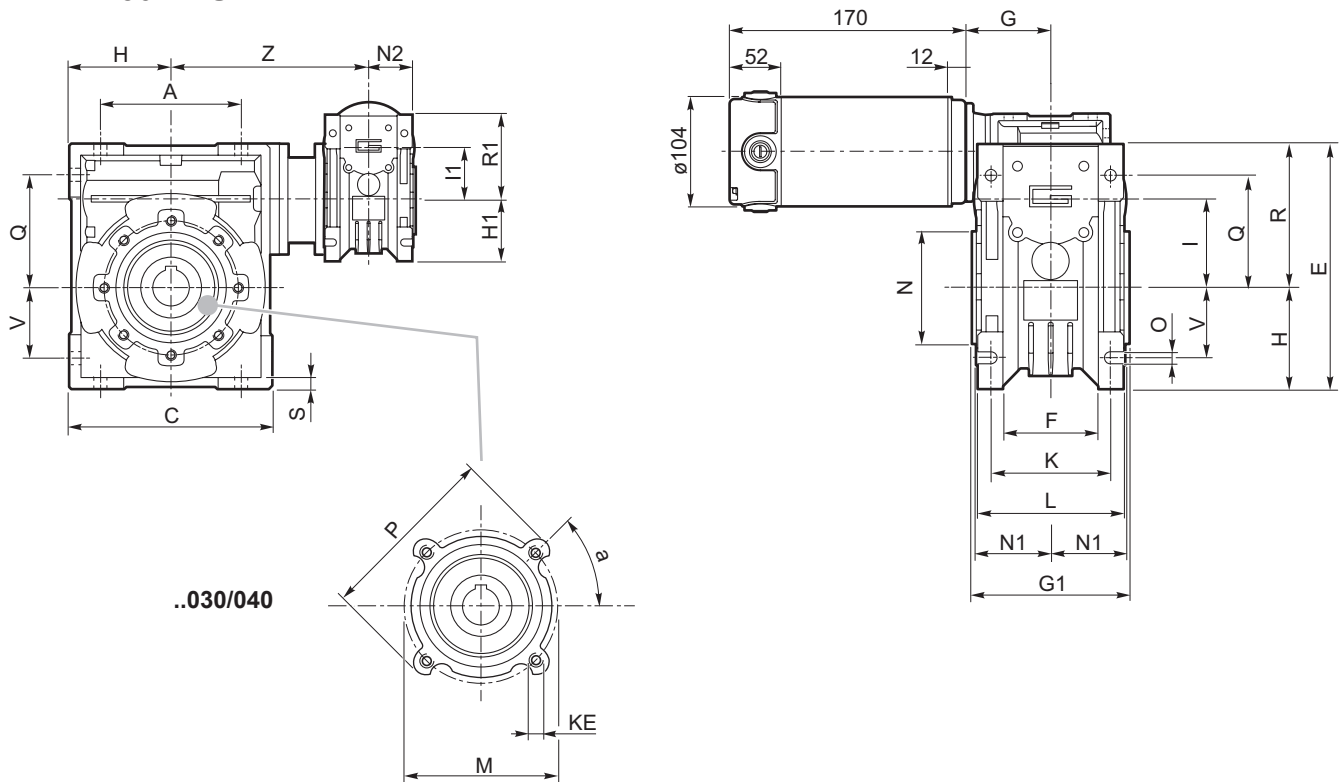
Dimensions

CMM..U - CMM..F - CMM..FB - CMM..FL																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{H8}	N1	N2
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29

CMM..U - CMM..F - CMM..FB - CMM..FL														
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg (*)
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8	8.2

(*) Nota: Il peso in kg si riferisce al motoriduttore ECMM 250 /...
Note: The weight in kg is referred to the gearmotor ECMM 250 /...

ECMM250/...U



Albero lento cavo / Hollow output shaft



DC



Dimensioni

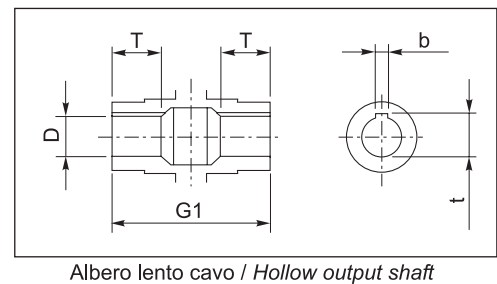
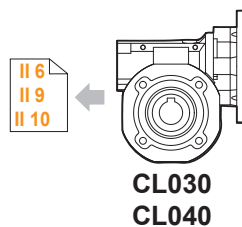
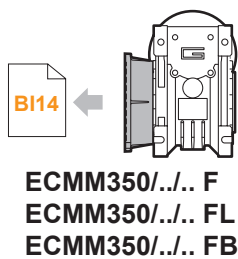
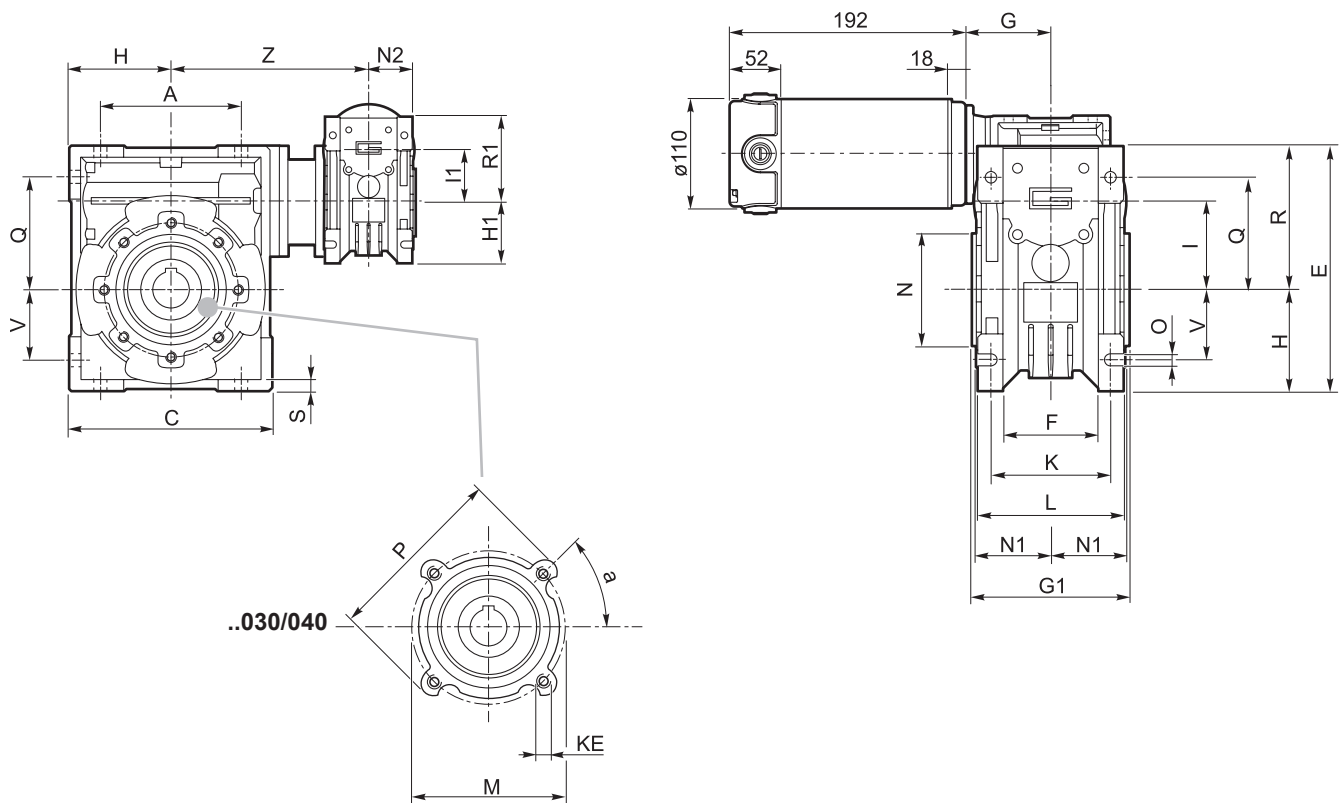
Dimensions

CMM..U - CMM..F - CMM..FB - CMM..FL																	
	A	C	D _{H8}	E	F	G	G1	H	H1	I	I1	K	L	M	N _{h8}	N1	N2
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29

CMM..U - CMM..F - CMM..FB - CMM..FL															
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	(*)	
030/040	6.5	87	55	71.5	57	6.5	26	35	122	M6x8(n.4)	45°	6	20.8	9.2	

(*) **Nota:** Il peso in kg si riferisce al motoriduttore ECMM 350 /...
Note: The weight in kg is referred to the gearmotor ECMM 350 /...

ECMM350/...U

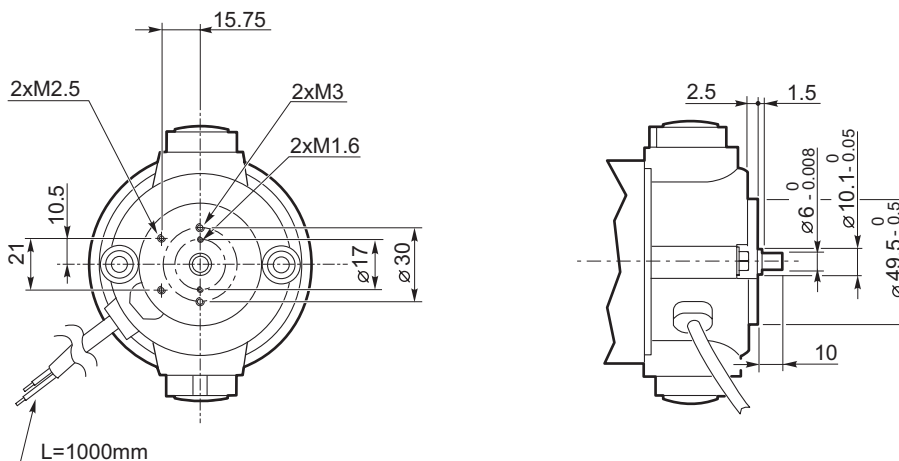




Dimensioni

Dimensions

EC100.24E
EC180.24E

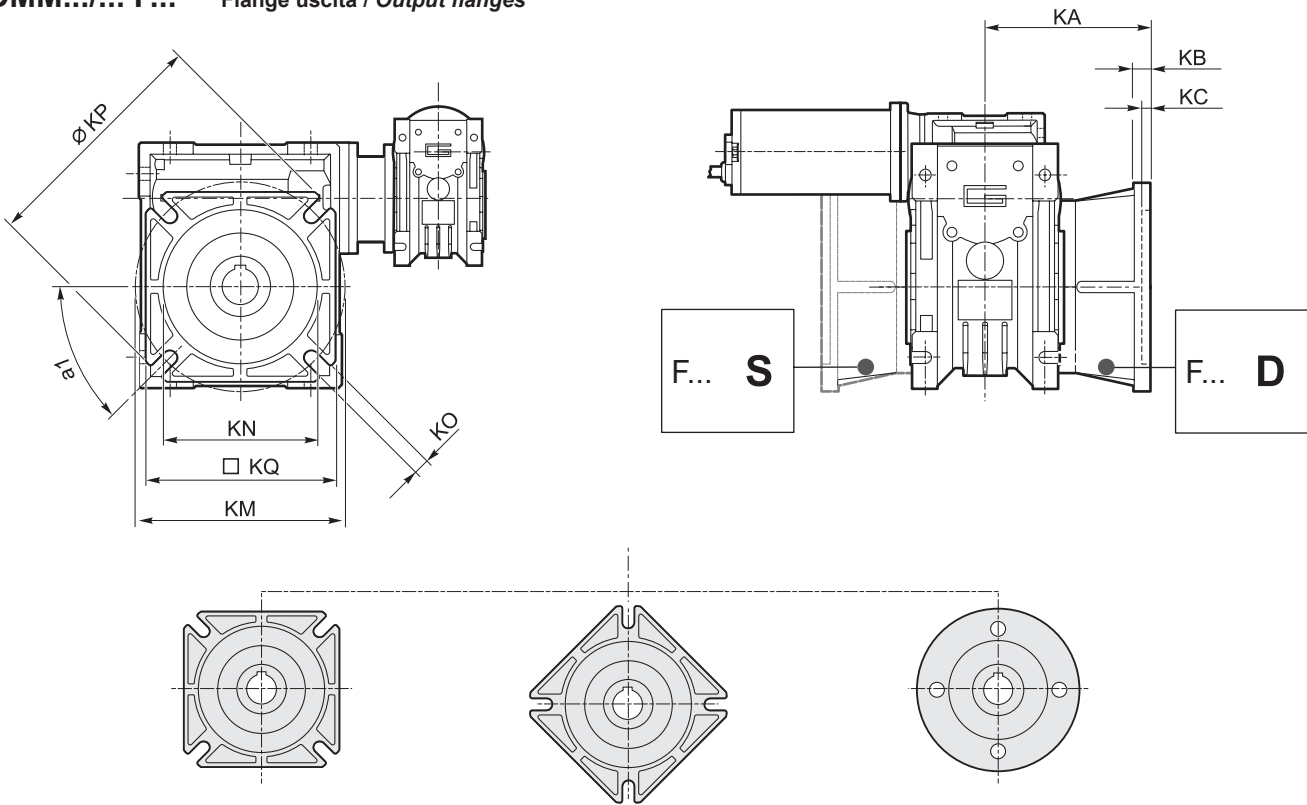




Dimensioni

Dimensions

ECMM.../... F... Flange uscita / Output flanges



- ..ECMM.../.../026.. F
- ..ECMM.../.../026.. F30C
- ..ECMM.../.../026.. F100
- ..ECMM.../.../026.. F28
- ..ECMM.../.../026.. F30SC
- ..ECMM.../.../026.. F30
- ..ECMM.../.../026.. F30S
- ...ECMM.../.../030.. F..
- ..ECMM.../.../040.. F..

	CM..F						CM..F28						CM..F30						CM..F30S ⁽¹⁾														
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
026 (D11)	45°	45	6	4.5	55-69	40	6.5	75	70	44	6.5	5	56-64	40	6.5	70	60	48	6.5	5	68	50	6.5	80	70	50	8.5	7	68	50	6.5	80	70
026 (D14)							(n.4)																										

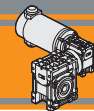
(1): F30S eseguita con F30 e distanziale di spessore 2 mm / F30S made with F30 and spacer with 2mm thickness

	CM..F30C						CM..F30SC ⁽²⁾						CM..F100												
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC *	KM	KN _{H7}	KO	KP	KQ
026 (D11)	-	48	6.5	7	68	50	6.5	80	70	50	8.5	7	68	50	6.5	80	70	51.5	8	2 *	86	45	6.5	100	-
026 (D14)																									

(2): F30SC eseguita con F30C e distanziale di spessore 2 mm / F30SC made with F30C and spacer with 2mm thickness

*: Centraggio maschio / Male centering diameter

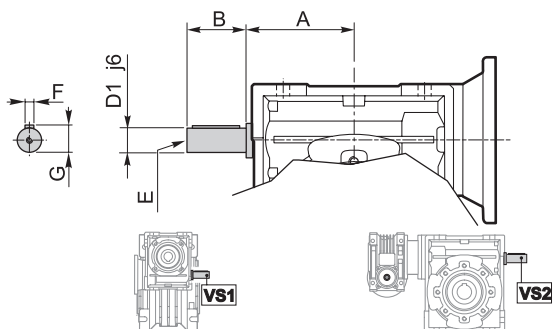
CM	CM..F						CM..FB						CM..FL												
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
040	45°	67	7.5	4	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	9 (n.4)	110	95



Opzioni

Options

VS1 - VS2 - Vite sporgente / Extended input shaft



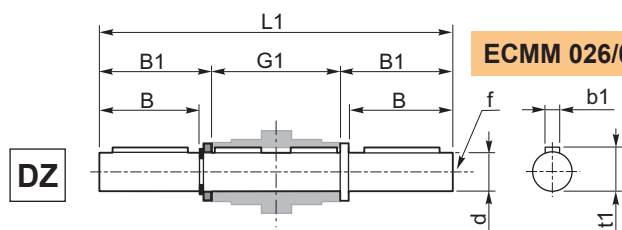
CMM	VS1						VS2					
	A	B	D ₁ j6	E	F	G	A	B	D ₁ j6	E	F	G
026/030	—	—	—	—	—	—	45	20	9	M4	3	10.2
026/040	—	—	—	—	—	—	53	23	11	M5	4	12.5
030/040	45	20	9	M4	3	10.2	53	23	11	M5	4	12.5

Costruito su richiesta
Built on request

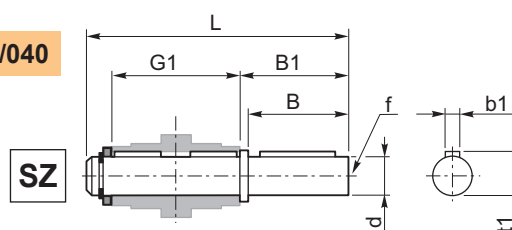
Accessori

Accessories

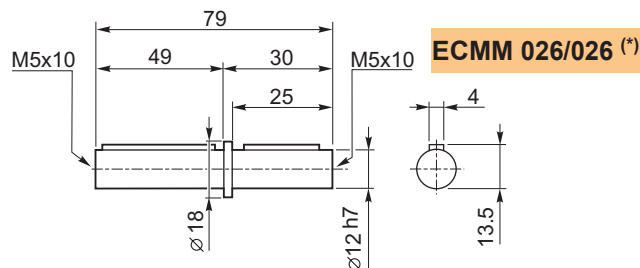
Albero lento semplice e doppio



Single and double output shaft



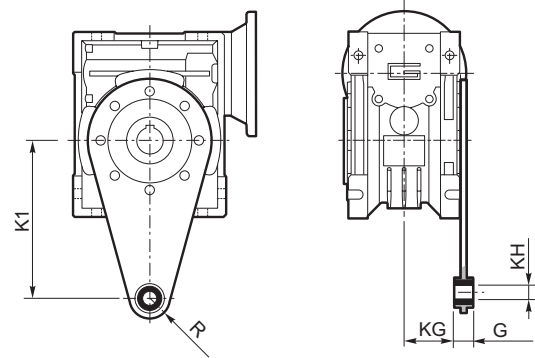
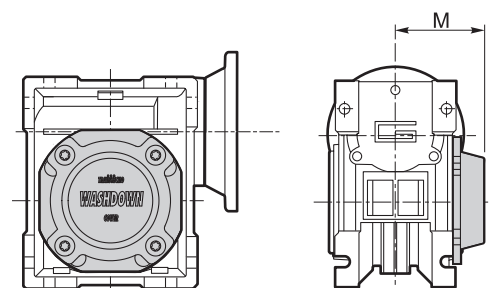
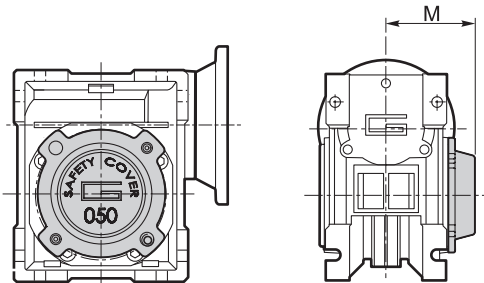
ECMM	d h7	B	B1	G1	L	L1	f	b1	t1
026/030	14	30	32.5	63	102	128	M6	5	16
026/040 030/040	18	40	43	78	128	164	M6	6	20.5



(*)
Nota: disponibile solo per cavo uscita Ø12
Note: available for output hollow shaft Ø12 only

**Braccio di reazione****Torque arm**

ECMM	K1	G	KG	KH	R
026/030	85	14	23	8	15
026/040 030/040	100	14	31	10	18

**SC - Safety cover****WD - Kit washdown cover**

	M
CM 030	47
CM 040	54.5

	M
CM 030	48
CM 040	55.5

MINI  **TECNO**™
small but strong

NDP
ECP

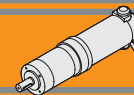
Motoriduttori CC epicicloidali
DC planetary gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



DC



Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	BL2
Designazione	<i>Classification</i>	BL2
Versioni	<i>Versions</i>	BL2
Simbologia	<i>Symbols</i>	BL2
Lubrificazione	<i>Lubrication</i>	BL3
Carichi radiali	<i>Radial loads</i>	BL3
Rapporti	<i>Ratios</i>	BL3
Dati tecnici	<i>Technical data</i>	BL4
Motori applicabili	<i>IEC Motor adapters</i>	BL10
Dimensioni	<i>Dimensions</i>	BL11

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Caratteristiche tecniche

Technical features


I motoriduttori CC epicicloidali a magneti permanenti in neodimio **NDP** e in ferrite **ECP** hanno le seguenti caratteristiche principali:


NDP neodymium permanent magnets and **ECP** ferrite permanent magnets DC planetary gearmotors range has the following main features:

- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 500W S2
- Entrata ed uscita coassiali
- Design compatto
- Lubrificazione permanente a grasso
- Possono essere installati in qualunque posizione di montaggio.
- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 up to 500W S2
- In-line input and output
- Compact design
- Permanent grease oil long-life lubrication
- Can be intalled in all mounting position.

Designazione

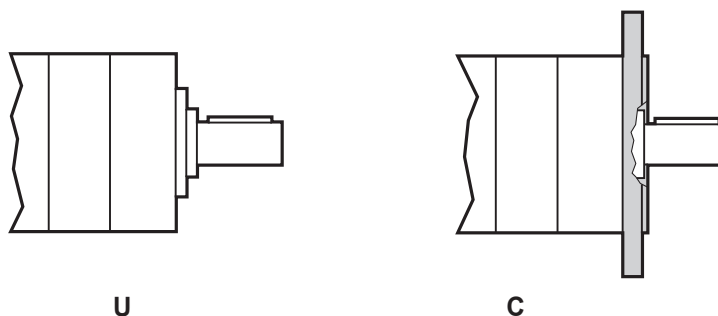
Classification

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	180/52 180/62	1 2 3	U C	80 90 105 120	Vedere tabella See tables	120 240	BR BRL

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	100/52 100/62	180/52 180/62	250/62	350/62	1 2 3	U C	80 90 105 120	Vedere tabella See tables	120 240 24E	BR BRL

Versioni

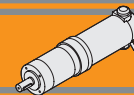
Versions



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

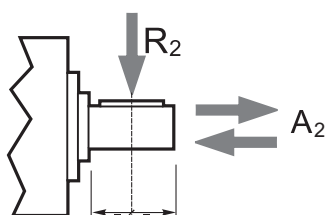
Lubrication

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]		
	PM42	PM52	PM62
1	160	200	240
2	230	320	360
3	300	450	520

Numero di stadi Stages number	Carichi Assiali A_2 [N] / Axial Load A_2 [N]		
	PM42	PM52	PM62
1	50	60	70
2	80	100	100
3	110	150	150

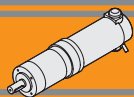
Rapporti

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	
2	6.75	
	13.73	
	15.88	
	18.36	
	19.20	
	22.20	
	25.01	
	26.85	
	28.93	
	34.97	
3	45.56	
	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 PM42, PM52, PM62.
Preferred ratios for PM42, PM52, PM62.

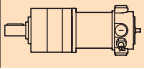
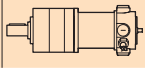
Disponibile a 4 stadi con rapporti fino a 2076
Available 4 stages with ratio up to 2076



Dati tecnici per servizio S2

NDP

Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	
160							160							
(3000 min ⁻¹)	811	2	2.6	3.70	NDP120/521	120/240	(3000 min ⁻¹)	59	18	2.8	50.89	NDP120/623	120/240	
	701	2	2.3	4.28			51	21	2.4	58.85				
	579	2	1.9	5.18			44	24	2.1	68.06				
	444	3	1.5	6.75			42	25	2.0	71.16				
	218	5	2.3	13.73			NDP120/522	120/240	38	28	1.8			78.71
	189	6	2.0	15.88					32	33	1.5			92.70
	163	7	1.7	18.36					32	34	1.5			95.17
	156	7	1.6	19.20					30	36	1.4			99.50
	135	8	1.4	22.20					28	38	1.3			107.20
	120	10	1.3	25.01					26	41	1.2			115.07
	112	10	1.2	26.85	24	44			1.1	123.97				
	104	11	1.1	28.93	23	46			1.1	129.62				
	86	13	0.9	34.97	22	50			1.0	139.13				
	66	17	0.7	45.56	20	54			0.9	149.90				
	59	18	1.4	50.89	NDP120/523	120/240	18	60	0.8	168.84				
	51	21	1.2	58.85			17	65	0.8	181.24				
	44	24	1.0	68.06			15	70	0.7	195.26				
	42	25	1.0	71.16			13	71	0.7	236.09				
	38	28	0.9	78.71			9.8	71	0.7	307.54				
	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										

250													
(3000 min ⁻¹)	811	2	1.7	3.70	NDP180/521	120/240	(3000 min ⁻¹)	811	2	1.7	3.70	NDP180/521	120/240
	701	3	1.5	4.28			701	3	1.5	4.28			
	579	3	1.2	5.18			579	3	1.2	5.18			
	444	4	0.9	6.75			444	4	0.9	6.75			
	218	8	1.5	13.73	NDP180/522	120/240	218	8	1.5	13.73	NDP180/522	120/240	
	189	10	1.3	15.88			189	10	1.3	15.88			
	163	11	1.1	18.36			163	11	1.1	18.36			
	156	12	1.0	19.20			156	12	1.0	19.20			
	135	13	0.9	22.20			135	13	0.9	22.20			
	120	15	0.8	25.01			120	15	0.8	25.01			
	112	16	0.7	26.85			112	16	0.7	26.85			
	104	17	0.7	28.93			104	17	0.7	28.93			
	86	17	0.7	34.97			86	17	0.7	34.97			
	66	17	0.7	45.56			66	17	0.7	45.56			

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

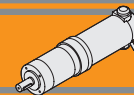
NOTA

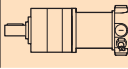
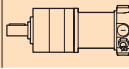
Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

NOTE

For sf=0.7 check that the duty torque does not exceed the value M2

Motoriduttori preferenziali / Preferred gearmotors


Dati tecnici per servizio S2
NDP
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	
250							250							
(3000 min ⁻¹)	59	28	0.9	50.89	NDP180/523	120/240	(3000 min ⁻¹)	59	28	1.8	50.89	NDP180/623	120/240	
	51	33	0.8	58.85				51	33	1.5	58.85			
	44	36	0.7	68.06				44	38	1.3	68.06			
	42	36	0.7	71.16				42	40	1.3	71.16			
	38	36	0.7	78.71				38	44	1.1	78.71			
	32	36	0.7	92.70				32	52	1.0	92.70			
	32	36	0.7	95.17				32	53	0.9	95.17			
	30	36	0.7	99.50				30	56	0.9	99.50			
	28	36	0.7	107.20				28	60	0.8	107.20			
	26	36	0.7	115.07				26	64	0.8	115.07			
	24	36	0.7	123.97				24	69	0.7	123.97			
	23	36	0.7	129.62				23	71	0.7	129.62			
	22	36	0.7	139.13				22	71	0.7	139.13			
	20	36	0.7	149.90				20	71	0.7	149.90			
	18	36	0.7	168.84				18	71	0.7	168.84			
	17	36	0.7	181.24				17	71	0.7	181.24			
	15	36	0.7	195.26				15	71	0.7	195.26			
	13	36	0.7	236.09				13	71	0.7	236.09			
	9.8	36	0.7	307.54				9.8	71	0.7	307.54			
	811	2	3.4	3.70			NDP180/621	120/240						
	701	3	2.9	4.28										
	579	3	2.4	5.18										
	444	4	1.9	6.75										
	218	8	3.0	13.73	NDP180/622	120/240								
	189	10	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										

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

NOTA

Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

NOTE

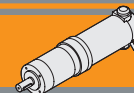
For sf=0.7 check that the duty torque does not exceed the value M2

 Motoriduttori preferenziali / Preferred gearmotors

Dati tecnici elettrici
Electrical technical data

ND 120 → 

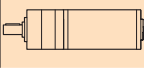
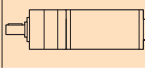
ND 180 → 



Dati tecnici per servizio S2

ECP

Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version					
70							100											
(2850 min ⁻¹)	59	7.8	1.9	50.89	ECP050/423	12E/24E	(3000 min ⁻¹)	811	0.92	4.4	3.70	ECP070/521	120/240					
	51	9.1	1.7	58.85					701	1.1	3.8			4.28				
	44	10	1.4	68.06					579	1.3	3.1			5.18				
	42	11	1.4	71.16					444	1.7	2.4			6.75				
	38	12	1.2	78.71														
	32	14	1.1	92.70					218	3.2	3.8			13.73	ECP070/522	120/240		
	31	15	1.0	95.17					189	3.7	3.3			15.88				
	30	15	1.0	99.50					163	4.3	2.8			18.36				
	28	17	0.9	107.20					156	4.5	2.7			19.20				
	26	18	0.8	115.07					135	5.2	2.3			22.20				
	24	19	0.8	123.97					120	5.8	2.1			25.01				
	23	20	0.8	129.62					112	6.2	1.9			26.85				
	22	21	0.7	139.13					104	6.7	1.8			28.93				
	20	21	0.7	149.90					86	8.1	1.5			34.97				
	18	21	0.7	168.84					66	11	1.1			45.56				
	17	21	0.7	181.24														
	15	21	0.7	195.26					59	11	2.3			50.89	ECP070/523	120/240		
	13	21	0.7	236.09					51	13	2.0			58.85				
	9.8	21	0.7	307.54			44	15	1.7	68.06								
							42	15	1.6	71.16								
	163	3.0	4.0	18.36	ECP050/522	12E/24E	38	17	1.5	78.71								
	156	3.2	3.8	19.20					32	20	1.2	92.70						
	135	3.7	3.3	22.20					31	21	1.2	95.17						
	120	4.1	2.9	25.01					30	22	1.2	99.50						
	112	4.4	2.7	26.85					28	23	1.1	107.20						
	104	4.8	2.5	28.93					26	25	1.0	115.07						
	86	5.8	2.1	34.97					24	27	0.9	123.97						
	66	7.5	1.6	45.56					23	28	0.9	129.62						
									22	30	0.8	139.13						
	59	7.8	3.2	50.89			ECP050/523	12E/24E	20	33	0.8	149.90						
	51	9.1	2.8	58.85					18	36	0.7	168.84						
	44	10	2.4	68.06					17	36	0.7	181.24						
	42	11	2.3	71.16					15	36	0.7	195.26						
	38	12	2.1	78.71					13	36	0.7	236.09						
	32	14	1.8	92.70					9.8	36	0.7	307.54						
	31	15	1.7	95.17														
	30	15	1.6	99.50					120.0	5.8	4.3	25.01	ECP070/622	120/240				
	28	17	1.5	107.20					112	6.2	4.0	26.85						
	26	18	1.4	115.07					104	6.7	3.7	28.93						
	24	19	1.3	123.97					86	8.1	3.1	34.97						
	23	20	1.3	129.62					66	11	2.4	45.56						
	22	21	1.2	139.13														
	20	23	1.1	149.90					59	11	4.5	50.89			ECP070/623	120/240		
	18	26	1.0	168.84					51	13	3.9	58.85						
	17	28	0.9	181.24					44	15	3.4	68.06						
	15	30	0.8	195.26					42	15	3.2	71.16						
	13	36	0.7	236.09					38	17	2.9	78.71						
	9.8	36	0.7	307.54			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								

NOTA

Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

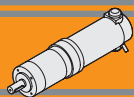
NOTE

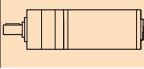
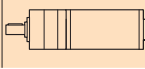
For sf=0.7 check that the duty torque does not exceed the value M2

 Motoriduttori preferenziali / Preferred gearmotors

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

**ECP****Motoriduttori CC epicicloidali**
DC planetary gearmotors**Dati tecnici per servizio S2****ECP****Technical data for S2 duty**

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version					
140							140											
(3000 min ⁻¹)	811	1.3	3.1	3.70	ECP100/521	120/240/24E	(3000 min ⁻¹)	59	15	3.3	50.89	ECP100/623	120/240/24E					
	701	1.5	2.7	4.28				51	18	2.8	58.85							
	579	1.8	2.2	5.18				44	20	2.4	68.06							
	444	2.3	1.7	6.75				42	21	2.3	71.16							
	218	4.4	2.7	13.73	ECP100/522	120/240/24E		38	24	2.1	78.71		32	28	1.8	92.70		
	189	5.1	2.3	15.88				31	29	1.7	95.17							
	163	5.9	2.0	18.36				30	30	1.7	99.50							
	156	6.2	1.9	19.20				28	32	1.5	107.20							
	135	7.2	1.7	22.20				26	35	1.4	115.07							
	120	8.1	1.5	25.01				24	37	1.3	123.97							
	112	8.7	1.4	26.85				23	39	1.3	129.62							
	104	9.3	1.3	28.93				22	42	1.2	139.13							
	86	11	1.1	34.97				20	45	1.1	149.90							
	66	15	0.8	45.56				18	51	1.0	168.84							
	59	15	1.6	50.89			ECP100/523	120/240/24E		17	55	0.9	181.24		15	59	0.9	195.26
	51	18	1.4	58.85						13	71	0.7	236.09					
	44	20	1.2	68.06						9.8	71	0.7	307.54					
	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														
250							250											
(3000 min ⁻¹)	811	2.4	1.7	3.70	ECP180/521	120/240	(3000 min ⁻¹)	811	2.4	1.7	3.70	ECP180/521	120/240					
	701	2.7	1.5	4.28				701	2.7	1.5	4.28							
	579	3.3	1.2	5.18				579	3.3	1.2	5.18							
	444	4.3	0.9	6.75				444	4.3	0.9	6.75							
	218	8.2	1.5	13.73	ECP180/522	120/240		218	8.2	1.5	13.73	ECP180/522	120/240					
	189	9.5	1.3	15.88				189	9.5	1.3	15.88							
	163	11	1.1	18.36				163	11	1.1	18.36							
	156	12	1.0	19.20				156	12	1.0	19.20							
	135	13	0.9	22.20				135	13	0.9	22.20							
	120	15	0.8	25.01				120	15	0.8	25.01							
	112	16	0.7	26.85				112	16	0.7	26.85							
	104	17	0.7	28.93				104	17	0.7	28.93							
	86	17	0.7	34.97				86	17	0.7	34.97							
	66	17	0.7	45.56				66	17	0.7	45.56							
	59	28	0.9	50.89			ECP180/523	120/240		59	28			0.9	50.89	ECP180/523	120/240	
	51	33	0.8	58.85						51	33			0.8	58.85			
	44	36	0.7	68.06						44	36			0.7	68.06			
	42	36	0.7	71.16						42	36			0.7	71.16			
	38	36	0.7	78.71						38	36			0.7	78.71			
	32	36	0.7	92.70						32	36			0.7	92.70			
	31	36	0.7	95.17		31			36	0.7	95.17							
	30	36	0.7	99.50		30			36	0.7	99.50							
	28	36	0.7	107.20		28			36	0.7	107.20							
	26	36	0.7	115.07		26			36	0.7	115.07							
	24	36	0.7	123.97		24			36	0.7	123.97							
	23	36	0.7	129.62		23			36	0.7	129.62							
	22	36	0.7	139.13		22			36	0.7	139.13							
	20	36	0.7	149.90		20			36	0.7	149.90							
	18	36	0.7	168.84		18			36	0.7	168.84							
	17	36	0.7	181.24		17			36	0.7	181.24							
	15	36	0.7	195.26		15	36	0.7	195.26									
	13	36	0.7	236.09		13	36	0.7	236.09									
	9.8	36	0.7	307.54		9.8	36	0.7	307.54									

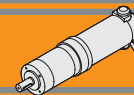
NOTA

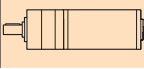
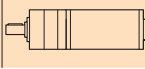
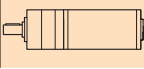
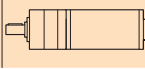
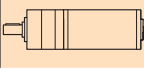
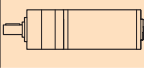
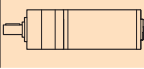
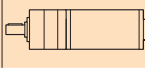
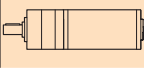
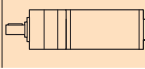
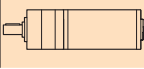
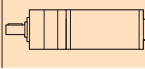
Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

NOTE

For sf=0.7 check that the duty torque does not exceed the value M2

Motoriduttori preferenziali / Preferred gearmotors**NOTA:** per servizio continuo o altamente intermittente, contattare il servizio tecnico**NOTE:** for continuous or highly intermittent duty, please contact our technical service


Dati tecnici per servizio S2
ECP
Technical data for S2 duty

P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version	P_1 [W]	n_2 [min ⁻¹]	M_2 [Nm]	sf	i		Versione motore Motor version					
250							350											
(3000 min ⁻¹)	811	2.4	3.4	3.70		ECP180/621	120/240/24E	(3000 min ⁻¹)	59	39.9	1.3	50.89		ECP250/623	120/240			
	701	2.7	2.9	4.28					51	46.1	1.1	58.85						
	579	3.3	2.4	5.18					44	53.4	0.9	68.06						
	444	4.3	1.9	6.75					42	55.8	0.9	71.16						
	218	8.2	3.0	13.73		ECP180/622	120/240/24E		38	61.7	0.8	78.71		32	72.7	0.7	92.70	
	189	9.5	2.6	15.88					32	74.6	0.7	95.17						
	163	11	2.3	18.36					30	71.0	0.7	99.50						
	156	12	2.2	19.20					28	71.0	0.7	107.20						
	135	13	1.9	22.20		26	71.0	0.7	115.07		24	71.0	0.7	123.97				
	120	15	1.7	25.01		23	71.0	0.7	129.62		22	71.0	0.7	139.13				
	112	16	1.6	26.85		20	71.0	0.7	149.90		20	71.0	0.7	149.90				
	104	17	1.4	28.93		18	71.0	0.7	168.84		18	71.0	0.7	168.84				
	86	21	1.2	34.97		17	71.0	0.7	181.24		17	71.0	0.7	181.24				
	66	27	0.9	45.56		15	71.0	0.7	195.26		15	71.0	0.7	195.26				
	59	28	1.8	50.89		ECP180/623	120/240/24E		13	71.0	0.7	236.09		13	71.0	0.7	236.09	
	51	33	1.5	58.85					9.8	71.0	0.7	307.54		9.8	71.0	0.7	307.54	
	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														
350							500											
(3000 min ⁻¹)	811	3.3	2.4	3.70		ECP250/621	120/240	(3000 min ⁻¹)	811	4.6	1.7	3.70		ECP350/621	120/240			
	701	3.8	2.1	4.28					701	5.4	1.5	4.28						
	579	4.6	1.7	5.18					579	6.5	1.2	5.18						
	444	6.0	1.3	6.75					444	8.5	0.9	6.75						
	218	11.5	2.2	13.73		ECP250/622	120/240		218	16	1.5	13.73		ECP350/622	120/240			
	189	13.3	1.9	15.88					189	19	1.3	15.88						
	163	15.4	1.6	18.36					163	22	1.2	18.36						
	156	16.1	1.6	19.20					156	23	1.1	19.20						
	135	18.6	1.3	22.20		135	26	1.0	22.20		120	29	0.8	25.01				
	120	21.0	1.2	25.01		120	29	0.8	25.01		112	32	0.8	26.85				
	112	22.6	1.1	26.85		112	32	0.8	26.85		104	34	0.7	28.93				
	104	24.3	1.0	28.93		104	34	0.7	28.93		86	36	0.7	34.97				
	86	29.4	0.9	34.97		86	36	0.7	34.97		66	36	0.7	45.56				
	66	38.3	0.7	45.56		66	36	0.7	45.56									
	59	56	0.9	50.89		ECP350/623	120/240		59	56	0.9	50.89		ECP350/623	120/240			
	51	65	0.8	58.85					51	65	0.8	58.85						
	44	71	0.7	68.06					44	71	0.7	68.06						
	42	71	0.7	71.16					42	71	0.7	71.16						
	38	71	0.7	78.71		38	71	0.7	78.71		32	71	0.7	92.70				
	32	71	0.7	92.70		32	71	0.7	92.70		31	71	0.7	95.17				
	31	71	0.7	95.17		31	71	0.7	95.17		30	71	0.7	99.50				
	30	71	0.7	99.50		30	71	0.7	99.50		28	71	0.7	107.20				
	28	71	0.7	107.20		28	71	0.7	107.20		26	71	0.7	115.07				
	26	71	0.7	115.07		26	71	0.7	115.07		24	71	0.7	123.97				
	24	71	0.7	123.97		24	71	0.7	123.97		23	71	0.7	129.62				
	23	71	0.7	129.62		23	71	0.7	129.62		22	71	0.7	139.13				
	22	71	0.7	139.13		22	71	0.7	139.13		20	71	0.7	149.90				
	20	71	0.7	149.90		20	71	0.7	149.90		18	71	0.7	168.84				
	18	71	0.7	168.84		18	71	0.7	168.84		17	71	0.7	181.24				
	17	71	0.7	181.24		17	71	0.7	181.24		15	71	0.7	195.26				
	15	71	0.7	195.26		15	71	0.7	195.26		13	71	0.7	236.09				
	13	71	0.7	236.09		13	71	0.7	236.09		9.8	71	0.7	307.54				
	9.8	71	0.7	307.54		9.8	71	0.7	307.54									

NOTA

Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.








NOTE

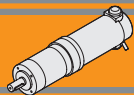
For sf=0.7 check that the duty torque does not exceed the value M2

 **Motoriduttori preferenziali / Preferred gearmotors**
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici
Electrical technical data

EC020 → 	EC035 → 	EC050 → 	EC070 → 
EC100 → 	EC180 → 	EC250 → 	EC350 → 



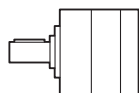
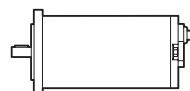
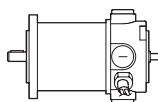
NDP
ECP

Motoriduttori CC epicicloidali DC planetary gearmotors



Motori applicabili

Motor adapters



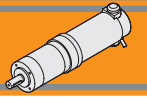
		ND		EC								
		120.120 120.240	180.120 180.240	020.120 020.24E	035.120 035.240	050.12E 050.24E	070.120 070.240	100.120 100.240 100.24E	180.120 180.240	180.24E	250.120 250.240	350.120 350.240
PM	42						*	*	*			
	52											
	62											



Combinazioni preferenziali / Preferred combinations



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



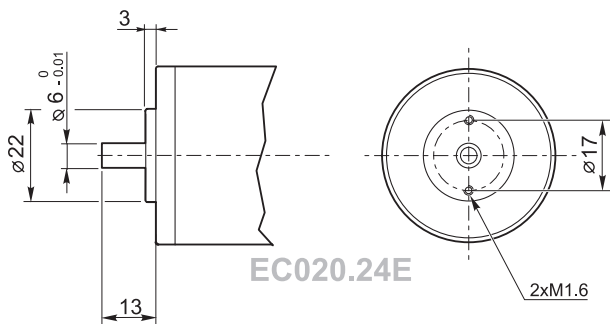
Dimensioni

Dimensions

ECP020/42... U

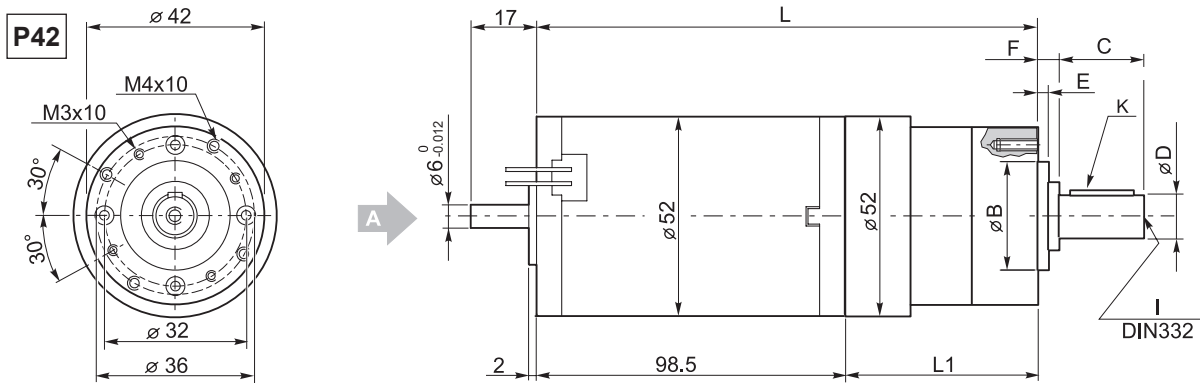


Encoder BB24

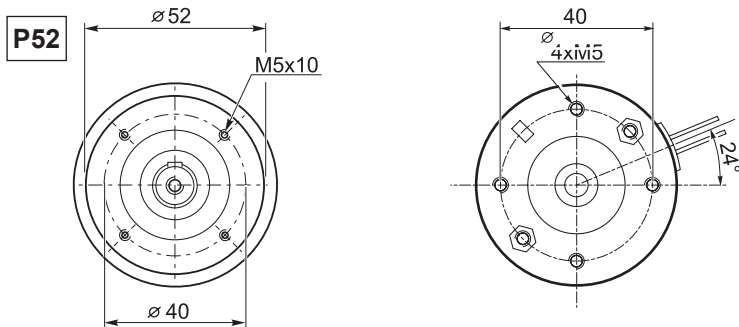


	Numero di stadi / Stages number		
ECP020/42...	1	2	3
L1	60.5	73.6	86.6
L	150.5	163.6	176.6

ECP035/... U

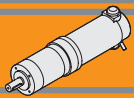


Vista / View
A



Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions								
		L1	L	B	C	D	E	F	I	K
ECP035/42...	1	60.5	159	25 h9	22.2	8 g6	2	2.8	M3x9	3x3x16
	2	73.6	172.1							
	3	86.6	185.1							
ECP035/52...	1	73.1	171.6	32 h8	20.8	12 h7	3	4.2	M4x10	4x4x16
	2	87.2	185.7							
	3	101.5	200							

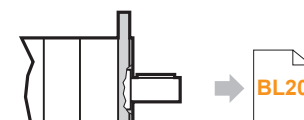
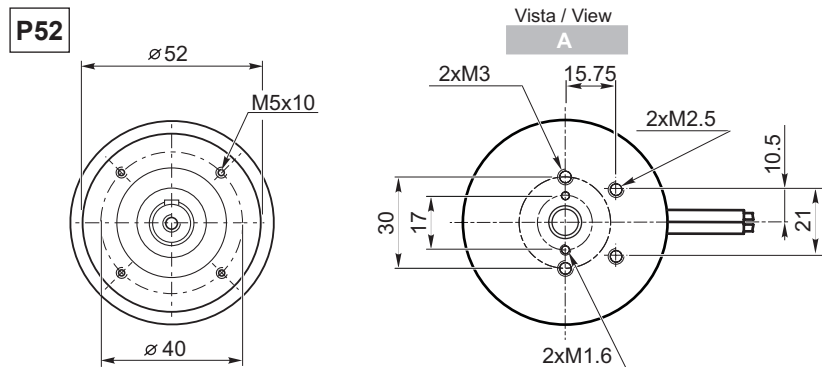
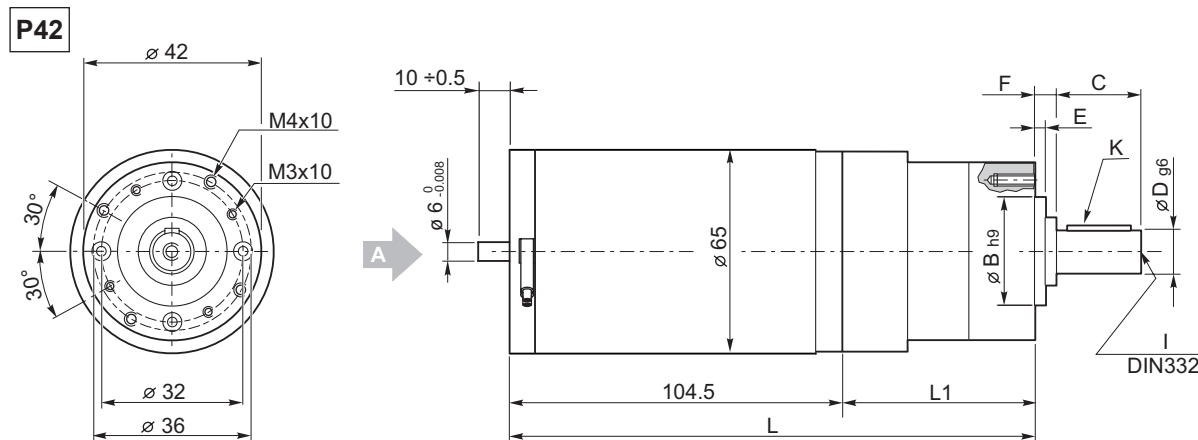
DC



Dimensioni

Dimensions

ECP050/... U



ECP050/... C...

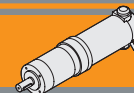


Freno / Brake



Encoder

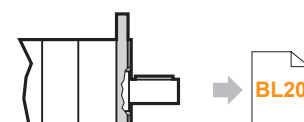
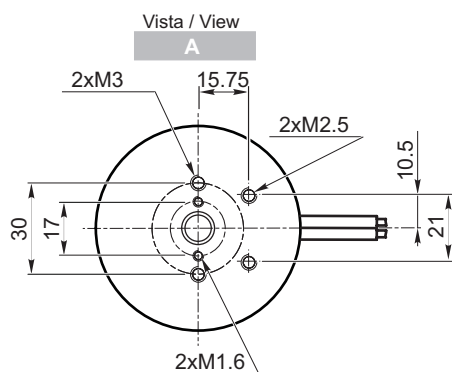
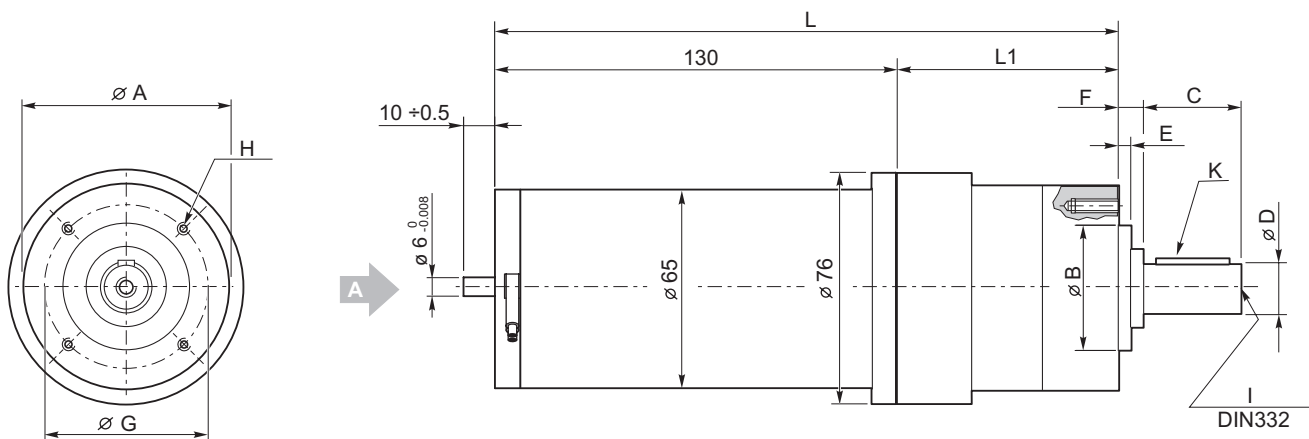
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions								
		L1	L	B	C	D	E	F	I	K
ECP050/42...	1	60.5	165	25 h9	22.2	8 g6	2	2.8	M3x9	3x3x16
	2	73.6	178.1							
	3	86.6	191.1							
ECP050/52...	1	73.1	177.6	32 h8	20.8	12 h7	3	4.2	M4x10	4x4x16
	2	87.2	191.7							
	3	101.5	206							



Dimensioni

Dimensions

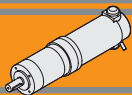
ECP070/... U



ECP070/... C...

- Motori / Motors IP66 → [BC2](#)
- Freno / Brake → [BB23](#)
- Encoder → [BB24](#)

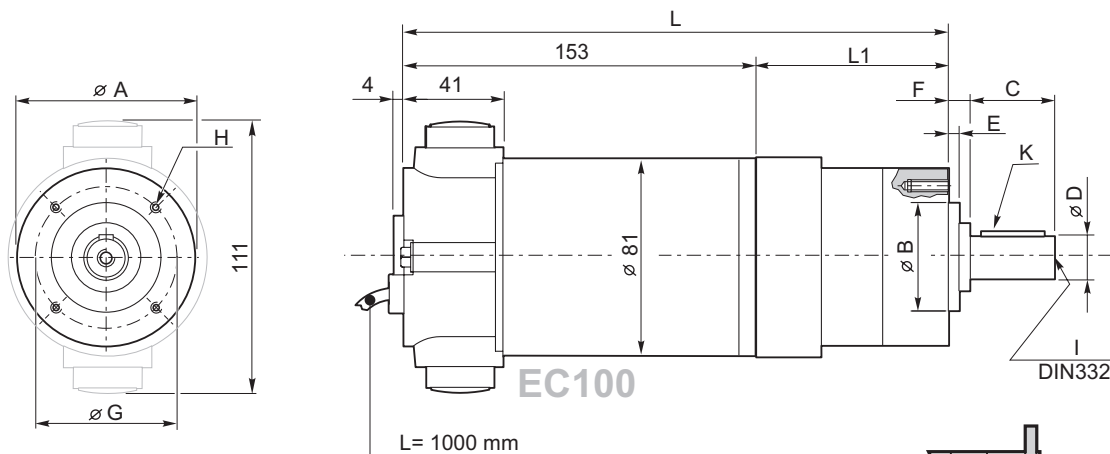
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP070/52...	1	73	203	52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	87.1	217.1										
	3	101.4	231.4										
ECP070/62...	1	72.8	202.8	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	89.7	219.7										
	3	106.7	236.7										



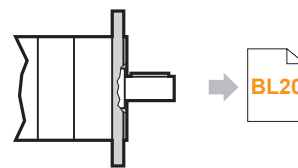
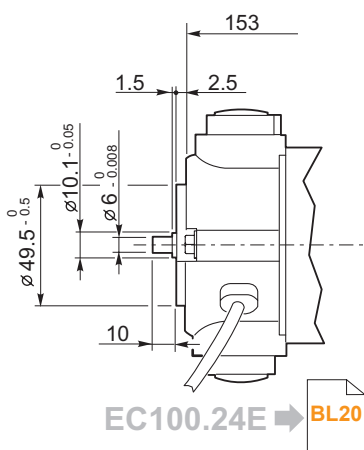
Dimensioni

Dimensions

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



ECP100/... U... 24E



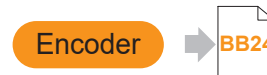
ECP100/... C...



Motori / Motors IP66

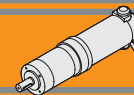


Freno / Brake



Encoder

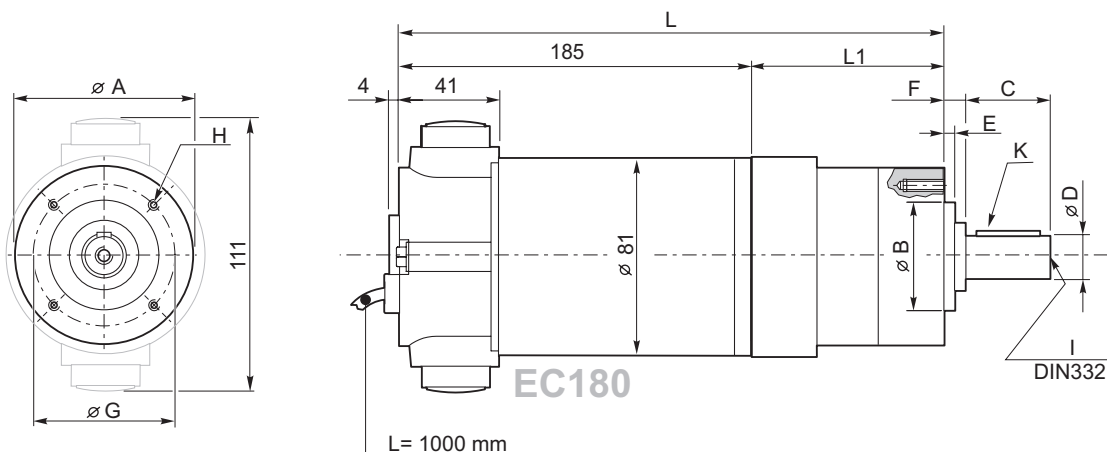
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP100/52...	1	73	226	52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	87.1	240.1										
	3	101.4	254.4										
ECP100/62...	1	72.8	225.8	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	89.7	242.7										
	3	106.7	259.7										



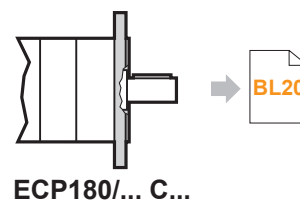
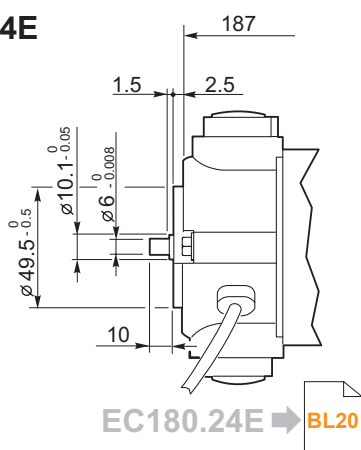
Dimensioni

Dimensions

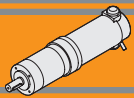
ECP180/... U... 120/240



ECP180/62.. U... 24E

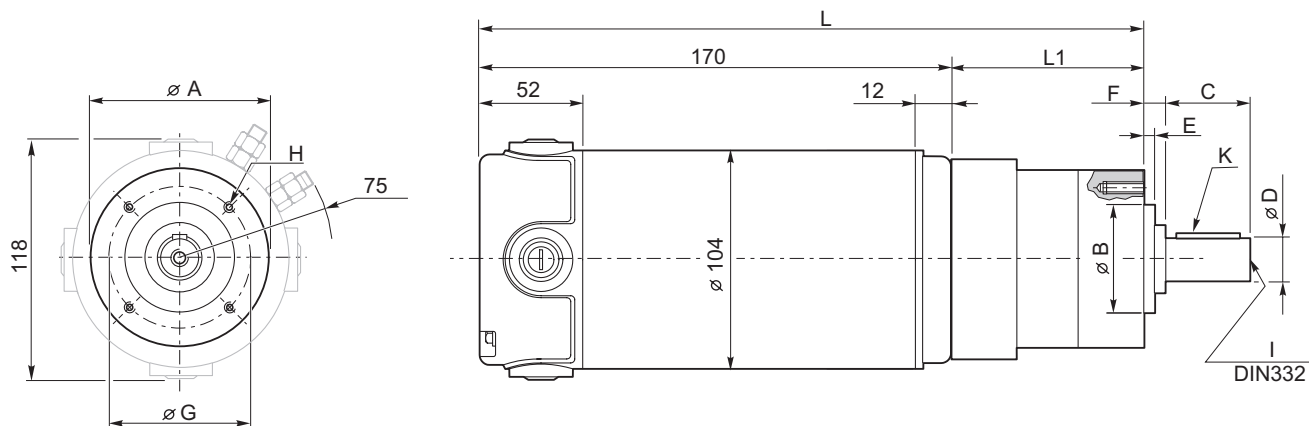


Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions													
		EC180		EC180.24E		EC180 - EC180.24E									
		L1	L	L1	L	A	B	C	D	E	F	G	H	I	K
ECP180/52...	1	73	258			52	32 h8	20.8	12 h7	3	4.2	40	M5x10	M4x10	4x4x16
	2	87.1	272.1												
	3	101.4	286.4												
ECP180/62...	1	72.8	257.8	76	263	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	89.7	274.7	92	279										
	3	106.7	291.7	108	295										

**ECP**

Motoriduttori CC epicicloidali
DC planetary gearmotors

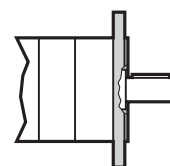
MINI
TECNO

Dimensioni**Dimensions****ECP250/... U**

Motori / Motors IP66



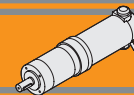
BC8



BL20

ECP250/... C...

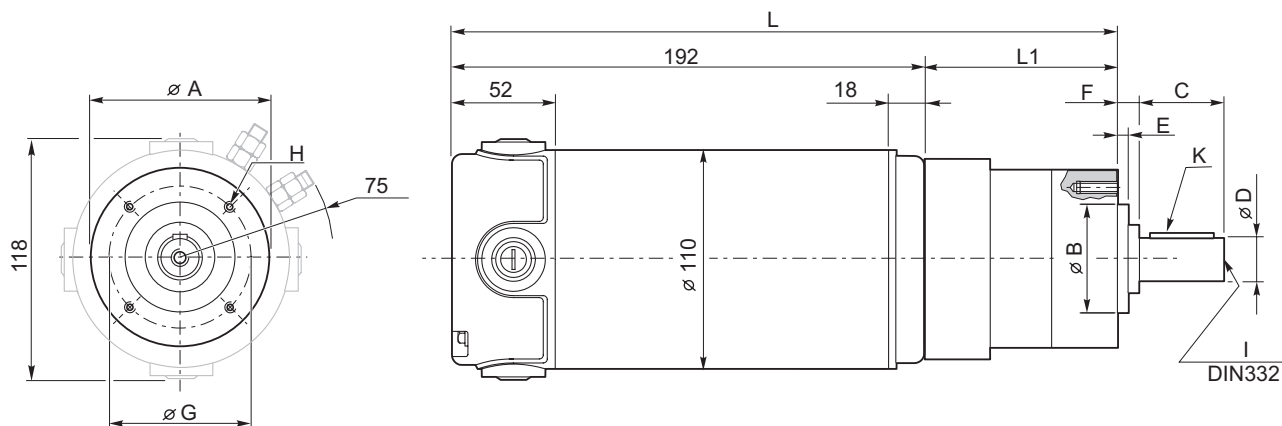
Tipo Type	Numero di stadi Stages number	Dimensioni / Dimensions											
		L1	L	A	B	C	D	E	F	G	H	I	K
ECP250/62...	1	74.5	244.5	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	91.5	261.5										
	3	108.5	278.5										



Dimensioni

Dimensions

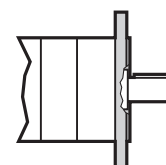
ECP350/... U



Motori / Motors IP66

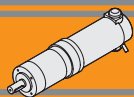


Freno / Brake



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	74.5	266.5	62	40 j7	30	14 h7	5	9	52	M5x10	M5x12	5x5x18
	2	91.5	283.5										
	3	108.5	300.5										



**NDP
ECP**

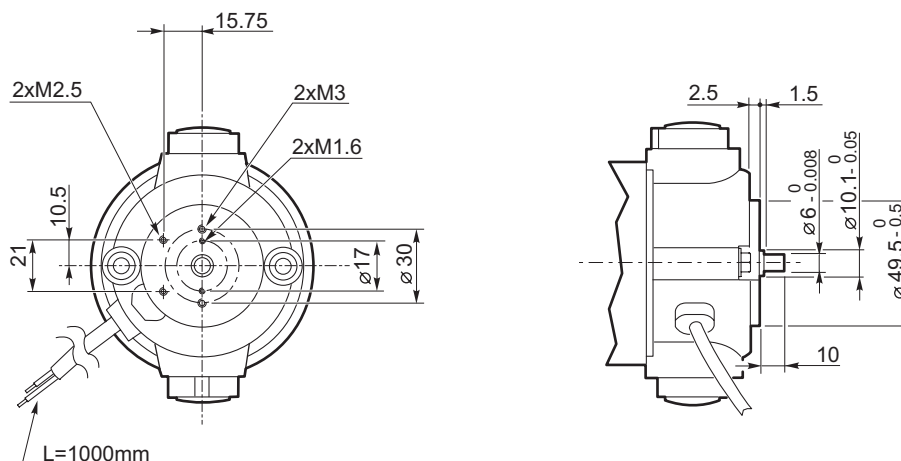
**Motoriduttori CC epicicloidali
DC planetary gearmotors**

**MINI
TECNO**

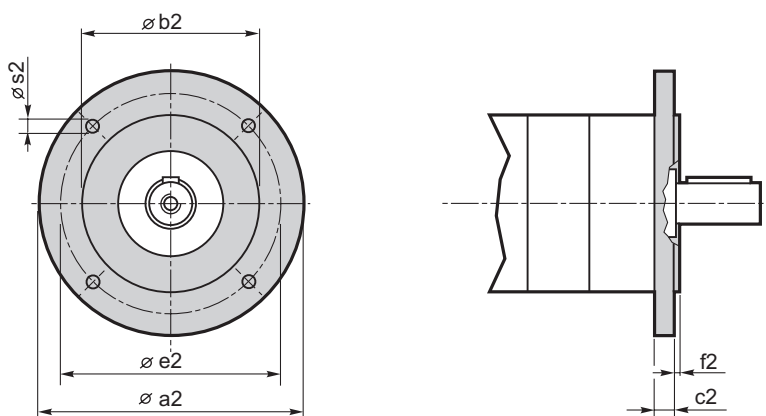
Dimensioni

Dimensions

**ECP100.24E
ECP180.24E**



NDP.../... C... - ECP.../... C... Flange uscita / Output flanges

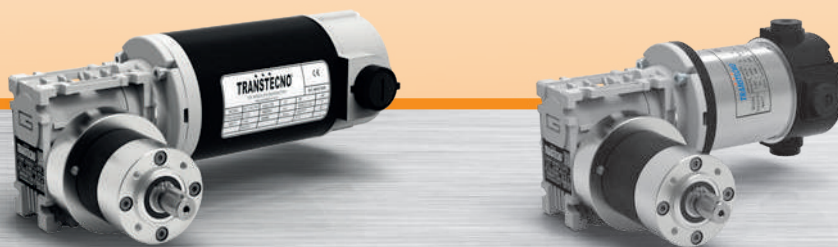


Dimensioni / Dimensions							
PM	a2	b2	c2	e2	f2	s2	Flangia uscita Output flange
52	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5	C120
62	80	50 j7	9	65	2.5	M5	C80
	90	60 j7	9	75	2.5	5.5	C90
	105	70 j7	9	85	2.5	6.5	C105
	120	80 j7	9	100	3.0	6.5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

MINI  **TECNO**™
small but strong

NDWMP
ECWMP

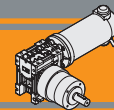
Motoriduttori CC combinati
DC double reduction gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



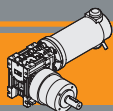
DC



Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	BM2
Designazione	<i>Classification</i>	BM2
Versioni	<i>Versions</i>	BM2
Simbologia	<i>Symbols</i>	BM2
Lubrificazione	<i>Lubrication</i>	BM3
Carichi radiali	<i>Radial loads</i>	BM3
Rapporti	<i>Ratios</i>	BM3
Dati tecnici	<i>Technical data</i>	BM4
Dimensioni	<i>Dimensions</i>	BM6

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Caratteristiche tecniche

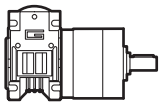
Technical features

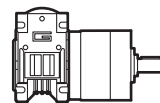
L'accoppiamento di un riduttore a vite senza fine con un riduttore epicicloidale consente di ottenere elevati rapporti di riduzione ($i_{max} = 1/18452$) e di disporre di un gruppo autolubrificato compatto, silenzioso e con un'elevata affidabilità.

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

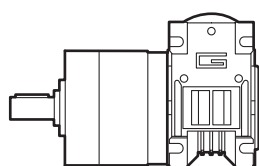
Classification

MOTORIDUTTORE / GEARMOTOR								
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
	120/026/52 120/026/62	180/026/62	1	US	80	Vedere tabella See tables	120 240	BR BRL
			2	UD	90			
			3	CS	105			
				CD	120			

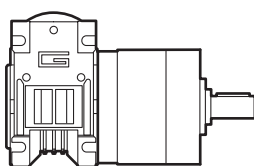
MOTORIDUTTORE / GEARMOTOR									
ECWMP	070/026/52			2	CD	90	405	240	BR
Tipo Type	Grandezza Size			Numero stadi epicicloidale Planetary stages number	Versione Riduttore Gearbox Version	Flangia Uscita Output flange	Rapporto Ratio	Versione Motore Motor Version	Opzioni Options
	070/026/52 070/026/62	100/026/52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

Versioni

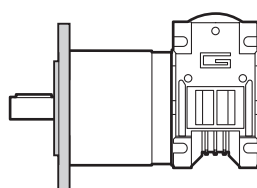
Versions



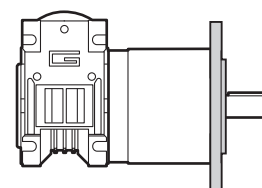
US



UD



CS

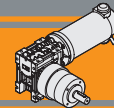


CD

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.

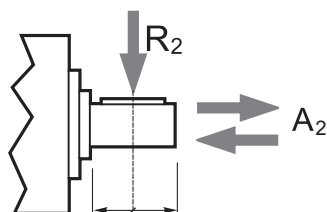
Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

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 maintenance free. They can be installed in any location.

Carichi radiali

Radial loads



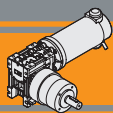
Numero di stadi Stages number	Carichi Radiali R_2 [N] Radial Load R_2 [N]		
	P52	P62	P81
1	200	240	400
2	320	360	600
3	450	520	1000

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

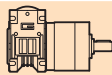
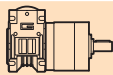
Motoriduttore Gearmotor	Numero stadi epicicloidale Planetary stages number	Rapporto epicicloidale Planetary ratio	Rapporto vite senza fine Wormgearbox ratio	Rapporto finale Total ratio
.../026/052 .../026/062	1	6.75	10	67.5
			15	101.3
			20	135
			30	202.5
			40	270
			50	337.5
	2	25.01	10	250.1
			15	375.15
			20	500.2
			30	750.3
			40	1000.4
			50	1250.5
		45.56		60



Dati tecnici per servizio S2

NDWMP

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version	P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version
160							250						
(3000 min ⁻¹)	44.4	22.8	1.1	67.5	120/026/521	120/240	(3000 min ⁻¹)	44.4	25.0	1.0	67.5	180/026/521	120/240
	29.6	25.0	1.0	101.3									
	22.2	25.0	1.0	135									
	14.8	25.0	1.0	202.5									
	11.1	25.0	1.0	270									
	8.9	25.0	1.0	337.5									
	7.4	25.0	1.0	405									
	12.0	25.0	1.0	250.1			120/026/522	120/240					
	8.0	25.0	1.0	375.15									
	6.0	25.0	1.0	500.2									
	4.0	25.0	1.0	750.3									
	3.0	25.0	1.0	1000.4									
	2.4	25.0	1.0	1250.5									
	2.0	25.0	1.0	1500.6									
	1.1	25.0	1.0	2734									
	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									
	8.9	40	1.0	337.5									
	7.4	40	1.0	405.0									
	12.0	50.0	1.0	250.1			120/026/622	120/240					
	8.0	50.0	1.0	375.15									
	6.0	50.0	1.0	500.2									
	4.0	50.0	1.0	750.3									
	3.0	50.0	1.0	1000.4									
	2.4	50.0	1.0	1250.5									
	2.0	50.0	1.0	1500.6									
	1.1	50.0	1.0	2734									

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 in the grey areas

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

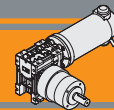
NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici

Electrical technical data

ND 120 → 

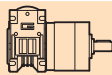
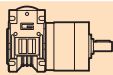
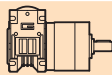
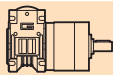
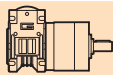
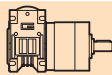
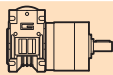
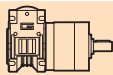
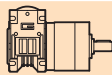
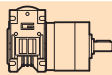
ND 180 → 



Dati tecnici per servizio S2

ECWMP

Technical data for S2 duty

P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version	P ₁ [W]	n ₂ [min ⁻¹]	M ₂ [Nm]	sf	i		Versione motore Motor version		
100							140								
(3000 min ⁻¹)	44.4	14	1.8	67.5		070/026/521	120/240	(3000 min ⁻¹)	44.4	20	1.3	67.5		100/026/521	120/240/24E
	29.6	21	1.2	101.3				29.6	25	1.0	101.3				
	22.2	25	1.0	135.0				44.4	20	2.0	67.5		100/026/621	120/240/24E	
	14.8	25	1.0	202.5				29.6	29	1.4	101.3				
	11.1	25	1.0	270.0				22.2	37	1.1	135.0				
	8.9	25	1.0	337.5				14.8	40	1.0	202.5				
	7.4	25	1.0	405											
	12.0	25.0	1.0	250.1				070/026/522	120/240	250					
	8.0	25.0	1.0	375.15	(3000 min ⁻¹)	44.4			25.0	1.0	67.5		180/026/521	120/240	
	6.0	25.0	1.0	500.2		44.4			37	1.1	67.5				
	4.0	25.0	1.0	750.3		29.6			40	1.0	101.3				
	3.0	25.0	1.0	1000.4		22.2			40	1.0	135.0				
	2.4	25.0	1.0	1250.5											
	2.0	25.0	1.0	1500.6											
	1.1	25.0	1.0	2734											
	44.4	14.3	2.8	67.5		070/026/621	120/240	NOTA: Verificare sempre che la coppia M2 utilizzata non ecceda il valore indicato nelle caselle in grigio							
	29.6	20.1	2.0	101.3			NOTE: Please check that the output torque M2 does not exceed the value in the grey areas								
	22.2	25.4	1.6	135											
	14.8	34.0	1.2	202.5											
	11.1	40.0	1.0	270											
	8.9	40.0	1.0	337.5											
	7.4	40.0	1.0	405											
	12.0	50.0	1.0	250.1				070/026/622	120/240						
	8.0	50.0	1.0	375.15											
	6.0	50.0	1.0	500.2											
	4.0	50.0	1.0	750.3											
	3.0	50.0	1.0	1000.4											
	2.4	50.0	1.0	1250.5											
	2.0	50.0	1.0	1500.6											
	1.1	50.0	1.0	2734											

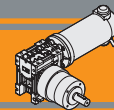
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici

Electrical technical data

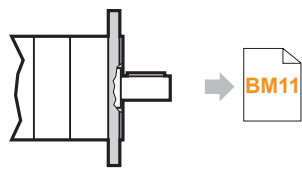
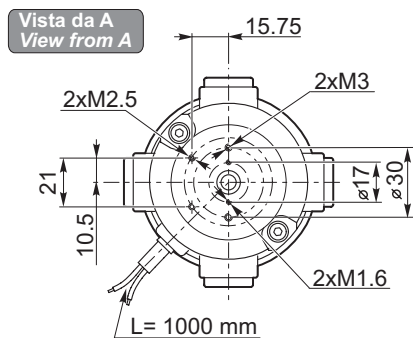
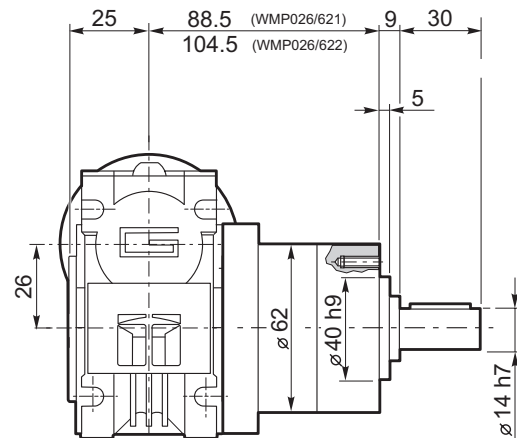
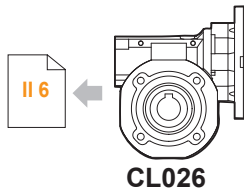
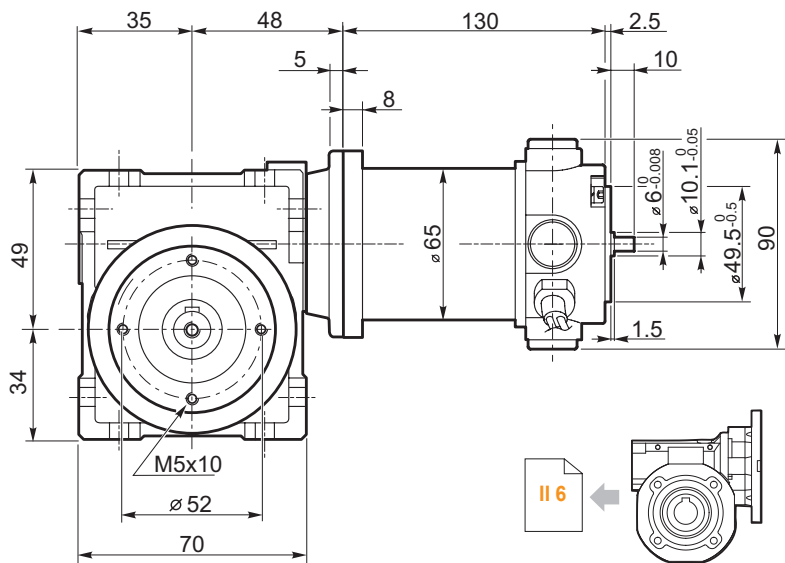




Dimensioni

Dimensions

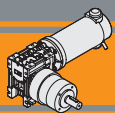
NDWMP180/026/62...U



NDWMP180/026/62...C

Freno / Brake → **BA9**

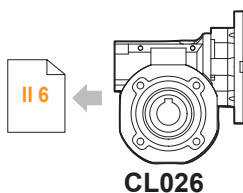
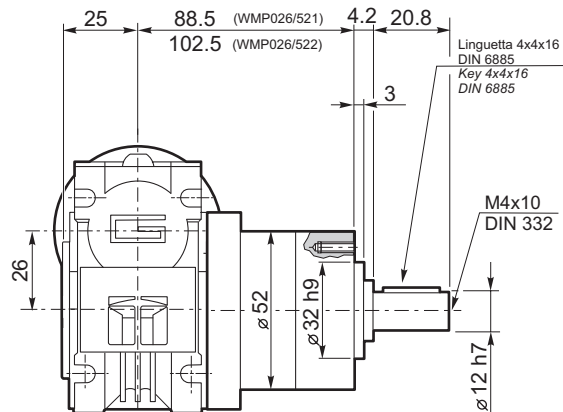
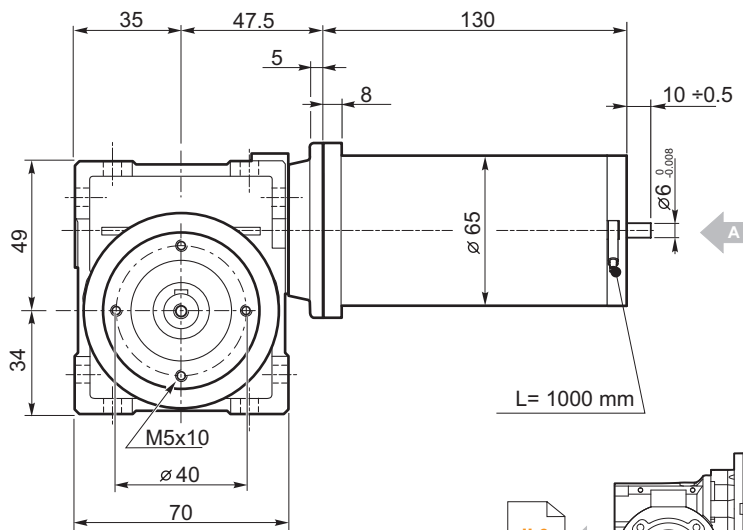
Encoder → **BA9**



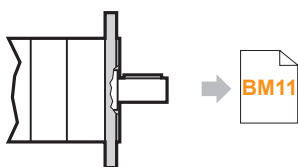
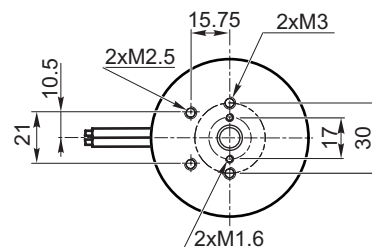
Dimensioni

Dimensions

ECWMP070/026/52...U



Vista / View
A



ECWMP070/026/52...C

Motori / Motors IP66



BC2

Freno / Brake



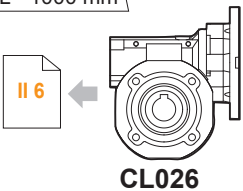
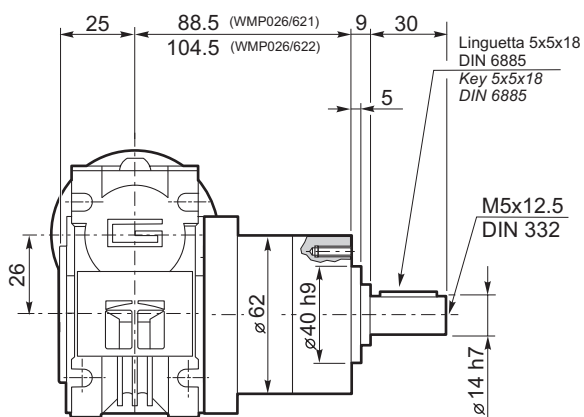
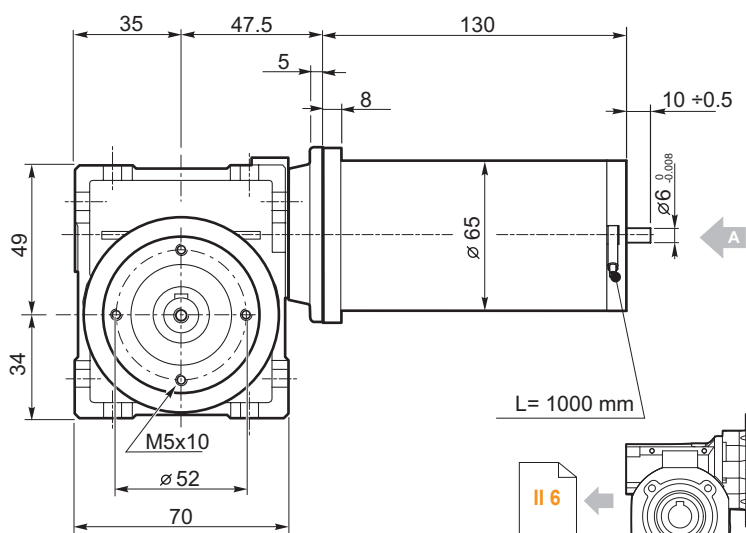
BB23

Encoder

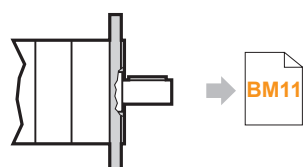
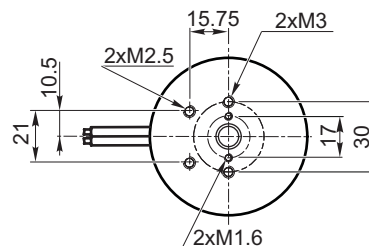


BB24

ECWMP070/026/62...U



Vista / View
A



ECWMP070/026/62...C

Motori / Motors IP66



BC2

Freno / Brake

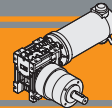


BB23

Encoder



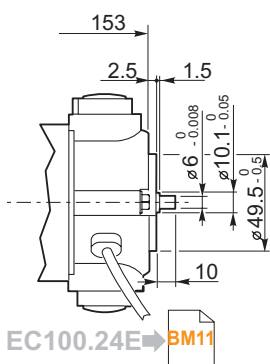
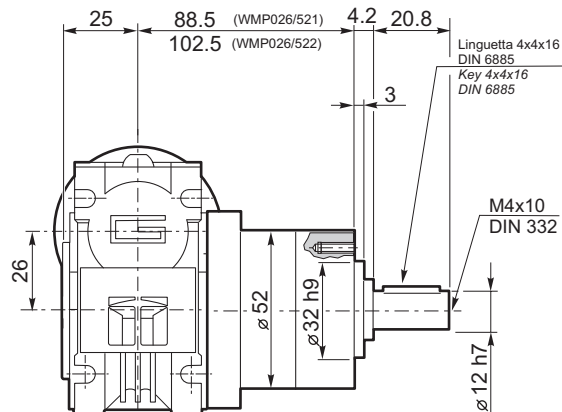
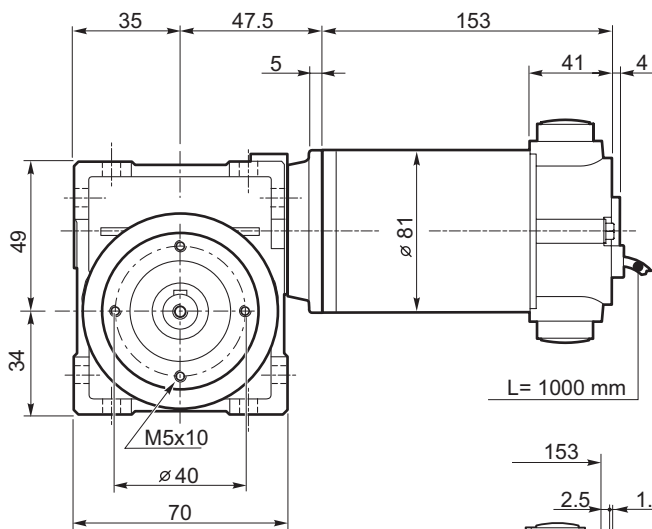
BB24



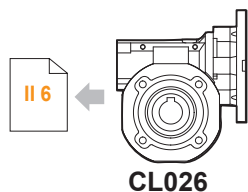
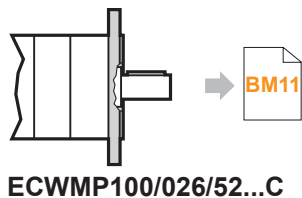
Dimensioni

Dimensions

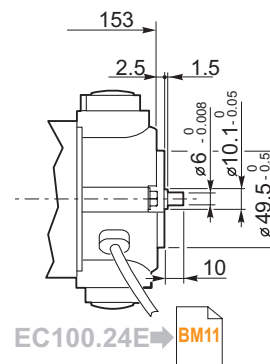
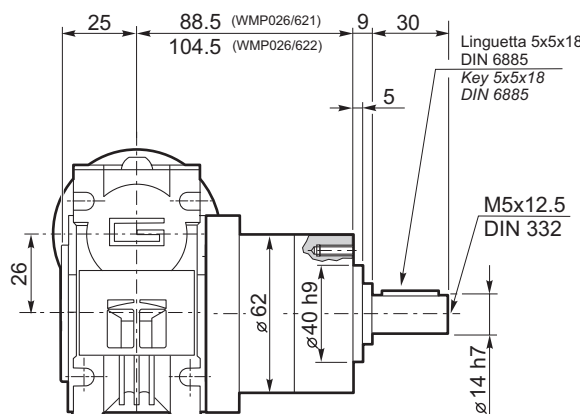
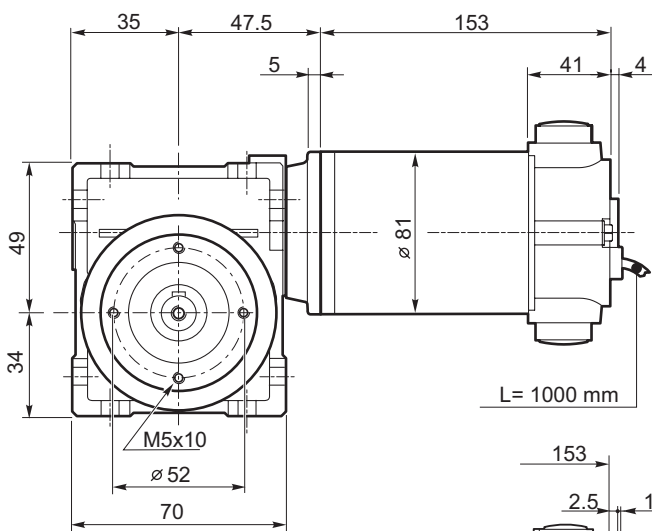
ECWMP100/026/52...U



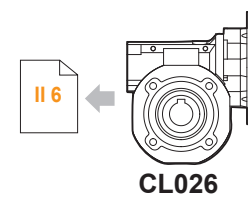
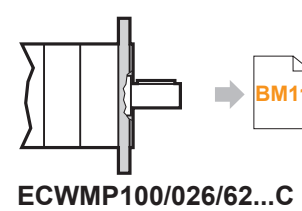
- Motori / Motors IP66 → [BC4](#)
- Freno / Brake → [BB23](#)
- Encoder → [BB24](#)



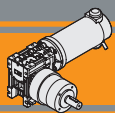
ECWMP100/026/62...U



- Motori / Motors IP66 → [BC4](#)
- Freno / Brake → [BB23](#)
- Encoder → [BB24](#)



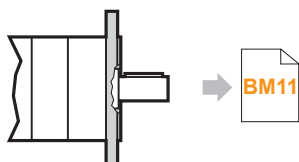
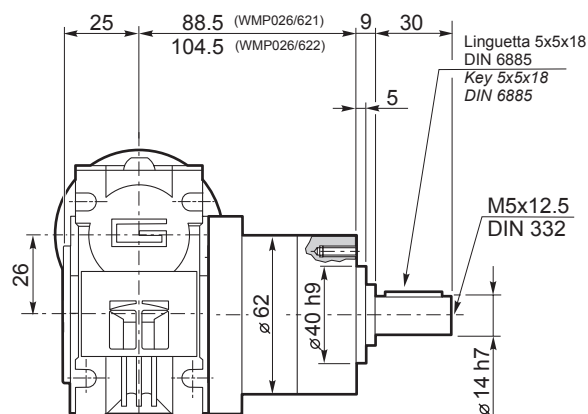
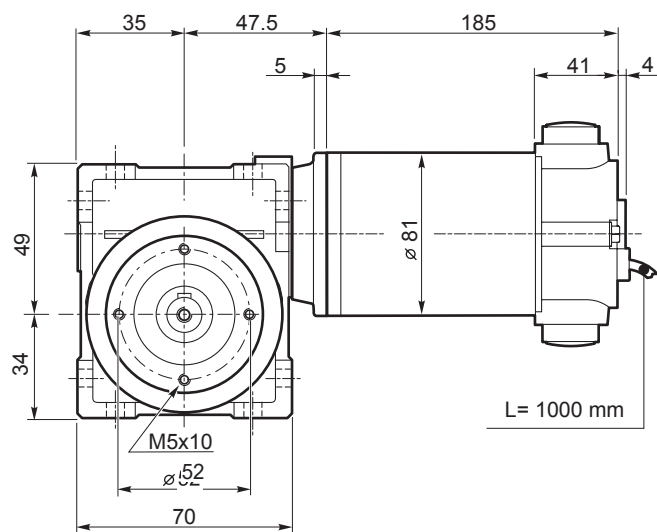
DC



Dimensioni

Dimensions

ECWMP180/026/62...U

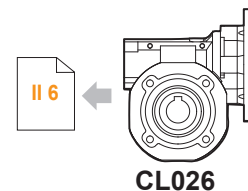


ECWMP180/026/62...C

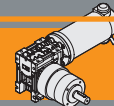
Motori / Motors IP66 → **BC6**

Freno / Brake → **BB23**

Encoder → **BB24**



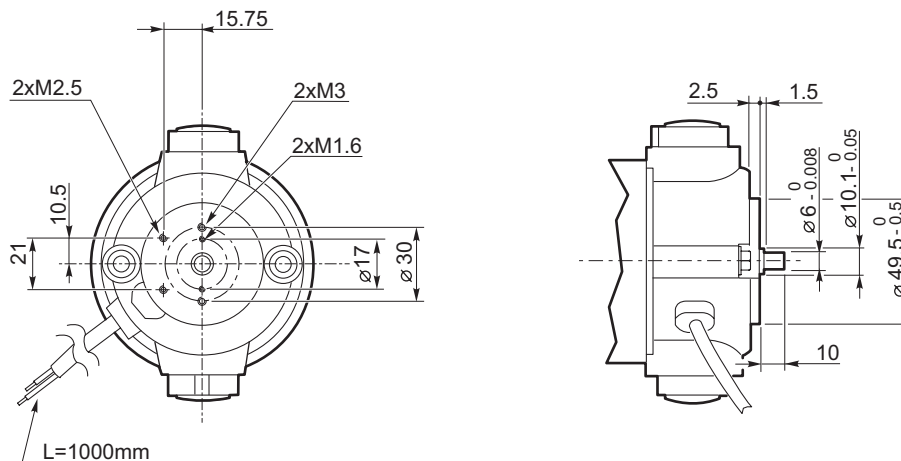
CL026



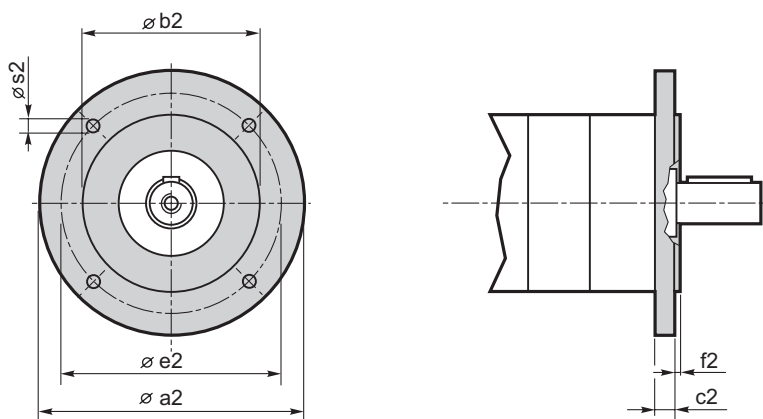
Dimensioni

Dimensions

ECWMP100.24E
ECWMP180.24E



NDWMP.../.../... C... - 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

DC

MINI  **TECNO**™
small but strong

PLN

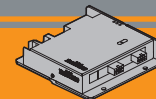
Azionamenti per motori CC
DC motor controls



MINI  **TECNO**™ brand of
TRANSTECNO®



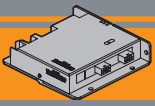
DC



	Indice	Index	Pag. Page
PLN19-8	Schema dei collegamenti	<i>Main connection diagram</i>	BN2
	Caratteristiche tecniche	<i>Technical features</i>	BN2
	Dimensioni	<i>Dimensions</i>	BN3
	Opzioni	<i>Options</i>	BN3
PLN20 PLN40	Schema dei collegamenti	<i>Main connection diagram</i>	BN4
	Caratteristiche tecniche	<i>Technical features</i>	BN5
	Dotazioni	<i>Equipment</i>	BN5
	Manuale	<i>User manual</i>	BN5
	Dimensioni	<i>Dimensions</i>	BN6
	GUIDA alla selezione dell'azionamento	<i>Drive selection GUIDE</i>	BN7
	Note	<i>Note</i>	BN8

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**

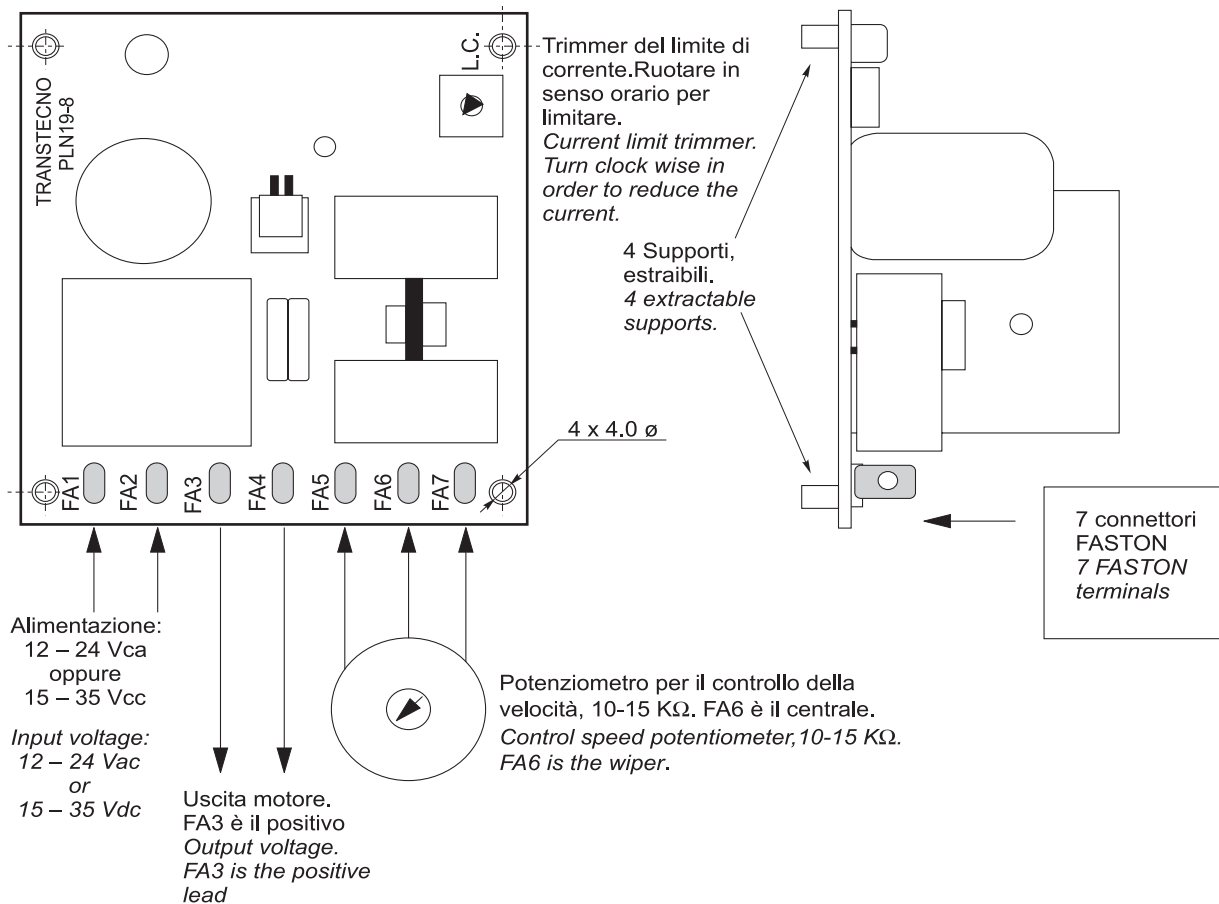
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AZIONAMENTO UNIDIREZIONALE PWM PER LA REGOLAZIONE DI VELOCITA' DEI MOTORI A CORRENTE CONTINUA A BASSA TENSIONE

LOW VOLTAGE SINGLE DIRECTION PWM DC MOTORS CONTROL

SCHEMA DEI COLLEGAMENTI - MAIN CONNECTION DIAGRAM



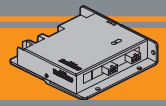
Attenzione: se si scollega il potenziometro con la scheda alimentata, il motore ruota alla velocità nominale.

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

Caratteristiche tecniche

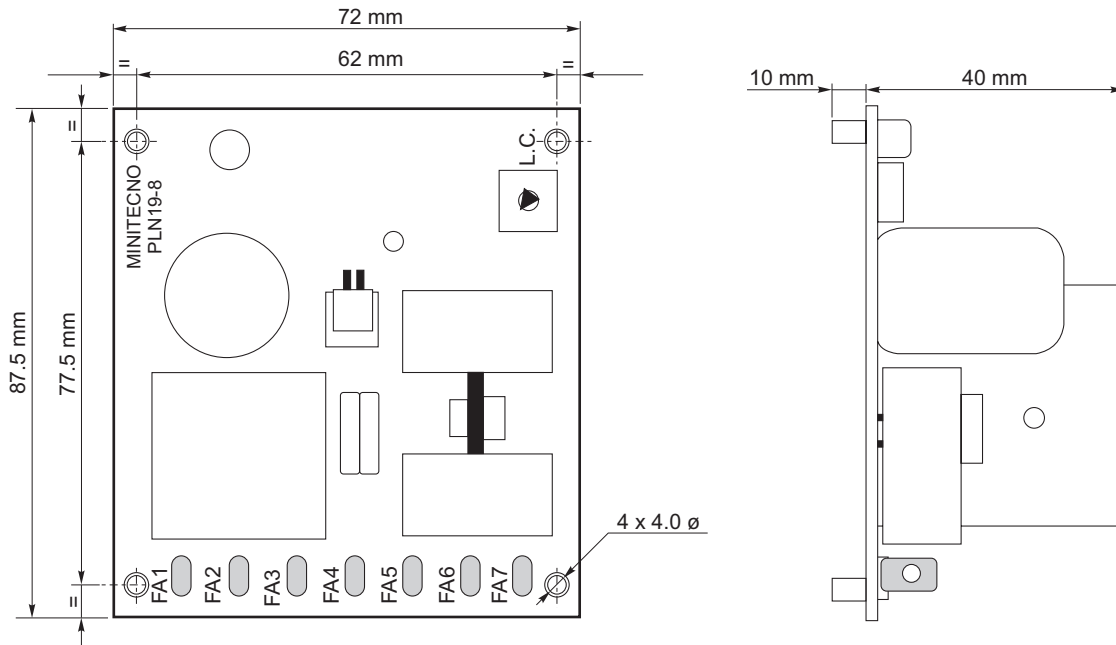
Technical features

- 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.
- 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

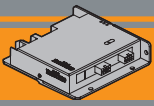
Options

1. Potenzimetro 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.

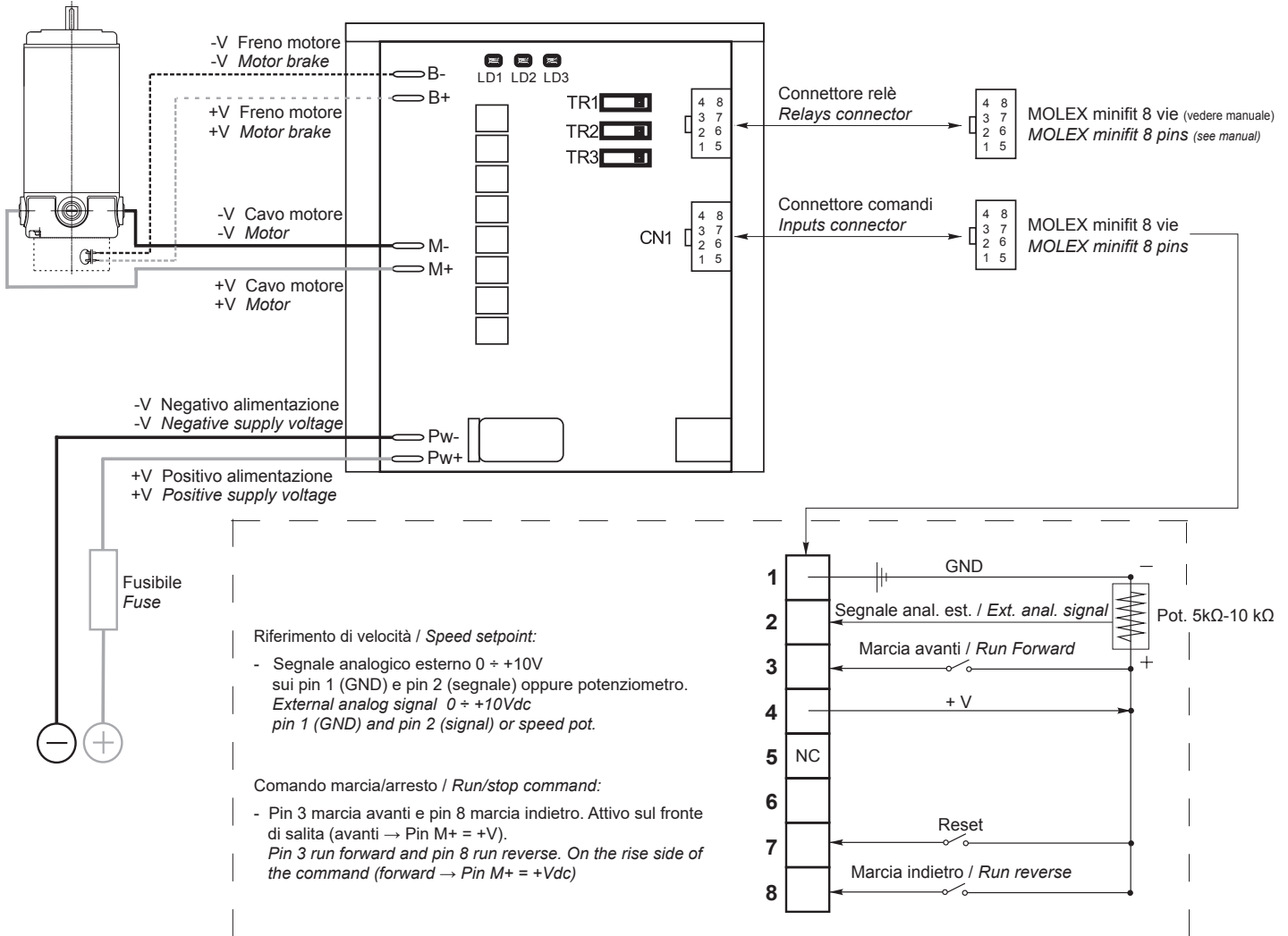
(*) *the maximum output current value must be used in a ventilated environment. Derate the maximum output current down to 4 A if the environment is not ventilated and the temperature is about 45 °C; continuous duty.*



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:

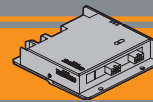
TR1: Acceleration time: from 0.5 to 10 sec.
 TR2: Current limitation: rated current limited from 100% to about 30% (peak current 3 times the selected limited current).
 TR3: Deceleration time: from 0.5 to 10 sec.

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

Technical features

- 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
- *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 re-
gulation*
 - *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 (1 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

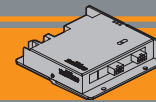
	PLN20 PLN40
Trimmer di selezione ACCEL, DECEL e LIMITE di CORRENTE / <i>Selection Trimmer ACCEL, DECEL, CURRENT LIMIT</i>	■
2 contatti: marcia avanti e marcia indietro / <i>2 contacts : forward and reverse</i>	■
Riferimento di velocità / <i>Speed setpoint reference</i>	■
3 LEDs di segnalazione / <i>3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

uno impegnato dal reset / *one comitted by reset*



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

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



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.

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

PLN19-8 = max 6 A

PLN19-8 = max 6 A

PLN20 = max 22 A

PLN20 = max 22 A

PLN40 = max 44 A

PLN40 = max 44 A

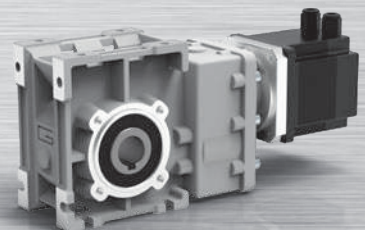
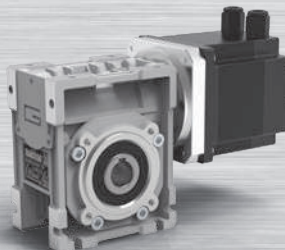
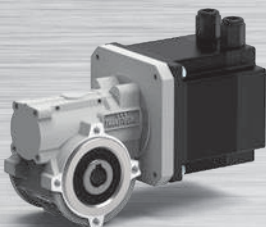
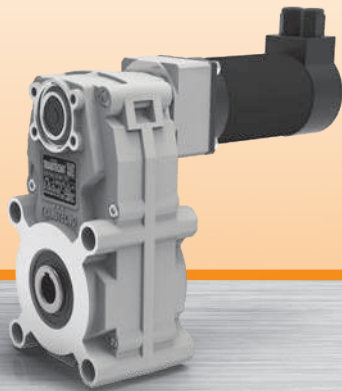
Vedere sotto la tabella per esemplificazioni

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
EC350.240	21	PLN20	29.4	PLN40
EC350.240BR				
EC600.240	35.5	PLN40	47	PLN40
EC600.240BR				

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





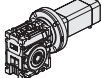

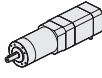


Motoriduttori BLDC
BLDC gearmotors



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BLDC

	Indice	Index	Pag. Page
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 	C-B Motoriduttori brushless CC ad assi ortogonali BLCMB	Brushless DC helical bevel gearmotors BLCMB	C-B1
 	C-C Motoriduttori brushless CC pendolari BLFT	Brushless DC helical parallel gearmotors BLFT	C-C1
 	C-D Motoriduttori brushless CC a vite senza fine BLCM	Brushless DC wormgearmotors BLCM	C-D1
 	C-E Motoriduttori brushless CC epicicloidali BLP	Brushless DC planetary gearmotors BLP	C-E1
 	C-F Azionamenti per motori brushless CC BLD	Brushless DC motor controls BLD	C-F1

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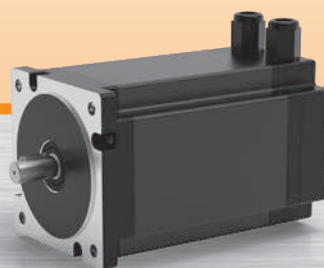
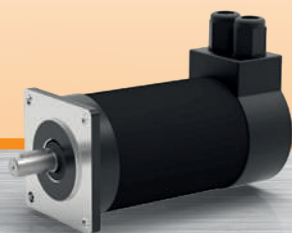
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BL



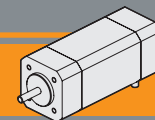
Motori brushless CC
Brushless DC motors



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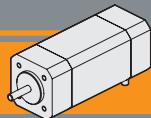
BLDC



	Indice	Index	Pag. Page
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BL070.240 BL070.24B	Specifiche costruttive	<i>General features</i>	CA8
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	Prestazioni	<i>Performances</i>	CA10
	Dimensioni	<i>Dimensions</i>	CA11
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Caratteristiche tecniche

Technical features

I motori brushless CC della serie BL vengono realizzati in 5 taglie con coppie da 0.22 Nm a 2.1 Nm, e sono forniti con driver esterno.

I vantaggi di utilizzare i motori brushless anziché i tradizionali motori cc a spazzole, sono i seguenti:

- Lunga durata nel tempo
- Elevata efficienza
- Commutazione elettronica e controllo del motore tramite sensori digitali (encoder, resolver ecc..)
- Ampio campo di regolazione della velocità
- Mancanza di manutenzione

I motori della serie BL sono estremamente compatti e grazie al basso momento di inerzia offrono una elevata prestazione dinamica, ed inoltre sono economici in quanto dotati di sensori di Hall (anziché encoder o resolver).

Le 3 fasi dell'avvolgimento del motore sono a bassa tensione 24V / 36V / 48V e quindi offrono maggiori garanzie in termini di sicurezza dell'impianto, soprattutto nelle applicazioni dove l'operatore può essere a contatto con il motore stesso.

Tutti i motori sono realizzati con grado di protezione IP55.

Brushless DC motors from the BL range are available in 5 sizes with torque from 0.22 Nm to 2.1 Nm and they are supplied with external driver.

The advantages of using brushless motors instead of traditional DC brushed motors are the following:

- Longer life time
- Higher efficiency
- Electronic commutation and control of the motor via digital sensors (encoder, resolver etc.)
- Wide speed range
- Maintenance free

BL motors have a compact design and thanks to low inertia they have high performances and are a low cost solution already including Hall sensors, as opposed to an encoder or resolver.

The 3 phase windings of the motor have a low voltage of 24/36/48 V and so these motors are safer to use when a machine operator has direct contact with them.

IP55 protection index for all the motors.

Grado di protezione IP

IP enclosures protection indexes

Indica il grado di isolamento meccanico del corpo motore.

1^a cifra protezione alla penetrazione di corpi solidi.

2^a cifra protezione contro la penetrazione d'acqua.

Indicates the degree of mechanical insulation of the motor body. 1st figure indicating level of protection against the penetration of solid bodies.

2nd figure: indicating degree to which the motor is waterproof.

5	Protetto contro la polvere Dust proof	5	Protetto contro i getti d'acqua Water jet proof
----------	--	----------	--

Classe di isolamento termico

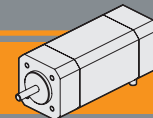
Insulation class

Classe / Class	Δt °C Temp. ambiente: 40°C Ambient temperature: 40°C
B	90°C
F	115°C
H	140°C

Tipi di servizio IEC

IEC duty cycle ratings

S1	Servizio continuo. Funzionamento a carico costante per una durata sufficiente al raggiungimento dell'equilibrio termico.	Continuous duty. The motor works at a constant load for enough time to reach temperature equilibrium
S2	Servizio di durata limitata. Funzionamento a carico costante per una durata inferiore a quella necessaria al raggiungimento dell'equilibrio termico, seguito da un periodo di riposo tale da riportare il motore alla temperatura ambiente.	Short time duty. The motor works at a constant load, but not long enough to reach temperature equilibrium, and the rest periods are long enough for the motor to reach ambient temperature.
S3	Servizio periodico intermittente. Sequenze di cicli identici di marcia e di riposo a carico costante, senza raggiungimento dell'equilibrio termico. La corrente di spunto ha effetti trascurabili sul surriscaldamento del motore.	Intermittent periodic duty. Sequential, identical run and rest cycles with constant load. Temperature equilibrium is never reached. Starting current has little effect on temperature rise.

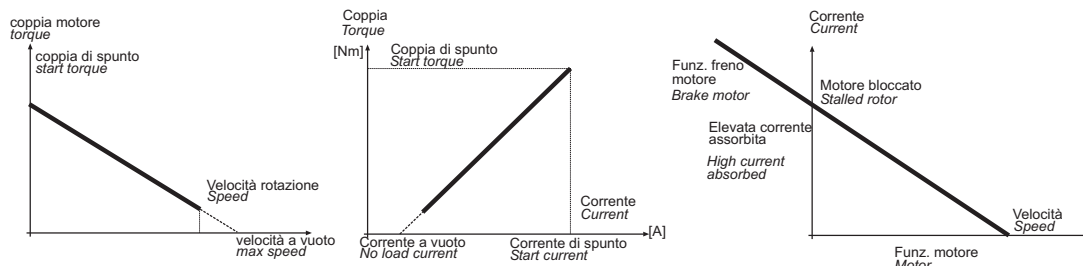


Legenda / Glossario dei grafici

Key / Diagram Glossary

Dato un motore brushless CC, la velocità di rotazione è funzione lineare della coppia; così pure la corrente assorbita è una funzione lineare della coppia. Velocità e corrente variano in maniera sensibile al variare del carico.

With a brushless DC motor, the rotational speed is a linear function of the torque. In the same way, the absorbed current is also a linear function of the torque. Speed and current change a lot against applied torque.

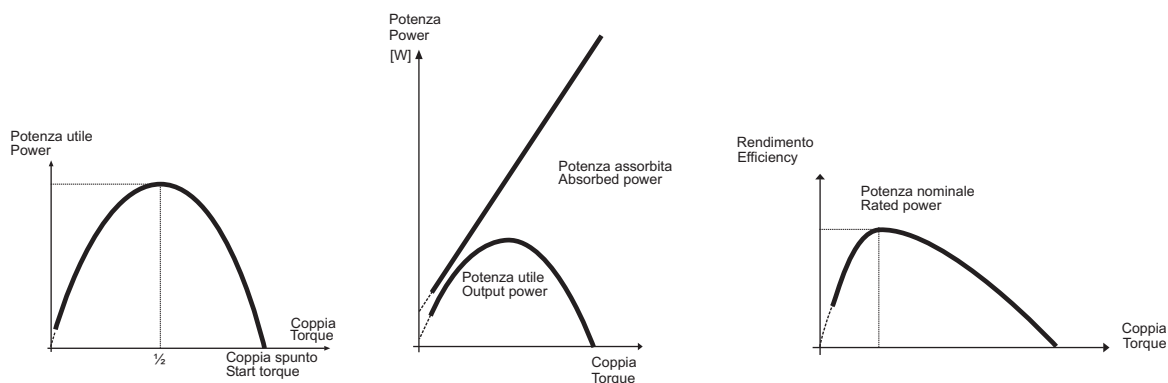


La potenza utile (potenza all' albero) si ricava dalla formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$

The output power is calculated using the formula:

$$P_n [W] = M_n \cdot S = \frac{2\pi}{60} \cdot n_1 \cdot M_n$$



Poiché la tensione di alimentazione è costante mentre la corrente è linearmente crescente al crescere della coppia, l'andamento della potenza assorbita è una retta crescente. Dal rapporto tra la potenza meccanica e la potenza assorbita si ottiene il grafico dell'efficienza.

Since the supply voltage is constant, whereas the current increases in a linear manner as the torque increases, the absorbed power trend is a straight line going up. Efficiency is shown from the ratio between the output power and the absorbed power.

Formule utili

Useful formulas

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

$$P_n = V \cdot I \cdot \eta$$

$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

$$\eta = \frac{P_n}{P_a}$$

$$P_a = V \cdot I$$

$$P_n = V \cdot I \cdot \eta$$

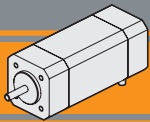
$$P_n = M_n \cdot S_v$$

$$S_v = \frac{n_1}{9.55}$$

[HP] · 746 = [W].
Esempio 2 HP = circa 1500 W.

[HP] · 746 = [W].
Example 2 HP = approx. 1500 W.

S	—	Servizio	<i>Duty</i>
P_n	[W]	Potenza in uscita	<i>Rated power</i>
P_a	[W]	Potenza assorbita	<i>Absorbed power</i>
M_n	[Nm]	Coppia nominale	<i>Rated torque</i>
V	[V]	Tensione	<i>Voltage</i>
I	[A]	Corrente assorbita	<i>Absorbed current</i>
n₁	[min ⁻¹]	Numero giri motore	<i>Motor speed</i>
S_v	[rad/s]	Velocità angolare	<i>Angular speed</i>
IC	—	Classe d'isolamento termico	<i>Thermal insulation class</i>
FF	—	Fattore di forma	<i>Form factor</i>
IP	—	Classe di protezione	<i>protection class</i>
η	—	Rendimento	<i>Efficiency</i>
Kg	—	Massa	<i>Mass</i>



BLS022.240

Specifiche costruttive

General features

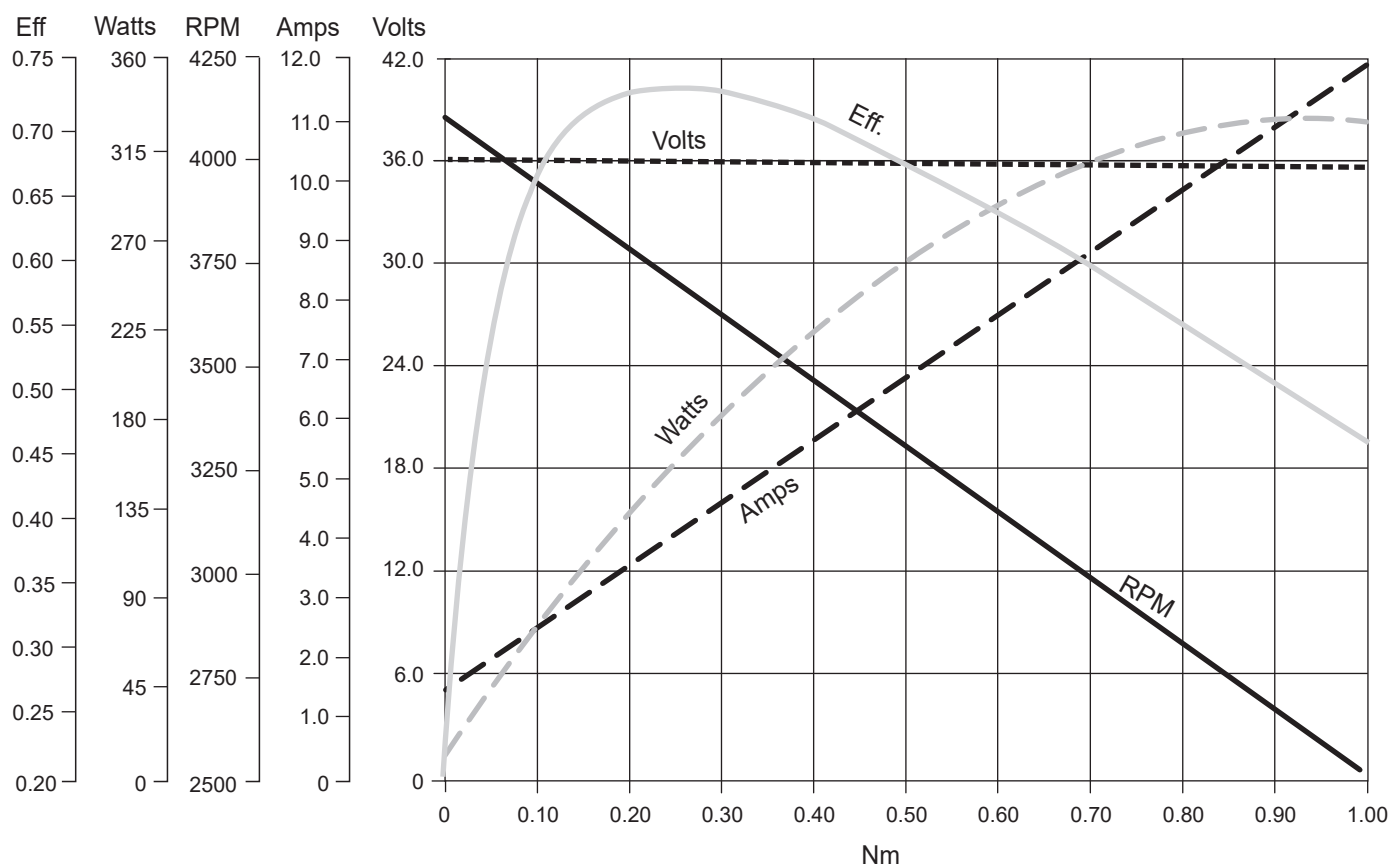
Tipologia di avvolgimento <i>Winding type</i>	delta	Max forza radiale <i>Max radial force</i>	75N @ 20 mm dalla flangia 75N @ 20 mm from flange
Angolo sensori Hall <i>HALL effect angle</i>	120 gradi elettrici 120 degree electrical angle	Max forza assiale <i>Max axial force</i>	15N
Gioco radiale <i>Radial play</i>	0.025 mm @ 460 g	Classe di isolamento termico <i>Insulation class</i>	Classe B Class B
Gioco assiale <i>End play</i>	0.025 mm @ 4000 g	Isolamento dielettrico <i>Dielectric strength</i>	500Vcc x 1 minuto 500 Vdc 1 minute
Scantatura albero <i>Shaft run out</i>	0.025 mm	Resistenza isolamento <i>Insulation resistance</i>	100MΩ minimo, 500Vcc 100MΩ min, 500 Vdc

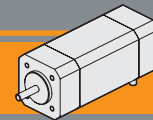
Modello <i>Model</i>	Poli <i>Poles</i>	Fasi <i>Phases</i>	Tensione nominale	Velocità nominale	Coppia nominale	Potenza nominale	Coppia di picco	Corrente nominale	Corrente di picco	Resistenza fase-fase	Induttanza fase-fase	Costante di coppia	Costante FCEM	Inerzia rotore	Peso	IP
			<i>Rated voltage</i>	<i>Rated speed</i>	<i>Rated torque</i>	<i>Rated power</i>	<i>Peak torque</i>	<i>Rated current</i>	<i>Peak current</i>	<i>Line to line resistance</i>	<i>Line to line inductance</i>	<i>Torque constant</i>	<i>Back EMF</i>	<i>Rotor inertia</i>	<i>Weight</i>	
			[V]	[min ⁻¹]	[Nm]	[W]	[Nm]	[A]	[A]	[Ω]	[mH]	[Nm/A]	[V/kRPM]	[gcm ²]	[kg]	
BLS022.240	4	3	36	4000	0.22	92	0.66	3.7	11.2	0.64	2.1	0.06	6.28	119	0.72	55
BLS022.240	4	3	24	3000	0.22	70	0.66	3.7	11.2	0.64	3.1	0.06	6.28	119	0.72	55

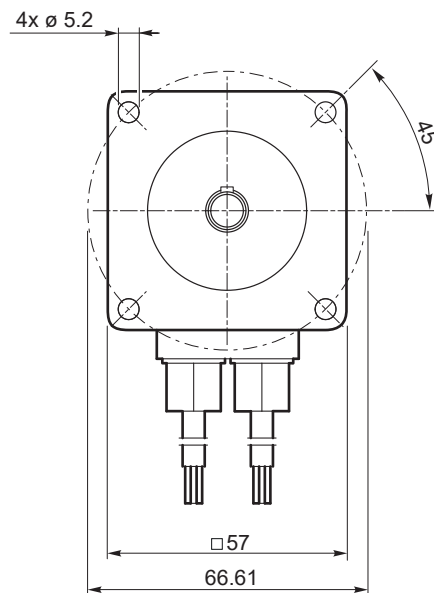
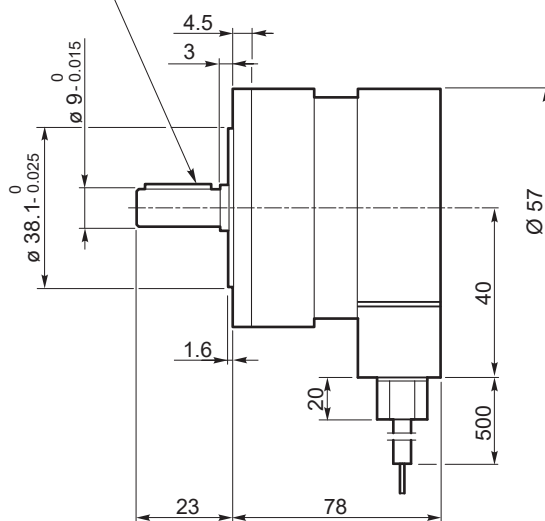


Prestazioni

Performances




BLS022.240
Dimensioni
Dimensions
BLS022.240

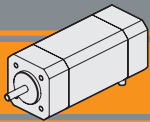
 Linguetta 3x3x16
 DIN 6885
 Key 3x3x16
 DIN 6885

Diagramma dei collegamenti
Connection diagram

Cavi di potenza Power leads	Descrizione Description
Giallo / Yellow	Fase U / U motor Phase
Rosso / Red	Fase V / V motor Phase
Nero / Black	Fase W / W motor Phase

Nota: Si raccomanda di seguire fedelmente gli schemi di collegamento qui riportati, pericolo di danneggiamento del motore o dell'elettronica.

Note: Pls, follow strictly the above connection diagrams, danger for the motor and the electric control

Cavi di segnale Signal leads	Descrizione Description
Blue	HALL fase U U phase HALL
Verde Green	HALL fase V V phase HALL
Bianco White	HALL fase W W phase HALL
Rosso (piccolo) Red (small)	Alimentazione HALL + 5Vcc ÷ + 24 Vcc Supply voltage for Hall sensors, + 5 Vdc ÷ + 24 Vdc
Nero (piccolo) Black (small)	Comune per i segnali di HALL Ground for HALL sensors



BLS043.240

Specifiche costruttive

General features

Tipologia di avvolgimento <i>Winding type</i>	delta
Angolo sensori Hall <i>HALL effect angle</i>	120 gradi elettrici <i>120 degree electrical angle</i>
Gioco radiale <i>Radial play</i>	0.025 mm @ 460 g
Gioco assiale <i>End play</i>	0.025 mm @ 4000 g
Scantatura albero <i>Shaft run out</i>	0.025 mm

Max forza radiale <i>Max radial force</i>	75N @ 20 mm dalla flangia <i>75N @ 20 mm from flange</i>
Max forza assiale <i>Max axial force</i>	15N
Classe di isolamento termico <i>Insulation class</i>	Classe B <i>Class B</i>
Isolamento dielettrico <i>Dielectric strength</i>	500Vcc x 1 minuto <i>500 Vdc 1 minute</i>
Resistenza isolamento <i>Insulation resistance</i>	100MΩ minimo, 500Vcc <i>100MΩ min, 500 Vdc</i>

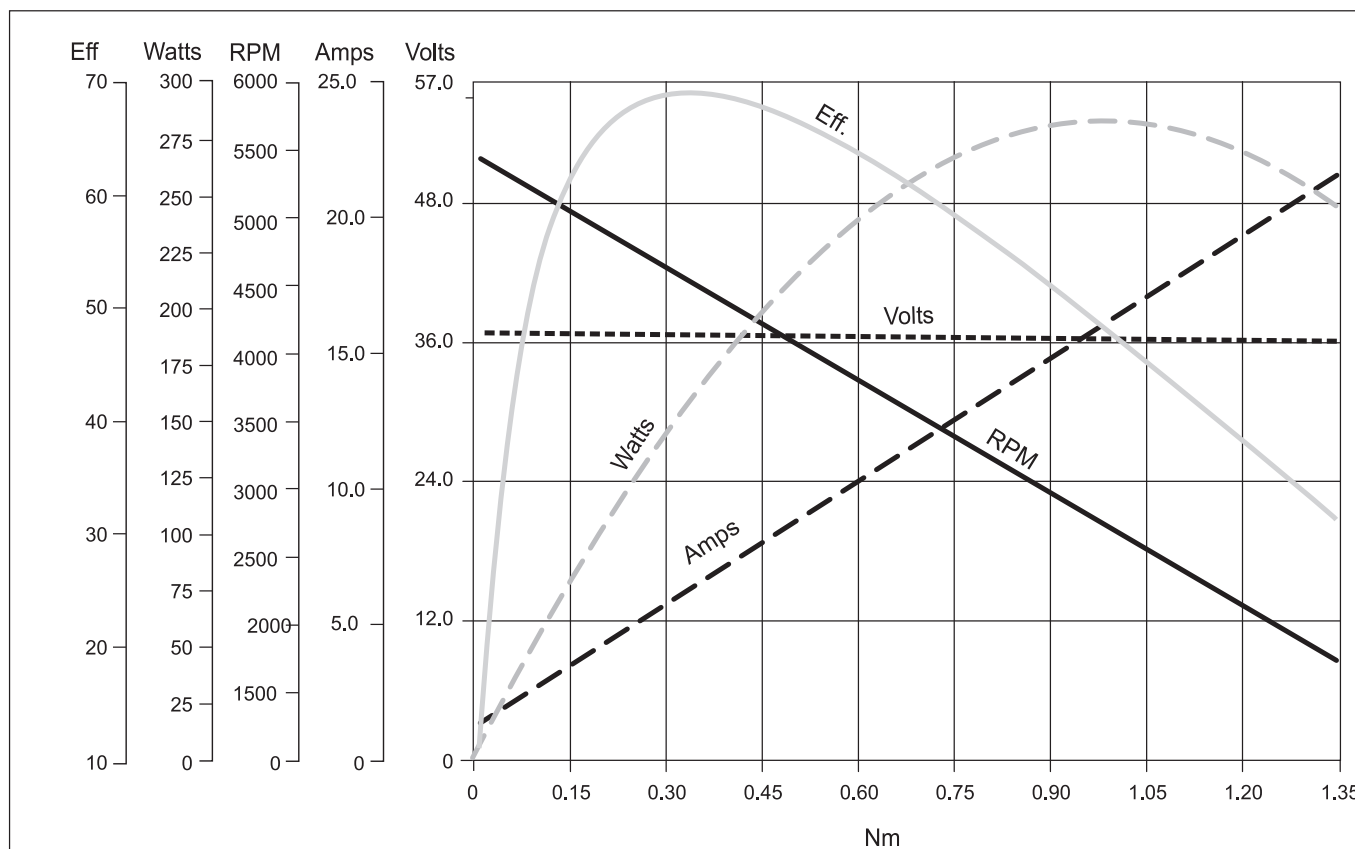
Modello <i>Model</i>	Poli <i>Poles</i>	Fasi <i>Phases</i>	Tensione nominale	Velocità nominale	Coppia nominale	Potenza nominale	Coppia di picco	Corrente nominale	Corrente di picco	Resistenza fase-fase	Induttanza fase-fase	Costante di coppia	Costante FCEM	Inerzia rotore	Peso	IP
			<i>Rated voltage</i>	<i>Rated speed</i>	<i>Rated torque</i>	<i>Rated power</i>	<i>Peak torque</i>	<i>Rated current</i>	<i>Peak current</i>	<i>Line to line resistance</i>	<i>Line to line inductance</i>	<i>Torque constant</i>	<i>Back EMF</i>	<i>Rotor inertia</i>	<i>Weight</i>	
			[V]	[min ⁻¹]	[Nm]	[W]	[Nm]	[A]	[A]	[Ω]	[mH]	[Nm/A]	[V/kRPM]	[gcm ²]	[kg]	
BLS043.240	4	3	36	4000	0.43	180	1.27	6.8	20.5	0.35	1.0	0.063	6.6	230	1.25	55
BLS043.240	4	3	24	3000	0.43	130	1.27	6.8	20.5	0.35	1.0	0.063	6.6	230	1.25	55

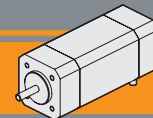
Azionamenti
Drives

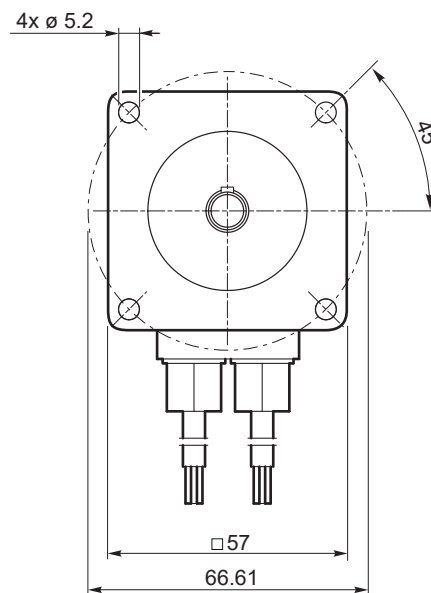
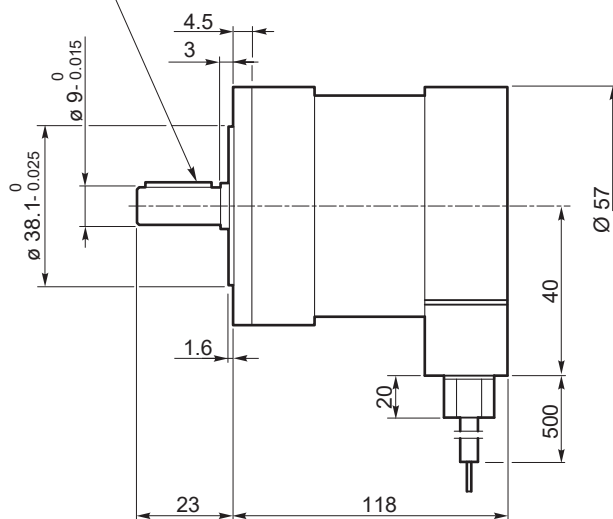


Prestazioni

Performances




BLS043.240
Dimensioni
Dimensions
BLS043.240

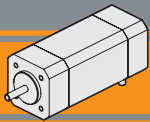
 Linguetta 3x3x16
 DIN 6885
 Key 3x3x16
 DIN 6885

Diagramma dei collegamenti
Connection diagram

Cavi di potenza Power leads	Descrizione Description
Giallo / Yellow	Fase U / U motor Phase
Rosso / Red	Fase V / V motor Phase
Nero / Black	Fase W / W motor Phase

Nota: Si raccomanda di seguire fedelmente gli schemi di collegamento qui riportati, pericolo di danneggiamento del motore o dell'elettronica.

Note: Pls, follow strictly the above connection diagrams, danger for the motor and the electric control

Cavi di segnale Signal leads	Descrizione Description
Blue	HALL fase U U phase HALL
Verde Green	HALL fase V V phase HALL
Bianco White	HALL fase W W phase HALL
Rosso (piccolo) Red (small)	Alimentazione HALL + 5Vcc ÷ + 24 Vcc Supply voltage for Hall sensors, + 5 Vdc ÷ + 24 Vdc
Nero (piccolo) Black (small)	Comune per i segnali di HALL Ground for HALL sensors



BL070.240 / BL070.24B

Specifiche costruttive

General features

Tipologia di avvolgimento <i>Winding type</i>	Stella <i>Star</i>
Angolo sensori Hall <i>HALL effect angle</i>	120 gradi elettrici <i>120 degree electrical angle</i>
Gioco radiale <i>Radial play</i>	0.02 mm @ 450g
Gioco assiale <i>End play</i>	0.08 mm @ 450g
Scantatura albero <i>Shaft run out</i>	0.05 mm

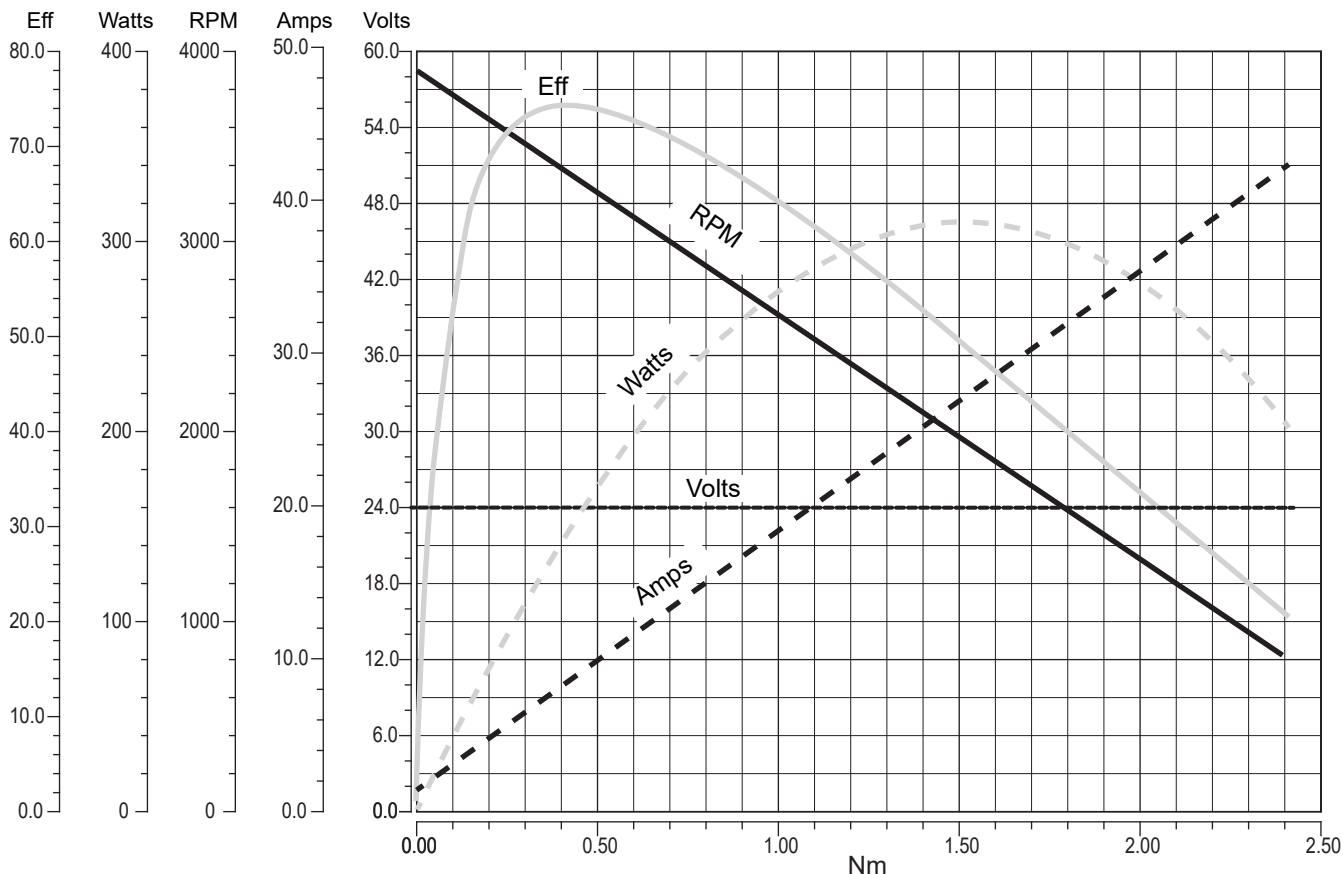
Max forza radiale <i>Max radial force</i>	220N @ 20 mm dalla flangia <i>220N @ 20 mm from flange</i>
Max forza assiale <i>Max axial force</i>	60N
Classe di isolamento termico <i>Insulation class</i>	Classe B <i>Class B</i>
Isolamento dielettrico <i>Dielectric strength</i>	500Vcc x 1 minuto <i>500 Vdc 1 minute</i>
Resistenza isolamento <i>Insulation resistance</i>	100MΩ minimo, 500Vcc <i>100MΩ min, 500 Vdc</i>

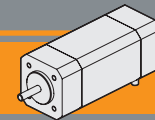
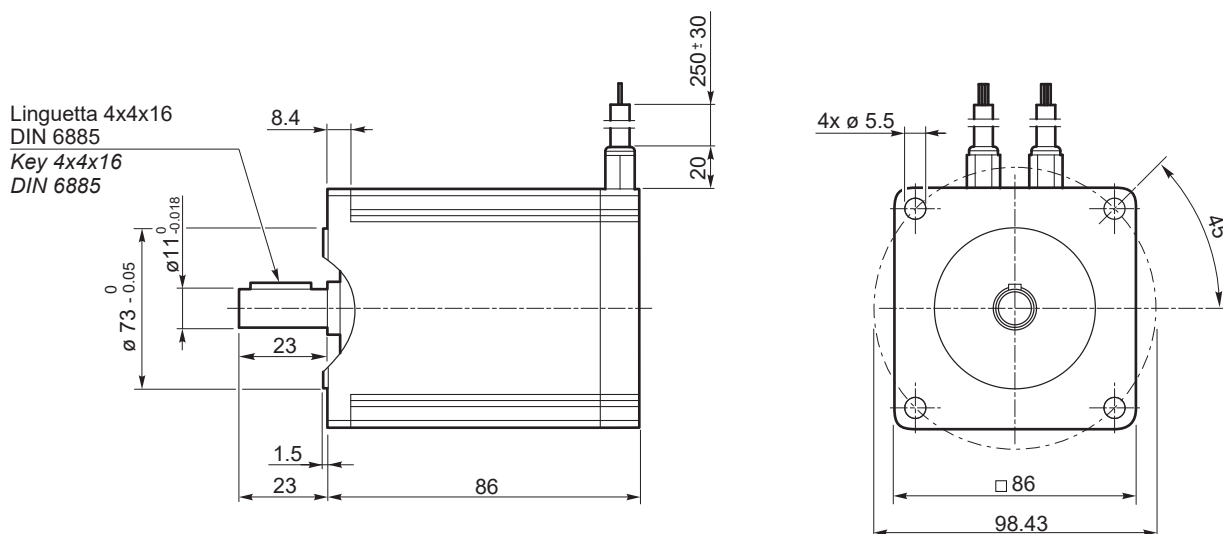
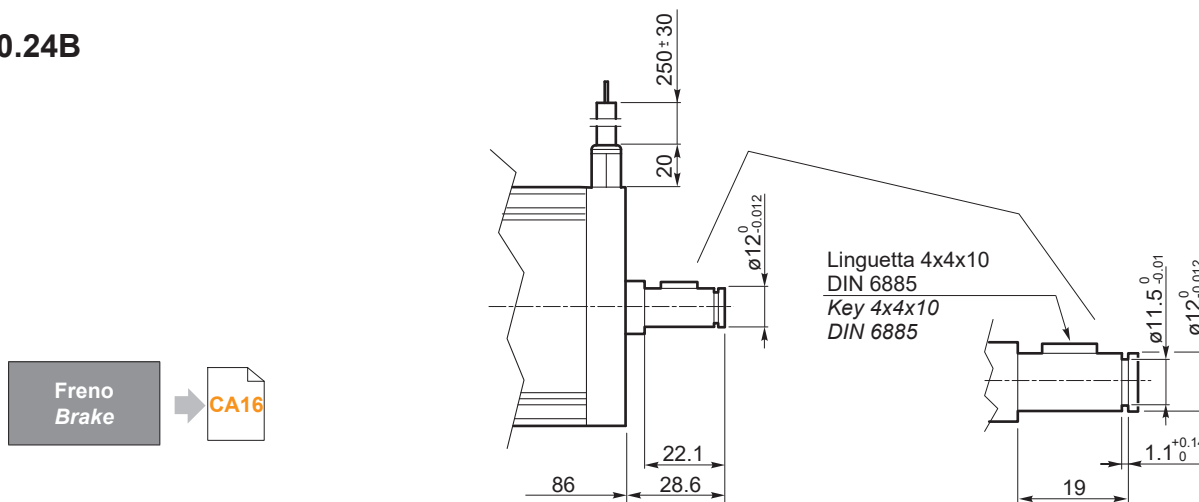
Modello <i>Model</i>	Poli <i>Poles</i>	Fasi <i>Phases</i>	Tensione nominale	Velocità nominale	Coppia nominale	Potenza nominale	Coppia di picco	Corrente nominale	Corrente di picco	Resistenza fase-fase	Induttanza fase-fase	Costante di coppia	Costante FCEM	Inerzia rotore	Peso	IP	
			<i>Rated voltage</i>	<i>Rated speed</i>	<i>Rated torque</i>	<i>Rated power</i>	<i>Peak torque</i>	<i>Rated current</i>	<i>Peak current</i>	<i>Line to line resistance</i>	<i>Line to line inductance</i>	<i>Torque constant</i>	<i>Back EMF</i>	<i>Rotor inertia</i>	<i>Weight</i>		
			[V]	[min ⁻¹]	[Nm]	[W]	[Nm]	[A]	[A]	[Ω]	[mH]	[Nm/A]	[V/kRPM]	[gcm ²]	[kg]		
BL070.240 BL070.24B	8	3	24	3000	0.7	220	2.1	13	39	0.091	0.23	0.0589	4.24	800	2.1	55	



Prestazioni

Performances



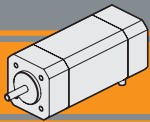

BL070.240 / BL070.24B
Dimensioni
Dimensions
BL070.240

BL070.24B

Diagramma dei collegamenti
Connection diagram

Cavi di potenza Power leads	Descrizione Description
Blu / Blue	Fase U / U motor Phase
Marrone / Brown	Fase V / V motor Phase
Nero / Black	Fase W / W motor Phase

Cavi di segnale Signal leads	Descrizione Description
Blue	HALL fase U U phase HALL
Verde Green	HALL fase V V phase HALL
Bianco White	HALL fase W W phase HALL
Rosso (piccolo) Red (small)	Alimentazione HALL + 5Vcc ÷ + 24 Vcc Supply voltage for Hall sensors, + 5 Vdc ÷ + 24 Vdc
Nero (piccolo) Black (small)	Comune per i segnali di HALL Ground for HALL sensors

Nota: Si raccomanda di seguire fedelmente gli schemi di collegamento qui riportati, pericolo di danneggiamento del motore o dell'elettronica.

Note: Pls, follow strictly the above connection diagrams, danger for the motor and the electric control



BL070.480 / BL070.48B

Specifiche costruttive

General features

Tipologia di avvolgimento <i>Winding type</i>	Stella <i>Star</i>
Angolo sensori Hall <i>HALL effect angle</i>	120 gradi elettrici <i>120 degree electrical angle</i>
Gioco radiale <i>Radial play</i>	0.02 mm @ 450g
Gioco assiale <i>End play</i>	0.08 mm @ 450g
Scenatura albero <i>Shaft run out</i>	0.05 mm

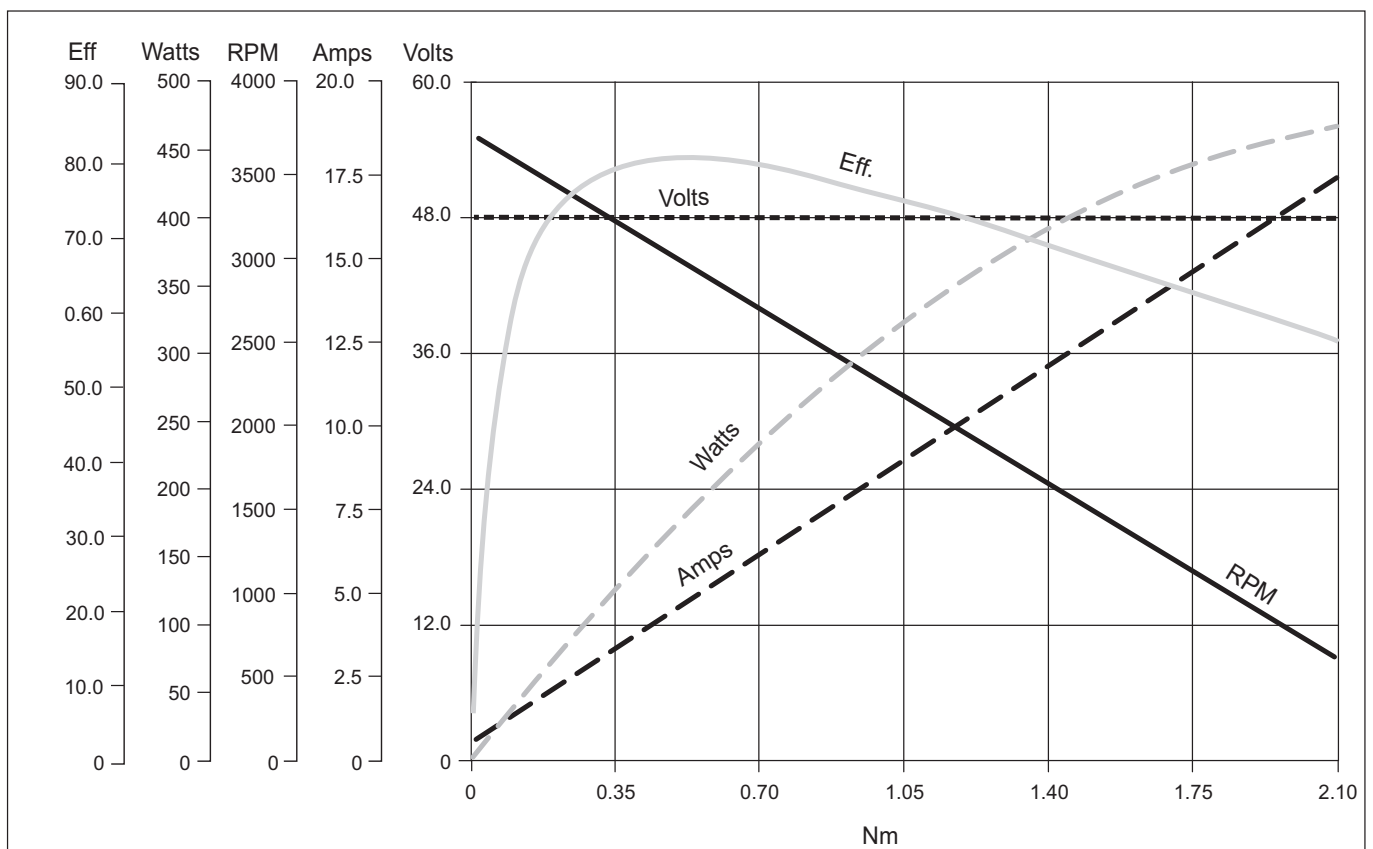
Max forza radiale <i>Max radial force</i>	220N @ 20 mm dalla flangia <i>220N @ 20 mm from flange</i>
Max forza assiale <i>Max axial force</i>	60N
Classe di isolamento termico <i>Insulation class</i>	Classe B <i>Class B</i>
Isolamento dielettrico <i>Dielectric strength</i>	500Vcc x 1 minuto <i>500 Vdc 1 minute</i>
Resistenza isolamento <i>Insulation resistance</i>	100MΩ minimo, 500Vcc <i>100MΩ min, 500 Vdc</i>

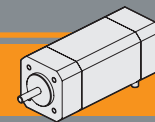
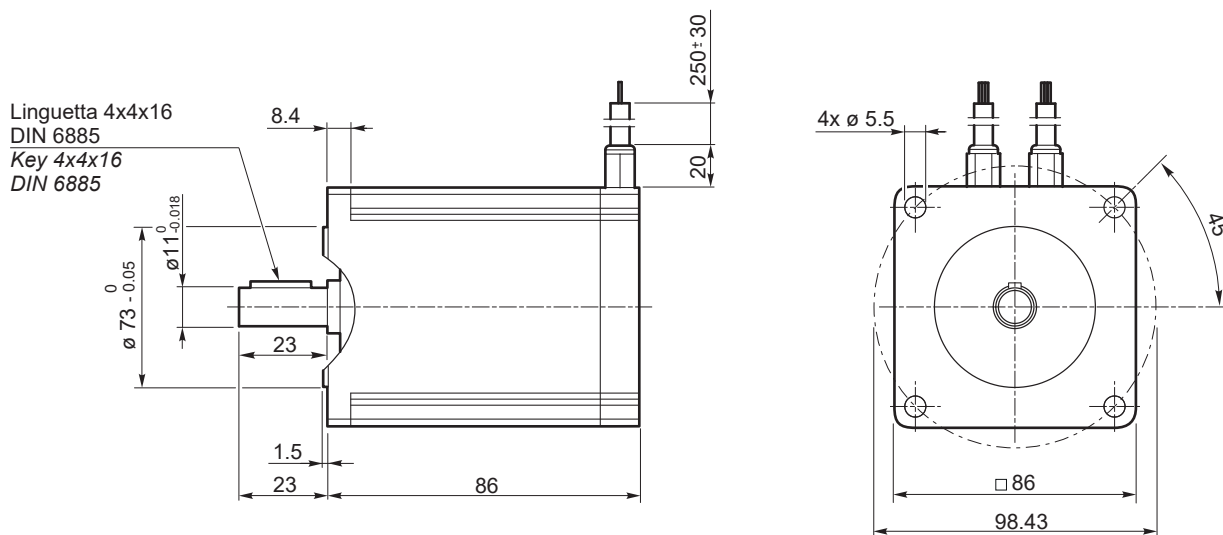
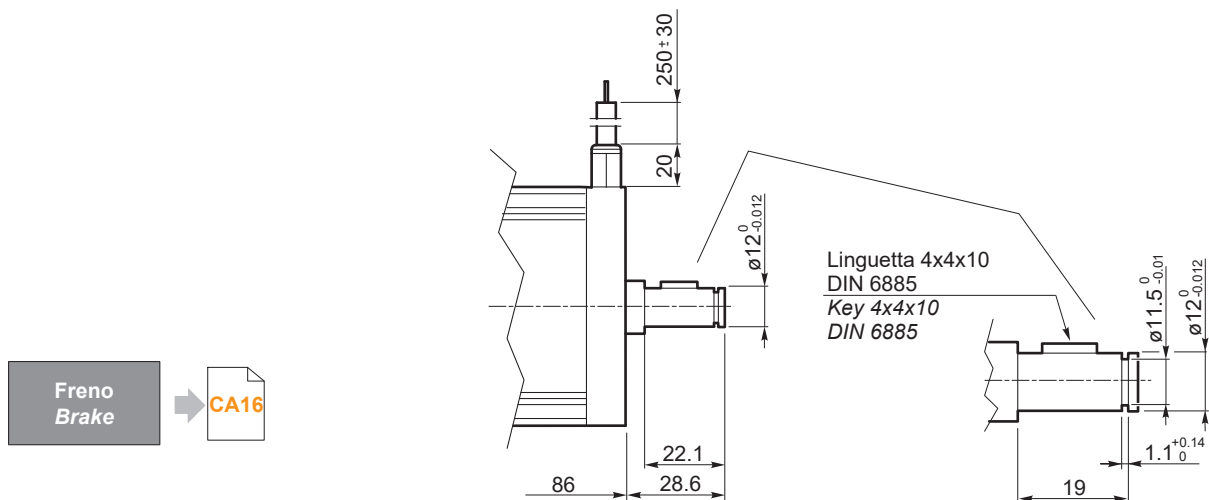
Modello <i>Model</i>	Poli <i>Poles</i>	Fasi <i>Phases</i>	Tensione nominale	Velocità nominale	Coppia nominale	Potenza nominale	Coppia di picco	Corrente nominale	Corrente di picco	Resistenza fase-fase	Induttanza fase-fase	Costante di coppia	Costante FCEM	Inerzia rotore	Peso	IP
			<i>Rated voltage</i>	<i>Rated speed</i>	<i>Rated torque</i>	<i>Rated power</i>	<i>Peak torque</i>	<i>Rated current</i>	<i>Peak current</i>	<i>Line to line resistance</i>	<i>Line to line inductance</i>	<i>Torque constant</i>	<i>Back EMF</i>	<i>Rotor inertia</i>	<i>Weight</i>	
			[V]	[min ⁻¹]	[Nm]	[W]	[Nm]	[A]	[A]	[Ω]	[mH]	[Nm/A]	[V/kRPM]	[gcm ²]	[kg]	
BL070.480 BL070.48B	8	3	48	3000	0.7	220	2.1	6.5	20	0.34	1.0	0.107	9	800	2.1	55



Prestazioni

Performances



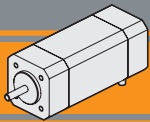

BL070.480 / BL070.48B
Dimensioni
Dimensions
BL070.480

BL070.48B

Diagramma dei collegamenti
Connection diagram

Cavi di potenza Power leads	Descrizione Description
Blu / Blue	Fase U / U motor Phase
Marrone / Brown	Fase V / V motor Phase
Nero / Black	Fase W / W motor Phase

Nota: Si raccomanda di seguire fedelmente gli schemi di collegamento qui riportati, pericolo di danneggiamento del motore o dell'elettronica.

Note: Pls, follow strictly the above connection diagrams, danger for the motor and the electric control

Cavi di segnale Signal leads	Descrizione Description
Blue	HALL fase U U phase HALL
Verde Green	HALL fase V V phase HALL
Bianco White	HALL fase W W phase HALL
Rosso (piccolo) Red (small)	Alimentazione HALL + 5Vcc ÷ + 24 Vcc Supply voltage for Hall sensors, + 5 Vdc ÷ + 24 Vdc
Nero (piccolo) Black (small)	Comune per i segnali di HALL Ground for HALL sensors



BL140.480

Specifiche costruttive

General features

Tipologia di avvolgimento <i>Winding type</i>	Stella <i>Star</i>
Angolo sensori Hall <i>HALL effect angle</i>	120 gradi elettrici <i>120 degree electrical angle</i>
Gioco radiale <i>Radial play</i>	0.02 mm @ 450g
Gioco assiale <i>End play</i>	0.08 mm @ 450g
Scentratura albero <i>Shaft run out</i>	0.05 mm

Max forza radiale <i>Max radial force</i>	220N @ 20 mm dalla flangia <i>220N @ 20 mm from flange</i>
Max forza assiale <i>Max axial force</i>	60N
Classe di isolamento termico <i>Insulation class</i>	Classe B <i>Class B</i>
Isolamento dielettrico <i>Dielectric strength</i>	500Vcc x 1 minuto <i>500 Vdc 1 minute</i>
Resistenza isolamento <i>Insulation resistance</i>	100MΩ minimo, 500Vcc <i>100MΩ min, 500 Vdc</i>

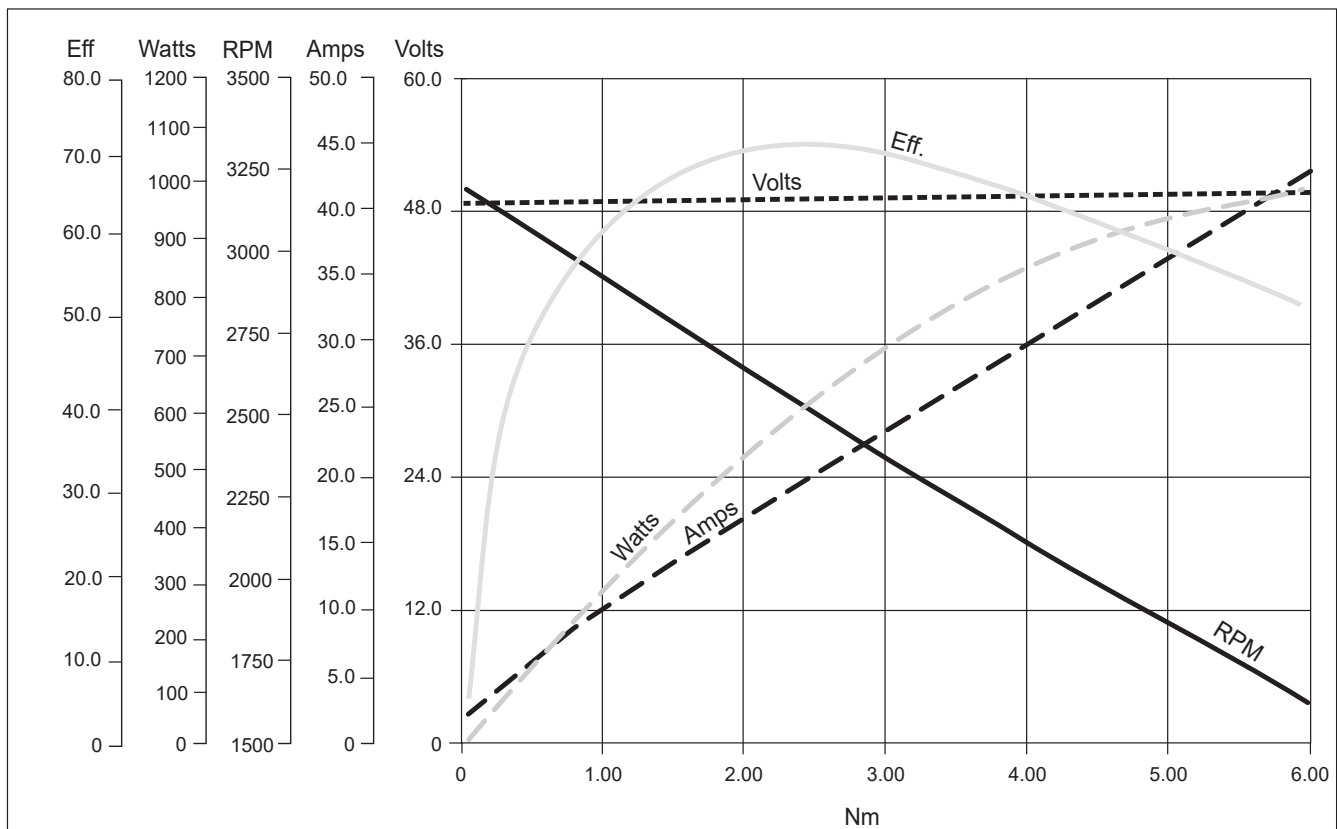
Modello <i>Model</i>	Poli <i>Poles</i>	Fasi <i>Phases</i>	Tensione nominale <i>Rated voltage</i>	Velocità nominale <i>Rated speed</i>	Coppia nominale <i>Rated torque</i>	Potenza nominale <i>Rated power</i>	Coppia di picco <i>Peak torque</i>	Corrente nominale <i>Rated current</i>	Corrente di picco <i>Peak current</i>	Resistenza fase-fase <i>Line to line resistance</i>	Induttanza fase-fase <i>Line to line inductance</i>	Costante di coppia <i>Torque constant</i>	Costante FCEM <i>Back EMF</i>	Inerzia rotore <i>Rotor inertia</i>	Peso <i>Weight</i>	IP
			[V]	[min ⁻¹]	[Nm]	[W]	[Nm]	[A]	[A]	[Ω]	[mH]	[Nm/A]	[V/kRPM]	[gcm ²]	[kg]	
BL140.480	8	3	48	3000	1.4	440	4.2	13	39	0.16	0.5	0.113	9.4	1600	3.15	55

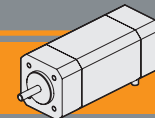
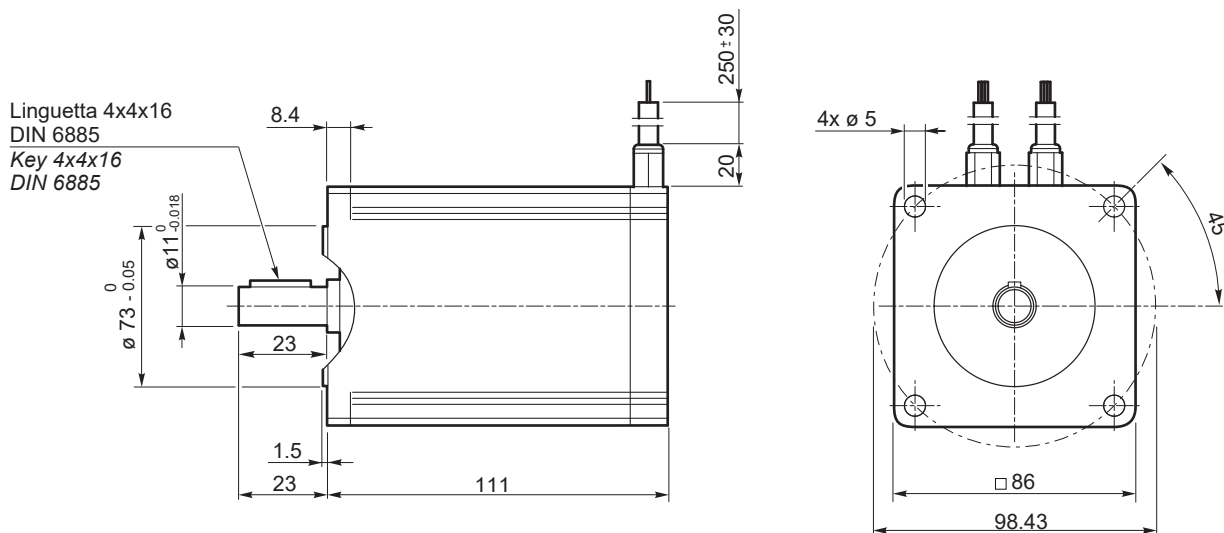
Azionamenti
Drives



Prestazioni

Performances



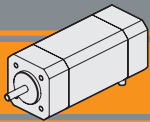

BL140.480
Dimensioni
Dimensions
BL140.480

Diagramma dei collegamenti
Connection diagram

Cavi di potenza Power leads	Descrizione Description
Blu / Blue	Fase U / U motor Phase
Marrone / Brown	Fase V / V motor Phase
Nero / Black	Fase W / W motor Phase

Cavi di segnale Signal leads	Descrizione Description
Blue	HALL fase U U phase HALL
Verde Green	HALL fase V V phase HALL
Bianco White	HALL fase W W phase HALL
Rosso (piccolo) Red (small)	Alimentazione HALL + 5Vcc ÷ + 24 Vcc Supply voltage for Hall sensors, + 5 Vdc ÷ + 24 Vdc
Nero (piccolo) Black (small)	Comune per i segnali di HALL Ground for HALL sensors

Nota: Si raccomanda di seguire fedelmente gli schemi di collegamento qui riportati, pericolo di danneggiamento del motore o dell'elettronica.

Note: Pls, follow strictly the above connection diagrams, danger for the motor and the electric control



BL210.480 / BL210.48E

Specifiche costruttive

General features

Tipologia di avvolgimento <i>Winding type</i>	Stella <i>Star</i>
Angolo sensori Hall <i>HALL effect angle</i>	120 gradi elettrici <i>120 degree electrical angle</i>
Gioco radiale <i>Radial play</i>	0.02 mm @ 450g
Gioco assiale <i>End play</i>	0.08 mm @ 450g
Scenatura albero <i>Shaft run out</i>	0.05 mm

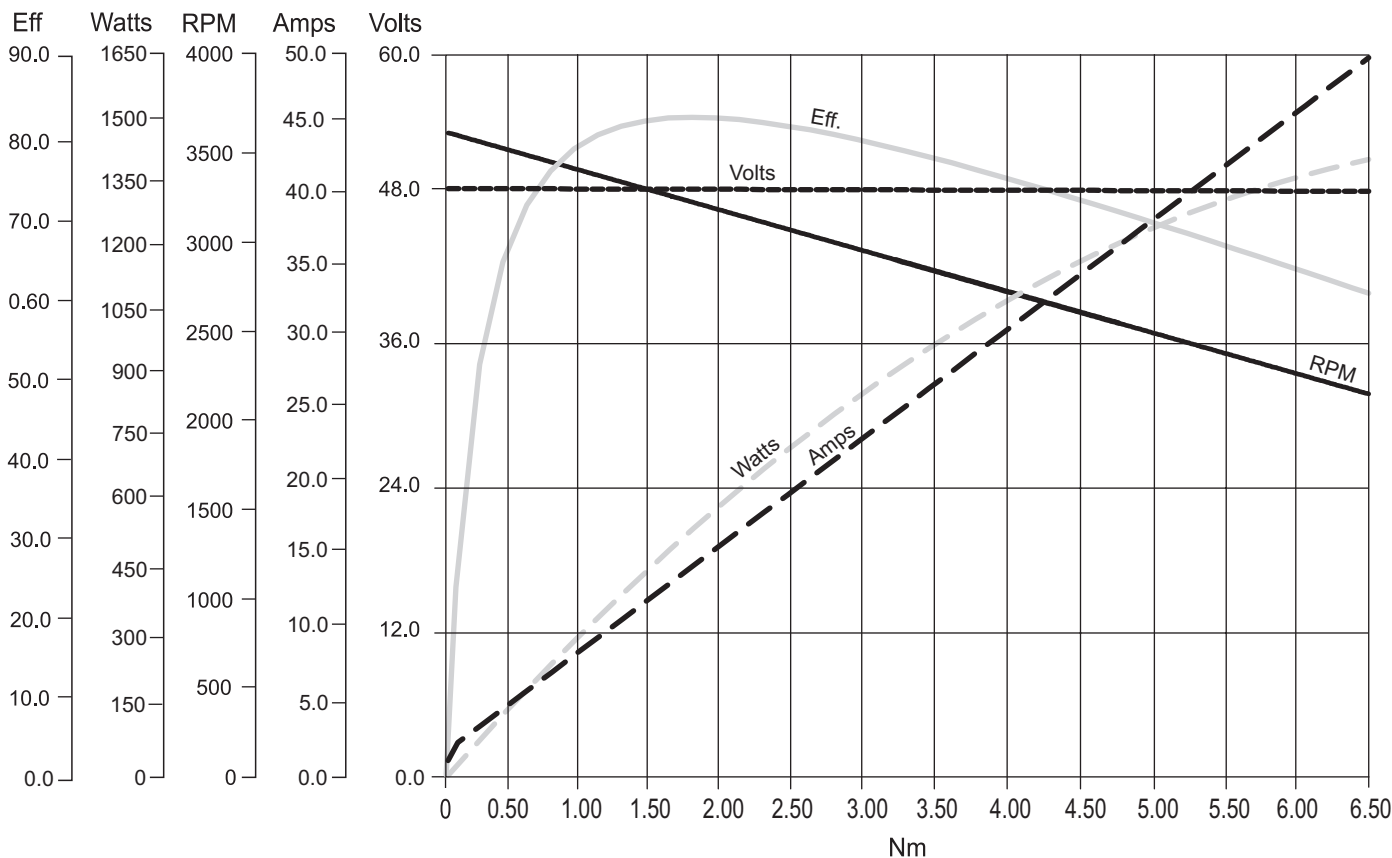
Max forza radiale <i>Max radial force</i>	220N @ 20 mm dalla flangia <i>220N @ 20 mm from flange</i>
Max forza assiale <i>Max axial force</i>	60N
Classe di isolamento termico <i>Insulation class</i>	Classe B <i>Class B</i>
Isolamento dielettrico <i>Dielectric strength</i>	500Vcc x 1 minuto <i>500 Vdc 1 minute</i>
Resistenza isolamento <i>Insulation resistance</i>	100MΩ minimo, 500Vcc <i>100MΩ min, 500 Vdc</i>

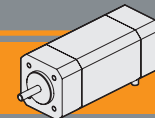
Modello <i>Model</i>	Poli <i>Poles</i>	Fasi <i>Phases</i>	Tensione nominale	Velocità nominale	Coppia nominale	Potenza nominale	Coppia di picco	Corrente nominale	Corrente di picco	Resistenza fase-fase	Induttanza fase-fase	Costante di coppia	Costante FCEM	Inerzia rotore	Peso	IP	
			<i>Rated voltage</i>	<i>Rated speed</i>	<i>Rated torque</i>	<i>Rated power</i>	<i>Peak torque</i>	<i>Rated current</i>	<i>Peak current</i>	<i>Line to line resistance</i>	<i>Line to line inductance</i>	<i>Torque constant</i>	<i>Back EMF</i>	<i>Rotor inertia</i>	<i>Weight</i>		
			[V]	[min ⁻¹]	[Nm]	[W]	[Nm]	[A]	[A]	[Ω]	[mH]	[Nm/A]	[V/kRPM]	[gcm ²]	[kg]		
BL210.480 BL210.48E	8	3	48	3000	2.1	660	6.3	18.7	56	0.115	0.31	0.112	9.5	2400	4.2	55	



Prestazioni

Performances



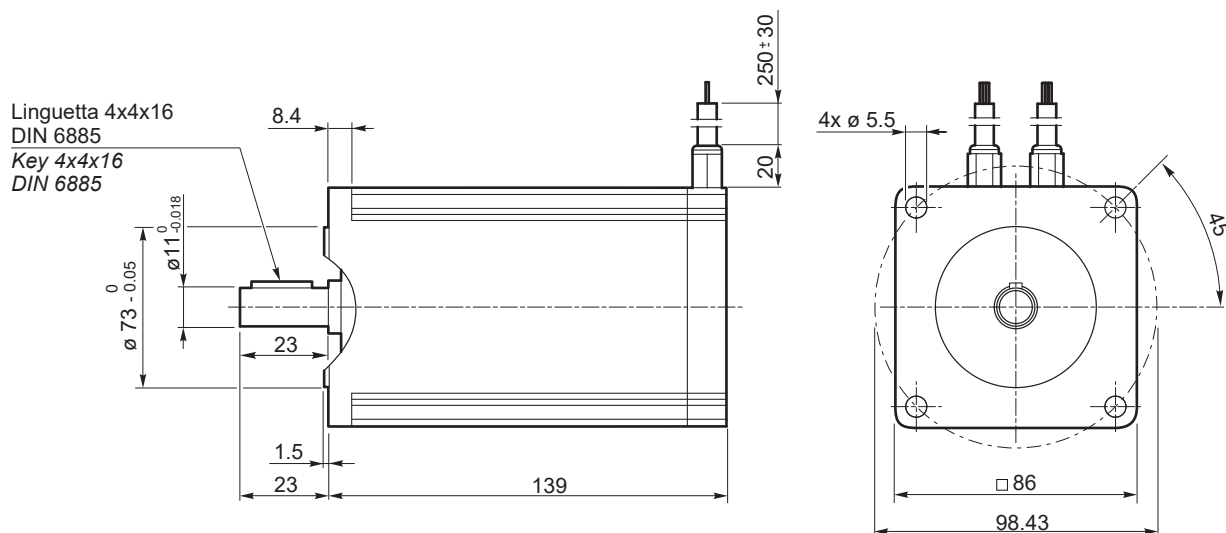


BL210.480 / BL210.48E

Dimensioni

Dimensions

BL210.480



BL210.48E

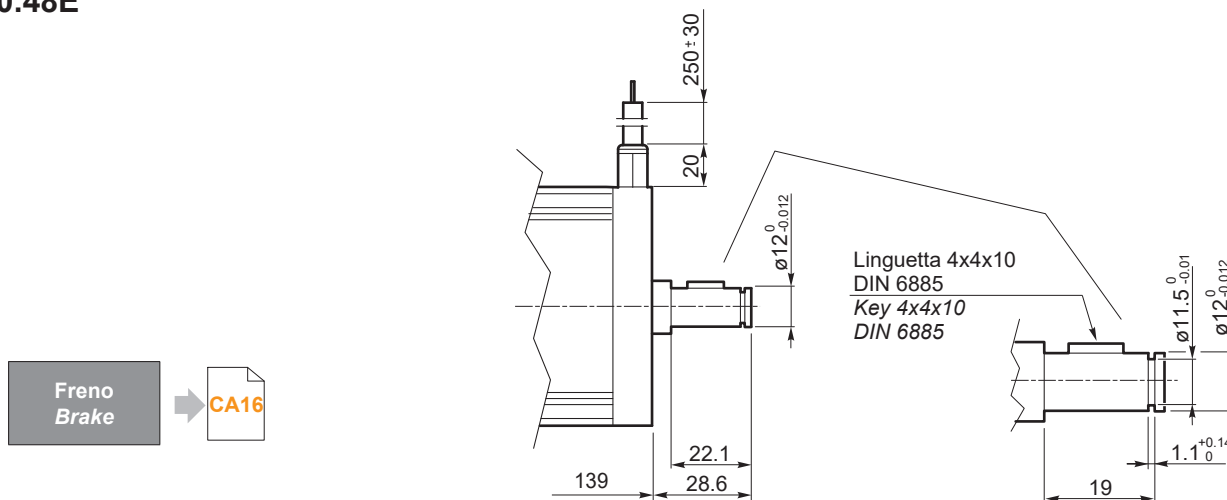


Diagramma dei collegamenti

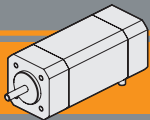
Connection diagram

Cavi di potenza Power leads	Descrizione Description
Blu / Blue	Fase U / U motor Phase
Marrone / Brown	Fase V / V motor Phase
Nero / Black	Fase W / W motor Phase

Cavi di segnale Signal leads	Descrizione Description
Blue	HALL fase U U phase HALL
Verde Green	HALL fase V V phase HALL
Bianco White	HALL fase W W phase HALL
Rosso (piccolo) Red (small)	Alimentazione HALL + 5Vcc ÷ + 24 Vcc Supply voltage for Hall sensors, + 5 Vdc ÷ + 24 Vdc
Nero (piccolo) Black (small)	Comune per i segnali di HALL Ground for HALL sensors

Nota: Si raccomanda di seguire fedelmente gli schemi di collegamento qui riportati, pericolo di danneggiamento del motore o dell'elettronica.

Note: Pls, follow strictly the above connection diagrams, danger for the motor and the electric control



Freno

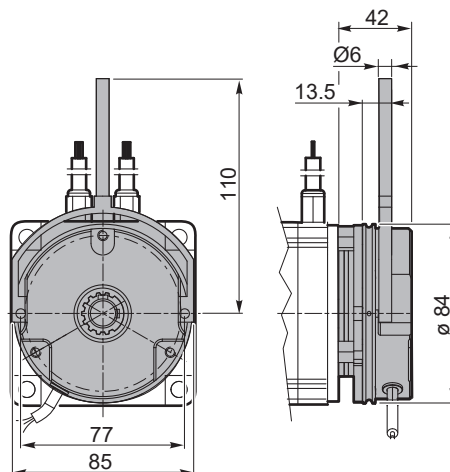
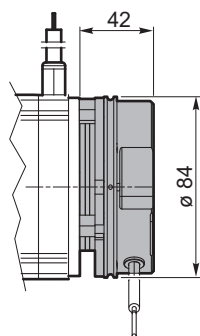
Brake

Freno / Brake

Freno con leva di sblocco/ Brake with hand release

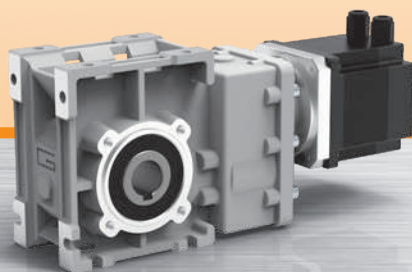
BL070.24B-BR
BL070.48B-BR
BL210.48E-BR

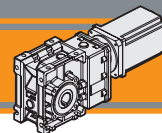
BL070.24B-BRL
BL070.48B-BRL
BL210.48E-BRL



	P_n [W]	V [V]	M_n [Nm]	n₁ [min ⁻¹]	Kg	IP
Caratteristiche del freno / Break features	23	48	4.5	3000	0.90	20

Motoriduttori brushless CC ad assi ortogonali
Brushless DC helical bevel gearmotors

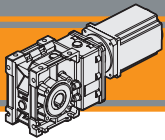




Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	CB2
Designazione	<i>Classification</i>	CB2
Simbologia	<i>Symbols</i>	CB3
Lubrificazione e temperatura	<i>Lubrication and temperature</i>	CB3
Carichi radiali	<i>Radial loads</i>	CB3
CMB402 con motore brushless BLS043.240	<i>CMB402 with BLS043.240 brushless motor</i>	CB4
CMB402 con motore brushless BL070.240	<i>CMB402 with BL070.240 brushless motor</i>	CB5
CMB402 con motore brushless BL070.24B	<i>CMB402 with BL070.24B brushless motor</i>	CB5
CMB402 con motore brushless BL070.480	<i>CMB402 with BL070.480 brushless motor</i>	CB5
CMB402 con motore brushless BL070.48B	<i>CMB402 with BL070.48B brushless motor</i>	CB5
CMB402 con motore brushless BL140.480	<i>CMB402 with BL140.480 brushless motor</i>	CB6
Dati tecnici	<i>Technical data</i>	CB7
Dimensioni CMB con flange motore AS	<i>CMB dimensions with motor flanges AS</i>	CB8
Flange uscita	<i>Output flange</i>	CB9
Accessori	<i>Accessories</i>	CB10

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Caratteristiche tecniche

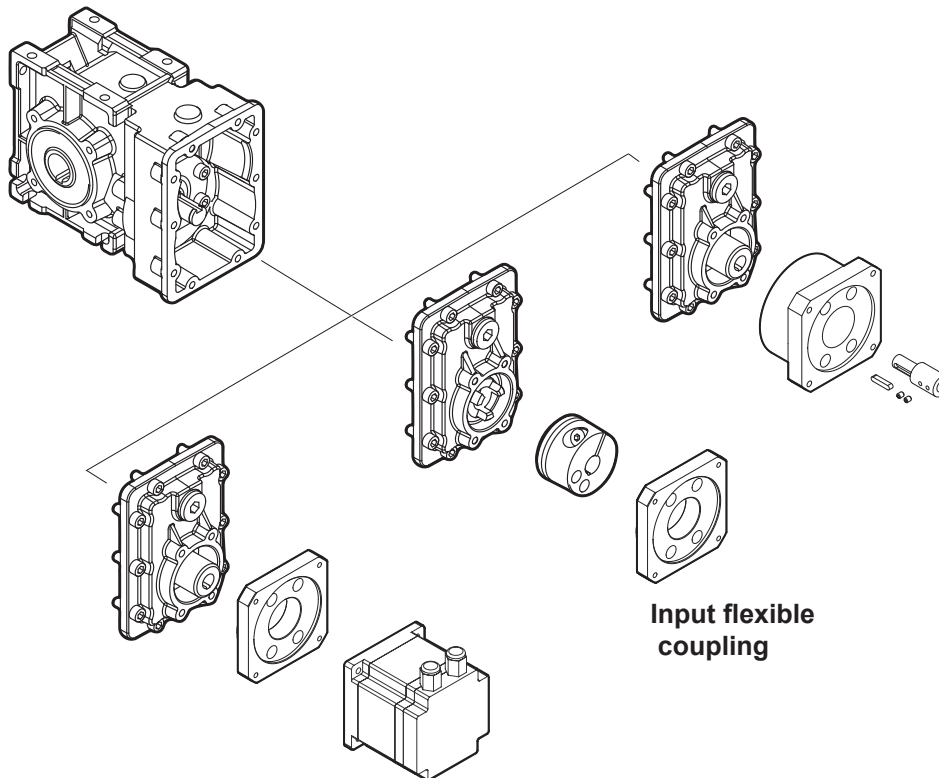
Technical features

Le caratteristiche principali dei motoriduttori brushless CC ad assi ortogonali della serie BLCMB sono:

The main features of BLCMB brushless DC helical bevel gearmotors range are:

- Alimentazione in bassa tensione 24/36/48 Vcc
- Motore Brushless CC con grado di protezione IP55
- Coppie motori disponibili da 0.43 Nm a 1.4 Nm
- Lubrificazione permanente con olio sintetico
- Carcassa in pressofusione di alluminio
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati
- Disponibili anche nella versione con solo riduttore, sia con flangia di entrata standard che con flangia e manicotto dedicati
- Disponibili con giunto elastico in entrata

- Low voltage power supply 24/36/48 Vdc
- Brushless DC motor in IP55 protection Standard
- Motor torque ratings available from 0.43 Nm up to 1.4 Nm
- Permanent synthetic oil long life lubrication
- Die-cast aluminium housing
- Ground-hardened helical gears.
- Gearbox only version also available, with either standard input flange or customized flange and coupling
- Available with input flexible coupling

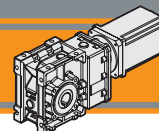


Designazione

Classification

RIDUTTORE / GEARBOX						MOTORE / MOTOR		
CMB	402	U	9.2	020	FX	BL070.480	48V	BR
Tipo Type	Grandezza Size	Versione riduttore Gearbox version	Rapporto Ratio	Albero di uscita Output shaft	Giunto elastico Flexible coupling	Tipo Type	Tensione Voltage	Freno Brake
CMB	402	U FD FS FLD FLS FBD FBS	Vedere tabelle See tables		FX 	BLS043.240 BL070.240 BL070.24B BL070.48B BL070.480 BL140.480	24V-36V 24V 24V 48V 48V 48V	24V 48V
Versione Riduttore Gearbox Version		Albero di uscita Output shaft		Braccio di reazione Torque arm *		Angolo Angle		

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



Simbologia

Symbols

Ns	n° stadi / No. stages	Mn ₂	[Nm]	Coppia nominale in uscita in funzione di Pn1 Nominal output torque referred to Pn1
ir	rapporto reale / real ratio	n _{1MAX}	[Rpm]	Velocità max entrata / Max input speed
M ₂	[Nm]	V	[V]	Tensione / Voltage
A ₂	[N]	n ₂	[Rpm]	Velocità in uscita / Output Speed
R ₂	[N]	IP		Grado di protezione / Enclosure protection
Pn ₁	[kW]	Kg		Peso / Weight
		sf		Fattore di servizio / Service Factor

Lubrificazione e temperatura

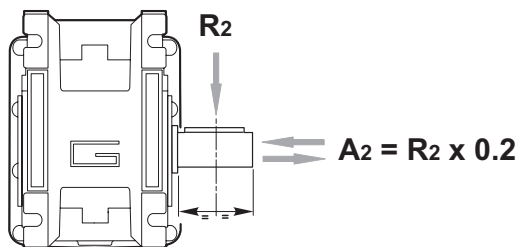
Lubrication and temperature

I motoriduttori BLCMB sono forniti completi di lubrificante sintetico (viscosità 320) e non necessitano di manutenzione.
Temperatura ambiente 0 ÷ 40 °C (in assenza di congelamento ed in assenza di condensa).
Per temperature diverse, contattare nostro UT.

Permanent synthetic oil long life lubrication (viscosity grade 320) on BLCMB gearmotors.
Ambient temperature 0 ÷ 40 °C (in the absence of freezing and condensation).
For temperature outside this range please contact our technical dept.

Carichi radiali

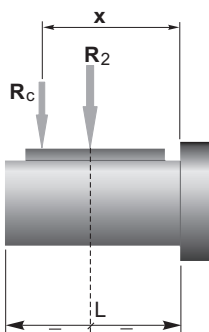
Radial loads



n ₂ [min ⁻¹]	R ₂ [N]
	CMB 402
400	905
300	996
200	1141
170	1204
140	1414
100	1582
90	1638
60	2047
40	2524
30	2778
20	3180
15	3500
10	3500

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:

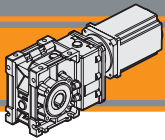


	CMB 402
a	86
b	66
R _{2MAX}	3500

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

$$R \leq R_c$$

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

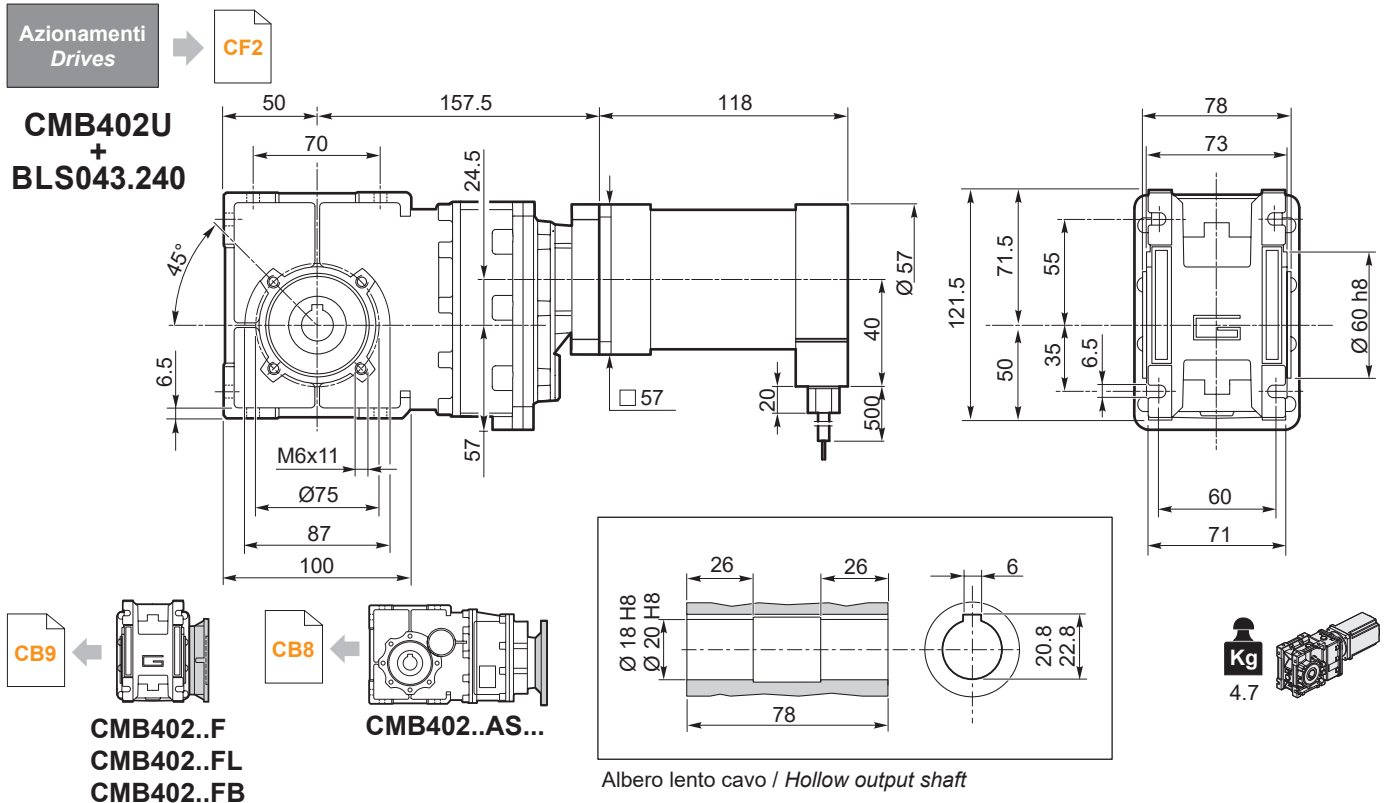


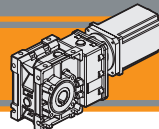
CMB402	BLS043.240													
	24V						36V							
	n _{2MIN} [rpm]			n _{2MAX} [rpm]			n _{1MAX} [rpm]	n _{2MIN} [rpm]			n _{2MAX} [rpm]		n _{1MAX} [rpm]	
M ₂ [Nm]	sf		M ₂ [Nm]	sf		M ₂ [Nm]		sf		M ₂ [Nm]	sf			
6.2	49	2.5	18.4	486	2.5	12.5	3000	65	2.5	18.4	648	2.5	11.1	4000
7.5	40	3.0	15.2	400	3.0	10.3		53	3.0	15.2	534	3.0	9.1	
9.2	33	3.7	12.4	326	3.7	8.4		43	3.7	12.4	435	3.7	7.4	
11.8	25	4.8	10.8	254	4.8	7.3		34	4.8	10.8	338	4.8	6.5	
12.5	24	5.0	10.3	240	5.0	7.0		32	5.0	10.3	320	5.0	6.2	
14.8	20	6.0	8.6	202	6.0	5.9		27	6.0	8.6	270	6.0	5.2	
17.6	17	7.1	7.3	170	7.1	4.9		23	7.1	7.3	227	7.1	4.4	
18.6	16	7.5	8.4	161	7.5	5.7		22	7.5	8.4	215	7.5	5.0	
22.3	13	9.0	7.0	134	9.0	4.8		18	9.0	7.0	179	9.0	4.2	
23.9	13	9.7	6.5	125	9.7	4.4		17	9.7	6.5	167	9.7	3.9	
28.9	10	12	6.4	104	12	4.3		14	12	6.4	138	12	3.8	
30.8	9.7	12	6.0	97	12	4.1		13	12	6.0	130	12	3.6	
33.6	8.9	14	5.5	89	14	3.7		12	14	5.5	119	14	3.3	
35.6	8.4	14	5.2	84	14	3.5		11	14	5.2	112	14	3.1	
42.8	7.0	17	4.3	70	17	2.9		9.4	17	4.3	94	17	2.6	
55.3	5.4	22	3.3	54	22	2.3		7.2	22	3.3	72	22	2.0	
59.1	5.1	24	3.1	51	24	2.1		6.8	24	3.1	68	24	1.9	
64.3	4.7	26	2.9	47	26	2.0		6.2	26	2.9	62	26	1.7	
72.5	4.1	29	2.6	41	29	1.7		5.5	29	2.6	55	29	1.5	

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BLS043.240	4	3	36	4000	0.43	180
			24	3000		130
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BLS043.240	0.86	6	0.35	1	12.0	1.25




CMB402 con motore brushless CC
CMB402 with brushless DC motor

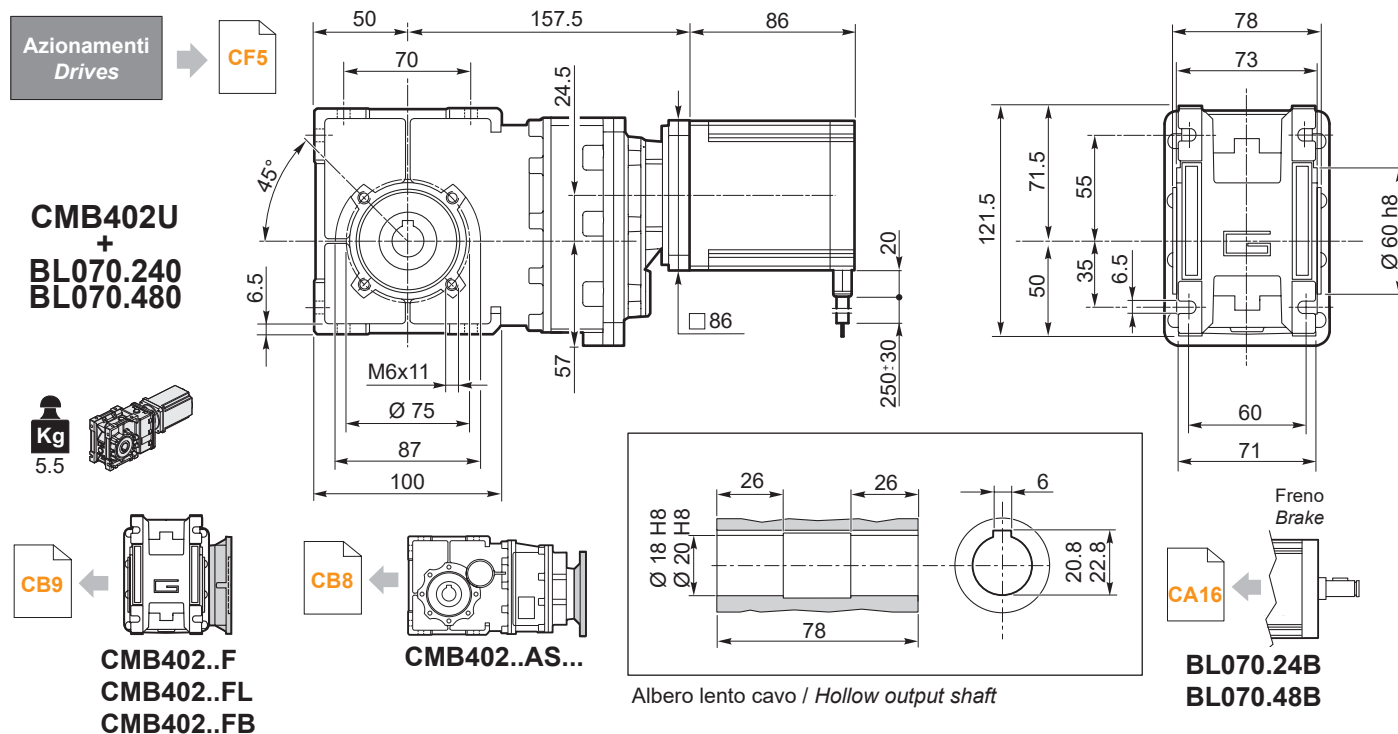
CMB402	BL070.240 / BL070.24B / BL070.480 / BL070.48B					
	24V / 48V					
	ir	n _{2MIN} [rpm]			n _{2MAX} [rpm]	
		M ₂ [Nm]	sf	M ₂ [Nm]	sf	n _{1MAX} [rpm]
6.2	49	4.1	11.3	486	4.1	7.7
7.5	40	4.9	9.3	400	4.9	6.3
9.2	33	6.1	7.6	326	6.1	5.2
11.8	25	7.8	6.6	254	7.8	4.5
12.5	24	8.2	6.3	240	8.2	4.3
14.8	20	9.8	5.3	202	9.8	3.6
17.6	17	12	4.5	170	12	3.0
18.6	16	12	5.2	161	12	3.5
22.3	13	15	4.3	134	15	2.9
23.9	13	16	4.0	125	16	2.7
28.9	10	19	3.9	104	19	2.7
30.8	9.7	20	3.7	97	20	2.5
33.6	8.9	22	3.4	89	22	2.3
35.6	8.4	23	3.2	84	23	2.2
42.8	7.0	28	2.7	70	28	1.8
55.3	5.4	36	2.1	54	36	1.4
59.1	5.1	39	1.9	51	39	1.3
64.3	4.7	42	1.8	47	42	1.2
72.5	4.1	48	1.6	41	48	1.1

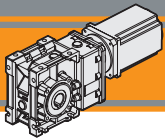
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BL070.240 BL070.24B	8	3	24	3000	0.7	220
BL070.480 BL070.48B	8	3	48	3000	0.7	220

Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BL070.240 BL070.24B	2.1	13	0.091	0.23	26	2.1
BL070.480 BL070.48B	1.4	6.5	0.34	1.0	13	2.1





CMB402 con motore brushless

CMB402 with brushless motor

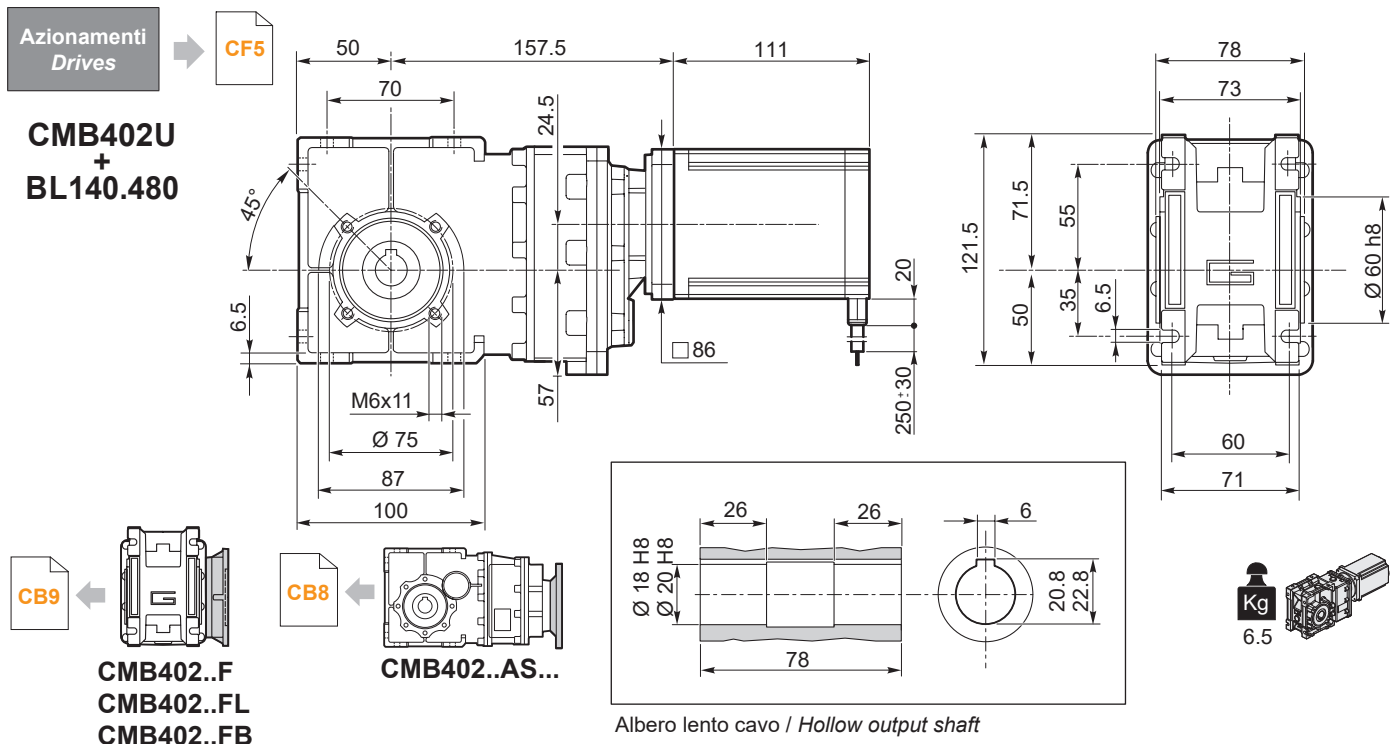
CMB402	BL140.480					
	48V					
	ir	n _{2MIN} [rpm]			n _{2MAX} [rpm]	
		M ₂ [Nm]	sf		M ₂ [Nm]	sf
6.2	49	8.1	5.7	486	8.1	3.8
7.5	40	9.9	4.7	400	9.9	3.2
9.2	33	12.1	3.8	326	12.1	2.6
11.8	25	15.6	3.3	254	15.6	2.3
12.5	24	16.4	3.1	240	16.4	2.1
14.8	20	19.5	2.7	202	19.5	1.8
17.6	17	23	2.2	170	23	1.5
18.6	16	24	2.6	161	24	1.8
22.3	13	29	2.2	134	29	1.5
23.9	13	31	2.0	125	31	1.4
28.9	10	38	2.0	104	38	1.3
30.8	9.7	41	1.8	97	41	1.2
33.6	8.9	44	1.7	89	44	1.1
35.6	8.4	47	1.6	84	47	1.1
42.8	7.0	56	1.3	70	56	0.9
55.3	5.4	73	1.0	54	72	0.7
59.1	5.1	78	1.0	51	72	0.7
64.3	4.7	85	0.9	47	72	0.7
72.5	4.1	95	0.8	41	72	0.7

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

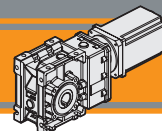
NOTE: for continuous or highly intermittent duty, please contact our technical service

Attenzione: superamento della coppia nominale supportata dal riduttore per servizio S1. Contattare il ns. servizio tecnico
Attention: rated torque withstood by gear reducer for service in S1 is exceeded. Please. contact our technical office.

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BL140.480	8	3	48	3000	1.4	440
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BL140.480	2.8	13.0	0.16	0.5	26	3.15

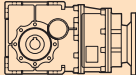


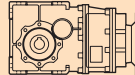
Albero lento cavo / Hollow output shaft



Dati tecnici

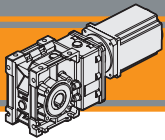
Technical data

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CMB 402				
$n_1 = 1400$ rpm	227	40	1.0	6.18
	187	40	0.83	7.49
	152	40	0.68	9.2
	118	45	0.59	11.83
	112	45	0.56	12.48
	94.4	45	0.47	14.83
	79.4	45	0.40	17.63
	75.3	55	0.46	18.6
	62.7	55	0.38	22.33
	58.6	55	0.36	23.91
	48.5	65	0.35	28.89
	45.4	65	0.33	30.84
	41.7	65	0.30	33.57
	39.3	65	0.28	35.63
	32.7	65	0.24	42.75
	25.3	65	0.18	55.31
	23.7	65	0.17	59.06
	21.8	65	0.16	64.29
	19.3	65	0.14	72.50

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
CMB 402				
$n_1 = 3000$ rpm	486	31.2	1.65	6.18
	400	31.2	1.36	7.49
	326	31.2	1.11	9.20
	254	35.1	0.97	11.83
	240	35.1	0.92	12.48
	202	35.1	0.77	14.83
	170	35.1	0.65	17.63
	161	42.9	0.75	18.60
	134	42.9	0.63	22.33
	126	42.9	0.59	23.91
	104	50.7	0.57	28.89
	97.3	50.7	0.54	30.84
	89.4	50.7	0.49	33.57
	84.2	50.7	0.47	35.63
	70.2	50.7	0.39	42.75
	54.2	50.7	0.30	55.31
	50.8	50.7	0.28	59.06
	46.7	50.7	0.26	64.29
	41.4	50.7	0.23	72.50

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

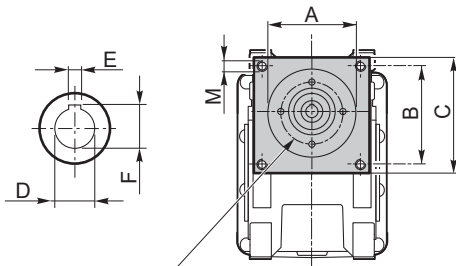
NOTE: for continuous or highly intermittent duty, please contact our technical service



Dimensioni CMB con flange motore AS

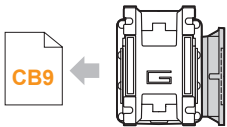
CMB dimensions with motor flanges AS

CMB402 - U - AS...

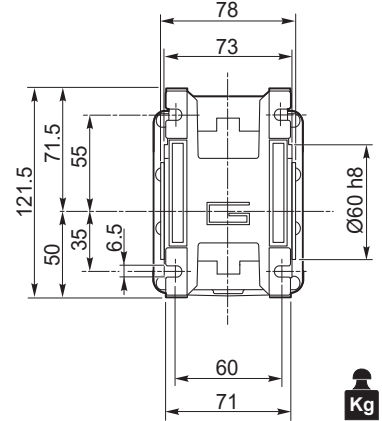
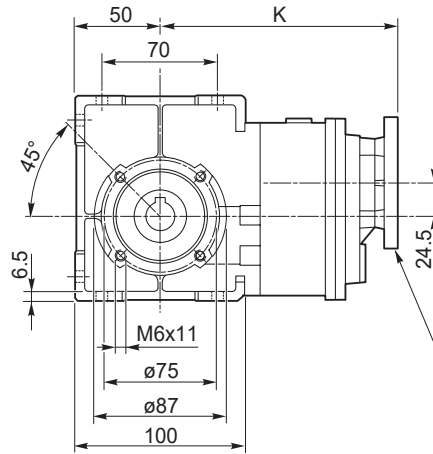


Connessione con boccola o giunto in funzione del diametro dell'albero motore.

Connection with sleeve or coupling depending on motorshaft's diameter.



CMB402..F
CMB402..FL
CMB402..FB

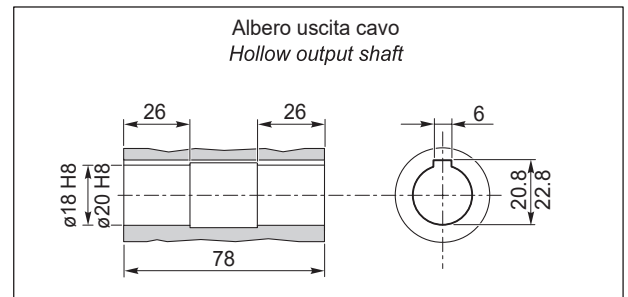


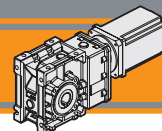
3.4

Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

Flange's thickness may vary depending on motorshaft's length.

Dimensioni / Dimensions								
AS	A	B	C	M	K	D	E	F
AS392FX	38.1	47.1	64	M5	157.5	9	3	10.5
						11	4	12.8
						14	5	16.3
AS384FX	73	69.6	86	M5	157.5	9	3	10.5
						11	4	12.8
						14	5	16.3
...

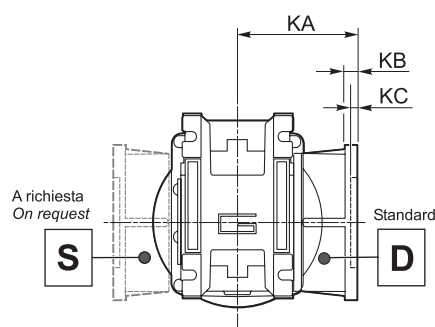
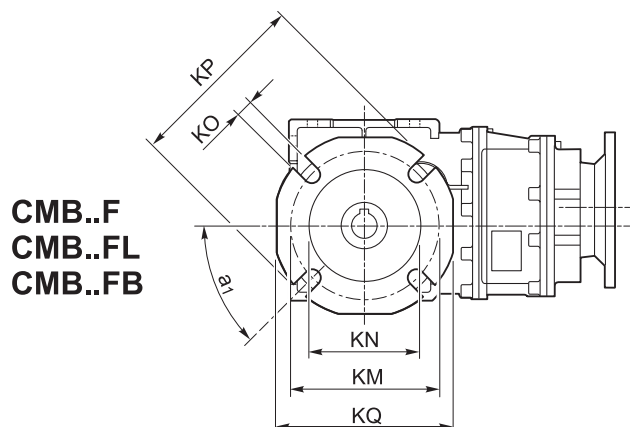


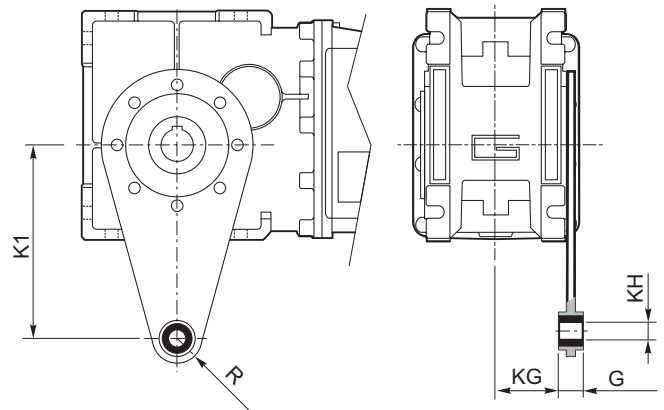
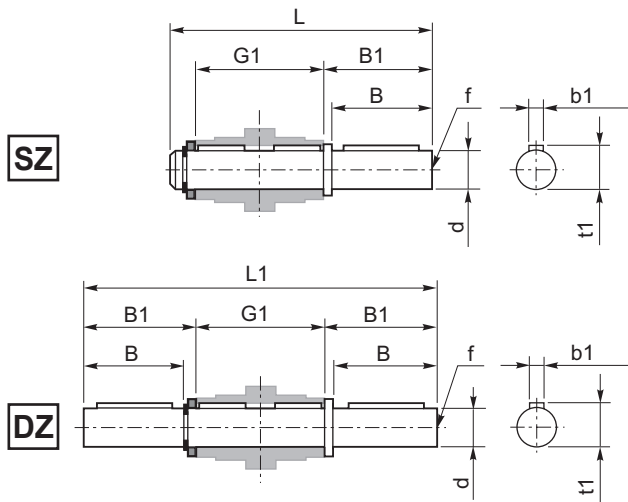
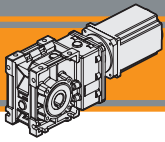


Flange uscita

Output flange

Flange uscita / Output flanges																											
CMB	F									FL									FB								
	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ	a ₁	KA	KB	KC	KM	KN H8	KO	KP	KQ
402	45°	67	7.5	4.5	80-95	60	9	110	95	45°	97	7.5	4.5	80-95	60	9	110	95	45°	80	8.5	5	115-125	95	9.5	140	112





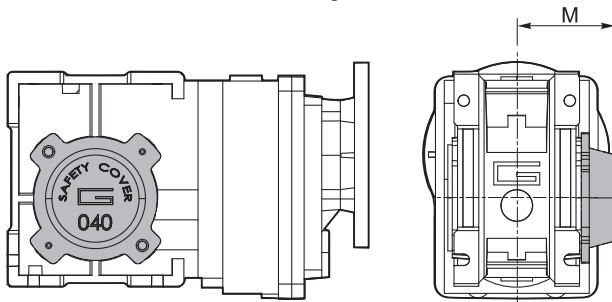
Albero lento / Output shaft

CMB	d h7	B	B1	G1	L	L1	f	b1	t1
402	18	40	43	78	128	164	M6	6	20.5

Braccio di reazione / Torque arm

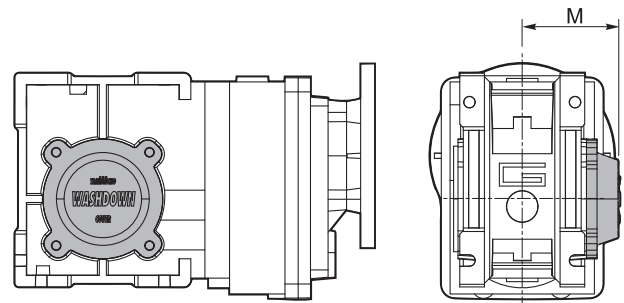
CMB	K1	G	KG	KH	R
402	100	14	31	10	18

SC - Safety cover



CMB	M
402	54.5

WD - Kit washdown cover

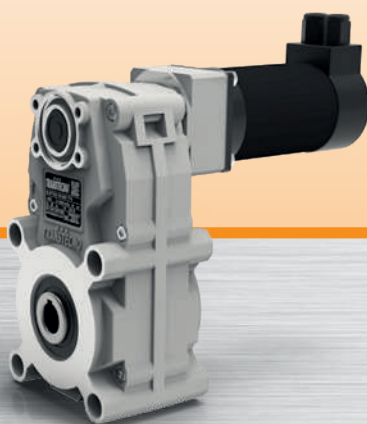


CMB	M
402	55.5

MINI  **TECNO**™
small but strong

BLFT

Motoriduttori brushless CC pendolari
Brushless DC helical parallel gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



BLDC



Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	CC2
Designazione	<i>Classification</i>	CC2
Simbologia	<i>Symbols</i>	CC3
Lubrificazione e temperatura	<i>Lubrication and temperature</i>	CC3
Carichi radiali	<i>Radial loads</i>	CC3
FT105 con motore brushless BLS022.240	<i>FT105 with BLS022.240 brushless motor</i>	CC4
FT105 con motore brushless BLS043.240	<i>FT105 with BLS043.240 brushless motor</i>	CC5
Dati tecnici	<i>Technical data</i>	CC6
Dimensioni FT con flange motore AS	<i>FT dimensions with motor flanges AS</i>	CC6

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Caratteristiche tecniche

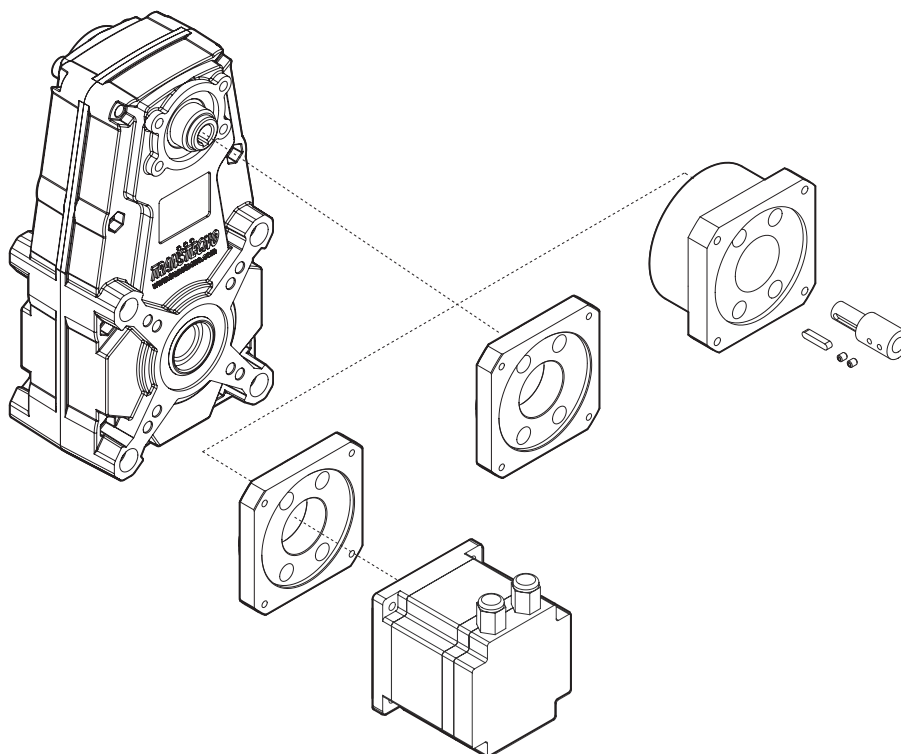
Technical features

Le caratteristiche principali dei motoriduttori brushless CC pendolari della serie BLFT sono:

The main features of BLFT brushless DC helical parallel gearmotors range are:

- Alimentazione in bassa tensione 24/36/48 Vcc
- Motore Brushless CC con grado di protezione IP55
- Coppie motori disponibili da 0.22 Nm a 0.43 Nm
- Lubrificazione permanente con olio sintetico
- Carcassa in pressofusione di alluminio
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati
- Disponibili anche nella versione con solo riduttore, sia con flangia di entrata standard che con flangia e manicotto dedicati

- Low voltage power supply 24/36/48 Vdc
- Brushless DC motor in IP55 protection Standard
- Motor torque ratings available from 0.22 Nm up to 0.43 Nm
- Permanent synthetic oil long life lubrication
- Die-cast aluminium housing
- Ground-hardened helical gears
- Gearbox only version also available, with either standard input flange or customized flange and coupling



Designazione

Classification

RIDUTTORE / GEARBOX					MOTORE / MOTOR		
FT	105	U	46	020	BL043.240	24V	BR
Tipo Type	Grandezza Size	Versione riduttore Gearbox version	Rapporto Ratio	Albero di uscita Output shaft	Tipo Type	Tensione Voltage	Freno Brake
FT	105	U	Vedere tabelle See tables	Vedere tabelle See tables	BLS022.240 BLS043.240	24V - 36V 24V - 36V	24V 48V





Simbologia

Symbols

Ns	n° stadi / No. stages	Mn ₂	[Nm]	Coppia nominale in uscita in funzione di Pn1 <i>Nominal output torque referred to Pn1</i>
ir	rapporto reale / real ratio	n _{1MAX}	[Rpm]	Velocità max entrata / Max input speed
M ₂	[Nm]	V	[V]	Tensione / Voltage
A ₂	[N]	n ₂	[Rpm]	Velocità in uscita / Output Speed
R ₂	[N]	IP		Grado di protezione / Enclosure protection
Pn ₁	[kW]	Kg		Peso / Weight
		sf		Fattore di servizio / Service Factor

Lubrificazione e temperatura

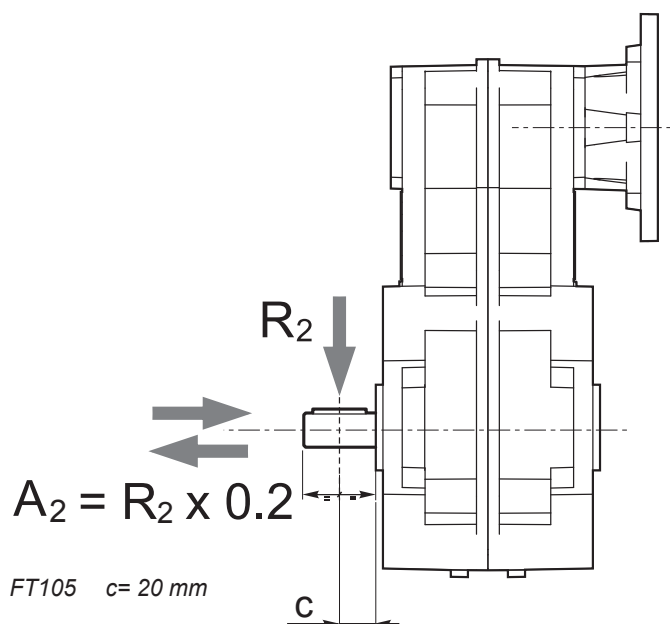
Lubrication and temperature

I motoriduttori BLFT sono forniti completi di lubrificante sintetico (viscosità 320) e non necessitano di manutenzione.
Temperatura ambiente 0 ÷ 40 °C (in assenza di congelamento ed in assenza di condensa).
Per temperature diverse, contattare nostro UT.

Permanent synthetic oil long life lubrication (viscosity grade 320) on BLFT gearmotors.
Ambient temperature 0 ÷ 40 °C (in the absence of freezing and condensation).
For temperature outside this range please contact our technical dept.

Carichi radiali

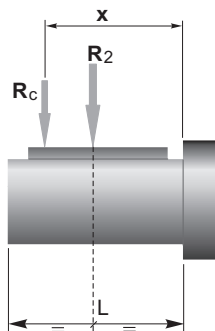
Radial loads



n ₂ [min ⁻¹]	R ₂ [N]
	FT105
70	1500
40	1700
30	1850
20	2000
10	2000
5	2000

Quando il carico radiale risultante non è applicato sulla mezza-ria 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:



	FT105
a	82
b	62
R _{2MAX}	2000

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

$$R \leq R_c$$

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



FT105 con motore brushless

FT105 with brushless motor

FT105		BLS022.240													
		24V						36V							
		n _{2MIN} [rpm]			n _{2MAX} [rpm]			n _{1MAX} [rpm]	n _{2MIN} [rpm]			n _{2MAX} [rpm]		n _{1MAX} [rpm]	
M ₂ [Nm]	sf		M ₂ [Nm]	sf		M ₂ [Nm]	sf		M ₂ [Nm]	sf					
20.6	3	14.6	4.3	10.8	146	4.3	7.3	3000	19.4	4.3	10.8	194	4.3	6.5	4000
33.3		9.0	6.9	8.3	90	6.9	5.7		12.0	6.9	8.3	120	6.9	5.0	
44.4		6.8	9.2	8.1	68	9.2	5.5		9.0	9.2	8.1	90	9.2	4.9	
54.9		5.5	11	6.6	55	11	4.5		7.3	11	6.6	73	11	4.0	
71.8		4.2	15	5.0	42	15	3.4		5.6	15	5.0	56	15	3.0	
77.1		3.9	16	4.7	39	16	3.2		5.2	16	4.7	52	16	2.8	
88.9		3.4	18	4.1	34	18	2.8		4.5	18	4.1	45	18	2.4	
124.8		2.4	26	2.9	24	26	2.0		3.2	26	2.9	32	26	1.7	
181.4		1.7	38	2.0	17	38	1.4		2.2	38	2.0	22	38	1.2	
224.3		1.3	46	1.6	13	46	1.1		1.8	46	1.6	18	46	1.0	
315.1		1.0	65	1.1	10	65	0.8		1.3	65	1.1	13	64	0.7	
368.2		0.8	75	1.0	8.1	72	0.7		1.1	75	1.0	11	64	0.7	
535.0		0.6	105	0.7	5.6	72	0.7		0.7	105	0.7	7.5	64	0.7	
661.8		0.5	105	0.7	4.5	72	0.7		0.6	105	0.7	6.0	64	0.7	
929.4	0.3	105	0.7	3.2	72	0.7	0.4	105	0.7	4.3	64	0.7			

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Attenzione: superamento della coppia nominale supportata dal riduttore per servizio S1. Contattare il ns. servizio tecnico
Attention: rated torque withstood by gear reducer for service in S1 is exceeded. Please, contact our technical office.

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BLS022.240	4	3	36	4000	0.22	92
			24	3000		70
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BLS022.240	0.44	3.7	0.64	3.1	7.4	0.72

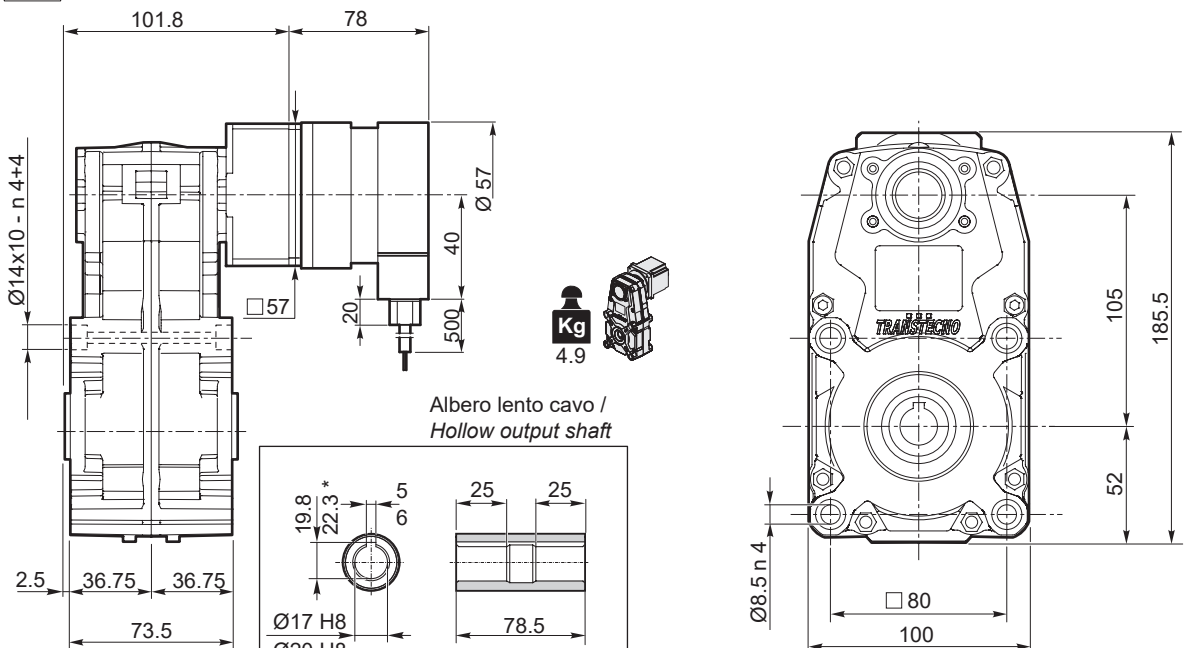
Azionamenti Drives

CF2

FT105U + BLS022.240

CC6

FT105.. AS...





*Sede linguetta ribassata /
*Special keyway



Dati tecnici

Technical data

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i	
FT105					
n1 = 1400 rpm	68	40	0.30	20.57	
	42	50	0.23	33.32	
	32		0.23	44.36	
	26		0.18	54.87	
	20		0.14	71.84	
	FT105/3	18		0.13	77.07
	16	65	0.11	88.87	
	11		0.081	124.81	
	7.7		0.056	181.35	
	6.2		0.045	224.32	
4.4		0.032	315.05		
FT105/4	3.8		0.028	368.19	
	2.6	65	0.019	534.98	
	2.1		0.015	661.76	
	1.5		0.011	929.40	

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i	
FT105					
n1 = 3000 rpm	146	31	0.51	20.57	
	90	39	0.39	33.32	
	68		0.38	44.36	
	55		0.31	54.87	
	42		0.24	71.84	
	FT105/3	39		0.22	77.07
	34	51	0.19	88.87	
	24		0.14	124.81	
	17		0.09	181.35	
	13		0.08	224.32	
10		0.05	315.05		
FT105/4	8.1		0.05	368.19	
	5.6	51	0.03	534.98	
	4.5		0.03	661.76	
	3.2		0.02	929.40	

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

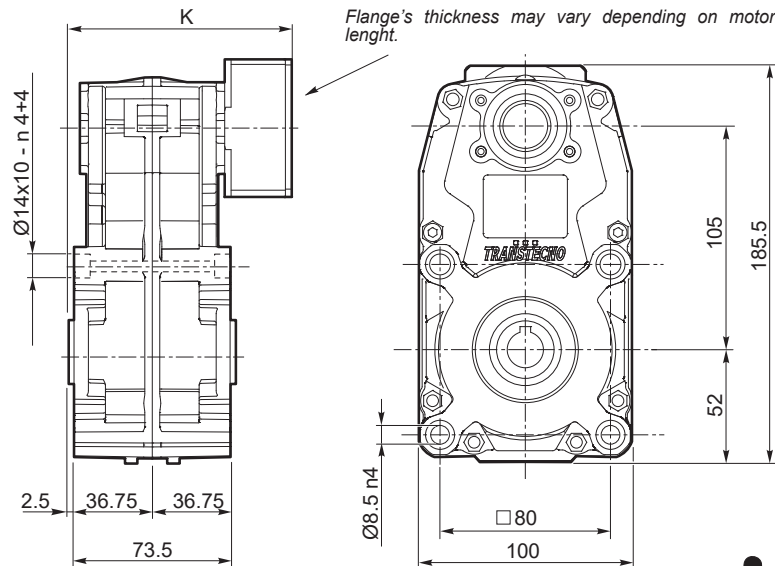
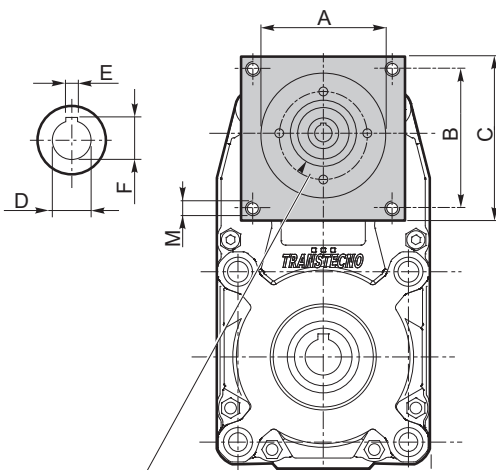
Dimensioni FT con flange motore AS

FT dimensions with motor flanges AS

FT105 - U - AS...

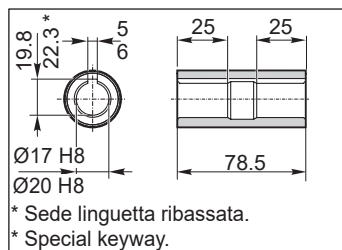
Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

Flange's thickness may vary depending on motor shaft's length.



Connessione con boccia o giunto in funzione del diametro dell'albero motore.

Connection with sleeve or coupling depending on motor shaft's diameter.

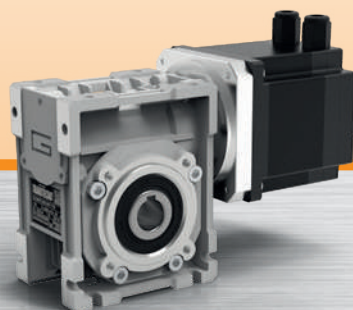


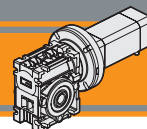
* Sede linguetta ribassata.
* Special keyway.
Albero lento cavo / Hollow output shaft

Kg
4.2

Dimensioni / Dimensions								
AS	A	B	C	M	K	D	E	F
AS416	38.1	47.1	56.6	M5	101.8	9	3	10.4
...

Motoriduttori brushless CC a vite senza fine
Brushless DC wormgearmotors

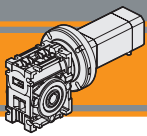




Indice	Index	Pag. Page
Caratteristiche tecniche	<i>Technical features</i>	CD2
Designazione	<i>Classification</i>	CD2
Simbologia	<i>Symbols</i>	CD3
Lubrificazione e temperatura	<i>Lubrication and temperature</i>	CD3
Carichi radiali	<i>Radial loads</i>	CD3
Dati di dentatura	<i>Toothing data</i>	CD4
Rendimento	<i>Efficiency</i>	CD4
Rerersibilità e irreversibilità	<i>Reversibility and irreversibility</i>	CD4
CM026 con motore brushless BLS 022.240	<i>CM026 with brushless motor BLS 022.240</i>	CD5
CM030 con motore brushless BLS 043.240	<i>CM030 with brushless motor BLS 043.240</i>	CD6
CM030 con motore brushless BL 070.240	<i>CM030 with brushless motor BL 070.240</i>	CD7
CM030 con motore brushless BL 070.24B	<i>CM030 with brushless motor BL 070.24B</i>	CD7
CM030 con motore brushless BL 070.480	<i>CM030 with brushless motor BL 070.480</i>	CD7
CM030 con motore brushless BL 070.48B	<i>CM030 with brushless motor BL 070.48B</i>	CD7
CM040 con motore brushless BLS 043.240	<i>CM040 with brushless motor BLS 043.240</i>	CD8
CM040 con motore brushless BL 070.240	<i>CM040 with brushless motor BL 070.240</i>	CD9
CM040 con motore brushless BL 070.24B	<i>CM040 with brushless motor BL 070.24B</i>	CD9
CM040 con motore brushless BL 070.480	<i>CM040 with brushless motor BL 070.480</i>	CD9
CM040 con motore brushless BL 070.48B	<i>CM040 with brushless motor BL 070.48B</i>	CD9
CM040 con motore brushless BL 140.480	<i>CM040 with brushless motor BL 140.480</i>	CD9
CM040 con motore brushless BL 210.480	<i>CM040 with brushless motor BL 210.480</i>	CD9
CM040 con motore brushless BL 210.48E	<i>CM040 with brushless motor BL 210.48E</i>	CD9
Dati tecnici	<i>Technical data</i>	CD10
Dimensioni CM con flange motore AS	<i>CM dimensions with motor flanges AS</i>	CD11
Dimensioni flange uscita	<i>Output flange dimensions</i>	CD13
Opzioni	<i>Options</i>	CD14
Accessori	<i>Accessories</i>	CD14

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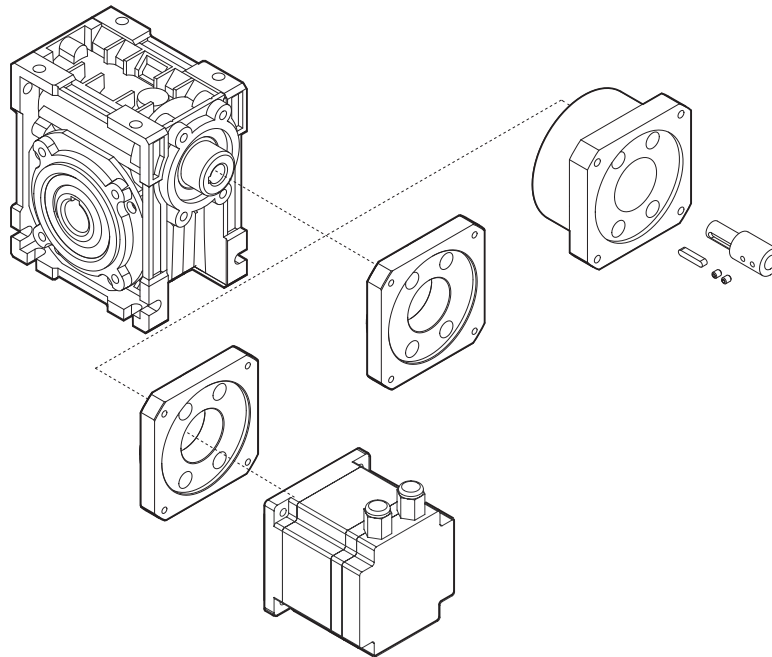
Caratteristiche tecniche

Technical features

Le caratteristiche principali dei motoriduttori brushless CC a vite senza fine della serie BLCM sono:

The main features of BLCM brushless DC wormgearmotors range are:

- Alimentazione in bassa tensione 24/36/48 Vcc
- Motore Brushless CC con grado di protezione IP55
- Coppie motore disponibili da 0.22 a 2.1 Nm
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Disponibili anche nella versione con solo riduttore, sia con flangia di entrata standard che con flangia e manicotto dedicati
- Low voltage power supply 24/36/48 Vdc
- Brushless DC motor in IP55 protection Standard
- Motor torque ratings available from 0.22 up to 2.1 Nm
- Die-cast aluminium housings
- Permanent synthetic oil long life lubrication
- Gearbox only version also available, with either standard input flange or customized flange and coupling



Designazione

Classification

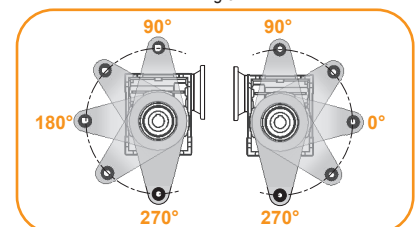
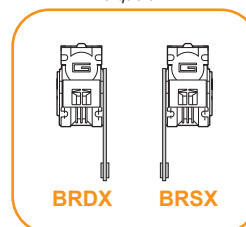
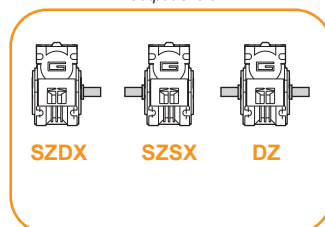
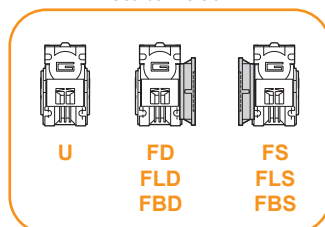
RIDUTTORE / GEARBOX				MOTORE / MOTOR		
CM	030	20	U	BL070.480	48V	BR
Tipo Type	Grandezza Size	Rapporto in Ratio in	Versione Version	Tipo Type	Tensione Voltage	Freno Brake
CM	026 026 (11) 026 (14) 030 040	Vedere tabelle See tables	U F FL FB	BLS022.240 BLS043.240 BL070.240 BL070.24B BL070.48B BL070.480 BL140.480 BL210.480 BL210.48E	24V-36V 24V-36V 24V 24V 48V 48V 48V 48V	24V 48V

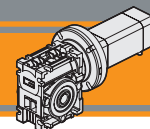
Versione Riduttore
Gearbox Version

Albero di uscita
Output shaft

Braccio di reazione
Torque arm

Angolo
Angle





Simbologia

Symbols

Ns	n° stadi / No. stages	n _{1MAX}	[Rpm]	Velocità max entrata / Max input speed
ir	rapporto reale / real ratio	V	[V]	Tensione / Voltage
M ₂	[Nm] coppia in uscita / output torque	n ₂	[Rpm]	Velocità in uscita / Output Speed
A ₂	[N] Carico assiale ammissibile in uscita / Permitted output axial load	IP		Grado di protezione / Enclosure protection
R ₂	[N] Carico radiale ammissibile in uscita / Permitted output radial load	Kg		Peso / Weight
Pn ₁	[kW] Potenza nominale in entrata / Nominal input power	sf		Fattore di servizio / Service Factor
Mn ₂	[Nm] Coppia nominale in uscita in funzione di Pn1 / Nominal output torque referred to Pn1	Rd	%	Rendimento dinamico / Dynamic efficiency
		Rs	%	Rendimento statico / Static efficiency
		Z		Numero di principi della vite / Worm starts
		β		Angolo d'elica / Helix angle

Lubrificazione e temperatura

Lubrication and temperature

Tutti i motoriduttori BLCM sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the BLCM worm gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.

Temperatura ambiente 0 ÷ 40 °C (in assenza di congelamento ed in assenza di condensa).

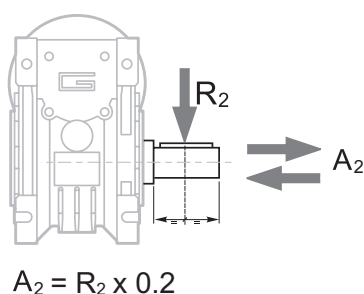
Ambient temperature 0 ÷ 40 °C (in the absence of freezing and condensation).

Per temperature diverse, contattare nostro UT.

For temperature outside this range please contact our technical dept.

Carichi radiali

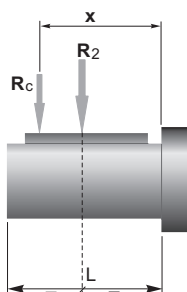
Radial loads



n ₂ [min ⁻¹]	R ₂ [N]		
	CM026	CM030	CM040
187	400	674	1264
140	490	743	1392
93	480	851	1596
70	610	936	1754
56	610	1008	1890
47	610	1069	2004
35	610	1179	2210
28	610	1270	2381
23	610	1356	2542
18	610	1471	2759
14	610	1600	3000

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:

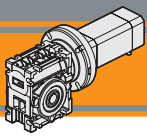


	CM		
	026	030	040
a	56	65	84
b	43	50	64
R _{2MAX}	610	1600	3000

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

$$R \leq R_c$$

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

**Dati 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'
CM040	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 19'	24° 28'	18° 50'	12° 49'	10° 23'	8° 43'	6° 29'	5° 14'	4° 23'	3° 46'	2° 57'	2° 25'

Rendimento**Efficiency**

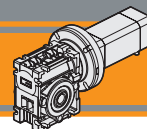
	n_1 [min ⁻¹]	Rendimento Efficiency	Rapporto / Ratio											
			5	7.5	10	15	20	25	30	40	50	60	80	100
CM026	2800	Rd	89	87	85	83	80		73	68	64	60		
		Rs	72	71	68	61	56	46	41	36	34			
CM030	2800	Rd	89	88	86	84	81	78	74	70	65	62	57	52
		Rs	72	67	63	55	50	43	39	35	31	27	23	21
CM040	2800	Rd	90	89	87	84	83	80	77	73	69	66	60	56
		Rs	74	71	67	60	55	51	45	40	36	32	28	24

Reversibilità e irreversibilità**Reversibility and irreversibility**

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.

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
> 0.60	Reversibilità dinamica	Dynamic reversibility
0.50 - 0.60	Reversibilità dinamica incerta	Uncertain dynamic reversibility
0.40 - 0.50	Buona irreversibilità dinamica	Good dynamic irreversibility
<0.40	Irreversibilità dinamica	Dynamic irreversibility
Rs	Reversibilità e irreversibilità statica	Static reversibility and irreversibility
> 0.55	Reversibilità statica	Static reversibility
0.50 - 0.55	Reversibilità statica incerta	Uncertain static reversibility
<0.50	Irreversibilità statica	Static irreversibility



CM026 con motore brushless

CM026 with brushless motor

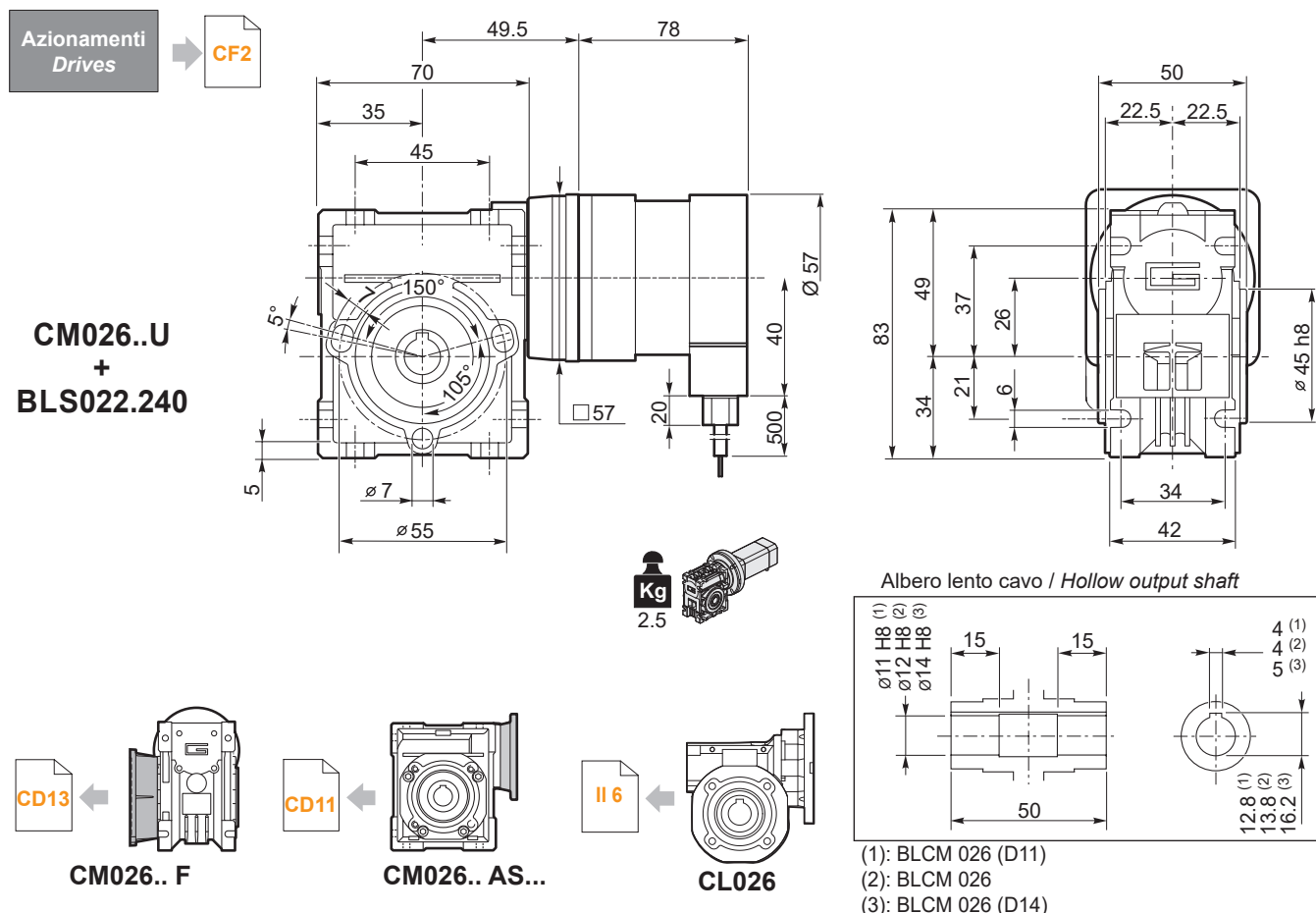
CM026	BLS022.240													
	24V						36V							
	n ₂ MIN		n ₂ MAX		n ₁ MAX [rpm]	n ₂ MIN		n ₂ MAX		n ₁ MAX [rpm]				
M ₂	sf	M ₂	sf	M ₂		sf	M ₂	sf						
5	60	0.9	27	600	1.0	10	3000	80	0.9	21	800	1.0	8.0	4000
7.5	40	1.3	19	400	1.5	7.9		53	1.3	16	533	1.5	6.0	
10	30	1.7	16	300	1.9	5.8		40	1.7	12	400	1.9	4.7	
15	20	2.2	12	200	2.7	4.1		27	2.3	9.1	267	2.8	3.2	
20	15	2.8	9.3	150	3.5	3.1		20	2.9	6.9	200	3.6	2.5	
30	10	3.6	7.5	100	4.8	2.5		13	3.8	5.8	133	5.0	2.0	
40	7.5	4.4	4.8	75	6.0	1.8		10	4.6	4.1	100	6.2	1.5	
50	6	4.8	4.2	60	7.0	1.4		8.0	5.2	3.5	80	7.3	1.1	
60	5	5.4	3.3	50	7.8	1.1		6.7	5.8	2.9	67	8.2	0.9	

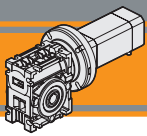
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Attenzione: superamento della coppia nominale supportata dal riduttore per servizio S1. Contattare il ns. servizio tecnico
Attention: rated torque withstood by gear reducer for service in S1 is exceeded. Please, contact our technical office.

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BLS022.240	4	3	36	4000	0.22	92
			24	3000		70
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BLS022.240	0.44	3.7	0.64	3.1	7.4	0.72





CM030 con motore brushless

CM030 with brushless motor

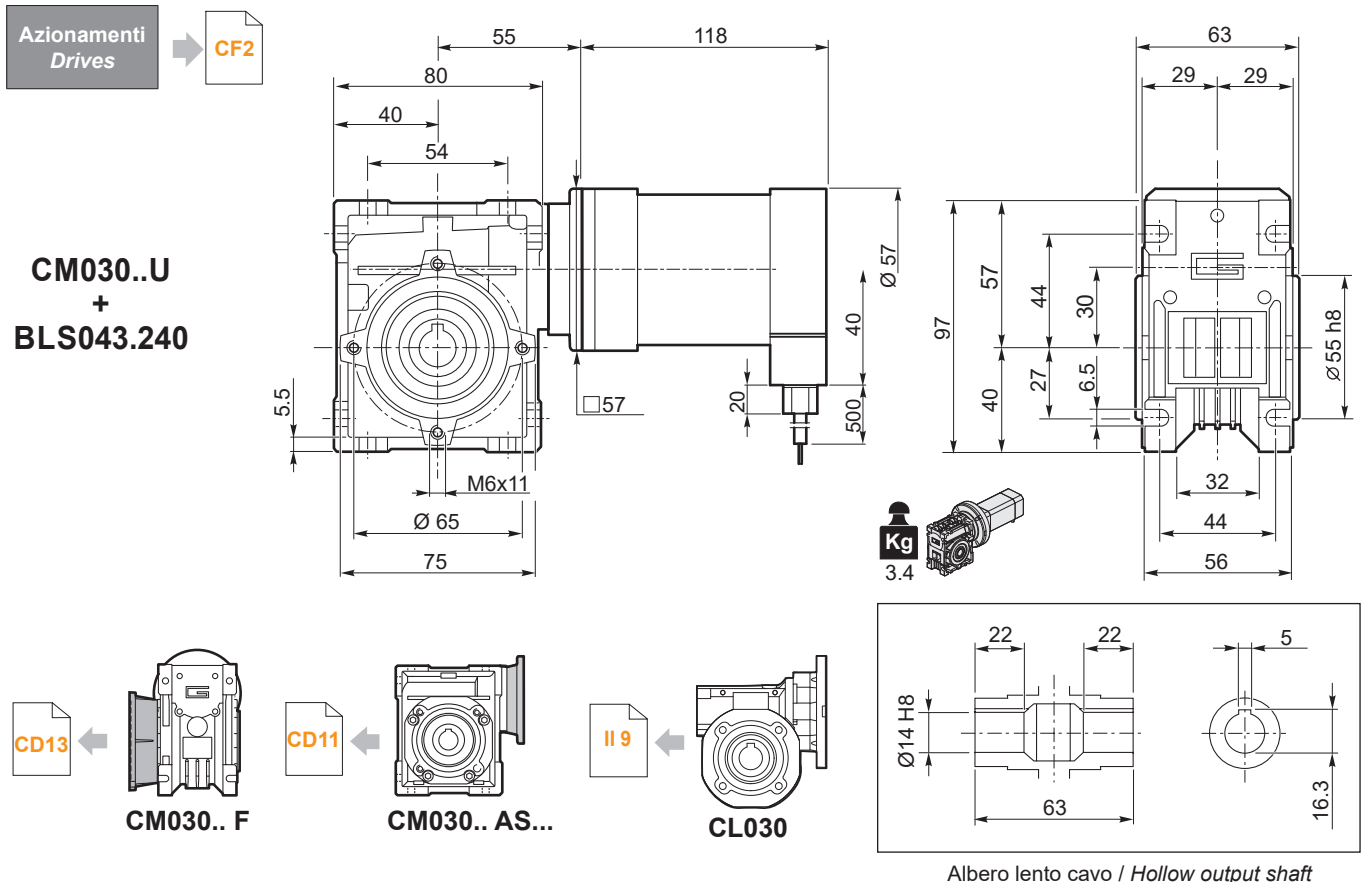
CM030	BLS043.240													
	24V						36V							
	n ₂ MIN		sf		n ₂ MAX		n ₁ MAX [rpm]	n ₂ MIN		n ₂ MAX		n ₁ MAX [rpm]		
M ₂				M ₂		M ₂								
5	60	1.7	20	600	1.9	6.8	3000	80	1.7	20	800	1.9	6.8	4000
7.5	40	2.5	14	400	2.8	5.3		53	2.5	14	533	2.8	5.3	
10	30	3.2	12	300	3.7	4.3		40	3.2	12	400	3.7	4.3	
15	20	4.4	8.6	200	5.4	3.0		26	4.4	8.6	267	5.4	3.0	
20	15	5.5	5.8	150	7.0	2.0		20	5.5	5.8	200	7.0	2.0	
25	12	6.5	4.8	120	8.4	1.8		16	6.5	4.8	160	8.4	1.8	
30	10	7.1	5.5	100	9.5	1.9		13	7.1	5.5	133	9.5	1.9	
40	7.5	8.4	3.9	75	12	1.3		10	8.4	3.9	100	12	1.3	
50	6.0	9.7	3.0	60	14	1.1		8	9.7	3.0	80	14	1.1	
60	5.0	11	2.5	50	16	0.9		6.6	11	2.5	67	16	0.9	
80	3.7	12	1.8	38	17	0.7		5	12	1.8	50	17	0.7	
100	3.0	14	1.4	30	16	0.7		4	14	1.4	40	16	0.7	

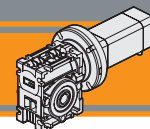
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Attenzione: superamento della coppia nominale supportata dal riduttore per servizio S1. Contattare il ns. servizio tecnico
Attention: rated torque withstood by gear reducer for service in S1 is exceeded. Please, contact our technical office.

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BLS043.240	4	3	36	4000	0.43	180
	4	3	24	3000	0.43	130
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BLS043.240	0.86	6	0.35	1.0	12.0	1.25





CM030 con motore brushless

CM030 with brushless motor

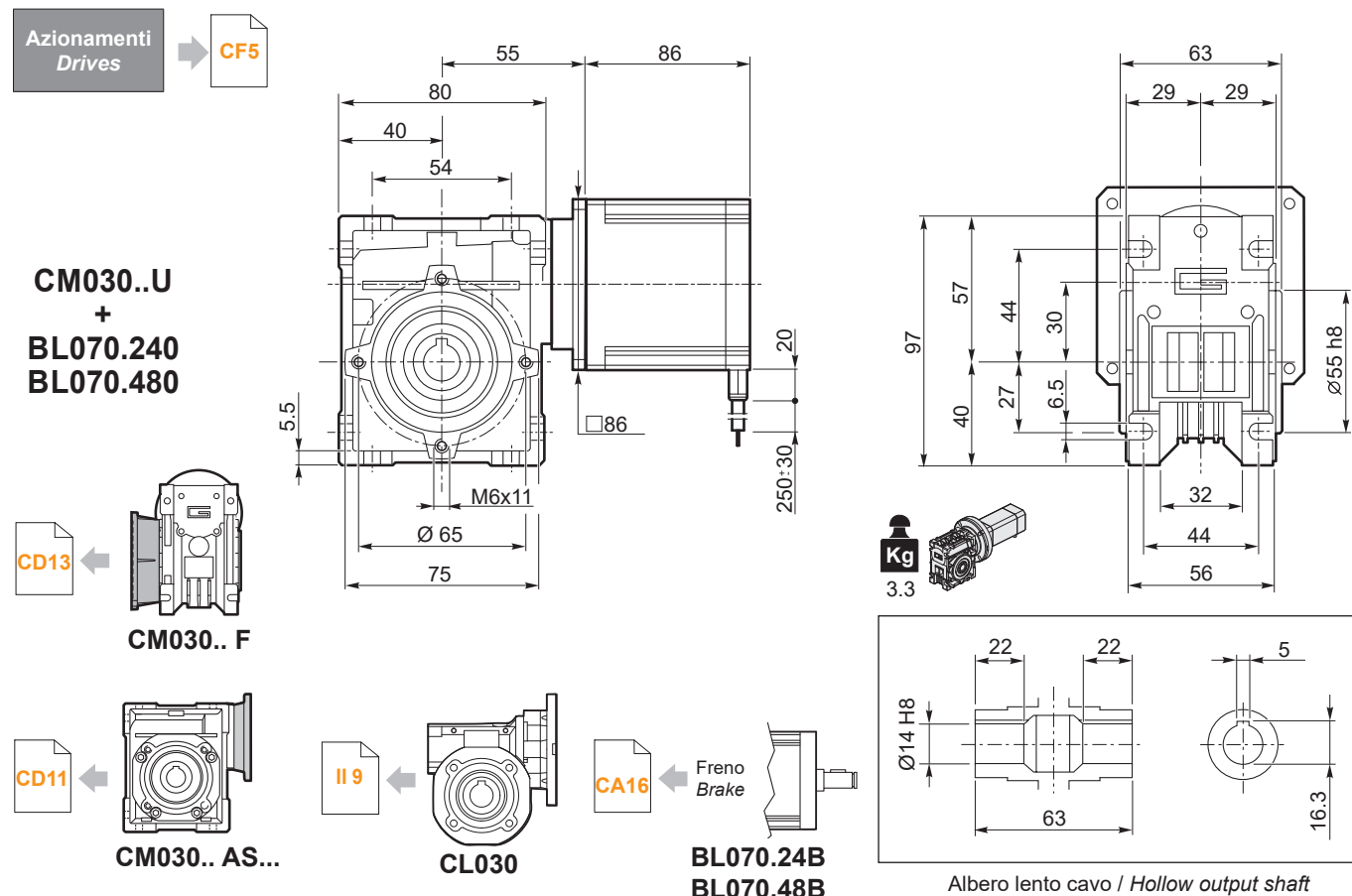
CM030	BL070.240 / BL070.24B / BL070.480 / BL070.48B						
	24V / 48V						
ir		n ₂ MIN			n ₂ MAX		n ₁ MAX [rpm]
		M ₂	sf		M ₂	sf	
5	60	2.8	11	600	3.1	4.2	3000
7.5	40	4.1	8.0	400	4.6	3.2	
10	30	5.3	6.4	300	6.0	2.7	
15	20	7.2	4.9	200	8.8	1.8	
20	15	9.1	3.2	150	11	1.2	
25	12	11	2.5	120	14	1.1	
30	10	12	2.9	100	16	1.2	
40	7.5	14	2.1	75	20	0.8	
50	6.0	16	1.6	60	23	0.7	

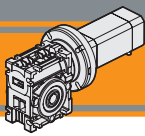
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Attenzione: superamento della coppia nominale supportata dal riduttore per servizio S1. Contattare il ns. servizio tecnico
Attention: rated torque withstood by gear reducer for service in S1 is exceeded. Please, contact our technical office.

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BL070.240 BL070.24B	8	3	24	3000	0.7	220
BL070.480 BL070.48B	8	3	48	3000	0.7	220
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BL070.240 BL070.24B	2.1	13	0.091	0.23	26	2.1
BL070.480 BL070.48B	1.4	6.5	0.34	1.0	13	2.1





CM040 con motore brushless

CM040 with brushless motor

CM040	BLS043.240											
	24V						36V					
	n ₂ MIN		sf	n ₂ MAX		n ₁ MAX [rpm]	n ₂ MIN		sf	n ₂ MAX		n ₁ MAX [rpm]
M ₂		M ₂			M ₂			M ₂				
5	60	1.8	35	600	2.0	14	80	1.8	35	800	2.0	14
7.5	40	2.6	26	400	2.9	11	53	2.6	26	533	2.9	11
10	30	3.4	20	300	3.7	8.9	40	3.4	20	400	3.7	8.9
15	20	4.6	15	200	5.4	6.5	26	4.6	15	267	5.4	6.5
20	15	5.8	10	150	7.2	4.3	20	5.8	10	200	7.2	4.3
25	12	6.9	7.8	120	8.6	3.2	16	6.9	7.8	160	8.6	3.2
30	10	7.9	9.4	100	10	3.8	13	7.9	9.4	133	10	3.8
40	7.5	9.6	6.8	75	13	2.6	10	9.6	6.8	100	13	2.6
50	6.0	12	5.5	60	15	2.1	8	12	5.5	80	15	2.1
60	5.0	12	4.7	50	17	1.7	6.6	12	4.7	67	17	1.7
80	3.7	14	3.6	38	21	1.3	5	14	3.6	50	21	1.3
100	3.0	16	2.8	30	24	1.0	4	16	2.8	40	24	1.0

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

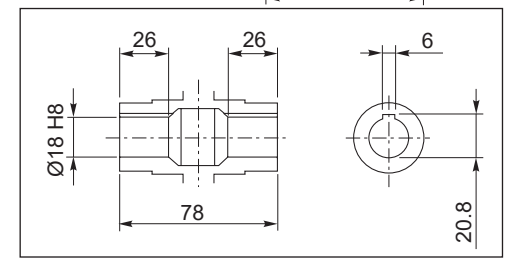
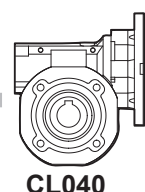
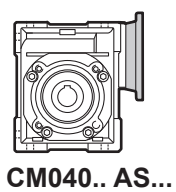
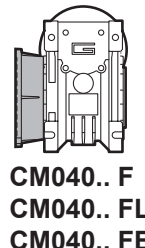
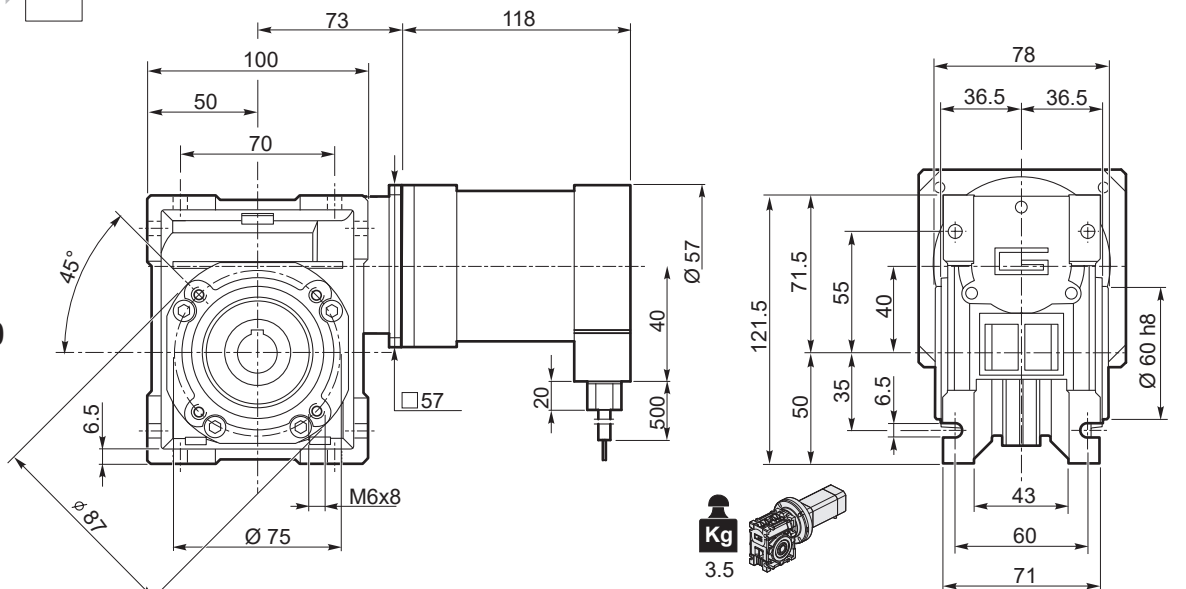
NOTE: for continuous or highly intermittent duty, please contact our technical service

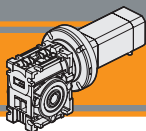
Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BLS043.240	4	3	36	4000	0.43	180
	4	3	24	3000	0.43	130
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BLS043.240	0.86	6	0.35	1.0	12.0	1.25


Azionamenti Drives




CM040..U + BLS043.240



**Dati tecnici****Technical data**

	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
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	n_2 [min ⁻¹]	Mn_2 [Nm]	Pn_1 [kW]	i
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CM026

$n_1 = 1400 \text{ rpm}$	n_2	Mn_2	Pn_1	i
	280	13	0.44	5
	187	14	0.33	7,5
	140	14	0.25	10
	93	14	0.18	15
	70	14	0.14	20
	47	15	0.11	30
	35	14	0.08	40
	28	13	0.07	50
	23	12	0.06	60

CM026

$n_1 = 3000 \text{ rpm}$	n_2	Mn_2	Pn_1	i
	600	10	0.71	5
	400	11	0.53	7,5
	300	11	0.41	10
	200	11	0.28	15
	150	11	0.22	20
	100	12	0.17	30
	75	11	0.13	40
	60	10	0.10	50
	50	9	0.08	60

CM030

$n_1 = 1400 \text{ rpm}$	n_2	Mn_2	Pn_1	i
	280	18	0.61	5
	187	20	0.46	7,5
	140	21	0.37	10
	93	21	0.26	15
	70	19	0.19	20
	56	20	0.16	25
	47	22	0.16	30
	35	20	0.12	40
	28	19	0.10	50
	23	17	0.08	60
	18	15	0.06	80
	14	14	0.05	100

CM030

$n_1 = 3000 \text{ rpm}$	n_2	Mn_2	Pn_1	i
	600	13	0.92	5
	400	15	0.71	7,5
	300	16	0.58	10
	200	16	0.40	15
	150	14	0.27	20
	120	15	0.24	25
	100	18	0.25	30
	75	16	0.18	40
	60	15	0.14	50
	50	14	0.12	60
	37.5	12	0.08	80
	30	11	0.07	100

CM040

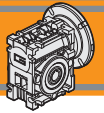
$n_1 = 1400 \text{ rpm}$	n_2	Mn_2	Pn_1	i
	280	41	1.37	5
	187	44	1.00	7,5
	140	45	0.79	10
	93	45	0.54	15
	70	40	0.38	20
	56	38	0.30	25
	47	48	0.34	30
	35	42	0.24	40
	28	39	0.19	50
	23	36	0.15	60
	18	33	0.12	80
	14	31	0.10	100

CM040

$n_1 = 3000 \text{ rpm}$	n_2	Mn_2	Pn_1	i
	600	29	2.02	5
	400	31	1.46	7,5
	300	33	1.19	10
	200	35	0.87	15
	150	31	0.59	20
	120	28	0.44	25
	100	38	0.52	30
	75	34	0.37	40
	60	32	0.29	50
	50	29	0.23	60
	37.5	27	0.18	80
	30	24	0.13	100

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

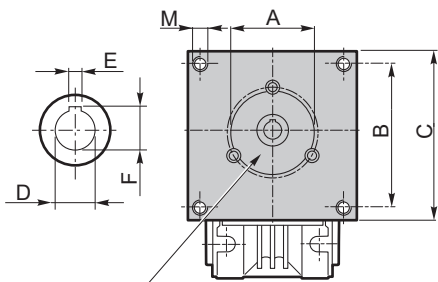
NOTE: for continuous or highly intermittent duty, please contact our technical service



Dimensioni CM con flange motore AS

CM dimensions with motor flanges AS

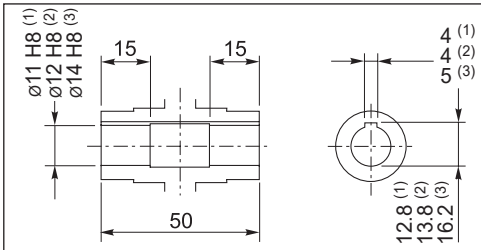
CM026 - U - AS...



Connessione con boccola o giunto in funzione del diametro dell'albero motore.

Connection with sleeve or coupling depending on motorshaft's diameter.

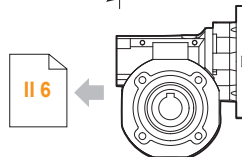
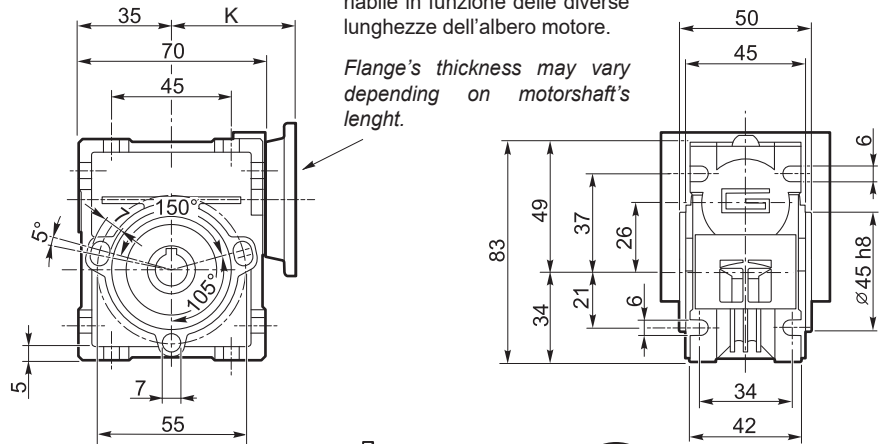
Albero lento cavo / Hollow output shaft



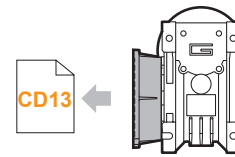
- (1): BLCM 026 (D11)
- (2): BLCM 026
- (3): BLCM 026 (D14)

Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

Flange's thickness may vary depending on motorshaft's lenght.



CL026

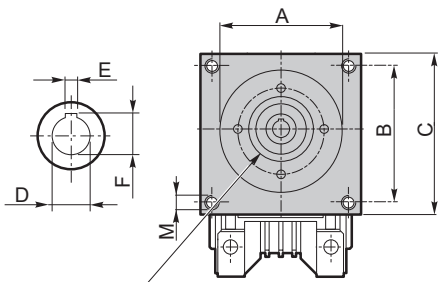


CM026.. F

Kg
0.8

Dimensioni / Dimensions						Rapporti / Ratio		
AS	A	B	C	M	K	5...100		
						D	E	F
AS417	38.1	47.1	56	M4	49.5	9	3	10.4
...

CM030 - U - AS...

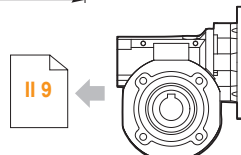
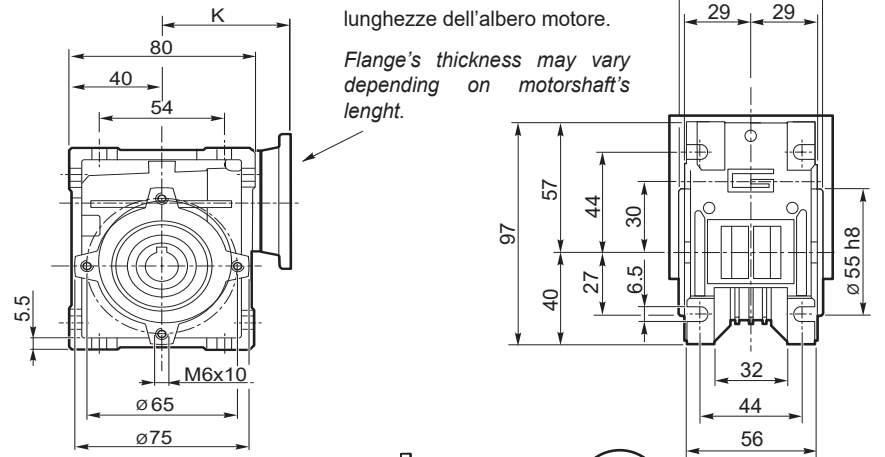


Connessione con boccola o giunto in funzione del diametro dell'albero motore.

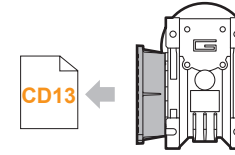
Connection with sleeve or coupling depending on motorshaft's diameter.

Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

Flange's thickness may vary depending on motorshaft's lenght.

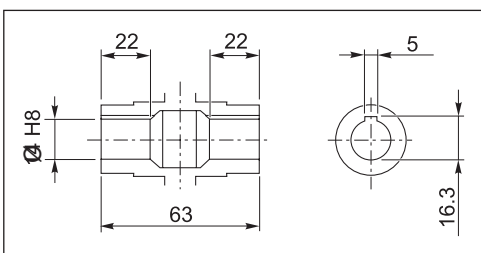


CL030



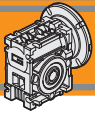
CM030.. F

Kg
1.2



Albero lento cavo / Hollow output shaft

Dimensioni / Dimensions						Rapporti / Ratio					
AS	A	B	C	M	K	5...50			60...100		
						D	E	F	D	E	F
AS393	38.1	47.1	57	M5	55	11	4	12.8	9	3	10.4
AS391	73	69.6	86	M5	55	11	4	12.8	9	3	10.4
...



CM

Riduttori a vite senza fine
Wormgearboxes



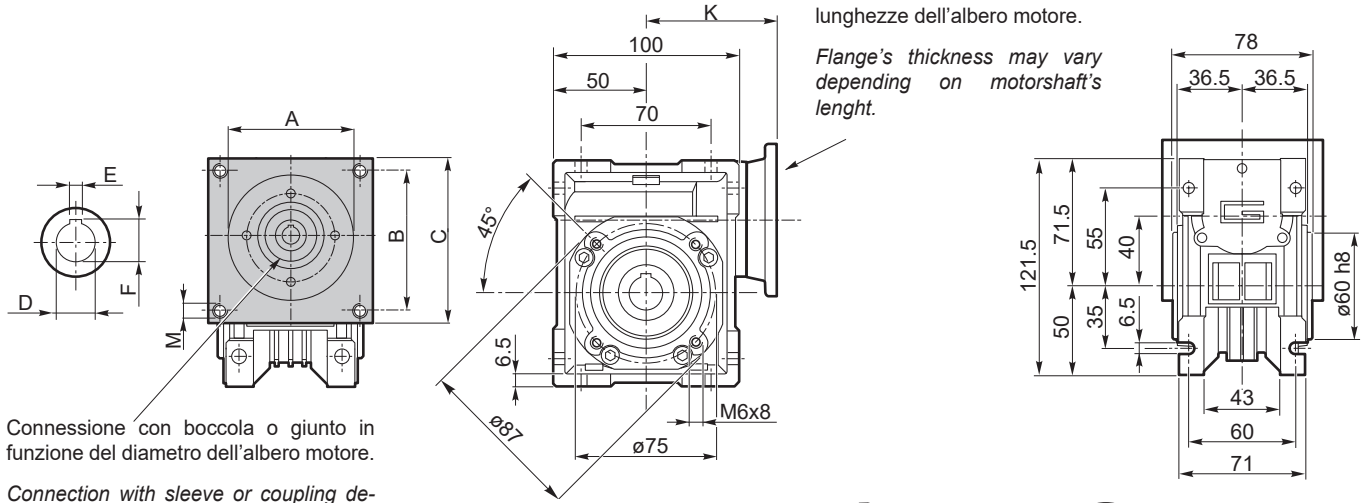
Dimensioni CM con flange motore AS

CM dimensions with motor flanges AS

CM040 - U - AS...

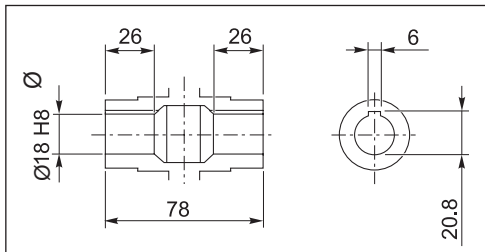
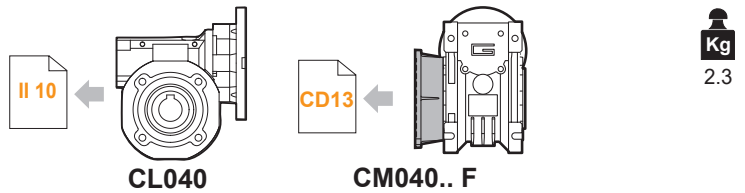
Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

Flange's thickness may vary depending on motorshaft's length.



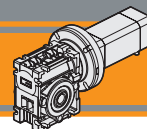
Connessione con boccola o giunto in funzione del diametro dell'albero motore.

Connection with sleeve or coupling depending on motorshaft's diameter.



Albero lento cavo / Hollow output shaft

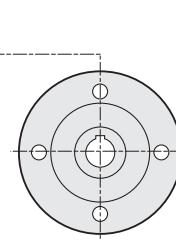
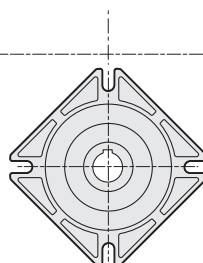
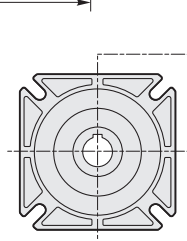
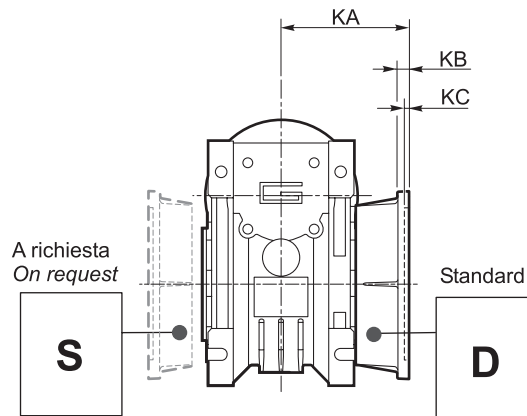
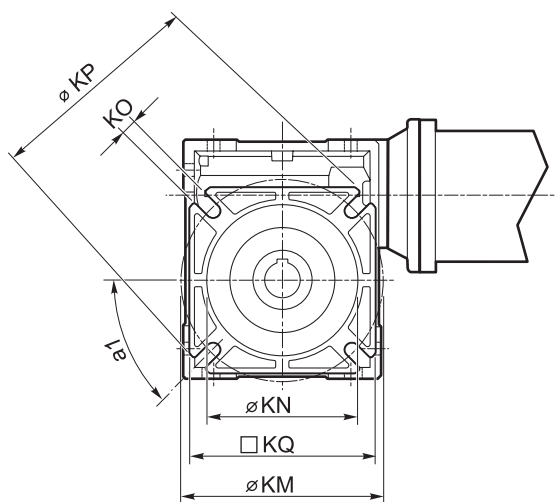
Dimensioni / Dimensions											
AS	A	B	C	M	K	Rapporti / Ratio					
						5...40			50...100		
						D	E	F	D	E	F
AS392FX	38.1	47.1	64	M5	73	14	5	16.3	11	4	12.8
AS384FX	73	69.6	86	M5	73	14	5	16.3	11	4	12.8
...



Dimensioni flange uscita

Output flange dimensions

CM.../... F... Flange uscita / Output flanges



..CM026 ../.. F
..CM026 ../.. F28
..CM026 ../.. F30
..CM026 ../.. F30S
..CM030 ../.. F..
..CM040 ../.. F..

..CM026 ../.. F30C
..CM026 ../.. F30SC

..CM026 ../.. F100

	CM..F						CM..F28						CM..F30						CM..F30S ⁽¹⁾														
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
026 (D11)	45°	45	6	4.5	55-69	40	6.5	75	70	44	6.5	5	56-64	40	6.5	70	60	48	6.5	5	68	50	6.5	80	70	50	8.5	7	68	50	6.5	80	70
026 (D14)							6.5 (n.4)																										

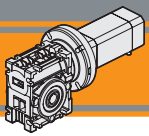
(1): F30S eseguita con F30 e distanziale di spessore 2 mm / F30S made with F30 and spacer with 2mm thickness

	CM..F30C						CM..F30SC ⁽²⁾						CM..F100												
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC *	KM	KN _{H7}	KO	KP	KQ
026 (D11)	-	48	6.5	7	68	50	6.5	80	70	50	8.5	7	68	50	6.5	80	70	51.5	8	2 *	86	45	6.5	100	-
026 (D14)																									

(2): F30SC eseguita con F30C e distanziale di spessore 2 mm / F30SC made with F30C and spacer with 2mm thickness

*: Centraggio maschio / Male centering diameter

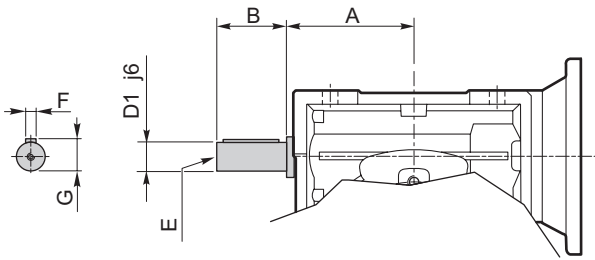
CM	CM..F						CM..FB						CM..FL												
	a1	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ	KA	KB	KC	KM	KN _{H8}	KO	KP	KQ
030	45°	54.5	6	4	68	50	6.5(n.4)	80	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
040	45°	67	7.5	4	80-95	60	9(n.4)	110	95	80	8.5	5	115-125	95	9.5(n.4)	140	112	97	7.5	4.5	80-95	60	9 (n.4)	110	95



Opzioni

Options

VS - Vite sporgente / Extended input shaft



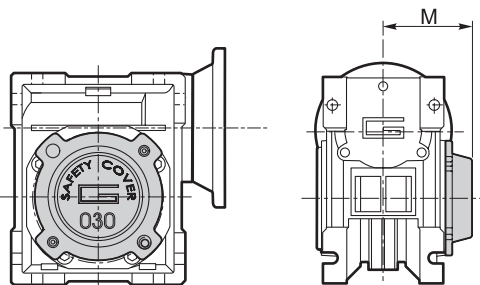
	A	B	D ₁ j6	E	F	G
CM 030	45	20	9	M4	3	10.2
CM 040	53	23	11	M5	4	12.5

Costruito su richiesta
Built on request

Accessori

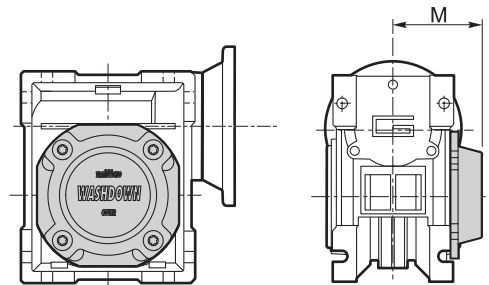
Accessories

SC - Safety cover

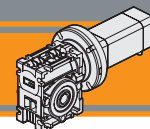


	M
CM 030	47
CM 040	54.5

WD - Kit washdown cover



	M
CM 030	48
CM 040	55.5

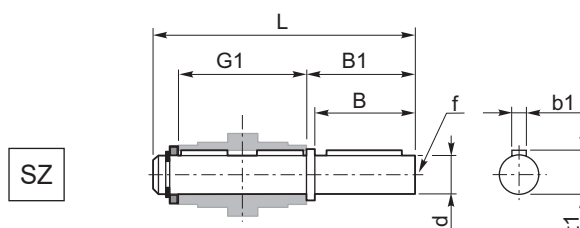
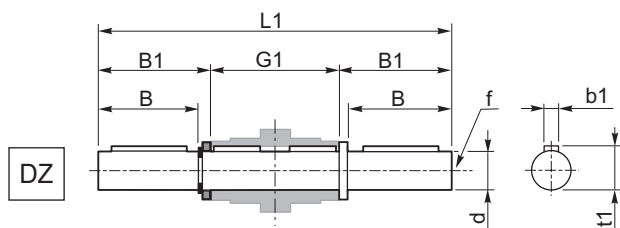


Accessori

Accessories

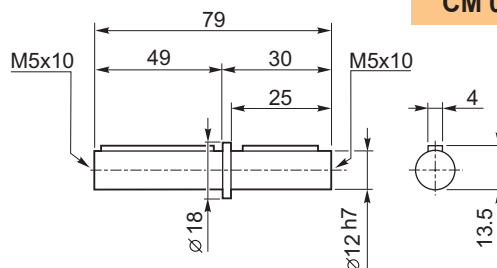
Albero lento

Output shaft



	d h7	B	B1	G1	L	L1	f	b1	t1
CM 030	14	30	32.5	63	102	128	M6	5	16
CM 040	18	40	43	78	128	164	M6	6	20.5

CM 026 (*)

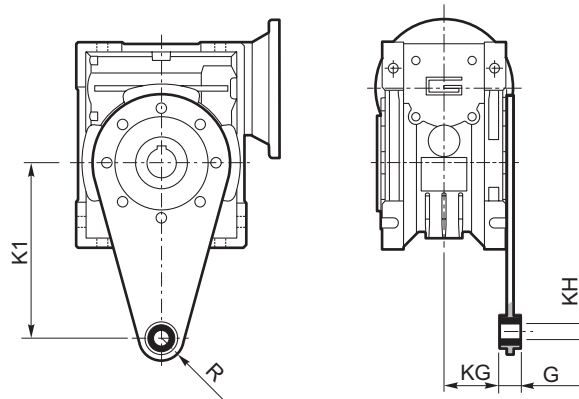


(*)
Nota: disponibile solo per cavo uscita Ø12
Note: available for output hollow shaft Ø12 only

Braccio di reazione

Torque arm

	K1	G	KG	KH	R
CM 030	85	14	23	8	15
CM 040	100	14	31	10	18



MINI  **TECNO**™
small but strong

BLP

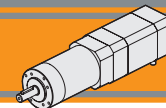
Motoriduttori brushless CC epicicloidali
Brushless DC planetary gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



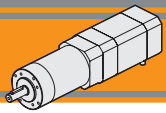
BLDC



Indice	Index	Pag. Page
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Designazione	<i>Classification</i>	CE2
Simbologia	<i>Symbols</i>	CE2
Lubrificazione e temperatura	<i>Lubrication and temperature</i>	CE3
Carichi radiali	<i>Radial loads</i>	CE3
Rapporti	<i>Ratios</i>	CE3
PM52 con motore brushless BLS 022.240	<i>PM52 with brushless motor BLS 022.240</i>	CE4
PM52 con motore brushless BLS 043.240	<i>PM52 with brushless motor BLS 043.240</i>	CE6
PM62 con motore brushless BL 070.240	<i>PM62 with brushless motor BL 070.240</i>	CE8
PM62 con motore brushless BL 070.24B	<i>PM62 with brushless motor BL 070.24B</i>	CE8
PM62 con motore brushless BL 070.480	<i>PM62 with brushless motor BL 070.480</i>	CE8
PM62 con motore brushless BL 070.48B	<i>PM62 with brushless motor BL 070.48B</i>	CE8
PM62 con motore brushless BL 140.480	<i>PM62 with brushless motor BL 140.480</i>	CE8
Dati tecnici	<i>Technical data</i>	CE10
Dimensioni PM con flange motore AS	<i>PM dimensions with motor flanges AS</i>	CE11
Flange uscita	<i>Output flange</i>	CE12

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BLP

Motoriduttori brushless CC epicicloidali Brushless DC planetary gearmotors



Caratteristiche tecniche

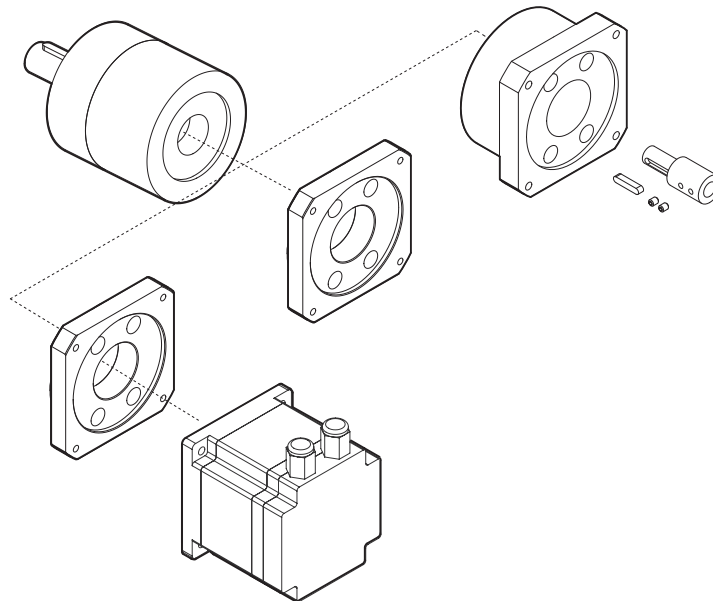
Technical features

Le caratteristiche principali dei motoriduttori brushless CC epicicloidali della serie BLP sono:

The main features of brushless DC planetary gearmotors BLP range are:

- Alimentazione in bassa tensione 24/36/48 Vcc
- Motore Brushless CC con grado di protezione IP55
- Coppie motori disponibili da 0.22 Nm a 1.4 Nm
- Lubrificazione permanente a grasso
- Completamente in metallo
- Doppio cuscinetto su albero di uscita
- Disponibili anche nella versione con solo riduttore, sia con flangia di entrata standard che con flangia e manicotto dedicati


- Low voltage power supply 24/36/48 Vdc
- Brushless DC motor in IP55 protection Standard
- Motor torque ratings available from 0.22 Nm up to 1.4 Nm
- Permanent grease long life lubrication
- Completely made out of metal
- Double ball bearing on output shaft
- Gearbox only version also available, with either standard input flange or customized flange and coupling



Designazione

Classification

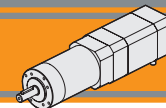
RIDUTTORE / GEARBOX			
PM	52	2	46
Tipo Type	Grandezza Size	Stadi riduttore Gearbox stages	Rapporto in Ratio in
PM	52 62	1 2 3	Vedere tabelle See tables

MOTORE / MOTOR		
BL070.480	48V	BR
Tipo Type	Tensione Voltage	Freno Brake
BLS022.240 BLS043.240 BL070.240 BL070.24B BL070.48B BL070.480 BL140.480	24V-36V 24V-36V 24V 24V 48V 48V 48V	24V 48V 

Simbologia

Symbols

Ns	n° stadi / No. stages	Mn ₂	[Nm]	Coppia nominale in uscita in funzione di Pn1 Nominal output torque referred to Pn1
ir	rapporto reale / real ratio	V	[V]	Tensione / Voltage
M ₂	[Nm] coppia in uscita output torque	n _{1MAX}	[Rpm]	Velocità max entrata / Max input speed
Rd	rendimento dinamico / efficiency	n ₂	[Rpm]	Velocità in uscita / Output Speed
A ₂	[N] Carico assiale ammissibile in uscita Permitted output axial load	IP		Grado di protezione / Enclosure protection
R ₂	[N] Carico radiale ammissibile in uscita Permitted output radial load	Kg		Peso / Weight
Pn ₁	[kW] Potenza nominale in entrata Nominal input power	sf		Fattore di servizio / Service Factor



Lubrificazione e temperatura

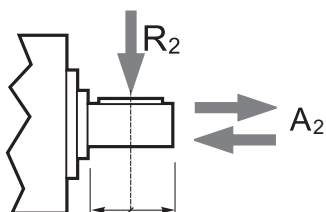
Lubrication and temperature

I motoriduttori epicicloidali BLP sono lubrificati in modo permanente, non richiedono quindi ulteriore manutenzione. Questo gli consente di essere installati praticamente ovunque. Temperatura ambiente 0 ÷ 40 °C (in assenza di congelamento ed in assenza di condensa). Per temperature diverse, contattare nostro UT.

Planetary BLP gearmotors are life-time lubricated with grease, therefore they are maintenance free. They can be installed in any location. Ambient temperature 0 ÷ 40 °C (in the absence of freezing and condensation). For temperature outside this range please contact our technical dept.

Carichi radiali

Radial loads



Ns	Carichi Radiali R ₂ [N] / Radial Load R ₂ [N]	
	PM52	PM62
1	200	240
2	320	360
3	450	520

Ns	Carichi Assiali A ₂ [N] / Axial Load A ₂ [N]	
	PM52	PM62
1	60	70
2	100	100
3	150	150

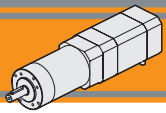
Rapporti

Ratios

Ns	PM 52 / 62		Rd	PM 52	PM 62
	in	ir		kg	kg
1	4	3.7	0.8	0.7	0.8
	4	4.28			
	5	5.18			
	7	6.75			
2	14	13.73	0.75	0.9	1.2
	16	15.88			
	18	18.36			
	19	19.2			
	22	22.2			
	25	25.01			
	27	26.85			
	29	28.93			
	35	34.97			
	46	45.56			
3	51	50.89	0.7	1.1	1.6
	59	58.85			
	68	68.06			
	71	71.16			
	79	78.71			
	93	92.7			
	95	95.17			
	100	99.5			
	107	107.2			
	115	115.07			
	124	123.97			
	130	129.62			
	139	139.13			
	150	149.9			
	169	168.84			
	181	181.24			
195	195.26				
236	236.09				
308	307.54				
4	a richiesta	on request			

Rapporti preferenziali
Preferred ratios

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



PM52 con motore brushless

PM52 with brushless motor

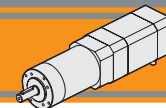
PM52			BLS022.240														
			24V						36V								
Ns	ir	in	n _{2MIN} [rpm]			n _{2MAX} [rpm]			n _{1MAX} [rpm]	n _{2MIN} [rpm]			n _{2MAX} [rpm]			n _{1MAX} [rpm]	
			M ₂ [Nm]	sf		M ₂ [Nm]	sf			M ₂ [Nm]	sf		M ₂ [Nm]	sf			
1	3.7	4	81	0.7	9.0	811	0.7	6.1	3000	108	0.7	9.0	1081	0.7	5.4	4000	
	4.28	4	70	0.8	7.8	701	0.8	5.3		93	0.8	7.8	935	0.8	4.7		
	5.18	5	58	0.9	6.4	579	0.9	4.4		77	0.9	6.4	772	0.9	3.9		
	6.75	7	44	1.2	4.9	444	1.2	3.3		59	1.2	4.9	593	1.2	3.0		
2	13.73	14	22	2.3	7.6	218	2.3	5.2		29	2.3	7.6	291	2.3	4.6		
	15.88	16	19	2.6	6.6	189	2.6	4.5		25	2.6	6.6	252	2.6	4.0		
	18.36	18	16	3.0	5.7	163	3.0	3.9		22	3.0	5.7	218	3.0	3.4		
	19.2	19	16	3.2	5.4	156	3.2	3.7		21	3.2	5.4	208	3.2	3.3		
	22.2	22	14	3.7	4.7	135	3.7	3.2		18	3.7	4.7	180	3.7	2.8		
	25.01	25	12	4.1	4.2	120	4.1	2.8		16	4.1	4.2	160	4.1	2.5		
	26.9	27	11	4.4	3.9	112	4.4	2.6		15	4.4	3.9	149	4.4	2.3		
	28.9	29	10	4.8	3.6	104	4.8	2.5		14	4.8	3.6	138	4.8	2.2		
	35.0	35	8.6	5.8	3.0	86	5.8	2.0		11	5.8	3.0	114	5.8	1.8		
	45.6	46	6.6	7.5	2.3	66	7.5	1.6		8.8	7.5	2.3	88	7.5	1.4		
	3	50.9	51	5.9	8	4.7	59	7.8		3.2	7.9	8	4.7	79	7.8		2.8
		58.9	59	5.1	9	4.1	51	9.1		2.8	6.8	9	4.1	68	9.1		2.4
68.1		68	4.4	10	3.5	44	10	2.4	5.9	10	3.5	59	10	2.1			
71.2		71	4.2	11	3.4	42	11	2.3	5.6	11	3.4	56	11	2.0			
78.7		79	3.8	12	3.0	38	12	2.1	5.1	12	3.0	51	12	1.8			
92.7		93	3.2	14	2.6	32	14	1.7	4.3	14	2.6	43	14	1.5			
95.2		95	3.2	15	2.5	32	15	1.7	4.2	15	2.5	42	15	1.5			
99.5		100	3.0	15	2.4	30	15	1.6	4.0	15	2.4	40	15	1.4			
107.2		107	2.8	17	2.2	28	17	1.5	3.7	17	2.2	37	17	1.3			
115.07		115	2.6	18	2.1	26	18	1.4	3.5	18	2.1	35	18	1.2			
123.97		124	2.4	19	1.9	24	19	1.3	3.2	19	1.9	32	19	1.2			
129.62		130	2.3	20	1.8	23	20	1.3	3.1	20	1.8	31	20	1.1			
139.13		139	2.2	21	1.7	22	21	1.2	2.9	21	1.7	29	21	1.0			
149.9		150	2.0	23	1.6	20	23	1.1	2.7	23	1.6	27	23	1.0			
168.84		169	1.8	26	1.4	18	26	1.0	2.4	26	1.4	24	26	0.8			
181.24		181	1.7	28	1.3	17	28	0.9	2.2	28	1.3	22	28	0.8			
195.26	195	1.5	30	1.2	15	30	0.8	2.0	30	1.2	20	30	0.7				
236.09	236	1.3	36	1.0	13	36	0.7	1.7	36	1.0	17	31	0.7				
307.54	308	1.0	47	0.8	9.8	36	0.7	1.3	47	0.8	13	31	0.7				

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Rapporti preferenziali
Preferred ratios

Attenzione: superamento della coppia nominale supportata dal riduttore per servizio S1. Contattare il ns. servizio tecnico
Attention: rated torque withstood by gear reducer for service in S1 is exceeded. Please, contact our technical office.



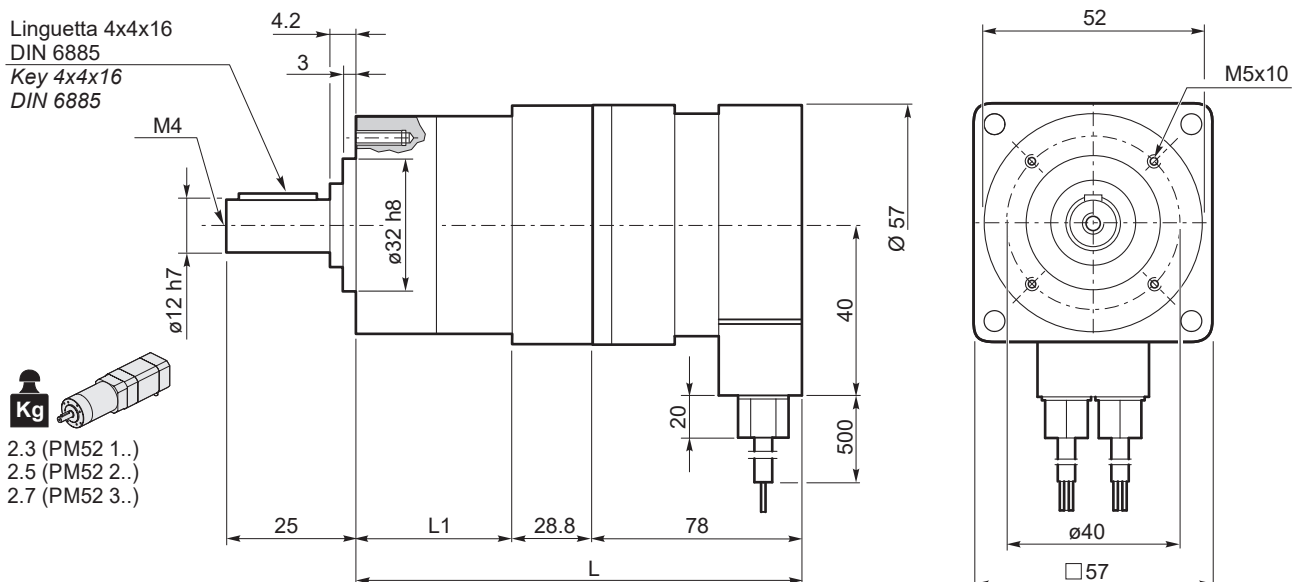
PM52 con motore brushless

PM52 with brushless motor

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BLS022.240	4	3	36	4000	0.22	92
			24	3000		70
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BLS022.240	0.44	3.7	0.64	3.1	7.4	0.72

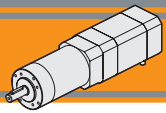


PM52..
+
BLS022.240



PM52	BLS022.240	
	Ns	L
	1	47.2
	2	61.3
	3	75.6
		L
		155.5
		169.5
		183.5





PM52 con motore brushless

PM52 with brushless motor

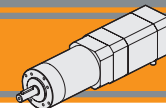
PM52			BLS043.240														
			24V						36V								
Ns	ir	in	n _{2MIN} [rpm]			n _{2MAX} [rpm]			n _{1MAX} [rpm]	n _{2MIN} [rpm]			n _{2MAX} [rpm]			n _{1MAX} [rpm]	
			M ₂ [Nm]	sf		M ₂ [Nm]	sf			M ₂ [Nm]	sf		M ₂ [Nm]	sf			
1	3.7	4	81	1.3	4.6	811	1.3	3.1	3000	108	1.3	4.6	1081	1.3	2.8	4000	
	4.28	4	70	1.5	4.0	701	1.5	2.7		93	1.5	4.0	935	1.5	2.4		
	5.18	5	58	1.8	3.3	579	1.8	2.2		77	1.8	3.3	772	1.8	2.0		
	6.75	7	44	2.3	2.5	444	2.3	1.7		59	2.3	2.5	593	2.3	1.5		
2	13.73	14	22	4.4	3.9	218	4.4	2.6		29	4.4	3.9	291	4.4	2.3		
	15.88	16	19	5.1	3.4	189	5.1	2.3		25	5.1	3.4	252	5.1	2.0		
	18.36	18	16	5.9	2.9	163	5.9	2.0		22	5.9	2.9	218	5.9	1.7		
	19.2	19	16	6.2	2.8	156	6.2	1.9		21	6.2	2.8	208	6.2	1.7		
	22.2	22	14	7.2	2.4	135	7.2	1.6		18	7.2	2.4	180	7.2	1.4		
	25.01	25	12	8.1	2.1	120	8.1	1.5		16	8.1	2.1	160	8.1	1.3		
	26.9	27	11	8.7	2.0	112	8.7	1.4		15	8.7	2.0	149	8.7	1.2		
	28.9	29	10	9.3	1.8	104	9.3	1.3		14	9.3	1.8	138	9.3	1.1		
	35.0	35	8.6	11	1.5	86	11.3	1.0		11	11	1.5	114	11	0.9		
	45.6	46	6.6	15	1.2	66	14.7	0.8		8.8	15	1.2	88	15	0.7		
	3	50.9	51	5.9	15	2.4	59	15.3		1.6	7.9	15	2.4	79	15		1.4
		58.9	59	5.1	18	2.1	51	17.7		1.4	6.8	18	2.1	68	18		1.2
68.1		68	4.4	20	1.8	44	20	1.2	5.9	20	1.8	59	20	1.1			
71.2		71	4.2	21	1.7	42	21	1.2	5.6	21	1.7	56	21	1.0			
78.7		79	3.8	24	1.6	38	24	1.1	5.1	24	1.6	51	24	0.9			
92.7		93	3.2	28	1.3	32	28	0.9	4.3	28	1.3	43	28	0.8			
95.2		95	3.2	29	1.3	32	29	0.9	4.2	29	1.3	42	29	0.8			
99.5		100	3.0	30	1.2	30	30	0.8	4.0	30	1.2	40	30	0.7			
107.2		107	2.8	32	1.1	28	32	0.8	3.7	32	1.1	37	31	0.7			
115.07		115	2.6	35	1.1	26	35	0.7	3.5	35	1.1	35	31	0.7			
123.97		124	2.4	37	1.0	24	36	0.7	3.2	37	1.0	32	31	0.7			
129.62		130	2.3	39	0.9	23	36	0.7	3.1	39	0.9	31	31	0.7			
139.13		139	2.2	42	0.9	22	36	0.7	2.9	42	0.9	29	31	0.7			
149.9		150	2.0	45	0.8	20	36	0.7	2.7	45	0.8	27	31	0.7			
168.84		169	1.8	51	0.7	18	36	0.7	2.4	51	0.7	24	31	0.7			
181.24		181	1.7	53	0.7	17	36	0.7	2.2	53	0.7	22	31	0.7			
195.26	195	1.5	53	0.7	15	36	0.7	2.0	53	0.7	20	31	0.7				
236.09	236	1.3	53	0.7	13	36	0.7	1.7	53	0.7	17	31	0.7				
307.54	308	1.0	53	0.7	9.8	36	0.7	1.3	53	0.7	13	31	0.7				

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Rapporti preferenziali
Preferred ratios

Attenzione: superamento della coppia nominale supportata dal riduttore per servizio S1. Contattare il ns. servizio tecnico
Attention: rated torque withstood by gear reducer for service in S1 is exceeded. Please, contact our technical office.



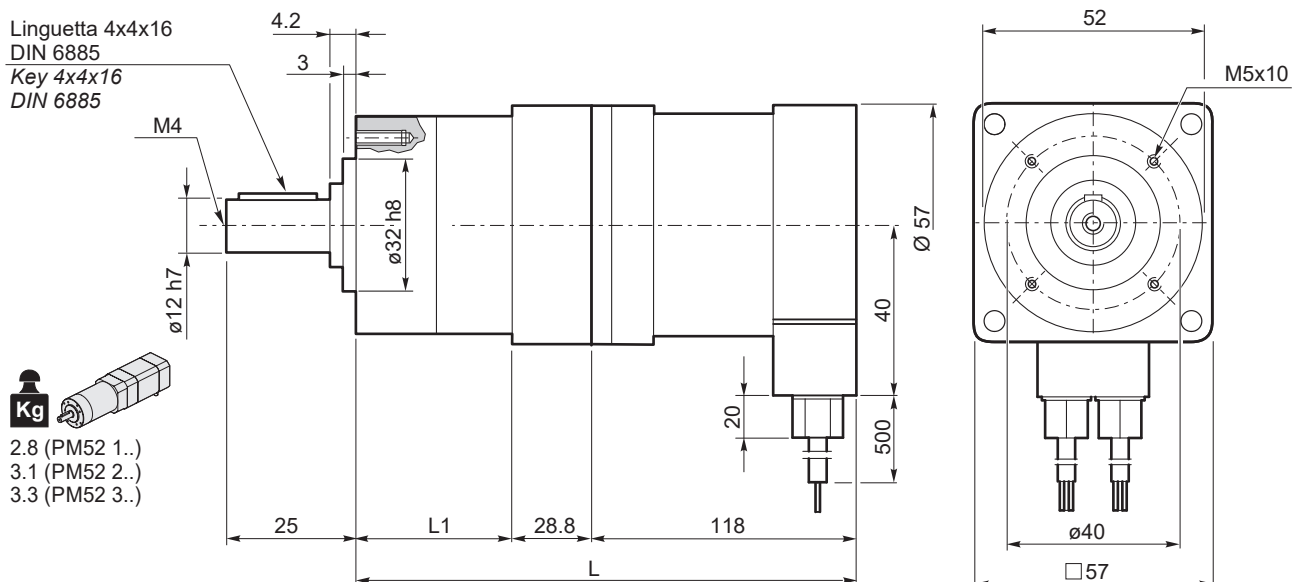
PM52 con motore brushless

PM52 with brushless motor

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BLS043.240	4	3	36	4000	0.43	180
			24	3000		130
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BL043.240	0.86	6	0.35	1	12.0	1.25

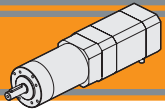


PM52..
+
BLS043.240



PM52	Ns	L1	BLS043.240	
			L	L
	1	47.2	195.5	
	2	61.3	209.5	
	3	75.6	223.5	





PM62 con motore brushless

PM62 with brushless motor

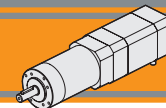
PM62			BL070.240 / BL070.24B BL070.480 / BL070.48B						BL140.480										
			24V / 48V						48V										
Ns	ir	in	n _{2MIN} [rpm]			n _{2MAX} [rpm]			n _{1MAX} [rpm]	n _{2MIN} [rpm]			n _{2MAX} [rpm]			n _{1MAX} [rpm]			
			M ₂ [Nm]	sf		M ₂ [Nm]	sf			M ₂ [Nm]	sf		M ₂ [Nm]	sf					
1	3.7	4	81	2.1	5.6	811	2.1	3.8	3000	81	4.1	2.8	811	4.1	1.9	3000			
	4.28	4	70	2.4	4.8	701	2.4	3.3		70	4.8	2.4	701	4.8	1.6				
	5.18	5	58	2.9	4.0	579	2.9	2.7		58	5.8	2.0	579	5.8	1.3				
	6.75	7	44	3.8	3.0	444	3.8	2.1		44	7.6	1.5	444	7.6	1.0				
2	13.73	14	22	7.2	5.1	218	7.2	3.5	3000	22	14.4	2.6	218	14.4	1.7	3000			
	15.88	16	19	8.3	4.4	189	8.3	3.0		19	16.7	2.2	189	16.7	1.5				
	18.36	18	16	9.6	3.8	163	9.6	2.6		16	19.3	1.9	163	19.3	1.3				
	19.2	19	16	10	3.7	156	10	2.5		16	20	1.8	156	20	1.2				
	22.2	22	14	12	3.2	135	12	2.1		14	23	1.6	135	23	1.1				
	25.01	25	12	13	2.8	120	13	1.9		12	26	1.4	120	26	1.0				
	26.9	27	11	14	2.6	112	14	1.8		11	28	1.3	112	28	0.9				
	28.9	29	10	15	2.4	104	15	1.6		10	30	1.2	104	30	0.8				
	35.0	35	8.6	18	2.0	86	18	1.4		8.6	37	1.0	86	36	0.7				
	45.6	46	6.6	24	1.5	66	24	1.0		6.6	48	0.8	66	36	0.7				
	3	50.9	51	5.9	25	3.0	59	25		2.0	3000	5.9	50	1.5	59		50	1.0	3000
		58.9	59	5.1	29	2.6	51	29		1.7		5.1	58	1.3	51		58	0.9	
68.1		68	4.4	33	2.2	44	33	1.5	4.4	67		1.1	44	67	0.7				
71.2		71	4.2	35	2.1	42	35	1.4	4.2	70		1.1	42	70	0.7				
78.7		79	3.8	39	1.9	38	39	1.3	3.8	77		1.0	38	71	0.7				
92.7		93	3.2	45	1.6	32	45	1.1	3.2	91		0.8	32	71	0.7				
95.2		95	3.2	47	1.6	32	47	1.1	3.2	93		0.8	32	71	0.7				
99.5		100	3.0	49	1.5	30	49	1.0	3.0	98		0.8	30	71	0.7				
107.2		107	2.8	53	1.4	28	53	1.0	2.8	105		0.7	28	71	0.7				
115.07		115	2.6	56	1.3	26	56	0.9	2.6	105		0.7	26	71	0.7				
123.97		124	2.4	61	1.2	24	61	0.8	2.4	105		0.7	24	71	0.7				
129.62		130	2.3	64	1.2	23	64	0.8	2.3	105		0.7	23	71	0.7				
139.13		139	2.2	68	1.1	22	68	0.7	2.2	105		0.7	22	71	0.7				
149.9		150	2.0	73	1.0	20	71	0.7	2.0	105		0.7	20	71	0.7				
168.84	169	1.8	83	0.9	18	71	0.7	1.8	105	0.7	18	71	0.7						
181.24	181	1.7	89	0.8	17	71	0.7	1.7	105	0.7	17	71	0.7						
195.26	195	1.5	96	0.8	15	71	0.7	1.5	105	0.7	15	71	0.7						
236.09	236	1.3	105	0.7	13	71	0.7	1.3	105	0.7	13	71	0.7						
307.54	308	1.0	105	0.7	9.8	71	0.7	1.0	105	0.7	9.8	71	0.7						

NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

NOTE: for continuous or highly intermittent duty, please contact our technical service

Rapporti preferenziali
Preferred ratios

Attenzione: superamento della coppia nominale supportata dal riduttore per servizio S1.
Contattare il ns. servizio tecnico
Attention: rated torque withstood by gear reducer for service in S1 is exceeded.
Please, contact our technical office.



PM62 con motore brushless

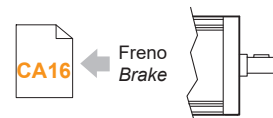
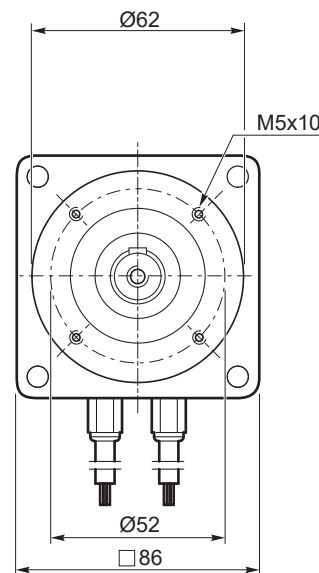
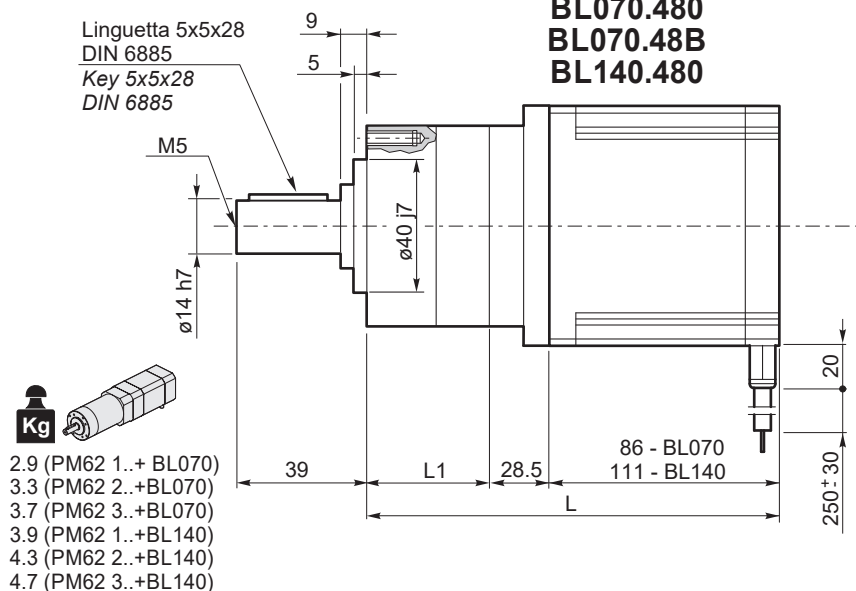
PM62 with brushless motor

Tipo Type	Numero di poli Number of poles	Numero di fasi Number of phase	Tensione Rated voltage [V]	Numero di giri Rated speed [rpm]	Coppia nominale Rated torque [Nm]	Potenza nominale Rated power [W]
BL070.240 BL070.24B	8	3	24	3000	0.7	220
BL070.480 BL070.48B	8	3	48	3000	0.7	220
BL140.480	8	3	48	3000	1.4	440
Tipo Type	Coppia massima Peak torque [Nm]	Corrente nominale Rated current [A]	Resistenza Resistance [ohm]	Induttanza Inductance [mH]	Corrente massima Peak current [A]	Peso Weight [kg]
BL070.240 BL070.24B	2.1	13	0.091	0.23	26	2.1
BL070.480 BL070.48B	1.4	6.5	0.34	1.0	13	2.1
BL140.480	2.8	13	0.16	0.5	26	3.15

Azionamenti Drives → **CF5**

PM62..

- + BL070.240
- + BL070.480
- + BL070.48B
- + BL140.480



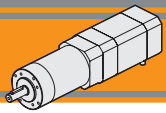
BL070.24B
BL070.48B

PM62	Ns	L1	BL 070.480	BL 140.480
			L	L
	1	45.3	163.5	188.5
	2	62.2	179.5	204.5
	3	79.2	195.5	220.5



PM62.. AS...

PM62.. C...



BLP

Motoriduttori brushless CC epicicloidali
Brushless DC planetary gearmotors

MINI
TECNO

Dati tecnici

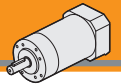
$n_1 = 3000$ rpm

Technical data

Ns	ir	in	PM52			PM62		
			R _d	M _{n2} [Nm]	R ₂ [N]	R _d	M _{n2} [Nm]	R ₂ [N]
1	3.70	4	0.80	4	200	0.80	8	240
	4.28	4						
	5.18	5						
	6.75	7						
2	13.73	14	0.75	12	320	0.75	25	360
	15.88	16						
	18.36	18						
	19.20	19						
	22.20	22						
	25.01	25						
	26.85	27						
	28.93	29						
	34.97	35						
	45.56	46						
3	50.89	51	0.70	25	450	0.70	50	520
	58.85	59						
	68.06	68						
	71.16	71						
	78.71	79						
	92.70	93						
	95.17	95						
	99.50	100						
	107.20	107						
	115.07	115						
	123.97	124						
	129.62	130						
	139.13	139						
	149.90	150						
	168.84	169						
181.24	181							
195.26	195							
236.09	236							
307.54	308							

Rapporti preferenziali per le taglie P52 e P62.
Preferred ratios for sizes P52 e P62.

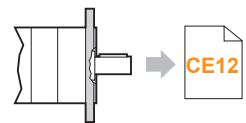
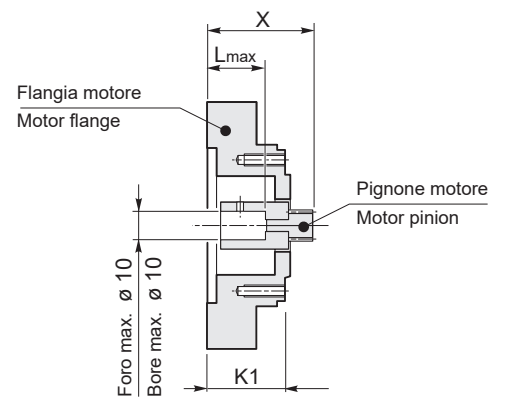
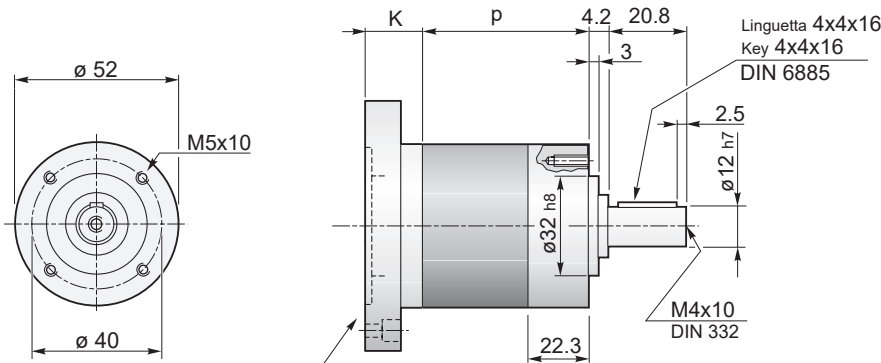
Disponibili 4 stadi con rapporti fino a 2076 / Available 4 stages with ratio up to 2076



Dimensioni PM con flange motore AS

PM dimensions with motor flanges AS

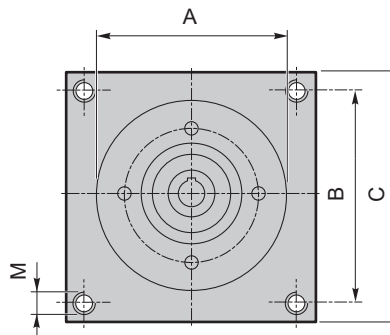
PM52 - U - AS...



PM52.. C...

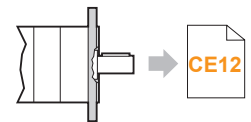
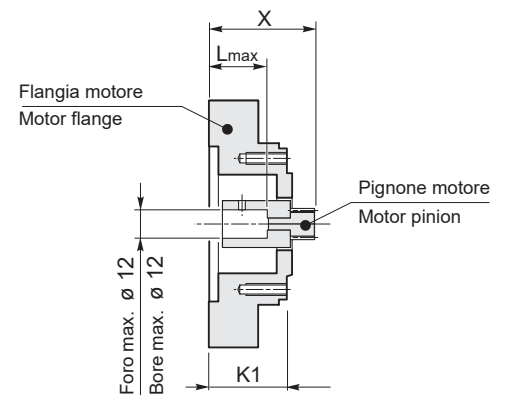
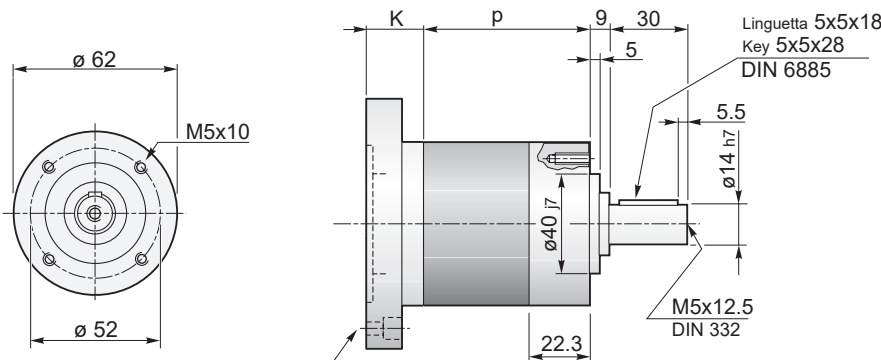
Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.
Flange's thickness may vary depending on motorshaft's length.

Dimensioni / Dimensions							
AS	A	B	C	M	K1	L _{max}	X
AS394PM	38.1	47.1	57	M5	31.2	23	41.5
...



	Lunghezza riduttore Gearbox length		Kg
	P		
PM52...	1	47.2	0.7
	2	61.3	0.9
	3	75.6	1.1

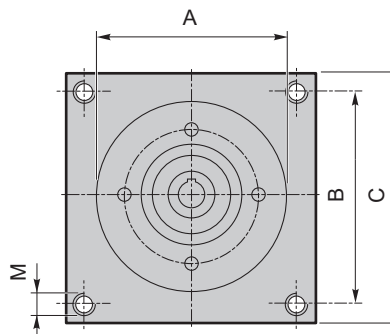
PM62 - U - AS...



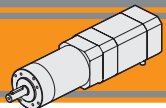
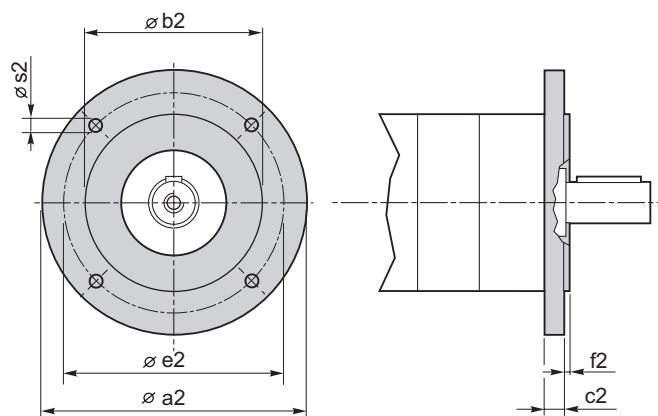
PM62.. C...

Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.
Flange's thickness may vary depending on motorshaft's length.

Dimensioni / Dimensions							
AS	A	B	C	M	K1	L _{max}	X
AS389PM	73	69.6	86	M5	30.8	23	44.3
...



	Lunghezza riduttore Gearbox length		Kg
	P		
PM62...	1	45.3	0.8
	2	62.2	1.2
	3	79.2	1.6

**Dimensioni flange uscita****Output flange dimensions****PM.. C..**

Flange uscita / Output flanges							
PM	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

Azionamenti per motori brushless CC
Brushless DC motor controls





	Indice	Index	Pag. Page
	Selezione azionamento Selezione azionamento per motori Brushless	Drive selection <i>Brushless motor drive selection guide</i>	CF1
BLD07-IT	AZIONAMENTO 4Q PER MOTORI BRUSHLESS CC	4Q DRIVE FOR DC BRUSHLESS MOTORS	
	Caratteristiche tecniche	<i>Technical features</i>	CF2
	Dimensioni	<i>Dimensions</i>	CF2
	Collegamenti	<i>Connections</i>	CF3
BLD15	AZIONAMENTO 4Q PER MOTORI BRUSHLESS CC	4Q DRIVE FOR DC BRUSHLESS MOTORS	
	Caratteristiche standard	<i>Standard characteristic</i>	CF5
	Dati tecnici principali	<i>Specifications</i>	CF5
	Dimensioni	<i>Dimensions</i>	CF6
	Collegamenti	<i>Connection</i>	CF7
BLD60 DIGITAL	AZIONAMENTO 4Q PER MOTORI BRUSHLESS CC	4Q DRIVE FOR DC BRUSHLESS MOTORS	
	Caratteristiche standard	<i>Standard characteristic</i>	CF9
	Dati tecnici principali	<i>Specifications</i>	CF9
	Dimensioni	<i>Dimensions</i>	CF9
	Collegamenti per motore Brushless serie BL	<i>Connections for Brushless motor BL series</i>	CF10

SELEZIONE AZIONAMENTO

DRIVE SELECTION

Selezione azionamento per motore brushless

Brushless motor drive selection guide

Motori applicabili <i>Suitable motors</i>	Scheda / <i>Type</i>	Corrente Nominale / <i>Rated Current</i> (A)	Corrente di Picco / <i>Peak Current</i> (A)
BLS022.240	BLD07-IT / BLD15	7 / 15	14 / 30
BLS043.240	BLD07-IT / BLD15	7 / 15	14 / 30
BL070.240 / BL070.24B	BLD15	15	30
BL070.480 / BL070.48B	BLD15	15	30
BL140.480	BLD15 / BLD60 DIGITAL	15 / 50	30 / 75
BL210.480 / BL210.48E	BLD60 DIGITAL	50	75

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**BLD07-IT****AZIONAMENTO 4Q
PER MOTORI BRUSHLESS CC****4Q DRIVE
FOR DC BRUSHLESS MOTORS**

L'azionamento BLD07-IT è un driver che nelle sue piccole dimensioni implementa una completa gestione in velocità del motore brushless con retroazione da sensori di Hall. Il driver è stato pensato per essere di facile utilizzo, affidabile ed economico.

The BLD07-IT drive is a driver that in its small size implements a complete speed management of the brushless motor with feedback from Hall sensors. The driver has been designed to be easy to use, reliable and economical.

Caratteristiche standard**Standard features**

- | | |
|--|--|
| <ul style="list-style-type: none"> • Azionamento bidirezionale rigenerativo • Alimentazione singola CC • 3 Leds per la diagnostica (stato ed allarmi) • Protetto per corto circuito, min/max tensione, mancanza celle di Hall • Protezione termica motore Ixt • Connettori estraibili (segnali e potenza) • Comando di velocità analogico 0 +10Vcc e PWM (2 kHz) • 4 Ingressi digitali – optoisolati • 2 Uscite NPN - allarmi e frequenza di lavoro • Regolazione rampa di accelerazione | <ul style="list-style-type: none"> • Bidirectional regenerative operation • Single supply DC voltage • 3 diagnostic Leds (State and Alarms) • Protections for: Over/Under voltage, Over current, Hall missing • Ixt motor current protection • Power and signals extractable connectors • Analog speed command 0 + 10Vdc and PWM (2 kHz) • 4 Digital inputs – optoisolated • 2 NPN - fault drive and running frequency • Acceleration adjustment |
|--|--|

Dati tecnici principali**Specifications**

- | | |
|--|---|
| <ul style="list-style-type: none"> • Idoneo per motori BLDC trifase 4/8 poli • Retroazione digitale sensori di Hall • Controllo motore in frequenza PWM 20 kHz • Temperatura operativa 0/+40°C • Ingresso analogico 0/+10Vcc • Rampa accelerazione regolabile 0.1/1.0sec (tramite dip switch) • Regolazione corrente max • Regolazione della velocità (potenziometro esterno o interno) esterno 10KΩ | <ul style="list-style-type: none"> • Suitable for 3ph BLDC motors 4/8 poles • Digital feedback Hall sensors • Motor control in PWM frequency 20 kHz • Operative temperature 0/+40°C • Analog inputs range 0/+10Vdc • Acceleration ramp adjustable (by dip switch) 0.1/1.0sec • Current max regulation • Speed change regulation (by external or internal pot) external 10KΩ |
|--|---|

MODELLO / MODEL		BLD07-IT
Tensione nominale motore <i>Motor DC Voltage</i>	(Vdc)	24 - 36
Tensione di alimentazione min / max <i>Supply DC Voltage Range min / max</i>	(Vdc)	20-40
Corrente nominale <i>Rated Current</i>	(A)	7
Corrente di picco (1) <i>Peak Current</i>	(A)	14
Potenza nominale (2) <i>Rated Power</i>	(W)	230
Potenza di picco (3) <i>Peak Power</i>	(W)	460

(1) La corrente di picco viene erogata per un tempo di circa 2 secondi
(1) Peak current (Adc) for 2 sec.

(2) La potenza nominale è riferita al valore di tensione e di corrente nominale
(2) Power of amplifier at the rated current and rated voltage

(3) La potenza di picco è riferita al valore di tensione nominale e di corrente di picco
(3) Power of amplifier at the peak current and rated voltage



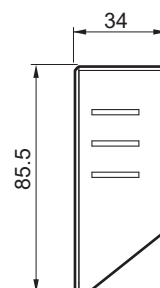
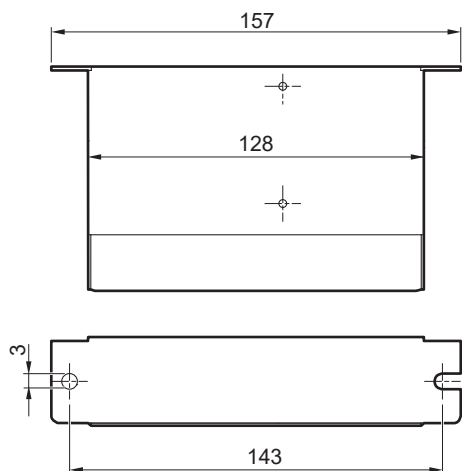
BLD07-IT

**AZIONAMENTO 4Q
PER MOTORI BRUSHLESS CC**

**4Q DRIVE
FOR DC BRUSHLESS MOTORS**

Dimensioni

Dimensions



Collegamenti

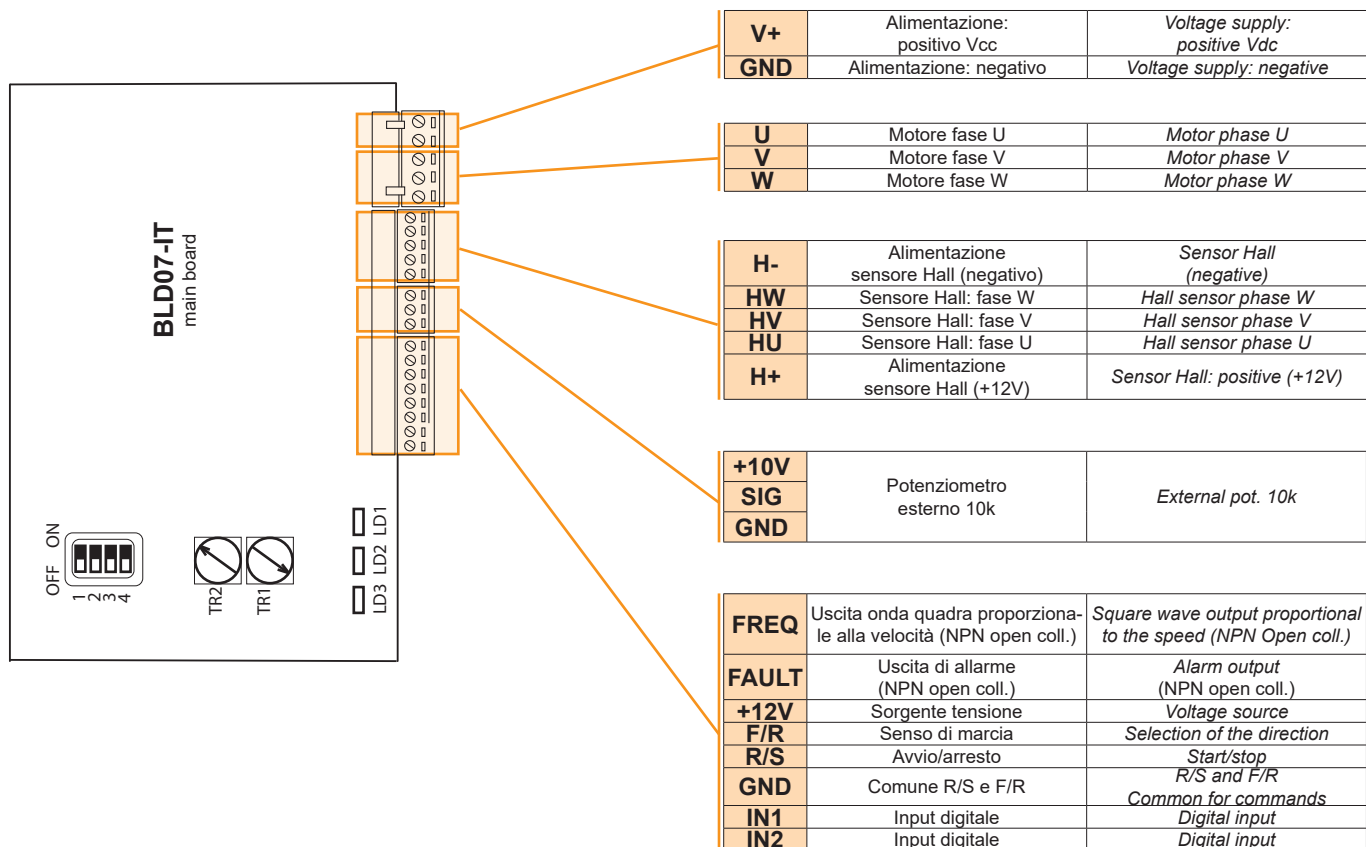
Connections

L'azionamento BLD07-IT è dotato di:

- connettore estraibile a 5 poli per la parte di potenza
- tre connettori estraibili, per un totale di 16 morsetti, per la gestione dei segnali in ingresso ed in uscita.

The BLD07-IT drive is equipped with:

- Removable connector with 5 terminals for the power part;
- 3 removable connectors, for a total of 16 terminals, for the management of the input and output signal.





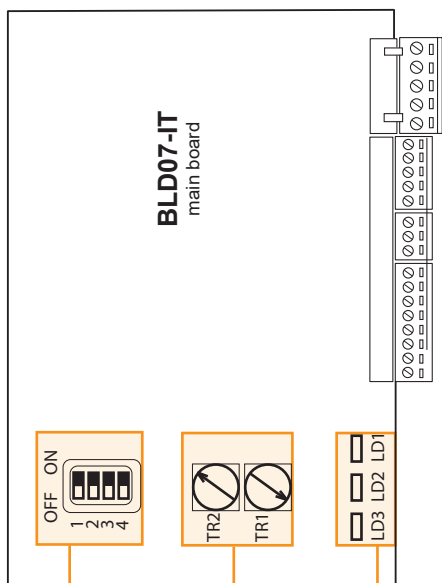
BLD07-IT

**AZIONAMENTO 4Q
PER MOTORI BRUSHLESS CC**

**4Q DRIVE
FOR DC BRUSHLESS MOTORS**

Collegamenti

Connections



Led		
LD1	Verde - power ON	Green - power ON
LD2	Rosso - allarme in corso	Red - alarm
LD3	Giallo - superamento corrente max.	Yellow - the drive is in limit of current
	Presenti 2 Leds per la chiusura dei contatti R/S e F/R	2 LEDs for the closing of R/S and F/R

Trimmer		
TR1	Regolazione velocità (crescente con rotazione oraria)	External speed pot (clockwise to increase)
TR2	Limitazione corrente (crescente con rotazione antioraria)	Current limitation (counter clockwise to increase)

Dip Switch		
1	OFF = Controllo velocità da pot. interno TR1	Internal speed pot TR1
	ON = Controllo velocità da pot. esterno o segnale analogico 0/+10V	External speed pot or analog signal 0/+10V
2	OFF = Funzionamento in anello chiuso	Operating in closed loop
	ON = Funzionamento in anello aperto	Operating in open loop
3	OFF = Rampe rapide (0.1 s)	Fast Acceleration (about 0.1 sec)
	ON = Rampe lente (1.0 s)	Slow acceleration (about 1.0 sec)
4	OFF = per motori a 4 poli	4 poles motors
	ON = per motori a 8 poli	8 poles motors



BLD15

**AZIONAMENTO 4Q
PER MOTORI BRUSHLESS CC**

**4Q DRIVE
FOR DC BRUSHLESS MOTORS**

L'azionamento BLD15 è l'evoluzione sia in potenza che in controllo dell'azionamento BLD07-IT. La BLD15 è in grado di effettuare un controllo del motore brushless sia in coppia che in velocità con retroazione da sensori di Hall, la gestione in coppia o in velocità può avvenire con l'utilizzo di un segnale analogico o di un segnale digitale su network tramite i protocolli: ModBus RTU RS485 o CANOpen CIA301-CIA402.

The BLD15 drive is the evolution in both power and control of the BLD07-IT drive. The BLD15 is able to control the brushless motor both in torque and in speed with feedback from Hall sensors, the management in torque or in speed can have an analog signal or a digital signal on the network through the protocols: ModBus RTU RS485 or CANOpen CIA301-CIA402.

Caratteristiche standard

Standard features

- Azionamento bidirezionale rigenerativo
- Alimentazione singola CC
- 3 Leds per la diagnostica (stato ed allarmi)
- Protetto per corto circuito, min/max tensione, mancanza celle di Hall
- Protezione termica motore Ixt
- Connettori estraibili (segnali e potenza)
- Comando di velocità analogico 0 +10Vcc e PWM (2 kHz)
- 4 Ingressi digitali – optoisolati
- 2 Uscite NPN - allarmi e frequenza di lavoro
- Regolazione rampa di accelerazione
- Versione TORQUE control
- Versione ModBus RTU RS485
- Versione CANOpen CIA301-CIA402

Dati tecnici principali

Specifications

- Idoneo per motori BLDC trifase 4/8 poli
- Retroazione digitale sensori di Hall
- Controllo motore in frequenza PWM 20 kHz
- Temperatura operativa 0/+40°C
- Ingresso analogico 0/+10Vcc
- Rampa accelerazione regolabile 0.1/1.0sec (tramite dip switch)
- Regolazione corrente max
- Regolazione della velocità (potenziometro esterno o interno) esterno 10KΩ

- Suitable for 3ph BLDC motors 4/8 poles
- Digital feedback Hall sensors
- Motor control in PWM frequency 20 kHz
- Operative temperature 0/+40°C
- Analog inputs range 0/+10Vdc
- Acceleration ramp adjustable 0.1/1.0sec (by dip switch)
- Current max regulation
- Speed change regulation (by external or internal pot) external 10KΩ

MODELLO / MODEL		BLD15
Tensione nominale motore <i>Motor DC Voltage</i>	(Vdc)	24 - 36 - 48
Tensione di alimentazione min / max <i>Supply DC Voltage Range min / max</i>	(Vdc)	20-65
Corrente nominale <i>Rated Current</i>	(A)	15
Corrente di picco (1) <i>Peak Current</i>	(A)	30
Potenza nominale (2) <i>Rated Power</i>	(W)	650
Potenza di picco (3) <i>Peak Power</i>	(W)	1300

(1) La corrente di picco viene erogata per un tempo di circa 2 secondi
(1) *Peak current (A_{dc}) for 2 sec.*

(2) La potenza nominale è riferita al valore di tensione e di corrente nominale
(2) *Power of amplifier at the rated current and rated voltage*

(3) La potenza di picco è riferita al valore di tensione nominale e di corrente di picco
(3) *Power of amplifier at the peak current and rated voltage*



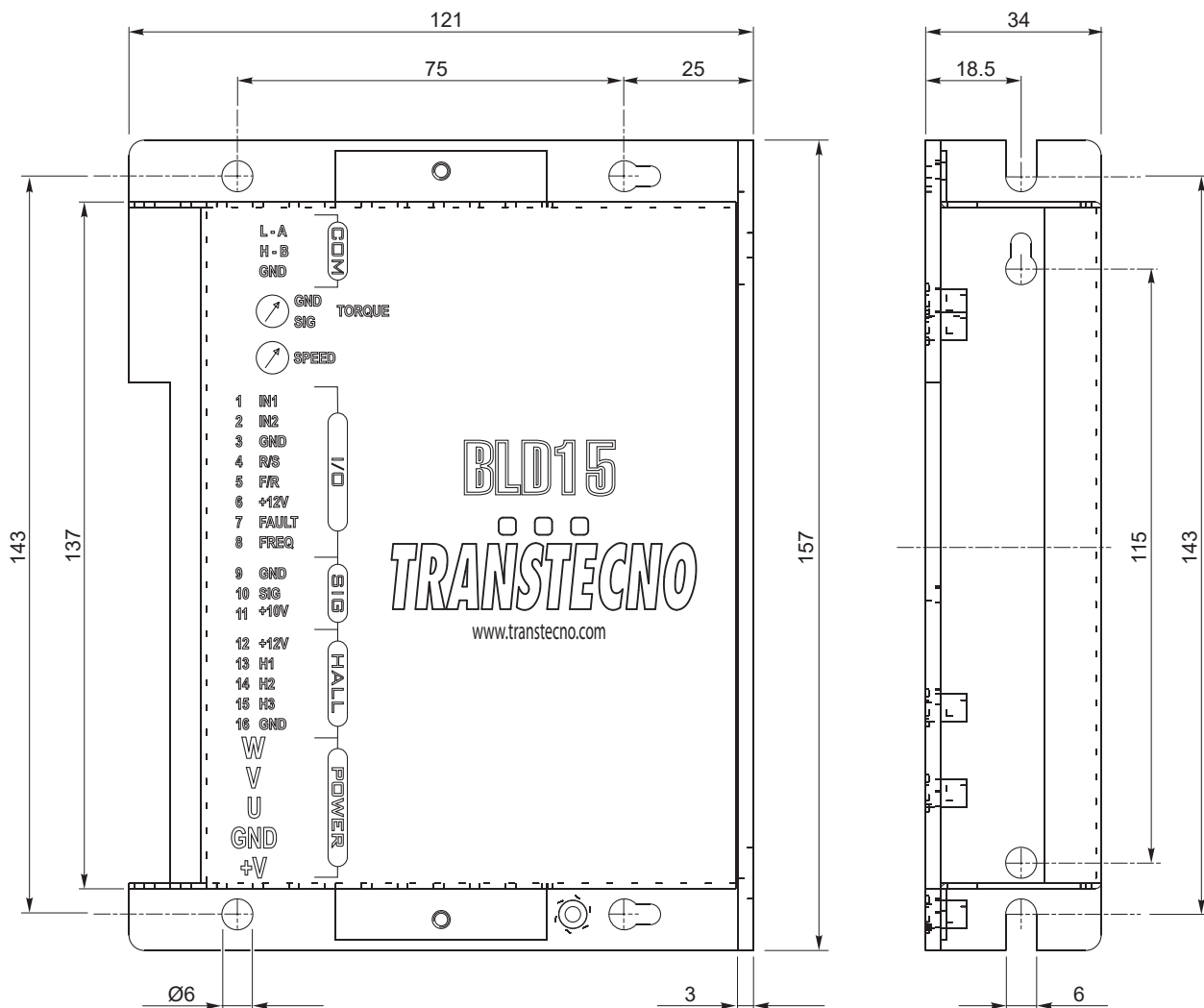
BLD15

**AZIONAMENTO 4Q
PER MOTORI BRUSHLESS CC**

**4Q DRIVE
FOR DC BRUSHLESS MOTORS**

Dimensioni

Dimensions





BLD15

**AZIONAMENTO 4Q
PER MOTORI BRUSHLESS CC**

**4Q DRIVE
FOR DC BRUSHLESS MOTORS**

Collegamenti

Connections

L'azionamento BLD15 è dotato di:

- connettore estraibile a 5 poli per la parte di potenza;
- tre connettori estraibili, per un totale di 16 morsetti, per la gestione dei segnali in ingresso ed in uscita.

Versione TORQUE

- connettore estraibile a 2 morsetti

Versione ModBus/CANOpen

- connettore estraibile a 3 morsetti

The BLD15 drive is equipped with:

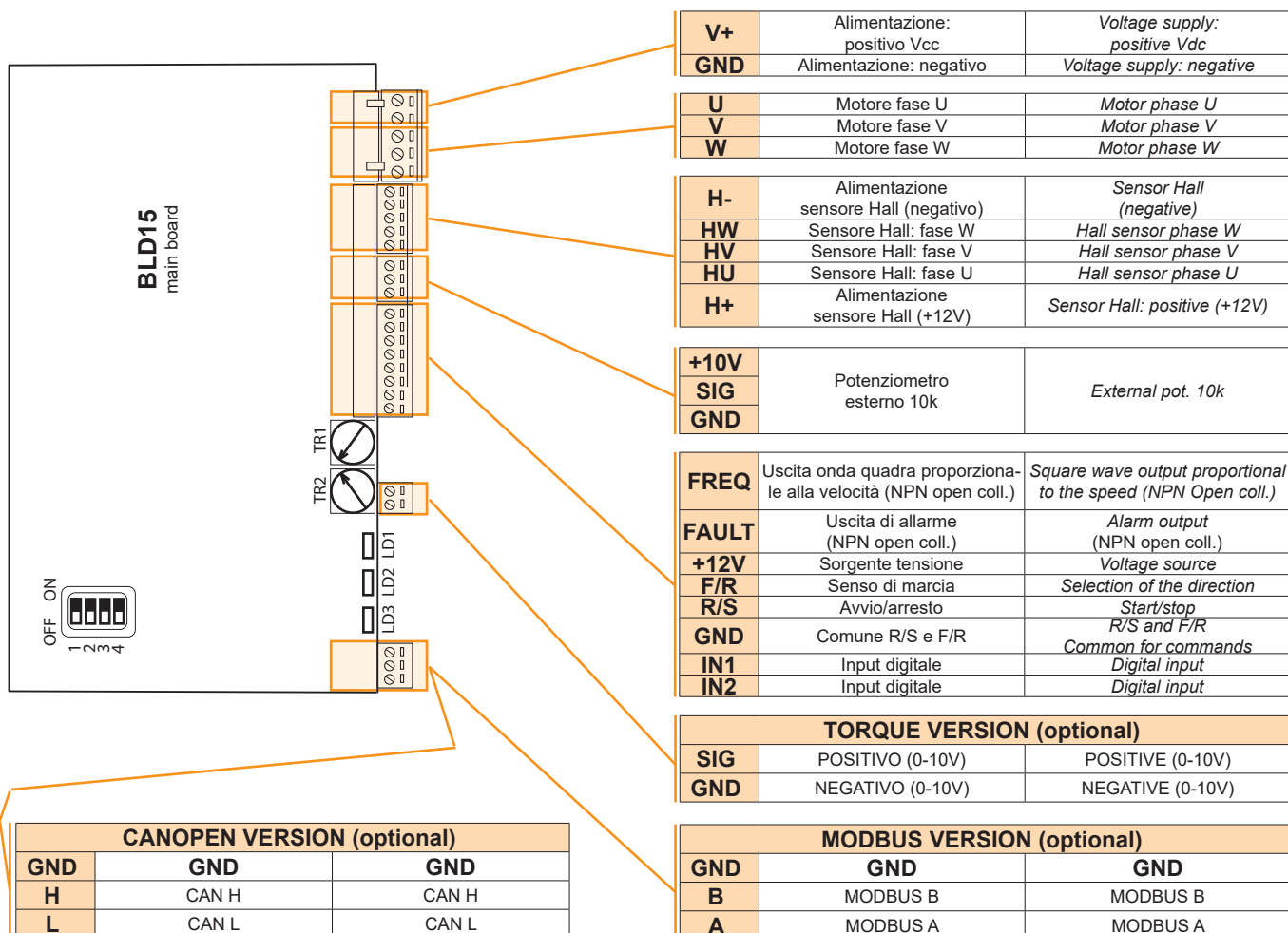
- removable connector with 5 terminals for the power part;
- 3 removable connectors, for a total of 16 terminals, for the management of the input and output signal.

TORQUE Version

- removable connector with 2 terminals

ModBus/CANOpen Version

- removable connector with 3 terminals





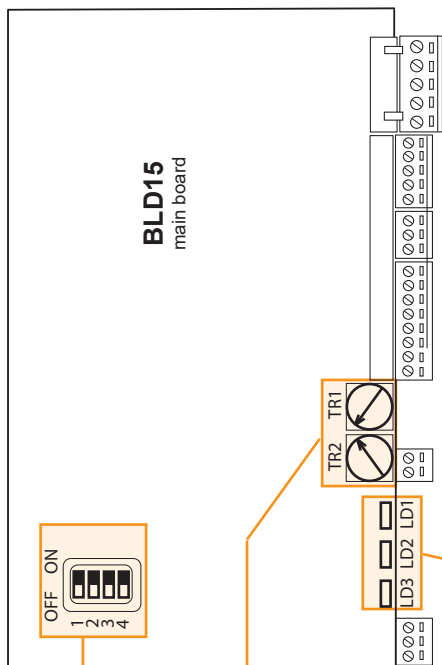
BLD15

**AZIONAMENTO 4Q
PER MOTORI BRUSHLESS CC**

**4Q DRIVE
FOR DC BRUSHLESS MOTORS**

Collegamenti

Connections



Led		
LD1	Verde - power ON	Green - power ON
LD2	Rosso - allarme in corso	Red - alarm
LD3	Giallo - superamento corrente max.	Yellow - the drive is in limit of current
Presenti 2 Leds per la chiusura dei contatti R/S e F/R		2 LEDs for the closing of R/S and F/R

Trimmer		Opzionale	Optional
TR1	Regolazione velocità (crescente con rotazione oraria)	Regolazione della rampa in accelerazione	Acceleration ramp adjustable
TR2*	Limitazione corrente (crescente con rotazione antioraria)	Regolazione della rampa in decelerazione	Deceleration ramp adjustable

(*) Non presente con versione torque

(*) Not designed for torque version

Dip Switch		
1	OFF = Controllo velocità da pot. interno TR1	Internal speed pot TR1
	ON = Controllo velocità da pot. esterno o segnale analogico 0/+10V	External speed pot or analog signal 0/+10V
2	OFF = Funzionamento in anello chiuso	Operating in closed loop
	ON = Funzionamento in anello aperto	Operating in open loop
3	OFF = Rampe rapide (0.1 s)	Fast Acceleration (about 0.1 sec)
	ON = Rampe lente (1.0 s)	Slow acceleration (about 1.0 sec)
4	OFF = per motori a 4 poli	4 poles motors
	ON = per motori a 8 poli	8 poles motors



BLD60 DIGITAL

**AZIONAMENTO 4Q
PER MOTORI BRUSHLESS CC**

BLD60 Digital è un controller di velocità ad anello chiuso che utilizza componenti di potenza IGBT e MOSFET. Utilizza il segnale di Hall del motore brushless per eseguire il controllo della velocità ad anello chiuso, e riduce l'errore tramite il regolatore dei PID. E' in grado di raggiungere la coppia massima anche alle basse velocità da 150 a 4000 giri al minuto. Il drive utilizza il protocollo ModbusRS485 RTU per poter comunicare i parametri e gestire i motori su di un Network.

Caratteristiche standard

- **Azionamento trifase a quattro quadranti per motori Brushless**
- Alimentazione singola DC
- Display digitale (gestione azionamento e stato allarmi)
- Protetto per corto circuito, min/max tensione, sovratemperatura, mancanza celle di hall.
- Protezione termica
- Connettori estraibili 8 vie (segnali) e 5 vie (sensori di Hall).
- 1 Comando di velocità differenziale analogico +5V
- 1 Comando di coppia analogico +5V per realizzare avvitatori, svolgitori, macchine test, ecc
- Feedback da sensori di HALL
- 2 Uscita NPN segnalazione allarme azionamento feedback velocità
- 2 trimmer (gestione velocità e corrente).

Dati tecnici principali

- Idoneo per motori BLDC trifase 4/8 poli
- Retroazione digitale sensori di Hall
- Controllo motore in frequenza PWM 20 kHz
- Temperatura operativa 0/+40°C
- Ingresso analogico 0/5 Vcc
- Rampa accelerazione regolabile 0.1/10 sec (tramite display digitale)
- Regolazione corrente max
- Regolazione della velocità esterno 10kΩ (potenziometro esterno o interno)
- Controllo motore in digitale RS485

Dimensioni

BLD60 DIGITAL		48
Tensione nominale DC Voltage Supply	(V)	48
Tensione min / max DC Voltage Range	(V)	24 - 36 - 48
Corrente nominale Rated Current	(A)	50
Corrente di picco (1) Peak Current	(A)	75
Potenza nominale (2) Rated Power	(W)	1500
Potenza di picco (3) Peak Power	(W)	2120

- (1) La corrente di picco viene erogata per un tempo di circa 2 secondi
(1) *Peak current (A_{dc}) for 2 sec.*
- (2) La potenza nominale è riferita al valore di tensione e di corrente nominale
(2) *Power of amplifier at the rated current and rated voltage*
- (3) La potenza di picco è riferita al valore di tensione nominale e di corrente di picco
(3) *Power of amplifier at the peak current and rated voltage*

**4Q DRIVE
FOR DC BRUSHLESS MOTORS**

BLD30 Digital BLDC motor driver is a closed-loop speed controller, which uses IGBT and MOS power, uses the Hall signal of the DC brushless motor to perform double-loop speed control, and has a PID speed regulator in the control link. The system control is stable and reliable.

It can always reach the maximum torque at low speed, and the speed control range is 150 to 4000rpm. The driver use the protocol Modbus RS485 RTU to communicate in a network.

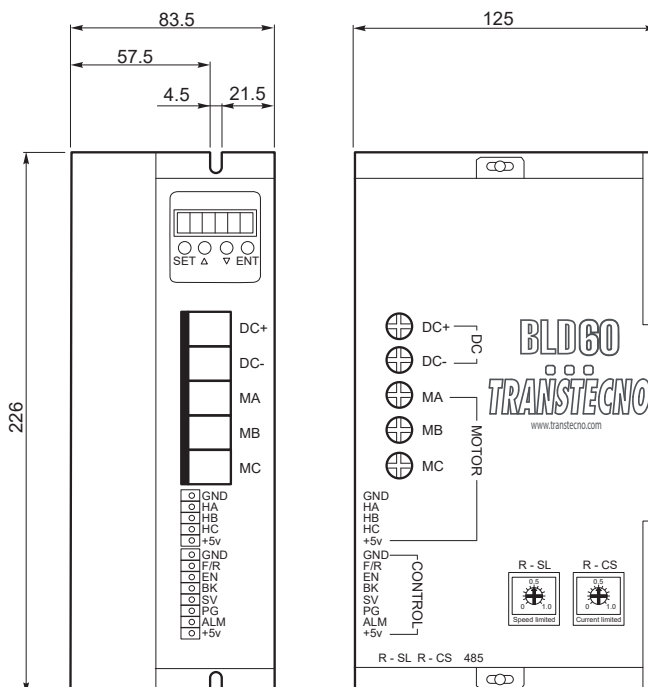
Standard characteristic

- **Four quadrant regenerative drive for Brushless motor**
- Single supply DC voltage
- Digital display (drive management and alarm status)
- Protections for: Over/Under voltage, max. temperature, Over current
- thermal protection
- signals extractable connectors (8 ways and 5 ways)..
- 1 Differential velocity input +5V
- 1 Torque mode (demand current) input +5V
- Feedback by HALL sensors
- 2 NPN output (feedback speed and fault)
- 2 Potentiometer (Speed, current)

Specifications

- Suitable for 3ph BLDC motors 4/8 poli
- Digital feedback Hall sensors
- Motor control in PWM frequency 20 kHz
- Operative temperature 0/+40°C
- Analog inputs range 0/5 Vdc
- Acceleration ramp adjustable 0.1/10 sec (by digital display)
- Current max regulation
- Speed change regulation external 10kΩ (by external or internal pot))
- Digital motor control RS485

Dimensions





BLD60 DIGITAL

AZIONAMENTO 4Q PER MOTORI BRUSHLESS CC

4Q DRIVE FOR DC BRUSHLESS MOTORS

Collegamenti per motori brushless serie BL

Connections for brushless motors BL series

Fili di potenza:

- fase motore U: pin MA
- fase motore V: pin MB
- fase motore W: pin MC

Power wires:

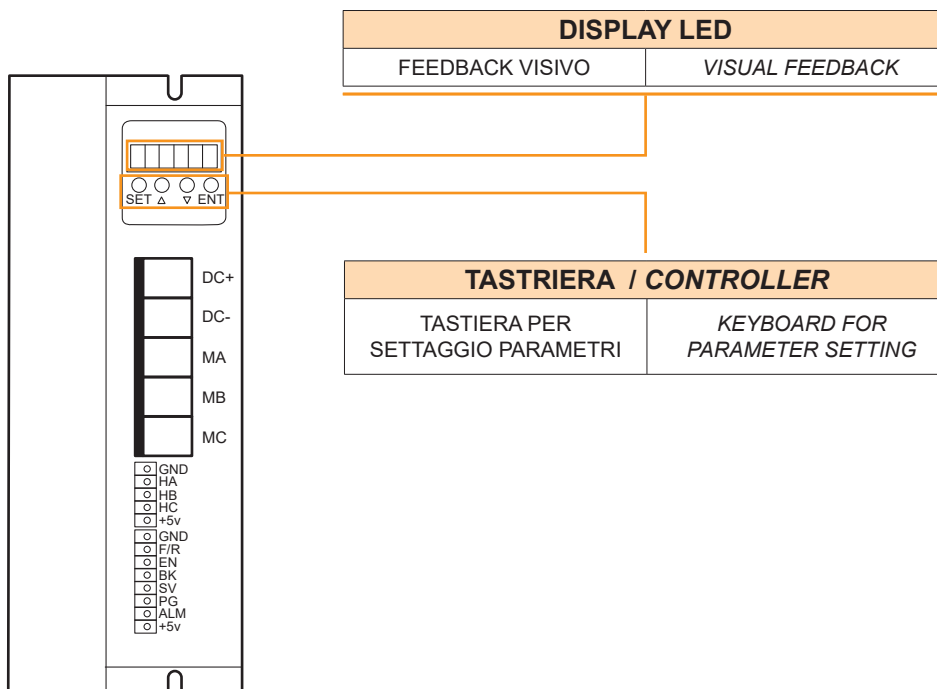
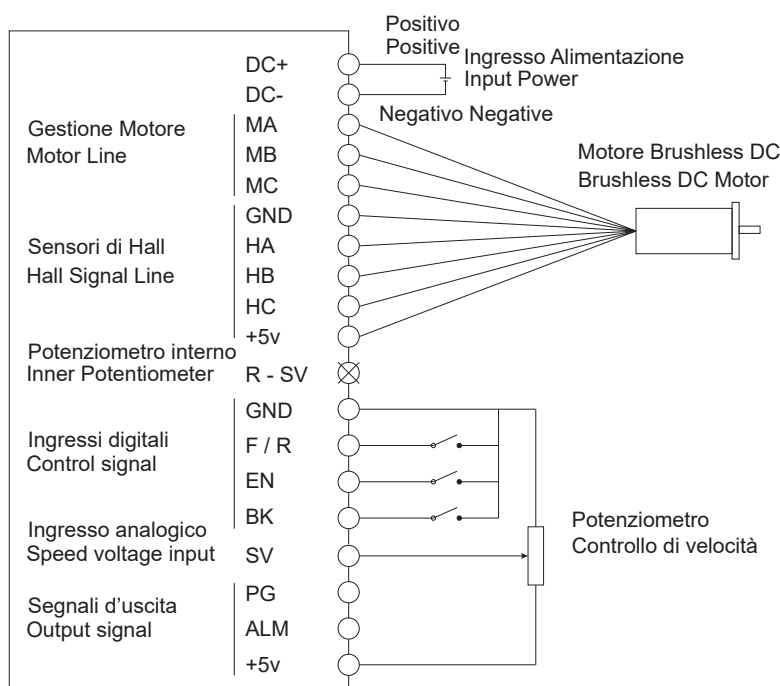
- phase motor U: pin MA
- phase motor V: pin MB
- phase motor W: pin MC

Fili di segnale:

- Rosso piccolo (+Vcc): pin +5V
- Nero piccolo (GND): pin GND
- Blue (hall U): pin HA
- Verde (hall V): pin NB
- Bianco (hall W): pin HC

Fili di segnale:

- Red small (+Vdc): pin +5V
- Black small (GND): pin GND
- Blue (hall U): pin HA
- Green (hall V): pin HB
- White (hall W): pin HC



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