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MINI  TM TECNO brand of
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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

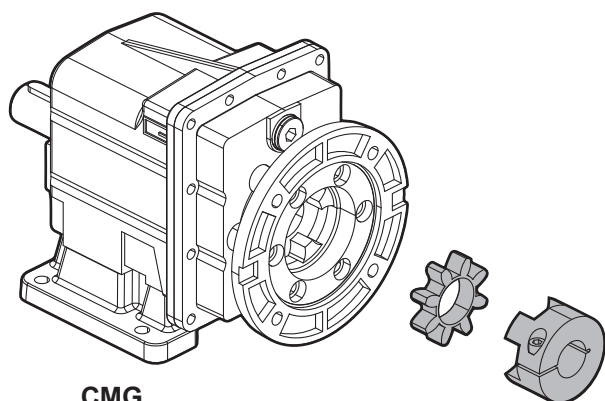
L'accoppiamento al motore tramite giunto elastico a morsetto ha i seguenti vantaggi:

- 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.

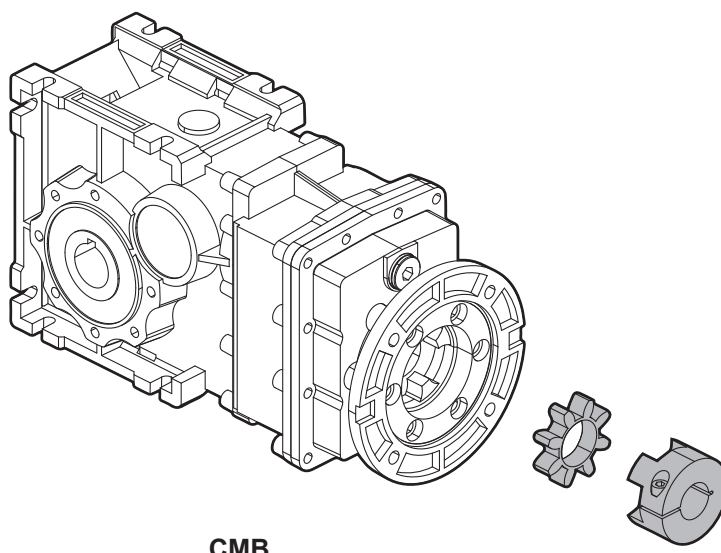
Flexible coupling

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



CMG...



CMB...

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

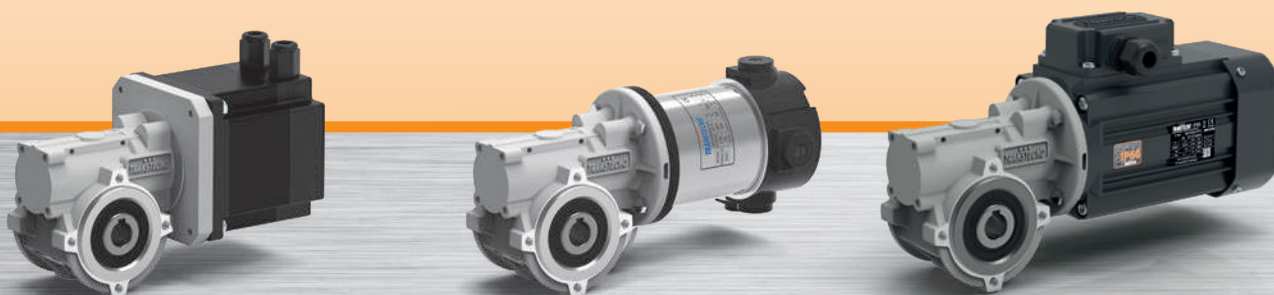
In these cases please contact the Technical Service

- 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

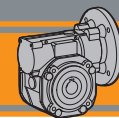
CL

Motoriduttori a vite senza fine
Wormgearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®

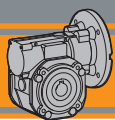




| Indice | Index | Pag. Page |
|--------------------------|------------------------------|--------------|
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| Designazione | <i>Classification</i> | II2 |
| Sensi di rotazione | <i>Direction of rotation</i> | II3 |
| Simbologia | <i>Symbols</i> | II3 |
| Lubrificazione | <i>Lubrication</i> | II3 |
| Carichi radiali | <i>Radial loads</i> | II4 |
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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**

This section replaces any previous edition and revision. If you obtained this catalogue other than through controlled distribution channels, the most up to date content is not guaranteed. In this case the latest version is available on our web site www.transtecno.com



CL

Motoriduttori a vite senza fine Wormgearmotors



Caratteristiche tecniche

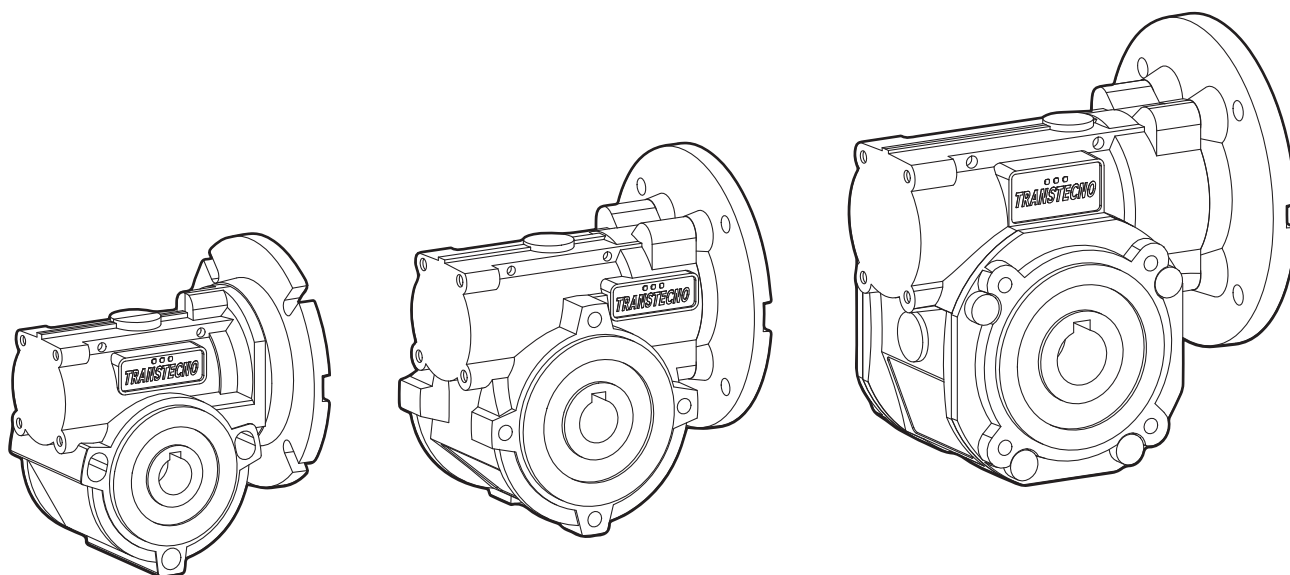
Technical features

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

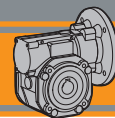


Designazione

Classification

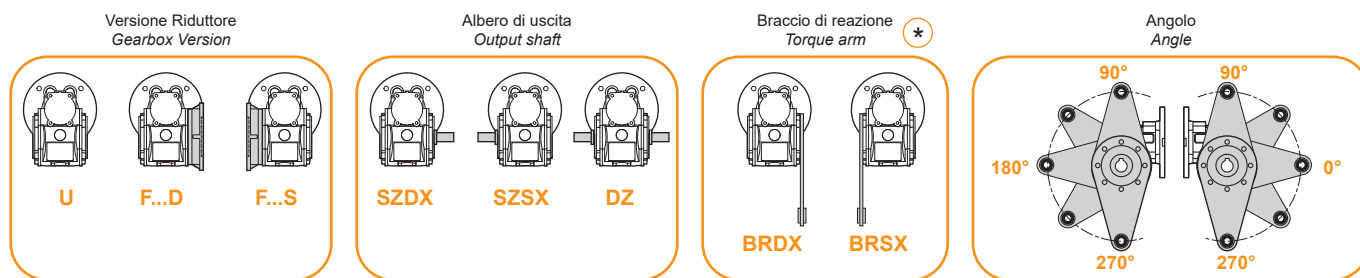
RIDUTTORI A VITE SENZA FINE / WORMGEARBOXES

| 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

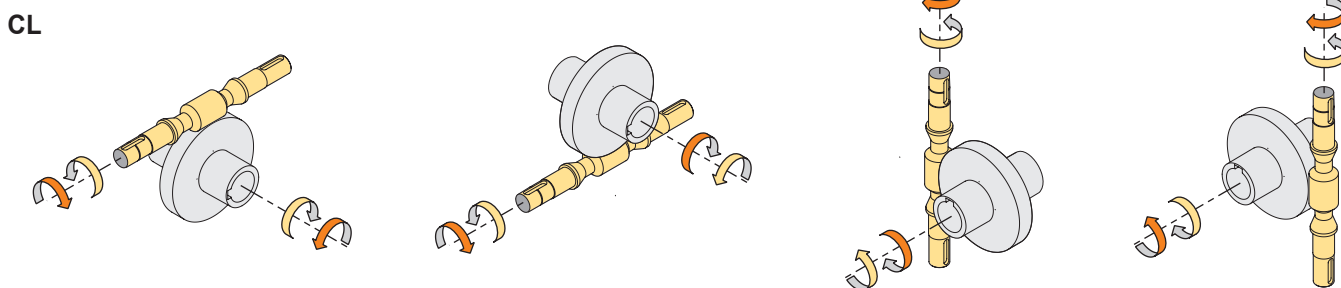
Classification



* 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

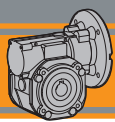
| | | | | |
|----------|-----------------------|--|---------|--|
| n_1 | [min^{-1}] | Velocità in ingresso / <i>Input speed</i> | sf | Fattore di servizio / <i>Service factor</i> |
| n_2 | [min^{-1}] | Velocità in uscita / <i>Output speed</i> | Rd | % Rendimento dinamico / <i>Dynamic efficiency</i> |
| 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

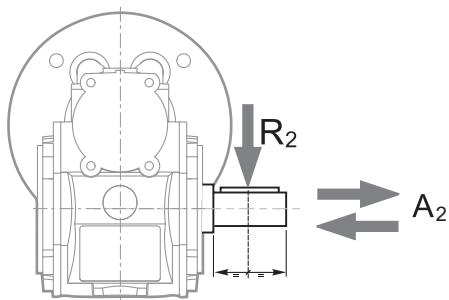
Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

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

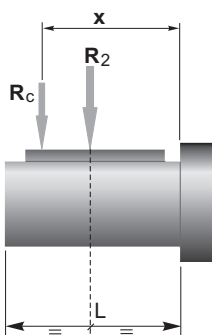


$A_2 = R_2 \times 0.2$

| 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' |

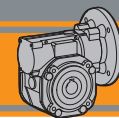
Rendimento

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 | 2800 | Rs | 72 | 71 | 68 | 61 | 56 | 46 | 41 | 36 | 34 | | | |
| | 1400 | | 89 | 88 | 86 | 84 | 81 | 78 | 74 | 70 | 65 | 62 | 57 | 52 |
| | 900 | | 86 | 85 | 84 | 79 | 75 | 72 | 67 | 62 | 58 | 55 | 48 | 43 |
| CL040 | 2800 | Rs | 84 | 83 | 81 | 75 | 71 | 68 | 62 | 58 | 53 | 49 | 43 | 39 |
| | 1400 | | 72 | 67 | 63 | 55 | 50 | 43 | 39 | 35 | 31 | 27 | 23 | 21 |
| | 900 | | 90 | 89 | 87 | 84 | 83 | 80 | 77 | 73 | 69 | 66 | 60 | 56 |
| CL040 | 2800 | Rd | 88 | 86 | 84 | 81 | 78 | 74 | 70 | 65 | 60 | 58 | 52 | 46 |
| | 1400 | | 86 | 84 | 82 | 77 | 74 | 70 | 66 | 60 | 57 | 53 | 46 | 41 |
| | 900 | | 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.

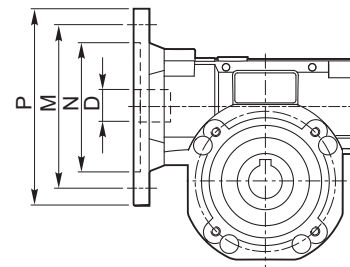
Note:

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 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | 56B5 | 80 | 100 | 120 | 9 | B | 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 | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | 56B5 | 80 | 100 | 120 | 9 | BS | BS | BS | BS | BS | BS | BS | BS | BS | B | B | B | B | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| 56B14 | 50 | 65 | 80 | 9 | | | | | | | | | | | | | | | | | | | |



N.B.

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

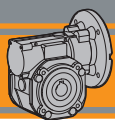
N.B. Grey areas indicate motor inputs available on each size of unit.

B/BS = Boccola di riduzione in acciaio

B/BS = Metal shaft sleeve

Nota: flange Nema disponibili a richiesta

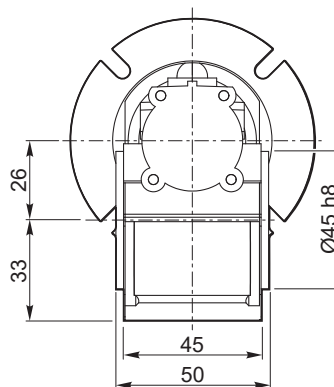
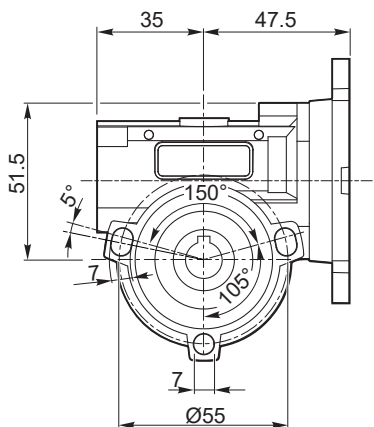
Note: Nema flange available on demand



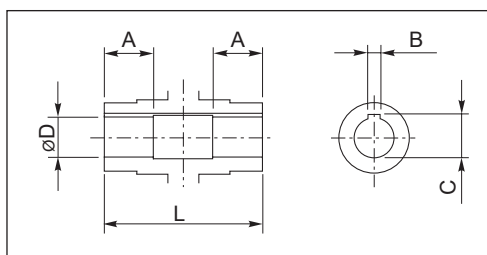
Dimensioni

Dimensions

CL 026 U



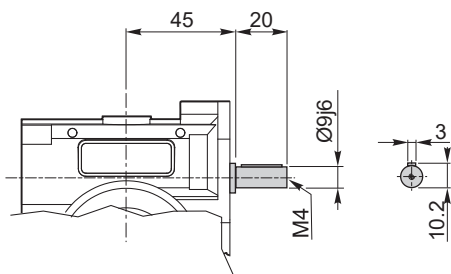
Kg
0.7



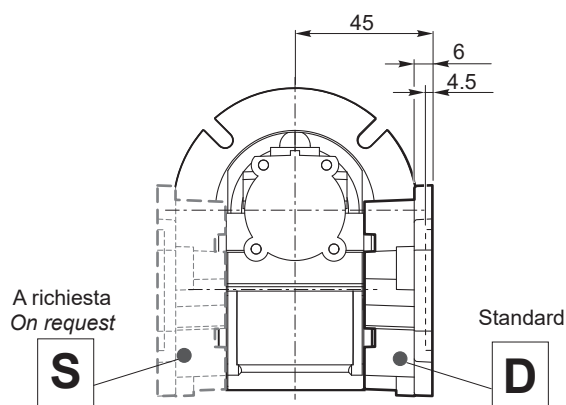
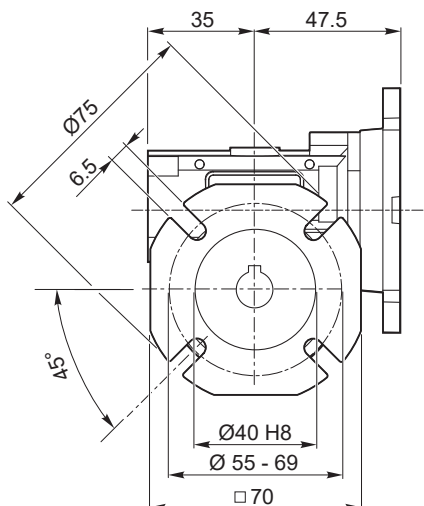
Albero lento cavo / Hollow output shaft

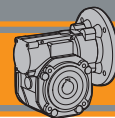
| Grandezza Size | Ø D H8 | L | A | B | C |
|-------------------|-----------|----|----|---|------|
| CL 026 (D11) | 11 | 50 | 15 | 4 | 12.8 |
| CL 026 | 12 | 50 | 15 | 4 | 13.8 |
| CL 026 (D14) | 14 | 50 | 15 | 5 | 16.2 |

CLIS 026 ..



CL 026 F

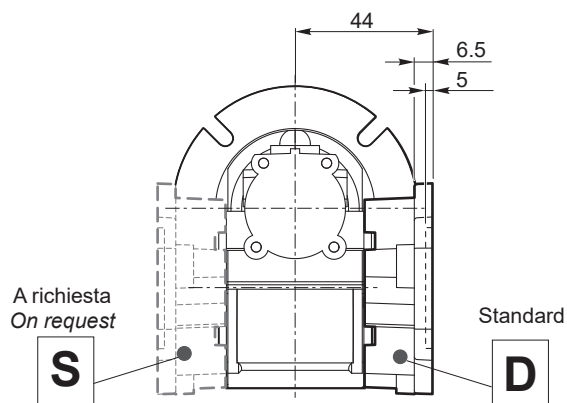
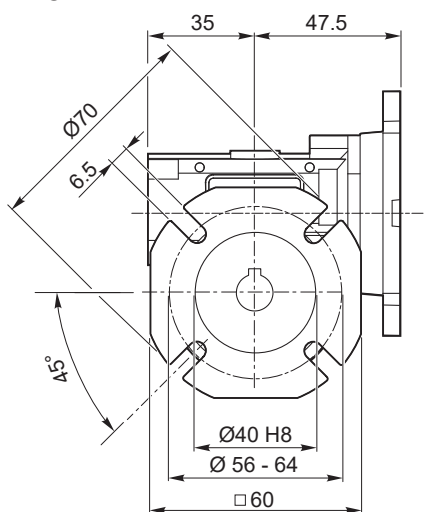




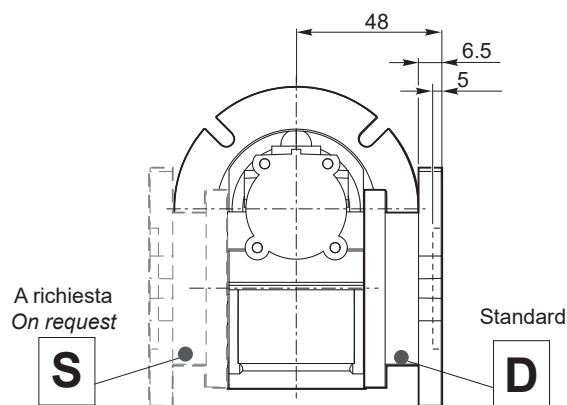
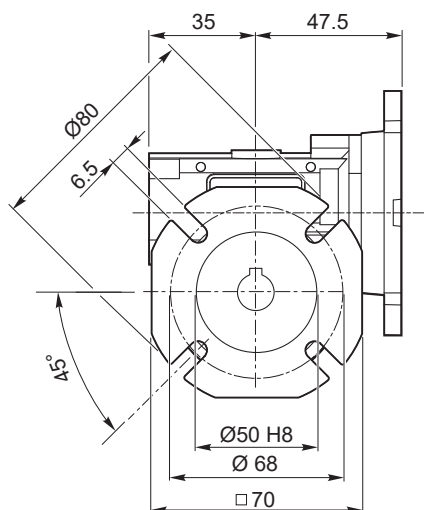
Dimensioni

Dimensions

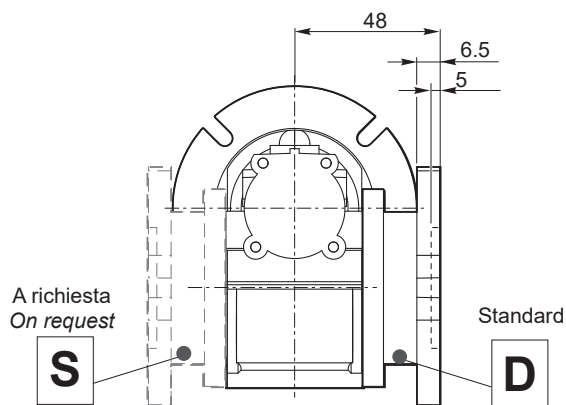
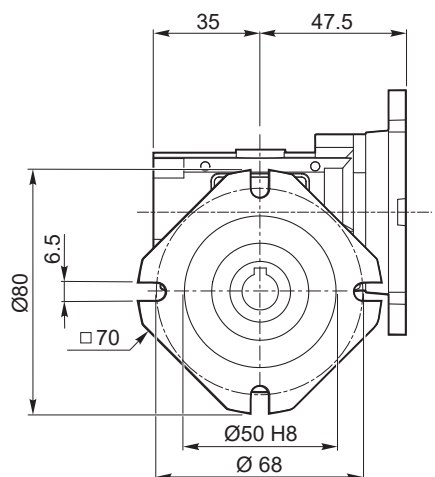
CL 026 F28

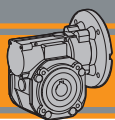


CL 026 F30



CL 026 F30C

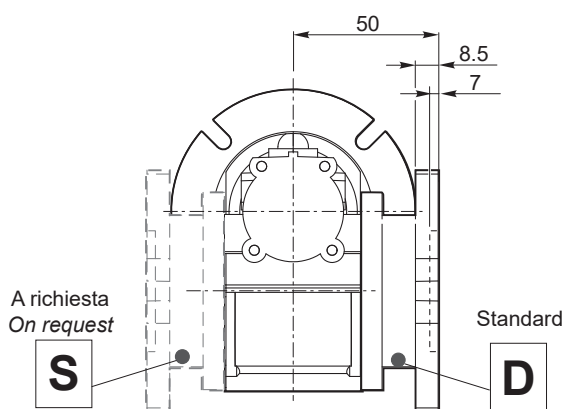
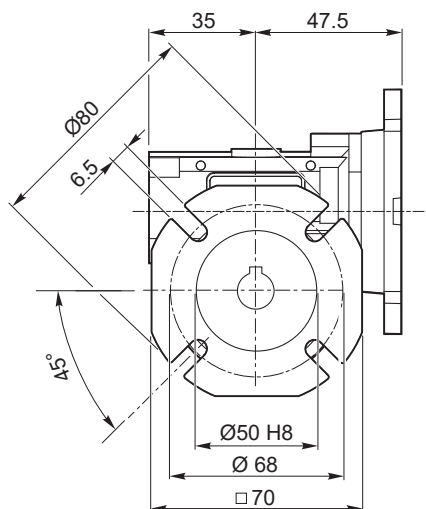




Dimensioni

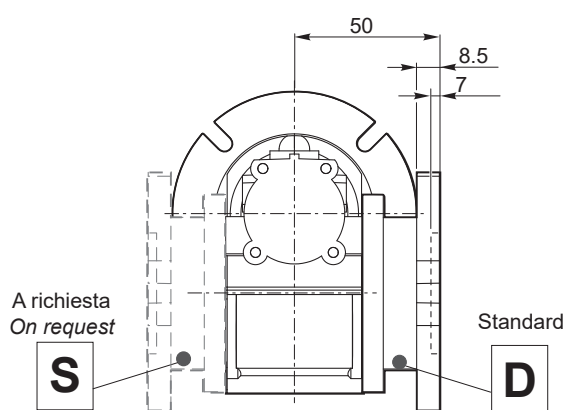
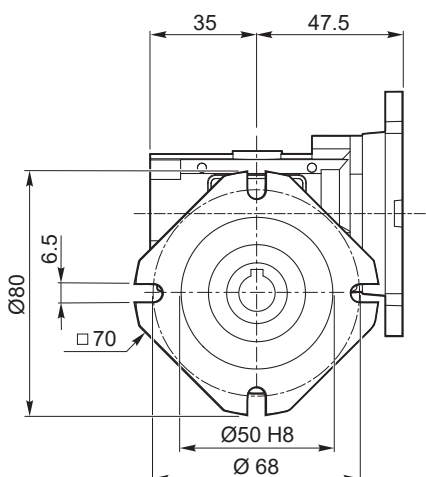
Dimensions

CL 026 F30S



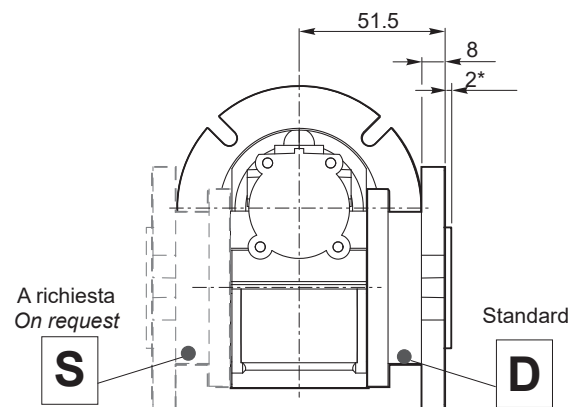
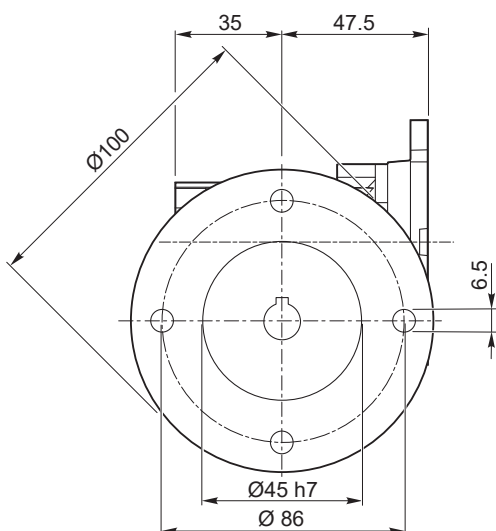
Nota: Esecuzione con flangia uscita F30 e spessore 2mm
Note: Made with flange F30 and spacer with 2mm thickness

CL 026 F30SC

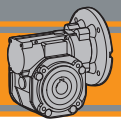


Nota: Esecuzione con flangia uscita F30C e spessore 2mm
Note: MAde with flange F30C and spacer with 2mm thickness

CL 026 F100



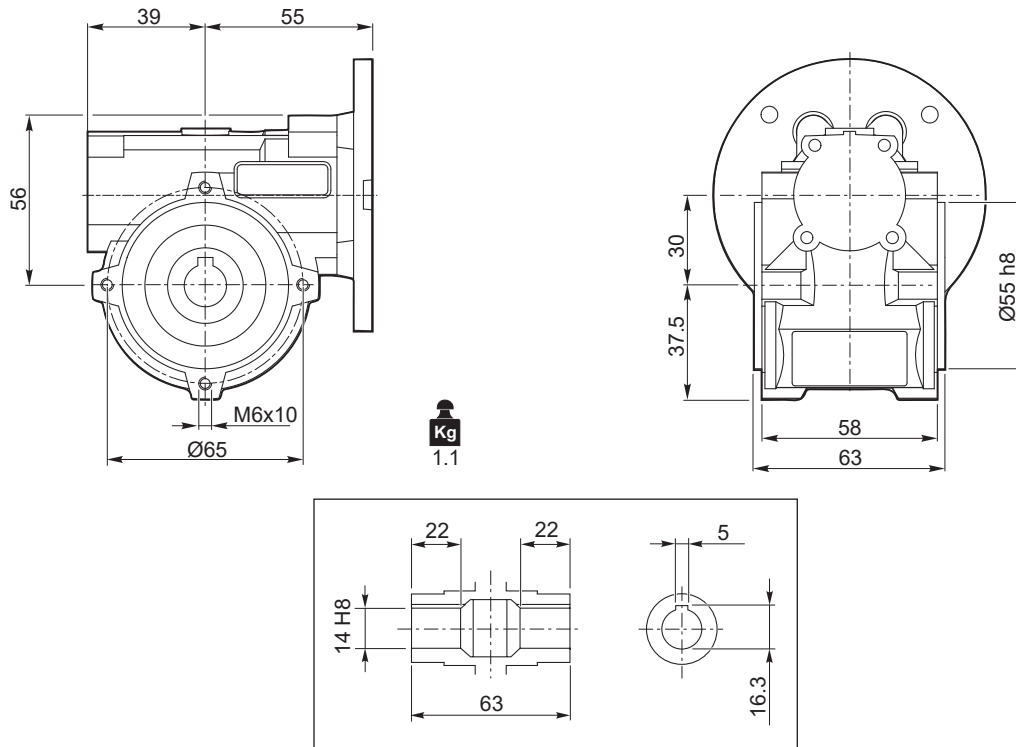
(*): Centraggio maschio
 (*): Male centering diameter



Dimensioni

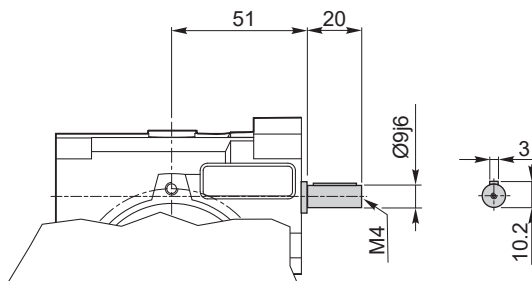
Dimensions

CL 030 U

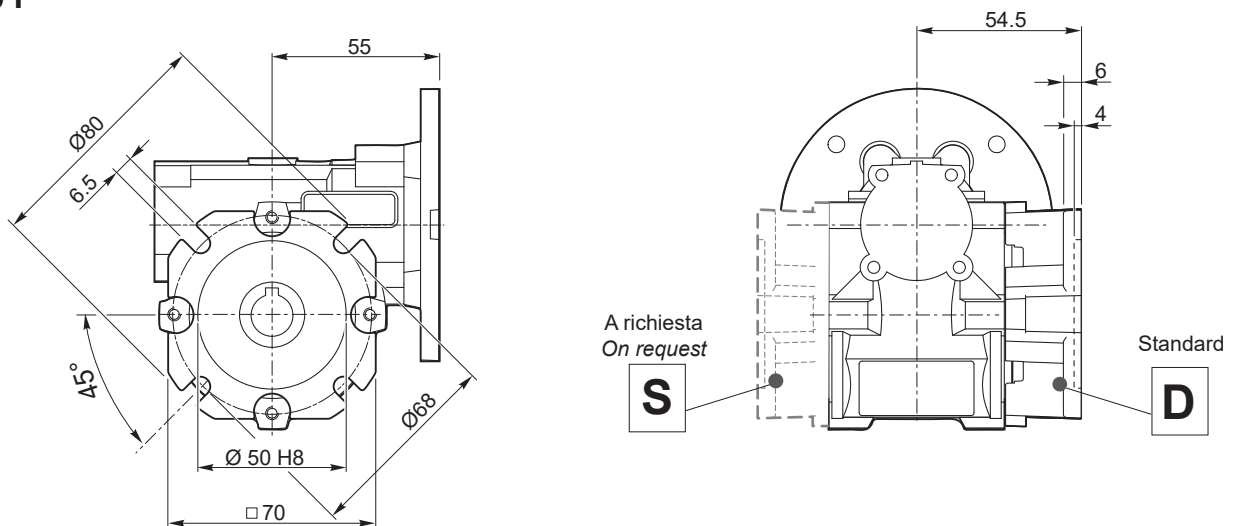


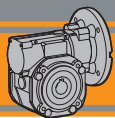
Albero lento cavo / Hollow output shaft

CLIS 030 ..



CL 030 F





CL

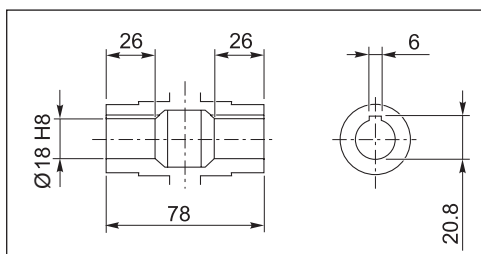
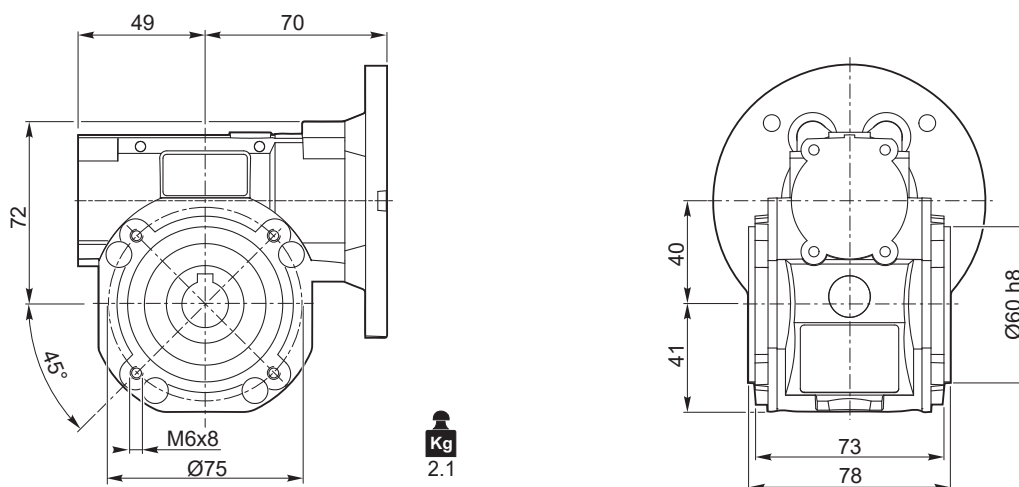
Motoriduttori a vite senza fine Wormgearmotors

MINI TECNO

Dimensioni

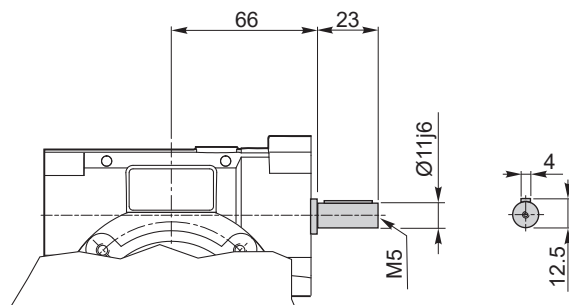
Dimensions

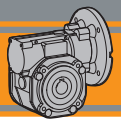
CL 040 U



Albero lento cavo / Hollow output shaft

CLIS 040 ..

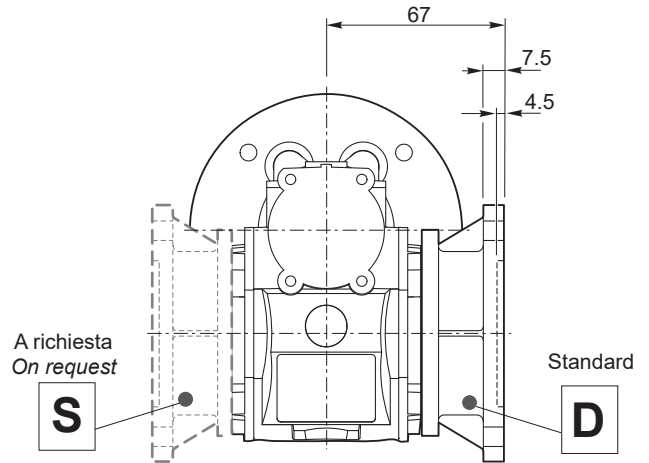
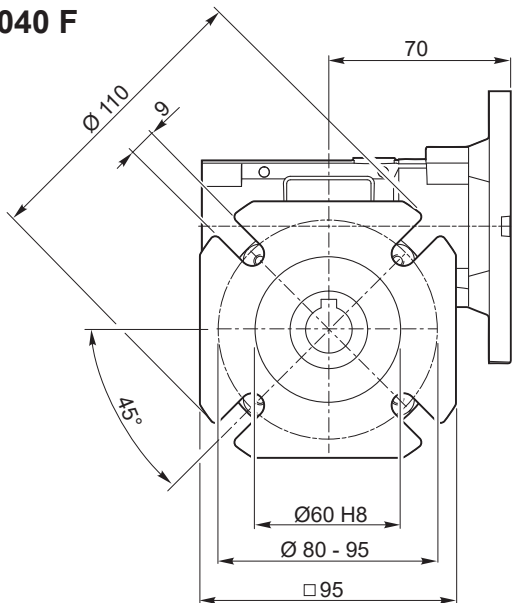




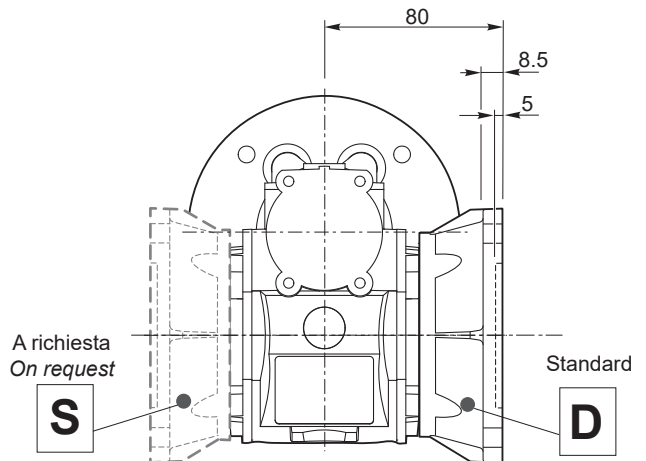
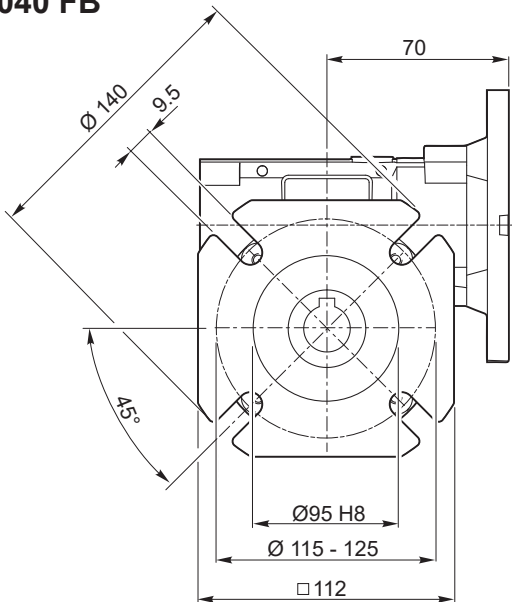
Dimensioni

Dimensions

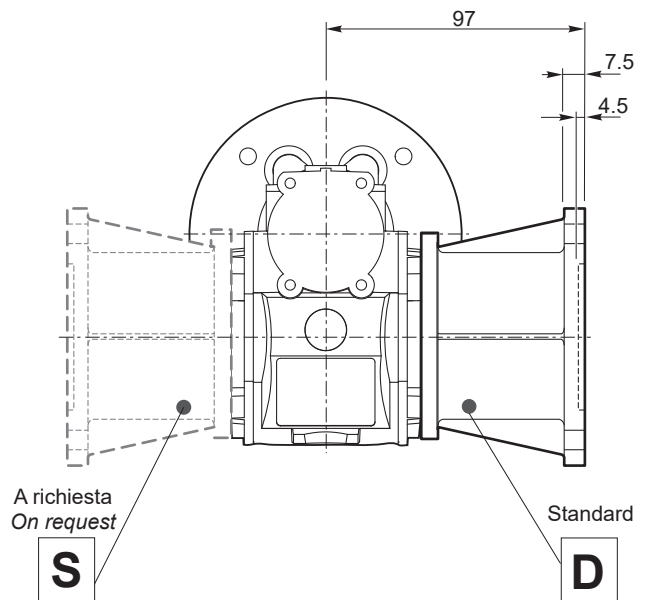
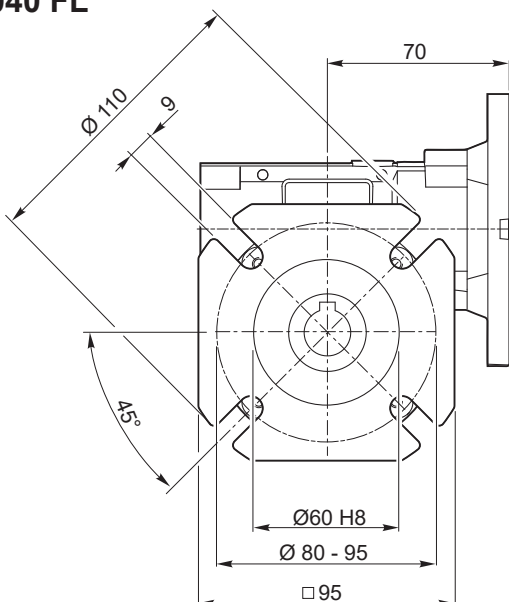
CL 040 F

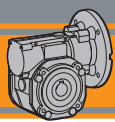


CL 040 FB



CL 040 FL





CL

Motoriduttori a vite senza fine
Wormgearmotors

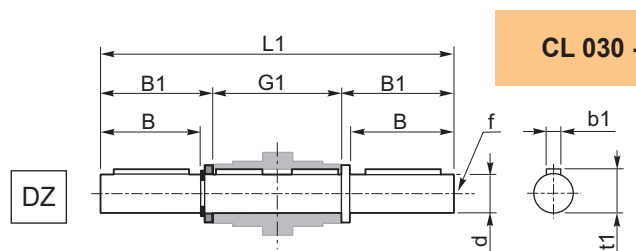
MINI
TECNO

Accessori

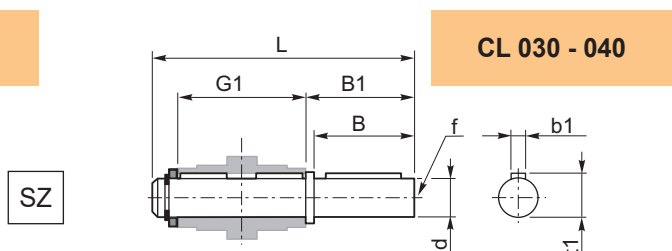
Accessories

Albero lento semplice e doppio

Single and double output shaft

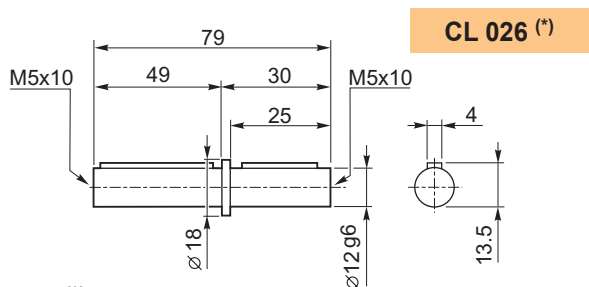


CL 030 - 040



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 |



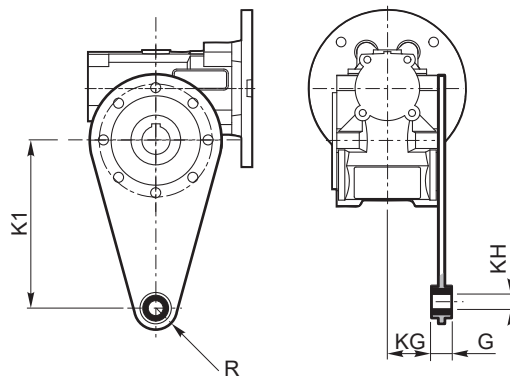
CL 026 (*)

(*)
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 |



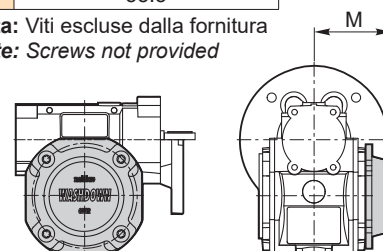
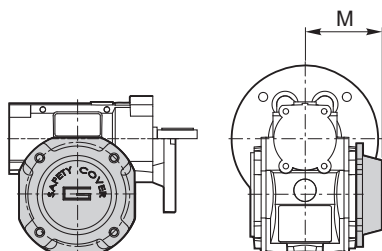
SC - Safety Cover

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



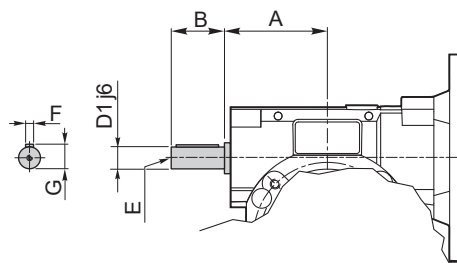
Opzioni

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 |
|  | A-D Motori elettrici CA SM..UL | AC Electric motors SM..UL | A-A1 |
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|   | 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 |
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|   | A-L Motoriduttori CA epicicloidali P | AC Planetary garmotors P | A-G1 |
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SM



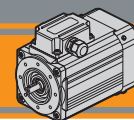
AC

Motori elettrici asincroni CA
AC asynchronous electric motors



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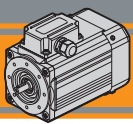




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| Designazione | <i>Classification</i> | AA2 |
| Simbologia e formule | <i>Symbols and formulas</i> | AA3 |
| Dati tecnici | <i>Technical data</i> | AA3 |
| Dimensioni motori trifase | <i>Three phase motors dimensions</i> | AA4 |
| Dimensioni motori monofase | <i>Single phase motors dimensions</i> | AA6 |
| Cava esagonale | <i>Hexagonal socket</i> | AA8 |
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| Targhetta | <i>Nameplate</i> | AA16 |

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Caratteristiche tecniche

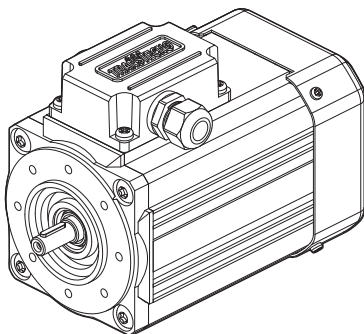
Technical characteristics

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

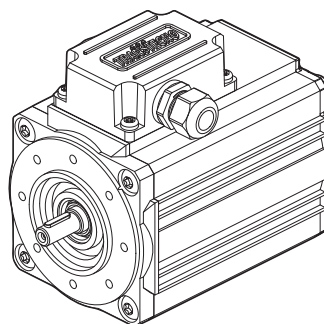
SMT and SMM motor range has the following main features:

- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcasa 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 ±10% per tutti i motori ad esclusione della taglia 50 (±5%).
- Disponibili nelle versioni autofrenante, servovenilata 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 ±10% for all motors, except for size 50 (±5%).
- Brake motors, forced ventilation motors and UL compliance versions available.



SM .. TEFC



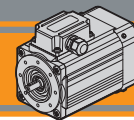
SM .. TENV



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 → AD1 |
| | | | | | | | | | |
| | | | | | | | | | |

Simbologia e formule
Symbols and formulas

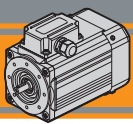
| | | | |
|--|-------|--|---|
| P_n | [kW] | Potenza nominale | <i>Rated power</i> |
| I_n | [A] | Corrente nominale (a 400V) | <i>Rated current (at 400V)</i> |
| M_n | [Nm] | Coppia nominale | <i>Rated torque</i> |
| n_n | [rpm] | Velocità nominale | <i>Rated speed</i> |
| M_s / M_n | | Rapporto coppia spunto / coppia nominale | <i>Ratio start torque / rated torque</i> |
| M_k / M_n | | Rapporto coppia massima / coppia nominale | <i>Ratio max torque / rated torque</i> |
| I_s / I_n | | Rapporto corrente di spunto / corrente nominale | <i>Ratio start current / rated current</i> |
| $\cos\varphi$ | | Fattore di potenza al carico nominale | <i>Power factor at rated torque load</i> |
| η | | Rendimento al carico nominale | <i>Efficiency at rated torque load</i> |
| Potenza Power | [HP] | Potenza [kW] x 1.341 | <i>Power [kW] x 1.341</i> |
| Potenza resa P_n P_n output power | [kW] | Potenza assorbita x η | <i>Absorbed power x η</i> |
| 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

| 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 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 | | S3 75% | |
| 5044 | 0.12 | 0.87 | 1315 | 0.64 | 43.0 | 0.63 | 1.80 | 2.00 | 1.80 | | | |
| 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 | | | |
| 5644 | 0.18 | 1.26 | 1360 | 0.69 | 59.0 | 0.65 | 2.50 | 3.00 | 2.60 | | | |
| 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 | | | |
| 6334 | 0.25 | 1.74 | 1375 | 0.94 | 62.0 | 0.64 | 2.80 | 3.00 | 2.80 | | | |
| 6344 | 0.37 | 2.60 | 1360 | 1.24 | 65.3 | 0.66 | 2.70 | 3.00 | 2.70 | | | |
| 7124 | 0.37 | 2.52 | 1400 | 1.10 | 67.9 | 0.72 | 2.75 | 4.20 | 2.75 | | | |
| 7134 | 0.55 | 3.76 | 1395 | 1.55 | 70.2 | 0.73 | 2.90 | 4.40 | 2.90 | | | |
| 7144 | 0.75 | 5.09 | 1405 | 2.00 | 74.0 | 0.73 | 2.90 | 5.00 | 2.90 | | | |

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 % | $\cos\varphi$ | 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 | | | |
| 5624 | 0.09 | 0.63 | 1370 | 0.82 | 48.6 | 0.98 | 0.72 | 1.70 | 1.45 | 6.3 | PTO 150° | S1 | S3 50% |
| 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 | | | |

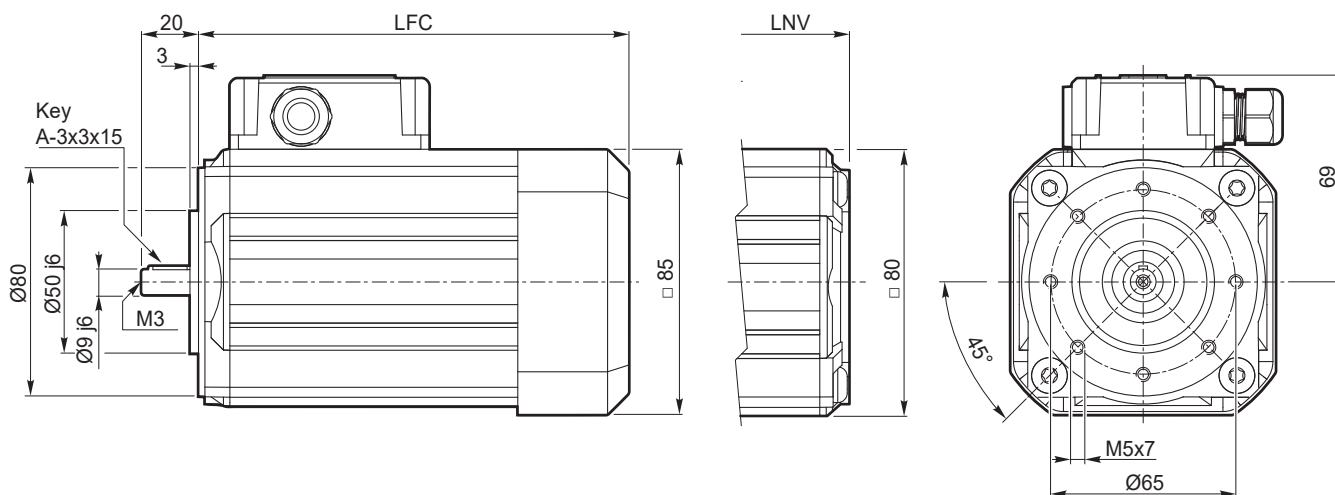


Dimensioni motori trifase

Three phase motors dimensions

3~

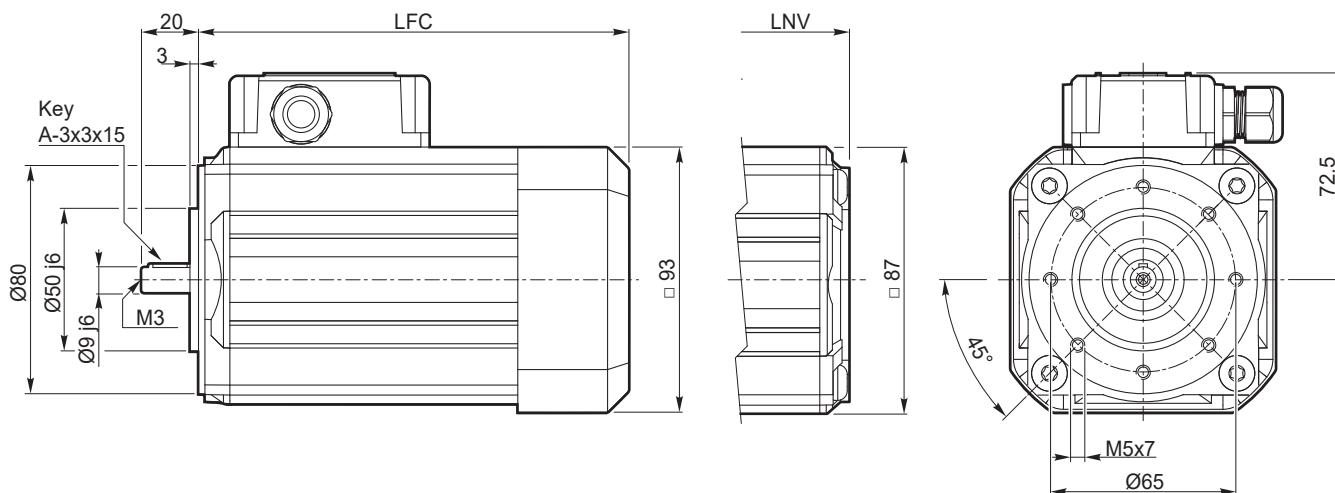
SMT50.. - B14 - TEFC / TENV



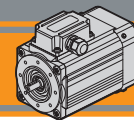
| SMT | ... TEFC | | ... TENV | |
|------|----------|-----|----------|-----|
| | LFC | kg | LNV | kg |
| 5014 | 135.5 | 2.3 | 108.5 | 2.2 |
| 5024 | 150.5 | 2.7 | 123.5 | 2.6 |
| 5034 | 175.5 | 3.5 | 148.5 | 3.4 |
| 5044 | 200.5 | 4.2 | 173.5 | 4.1 |

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 |
| 5644 | 186 | 4.4 | 162 | 4.3 |
| 5654 | 206 | 5.1 | 182 | 5.0 |

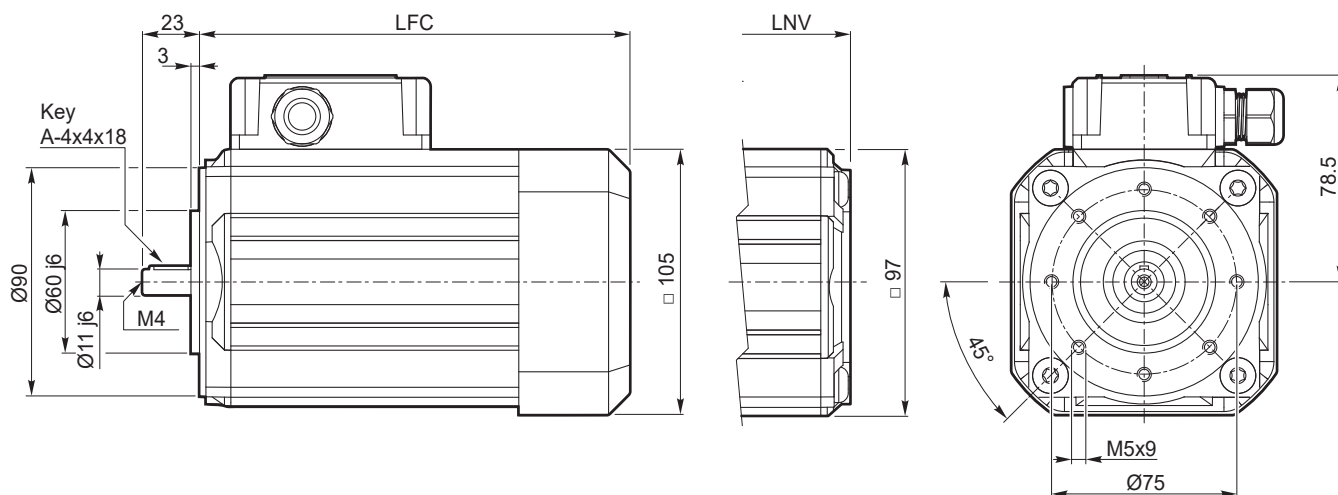


Dimensioni motori trifase

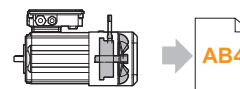
Three phase motors dimensions

3 ~

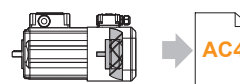
SMT63.. - B14 - TEFC / TENV



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



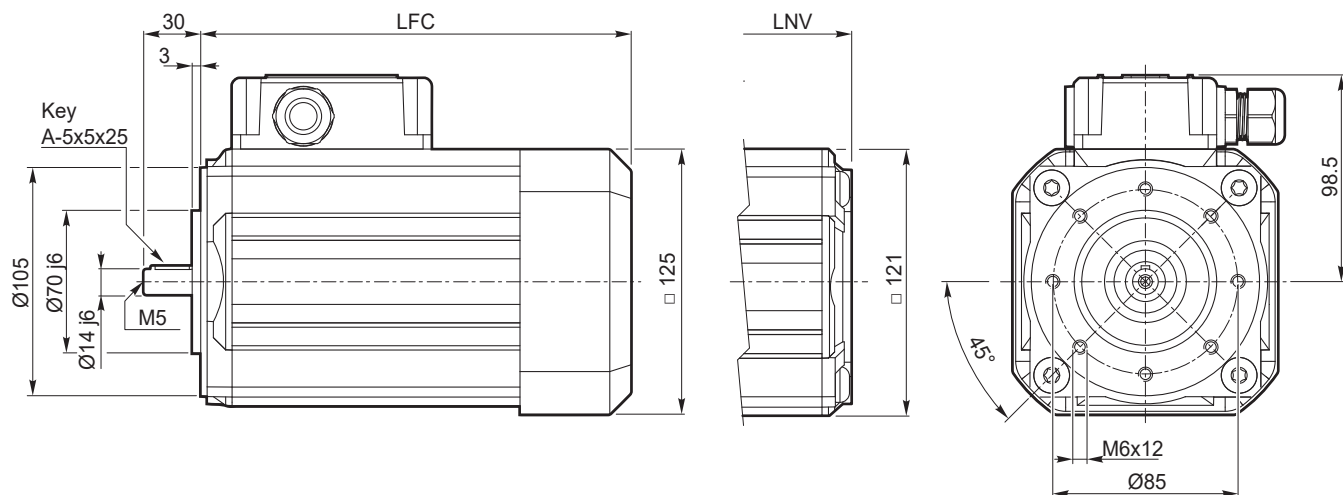
SM.BR..
Motori autofrenanti
Brake motors



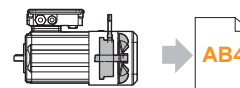
SM.V..
Motori servoventilati
Motors with forced-ventilation

3 ~

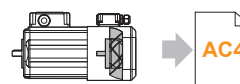
SMT71.. - B14 - TEFC / TENV



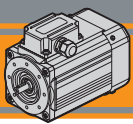
| SMT | ... TEFC | | ... TENV | |
|------|----------|-----|----------|-----|
| | LFC | kg | LNV | kg |
| 7124 | 174 | 6.6 | 145.5 | 6.4 |
| 7134 | 189 | 7.7 | 160.5 | 7.5 |
| 7144 | 214 | 9.4 | 185.5 | 9.2 |



SM.BR..
Motori autofrenanti
Brake motors



SM.V..
Motori servoventilati
Motors with forced-ventilation

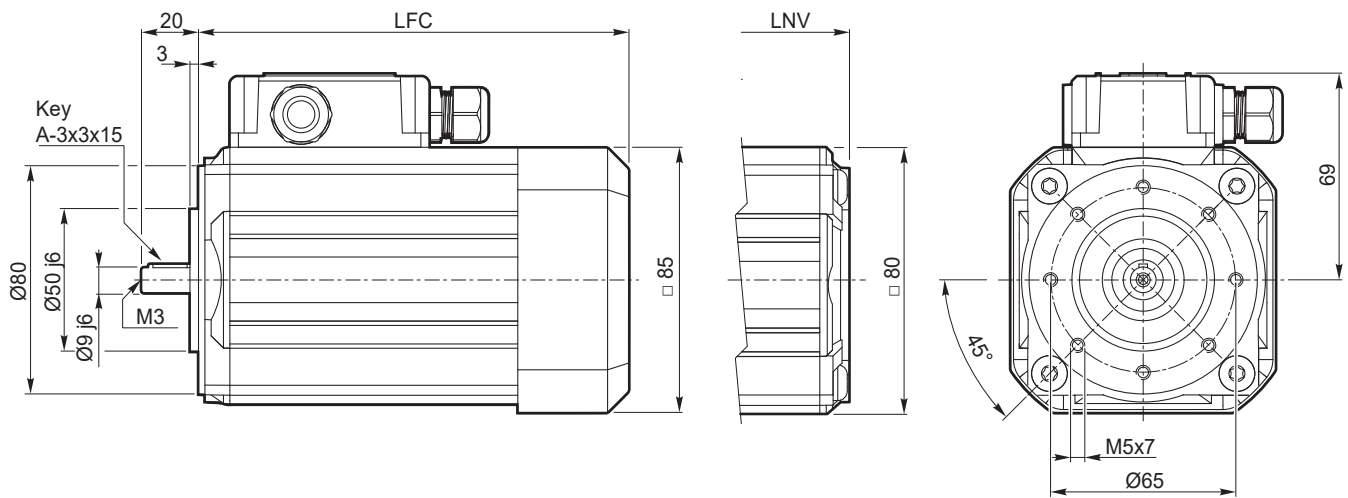


Dimensioni motori monofase

Single phase motors dimensions

1~

SMM50.. - B14 - TEFC / TENV



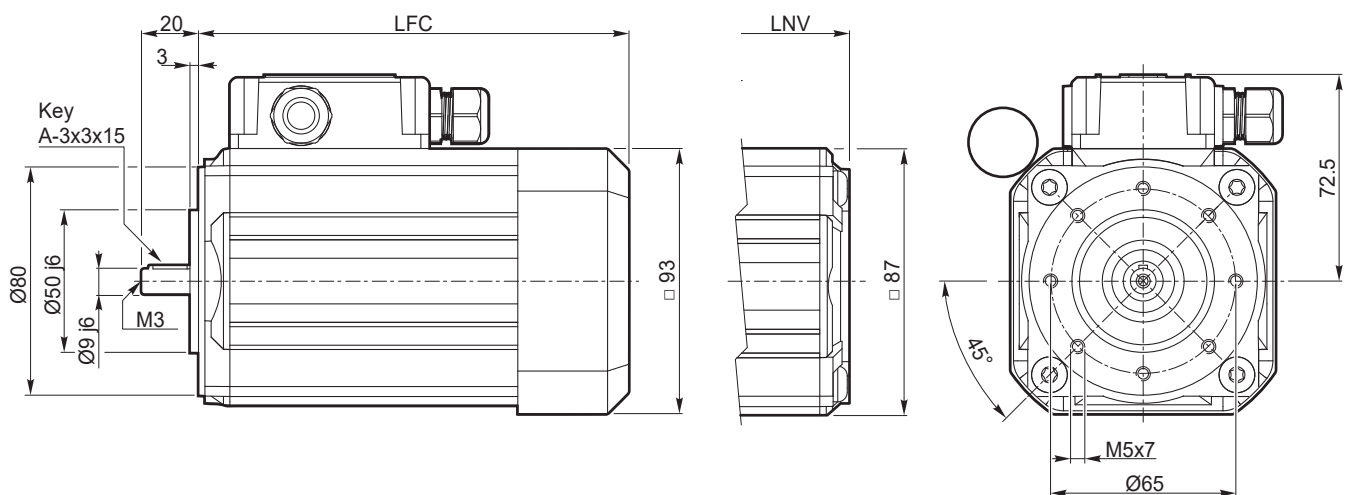
| SMM | ... TEFC | | ... TENV | |
|------|----------|-----|----------|-----|
| | LFC | kg | LNV | kg |
| 5014 | 150.5 | 2.7 | 123.5 | 2.6 |
| 5024 | 175.5 | 3.5 | 148.5 | 3.4 |
| 5034 | 200.5 | 4.2 | 173.5 | 4.1 |

Nota:
il condensatore sarà fornito a corredo

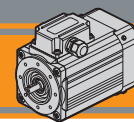
Note:
the capacitor will be supplied separately

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 |

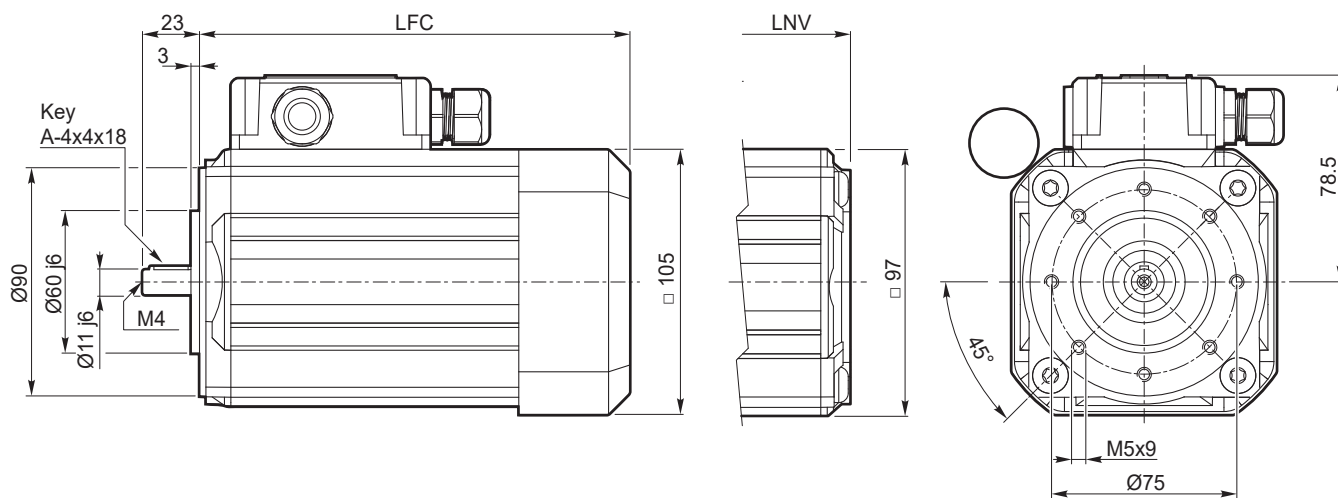


Dimensioni motori monofase

Single phase motors dimensions

1 ~

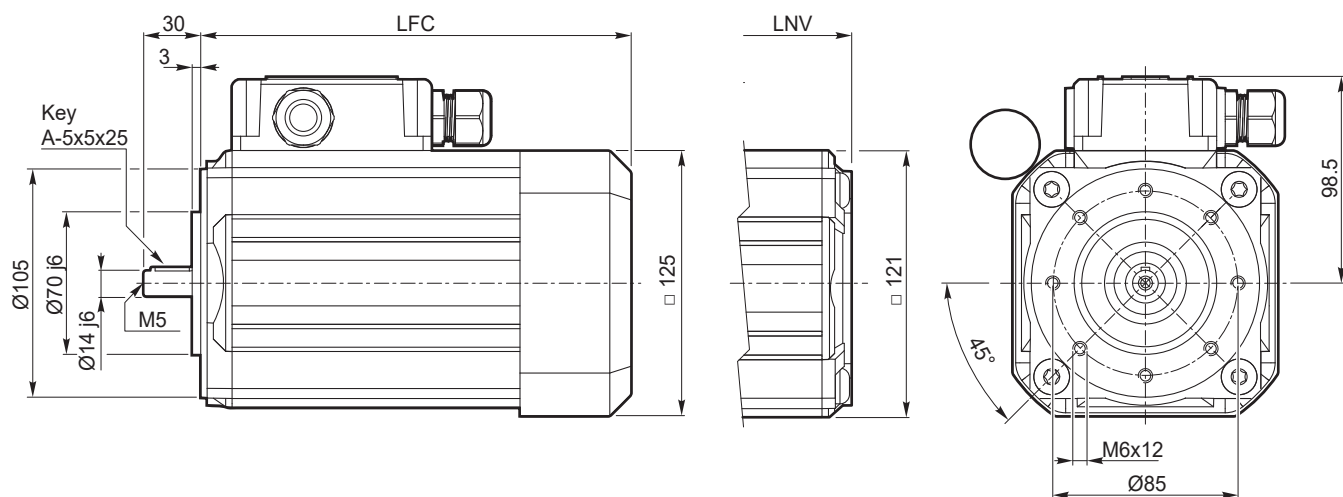
SMM63.. - B14 - TEFC / TENV



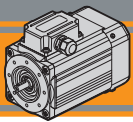
| SMM | ... TEFC | | ... TENV | |
|------|----------|-----|----------|-----|
| | LFC | kg | LNV | kg |
| 6324 | 180.5 | 5.1 | 153.5 | 5.0 |
| 6334 | 205.5 | 6.2 | 178.5 | 6.1 |

1 ~

SMM71.. - B14 - TEFC / TENV

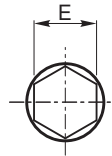
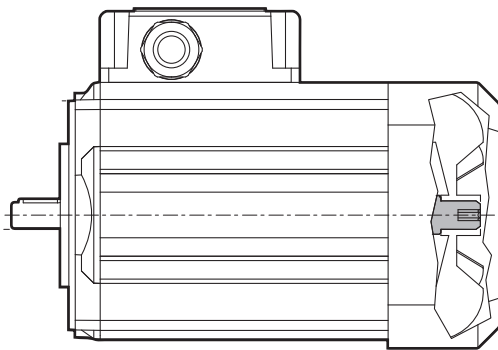


| SMM | ... TEFC | | ... TENV | |
|------|----------|-----|----------|-----|
| | LFC | kg | LNV | kg |
| 7124 | 189 | 7.3 | 160.5 | 7.1 |
| 7134 | 214 | 9.2 | 185.5 | 9.0 |



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.

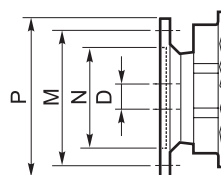
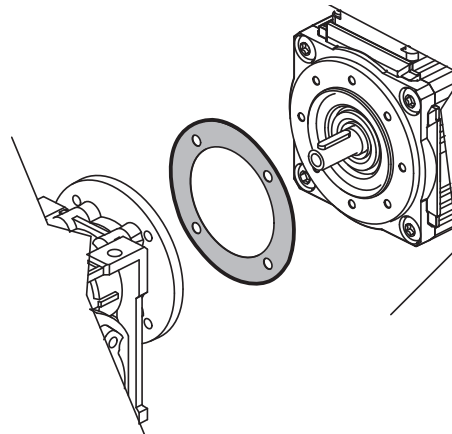
Note:

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

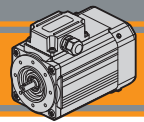
The switchgear for the motor must be padlockable in order to prevent the power supply from being accidentally reset. It is strictly prohibited to put the electric motor into service if the fan cover is not fitted.

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.















1ª cifra protezione alla penetrazione di corpi solidi.

2ª cifra protezione contro la penetrazione d'acqua.

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

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

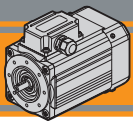
 The 2nd figure indicates to which degree the motor is waterproof.

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

AC

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

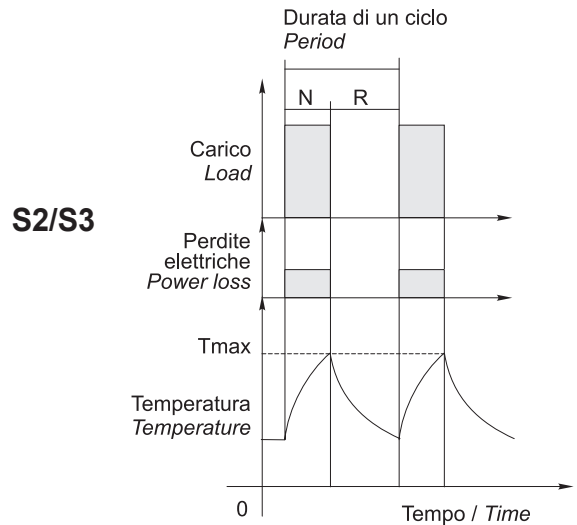
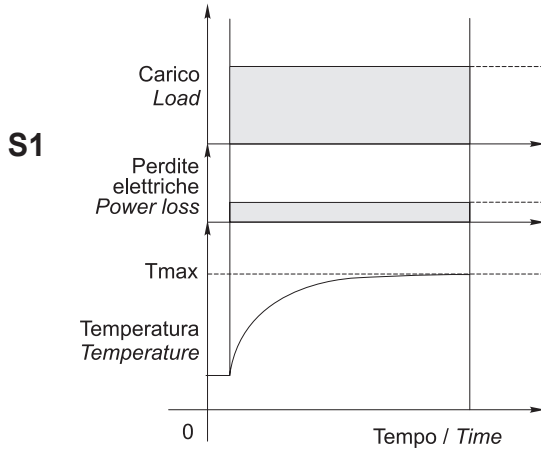
Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

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.

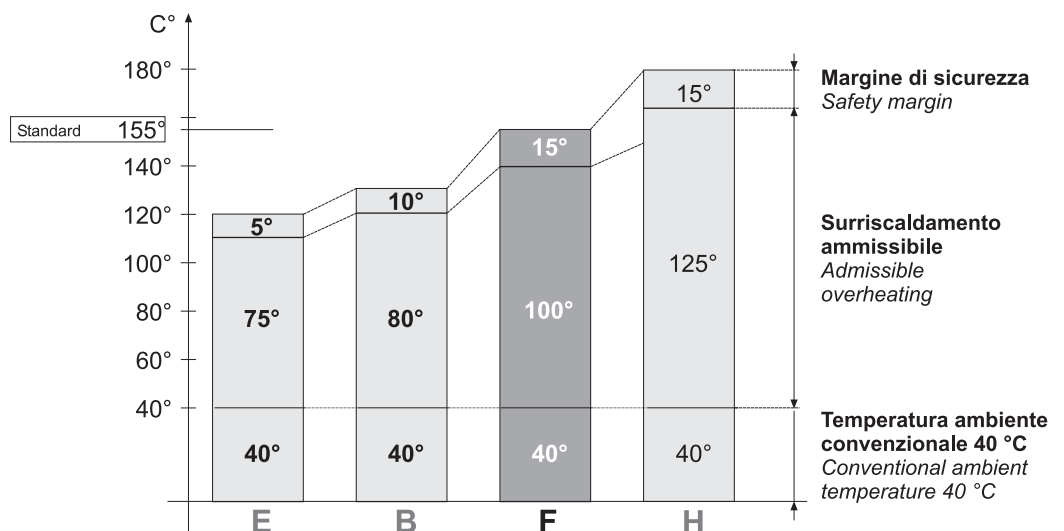
Classe di isolamento termico

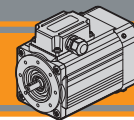
Insulation class

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

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

Serie SMM / SMM Series

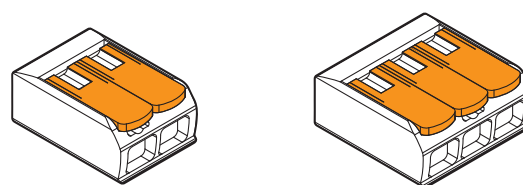
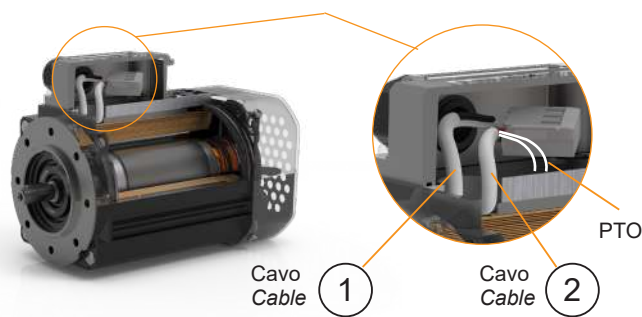
| TAGLIA SIZE | Pressacavo Cable gland |
|----------------|---------------------------|
| 50 / 56 / 63 | n°2 - M16x1.5 |
| 71 | M20x1.5 + M16x1.5 |

Connessioni e collegamenti

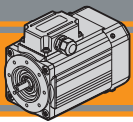
Connection diagram

Riferimenti

References



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

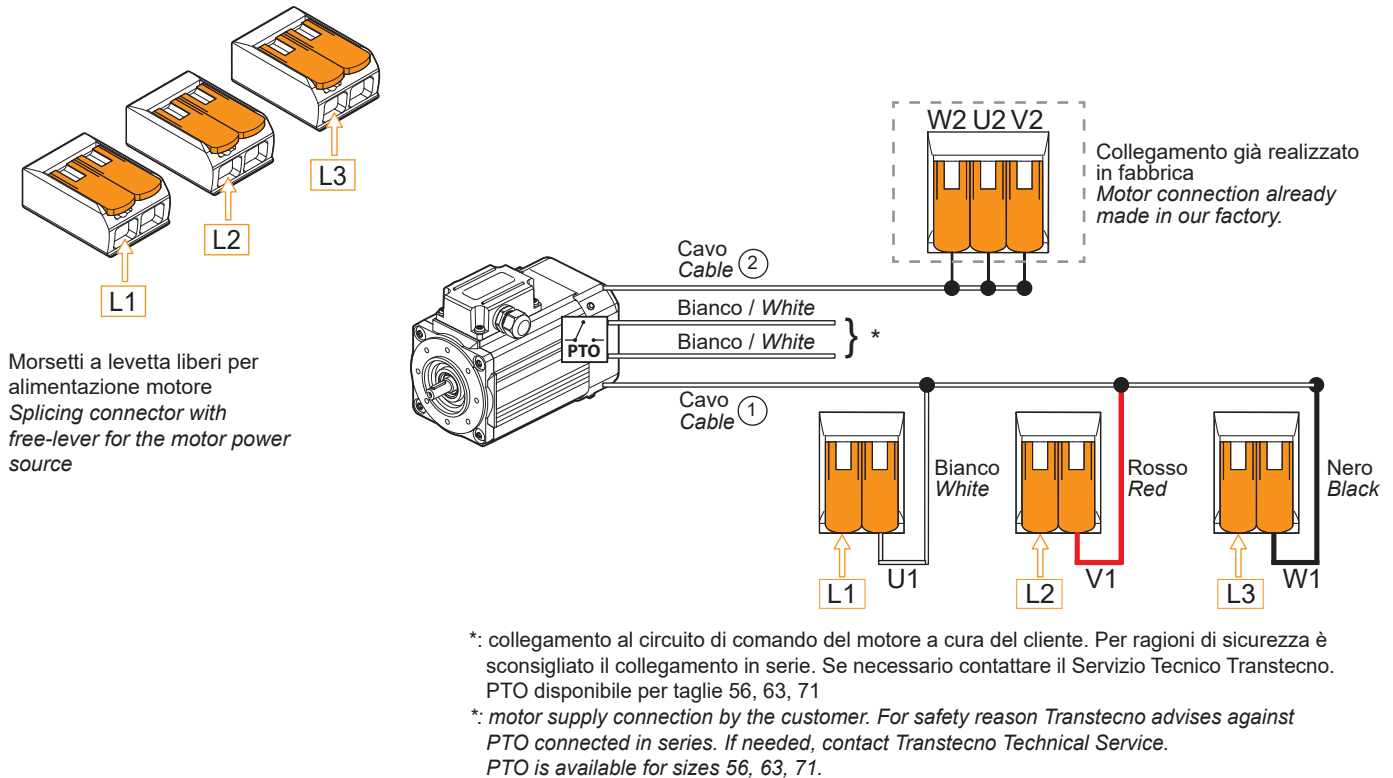


Connessioni e collegamenti

Connection diagram

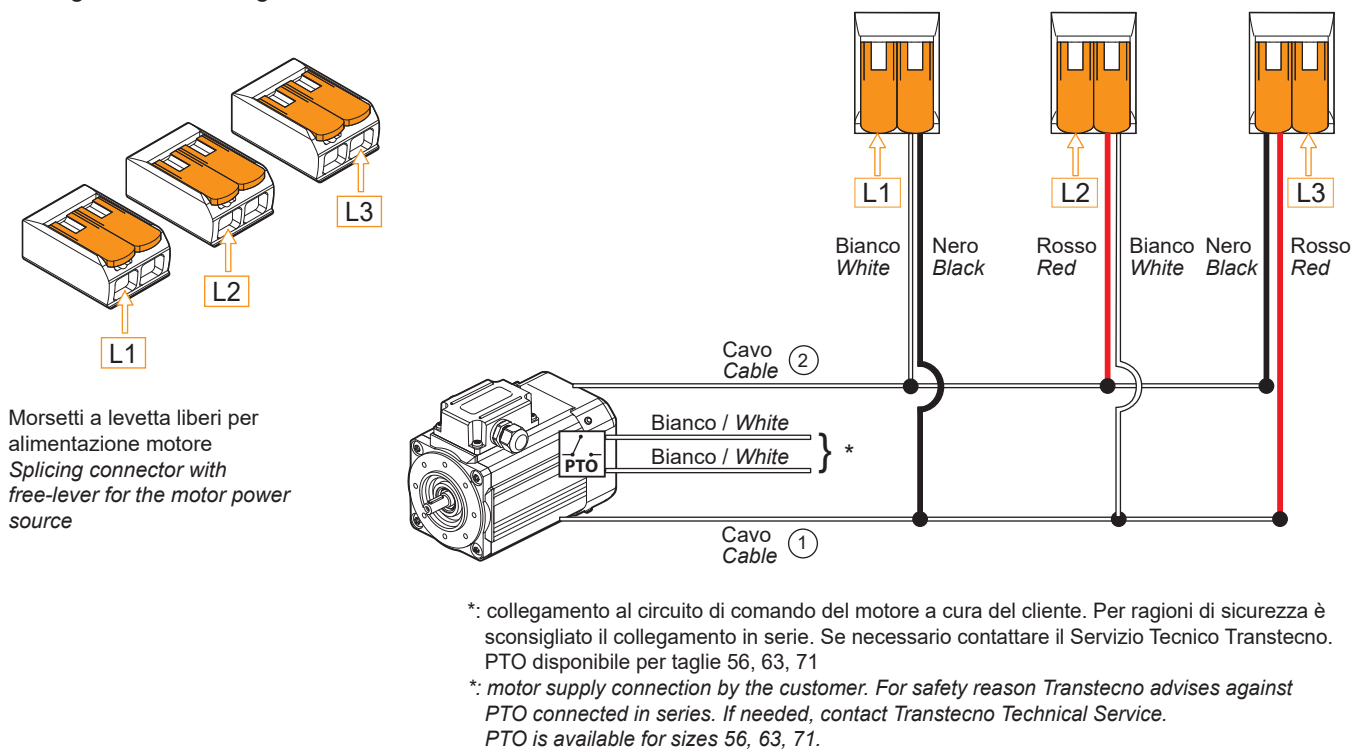
400/460 V - Trifase / Shree phase

Collegamento a stella / Star connection



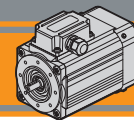
230 V - Trifase / Three phase

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.

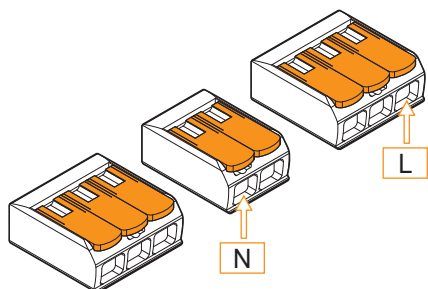


Connessioni e collegamenti

Connection diagram

230 V - Monofase / Single phase

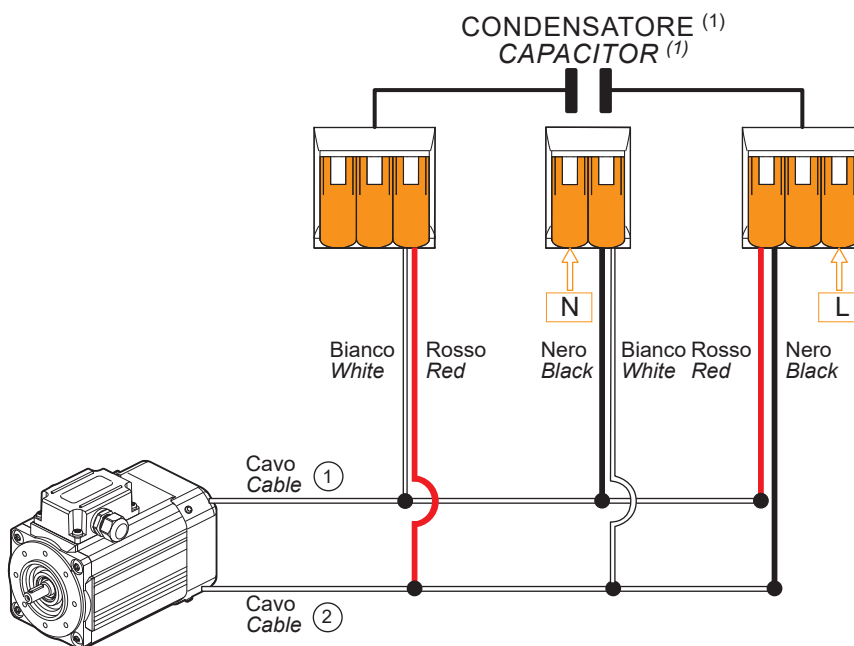
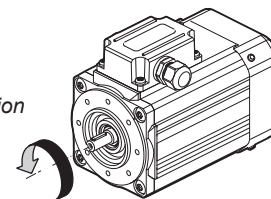
Monofase SMM 50... / Single phase SMM 50...



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

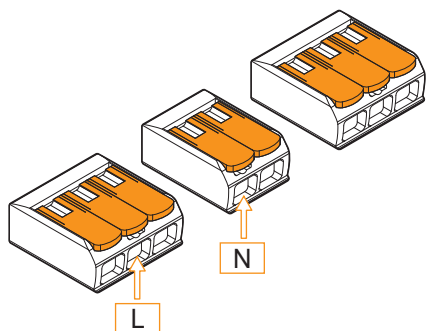
(1): il condensatore sarà fornito a corredo.
(1): the capacitor will be supplied separately.

Senso di rotazione antiorario
Counter-clockwise direction of rotation



230 V - Monofase / Single phase

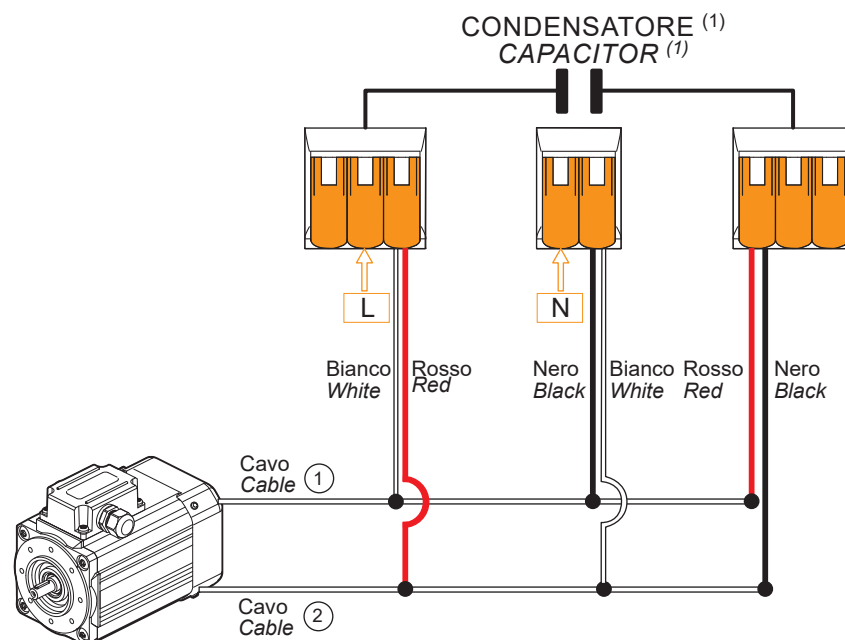
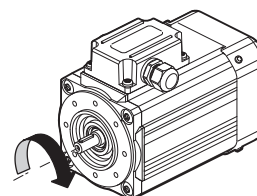
Monofase SMM 50... / Single phase SMM 50...

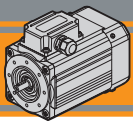


Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

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

Senso di rotazione orario
Clockwise direction of rotation



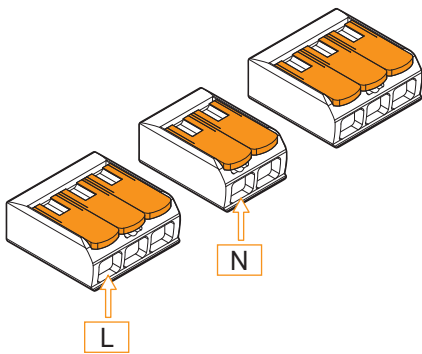


Connessioni e collegamenti

Connection diagram

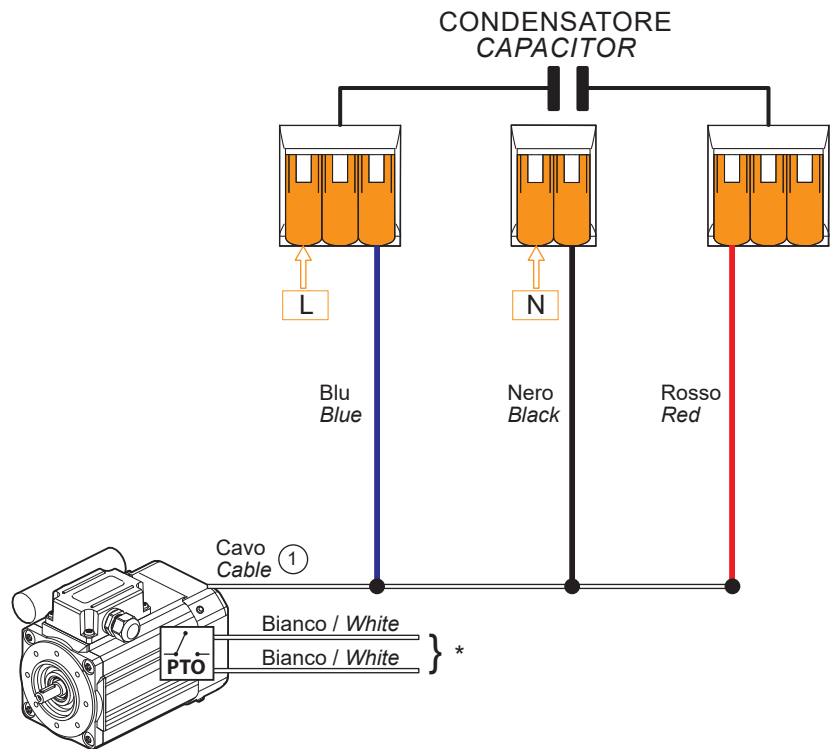
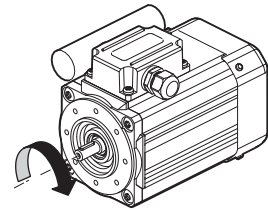
230 V - Monofase / Single phase

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



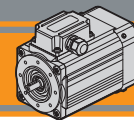
Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

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.

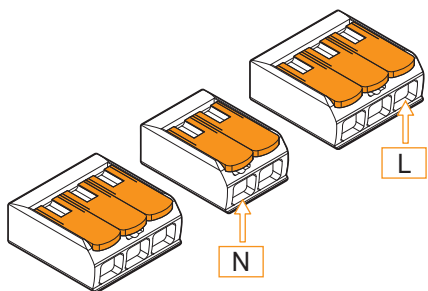


Conessioni e collegamenti

Connection diagram

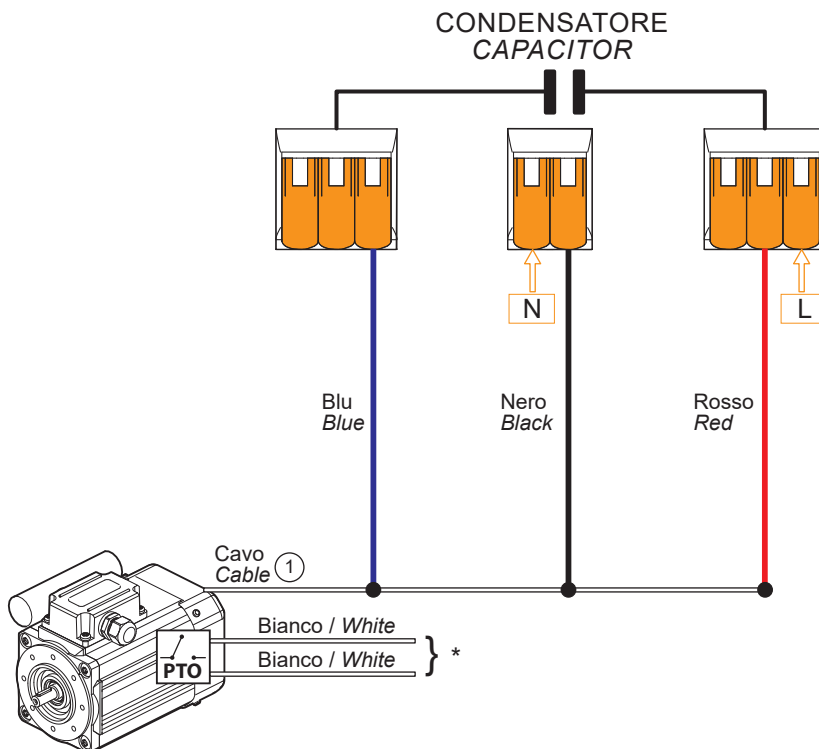
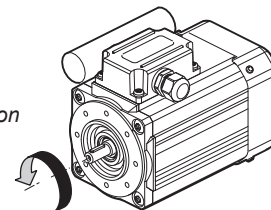
230 V - Monofase / Single phase

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



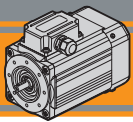
Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

Senso di rotazione antiorario
Counter-clockwise direction of rotation



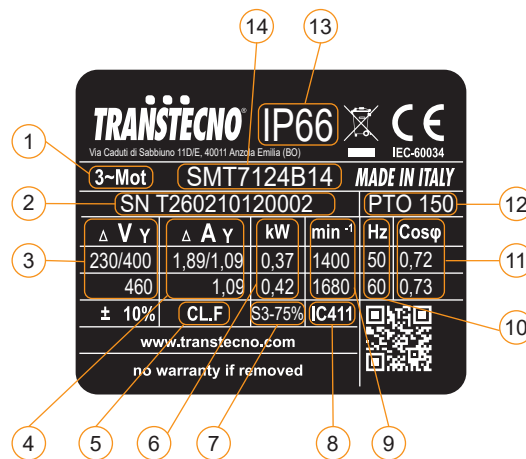
*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71

*: 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



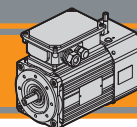
Motori elettrici CA autofrenanti
AC electric motors with brake



AC

MINI  **TECNO**™ brand of
TRANSTECNO®



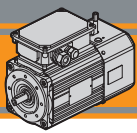


BRAKE

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| Caratteristiche tecniche | <i>Technical features</i> | AB2 |
| Designazione | <i>Classification</i> | AB2 |
| Simbologia e formule | <i>Symbols and formulas</i> | AB3 |
| Dati tecnici | <i>Technical data</i> | AB3 |
| Dimensioni motori trifase | <i>Three phase motors dimensions</i> | AB4 |
| 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 |
| Connessioni e collegamenti | <i>Connection diagram</i> | AB8 |
| 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

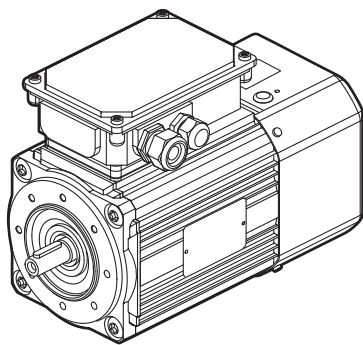
Technical characteristics

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

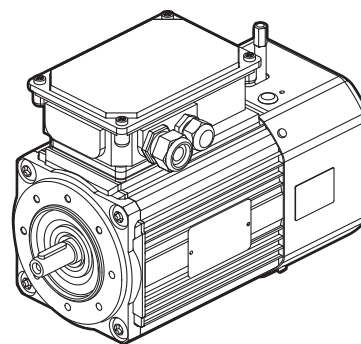
SMT..BR braked motor range has the following main features:

- 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



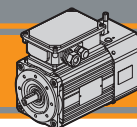
SMT..TEFC BRL



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) |
| | | $\frac{\sqrt{x} \cdot I \cdot x \cdot \sqrt{3} \cdot x \cdot \cos\phi}{1000}$ (trifase) | $\frac{\sqrt{x} \cdot I \cdot x \cdot \sqrt{3} \cdot x \cdot \cos\phi}{1000}$ (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.

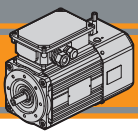
Il freno è a corrente continua e, in configurazione standard, viene alimentato direttamente da una fase del motore, passando attraverso un raddrizzatore alloggiato all'interno della morsetteria. Per le applicazioni in cui si rende necessario, come ad esempio l'azionamento tramite inverter, è possibile 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.

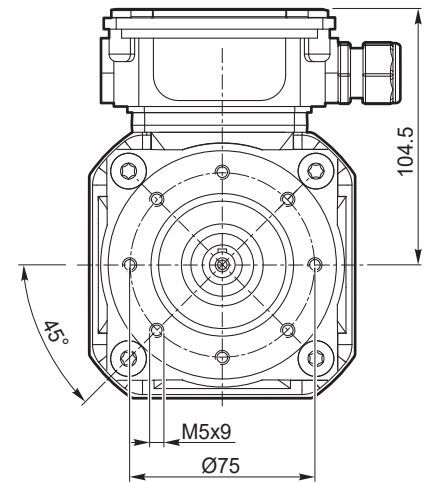
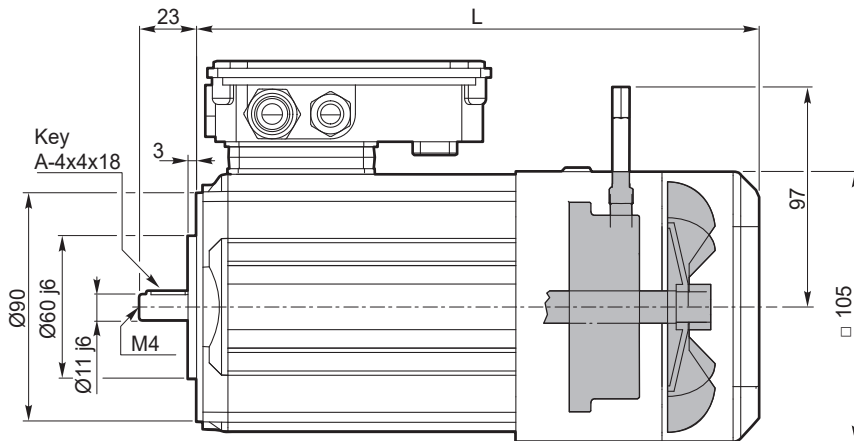


Dimensioni motori trifase

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.

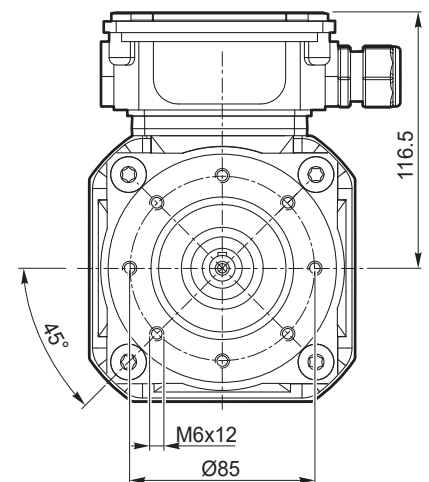
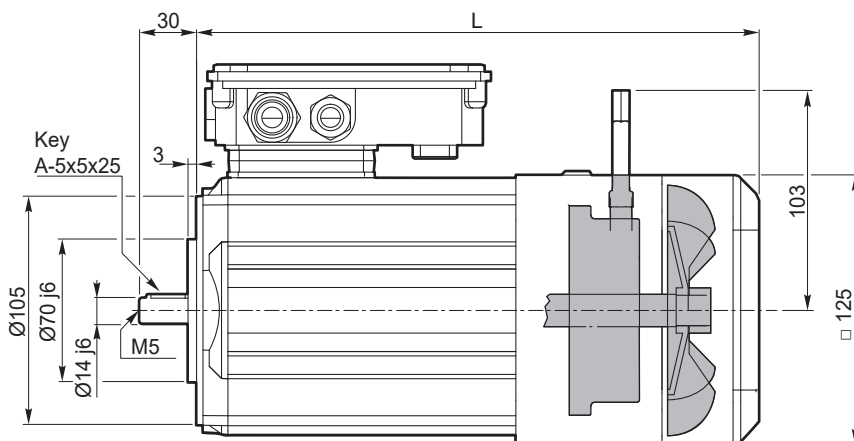
Note:

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)



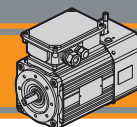
Nota:

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

Note:

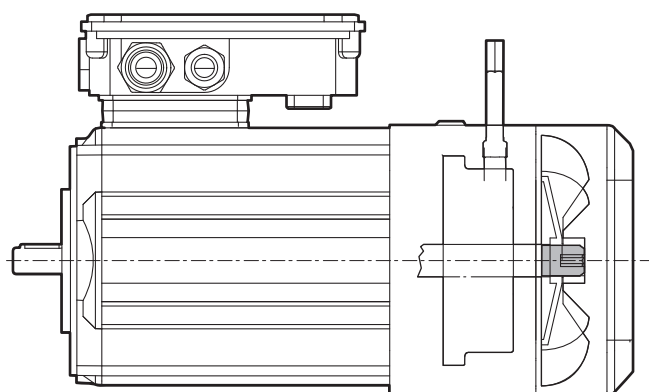
The release lever is an option that must be requested when ordering.

| 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 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:

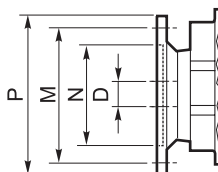
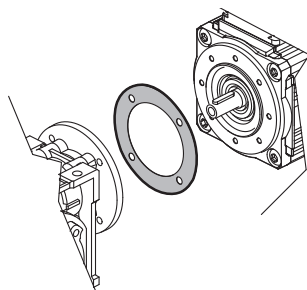
An omnipolar cut-off device must be fitted upstream of the power supply; the use of this device is mandatory during manual rotation operations.

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.

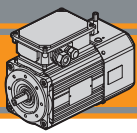
AC

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.




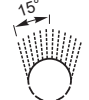

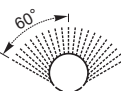


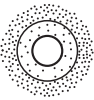


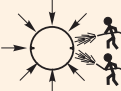


1^a cifra protezione alla penetrazione di corpi solidi.

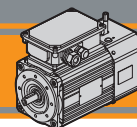
2^a cifra protezione contro la penetrazione d'acqua.

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. 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. | N.A. | 7 |  | Protetto contro immersione. Immersion up to 1 metre. |
| 8 | N.A. | N.A. | 8 |  | Protetto contro immersione/sommersione prolungata. Immersion beyond 1 metre. |



Tipi di servizi IEC

IEC duty cycles

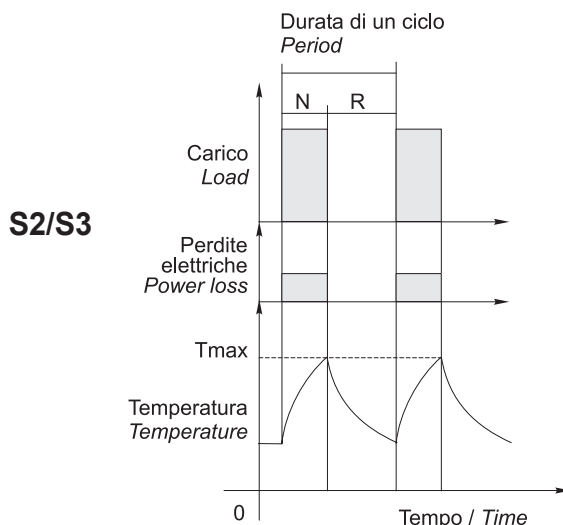
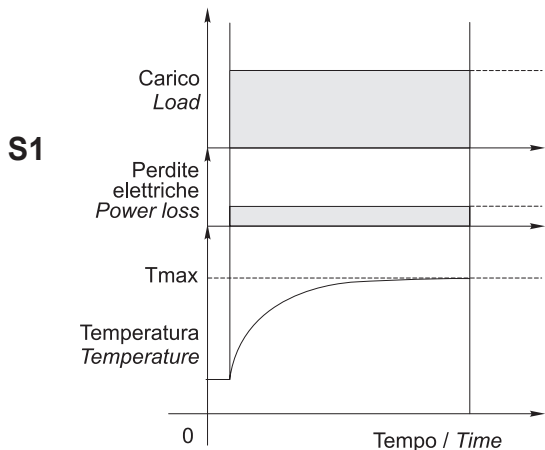
Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

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.

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 |

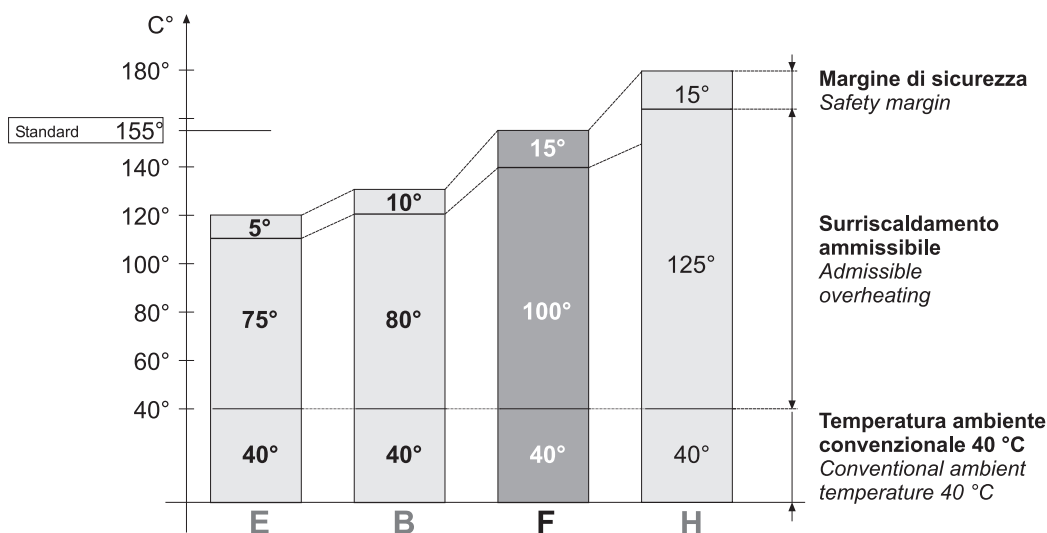
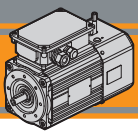


Tabella pressacavi

Table of cable glands data

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

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

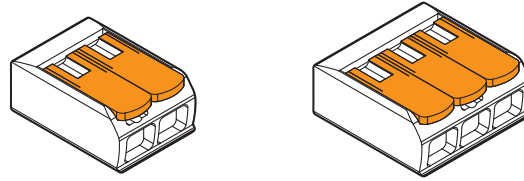


Connessioni e collegamenti

Connection diagram

Riferimenti

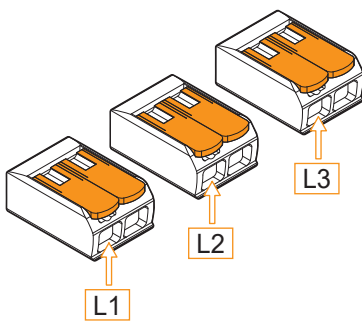
References



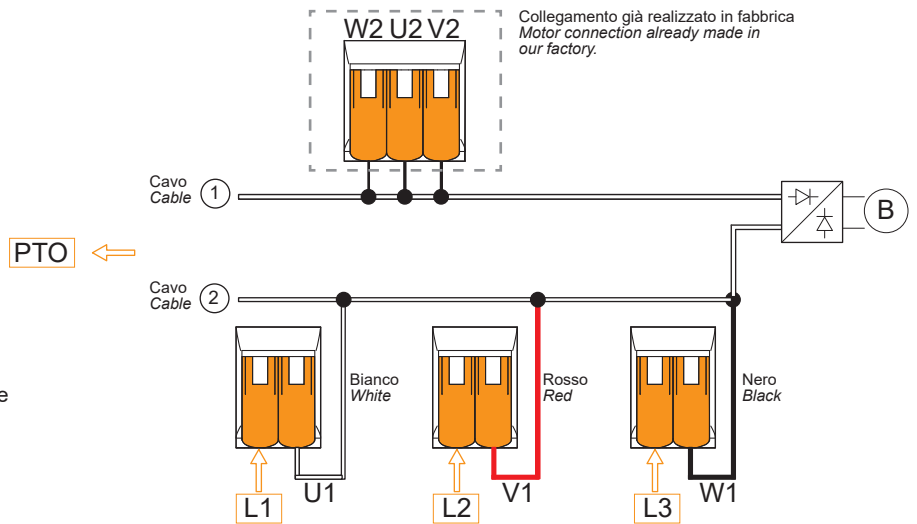
Morsetto di collegamento a leva a 2 e 3 poli
Splicing connector with lever 2 - and 3 - pin.

400/460 V - Trifase / three phase

Collegamento a stella / Star connection

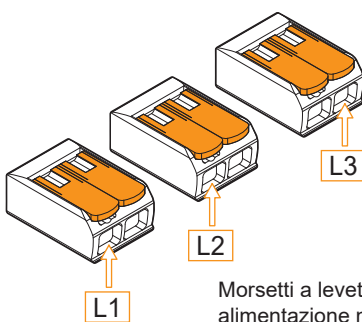


Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

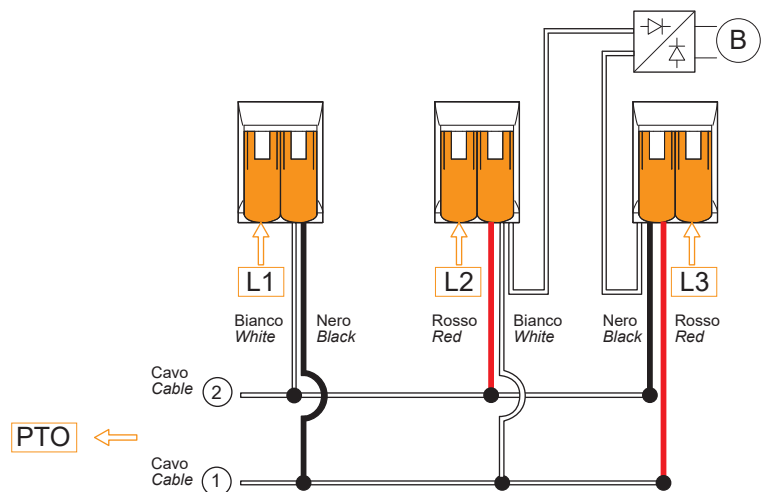


230 V - Trifase / three phase

Collegamento a triangolo / Delta connection

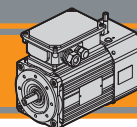


Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source



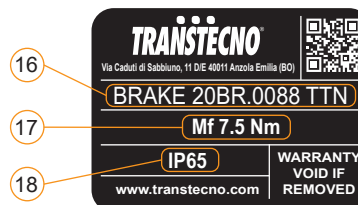
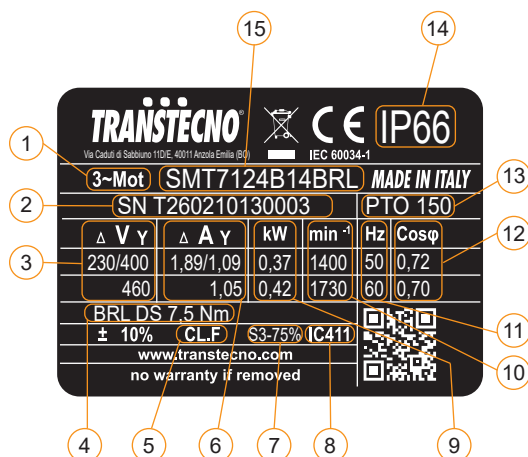
I motori della serie SM sono forniti in collegamento a stella, lo schema di collegamento a triangolo sopra riportato fornisce una chiara indicazione delle modifiche che il cliente può apportare in autonomia. Se necessario contattare il Servizio Tecnico Transtecno.

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



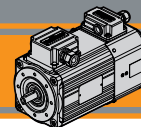
AC

Motori elettrici CA servoventilati
AC electric motors with forced-ventilation



MINI  **TECNO**™ brand of
TRANSTECNO®

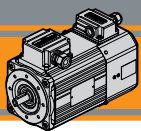




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| Designazione | <i>Classification</i> | AC2 |
| Simbologia e formule | <i>Symbols and formulas</i> | AC3 |
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| Dimensioni motori trifase | <i>Three phase motors dimensions</i> | AC4 |
| Opzione guarnizione CA | <i>Rubber gasket option</i> | AC5 |
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| 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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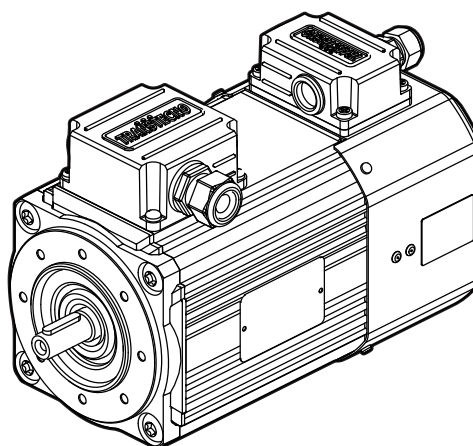
Caratteristiche tecniche

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





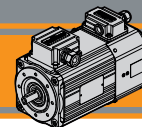
SMT..SV



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 |
| $\cos\phi$ | | 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] | $\frac{\sqrt{x} \cdot I \cdot \cos\phi}{1000}$ (monofase) | $\frac{\sqrt{x} \cdot I \cdot \cos\phi}{1000}$ (singlephase) |
| | | $\frac{\sqrt{x} \cdot I \cdot \sqrt{3} \cdot \cos\phi}{1000}$ (trifase) | $\frac{\sqrt{x} \cdot I \cdot \sqrt{3} \cdot \cos\phi}{1000}$ (threephase) |
| I_n (230 V) | | I_n (400 V) x $\sqrt{3}$ | I_n (400 V) x $\sqrt{3}$ |

Dati tecnici

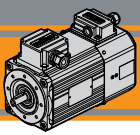
Technical data

SMT..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 % | $\cos\phi$ | 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

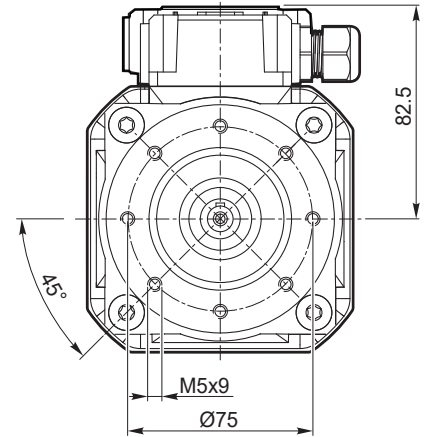
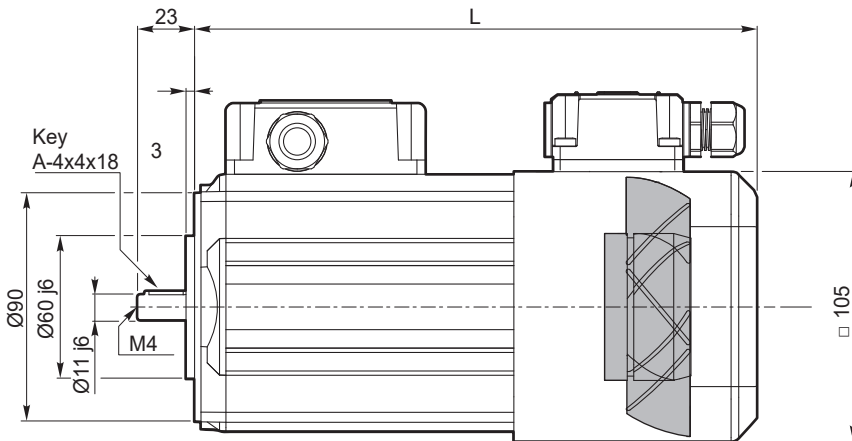


Dimensioni motori trifase

Three phase motors dimensions

3 ~

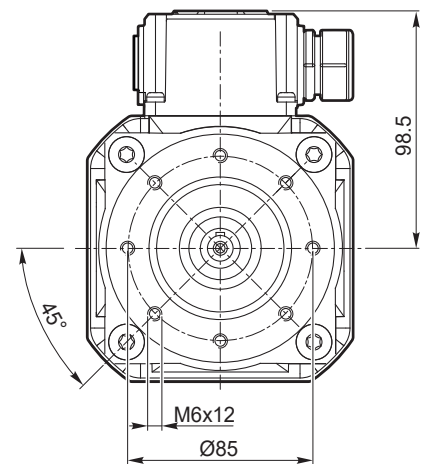
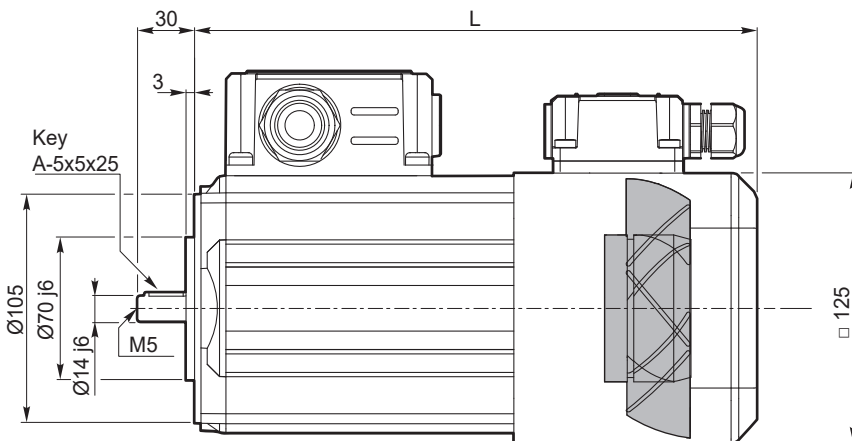
SMT63.. - B14 - SV



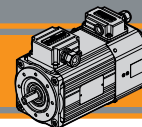
| SMT | ... SV | |
|------|--------|-----|
| | L | Kg |
| 6324 | 210 | 5.0 |
| 6334 | 225 | 5.7 |
| 6344 | 250 | 6.8 |

3 ~

SMT71.. - B14 - SV

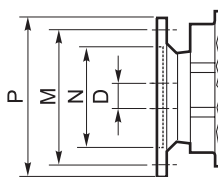
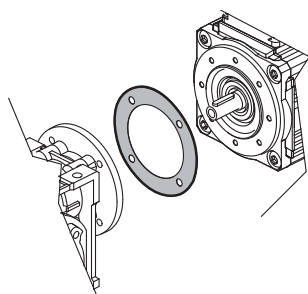


| SMT | ... SV | |
|------|--------|------|
| | L | Kg |
| 7124 | 219 | 7.5 |
| 7134 | 234 | 8.5 |
| 7144 | 259 | 10.2 |



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.

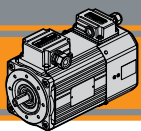
1^a cifra protezione alla penetrazione di corpi solidi.

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. |



Tipi di servizi IEC

IEC duty cycles

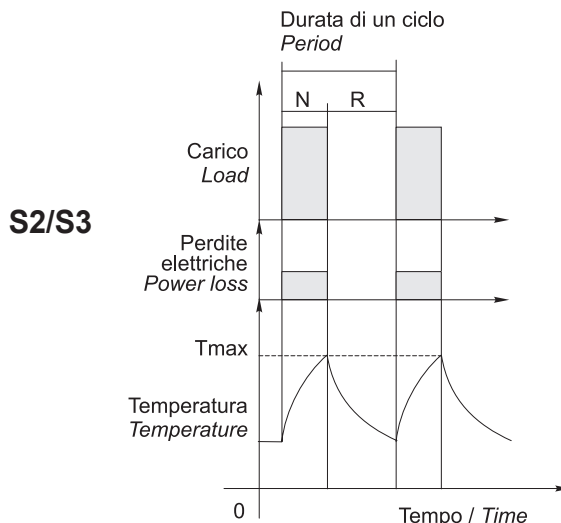
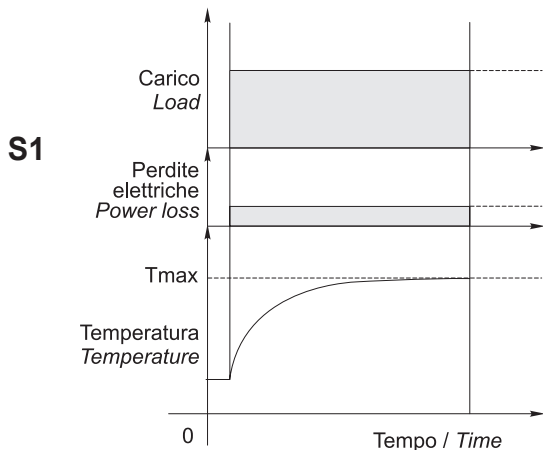
Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

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.

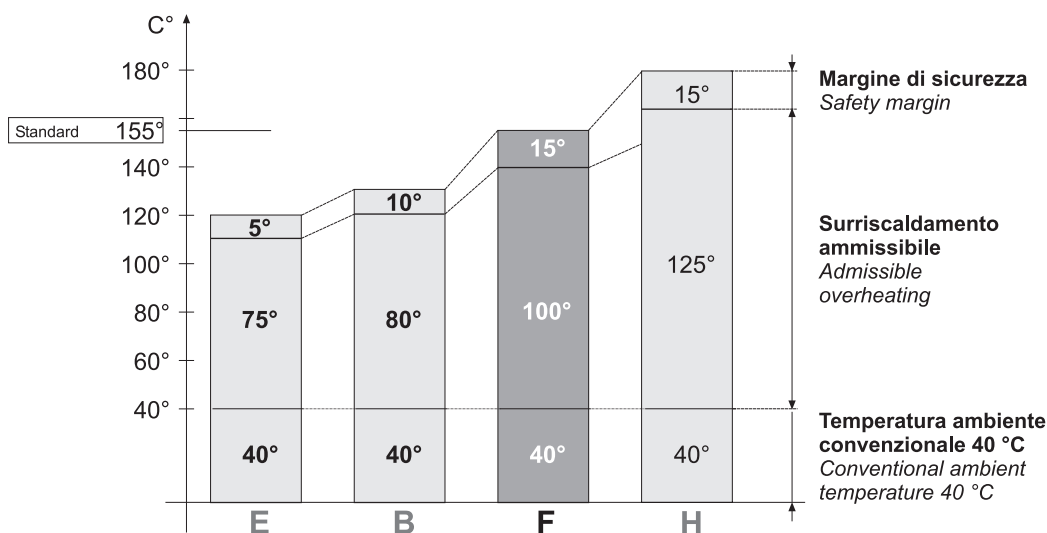
Classe di isolamento termico

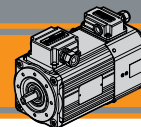
Insulation class

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 $\approx + 20\%$ Coppia / torque $\approx -20\%$ Potenza / power \approx invariata / the same |
| 480 V | Non permesso / not allowed | Velocità / speed $\approx + 20\%$ Coppia / torque \approx invariata / the same Potenza / power $\approx + 20\%$ |

AC

Tabella pressacavi

Table of cable glands data

Serie SM..BR / SM..BR Series

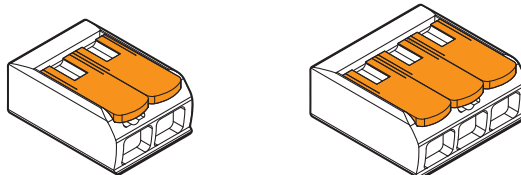
| TAGLIA SIZE | Pressacavo Cable gland |
|----------------|---------------------------|
| 63 / 71 | 1x M20x1.5 |

Connessioni e collegamenti - Motore

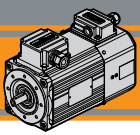
Connection diagram - Motor

Riferimenti

References



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

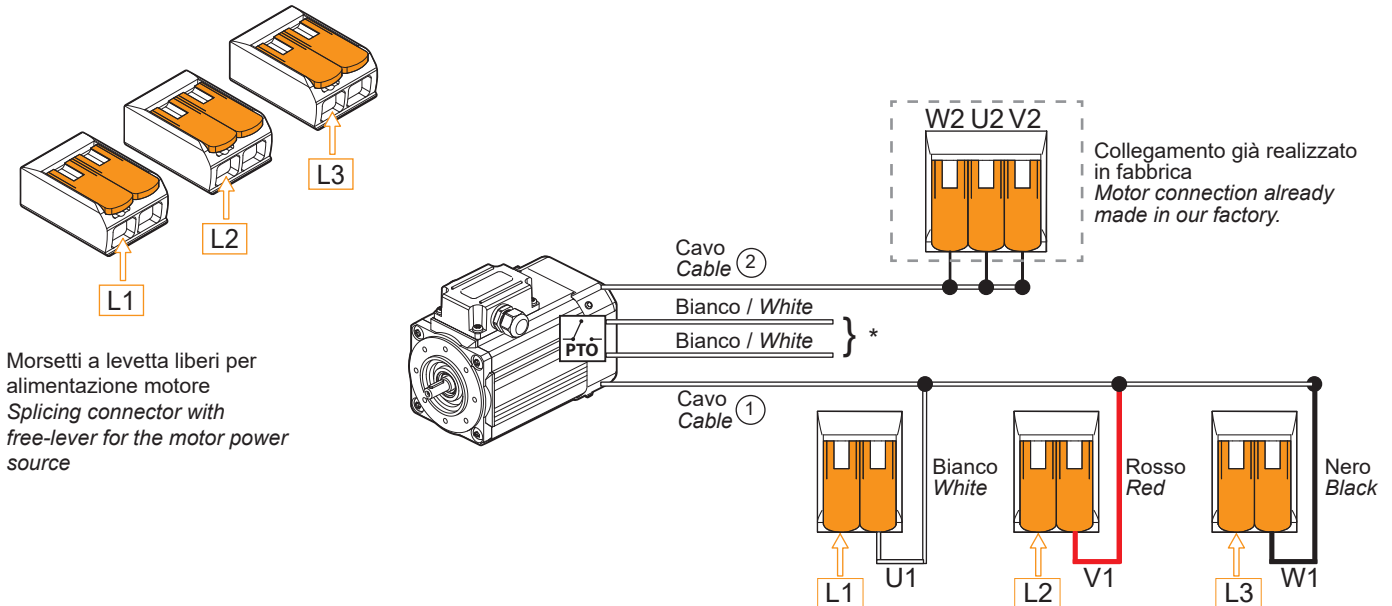


Connessioni e collegamenti - Motore

Connection diagram - Motor

400/460 V - Trifase / three phase

Collegamento a stella / Star connection

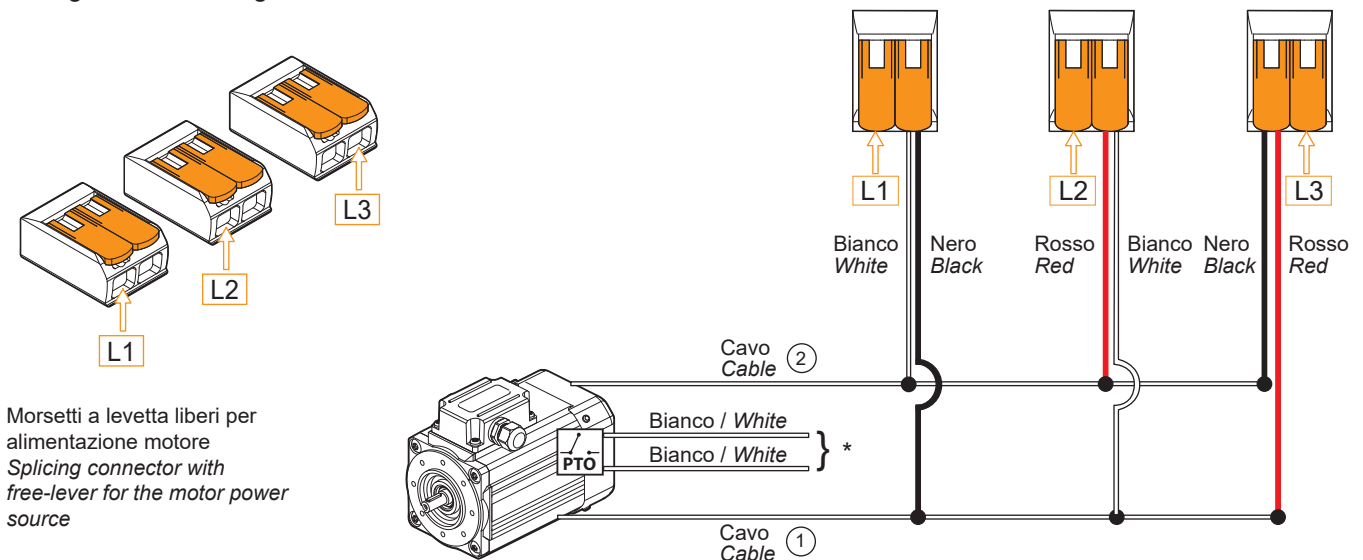


*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71, 80, 90.

*: 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

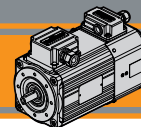


*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno. PTO disponibile per taglie 56, 63, 71, 80, 90.

*: 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.

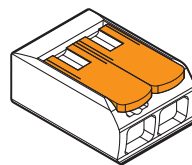
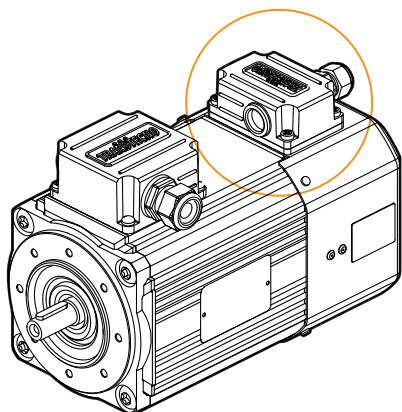


Connessioni e collegamenti - Servoventola

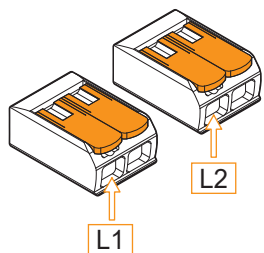
Connection diagram - Servo fan

Riferimenti

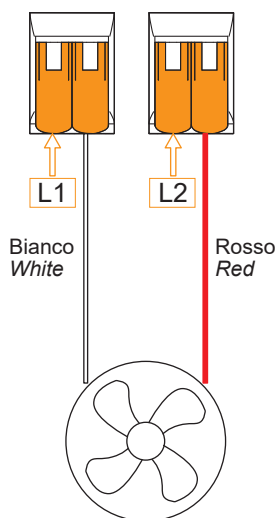
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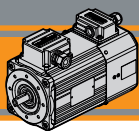


Morsetto di collegamento a leva a 2 poli
Splicing connector with lever 2 pin.



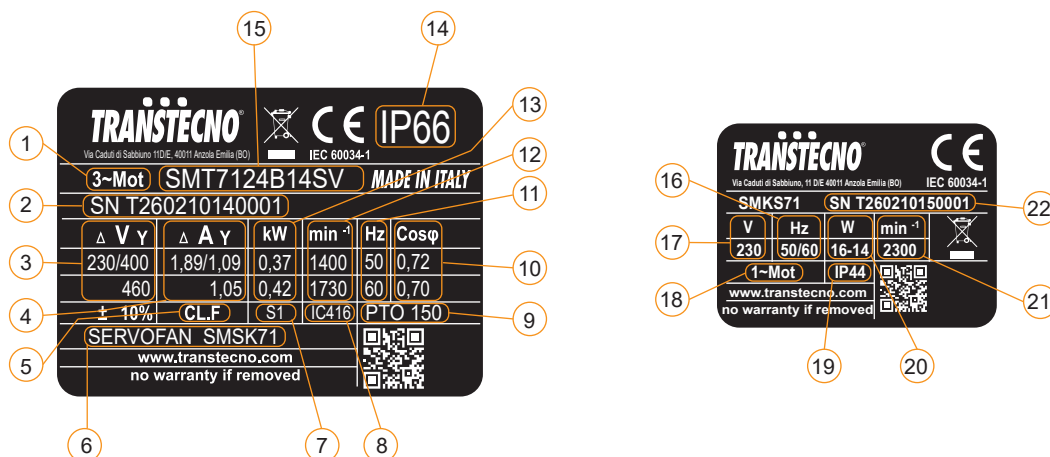
Morsetti a levetta liberi per alimentazione servoventola
Splicing connector with free-lever for the electric fan





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 |

MINI  **TECNO**™
small but strong

SM..UL/CSA



Motori elettrici asincroni CA
AC asynchronous electric motors

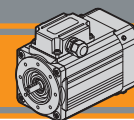
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MINI  **TECNO**™ brand of
TRANSTECNO®



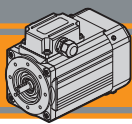
AC



| Indice | Index | Pag. Page |
|----------------------------|---------------------------------------|--------------|
| Caratteristiche tecniche | <i>Technical features</i> | AD2 |
| Designazione | <i>Classification</i> | AD2 |
| Simbologia e formule | <i>Symbols and formulas</i> | AD3 |
| Dati tecnici | <i>Technical data</i> | AD3 |
| Dimensioni motori trifase | <i>Three phase motors dimensions</i> | AD4 |
| Dimensioni motori monofase | <i>Single phase motors dimensions</i> | AD7 |
| Cava esagonale | <i>Hexagonal socket</i> | AD8 |
| Versioni opzionali | <i>Optional versions</i> | AD8 |
| Opzione guarnizione CA | <i>Rubber gasket option</i> | AD8 |
| Certificazione UL / CSA | <i>UL / CSA certificate</i> | AD8 |
| Gradi di protezione IP | <i>IP protection rating</i> | AD9 |
| Tipo di servizio IEC | <i>IEC duty cycles</i> | AD10 |
| Tabella pressacavi | <i>Table of cable glands data</i> | AD10 |
| Connessioni e collegamenti | <i>Connection diagram</i> | AD11 |
| Targhetta | <i>Nameplate</i> | AD13 |

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Caratteristiche tecniche

Technical characteristics

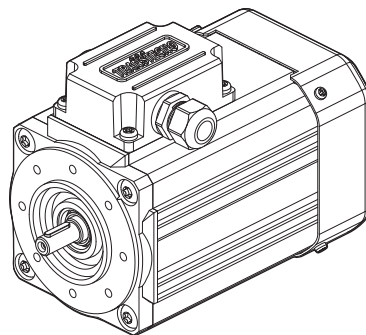
I motori certificati UL/CSA delle serie SMT ed SMM hanno le seguenti caratteristiche principali:

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

- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcasa 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







CEC US
File E511911

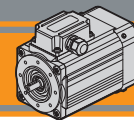


Designazione

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 | 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 | 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**

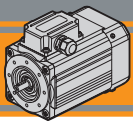
 (460 V / 60 Hz) poli / poles **4**

| 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 | | |

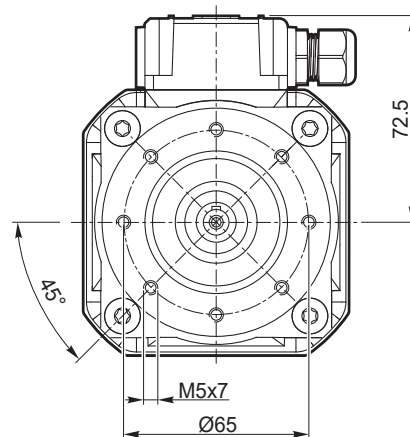
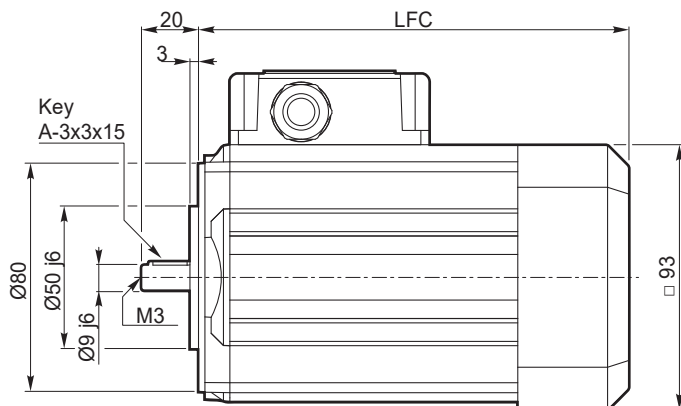


Dimensioni motori trifase

Three phase motors dimensions

3 ~

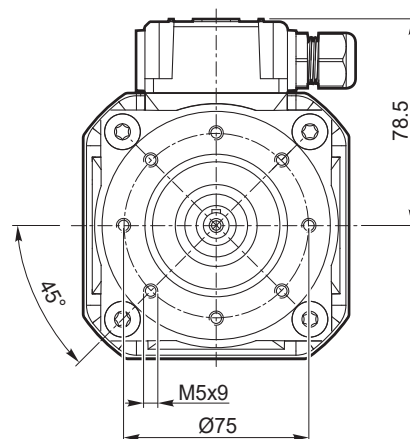
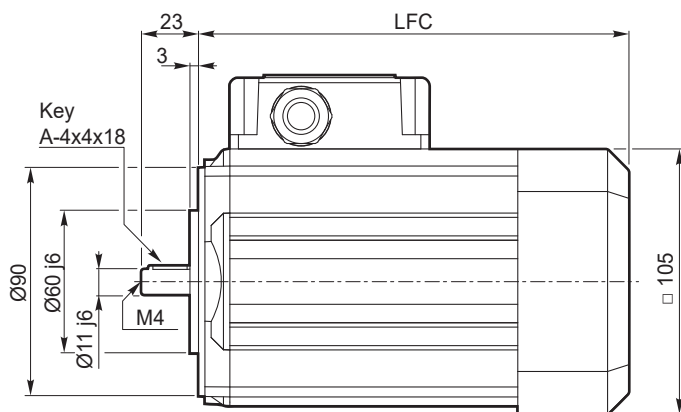
SMT56.. - B14 - TEFC



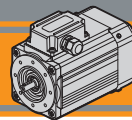
| SMT | ... TEFC | |
|------|----------|-----|
| | LFC | Kg |
| 5624 | 186 | 3.1 |
| 5634 | 186 | 3.5 |

3 ~

SMT63.. - B14 - TEFC



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

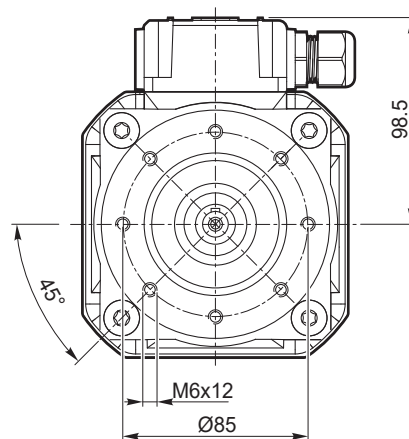
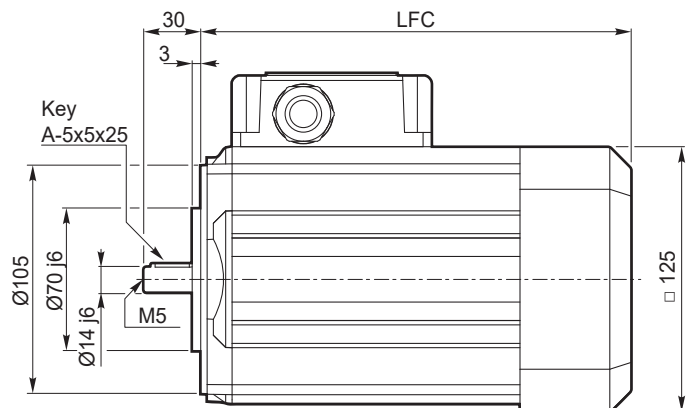



Dimensioni motori trifase

Three phase motors dimensions

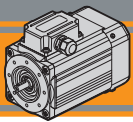
3 ~

SMT71.. - B14 - TEFC



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

AC

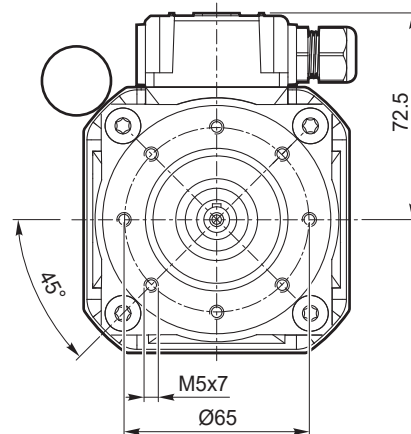
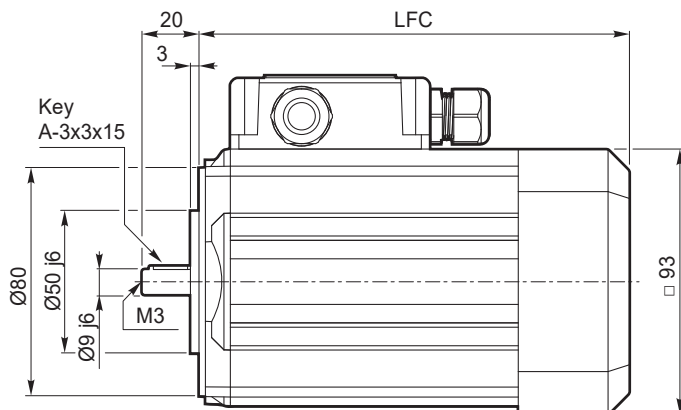


Dimensioni motori monofase

Single phase motors dimensions

1 ~

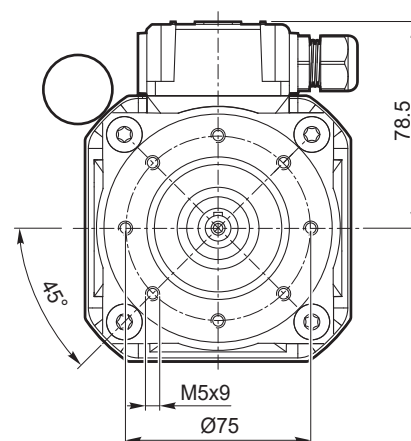
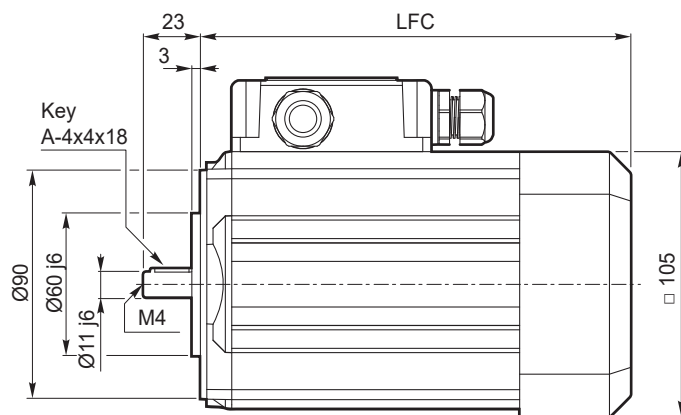
SMM56.. - B14 - TEFC



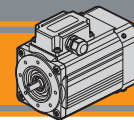
| SMM | ... TEFC | |
|------|----------|-----|
| | LFC | Kg |
| 5624 | 186 | 3.6 |

1 ~

SMM63.. - B14 - TEFC



| SMM | ... TEFC | |
|------|----------|-----|
| | LFC | Kg |
| 6324 | 205.5 | 5.5 |

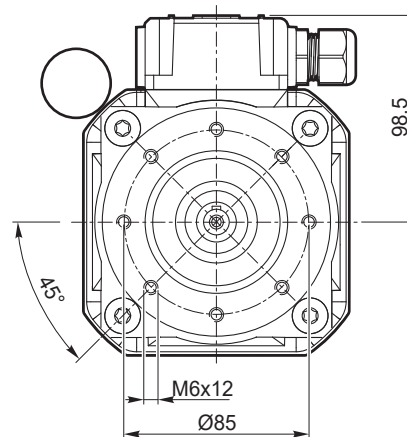
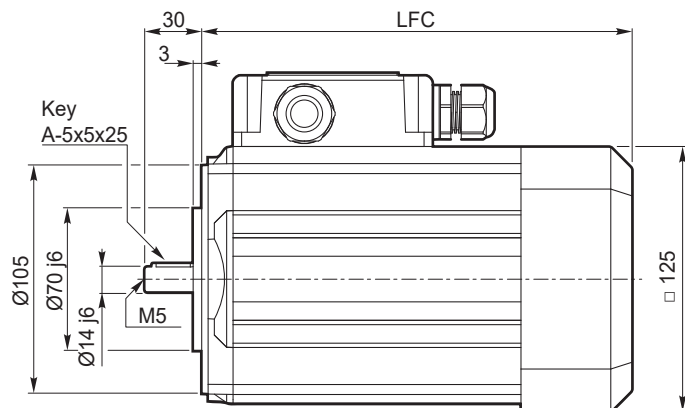


Dimensioni motori monofase

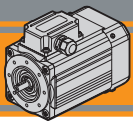
Single phase motors dimensions

1 ~

SMM71.. - B14 - TEFC

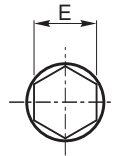
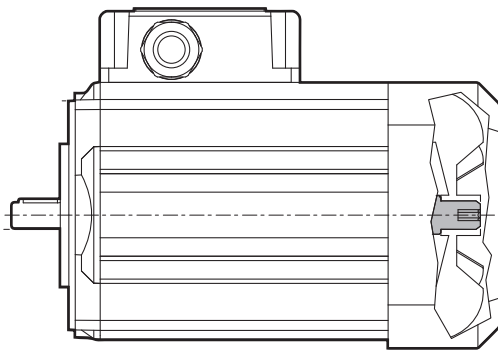


| SMM | ... TEFC | |
|------|----------|-----|
| | LFC | kg |
| 7124 | 214 | 8.0 |



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.

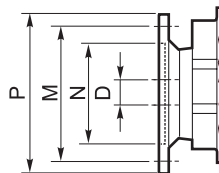
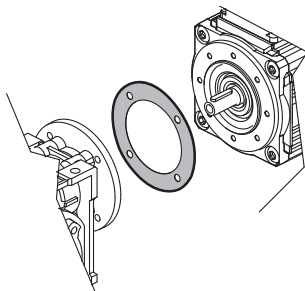
Note:

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

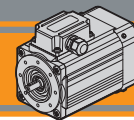
UL / CSA certificate

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

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.

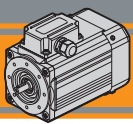
IP protection rating

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

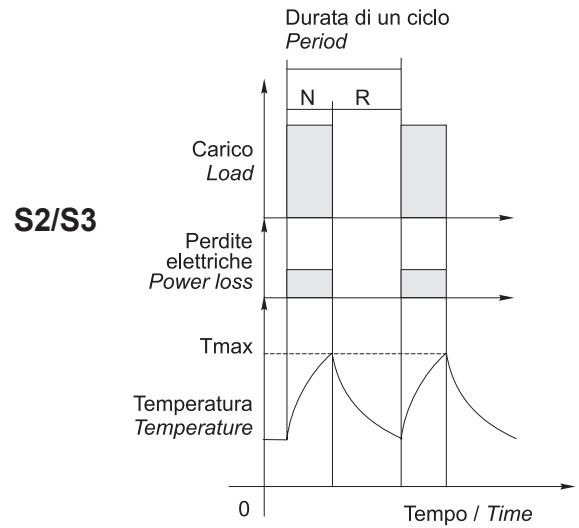
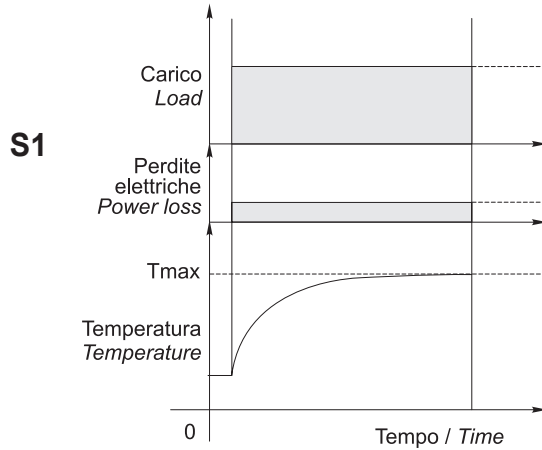
Il servizio di un motore indica il tipo di utilizzo e la gravosità del ciclo di lavoro.

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

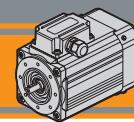
Table of cable glands data

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 |

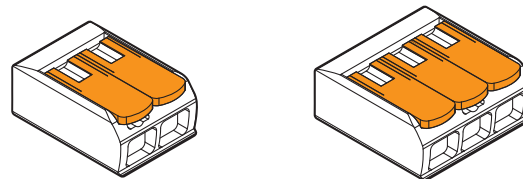
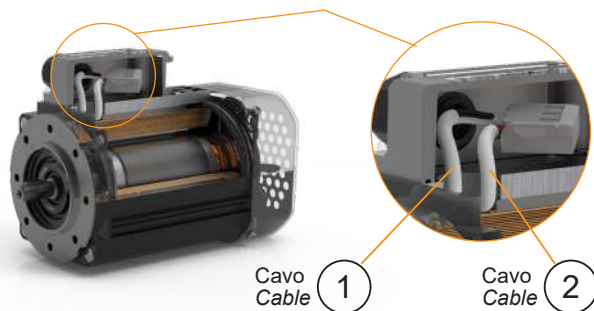


Connessioni e collegamenti

Connection diagram

Riferimenti

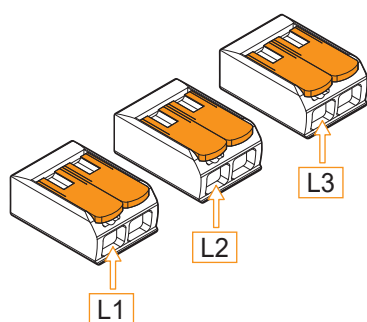
References



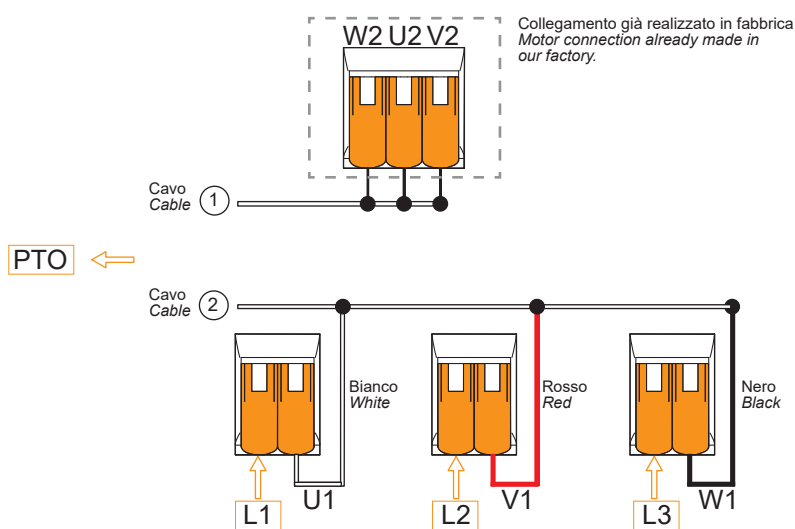
Morsetto di collegamento a leva a 2 e 3 poli
Splicing connector with lever 2- and 3- pin.

400/460 V - Trifase / three phase

Collegamento a stella / Star connection

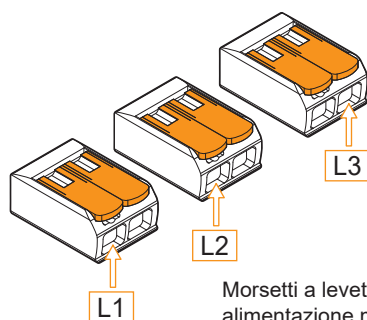


Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source



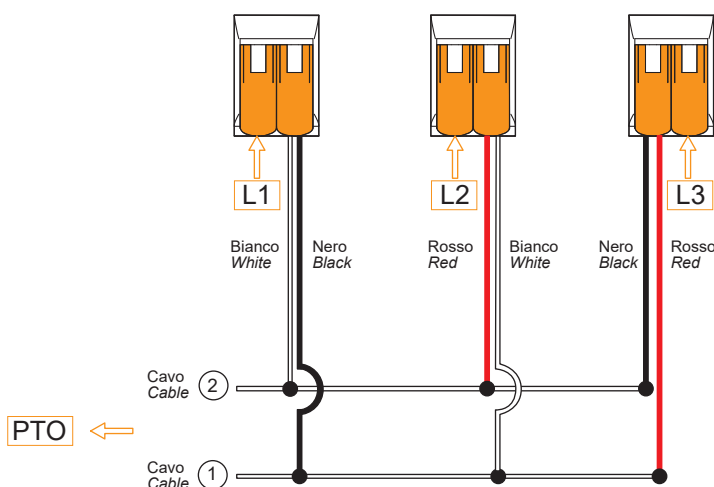
230 V - Trifase / three phase

Collegamento a triangolo / Delta connection



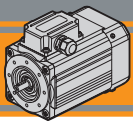
Morsetti a levetta liberi per alimentazione motore

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.

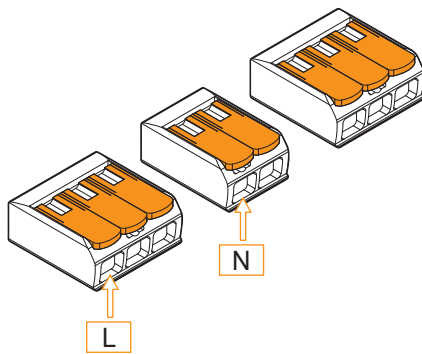


Connessioni e collegamenti

Connection diagram

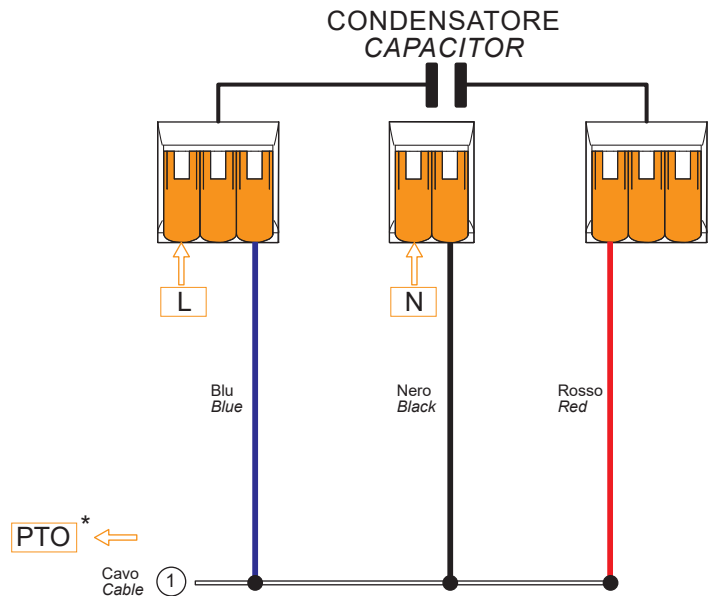
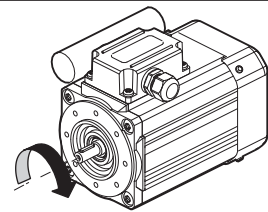
115 V - Monofase / single phase

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



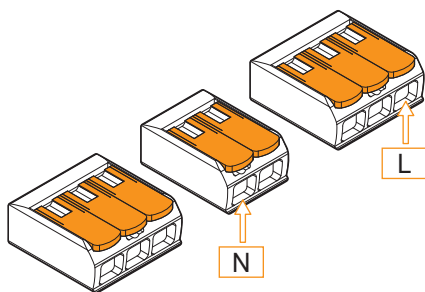
Morsetti a levetta liberi per alimentazione motore
Splicing connector with free-lever for the motor power source

Senso di rotazione orario
Clockwise direction of rotation



115 V - Monofase / single phase

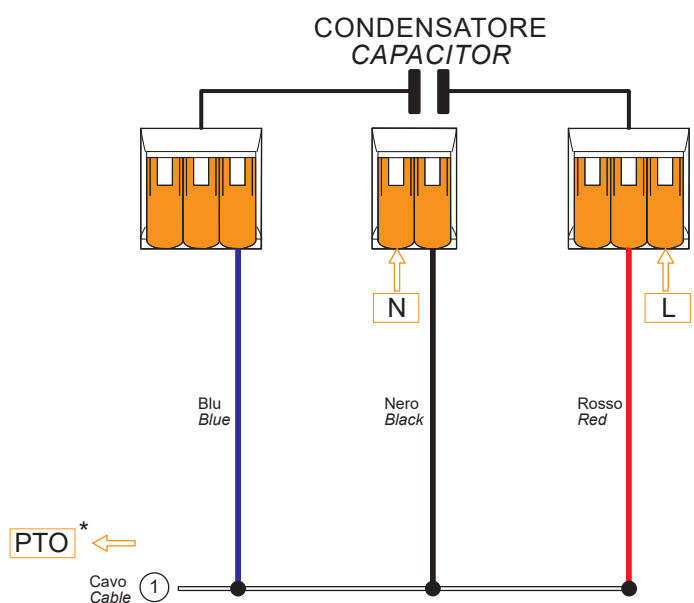
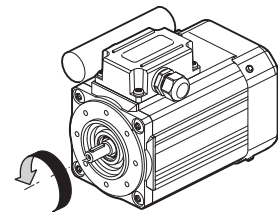
Monofase da SMM 56... a SMM 71... / Single phase from SMM 56... to SMM 71...



Morsetti a levetta liberi per alimentazione motore

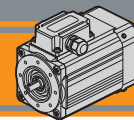
Splicing connector with free-lever for the motor power source

Senso di rotazione antiorario
Counter-clockwise direction of rotation



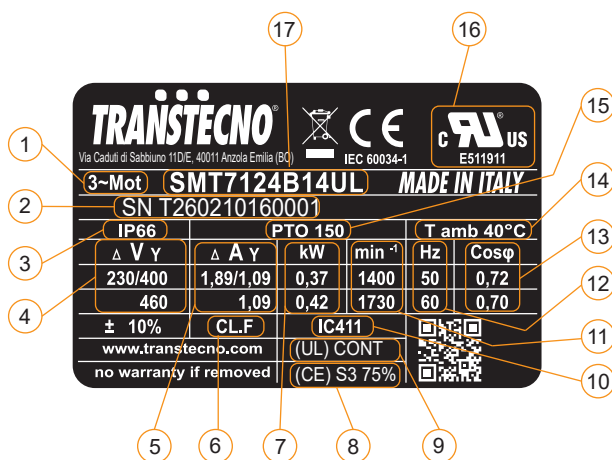
*: collegamento al circuito di comando del motore a cura del cliente. Per ragioni di sicurezza è sconsigliato il collegamento in serie. Se necessario contattare il Servizio Tecnico Transtecno.

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

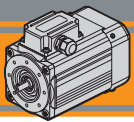


Targhetta

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 |



Note / Notes

MINI  **TECNO**™
small but strong

CMG

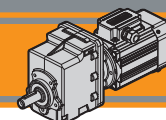
AC

Motoriduttori CA ad ingranaggi cilindrici AC Helical in-line gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®

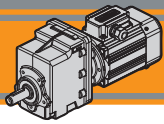




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|--------------------------|------------------------------|--------------|
| Caratteristiche tecniche | <i>Technical features</i> | AE2 |
| Designazione | <i>Classification</i> | AE2 |
| Sensi di rotazione | <i>Direction of rotation</i> | AE3 |
| Lubrificazione | <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 |

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

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Caratteristiche tecniche

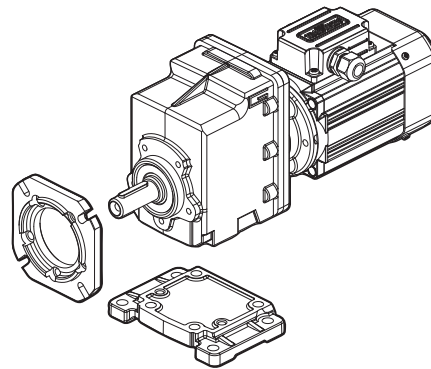
Technical features

Le caratteristiche principali dei motoriduttori CMG sono:

CMG gearmotor range has the following main features:

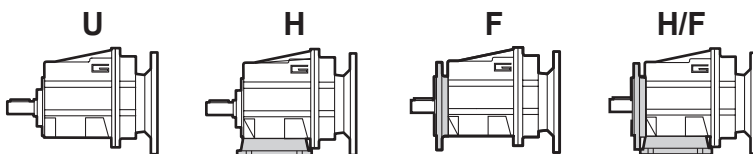
- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa motore estrusa in alluminio anodizzato nero
- Carcasse dei riduttori in pressofusione di alluminio
- Motore elettrico AC con grado di protezione IP66
- Lubrificazione permanente con olio sintetico
- Ingranaggi 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, 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

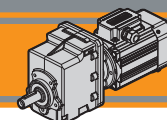


RIDUTTORE / GEARBOX

| 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

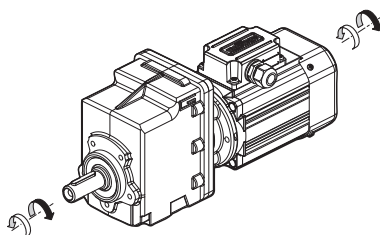
| SMT | 63 | 2 | 4 | 0.18 kW | B14 | 230-400 V | 50 Hz | TEFC | BR | T1 |
|----------------|-------------------------|---|---------------|---|------------------------------|-------------------------------------|--------------------------------|--------------------------------|--------------------|---------------------------------------|
| 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. 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 | | 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. Morsettiera 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.

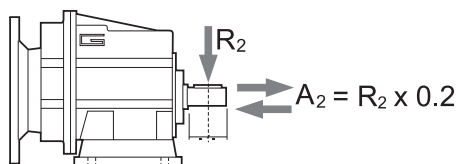
Simbologia

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

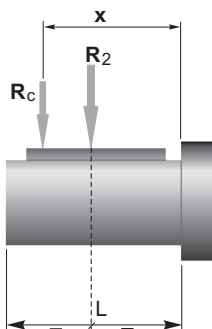
Radial loads



| | 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:

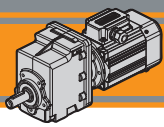


| | CMG 002 |
|------------|---------|
| a | 73 |
| b | 53 |
| R_{2MAX} | 1300 |

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

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

$$R \leq R_c$$



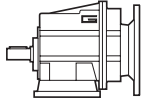
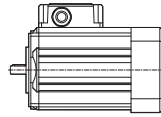
CMG

Motoriduttori CA ad ingranaggi cilindrici
AC Helical in-line gearmotors

MINI
TECNO

Motori applicabili

IEC Motor adapters

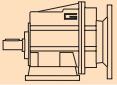
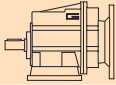






| | | SMT | | | | SMM | | | |
|------------|------------|--------------|------|------|------|------|------|------|------|
| | | 5014 | 5624 | 6324 | 7124 | 5014 | 5624 | 6324 | 7124 |
| | | 5024 | 5634 | 6334 | 7134 | 5024 | 5634 | 6334 | 7134 |
| | | 5034 | 5644 | 6344 | 7144 | 5034 | 5644 | 6344 |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

5.03 - 55.10 Rapporti di riduzione i / Ratio i

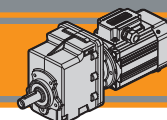
Dati tecnici

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 | |

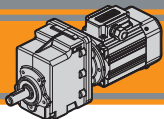


| Motori Motors | SMT | | | SMM | | |
|------------------|---------------|---------------|----------------------|----------------------|---------------|---------------|
| | | 5644 5654 | 6324 6334 6344 | 7124 7134 7144 | 5644 | 6324 6334 |
| IEC | 56 B14 | 63 B14 | 71 B14 | 56 B14 | 63 B14 | 71 B14 |

Dati tecnici elettrici

Electrical technical data



**CMG**

Motoriduttori CA ad ingranaggi cilindrici
AC Helical in-line gearmotors

MINI
TECNO

Dimensioni

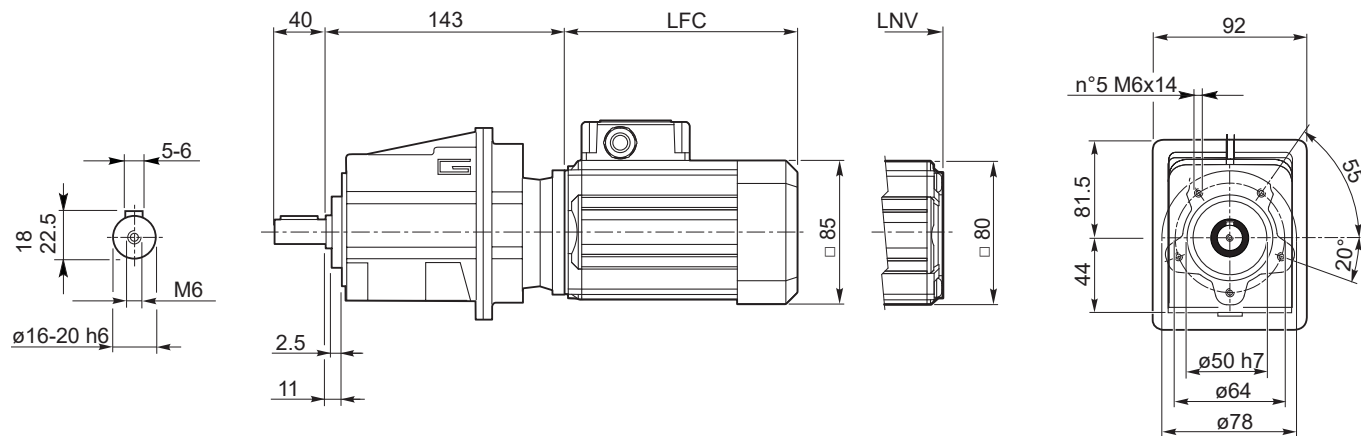
Dimensions

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

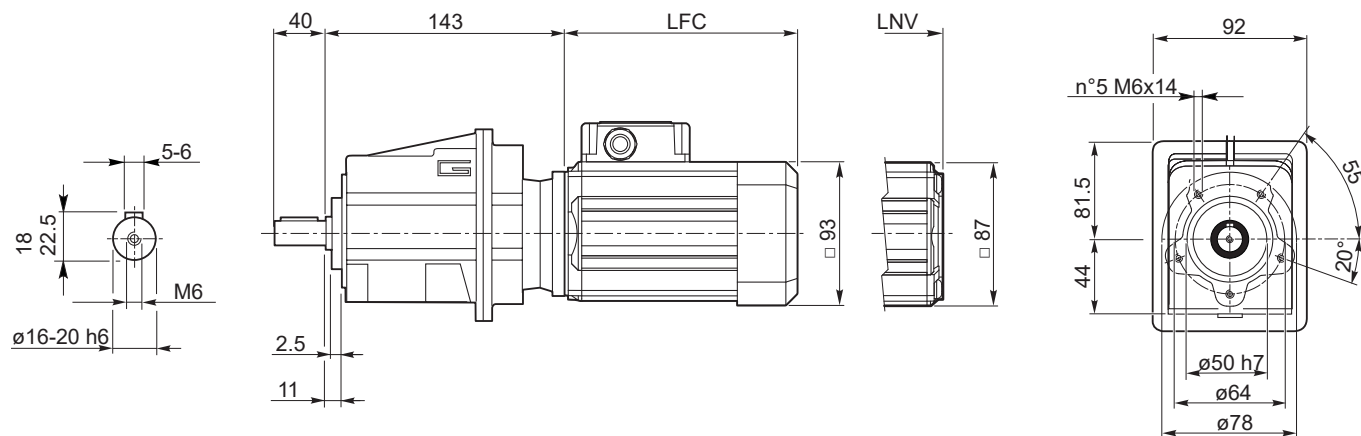
CMG...H/F → AE9

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 | |

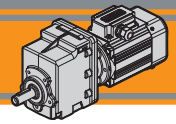
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CMG...H → AE8

CMG...F → AE8

CMG...H/F → AE9

OPTIONS
AB1
AC1
AD1



Dimensioni

Dimensions

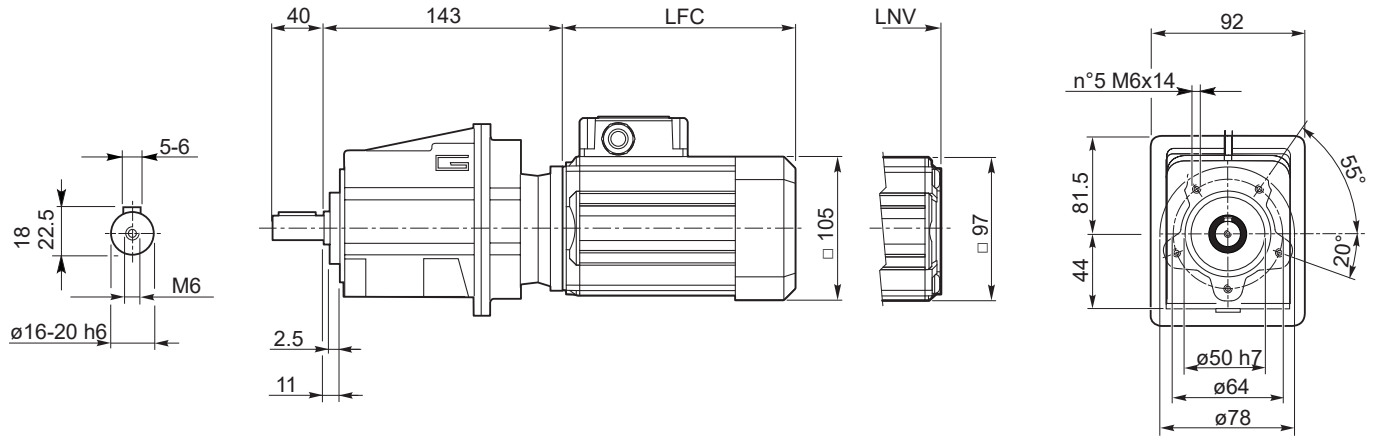
CMG 002 U

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

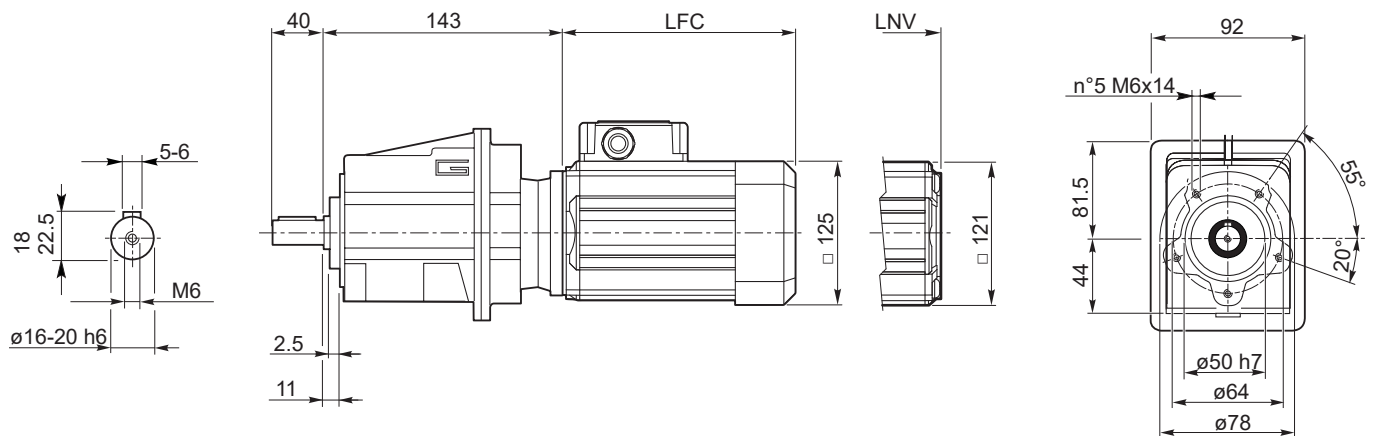
→ AB1 AC1 AD1

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 | |

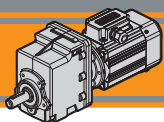
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CMG...H → AE8

CMG...F → AE8

CMG...H/F → AE9

→ AB1 AC1 AD1



CMG

Motoriduttori CA ad ingranaggi cilindrici
AC Helical in-line gearmotors

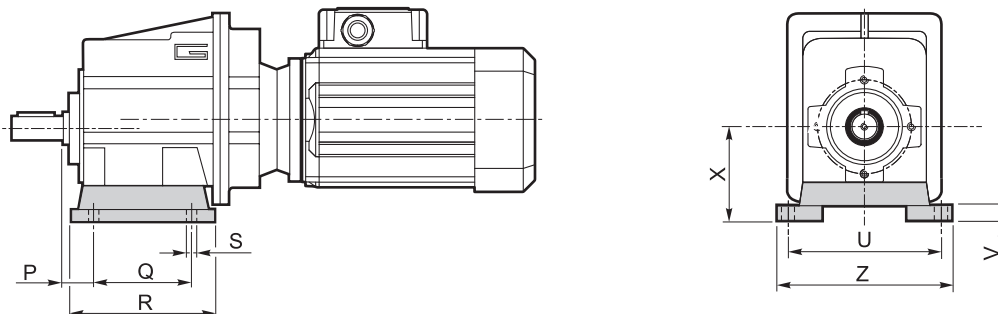
MINI
TECNO

Dimensioni

Dimensions

CMG..H

CMG002 H..

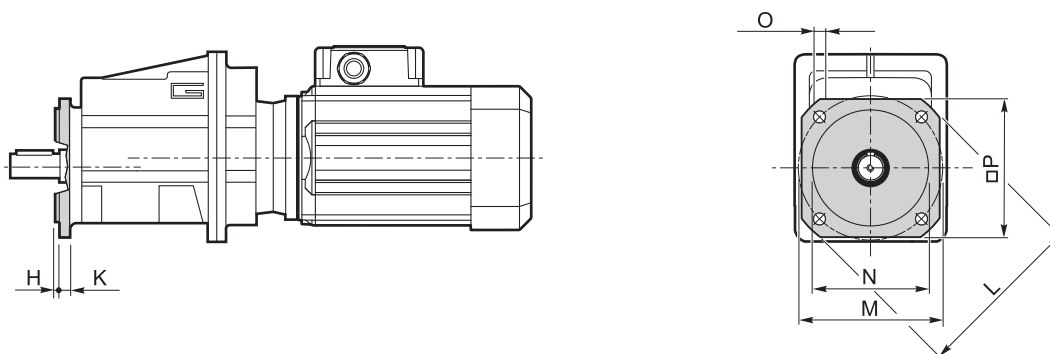


| Versione H / H Version | | | | | | | | | | |
|------------------------|----|---------|-----|---|-----------|----|----|-----|--------------|--------------------|
| CMG | P | Q | R | S | U | V | X | Z | Piede / Foot | |
| | | | | | | | | | Tipo / Type | Peso / Weight [kg] |
| 002 | 18 | 60 | 80 | 9 | 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 |

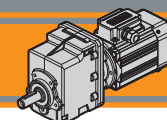
■ Preferenziale / Preferred

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 | 7 | 100 | F120 | 0.2 | |
| | 3.5 | 8 | 140 | 115 | 95 | 9 | 115 | F140 | 0.2 | |

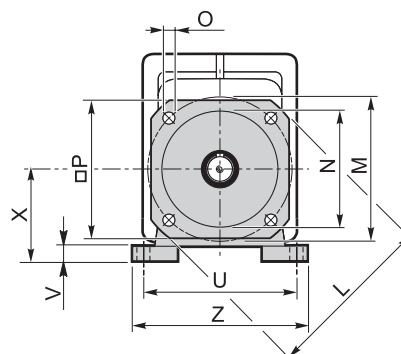
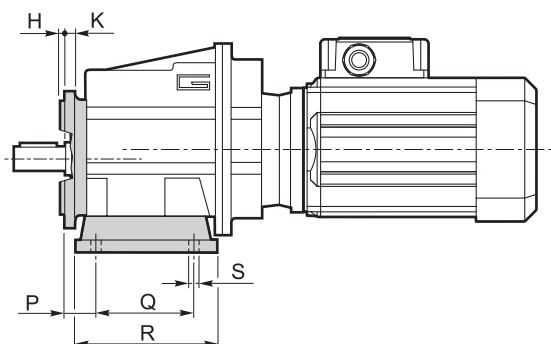


Dimensioni

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

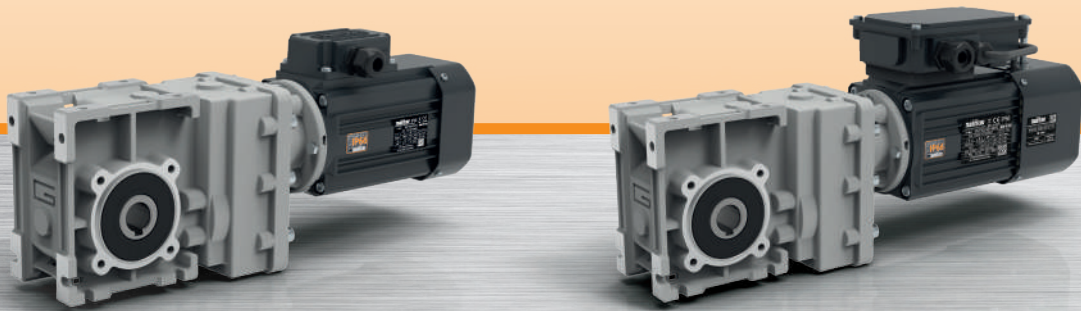
| Versione F / F Version | | | | | | | | | |
|------------------------|-----|---|-----|-----|---------|-----|-----|------------------|--------------------|
| CMG | H | K | L | M | N f7 | O | P | Flangia / Flange | |
| | | | | | | | | Tipo / Type | Peso / Weight [kg] |
| 002 | 3.5 | 7 | 105 | 85 | 70 | 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

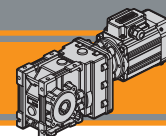
AC

Motoriduttori CA ad assi ortogonali
AC Helical bevel gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®

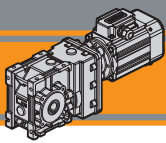




| | | Pag. Page |
|--------------------------|------------------------------|--------------|
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| Caratteristiche tecniche | <i>Technical features</i> | AC2 |
| Designazione | <i>Classification</i> | AC2 |
| Sensi di rotazione | <i>Direction of rotation</i> | AC3 |
| Simbologia | <i>Symbols</i> | AC3 |
| Lubrificazione | <i>Lubrication</i> | AC3 |
| Carichi radiali | <i>Radial loads</i> | AC3 |
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CMB

Motoriduttori CA ad assi ortogonali
AC Helical bevel gearmotors



Caratteristiche tecniche

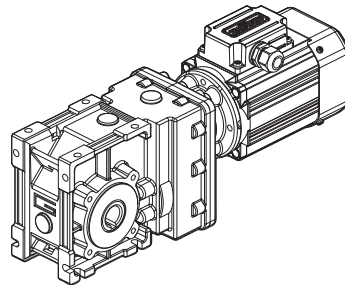
Technical features

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



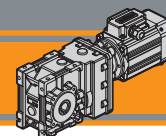
Designazione

Classification

| RIDUTTORE / GEARBOX | | | | | | | | | | | |
|--|----------------|--------------|---|-------------------------|--|----------------------------------|---------------------------|--|--------------------------------|---------------------------|-----------------------------------|
| CMB | 40 2 | | U | 9.81 | D20 | 63 | B14 | SZDX | BRSX | 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 BRSX * | 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 BRSX | | 90° 90° 180° 270° 0° 270° | | | |

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

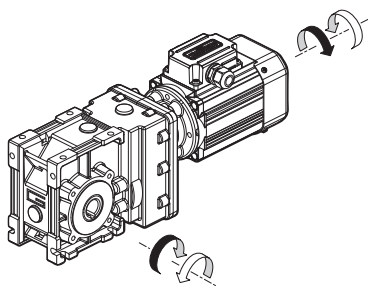
| MOTORE TRIFASE / THREE PHASE MOTOR | | | | | | | | | | |
|------------------------------------|----------------------|--------------------------------------|------------|---------------------------|---------------------------|-----------------------|---------------------|--------------------------|-----------------------|------------------------------------|
| 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. Morsettiera 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

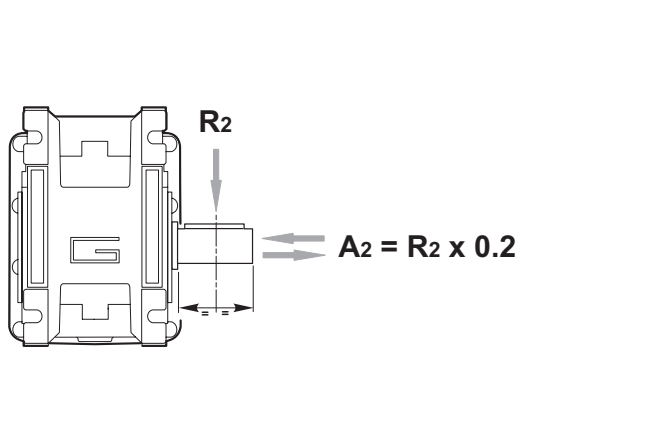
Lubrication

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

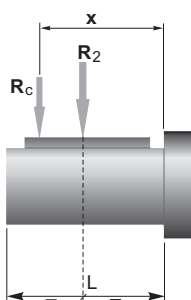
Radial loads



| 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:

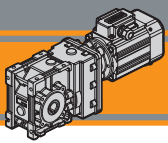


| | CMB 402 |
|------------|----------------|
| a | 86 |
| b | 66 |
| R_{2MAX} | 3500 |

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

$$R \leq R_c$$

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



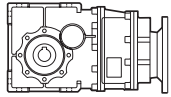
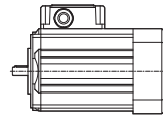
CMB

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Motori applicabili

Motor adapters



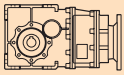
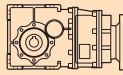




| | | SMT | | | | SMM | | | |
|------------|------------|------------------------------|------------------------------|----------------------|----------------------|----------------------|----------------------|--------------|--------------|
| | | 5014 5024 5034 5044 | 5624 5634 5644 5654 | 6324 6334 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*

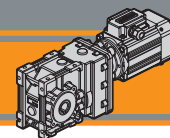
Dati tecnici

Technical data

| P_1 [kW] | n_2 [min ⁻¹] | M_2 [Nm] | sf | <i>i</i> |  | P_1 [kW] | n_2 [min ⁻¹] | M_2 [Nm] | sf | <i>i</i> |  |
|---|-------------------------------|---------------|------|----------|---|---|-------------------------------|---------------|-------|----------|---|
| 0.04 | | | | | | 0.06 | | | | | |
| SMT5014 | 227 | 2 | 25.3 | 6.18 | CMB402 | SMT5024 | 42 | 13 | 5.0 | 33.57 | CMB402 |
| 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 | |

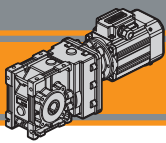


| Motori Motors | SMT | | | | SMM | | |
|------------------|--------|----------------------|----------------------|----------------------|--------|--------------|--------------|
| | 5044 | 5634 5644 5654 | 6324 6334 6344 | 7124 7134 7144 | 5644 | 6324 6334 | 7124 7134 |
| IEC | 56 B14 | | 63 B14 | 71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

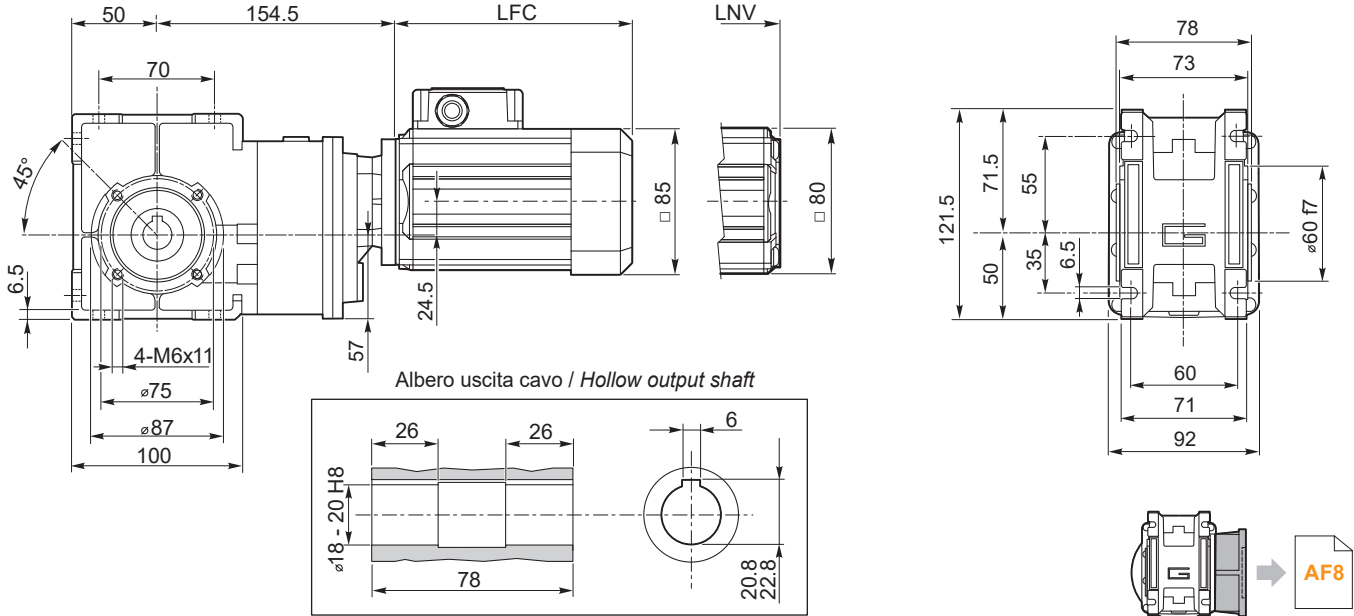
Dimensions

CMB 402 U

SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

S3 servizio **30%**
duty



| 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

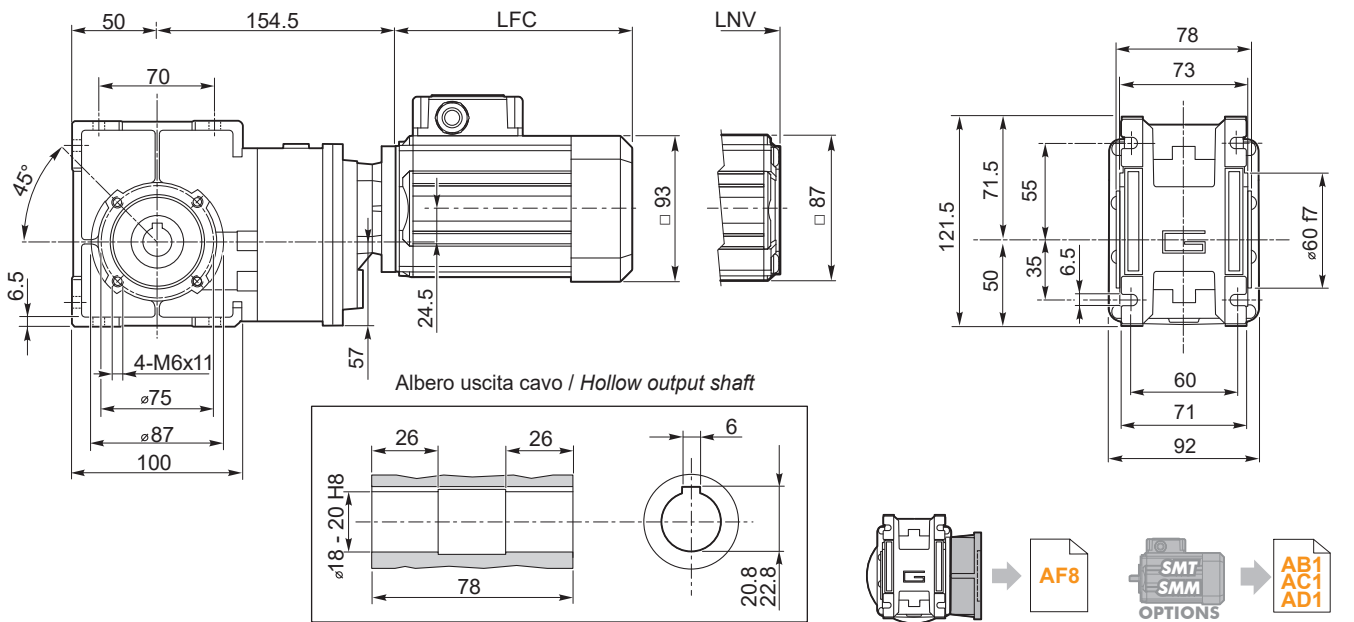
Note:
the capacitor will be supplied separately

CMB 402 U

SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio **30%**
duty

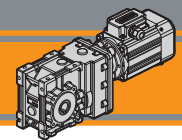


| SMT | LFC | LNV | Kg | |
|------|-----|-----|-----|--|
| 5624 | 141 | 117 | 6.2 | |
| 5634 | 151 | 127 | 6.6 | |
| 5644 | 186 | 162 | 7.8 | |
| 5654 | 206 | 182 | 8.5 | |

| 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

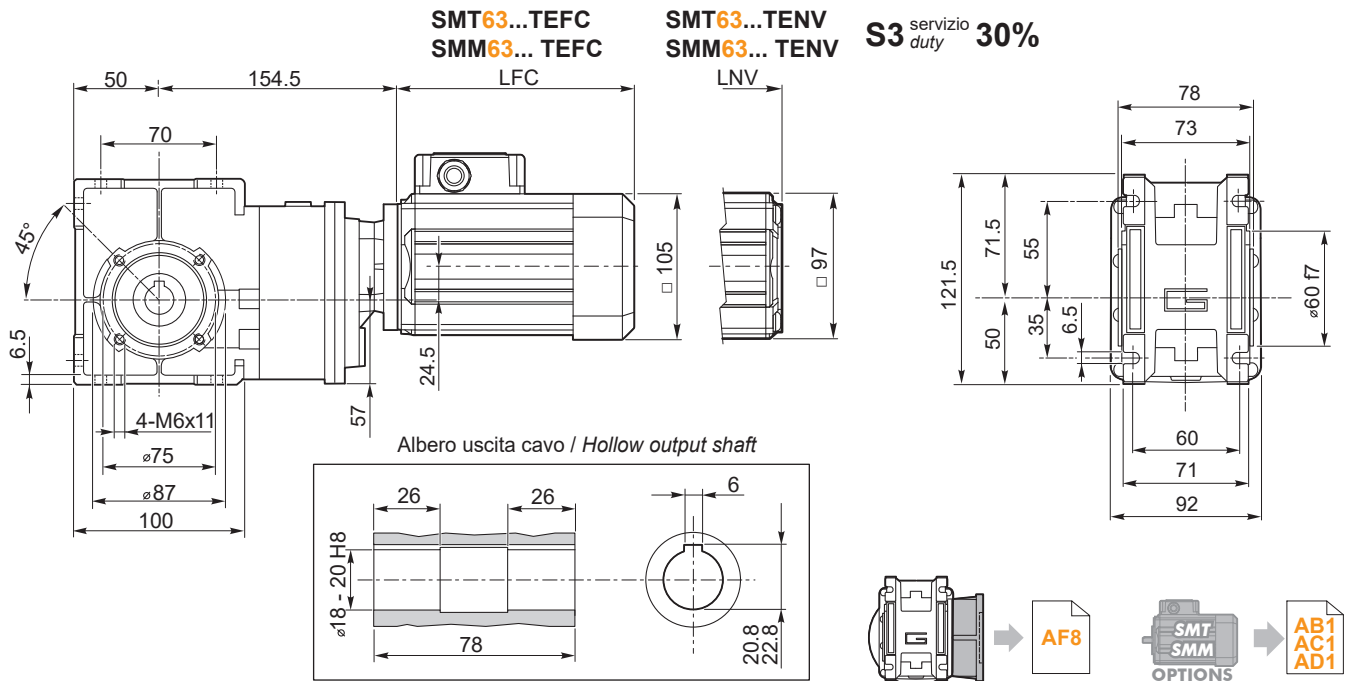
Note:
the capacitor will be supplied separately



Dimensioni

Dimensions

CMB 402 U



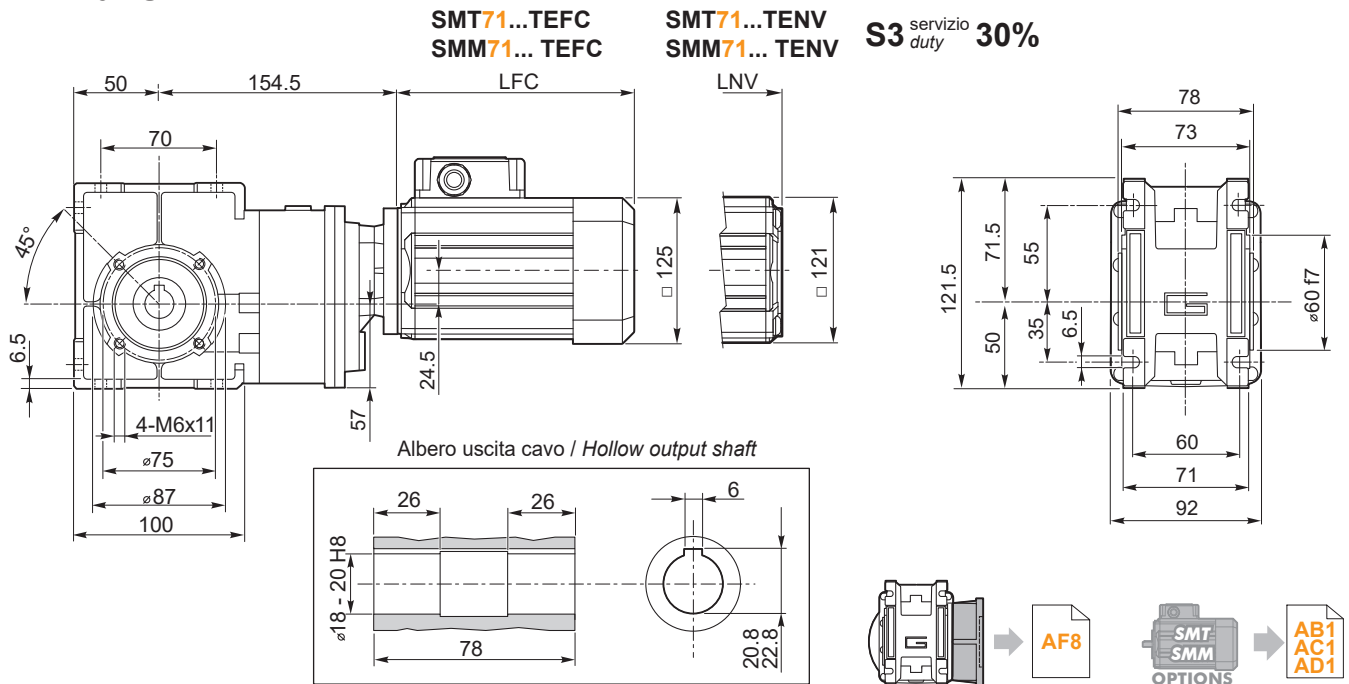
| SMT | LFC | LNV | Kg | |
|------|-------|-------|-----|--|
| 6324 | 165.5 | 138.5 | 7.7 | |
| 6334 | 180.5 | 153.5 | 8.4 | |
| 6344 | 205.5 | 178.5 | 9.6 | |

| 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

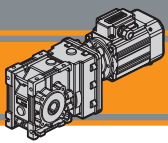


| SMT | LFC | LNV | Kg | |
|------|-----|-------|------|--|
| 7124 | 174 | 145.5 | 9.9 | |
| 7134 | 189 | 160.5 | 11 | |
| 7144 | 214 | 185.5 | 12.7 | |

| 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

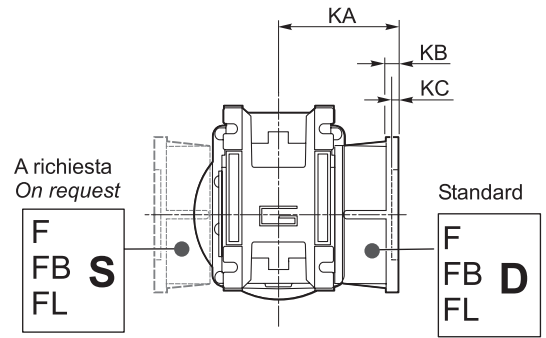
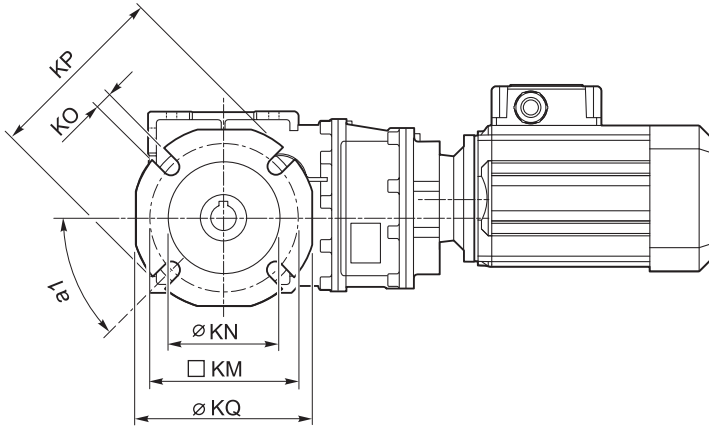


CMB

Motoriduttori CA ad assi ortogonali
AC Helical bevel gearmotors



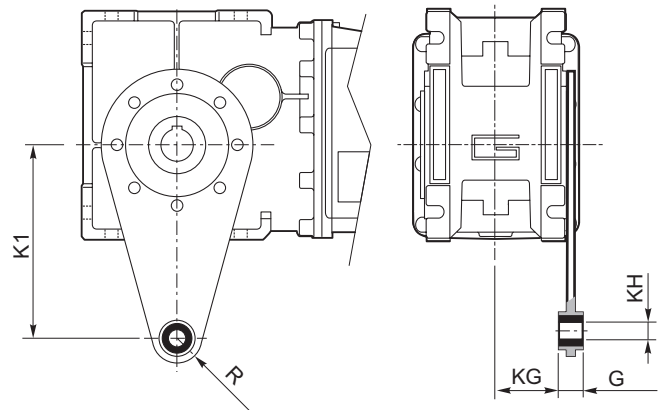
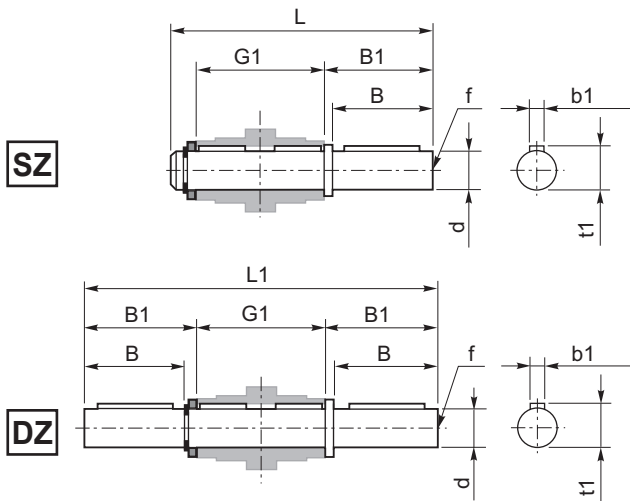
CMB402/ F... Flange uscita / Output flanges



| 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

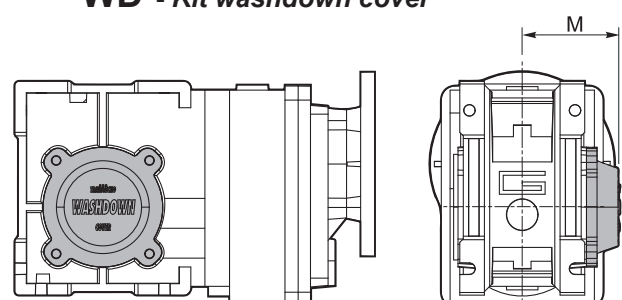
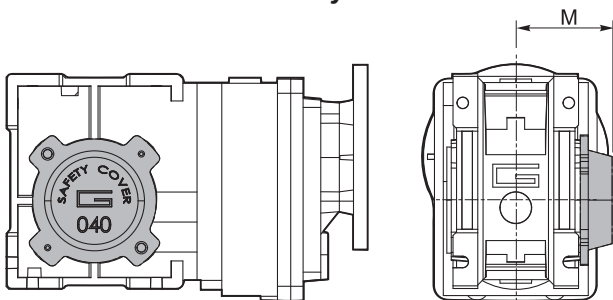
Braccio di reazione / Torque arm

| 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



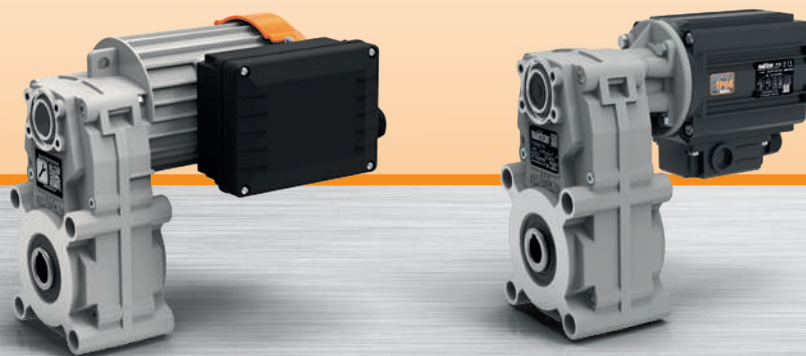
| CMB | M |
|------------|------|
| 402 | 54.5 |

| CMB | M |
|------------|------|
| 402 | 55.5 |

MINI  **TECNO**™
small but strong

KFT105 - FT

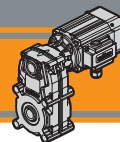
Motoriduttori CA pendolari
AC Helical parallel gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



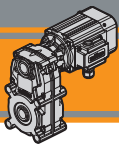
AC



| 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 |
| Dati tecnici | <i>Technical data</i> | AG5 |
| Dati tecnici elettrici | <i>Electrical technical data</i> | AG7 |
| Normative di riferimento | <i>Reference standards</i> | AG7 |
| Dimensioni | <i>Dimensions</i> | AG8 |

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**KFT105
FT**

**Motoriduttori CA pendolari
AC Helical parallel gearmotors**



Caratteristiche tecniche

Technical features

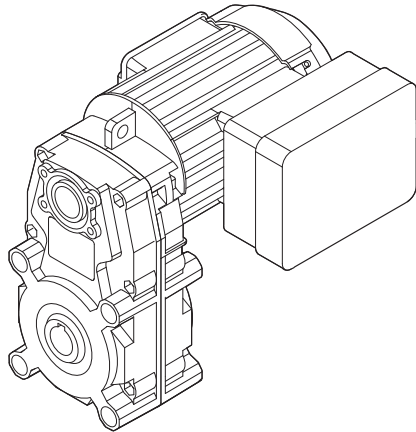
Le caratteristiche principali dei motoriduttori KFT e FT sono:

KFT and FT gearmotor range has the following main features:

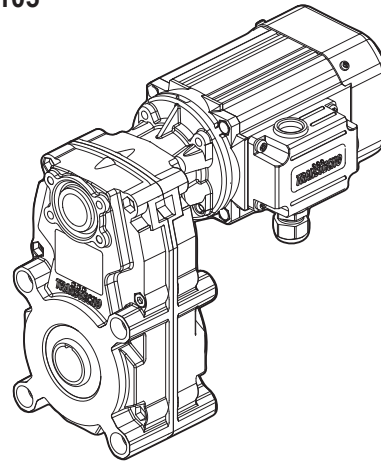
- Costruzione compatta
- Motorizzazioni in corrente alternata monofase e trifase
- Carcassa motore SMT e SMM estrusa in alluminio anodizzato nero
- Carcasse dei riduttori in pressofusione di alluminio
- Motore elettrico SMT e SMM con grado di protezione IP66
- Lubrificazione permanente con olio sintetico
- 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



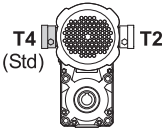
FT105

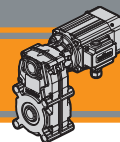


Designazione

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 |

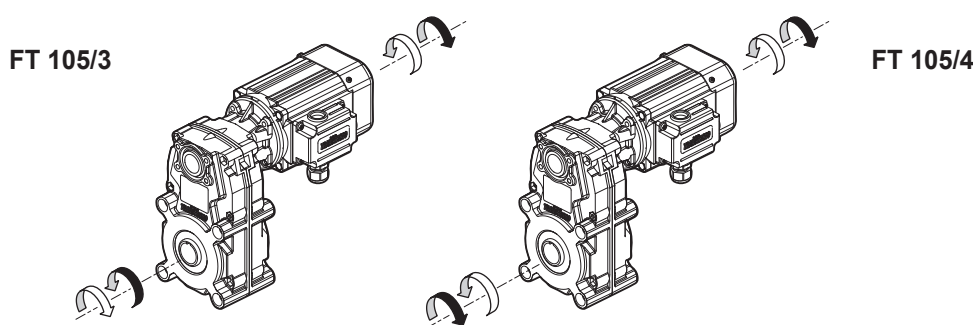
| MOTORE / MOTOR | | | | | | |
|----------------------------|---------------|--------------------------|--|----------------------------|---|-----------------------------|
| 40W | 4p | 3ph | 230/400V | 50Hz | T1 | TEFC |
| Potenza Power | Poli Poles | Fasi Phases | Tensione Voltage | Frequenza Frequency | 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 |

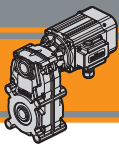
Sensi di rotazione
Direction of rotation

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.



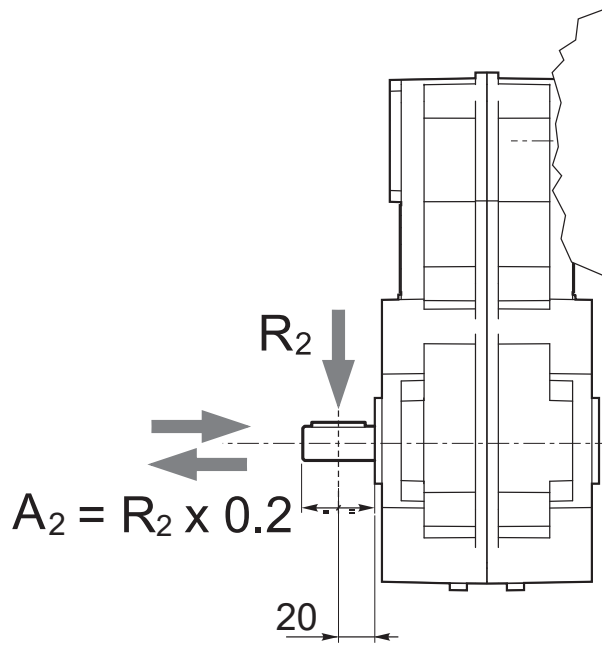
**KFT105
FT**

**Motoriduttori CA pendolari
AC Helical parallel gearmotors**



Carichi radiali

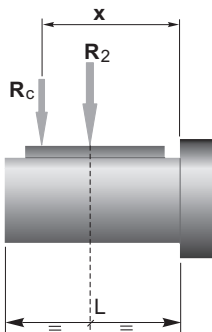
Radial loads



| 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 |

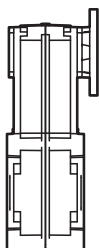
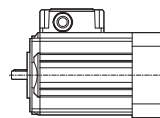
$$R_c = \frac{R_2 \cdot a}{(b + x)} \leq R_{2MAX}$$

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

$$R \leq R_c$$

Motori applicabili

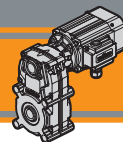
IEC Motor adapters



| | | 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 | |

0.04

| | | | | | |
|-----|-----|-----|----|--------|----------|
| 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 | |

0.12

| | | | | | |
|-----|-----|-----|----|--------|----------|
| 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 | |

0.06

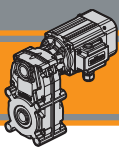
| | | | | | |
|-----|-----|-----|----|--------|----------|
| 68 | 8 | 5.1 | 40 | 20.57 | KFT105/3 |
| 42 | 13 | 3.9 | 50 | 33.32 | |
| 32 | 17 | 3.8 | 65 | 44.36 | |
| 26 | 21 | 3.1 | 65 | 54.87 | |
| 19 | 28 | 2.4 | 65 | 71.84 | |
| 18 | 30 | 2.2 | 65 | 77.07 | |
| 16 | 34 | 1.9 | 65 | 88.87 | |
| 11 | 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 | |
|---------------------------|--|------------------------|-----|--------|----------------|
| 0.09 | | | | | |
| 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 | |

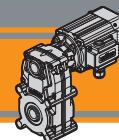
| P ₁ [kW] | n ₂ [min ⁻¹] | M ₂ [Nm] | sf | i | |
|---------------------------|--|------------------------|-----|-------|----------------|
| 0.25 | | | | | |
| SMT5654 | 68 | 33 | 1.2 | 20.57 | FT105/3 |
| (1400 min ⁻¹) | 42 | 53 | 0.9 | 33.32 | |
| | 32 | 71 | 0.9 | 44.36 | |

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:

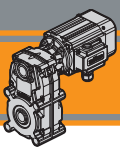
Classe di rendimento Standard IE1

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

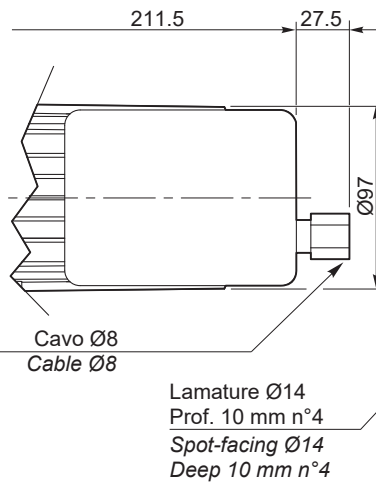
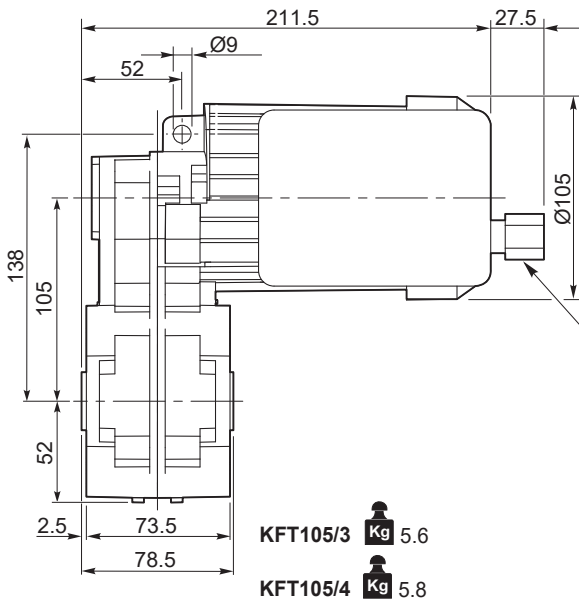
Dimensions

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

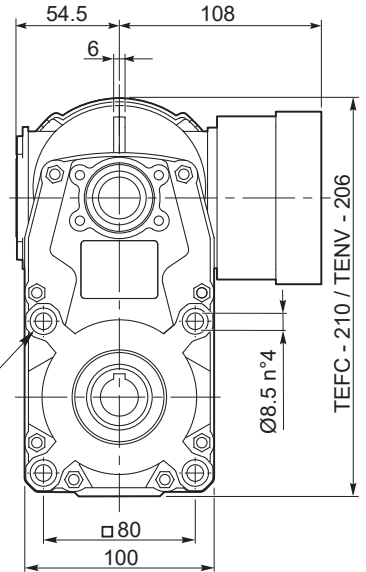
KFT 105...1 Ph...TEFC

KFT 105...1 Ph...TENV

S3 servizio duty 30%



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

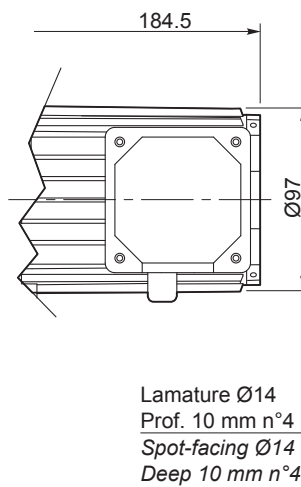
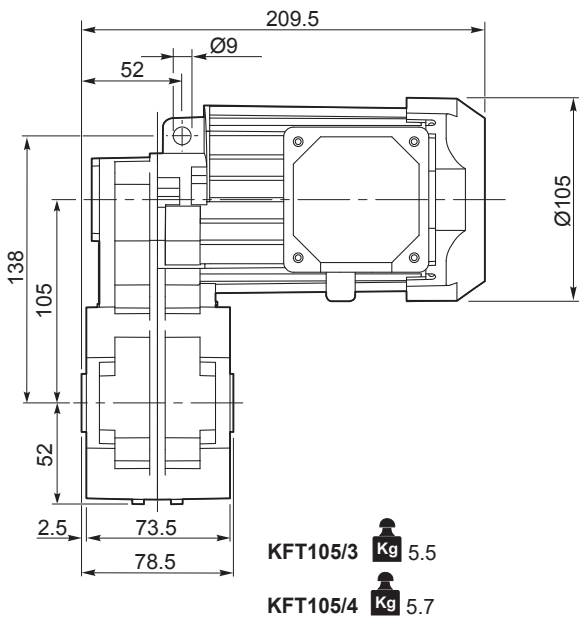


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

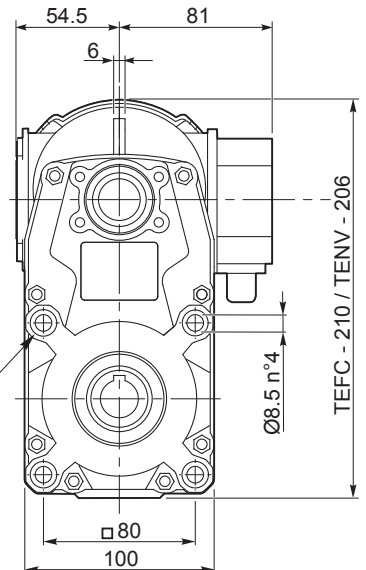
KFT 105...3 Ph... TEFC

KFT 105...3 Ph... TENV

S3 servizio duty 30%

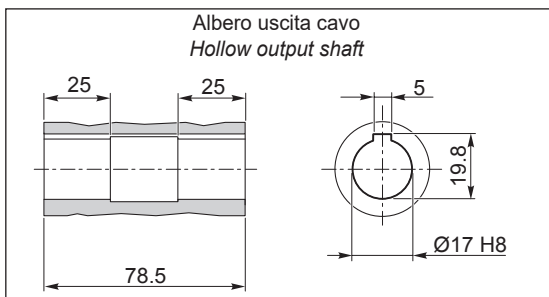


KFT105/3 **Kg** 5.4
KFT105/4 **Kg** 5.6

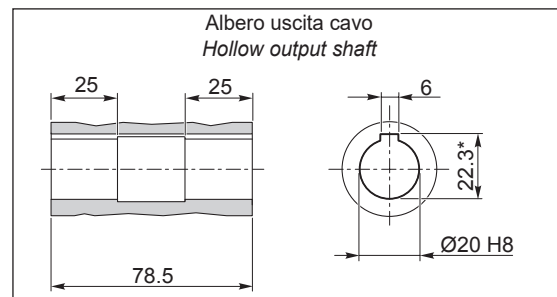


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

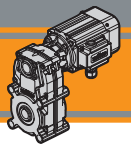
O17



O20



*Sede linguetta ribassata / Special Keyway



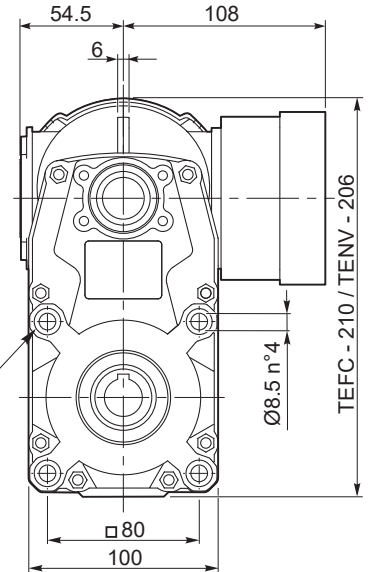
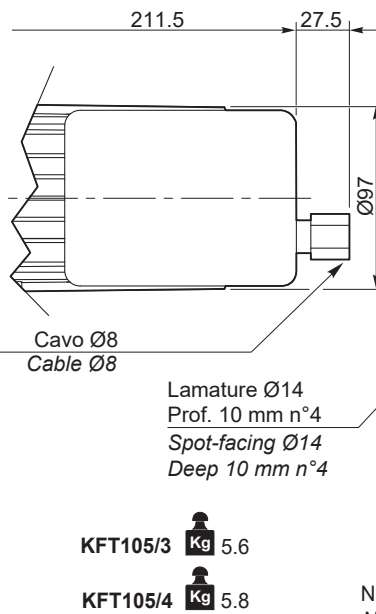
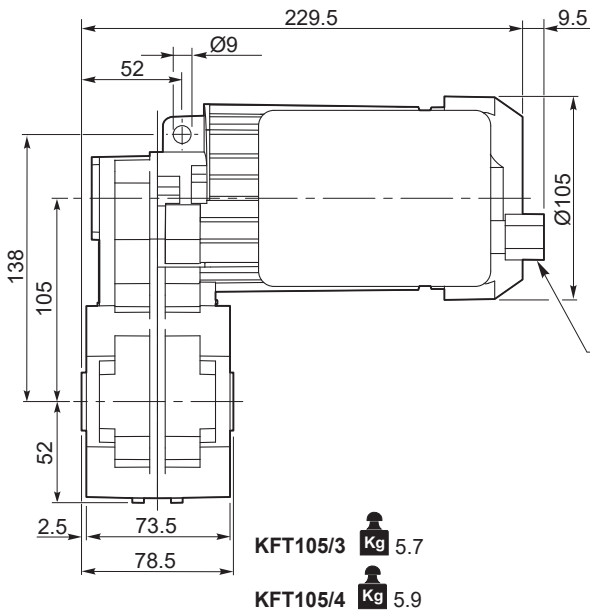
Dimensioni

Dimensions

KFT 105... 120W

KFT 105...1 Ph... TEFC

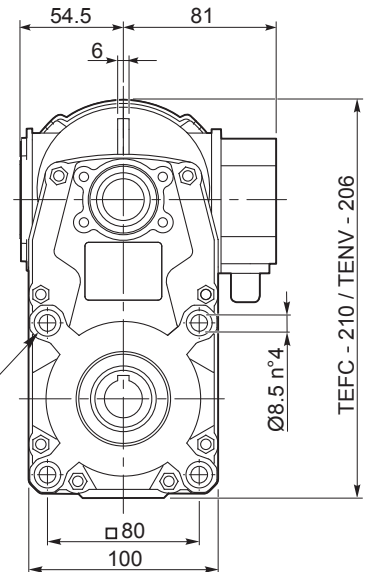
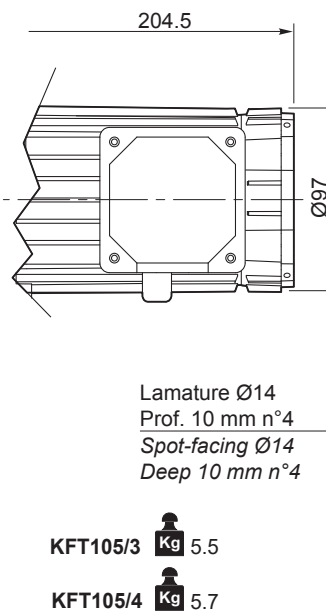
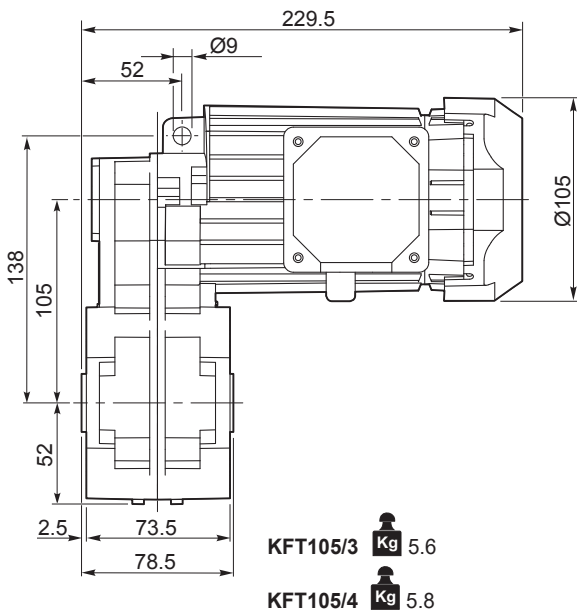
KFT 105...1 Ph...TENV S3 servizio duty 30%



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

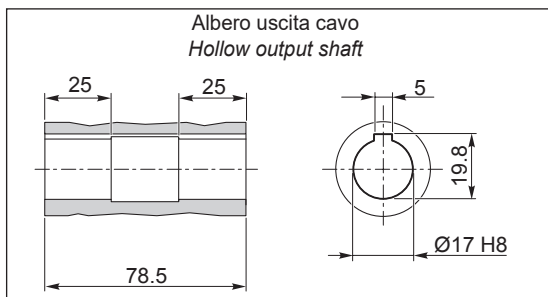
KFT 105...3 Ph... TEFC

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

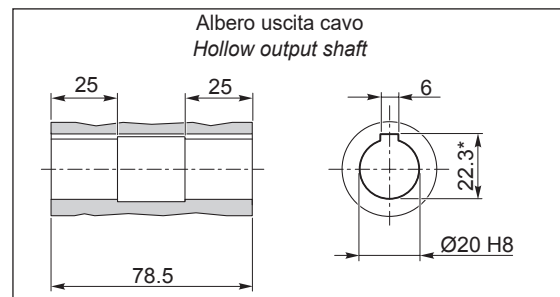


NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

O17

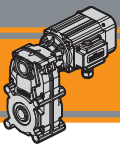
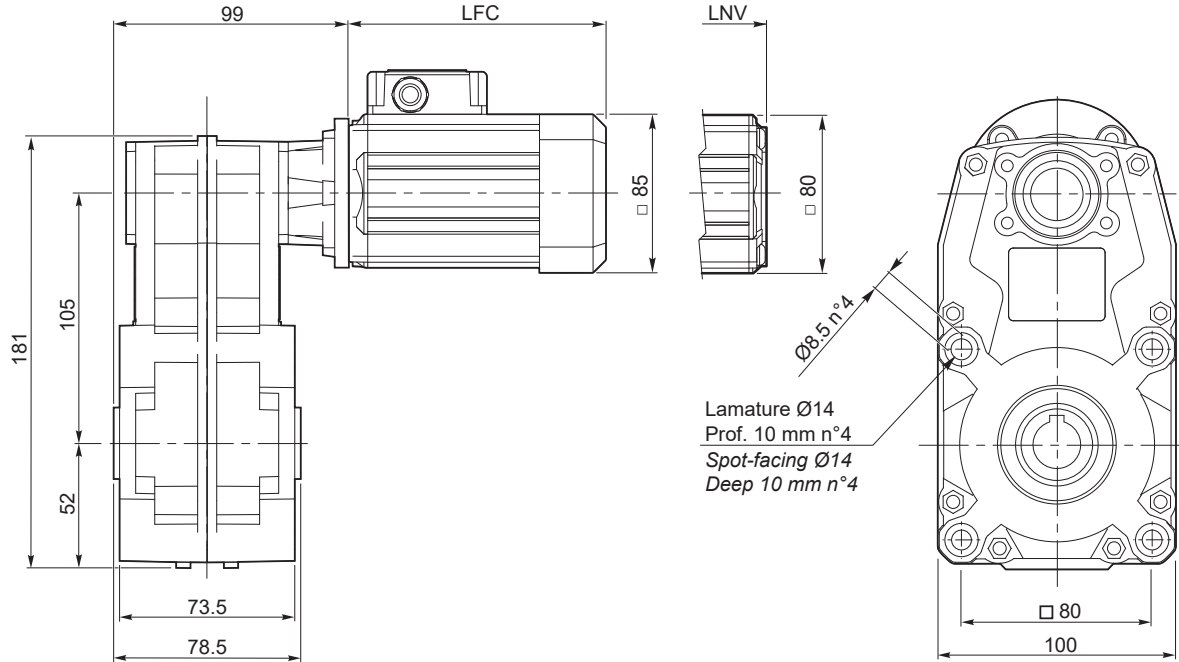


O20



*Sede linguetta ribassata/ Special Keyway

AC

**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

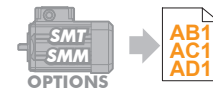
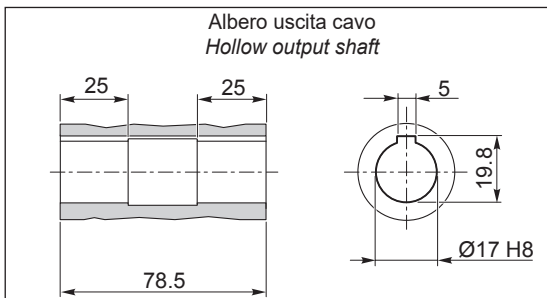
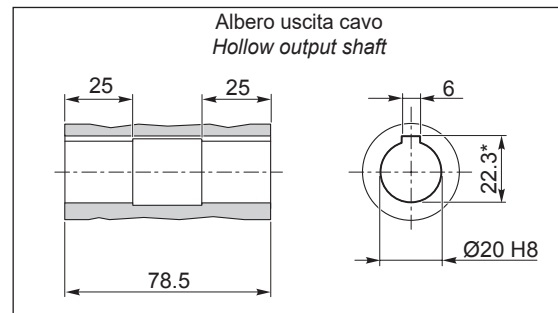
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

| 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 | |

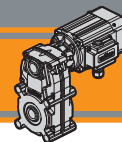
| SMM | LFC | LNV | Kg | |
|------|-------|-------|-----|--|
| 5014 | 150.5 | 123.5 | 6.9 | |
| 5024 | 175.5 | 148.5 | 7.7 | |
| 5034 | 200.5 | 173.5 | 8.4 | |

Nota:
il condensatore sarà fornito a corredo

Note:
the capacitor will be supplied separately

**O17****O20**

*: Sede linguetta ribassata / Special keyway

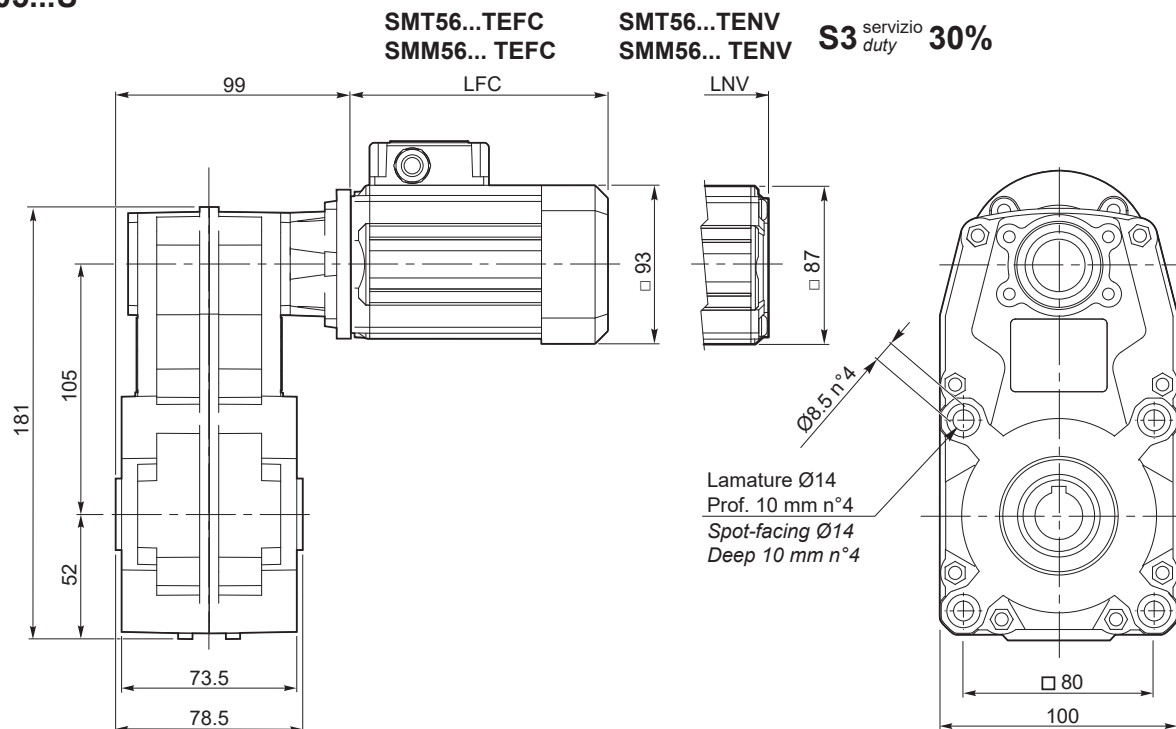


Dimensioni

Dimensions

FT105 U

FT 105...U



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

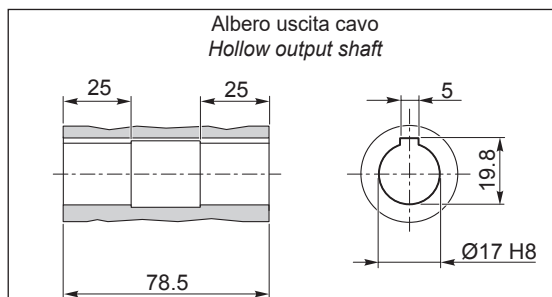
| SMT | LFC | LNV | Kg | |
|------|-----|-----|-----|--|
| 5624 | 141 | 117 | 7 | |
| 5634 | 151 | 127 | 7.4 | |
| 5644 | 186 | 162 | 8.6 | |
| 5654 | 206 | 182 | 9.3 | |

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

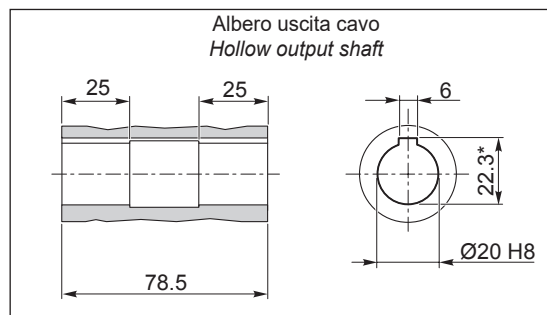
Nota:
il condensatore sarà fornito a corredo
Note:
the capacitor will be supplied separately



O17

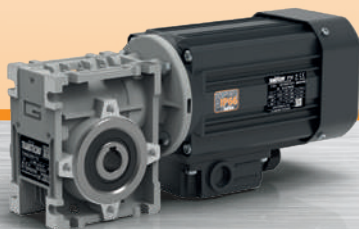


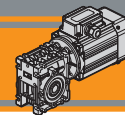
O20



*: Sede linguetta ribassata / Special keyway

Motoriduttori CA a vite senza fine AC Wormgearmotors

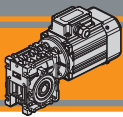




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|--------------------------|------------------------------|--------------|
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| Designazione | <i>Classification</i> | AH3 |
| Sensi di rotazione | <i>Direction of rotation</i> | AH4 |
| Simbologia | <i>Symbols</i> | AH4 |
| Lubrificazione | <i>Lubrication</i> | AH4 |
| Carichi radiali | <i>Radial loads</i> | AH5 |
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| Motori applicabili | <i>Motor adapters</i> | AH6 |
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CM
CMP

Caratteristiche tecniche

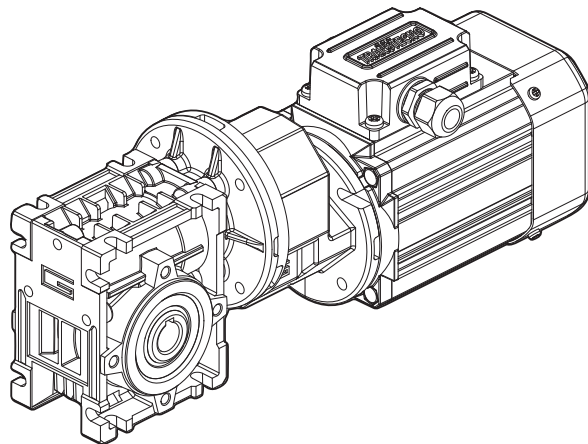
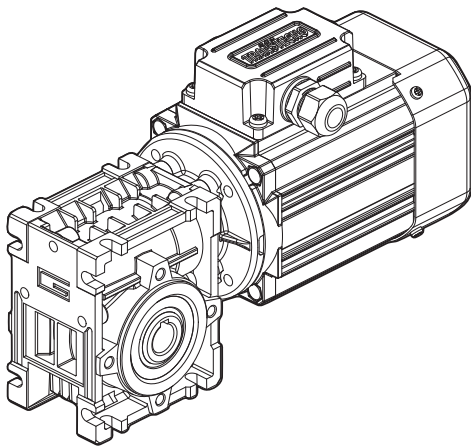
Technical features

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

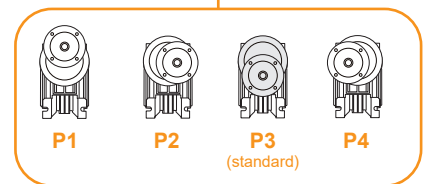
Classification

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 |

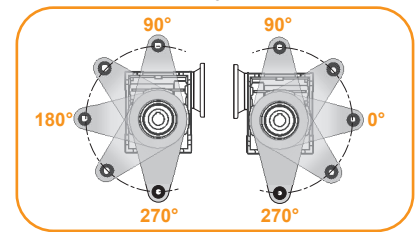
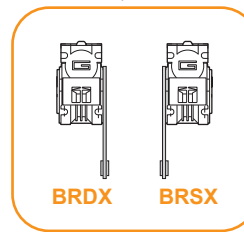
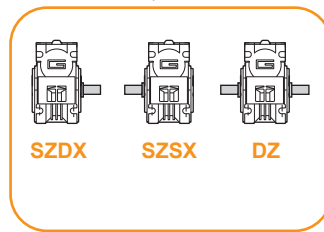
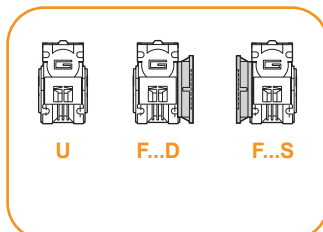


Versione Riduttore
Gearbox Version

Albero di uscita
Output shaft

Braccio di reazione
Torque arm *

Angolo
Angle



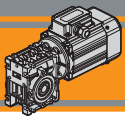
* NOTA: il braccio di reazione viene fornito smontato.
NOTE: the torque arm will be supplied not assembled.

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 | 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. |
| | 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 |

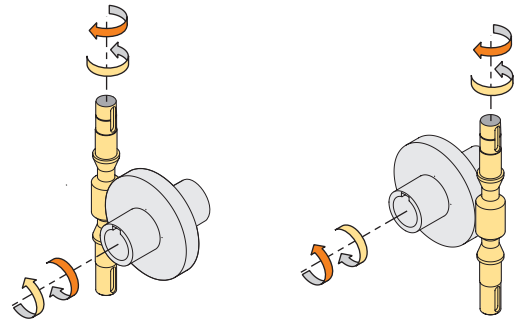
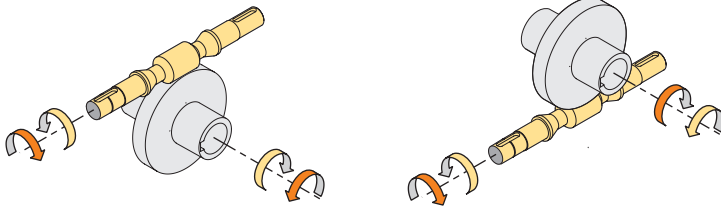


CM
CMP

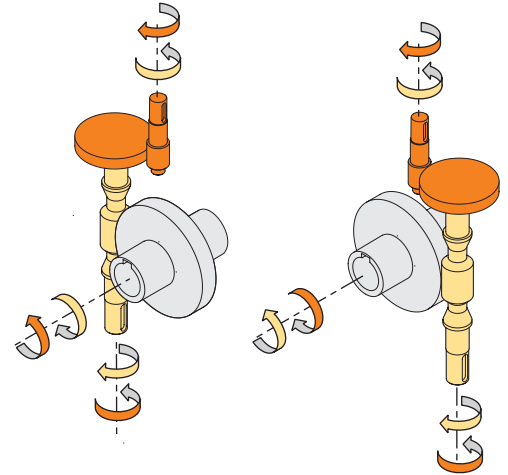
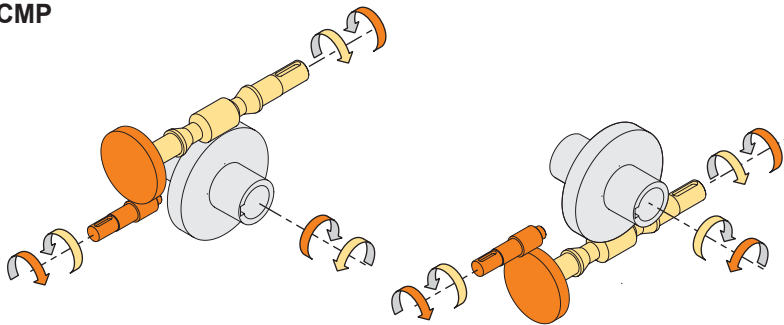
Sensi di rotazione

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

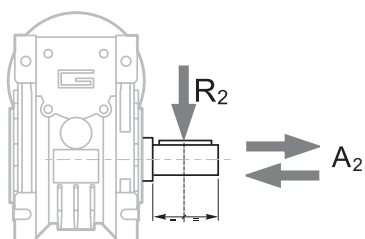
Lubrication

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

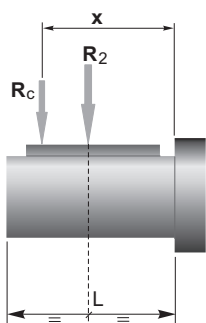


$$A_2 = R_2 \times 0.2$$

| 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:



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

$$R \leq R_c$$

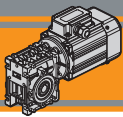
a, b = valori riportati nella tabella
a, b = values given in the table

| | 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

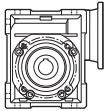
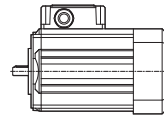
| | n_1 [min ⁻¹] | Rendimento Efficiency | Rapporto / Ratio | | | | | | | | | | | |
|-------|-------------------------------|--------------------------|------------------|-----|----|----|----|----|----|----|----|----|----|-----|
| | | | 5 | 7.5 | 10 | 15 | 20 | 25 | 30 | 40 | 50 | 60 | 80 | 100 |
| CM026 | 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

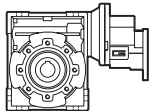
Motor adapters



| | | 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 | 5014 5024 5034 | 5624 5634 5644 | 6324 6334 | |
| 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 | | | | | | | |

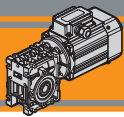
AC









| 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 | |



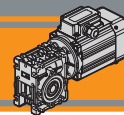
| Motori Motors | SMT | | SMM | |
|------------------|----------------------|------|----------------------|------|
| | 5014 5024 5034 | 5624 | 5014 5024 5034 | 5624 |
| IEC | 56 B14 | | 56 B14 | |

**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 | CM040 | | |
| | 28 | 18 | 1.1 | 50 | CM030 | | 19 | 40 | 1.3 | 75 | CM040 | CMP056/040 | |
| | 23 | 20 | 0.8 | 60 | CM030 | | 18 | 34 | 1.0 | 80 | CM040 | CMP056/040 | |
| | 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 | CM040 CM040 CM040 CM040 CM040 CM040 CM040 CM040 CM040 CM040 CM040 |
| (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 | |
| 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 | | |
|---------------------------|--|------------------------|-----|-----|--------------|--|
| 0.37 | | | | | | |
| SMT7124 | 280 | 11 | 3.7 | 5 | CM040 | |
| SMM7124 | 187 | 16 | 2.7 | 7.5 | CM040 | |
| (1400 min ⁻¹) | 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 | | |
|---------------------------|--|------------------------|-----|-----|--------------|--|
| 0.55 | | | | | | |
| SMT7134 | 280 | 17 | 2.5 | 5 | CM040 | |
| 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 | |
| (1400 min ⁻¹) | 187 | 33 | 1.3 | 7.5 | CM040 | |
| | 140 | 43 | 1.0 | 10 | CM040 | |

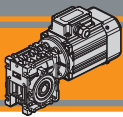


| Motori Motors | SMT | | | SMM | |
|------------------|--------|----------------------|----------------------|--------------|--------------|
| | 5654 | 6324 6334 6344 | 7124 7134 7144 | 6324 6334 | 7124 7134 |
| IEC | 56 B14 | 63 B14 | 71 B14 | 63 B14 | 71 B14 |

Dati tecnici elettrici

Electrical technical data





CM
CMP

Dimensioni

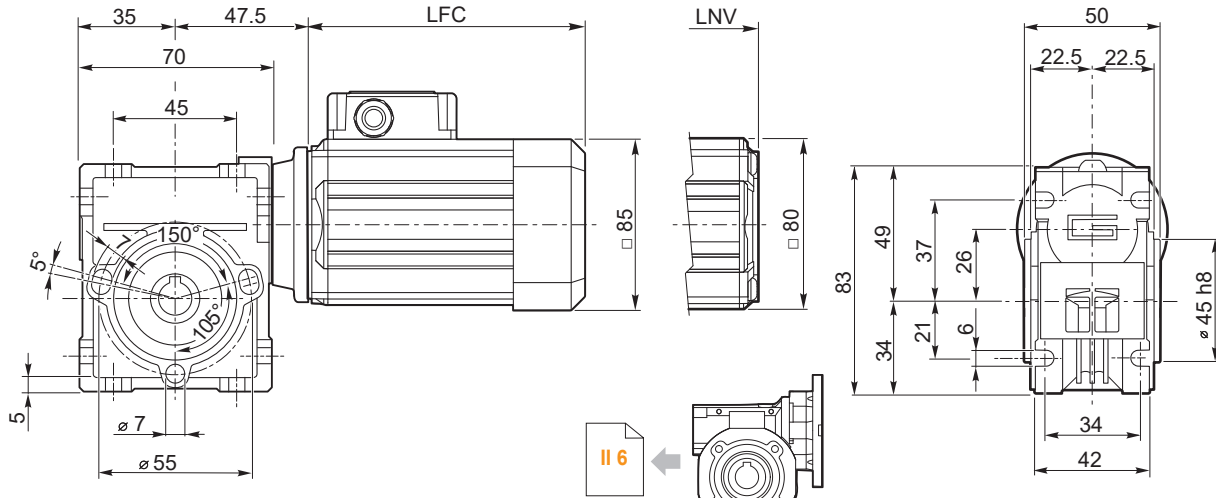
Dimensions

CM 026 .. U

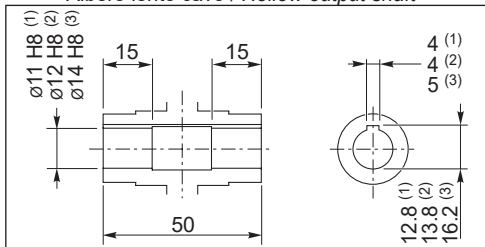
SMT50...TEFC
SMM50... TEFC

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 | |

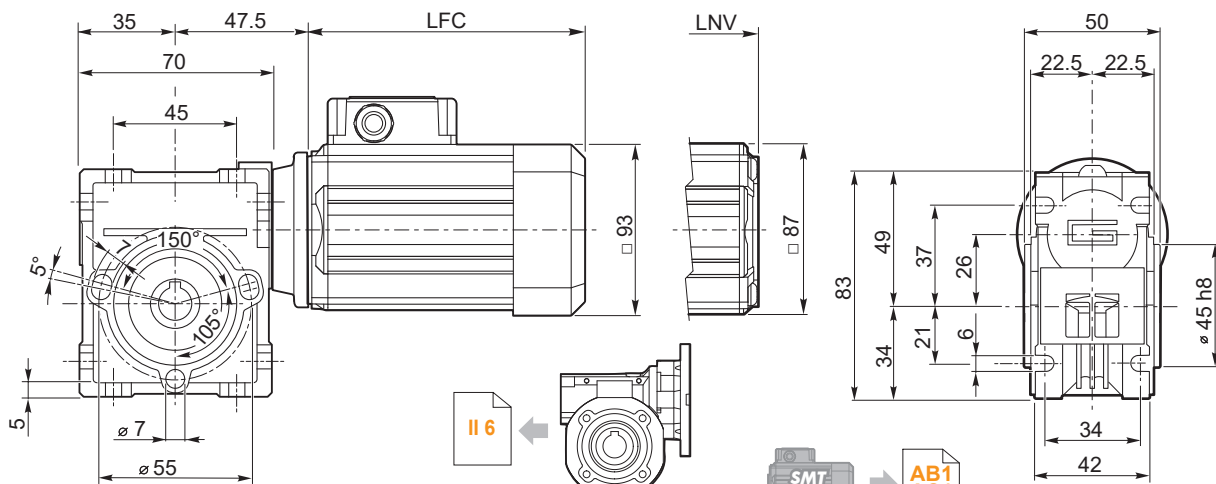
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CM 026 .. U

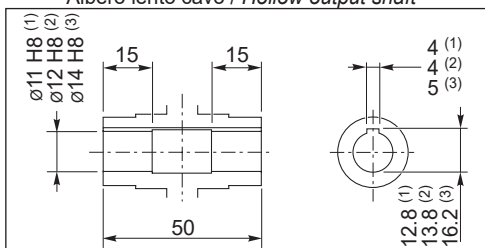
SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty



Albero lento cavo / Hollow output shaft

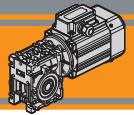


- (1): CM 120/026 (D11)
- (2): CM 120/026
- (3): CM 120/026 (D14)

| 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 | |

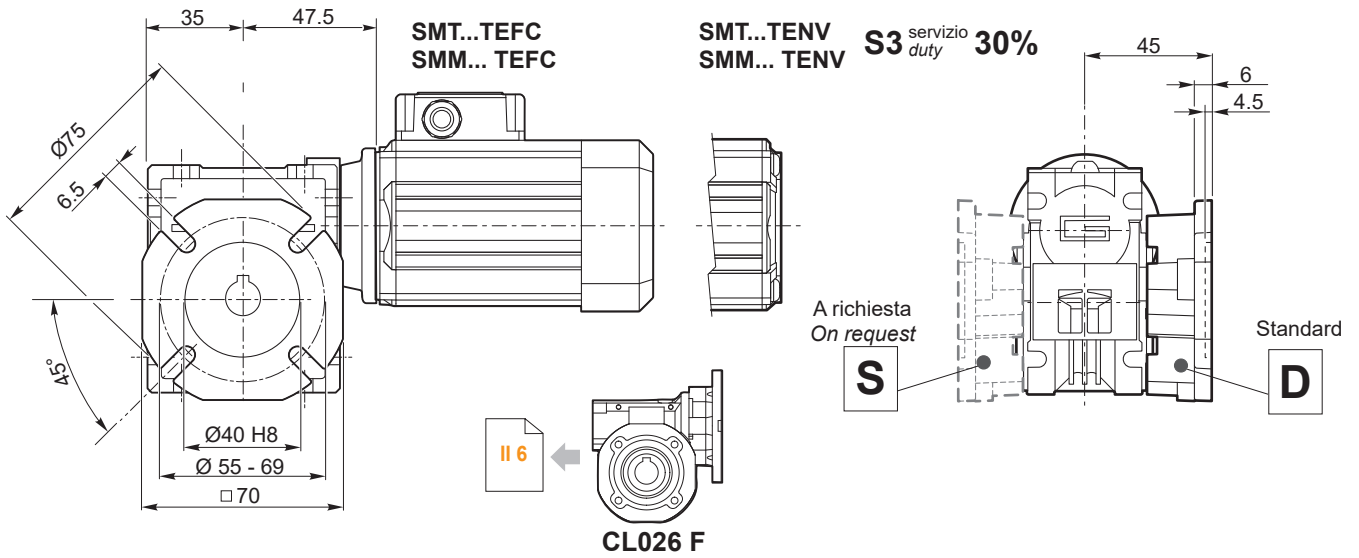
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



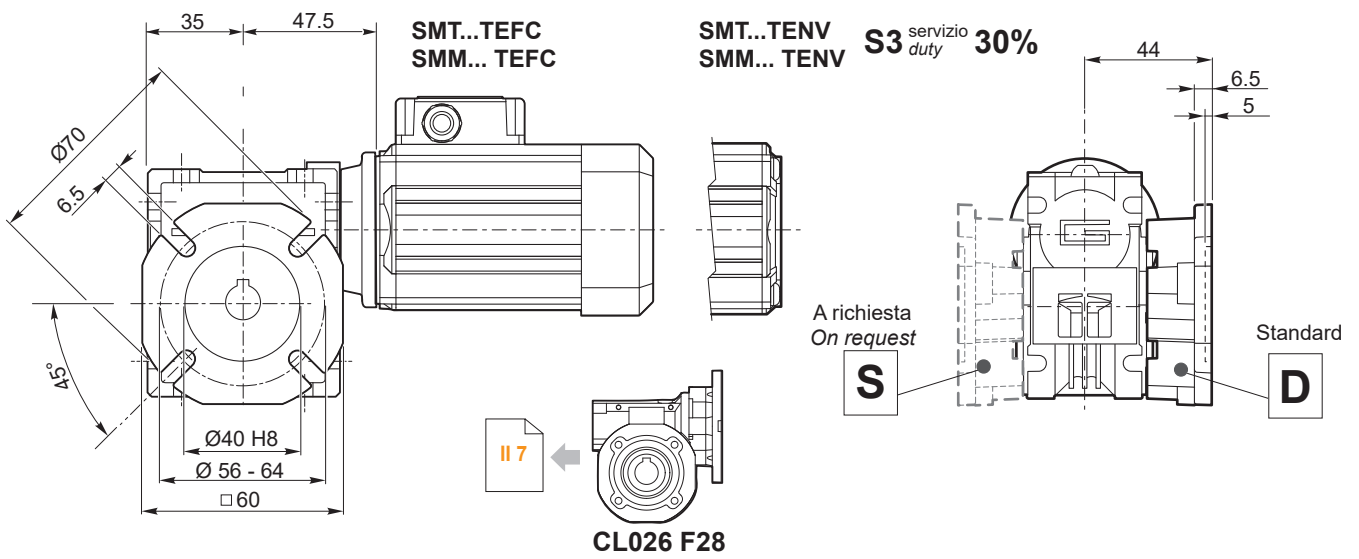
Dimensioni

Dimensions

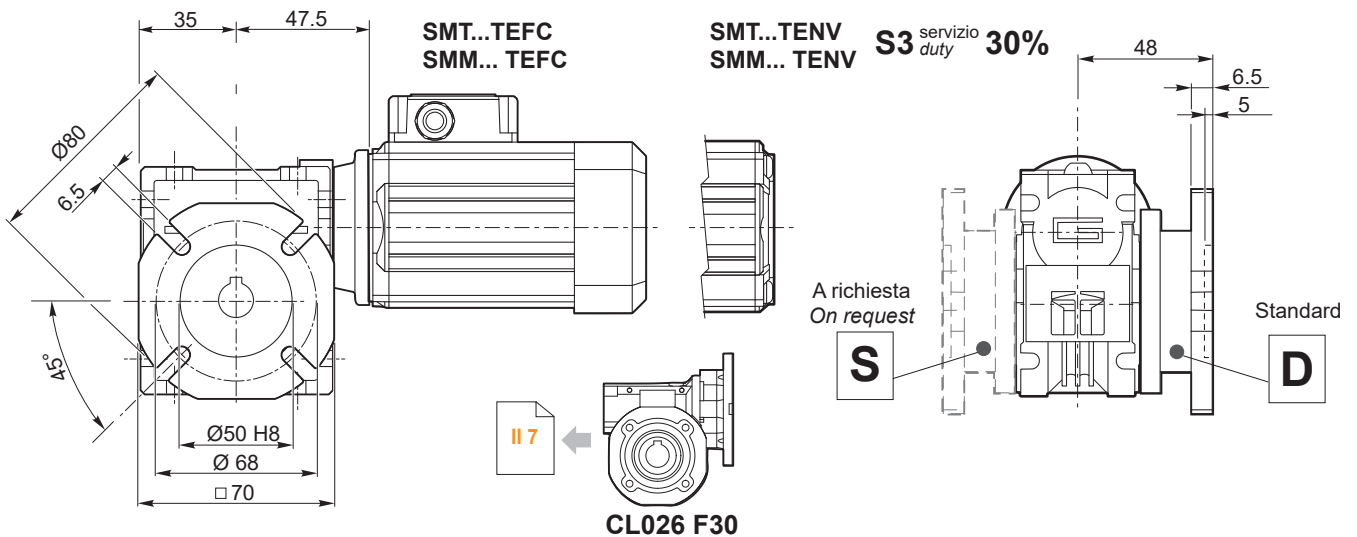
CM 026 .. F



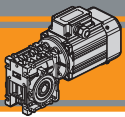
CM 026 .. F28



CM 026 .. F30



AC



CM
CMP

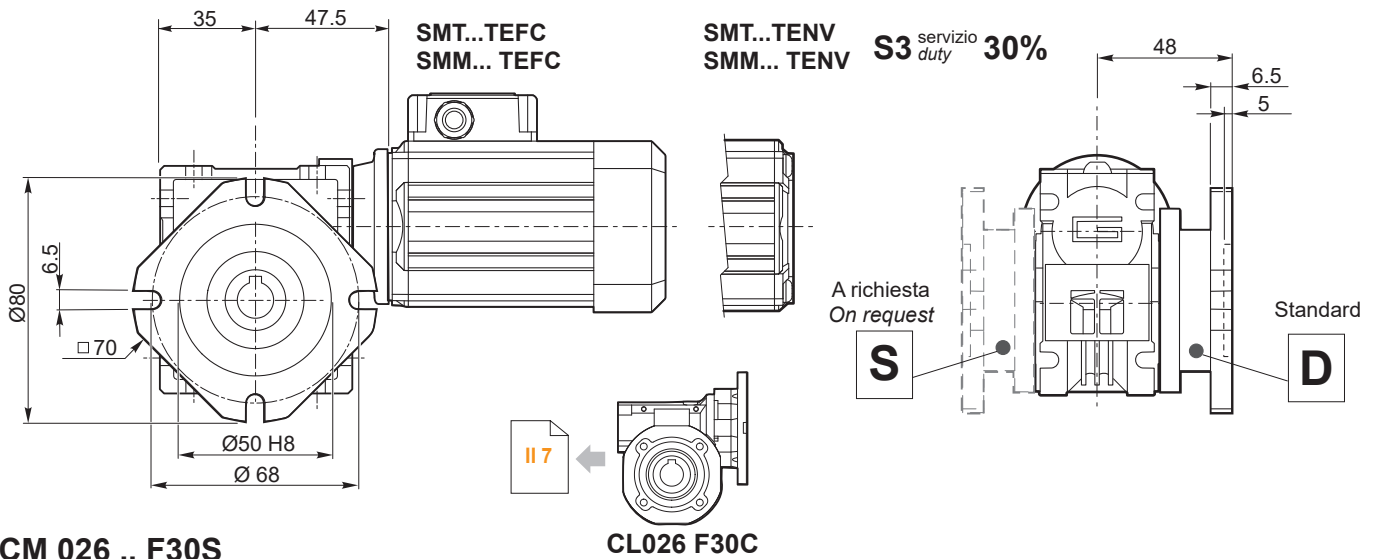
Motoriduttori CA a vite senza fine
AC Wormgearmotors

MINI
TECNO

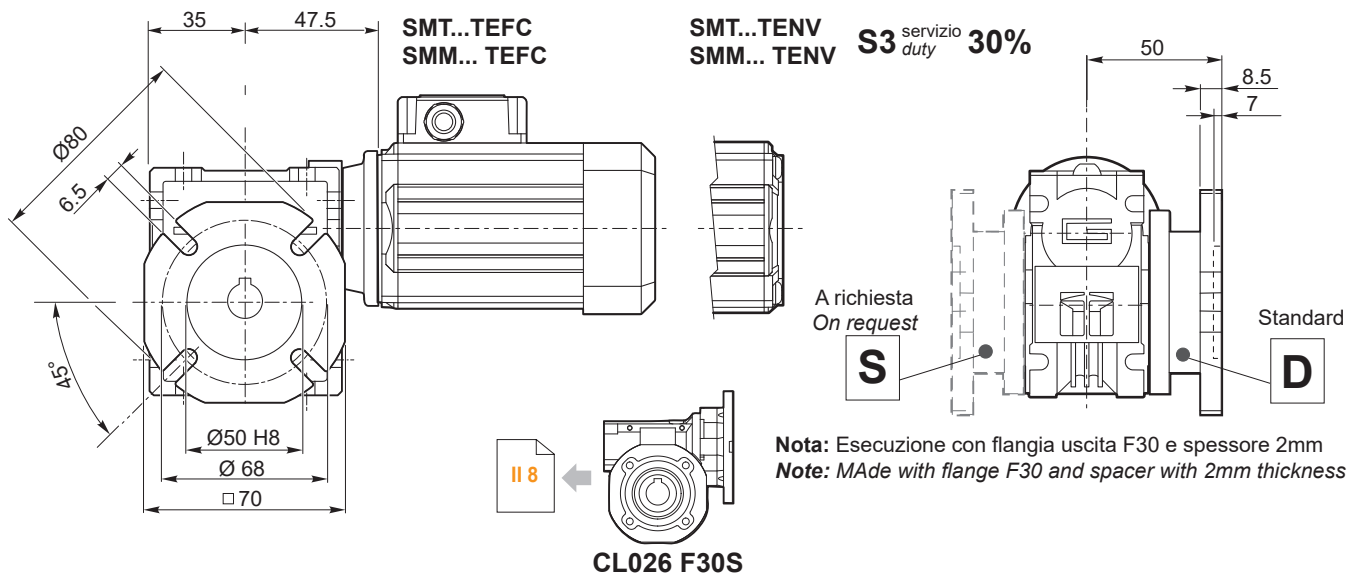
Dimensioni

Dimensions

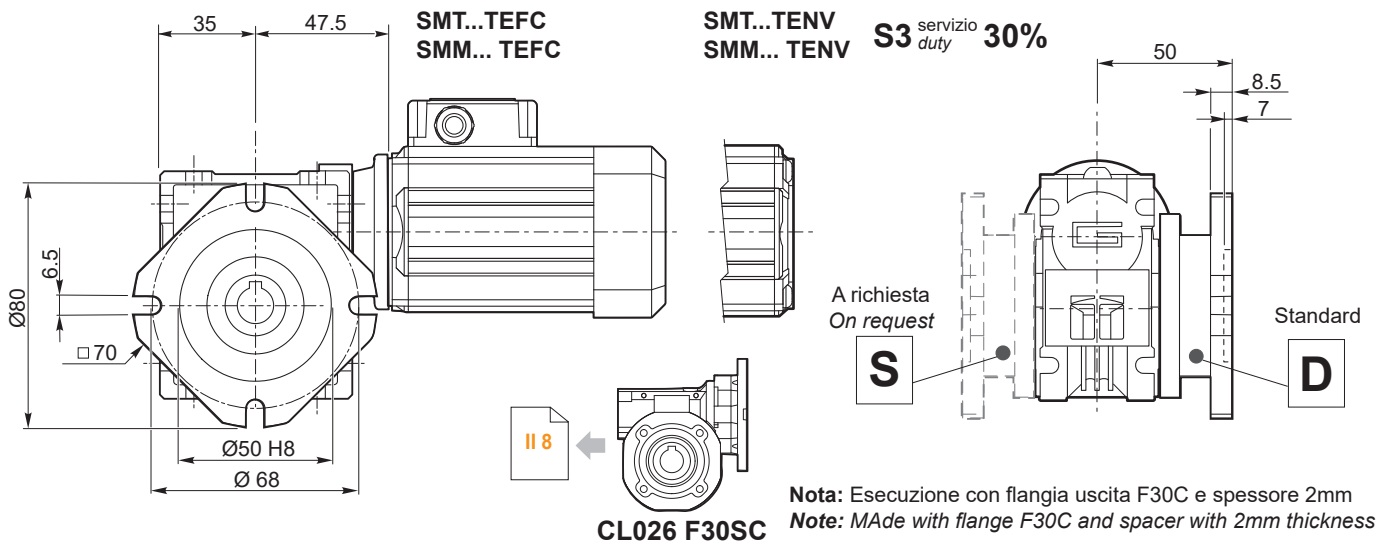
CM 026 .. F30C

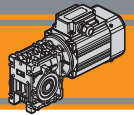


CM 026 .. F30S



CM 026 .. F30SC

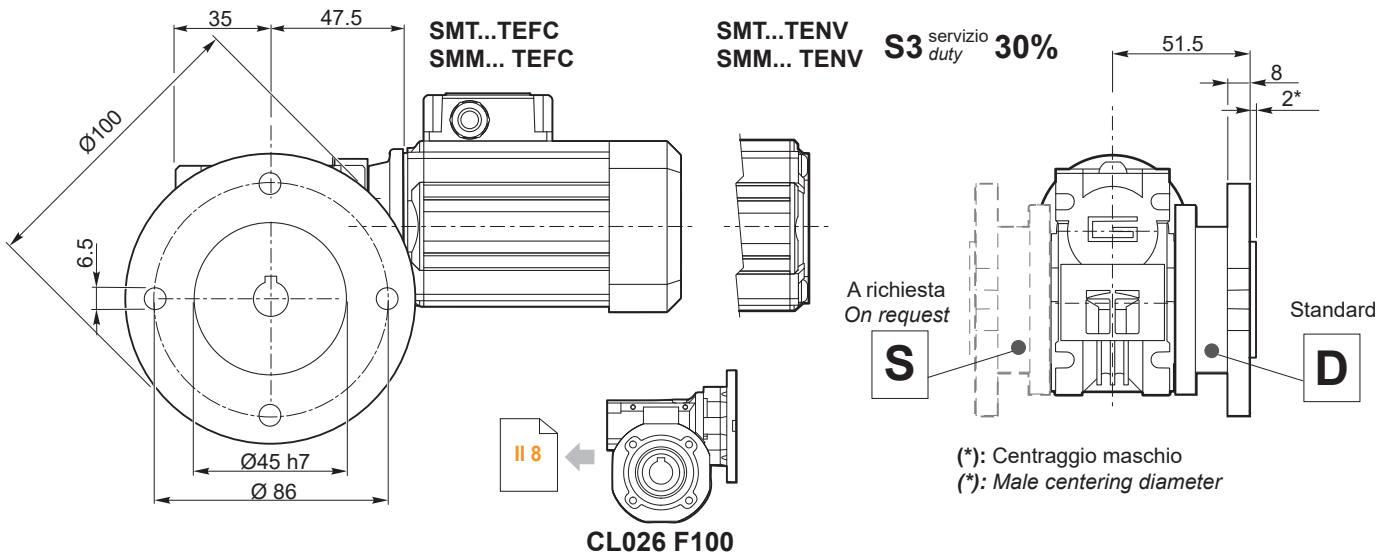




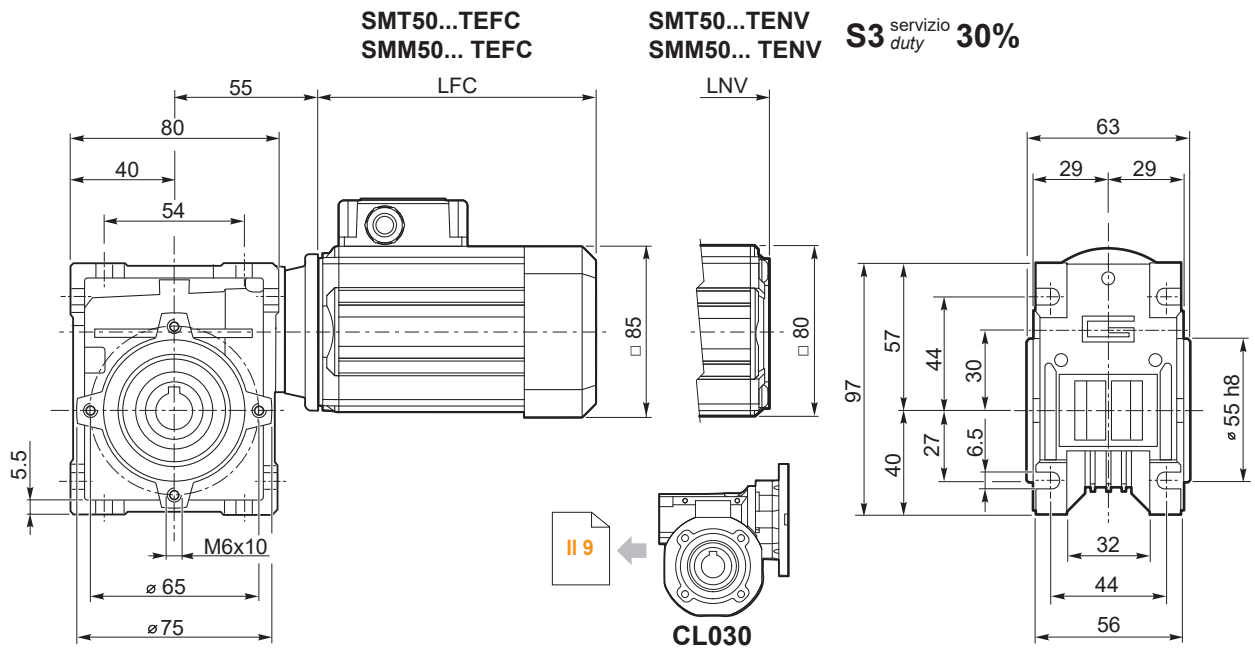
Dimensioni

Dimensions

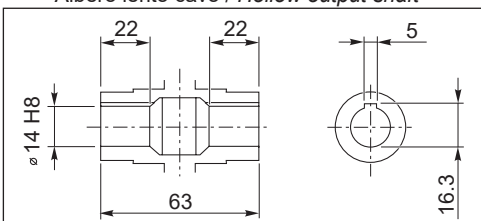
CM 026 .. F100



CM 030 ...U



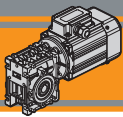
Albero lento cavo / Hollow output shaft



| 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

Dimensioni

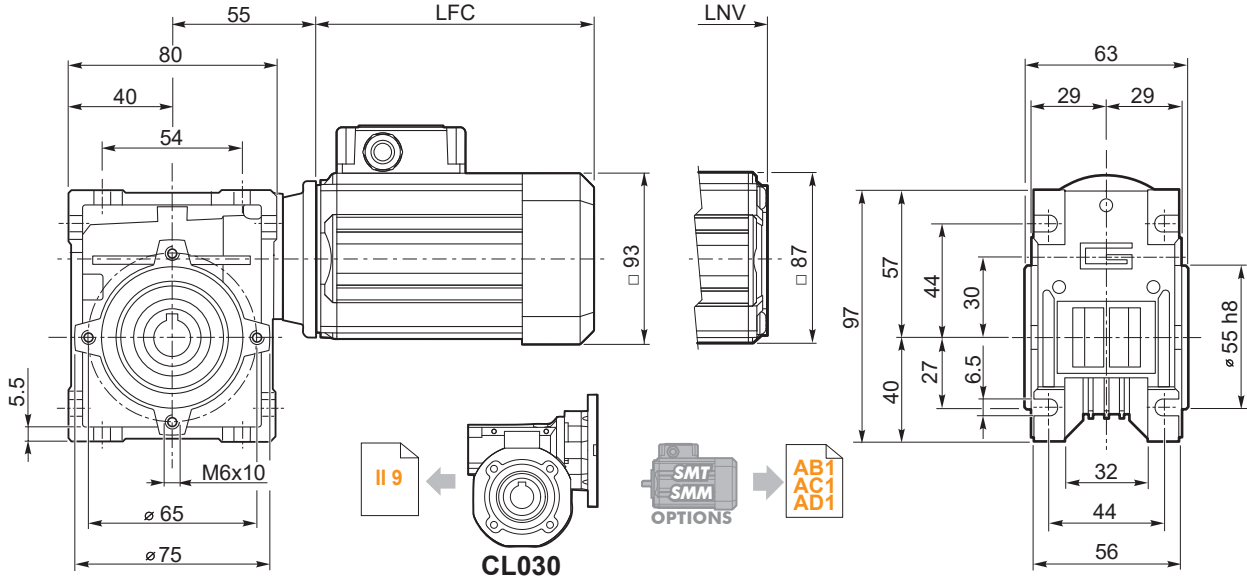
Dimensions

CM 030 ...U

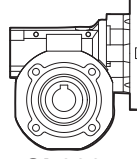
SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty



II 9

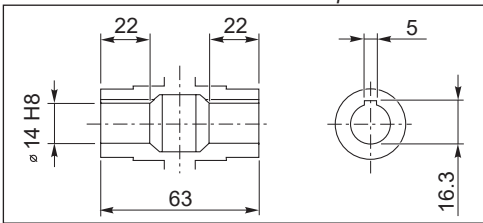


CL030



AB1
AC1
AD1

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 | |

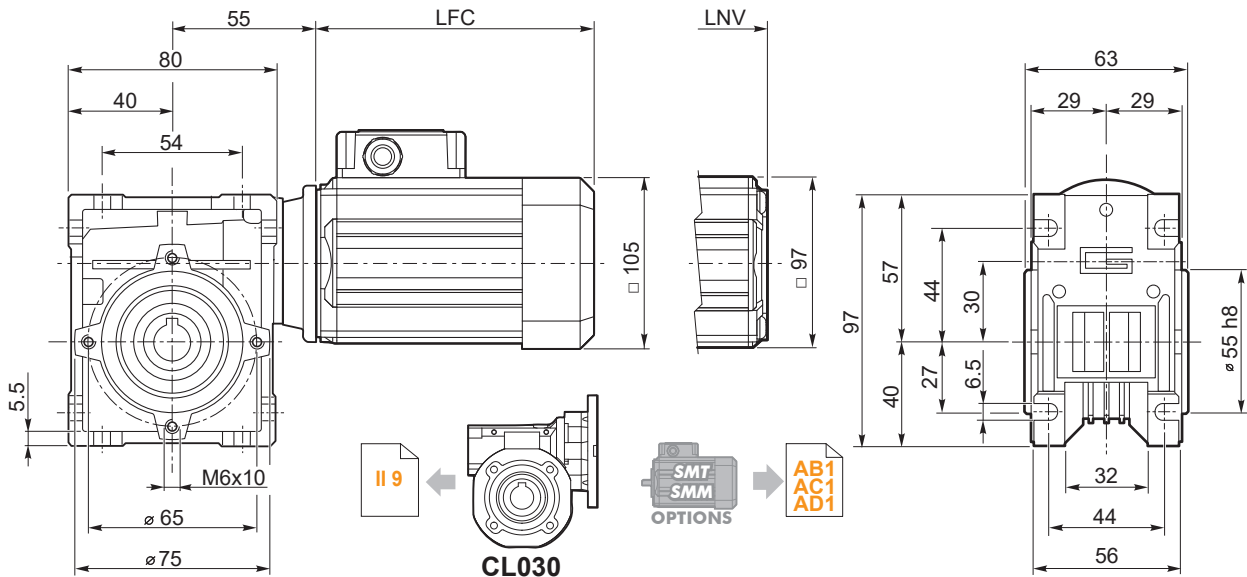
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CM 030 ...U

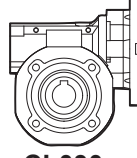
SMT63...TEFC
SMM63... TEFC

SMT63...TENV
SMM63... TENV

S3 servizio 30%
duty



II 9

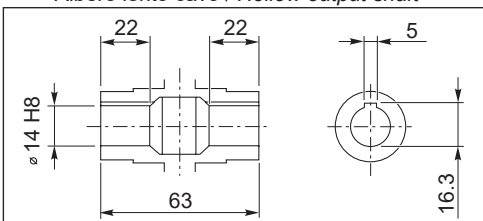


CL030



AB1
AC1
AD1

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 | |

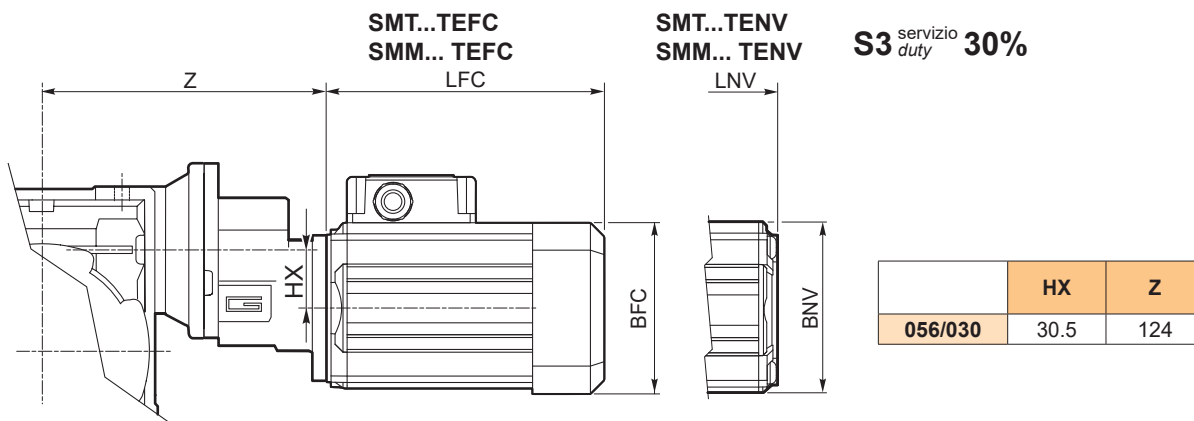
| SMM | LFC | LNV | Kg | |
|------|-------|-------|-----|--|
| 6324 | 180.5 | 153.5 | 6.3 | |
| 6334 | 205.5 | 178.5 | 7.5 | |

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

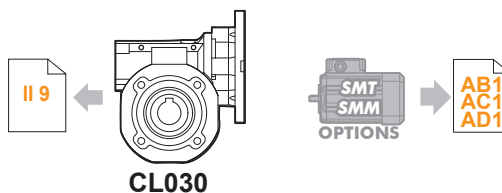
Dimensioni

Dimensions

CMP 056/030 ...U



S3 servizio 30%
duty



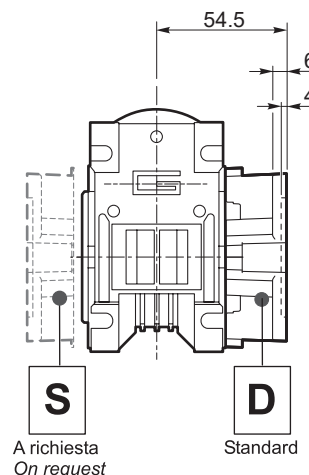
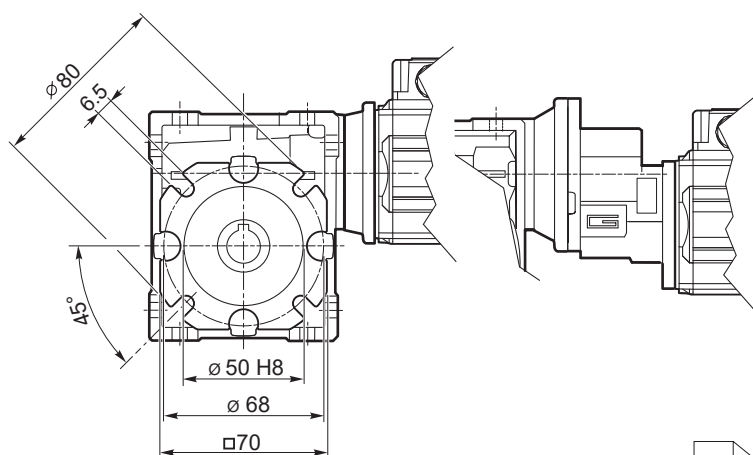
| SMT | BFC | BNV | LFC | LNV |
|------|------|------|-------|-------|
| 5014 | □ 85 | □ 80 | 135.5 | 108.5 |
| 5024 | | | 150.5 | 123.5 |
| 5034 | | | 175.5 | 148.5 |
| 5044 | | | 200.5 | 173.5 |
| 5624 | □ 93 | □ 87 | 141 | 117 |
| 5634 | | | 151 | 127 |
| 5644 | | | 186 | 162 |
| 5654 | | | 206 |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

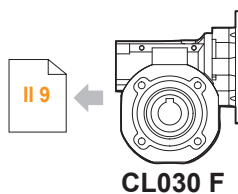
CM 030 ... - F

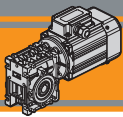
CMP 056/030 ... - F



S
A richiesta
On request

D
Standard





CM
CMP

Motoriduttori CA a vite senza fine
AC Wormgearmotors



Dimensioni

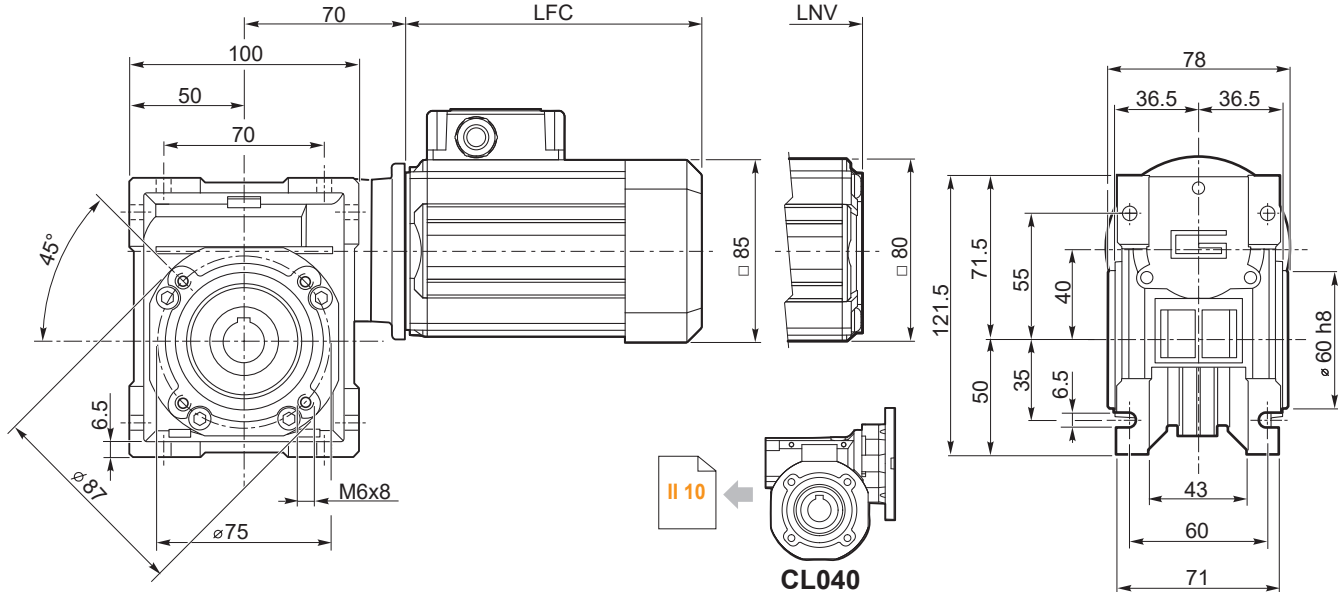
Dimensions

CM 040 ...U

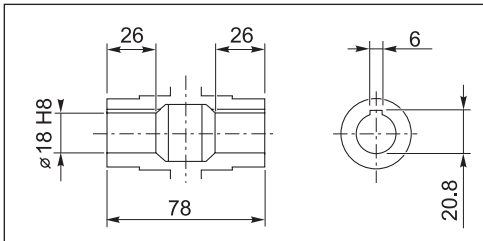
SMT50...TEFC
SMM50... TEFC

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 | |

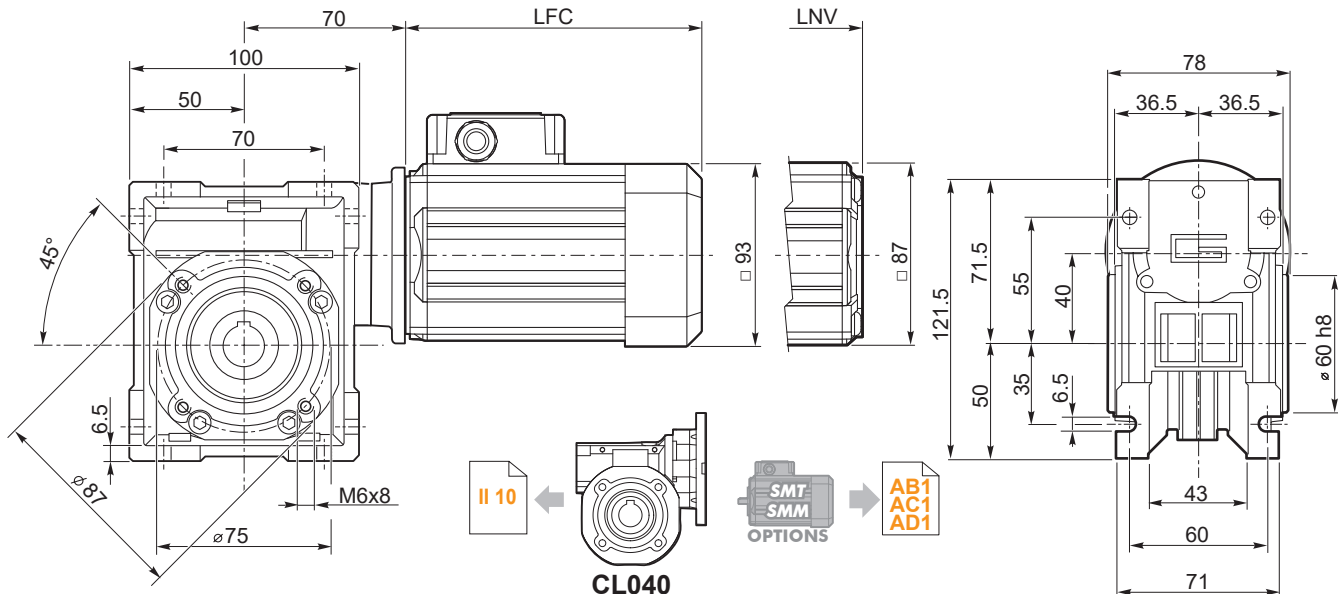
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CM 040 ...U

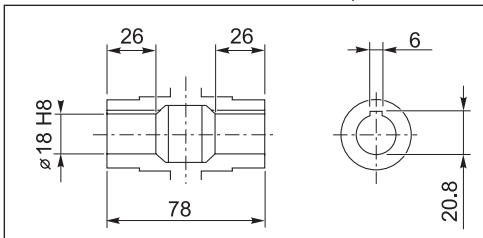
SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty



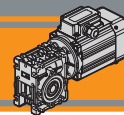
Albero lento cavo / Hollow output shaft



| 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

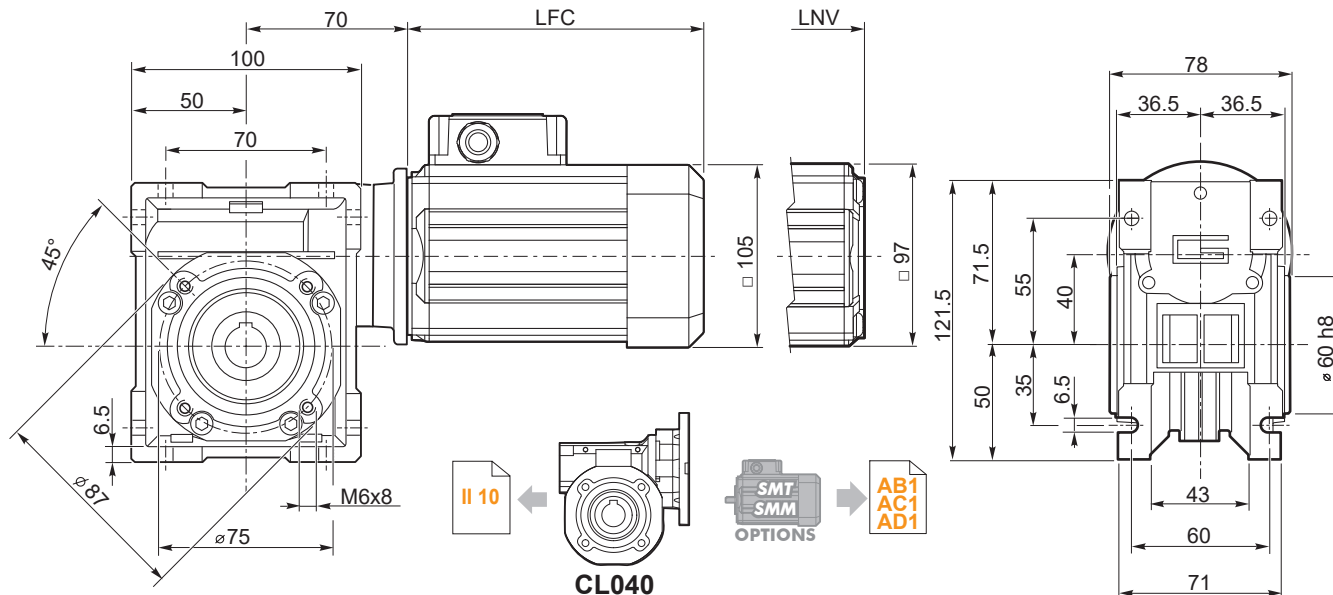
Dimensions

CM 040 ...U

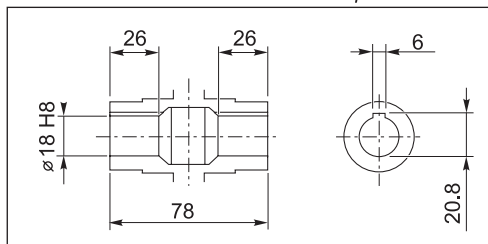
SMT63...TEFC
SMM63... TEFC

SMT63...TENV
SMM63... TENV

S3 servizio 30%
duty



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 | |

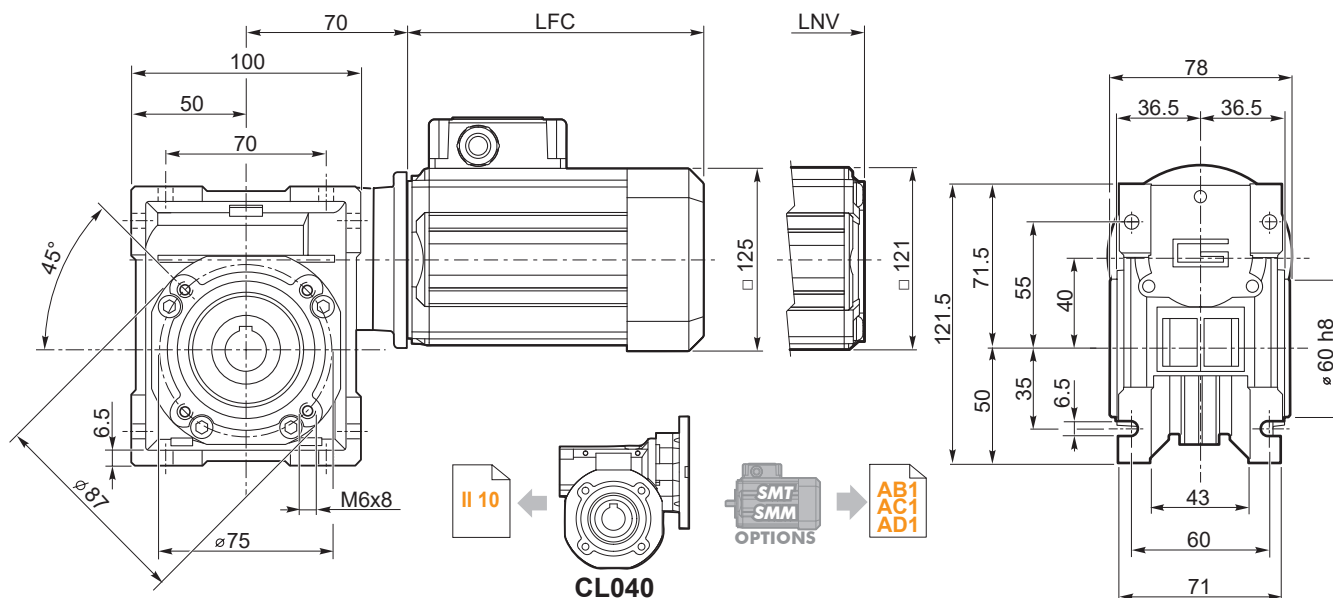
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

CM 040 ...U

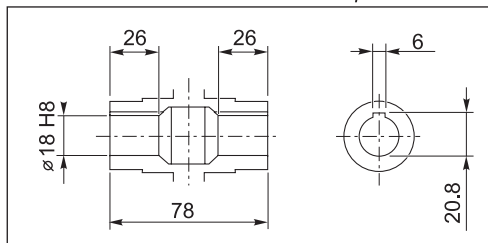
SMT71...TEFC
SMM71... TEFC

SMT71...TENV
SMM71... TENV

S3 servizio 30%
duty



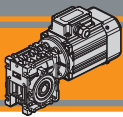
Albero lento cavo / Hollow output shaft



| 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



CM
CMP

Dimensioni

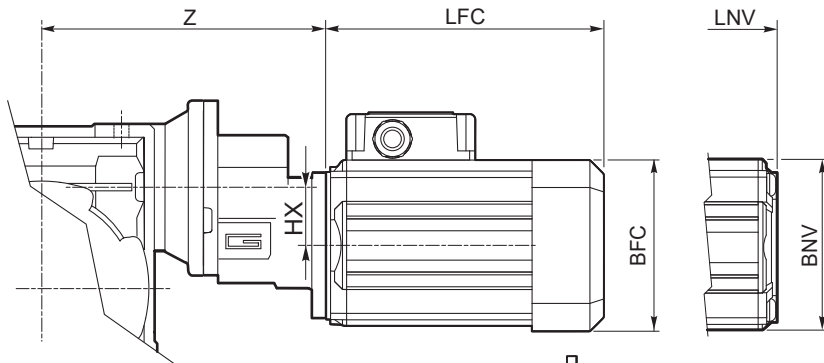
Dimensions

CMP .../040 ...U

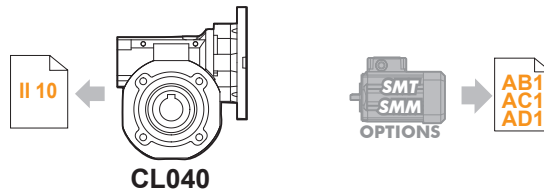
SMT...TEFC
SMM... TEFC

SMT...TENV
SMM... TENV

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 |
| 5634 | 186 | 162 | | |
| 5644 | 206 | 182 | | |
| 6324 | □ 105 | □ 97 | 180.5 | 153.5 |
| 6334 | | | 205.5 | 178.5 |

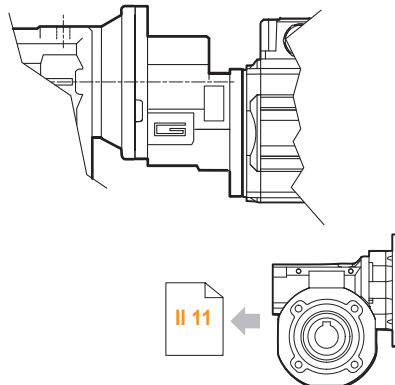
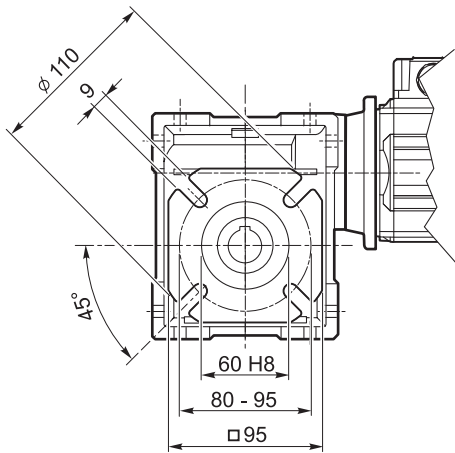
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

Dimensioni

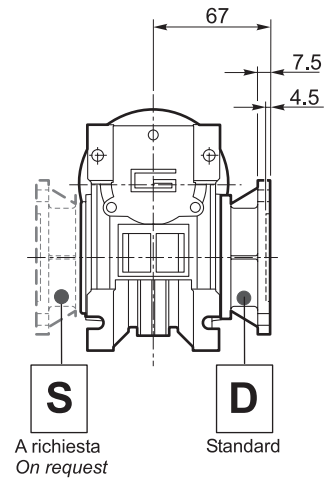
Dimensions

CM 040 ... - F

CMP .../040 ... - F

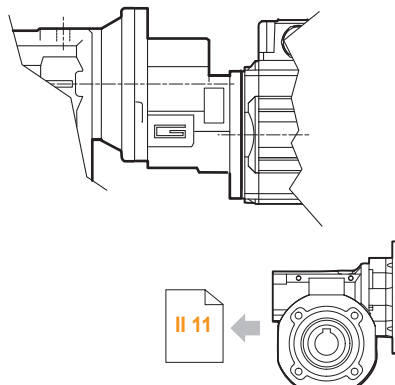
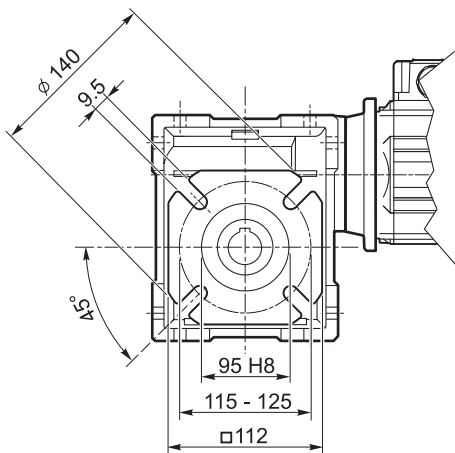


CL040 F

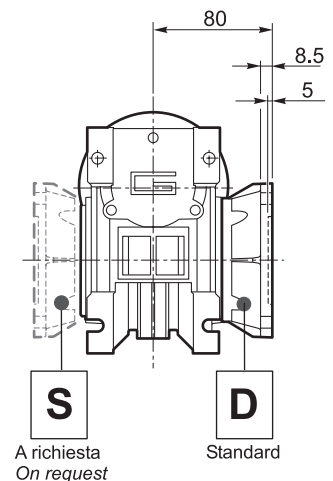


CM 040 ... - FB

CMP .../040 ... - FB

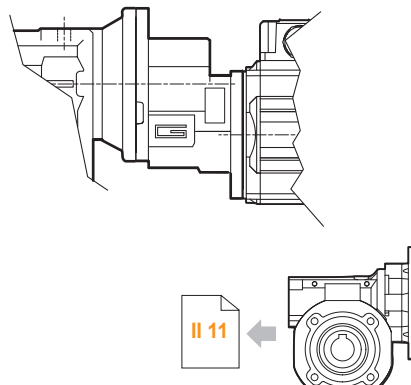
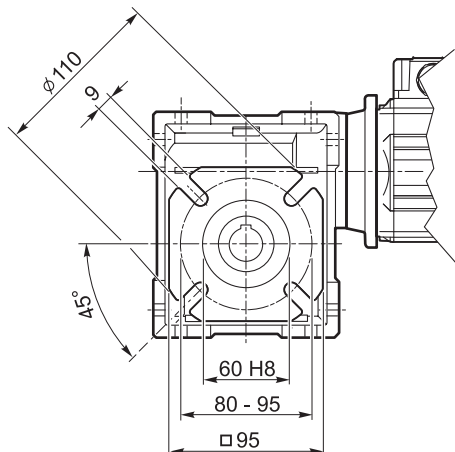


CL040 FB

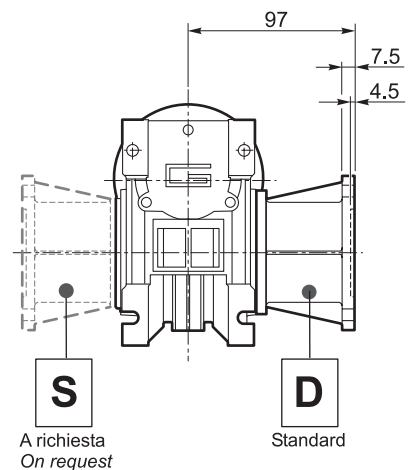


CM 040 ... - FL

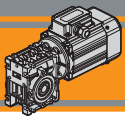
CMP .../040 ... - FL



CL040 FL



AC

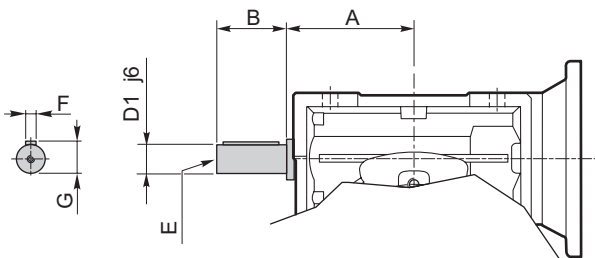


**CM
CMP**

Opzioni

Options

VS - Vite sporgente / Extended input shaft



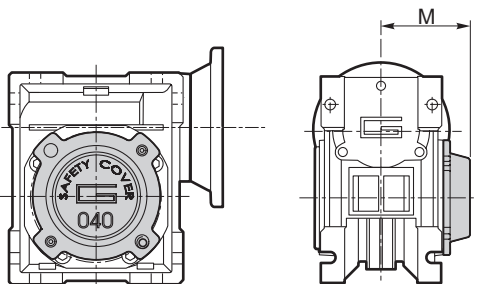
| CM | CMP | A | B | D ₁ j6 | E | F | G |
|-----|--------------------|----|----|----------------------|----|---|------|
| 030 | 056/030 | 45 | 20 | 9 | M4 | 3 | 10.2 |
| 040 | 056/040 063/040 | 53 | 23 | 11 | M5 | 4 | 12.5 |

Costruito su richiesta
Built on request

Accessori

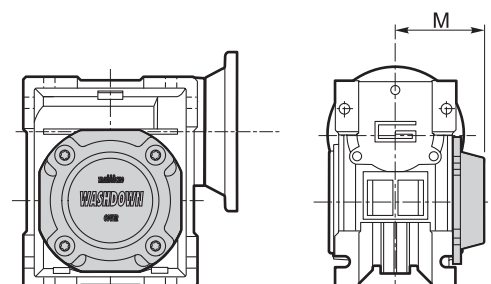
Accessories

SC - Safety cover



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

WD - Kit washdown cover



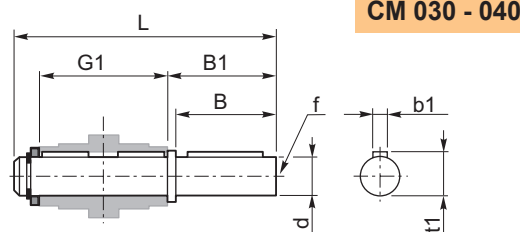
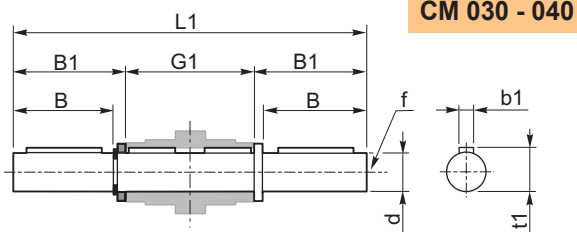
| CM | CMP | M |
|-----|--------------------|------|
| 030 | 056/030 | 48 |
| 040 | 056/040 063/040 | 55.5 |

Accessori

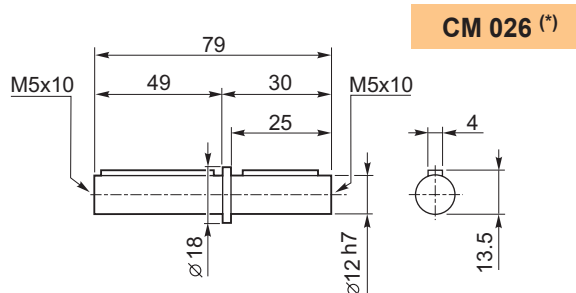
Accessories

Albero lento

Output shaft



| CM | 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 |



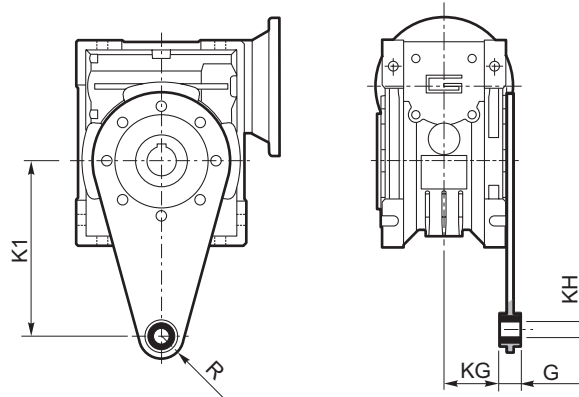
(*)
Nota: disponibile solo per cavo uscita Ø12
Note: available for output hollow shaft Ø12 only

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 |

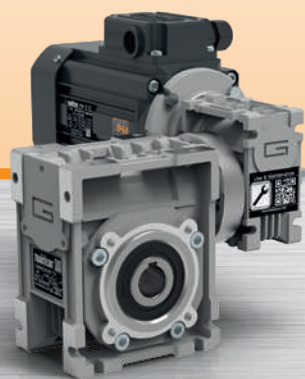
DZ



MINI  **TECNO**™
small but strong

CMM

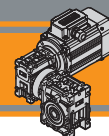
Motoriduttori CA combinati a vite senza fine
AC Double reduction wormgearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



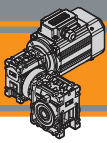
AC



| Indice | Index | Pag. Page |
|--------------------------|----------------------------|--------------|
| Caratteristiche tecniche | <i>Technical features</i> | A12 |
| Designazione | <i>Classification</i> | A13 |
| 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 |
| Dati tecnici | <i>Technical data</i> | A15 |
| Motori applicabili | <i>Motor adapters</i> | A17 |
| Dimensioni | <i>Dimensions</i> | A18 |
| Opzioni | <i>Options</i> | A112 |
| Accessori | <i>Accessories</i> | A112 |

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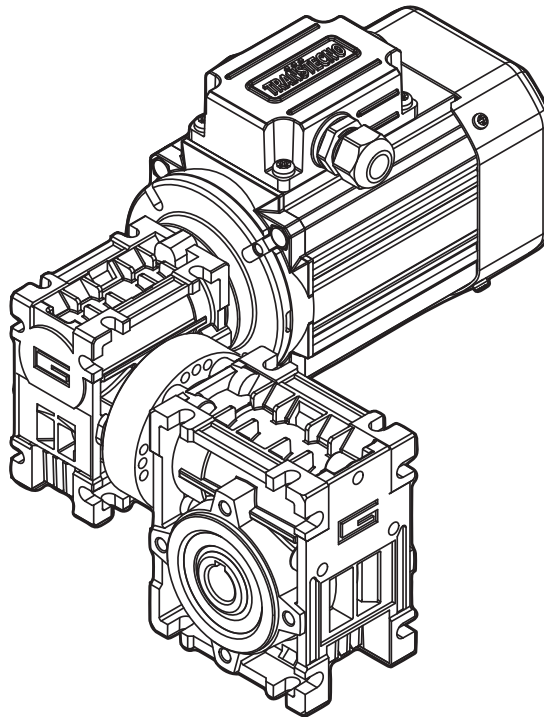
**Caratteristiche tecniche****Technical features**

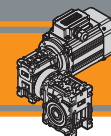
Le caratteristiche principali dei motoriduttori CMM sono:

- 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, servovenilata 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 *

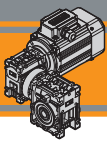
BRDX BRSX

Angolo
Angle

90° 90°
180° 0°
270° 270°

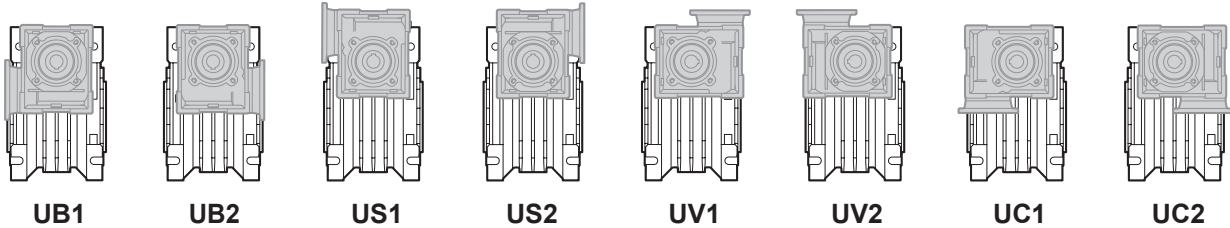
| MOTORE TRIFASE / THREE PHASE MOTOR | | | | | | | | | | |
|------------------------------------|-------------------------|---|---------------|---------------------------|------------------------------|-----------------------|------------------------|-----------------------------|--------------------|---------------------------------------|
| 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) |

| 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) |

**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**

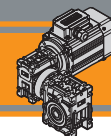
| CMM 026/026 - CMM 026/030 - CMM 026/040 | | | | | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|
| $i (i_1 \times i_2)$ | | | | | | | | | | | | |
| | 150 | 225 | 300 | 450 | 600 | 900 | 1200 | 1500 | 1800 | 2400 | 3000 | 3600 |
| i_1 | 10 | 15 |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

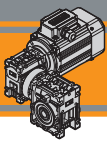
| P ₁ [kW] | n ₂ [min ⁻¹] | M ₂ [Nm] | sf | i | | P ₁ [kW] | n ₂ [min ⁻¹] | M ₂ [Nm] | sf | i | | | | | | | |
|---------------------------|--|------------------------|-----|------|--------------------|---------------------------|--|------------------------|-----|-----|--------------------|--|-----|-----|-----|--------------------|--------------------|
| 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 | | | | | | | | | | | |
| | 2.3 | 69 | 1.3 | 600 | | SMM5624 | | | | | | | 9.3 | 53 | 1.6 | 150 | CMM 026/040 |
| | 1.6 | 92 | 1.0 | 900 | | (1400 min ⁻¹) | | | | | | | 6.2 | 74 | 1.2 | 225 | |
| | 1.2 | 113 | 0.8 | 1200 | | 4.7 | | | | | | | 87 | 1.0 | 300 | | |
| | 0.9 | 113 | 0.8 | 1500 | | 3.1 | | | | | | | 113 | 0.8 | 450 | CMM 030/040 | |
| | 0.8 | 113 | 0.8 | 1800 | | 2.3 | | | | | | | 113 | 0.8 | 600 | | |
| | 0.6 | 93 | 0.8 | 2400 | | 9.3 | | | | | | | 53 | 1.6 | 150 | CMM 030/040 | |
| | 0.5 | 85 | 0.8 | 3000 | | 7.0 | | | | | | | 69 | 1.1 | 200 | | |
| | 0.4 | 78 | 0.8 | 3600 | | 5.6 | | | | | | | 83 | 0.8 | 250 | | |
| | 9.3 | 24 | 3.7 | 150 | 4.7 | 88 | | | | | | | 1.0 | 300 | | | |
| | 7.0 | 31 | 2.4 | 200 | 3.5 | 93 | 0.8 | 400 | | | | | | | | | |
| | 5.6 | 37 | 1.8 | 250 | 2.8 | 85 | 0.8 | 500 | | | | | | | | | |
| | 4.7 | 39 | 2.3 | 300 | 2.3 | 113 | 0.8 | 600 | | | | | | | | | |
| | 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

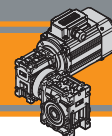


| Motori Motors | SMT | | | SMM | |
|------------------|--------|--------------|--------------|--------------|--------------|
| | 5044 | 5644 5654 | 6324 6334 | 5634 5644 | 6324 6334 |
| IEC | 56 B14 | | 63 B14 | 56 B14 | 63 B14 |

Dati tecnici elettrici

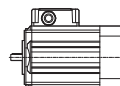
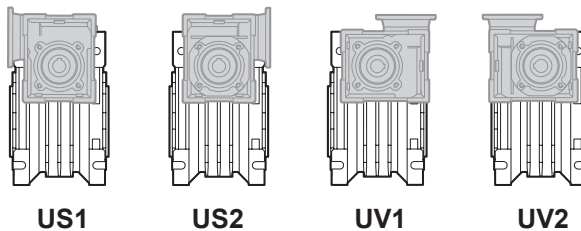
Electrical technical data





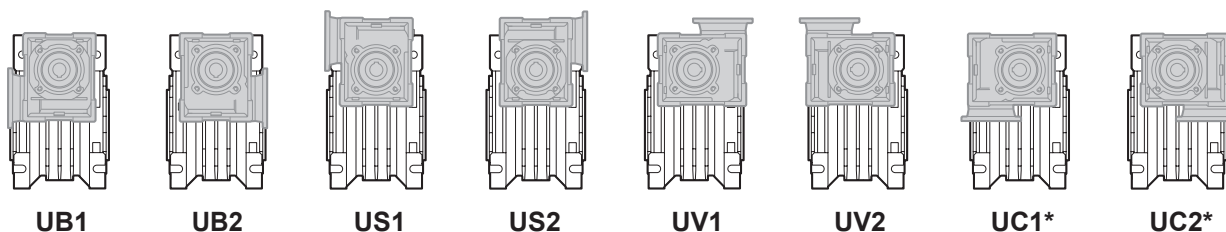
Motori applicabili

Motor adapters

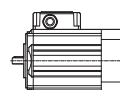


| | | SMT | | SMM | |
|----|---------|------------|------|------------|------|
| | | 5014 | 5624 | 5014 | 5624 |
| | | 5024 | 5634 | 5024 | 5634 |
| | | 5034 | 5644 | 5034 | 5644 |
| | | 5044 | 5654 | | |
| CM | 026/026 | 150 - 3600 | | 150 - 3600 | |

150 - 3600 Rapporti di riduzione i / Ratio i

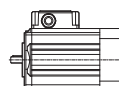
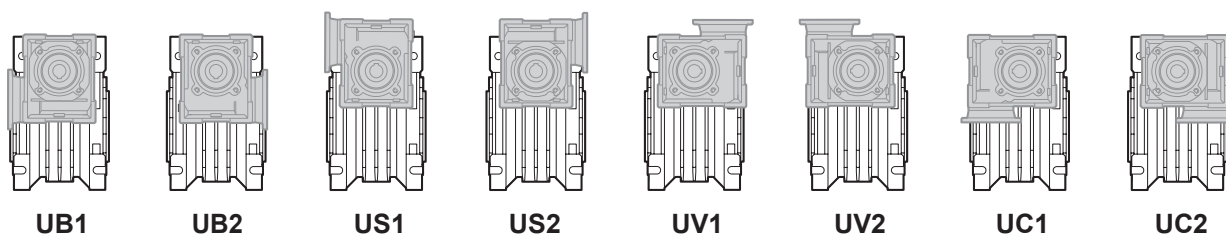


*: Solo / only SMT 50 - SMM50



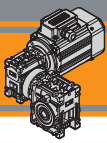
| | | SMT | | SMM | |
|----|--------------------|------------|------|------------|------|
| | | 5014 | 5624 | 5014 | 5624 |
| | | 5024 | 5634 | 5024 | 5634 |
| | | 5034 | 5644 | 5034 | 5644 |
| | | 5044 | 5654 | | |
| CM | 026/030 026/040 | 150 - 3600 | | 150 - 3600 | |

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



CMM

Motoriduttori CA combinati a vite senza fine
AC Double reduction wormgearmotors



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) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 026 | - | 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) | | | | | | | | | | | | | | | | | | | | | | | | | | |

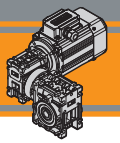
(2): F30SC eseguita con F30C e distanziale di spessore 2 mm / F30SC made with F30C and spacer with 2mm thickness

| | 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 | □ 93 | □ 87 | 151 | 127 |
| 5634 | | | 186 | 162 |
| 5644 | | | 206 | 182 |

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



Dimensioni

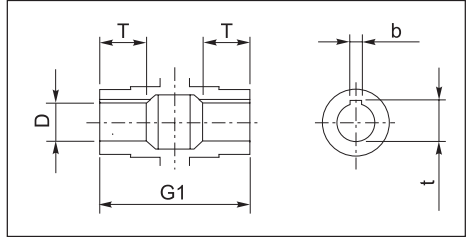
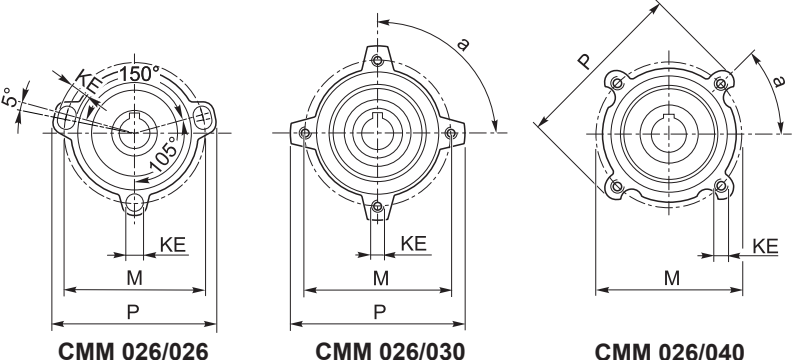
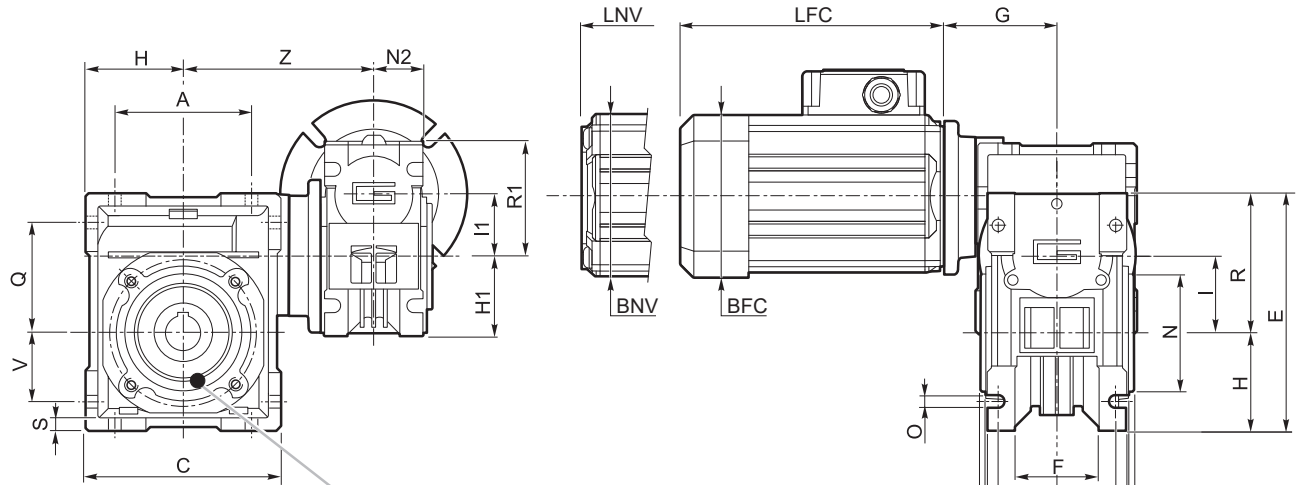
Dimensions

CMM 026/... U

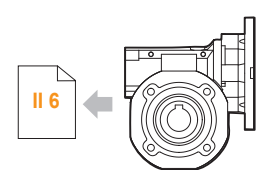
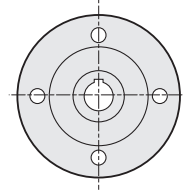
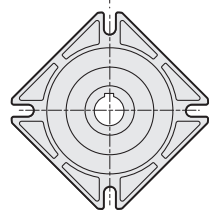
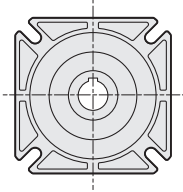
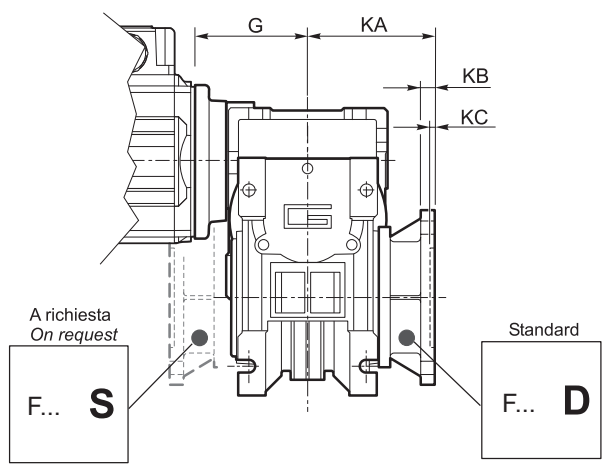
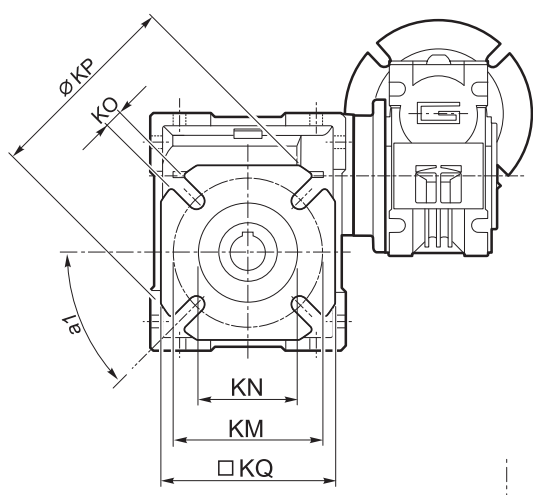
S3 ^{servizio} _{duty} 30%

SMT...TENV
SMM... TENV

SMT...TEFC
SMM... TEFC



Albero lento cavo / Hollow output shaft

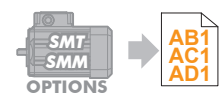


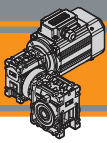
- CMM026/026.. F
- CMM026/026.. F28
- CMM026/026.. F30
- CMM026/026.. F30S
- CMM026/030.. F..
- CMM026/040.. F..

- 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 |

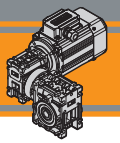
| CMM.. - CMM..F - CMM..FB - CMM..FL | | | | | | | | | | | | | | | |
|------------------------------------|-----|----|----|------|----|-----|----|----|-----|-----------|-----|---|----------------|-----|--|
| | O | P | Q | R | R1 | S | T | V | Z | KE | a | b | t | Kg | |
| 030/040 | 6.5 | 87 | 55 | 71.5 | 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 | 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



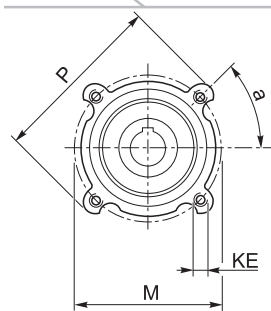
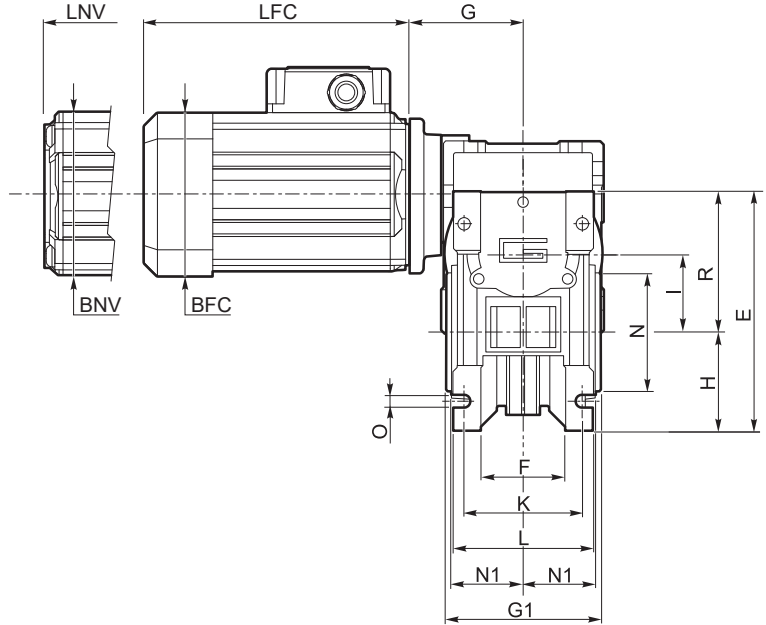
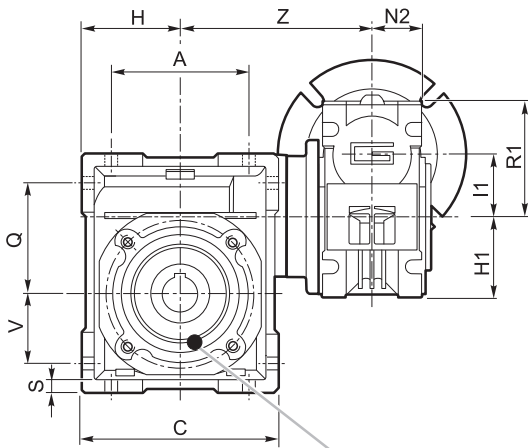
Dimensioni

Dimensions

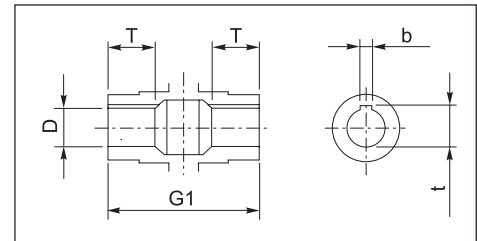
CMM 030/040 U

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

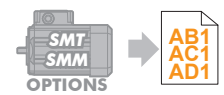
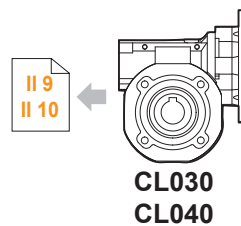
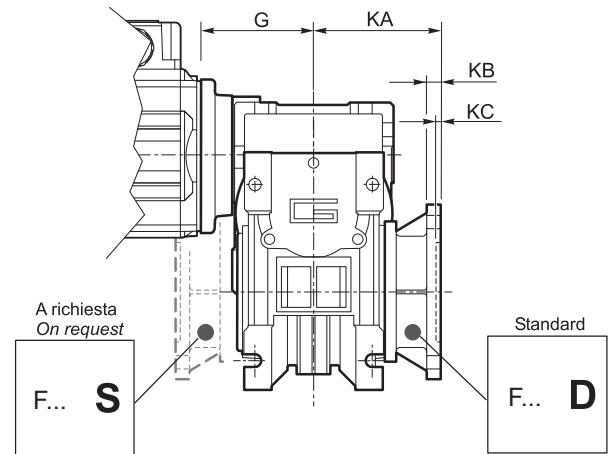
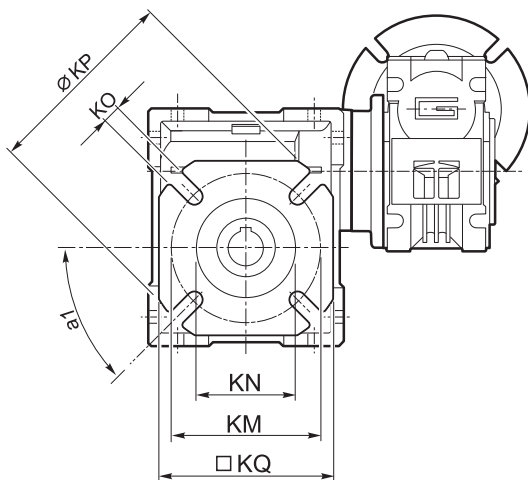
SMT...TEFC SMM... TEFC



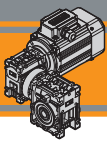
CMM 030/040



Albero lento cavo / Hollow output shaft



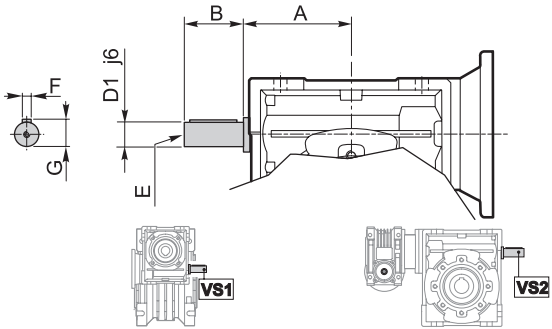
AC



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 |

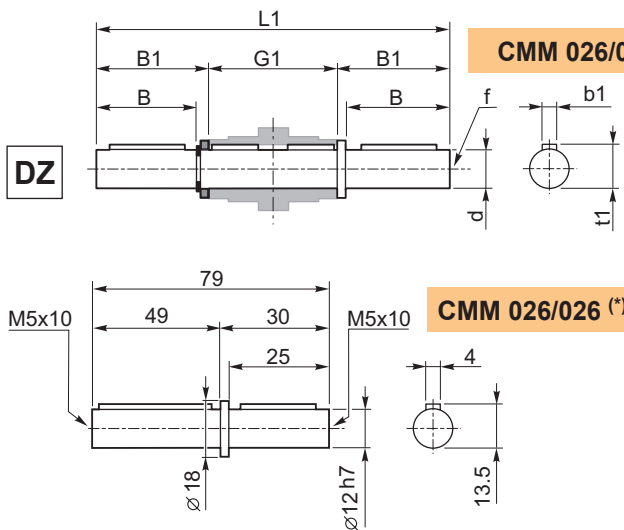
Costruito su richiesta
Built on request

Accessori

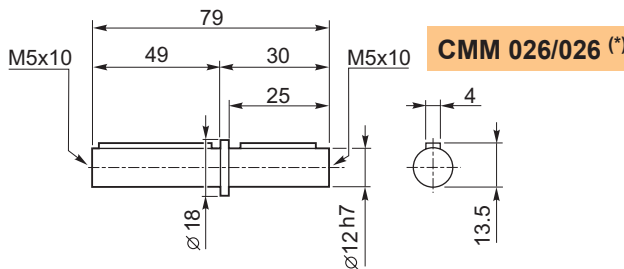
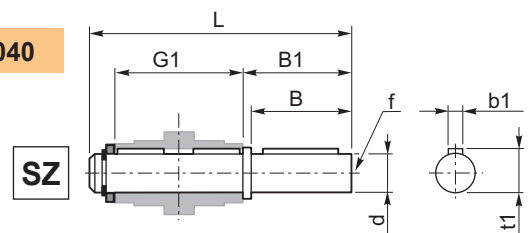
Accessories

Albero lento semplice e doppio

Single and double output shaft



CMM 026/030 - CMM 030/040



CMM 026/026 (*)

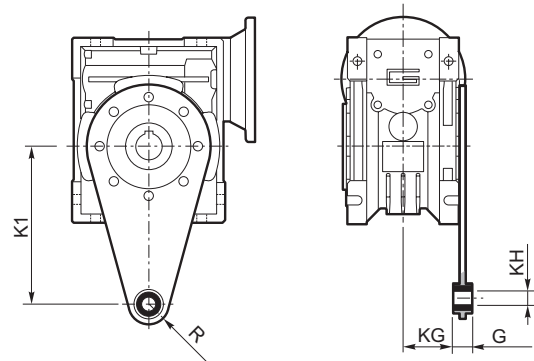
| CMM | d _{h7} | B | B1 | G1 | L | L1 | f | b1 | t1 |
|---------|-----------------|----|------|----|-----|-----|----|----|------|
| 026/030 | 14 | 30 | 32.5 | 63 | 102 | 128 | M6 | 5 | 16 |
| 026/040 | 18 | 40 | 43 | 78 | 128 | 164 | M6 | 6 | 20.5 |

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

Braccio di reazione

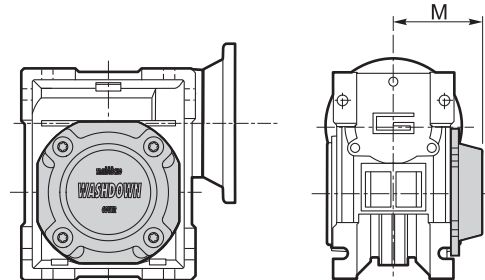
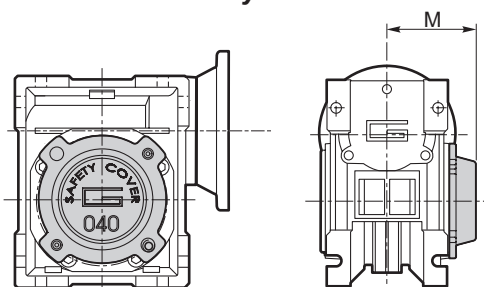
Torque arm

| CMM | K1 | G | KG | KH | R |
|---------|-----|----|----|----|----|
| 026/030 | 85 | 14 | 23 | 8 | 15 |
| 026/040 | 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

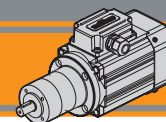
AC

Motoriduttori CA epicicloidali
AC Planetary gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®

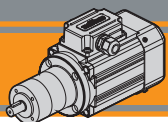




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| Designazione | <i>Classification</i> | AL2 |
| Versioni | <i>Versions</i> | AL2 |
| Simbologia | <i>Symbols</i> | AL3 |
| Lubrificazione | <i>Lubrication</i> | AL3 |
| Carichi radiali | <i>Radial loads</i> | AL3 |
| Rapporti | <i>Ratios</i> | AL3 |
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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

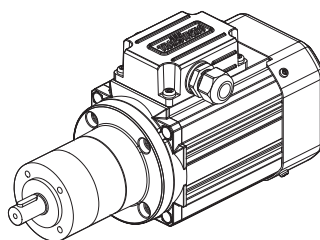
Technical features

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.

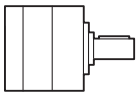
PM gearmotors gearmotors have the following main features:



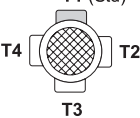
- Compact design
- AC single phase and three phase motors available
- Motor extruded aluminum housing black anodized
- AC electric motor in IP66 protection Standard
- Fan cooled TEFC (duty S1) and not ventilated TENV (duty S3) versions available
- PTO 150°C thermal protection for motor sizes 56 and 63.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



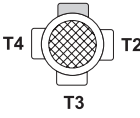


Designazione

Classification

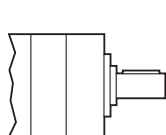
| RIDUTTORE / GEARMOTOR | | | | |
|--|------------------------|-----------------------------------|--|------------------------------|
| PM | 52 | 2 | C80 | 34.97 |
| Tipo Type | Grandezza Size | Stadi riduttore Gearbox stages | Versione riduttore Gearbox Version | Rapporto Ratio |
| PM  | 52 62 | 1 2 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 |  | T1 (Std)  |

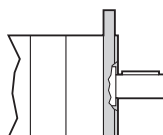
| MOTORE MONOFASE / SINGLE PHASE MOTOR | | | | | | | | | | |
|---|-------------------------|---|---------------|---|------------------------------|---------------------|------------------------|--------------------------------|---|--|
| SMM | 63 | 2 | 4 | 0.18 kW | B14 | 230 V | 50 Hz | TEFC | UL-CSA | 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. 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 |  | T1 (Std)  |

Versioni

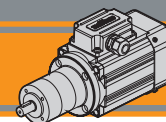
Versions



U



C

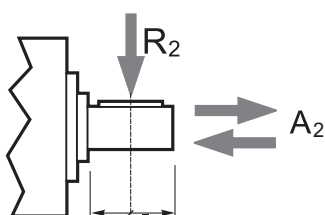

Simbologia
Symbols

| | | | |
|----------------------------|---|-----------|--|
| 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 |

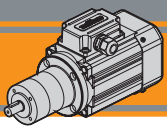
| Numero di stadi Stages number | Carichi Assiali A_2 [N] / Axial Load A_2 [N] | |
|----------------------------------|--|------|
| | PM52 | PM62 |
| 1 | 60 | 70 |
| 2 | 100 | 100 |
| 3 | 150 | 150 |

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 | | |

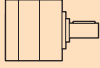




Rapporti preferenziali per le taglie PM52, PM62.
Preferred ratios for PM52, PM62.


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



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 | | | | | | 0.04 | | | | | | |
| SMT5014 | 378 | 0.8 | 6.3 | 3.7 | PM521 | SMT5014 | 28 | 10 | 6.5 | 50.89 | PM623 | |
| SMM5014 | 327 | 0.9 | 5.4 | 4.28 | | SMM5014 | 24 | 11 | 5.6 | 58.85 | | |
| (1400 min ⁻¹) | 270 | 1.1 | 4.5 | 5.18 | | (1400 min ⁻¹) | 21 | 13 | 4.9 | 68.06 | | |
|  | 207 | 1.5 | 3.4 | 6.75 | |  | 20 | 14 | 4.7 | 71.16 | | |
| | 102 | 3 | 5.4 | 13.73 | PM522 | | 18 | 15 | 4.2 | 78.71 | | |
| | 88 | 3 | 4.7 | 15.88 | | | 15 | 18 | 3.6 | 92.7 | | |
| | 76 | 4 | 4.0 | 18.36 | | | 15 | 18 | 3.5 | 95.17 | | |
| | 73 | 4 | 3.9 | 19.2 | | | 14 | 19 | 3.3 | 99.5 | | |
| | 63 | 5 | 3.3 | 22.2 | | | 13 | 20 | 3.1 | 107.2 | | |
| | 56 | 5 | 3.0 | 25.01 | | | 12 | 22 | 2.9 | 115.07 | | |
| | 52 | 5 | 2.8 | 26.85 | | | 11 | 24 | 2.7 | 123.97 | | |
| | 48 | 6 | 2.6 | 28.93 | | | 11 | 25 | 2.6 | 129.62 | | |
| | 40 | 7 | 2.1 | 34.97 | | | 10 | 27 | 2.4 | 139.13 | | |
| | 31 | 9 | 1.6 | 45.56 | | | 9.3 | 29 | 2.2 | 149.9 | | |
| | | | | | | PM523 | | 8.3 | 32 | 2.0 | 168.84 | |
| | 28 | 10 | 3.3 | 50.89 | | | | 7.7 | 35 | 1.8 | 181.24 | |
| | 24 | 11 | 2.8 | 58.85 | | | 7.2 | 37 | 1.7 | 195.26 | | |
| | 21 | 13 | 2.4 | 68.06 | | | 5.9 | 45 | 1.4 | 236.09 | | |
| | 20 | 14 | 2.3 | 71.16 | | | 4.6 | 59 | 1.1 | 307.54 | | |
| | 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 | | | | | | | | |
| | | | | | PM622 | | | | | | | |
| | 56 | 5 | 6.2 | 25.01 | | | | | | | | |
| | 52 | 5 | 5.8 | 26.85 | | | | | | | | |
| | 48 | 6 | 5.3 | 28.93 | | | | | | | | |
| | 40 | 7 | 4.4 | 34.97 | | | | | | | | |
| | 31 | 9 | 3.4 | 45.56 | | | | | | | | |
| 0.06 | | | | | | 0.06 | | | | | | |
| | | | | | | PM521 | SMT5024 | 378 | 1 | 4.2 | 3.7 | PM522 |
| | | | | | | | SMM5024 | 327 | 1 | 3.6 | 4.28 | |
| | | | | | | | (1400 min ⁻¹) | 270 | 2 | 3.0 | 5.18 | |
| | | | | | | |  | 207 | 2 | 2.3 | 6.75 | |
| | | | | | | PM522 | | 102 | 4 | 3.6 | 13.73 | |
| | | | | | 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 | | | |
| | | | | | PM523 | | | 28 | 15 | 2.2 | 50.89 | |
| | | | | | | | 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 | | | | |

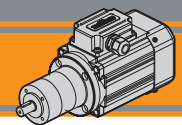
 Motoriduttori preferenziali / Preferred gearmotors

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 | | | | | | | | | | |

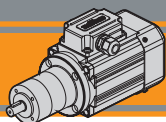
NOTA
Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

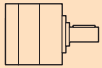
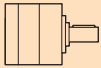



NOTE
For sf=0.7 check that the duty torque does not exceed the value M2

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 | | | | |
| | 28 | 29 | 2.2 | 50.89 | 52 | 25 | 1.3 | 26.85 | PM623 | | | |
| | 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 | | | | |

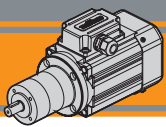
NOTA
Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

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

 Motoriduttori preferenziali / Preferred gearmotors

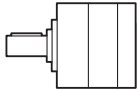
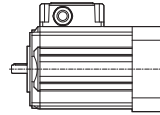


| Motori Motors | SMT | | | SMM | |
|------------------|---------------|--------------|------|---------------|------|
| | 5044 | 5634 5644 | 6324 | 5634 5644 | 6324 |
| IEC | 56 B14 | | | 63 B14 | |



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 combainazione
Combination flange

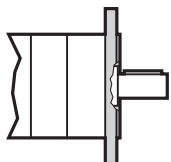
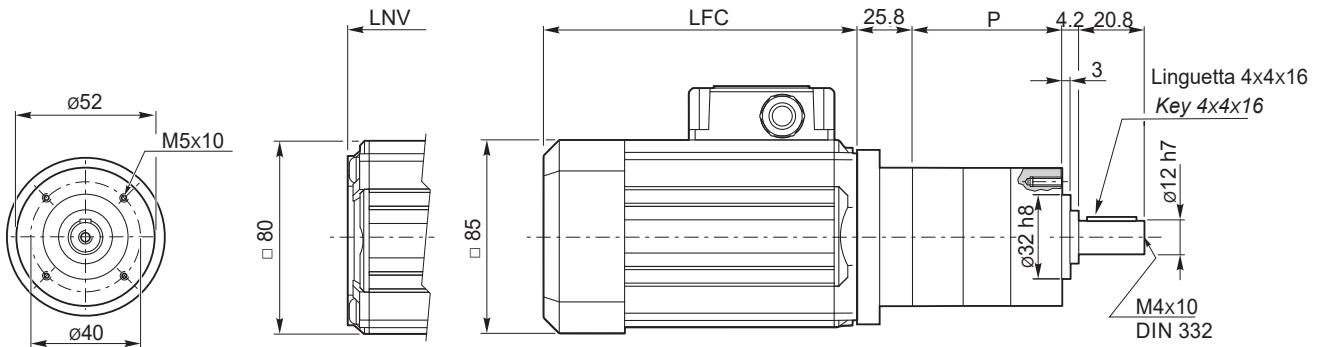
Dimensioni

Dimensions

PM52 ... U

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

SMT50...TEFC SMM50... TEFC



PM52...C

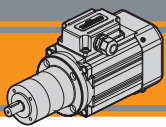


| Tipo Type | Numero di stadi Stages number | P |
|-----------|-------------------------------|------|
| PM52... | 1 | 47.2 |
| | 2 | 61.3 |
| | 3 | 75.6 |

| 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



PM

Motoriduttori CA epicicloidali
AC planetary gearmotors



Dimensioni

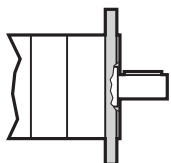
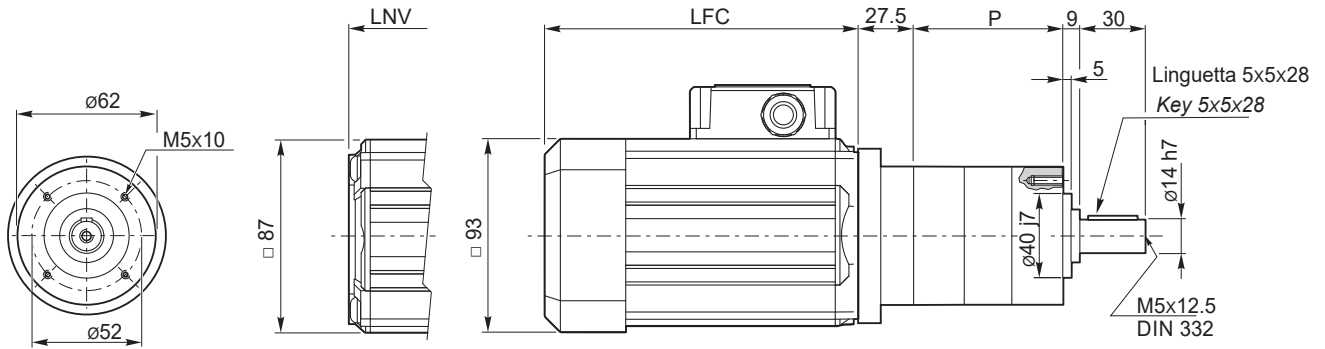
Dimensions

PM62 ... U

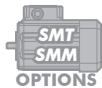
S3 servizio
duty 30%

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 | |

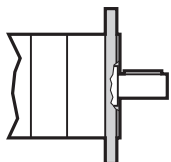
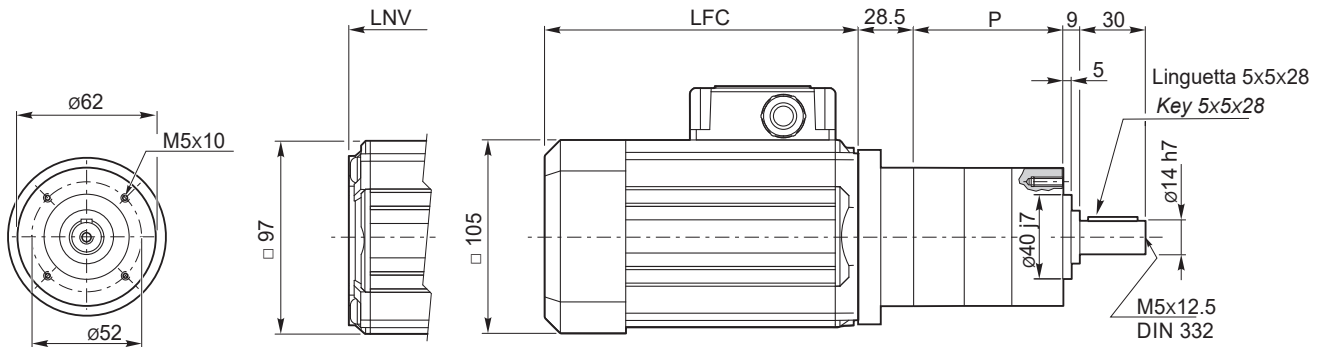
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately

PM62 ... U

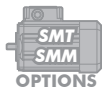
S3 servizio
duty 30%

SMT63...TENV
SMM63... TENV

SMT63...TEFC
SMM63... TEFC



PM62...C

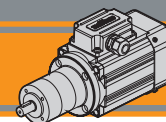


| Tipo Type | Numero di stadi Stages number | P |
|--------------|----------------------------------|------|
| PM62... | 1 | 45.3 |
| | 2 | 62.2 |
| | 3 | 79.2 |

| 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 | |

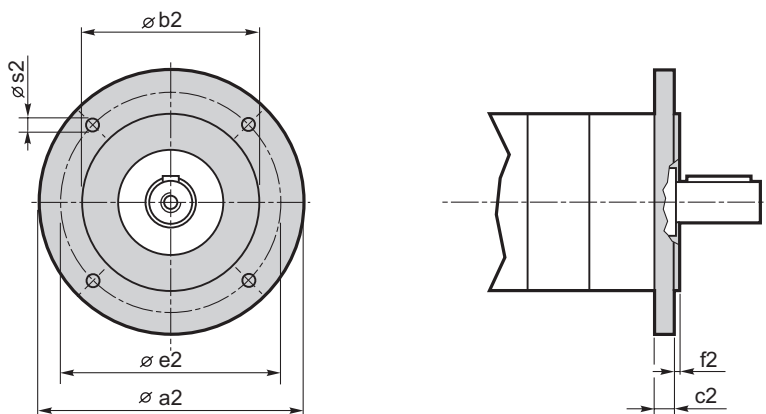
Nota: il condensatore sarà fornito a corredo
Note: the capacitor will be supplied separately



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

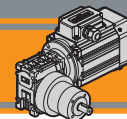
Motoriduttori CA combinati
AC Double reduction gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



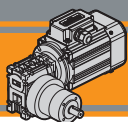
AC



| Indice | Index | Pag. Page |
|--------------------------|---------------------------|--------------|
| Caratteristiche tecniche | <i>Technical features</i> | AM2 |
| Designazione | <i>Classification</i> | AM2 |
| Versioni | <i>Versions</i> | AM2 |
| Simbologia | <i>Symbols</i> | AM3 |
| Lubrificazione | <i>Lubrication</i> | AM3 |
| Carichi radiali | <i>Radial loads</i> | AM3 |
| Rapporti | <i>Ratios</i> | AM3 |
| Dati tecnici | <i>Technical data</i> | AM4 |
| Motori applicabili | <i>IEC Motor adapters</i> | AM5 |
| Dimensioni | <i>Dimensions</i> | AM5 |

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Caratteristiche tecniche

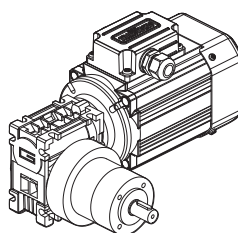
Technical features

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, servovenilata 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

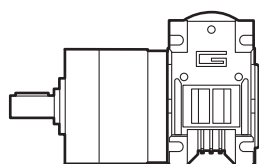
| RIDUTTORE / GEARMOTOR | | | | | |
|-----------------------|--------------------------------|---|--|------------------------------|-------------------|
| WMP | 026/52 | 2 | C | 202.5 | 56 B14 |
| Tipo Type | Grandezza Size | Numero stadi epicicloidale Planetary stages number | Versione riduttore Gearbox 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 |

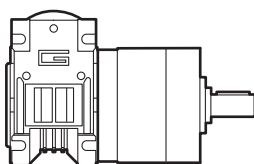
| MOTORE MONOFASE / SINGLE PHASE MOTOR | | | | | | | | | |
|--------------------------------------|-------------------------|---|---------------|---|------------------------------|---------------------|------------------------|--------------------------------|---------------------------------------|
| 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

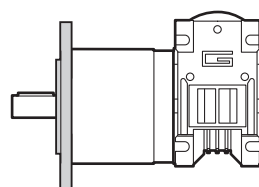
Versions



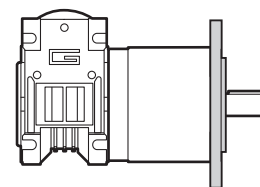
US



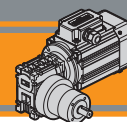
UD



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

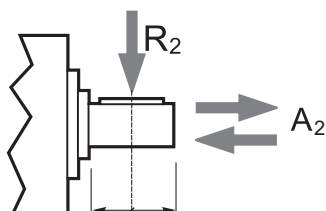
Lubrication

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



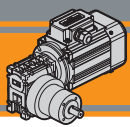
| Numero di stadi <i>Stages number</i> | Carichi Radiali R_2 [N] / <i>Radial Load R_2 [N]</i> | |
|---|---|------|
| | PM52 | PM62 |
| 1 | 200 | 240 |
| 2 | 320 | 360 |
| 3 | 450 | 520 |

| 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

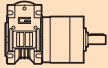

Ratios

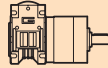

| Motoriduttore <i>Gearmotor</i> | Numero stadi epicicloidale <i>Planetary stages number</i> | Rapporto epicicloidale <i>Planetary ratio</i> | Rapporto vite senza fine <i>Wormgearbox ratio</i> | Rapporto finale <i>Total ratio</i> |
|-----------------------------------|--|--|--|---------------------------------------|
| 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 | |

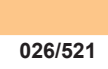





Dati tecnici

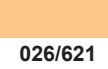

Technical data

| 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.

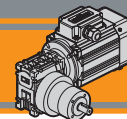


| Motori Motors | SMT | | | SMM | | |
|------------------|------------------------------|--------------|------|--------------|--------------|------|
| | 5014 5024 5034 5044 | 5624 5634 | 6324 | 5024 5034 | 5624 5634 | 6324 |
| IEC | 56 B14 | | | 56 B14 | | |

Dati tecnici elettrici

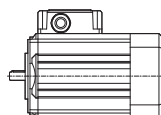
Electrical technical data





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

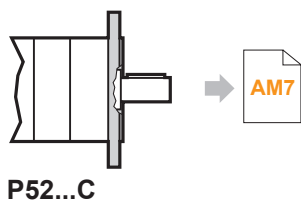
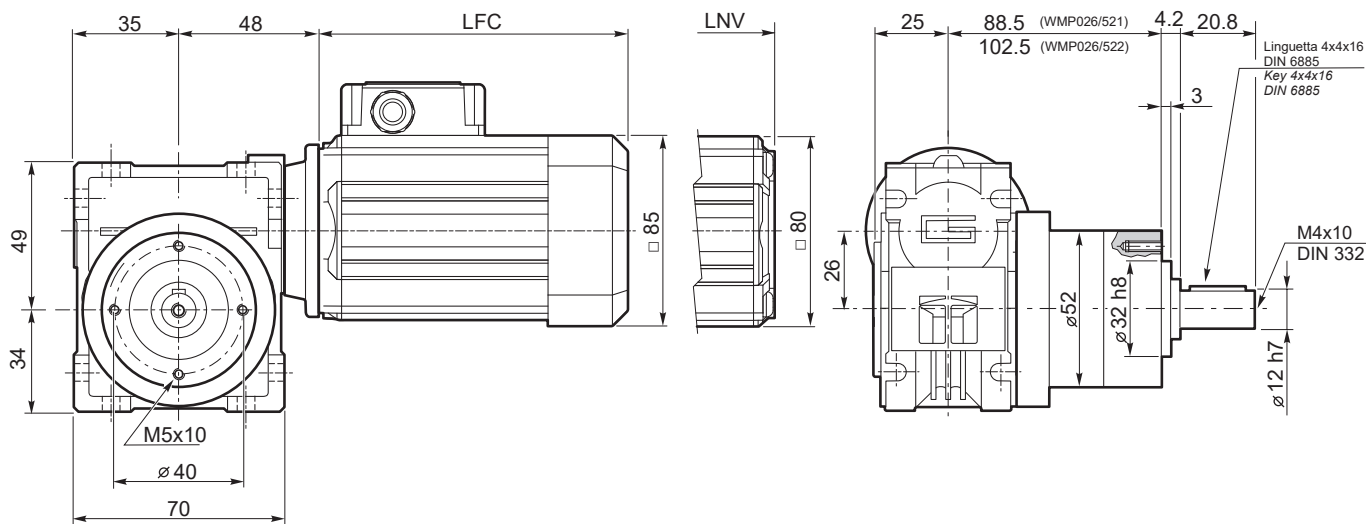
Dimensions

WMP 026/521
WMP 026/522

SMT50...TEFC
SMM50... TEFC

SMT50...TENV
SMM50... TENV

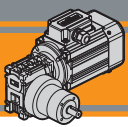
S3 servizio 30%
duty



| 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



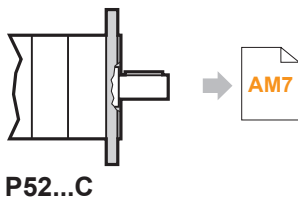
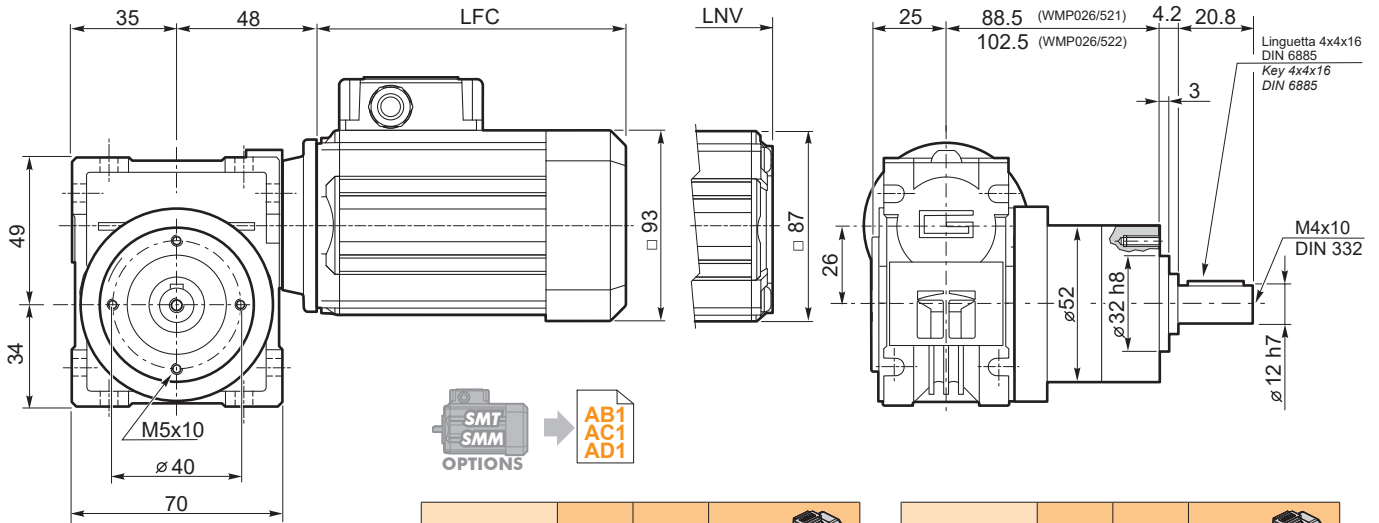
Dimensioni

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 | |

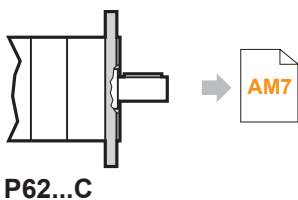
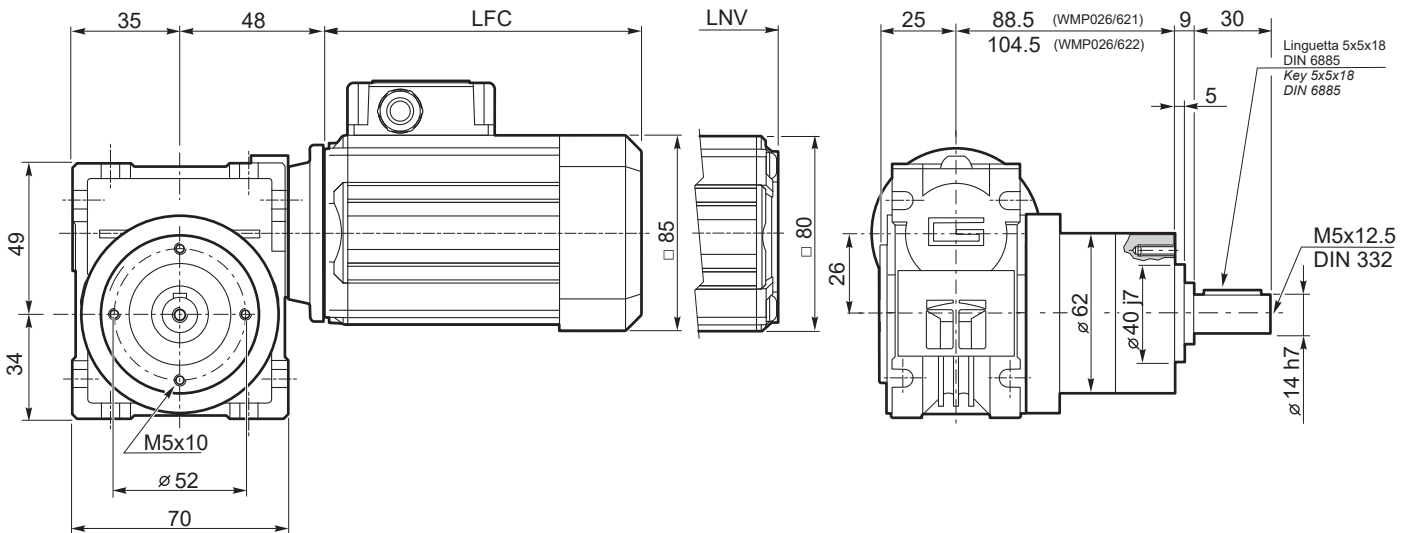
| SMM | LFC | LNV | Kg | |
|------|-----|-----|-----|--|
| 5624 | 151 | 127 | 4.9 | |
| 5634 | 171 | 147 | 5.5 | |
| 5644 | 206 | 182 | 6.8 | |

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

WMP 026/621
WMP 026/622

SMT50...TEFC
SMM50... TEFC

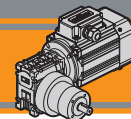
SMT50...TENV
SMM50... TENV S3 servizio duty 30%



| 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

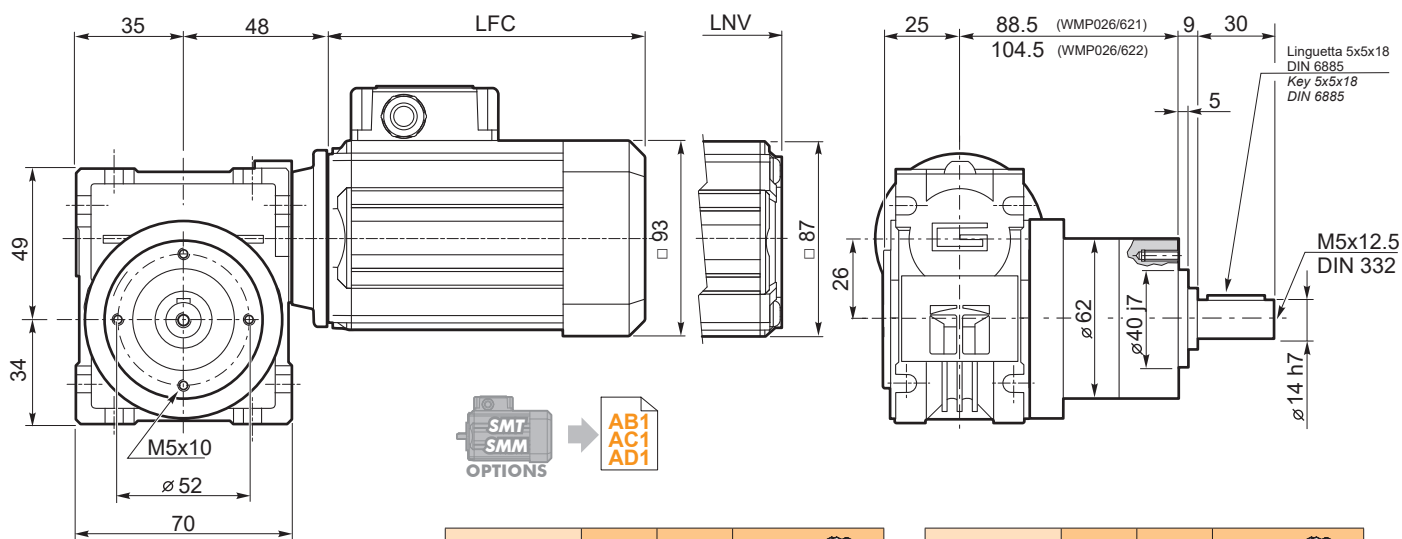
Dimensions

WMP 026/621
WMP 026/622

SMT56...TEFC
SMM56... TEFC

SMT56...TENV
SMM56... TENV

S3 servizio 30%
duty

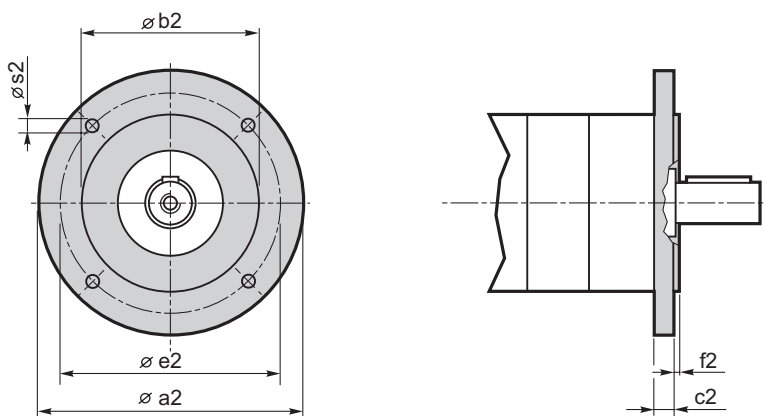


| SMT | LFC | LNV | Kg | |
|------|-----|-----|-----|--|
| 5624 | 141 | 117 | 4.9 | |
| 5634 | 151 | 127 | 5.3 | |
| 5644 | 186 | 162 | 6.5 | |
| 5654 | 206 | 182 | 7.2 | |

| 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

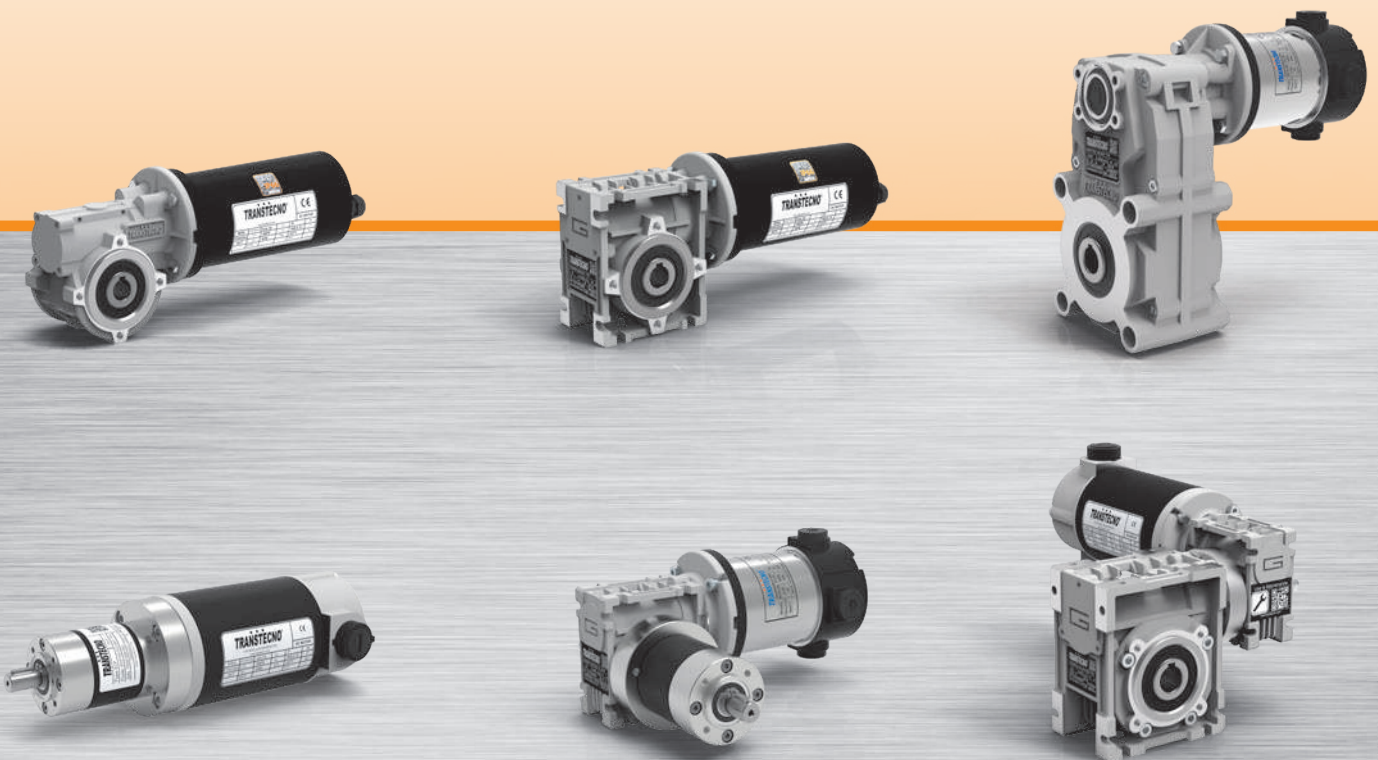
P.../... C... Flange uscita / Output flanges



| 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 |

MINI  **TECNO**™
small but strong


















Motoriduttori CC
DC gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



DC

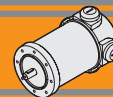
| | Indice | Index | Pag. Page |
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|   | B-E Motoriduttori CC ad assi ortogonali NDCMB - ECMB | DC Helical bevel gearmotors NDCMB - ECMB | B-E1 |
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|  | B-H Motoriduttori CC a vite senza fine con precoppia NDCMP - ECMP | DC Pre stage wormgearmotors NDCMP - ECMP | B-H1 |
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|   | B-L Motoriduttori CC epicicloidali NDP - ECP | DC planetary gearmotors NDP - ECP | B-L1 |
|  | B-M Motoriduttori CC combinati NDWMP - ECWMP | DC Double reduction gearmotors NDWMP - ECWMP | B-M1 |
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Motori elettrici CC - Neodimio
DC electric motors - Neodymium

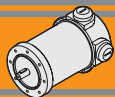




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| | Grado di protezione IP | <i>IP enclosures protection indexes</i> | BA3 |
| | Classe di isolamento termico | <i>Insulation class</i> | BA3 |
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| ND120.120 | Caratteristiche | <i>Features</i> | BA4 |
| ND120.240 | Dimensioni | <i>Dimensions</i> | BA4 |
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| | Legenda / Glossario dei grafici | <i>Key / Diagram Glossary</i> | BA8 |
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| | Freni | <i>Brakes</i> | BA9 |
| | Encoder | <i>Encoder</i> | BA9 |

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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

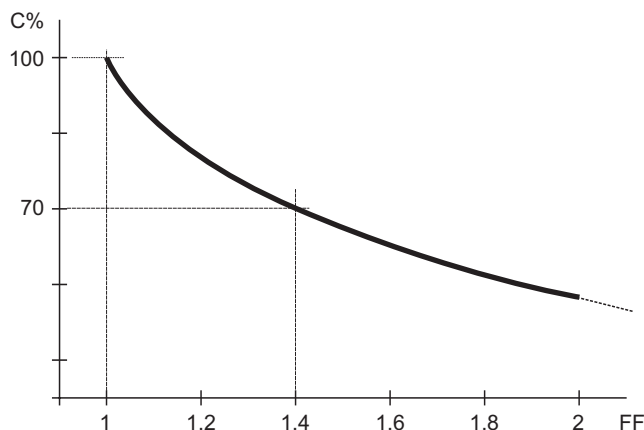
Rappresenta la relazione tra il tempo di lavoro ed il tempo di riposo del motore. Servizio continuo (S1) = funzionamento continuo del motore a pieno carico.

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

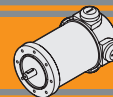
This represents the relationship between the time the motor operates and the time it remains stationary. Continuous operation (S1) = the motor operates non-stop under full load.

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.

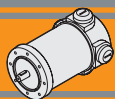
| | | | |
|----------|--|----------|---|
| 0 | Non protetto / No protection | 0 | Non protetto / No protection |
| 1 | Protetto da corpi solidi superiori a Ø 50 mm. <i>Protected against solid matters (over Ø 50 mm)</i> | 1 | Protetto contro la caduta verticale di gocce d'acqua. <i>Protected against drops 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

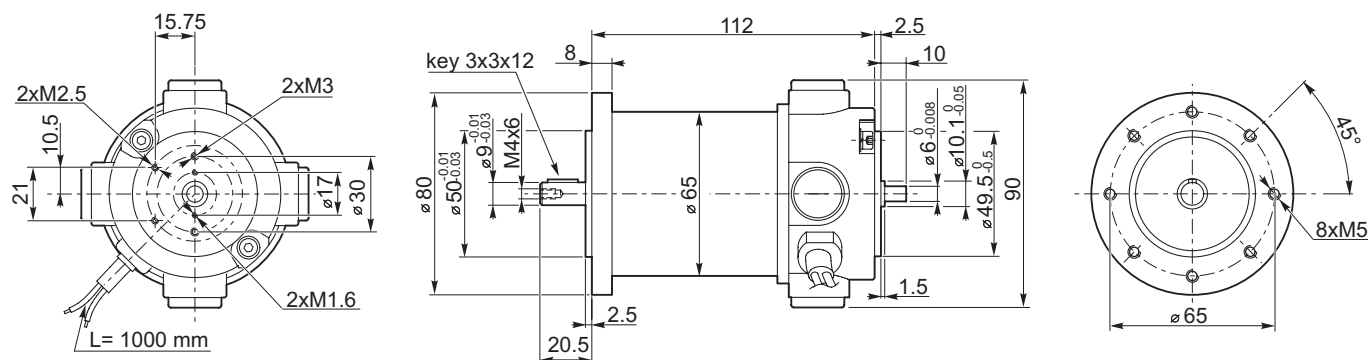
| | |
|-----------------------|-------------------------------|
| Costruzione | Tubolare, senza ventilazione |
| Grandezza | Ø 65 mm |
| Potenza | 160 W S2 (120 W S1) |
| Magneti | 4 magneti in terre rare |
| Supporti | Cuscinetti a sfera |
| Fori di montaggio | 8 |
| Alimentazione | Bassa tensione, 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 |

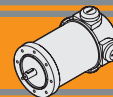
| Tipo Type | S | Pn [W] | V [V] | I [A] | IC | FF | Mn [Nm] | n ₁ [min ⁻¹] | IP | Kg |
|--------------|--------|-----------|----------|----------|----|----|------------|--|----|-----|
| ND120.120 | S1 | 120 | 12 | 13.9 | F | 1 | 0.38 | 3000 | 20 | 1.6 |
| | S2 20' | 160 | | 19 | | | 0.51 | | | |
| ND120.240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

Dimensioni

Dimensions



- Freno / Brake →
- Encoder →

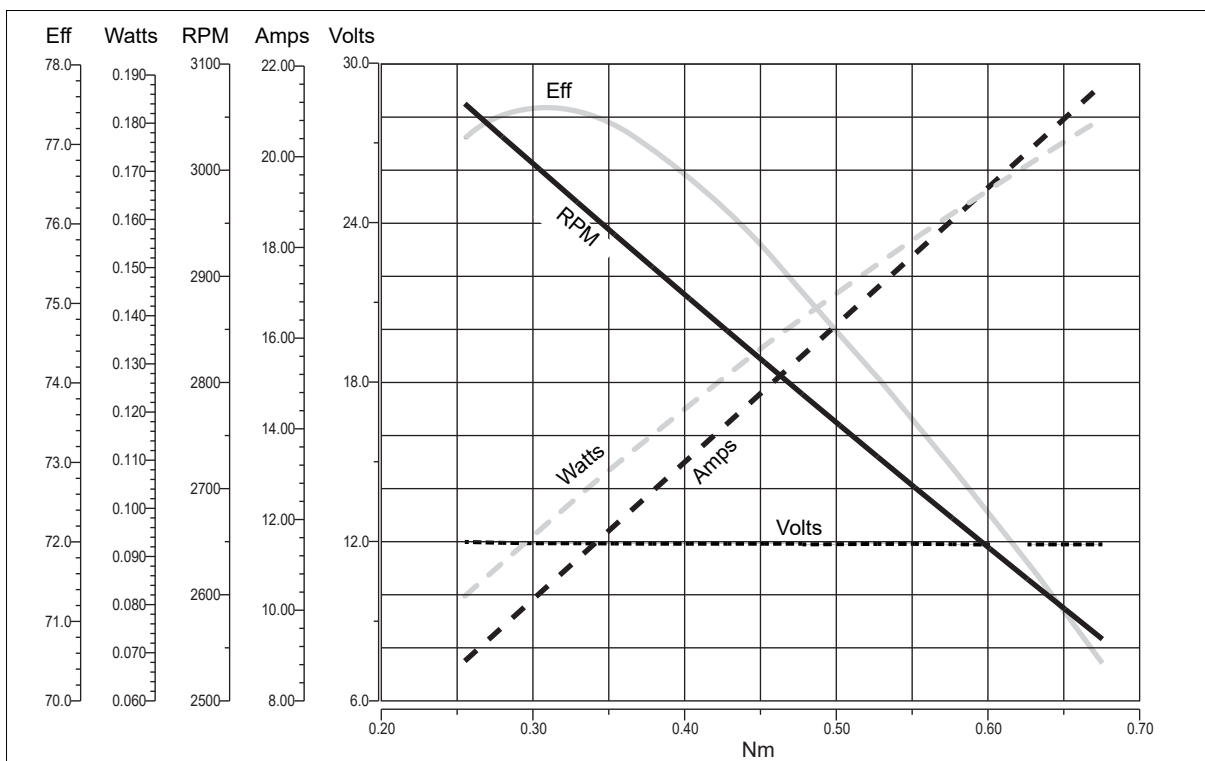


ND120.120 - ND120.240

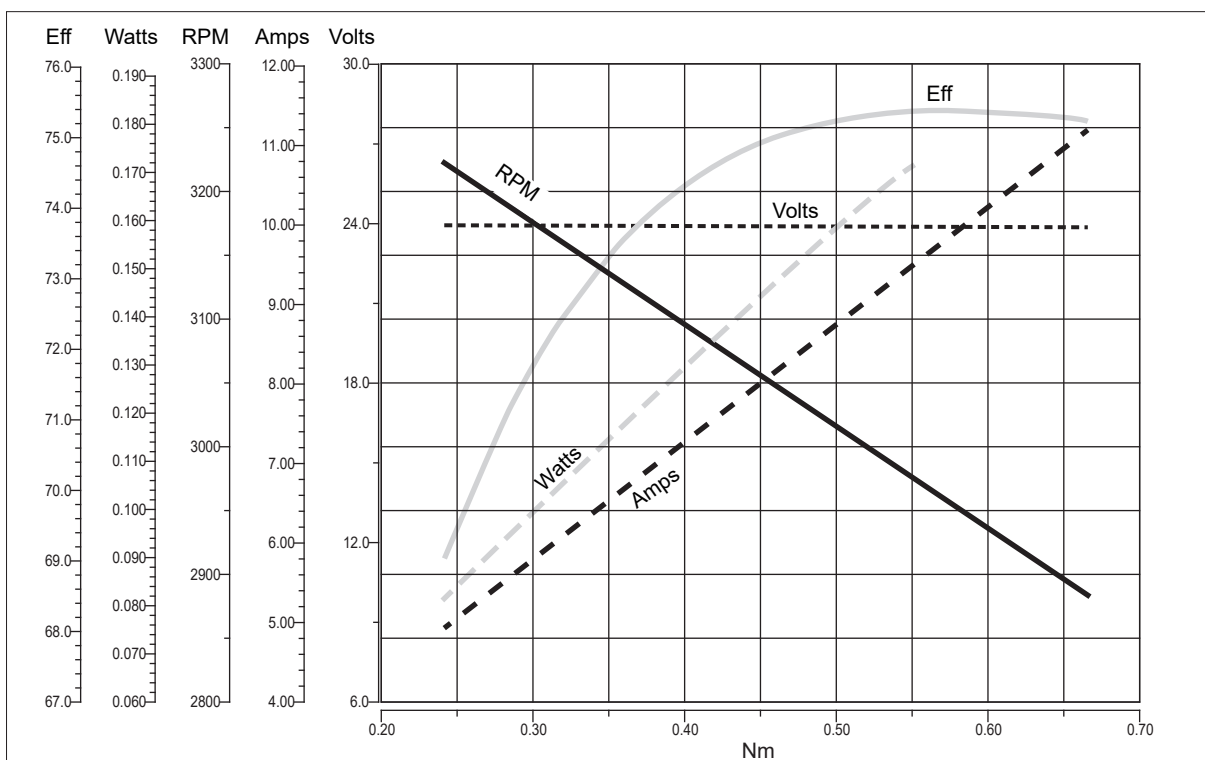
Prestazioni

Performances

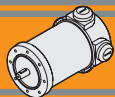
ND120.120



ND120.240



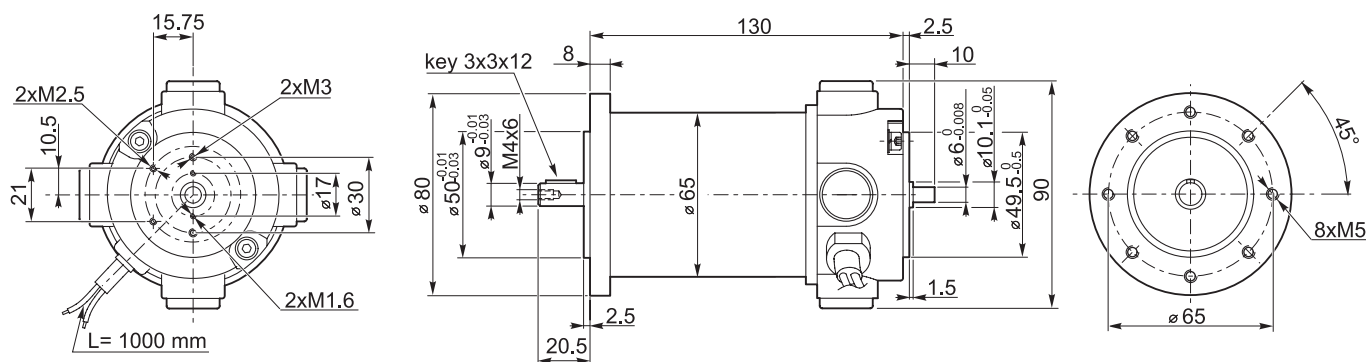
DC

**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 |

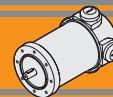
| | |
|----------------|---|
| Construction | Tubular, without fan |
| Size | Ø 65 mm |
| Power | 250 W S2 (180 W S1) |
| Magnets | 4 rare earth magnets |
| Bearings | Ball bearings |
| Mounting holes | 8 |
| Power supply | Low voltage, 12 or 24 Vdc |
| Brushes | 4 brushes made of graphite/copper composite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

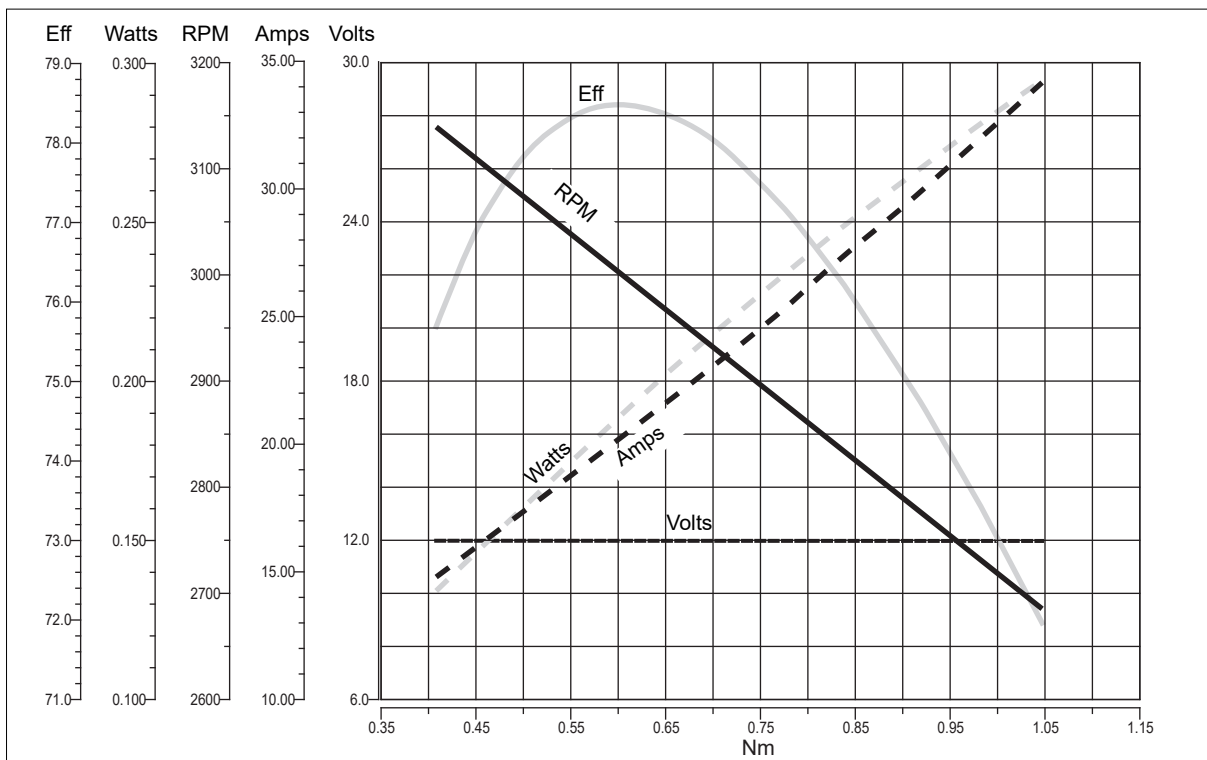


ND180.120 - ND180.240

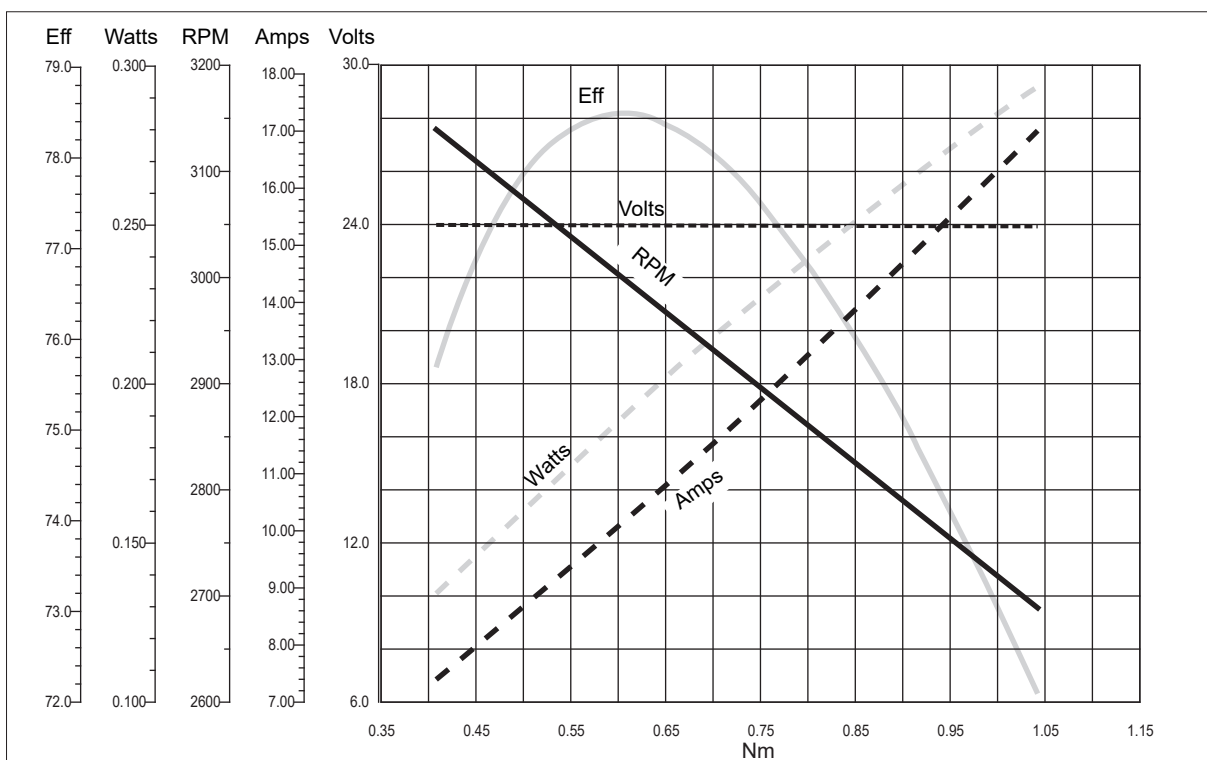
Prestazioni

Performances

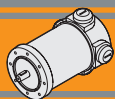
ND180.120



ND180.240



DC

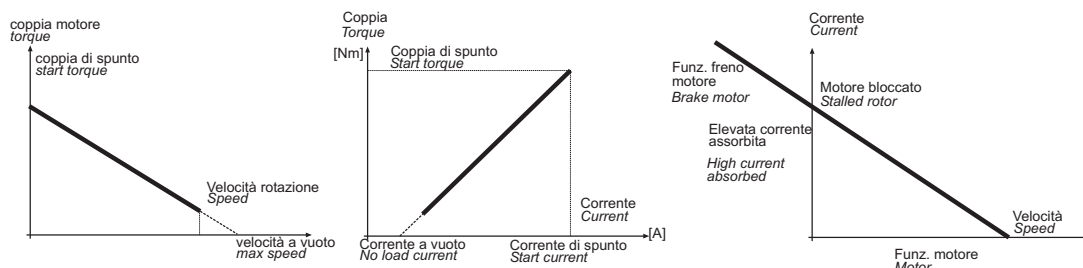


Legenda / Glossario dei grafici

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.

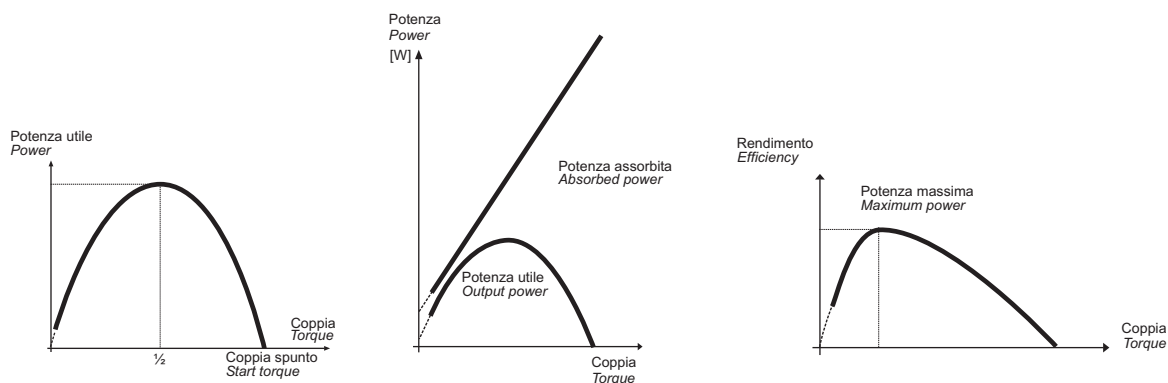


La potenza utile (potenza all'albero) si ricava dalla formula:

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

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

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

$$P_a = V \cdot I$$

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

$$P_n = M_n \cdot S_v$$

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

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

$$P_a = V \cdot I$$

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

$$P_n = M_n \cdot S_v$$

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

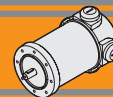
$$[HP] \cdot 746 = [W]$$

Esempio 2 HP = circa 1500 W.

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

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 |

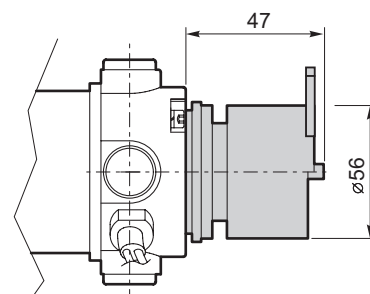
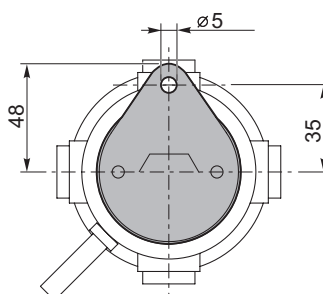
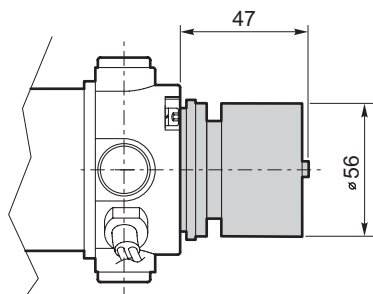


Freno

Brake

ND...BR Freno / Brake

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

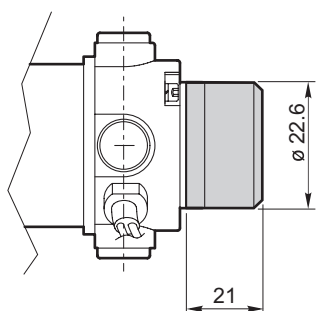


| | P_n [W] | V [V] | M_n [Nm] | n₁ [min ⁻¹] |
|---|-----------------------------|-----------------|------------------------------|--|
| Caratteristiche del freno / Break features | 14 | 12 24 | 2 | 3000 |

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

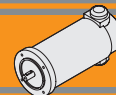
Motori elettrici CC - Ferrite
DC electric motors - Ferrite



MINI  **TECNO**™ brand of
TRANSTECNO®



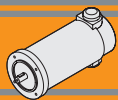
DC



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|------------------|---------------------------------|---|----------------------|
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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 |
| | Tipi di servizio IEC | <i>IEC duty cycle ratings</i> | BB3 |
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| EC050.12E | Caratteristiche | <i>Features</i> | BB8 |
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| | 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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| | Freni | <i>Brakes</i> | BB23 |
| | Encoder | <i>Encoder</i> | BB24 |

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

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Caratteristiche tecniche

Technical features

Le caratteristiche principali dei 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

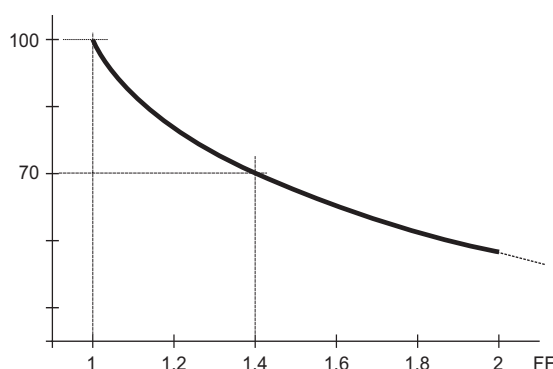
Indica quanta componente spuria alternata è presente nella alimentazione CC del motore. Più alto è il fattore ed inferiore è l'efficienza del motore. Alimentatori ad SCR = F.F 1.40. Alimentazione pura da batteria = FF 1. Alimentazione da transistori (modulazione PWM) = FF 1.05.

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.

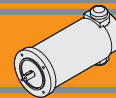
The graph below indicates the torque trend (percentage) in relation to the form factor.



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.

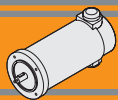
| | | | |
|----------|--|----------|---|
| 0 | Non protetto / No protection | 0 | Non protetto / No protection |
| 1 | Protetto da corpi solidi superiori a Ø 50 mm. <i>Protected against solid matters (over Ø 50 mm)</i> | 1 | Protetto contro la caduta verticale di gocce d'acqua. <i>Protected against drops 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) |

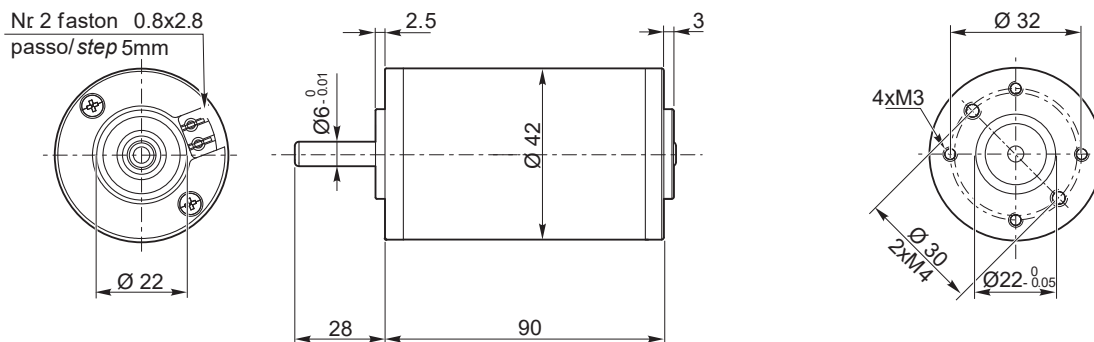
| | |
|----------------|---|
| Construction | Tubular, without fan |
| Size | Ø 42 mm |
| Power | 30 W S2 (20 W S1) |
| Magnets | 2 |
| Bearings | Ball bearing |
| Mounting holes | 4 |
| Power supply | Low voltage, 12 or 24 Vdc |
| Brushes | 2 brushes made of graphite/copper composite |
| Electric cable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

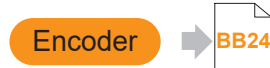
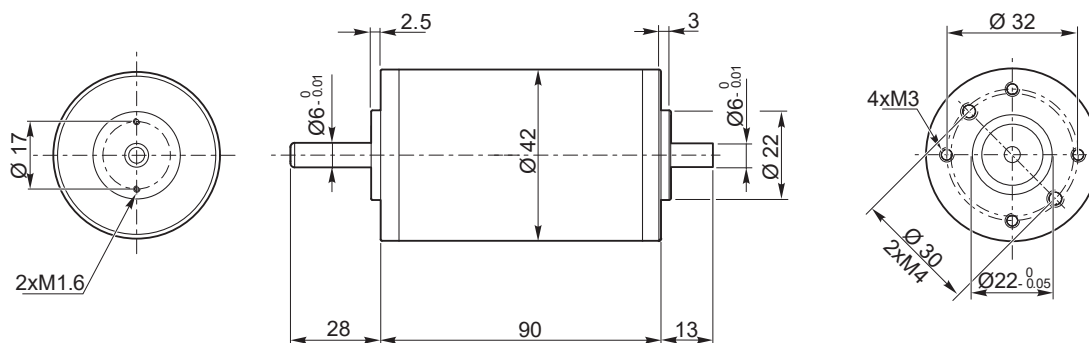
Dimensioni

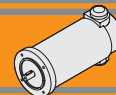
Dimensions

EC020.120



EC020.24E



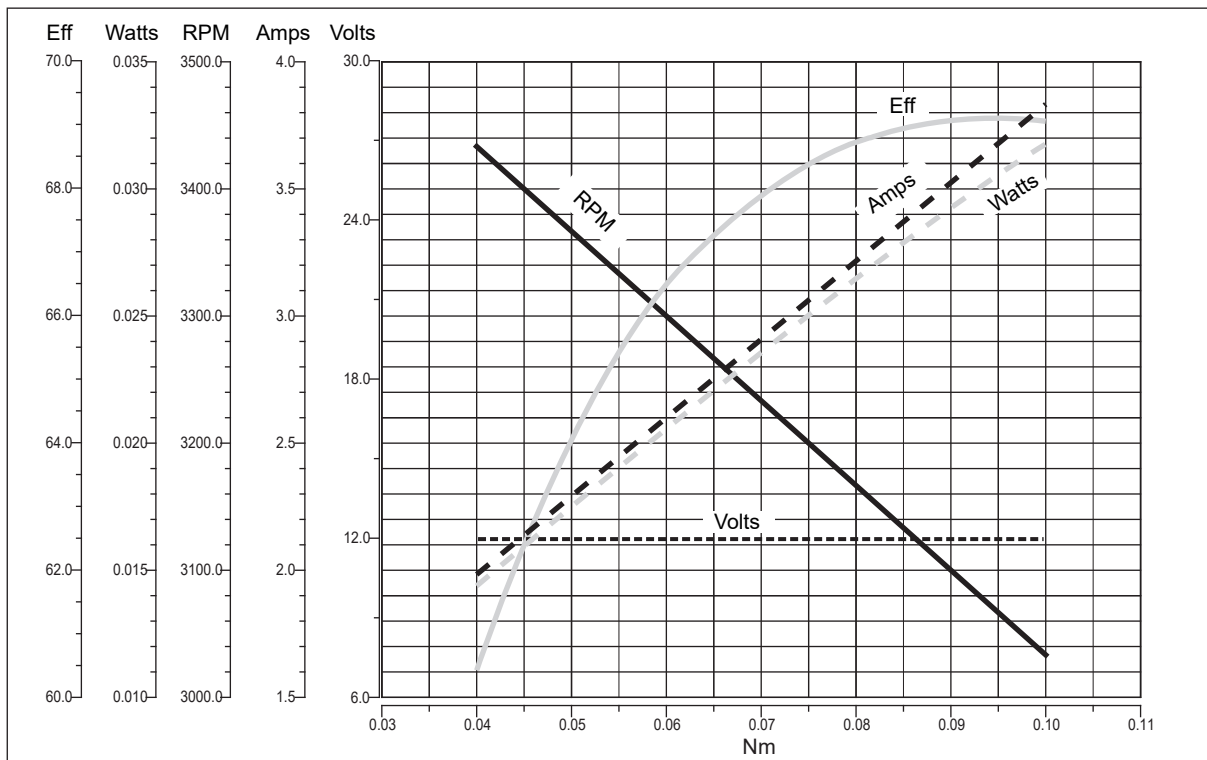


EC020.120 - EC020.24E

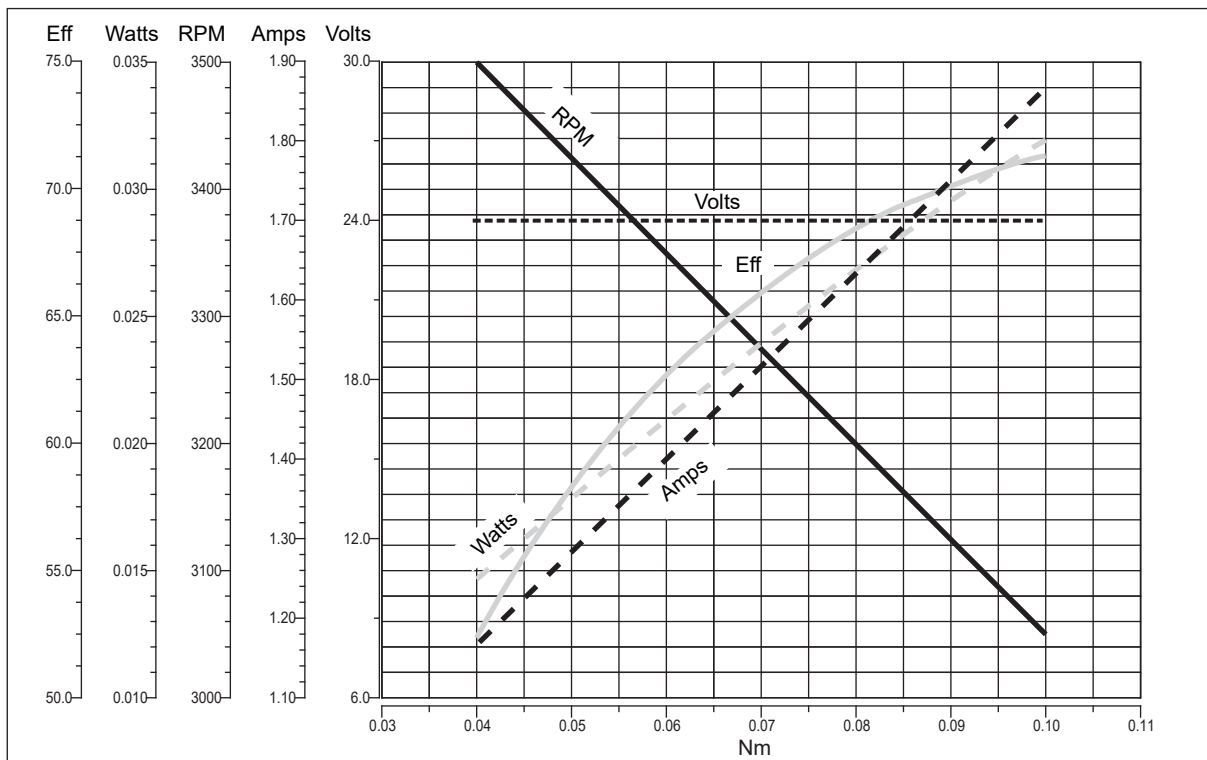
Prestazioni

Performances

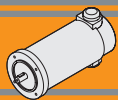
EC020.120



EC020.24E



DC



EC035.120 - EC035.240

Caratteristiche

Features

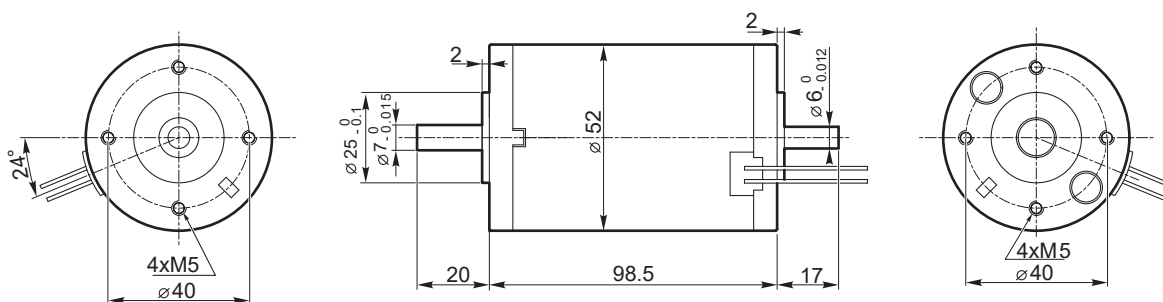
| | |
|-----------------------|---------------------------------------|
| Costruzione | Tubolare, senza ventilazione |
| Grandezza | Ø 52 mm |
| Potenza | 55 W S2 (35 W S1) |
| Magneti | 2 |
| Supporti | Cuscinetti a sfera |
| Fori di montaggio | 4 |
| Alimentazione | Bassa tensione, 12 o 24 Vcc |
|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

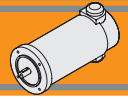
| | |
|----------------|--|
| Construction | Tubular, without fan |
| Size | Ø 52 mm |
| Power | 55 W S2 (35 W S1) |
| Magnets | 2 |
| Bearings | Ball bearings |
| Mounting holes | 4 |
| Power supply | Low voltage, 12 or 24 Vdc |
| Brushes | 2 inside brushes made of graphite/copper composite |
| Electric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



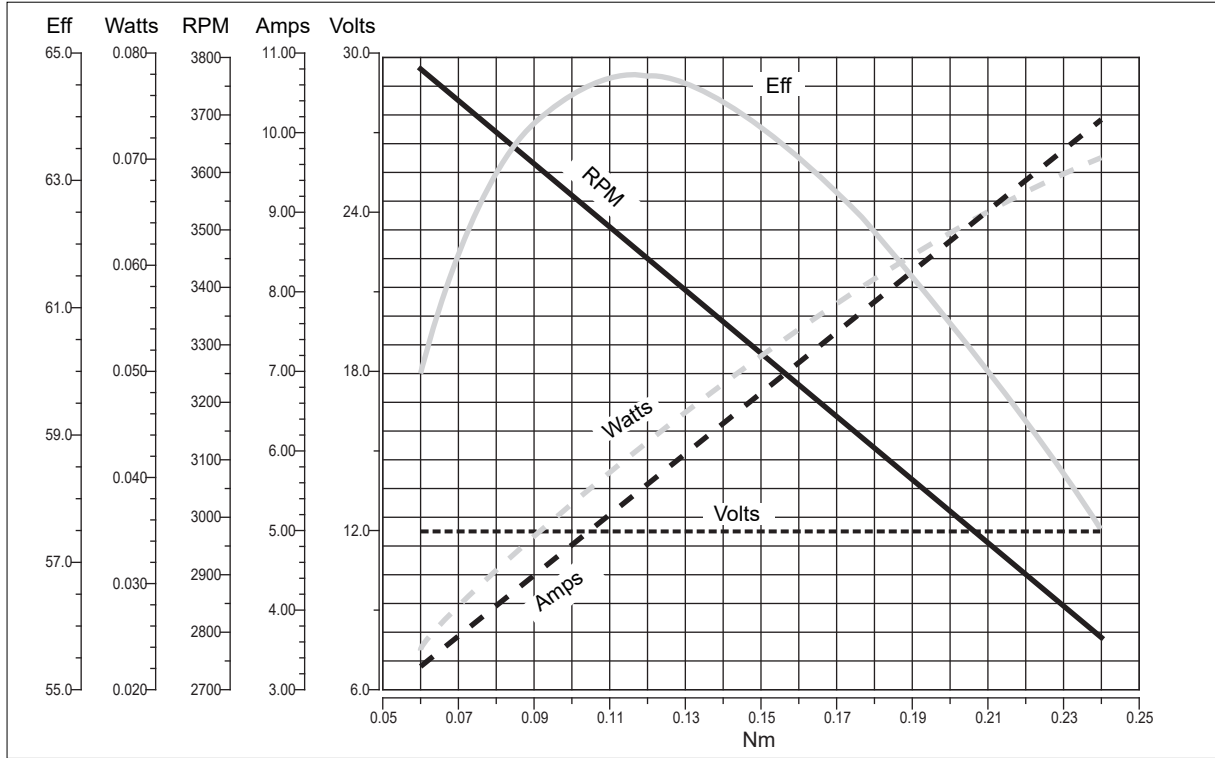


EC035.120 - EC035.240

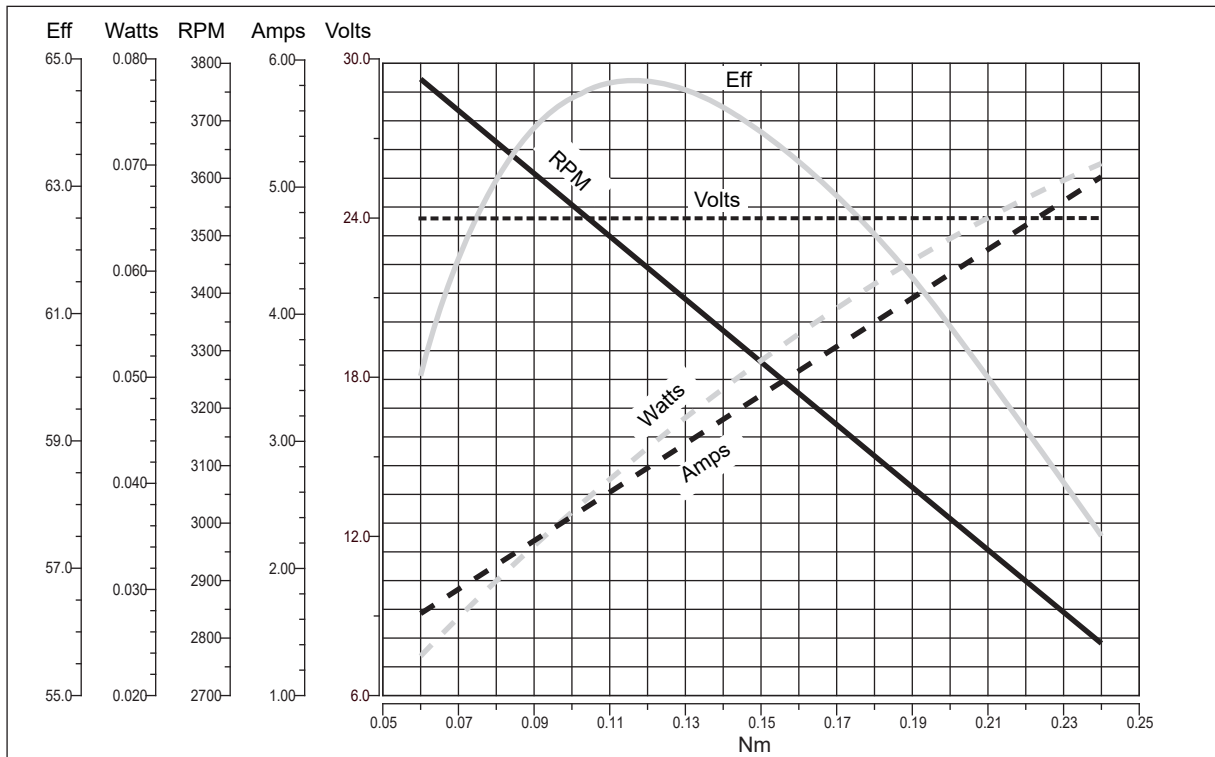
Prestazioni

Performances

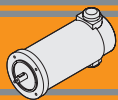
EC035.120



EC035.240



DC



EC050.12E - EC050.24E

Caratteristiche

Features

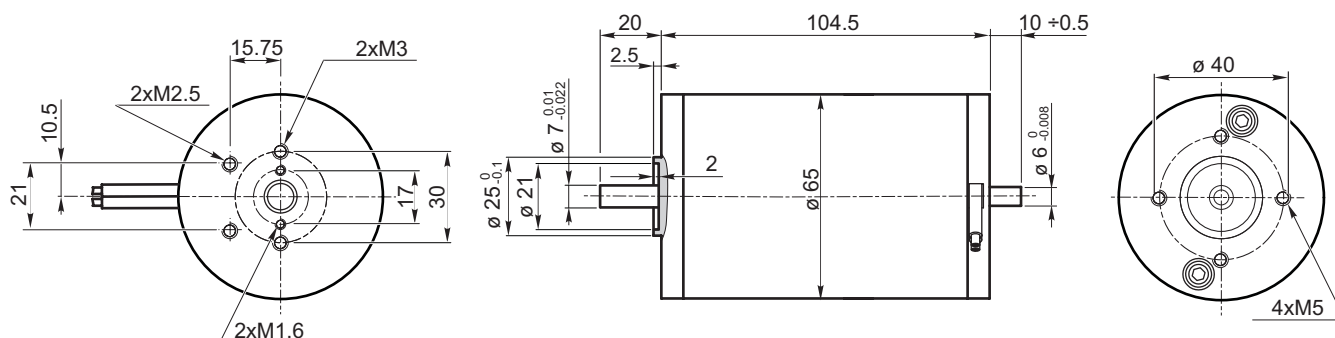
| | |
|-----------------------|---------------------------------------|
| Costruzione | Tubolare, senza ventilazione |
| Grandezza | Ø 65 mm |
| Potenza | 70 W S2 (50 W S1) |
| Magneti | 2 |
| Supporti | Cuscinetti a sfera |
| Fori di montaggio | 4 |
| Alimentazione | Bassa tensione, 12 o 24 Vcc |
| 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 | | | |

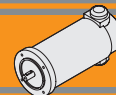
Dimensioni

Dimensions



Freno / Brake → BB23

Encoder → BB24

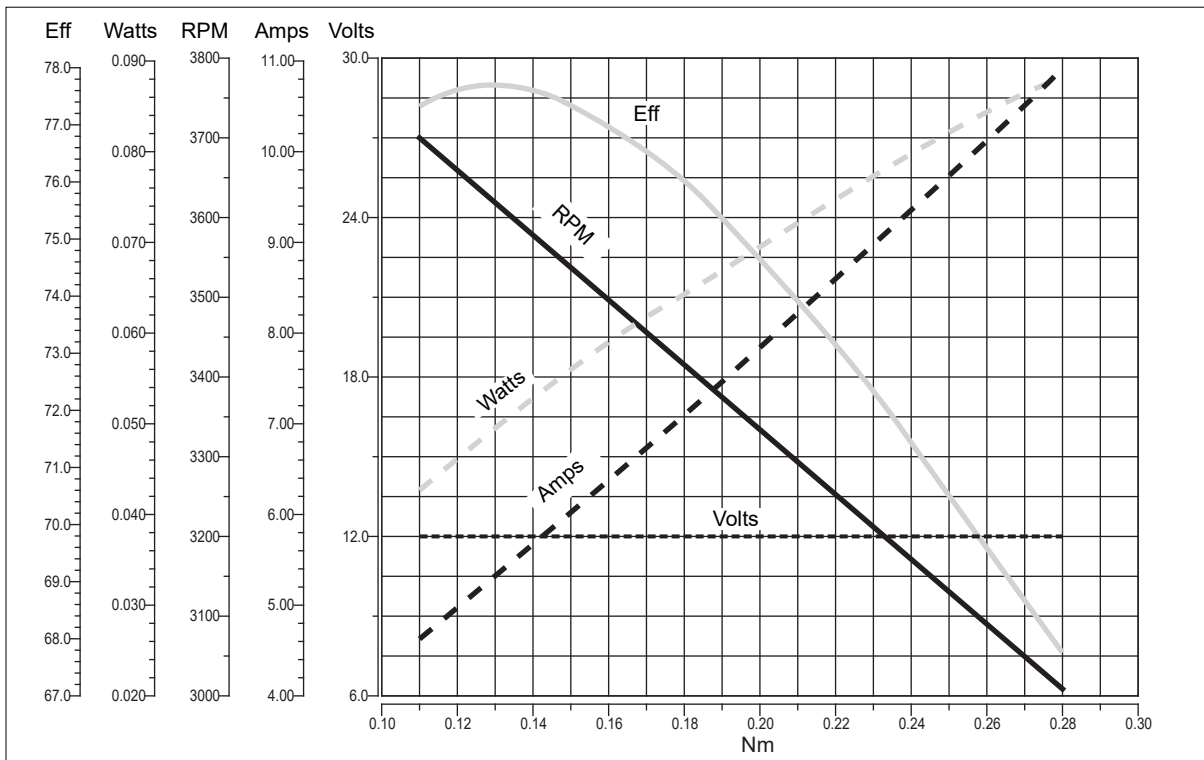


EC050.12E - EC050.24E

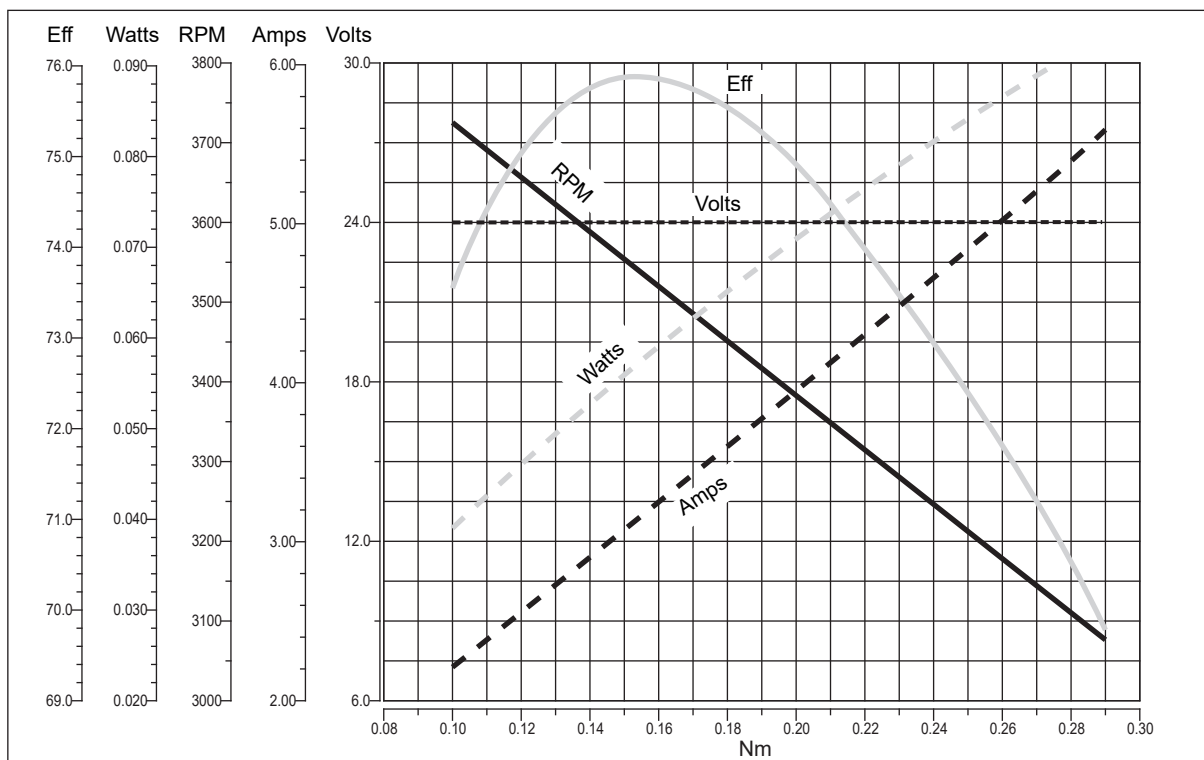
Prestazioni

Performances

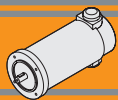
EC050.12E



EC050.24E



DC



EC070.12E - EC070.24E

Caratteristiche

Features

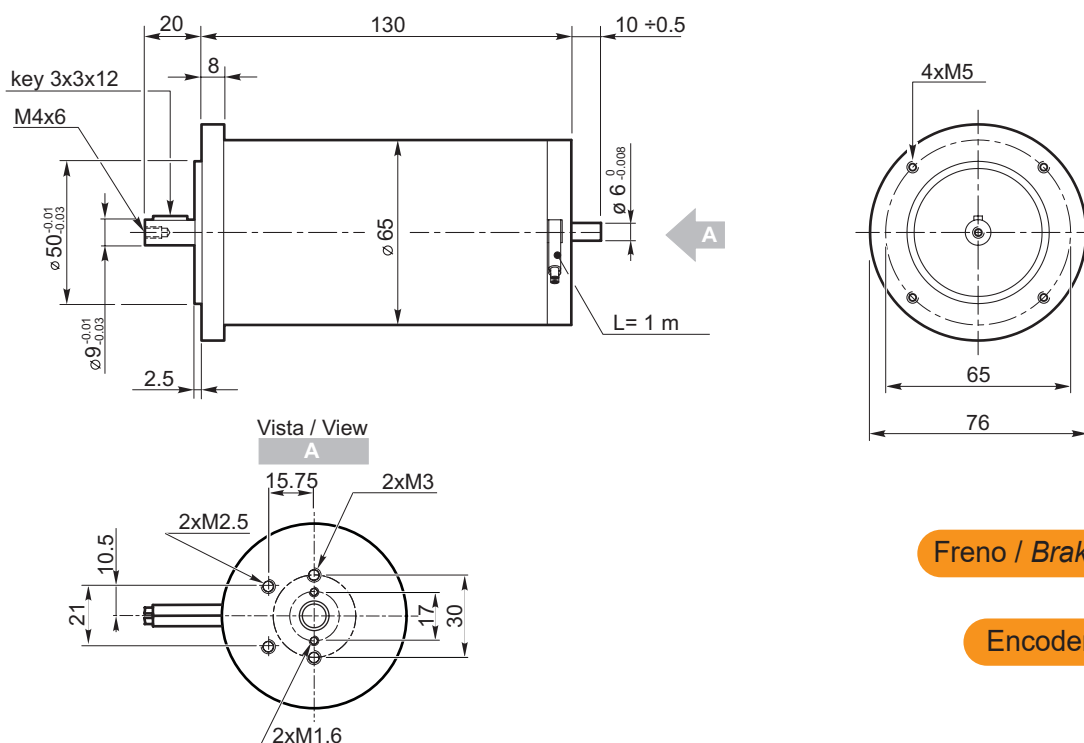
| | |
|-----------------------|---------------------------------------|
| Costruzione | Tubolare, senza ventilazione |
| Grandezza | Ø 65 mm |
| Potenza | 100 W S2 |
| Magneti | 2 |
| Supporti | Cuscinetti a sfera |
| Fori di montaggio | 4 |
| Alimentazione | Bassa tensione, 12 o 24 Vcc |
| Spazzole | 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 |

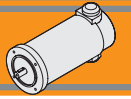
| Tipo Type | S | Pn [W] | V [V] | I [A] | IC | FF | Mn [Nm] | n ₁ [min ⁻¹] | IP | Kg |
|--------------|--------|-----------|----------|----------|----|----|------------|--|----|-----|
| EC070.12E | S1 | 70 | 12 | 8.4 | F | 1 | 0.22 | 3000 | 20 | 1.7 |
| | S2 30' | 100 | | 11.8 | | | 0.31 | | | |
| EC070.24E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

Dimensioni

Dimensions



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

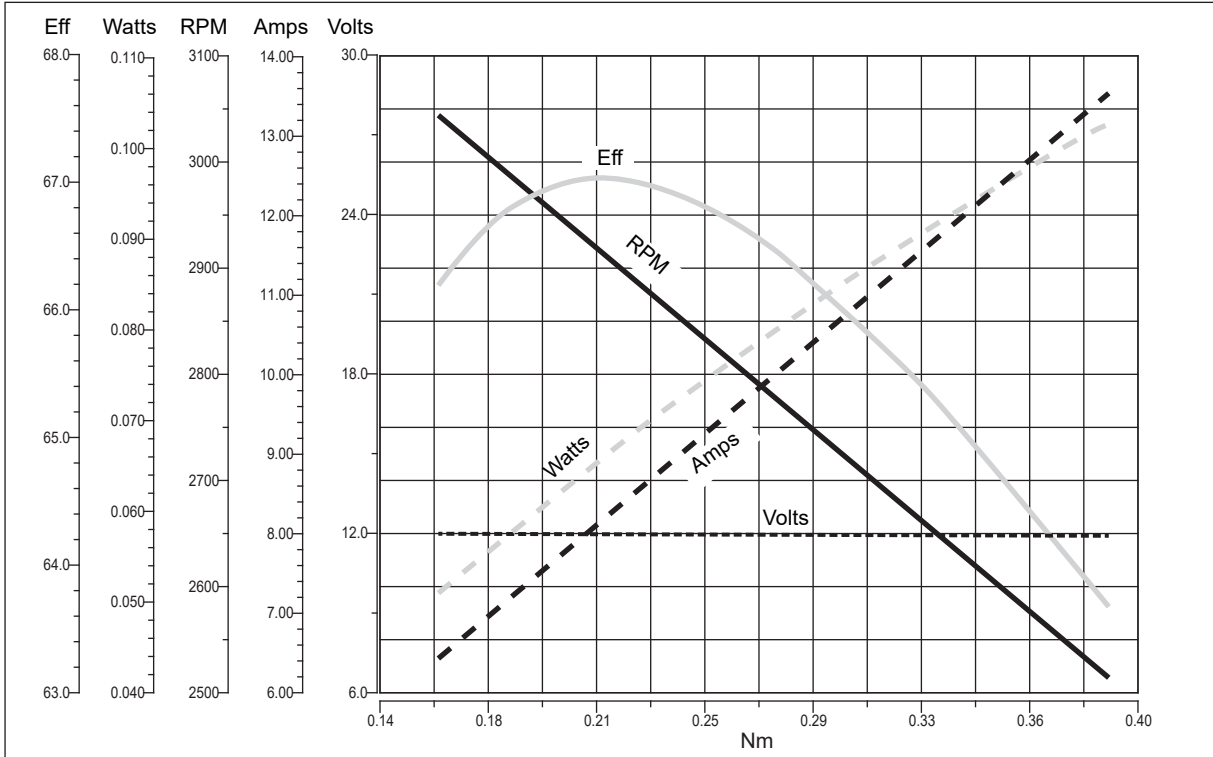


EC070.12E - EC070.24E

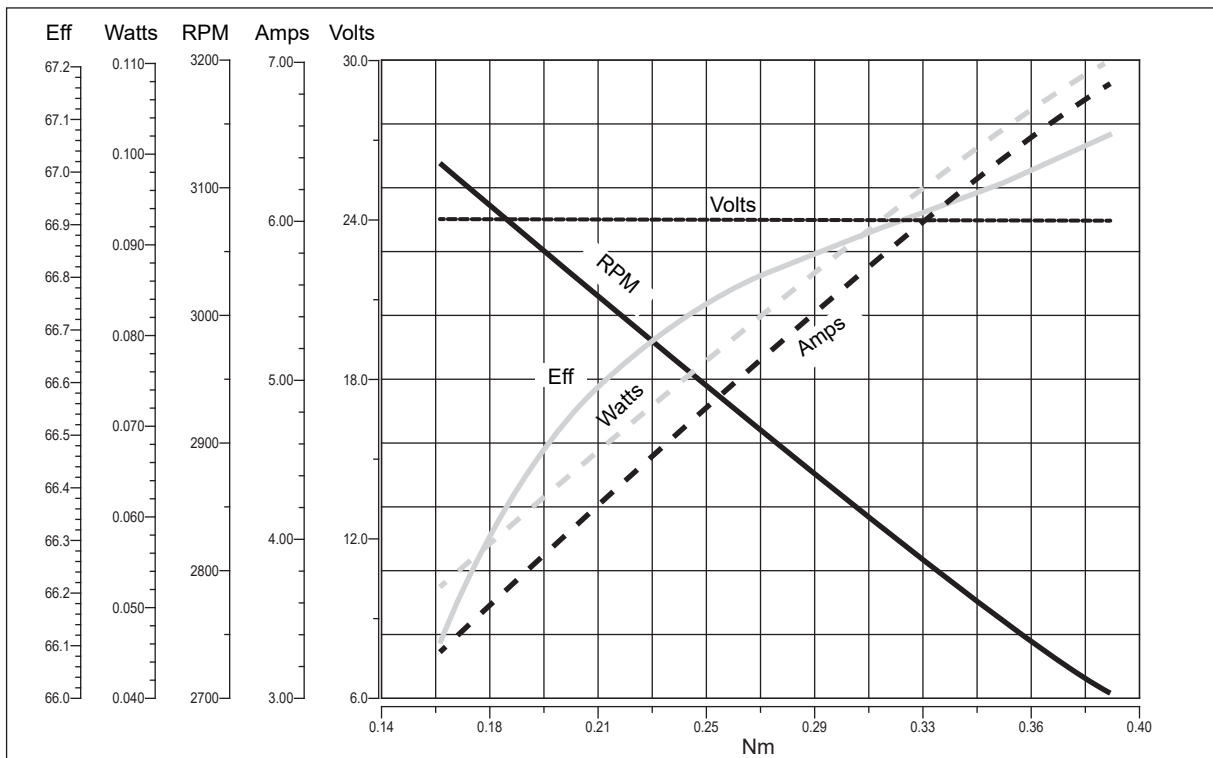
Prestazioni

Performances

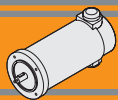
EC070.12E



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 |

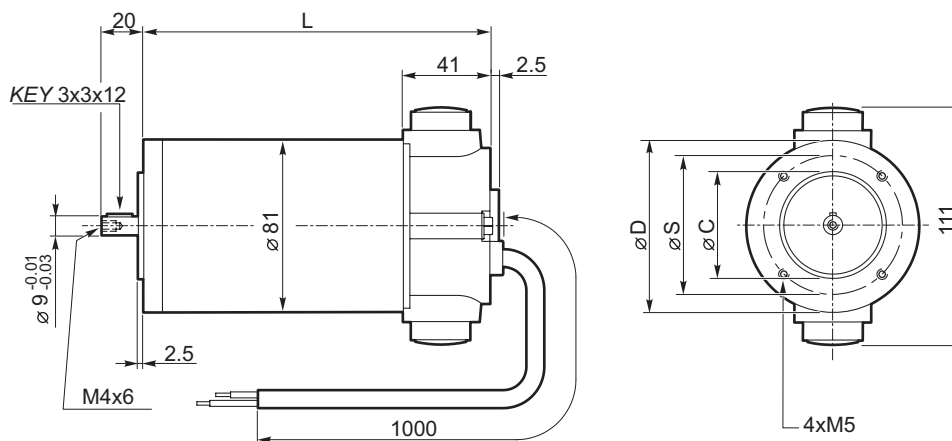
| Tipo Type | S | Pn [W] | V [V] | I [A] | IC | FF | Mn [Nm] | n ₁ [min ⁻¹] | IP | Kg |
|-----------|--------|--------|-------|-------|----|----|---------|-------------------------------------|----|-----|
| EC100.120 | S1 | 100 | 12 | 12 | F | 1 | 0.31 | 3000 | 40 | 2.7 |
| | S2 25' | 140 | | 16.8 |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

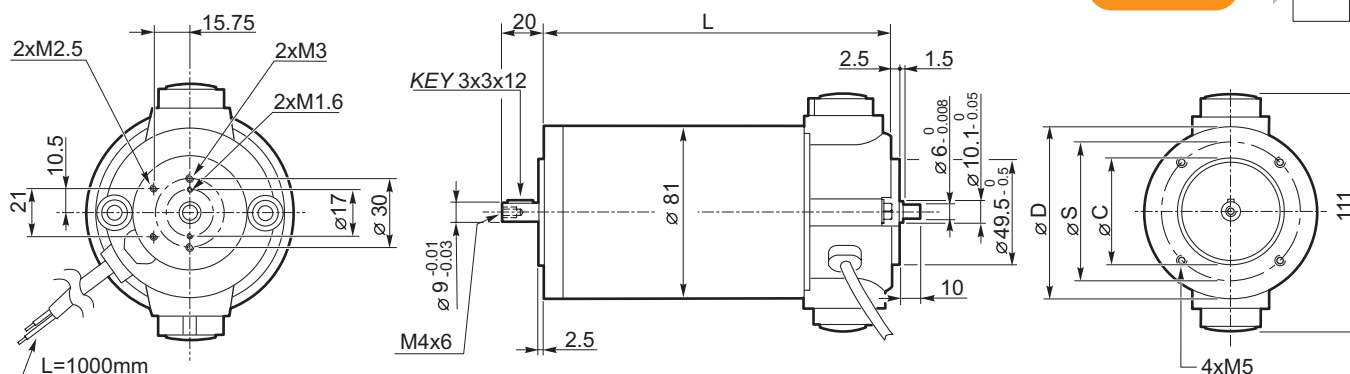


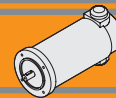
* Usare boccola 9/11
* Use sleeve 9/11

Freno / Brake → BB23

Encoder → BB24

EC100.24E



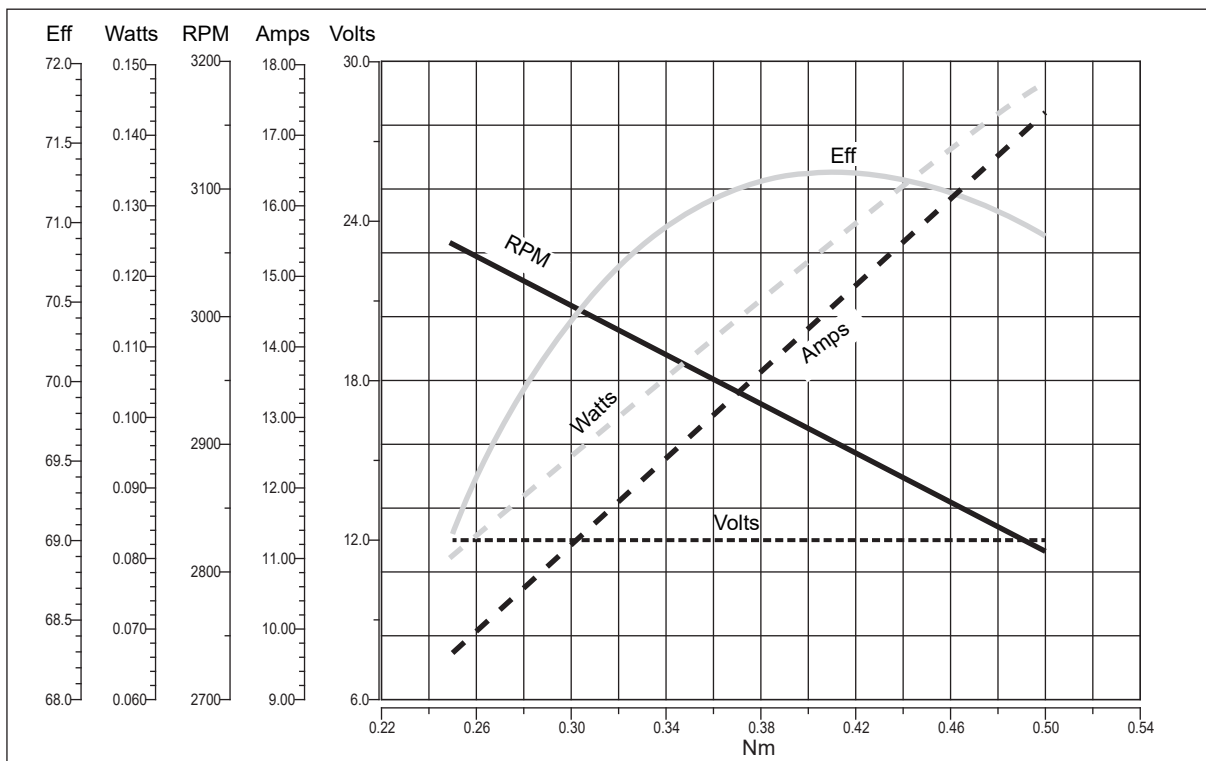


EC100.120 - EC100.240 - EC100.24E

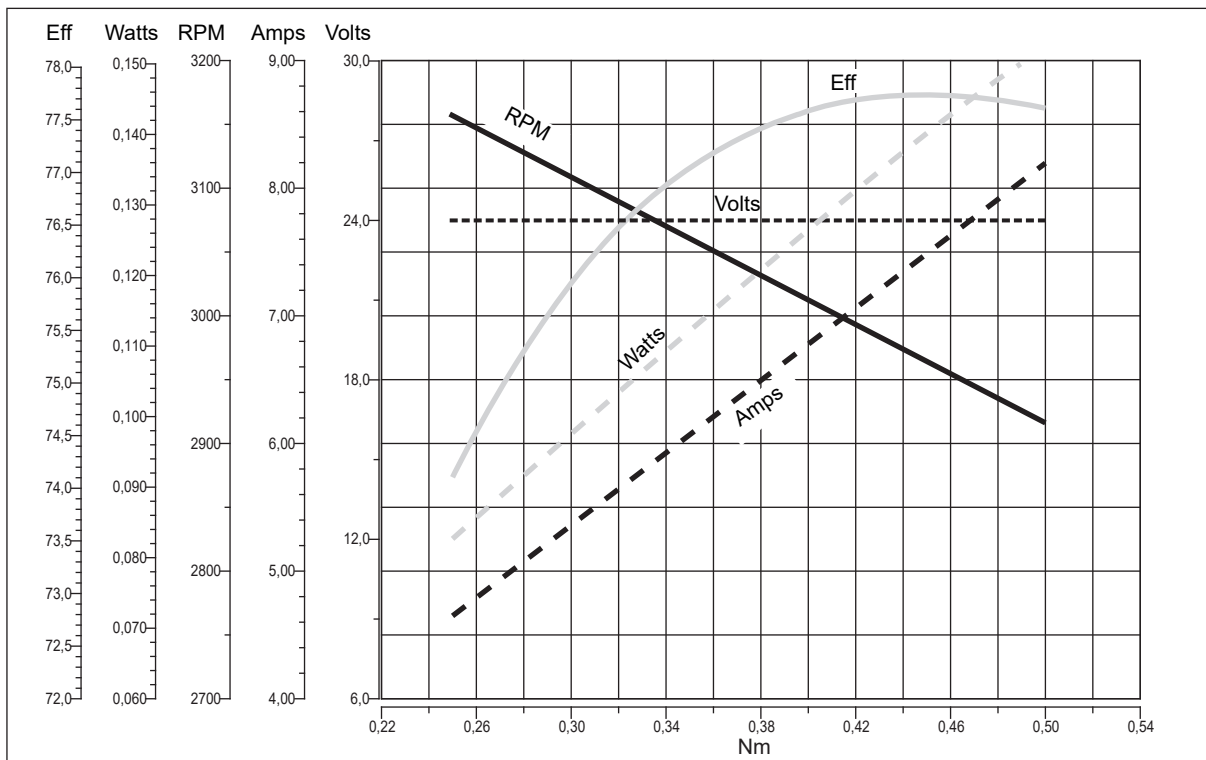
Prestazioni

Performances

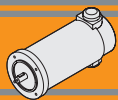
EC100.120



EC100.240 - EC100.24E



DC

**EC****Motori elettrici CC - Ferrite**
DC Electric motors - Ferrite**EC180.120 - EC180.240 - EC180.24E****Caratteristiche****Features**

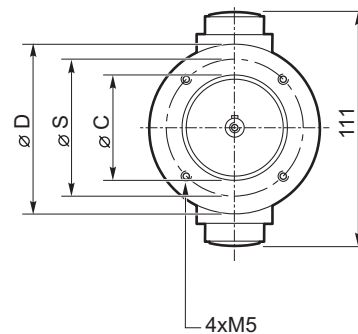
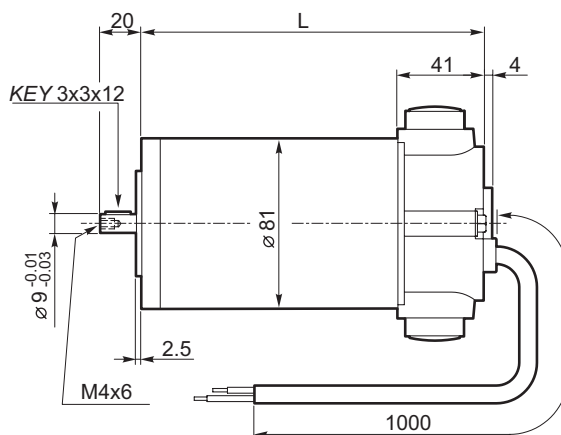
| | |
|-----------------------|-------------------------------|
| Costruzione | Tubolare, senza ventilazione |
| Grandezza | Ø 80 mm |
| Potenza | 250 W S2 (180 W S1) |
| Magneti | 2 |
| Supporti | Cuscinetti a sfera |
| Fori di montaggio | 4 |
| Alimentazione | Bassa tensione, 12 o 24 Vcc |
| Spazzole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

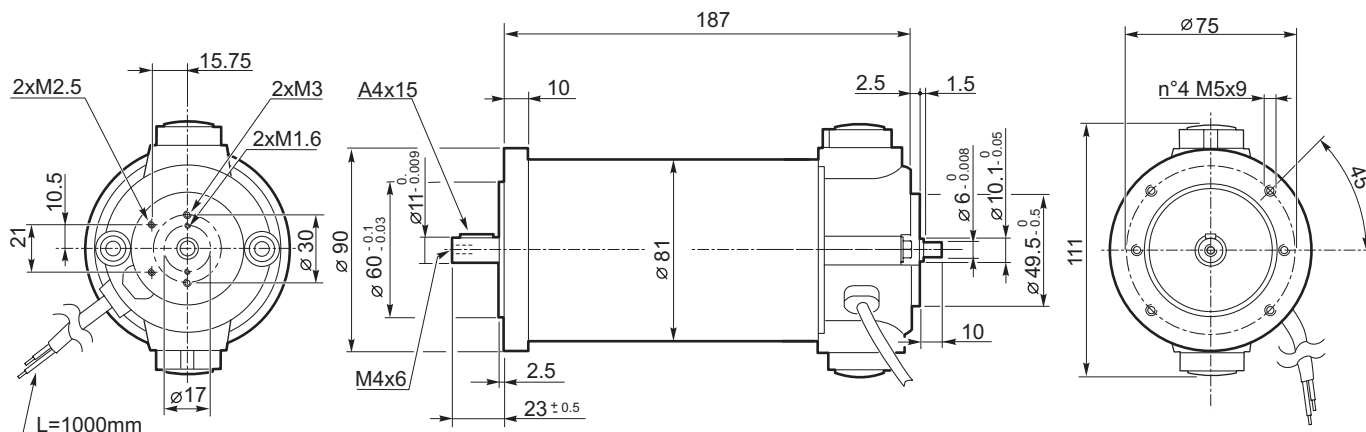
| 56 B14 | |
|-------------------|-----|
| L | 185 |
| D | 80 |
| S | 65 |
| C (-0.03 / -0.01) | 50 |
| 63B14* | |
| L | 187 |
| D | 90 |
| S | 75 |
| C (-0.03 / -0.01) | 60 |

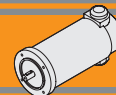


* Usare boccola 9/11
* Use sleeve 9/11

Freno / Brake →

Encoder →

EC180.24E

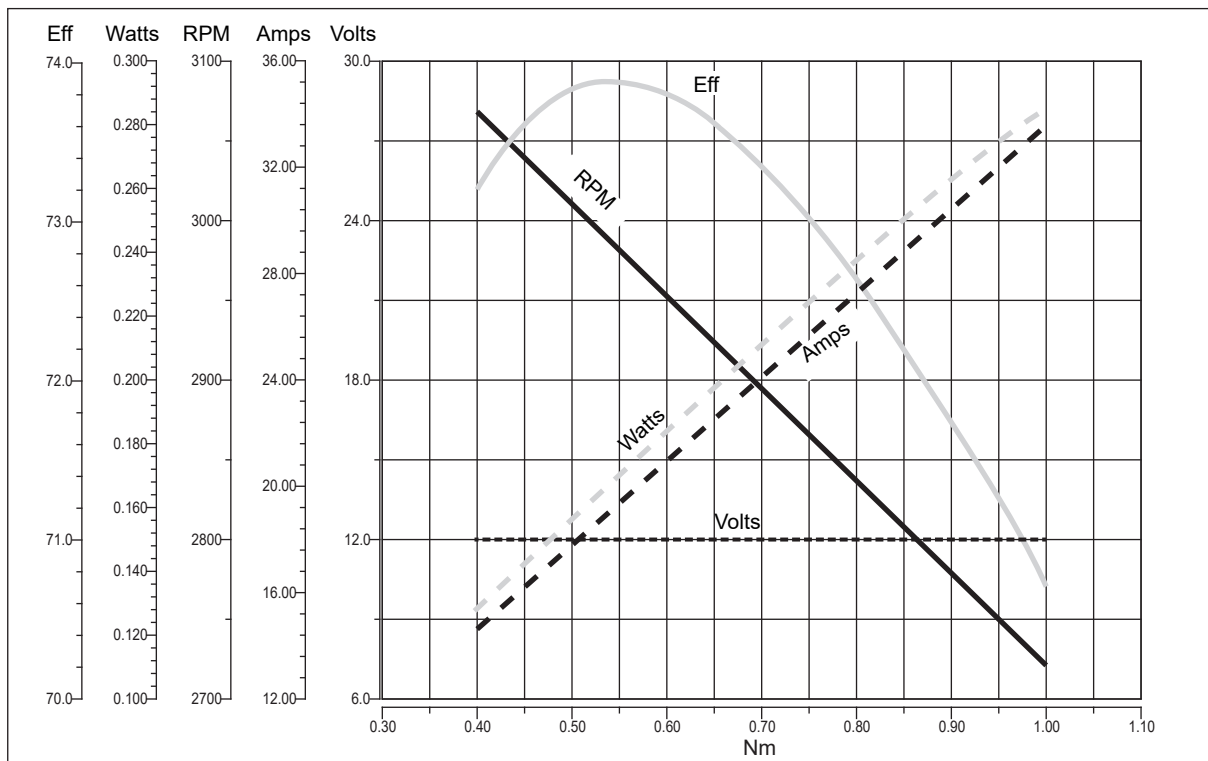


EC180.120 - EC180.240 - EC180.24E

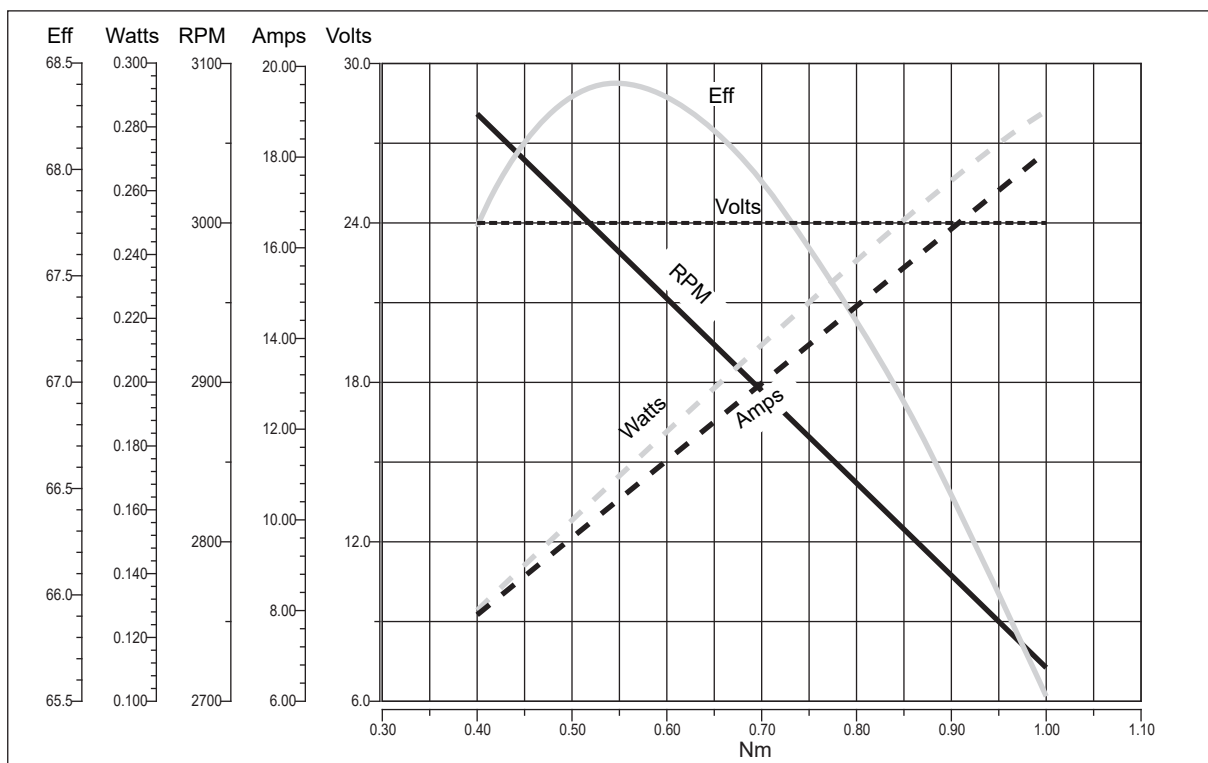
Prestazioni

Performances

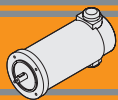
EC180.120



EC180.240 - EC180.24E



DC



EC250.120 - EC250.240

Caratteristiche

Features

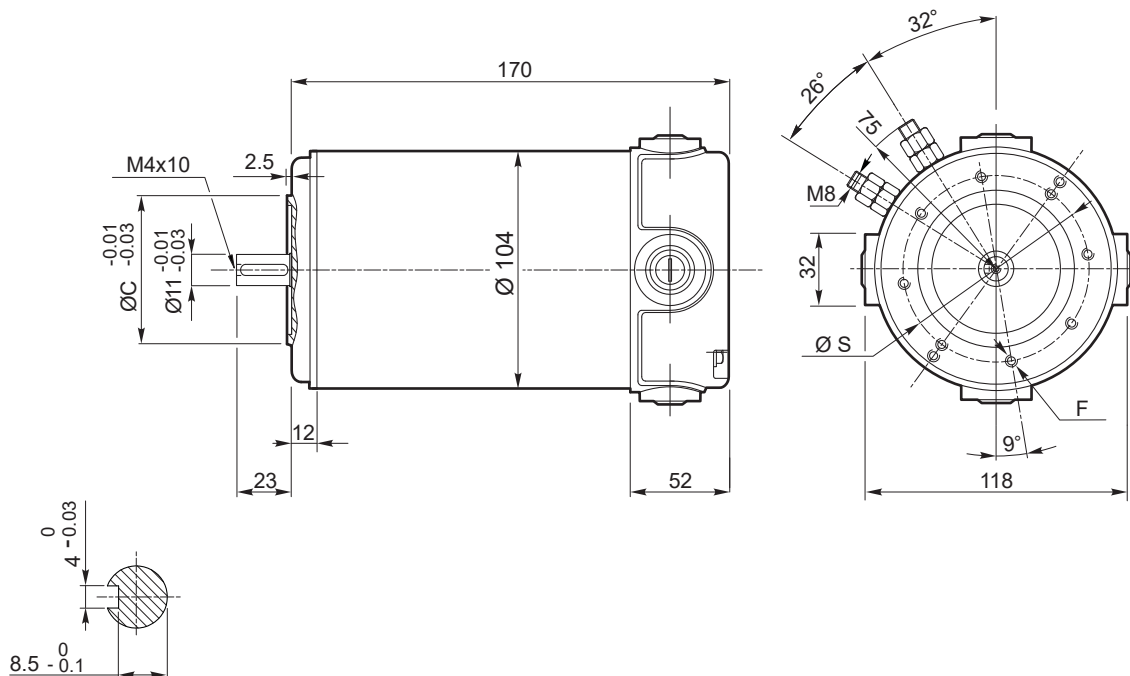
| | |
|---------------------|--------------------------------|
| Costruzione | Tubolare, senza ventilazione |
| Grandezza | Ø 104 mm |
| Potenza | 350 W S2 (250 W S1) |
| Magneti | 4 |
| Supporti | Cuscinetti a sfera |
| Fori di montaggio | 8 |
| Alimentazione | Bassa tensione, 12 o 24 Vcc |
| Spazzole | 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 | | | |

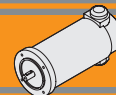
Dimensioni

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

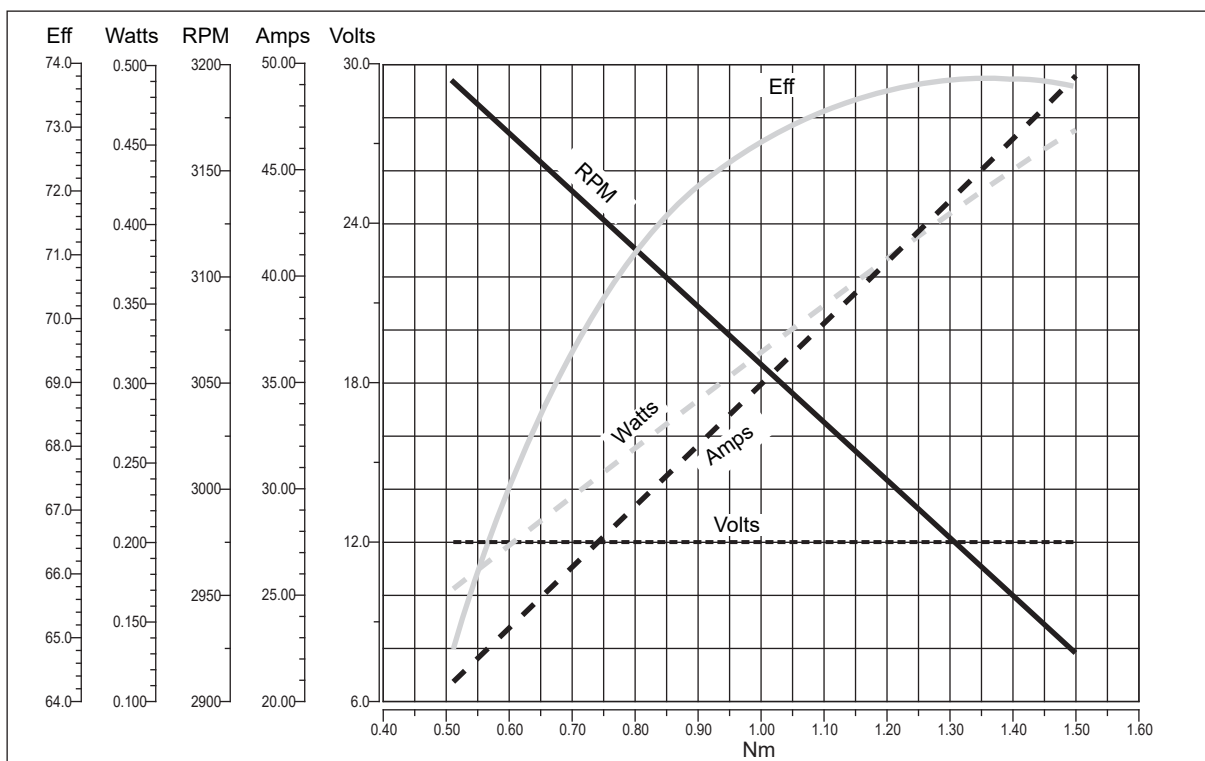


EC250.120 - EC250.240

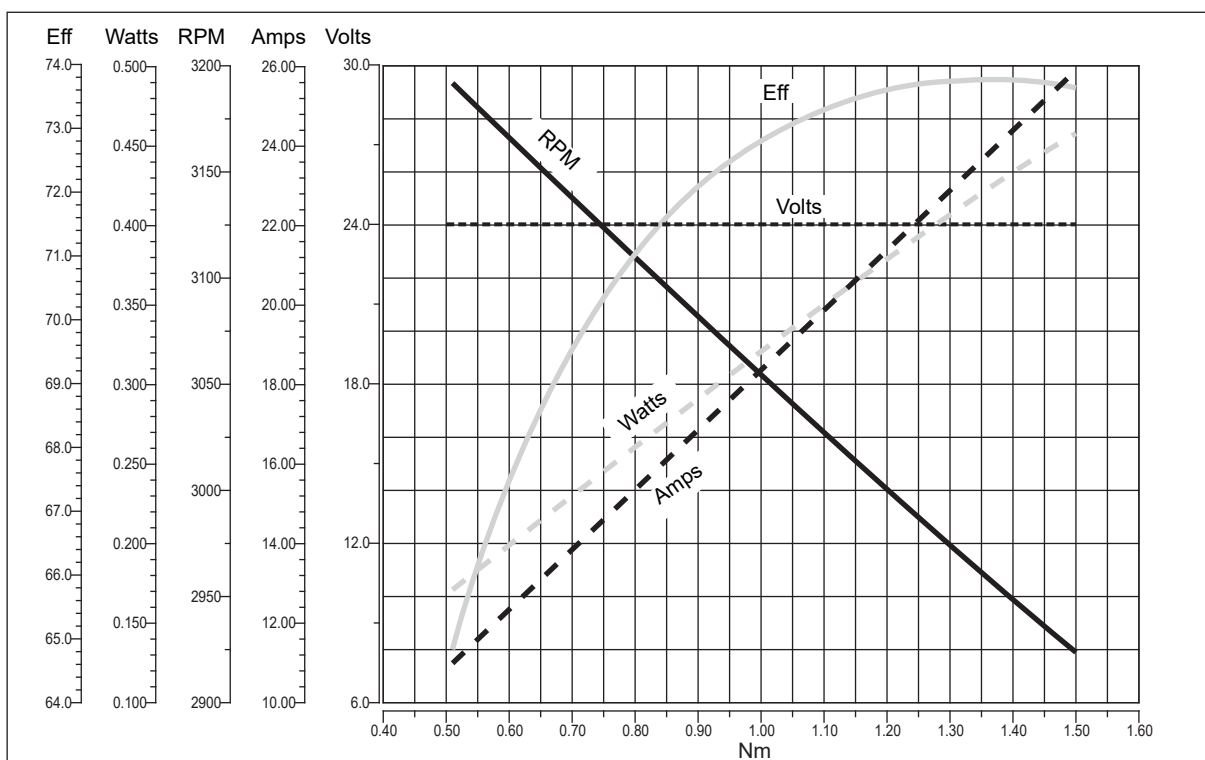
Prestazioni

Performances

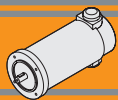
EC250.120



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 |

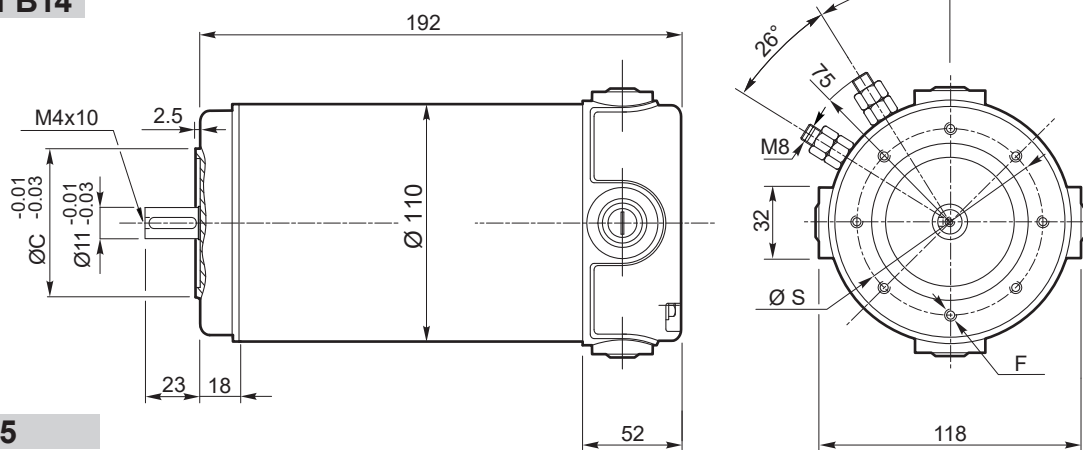
| | |
|-----------------|---|
| Construction | Tubular, without fan |
| Size | Ø 110 mm |
| Power | 500 W S2 (350 W S1) |
| Magnets | 4 |
| Bearings | Ball bearings |
| Mounting holes | 8 |
| Power supply | Low voltage, 12 or 24 Vdc |
| Brushes | 4 brushes made of graphite/copper composite |
| Brushes 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 | | | |

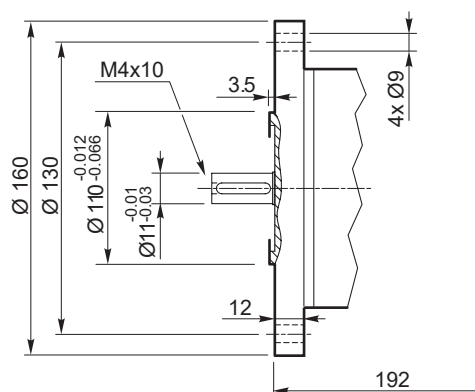
Dimensioni

Dimensions

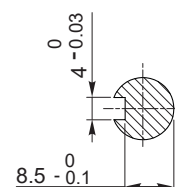
63 B14 - 71 B14



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

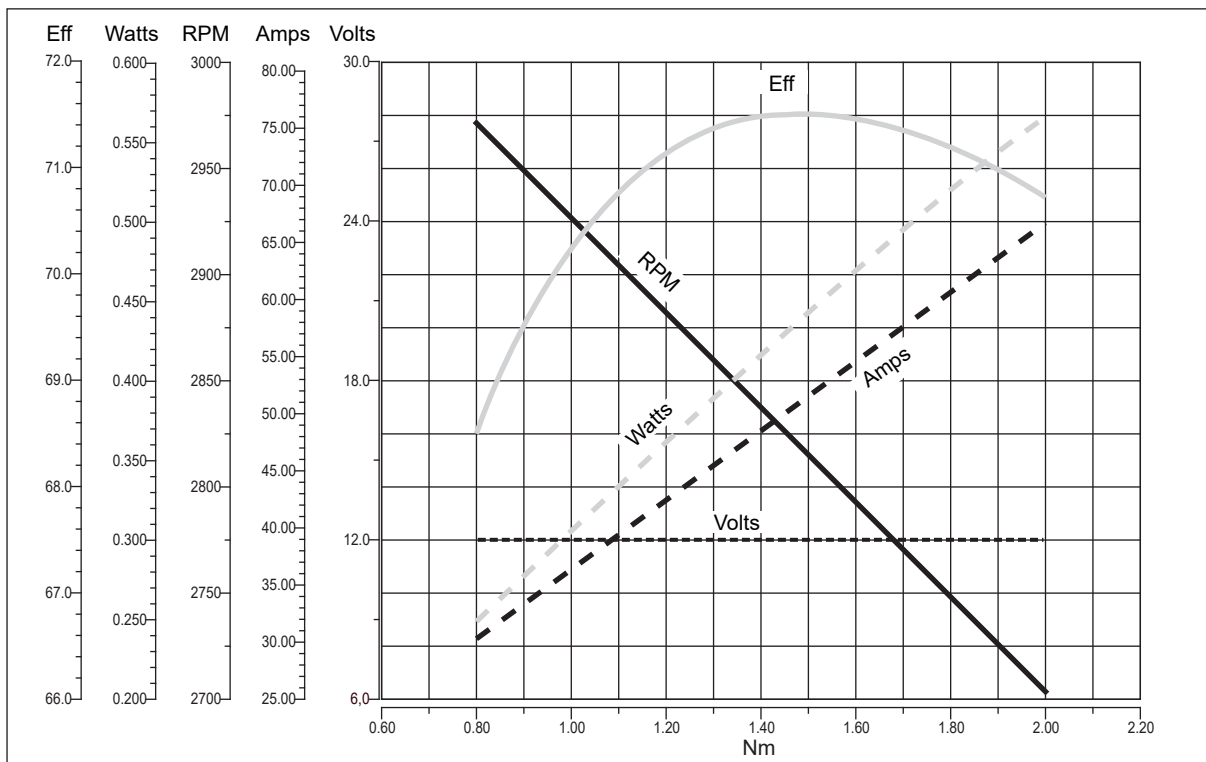


EC350.120 - EC350.240

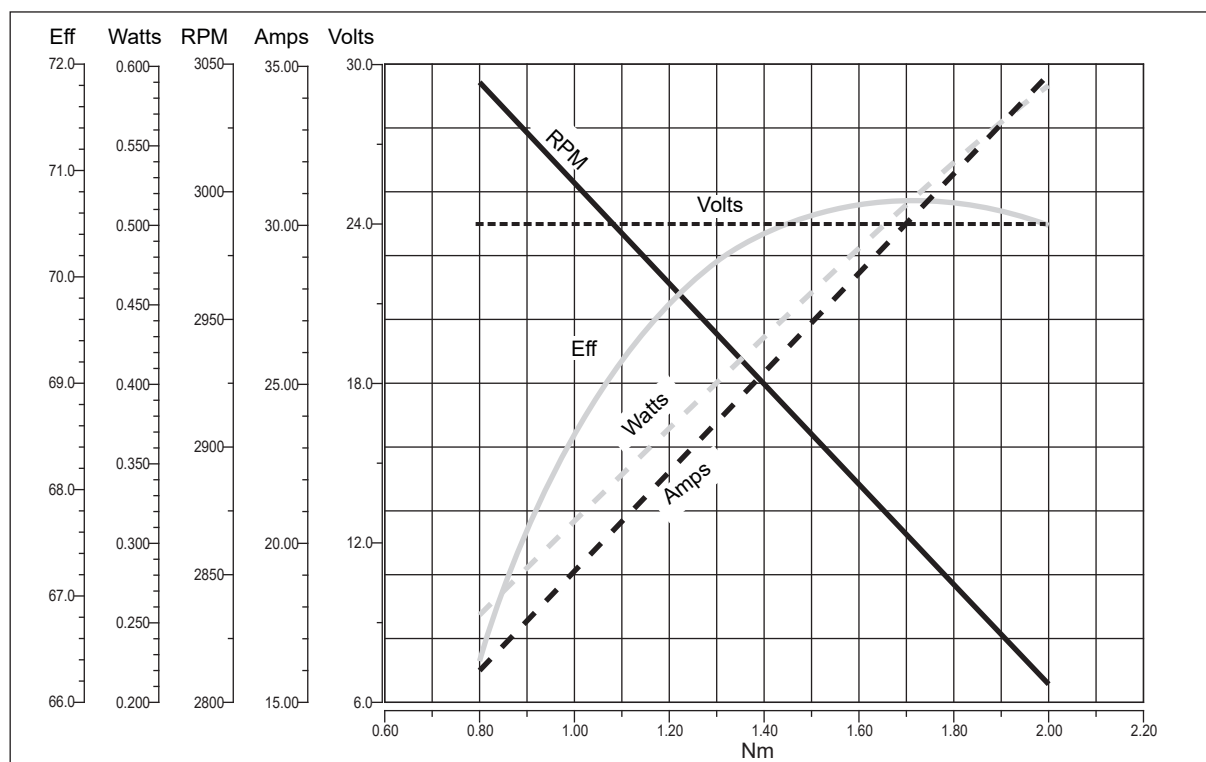
Prestazioni

Performances

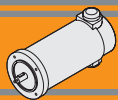
EC350.120



EC350.240



DC



EC600.120 - EC600.240

Caratteristiche

Features

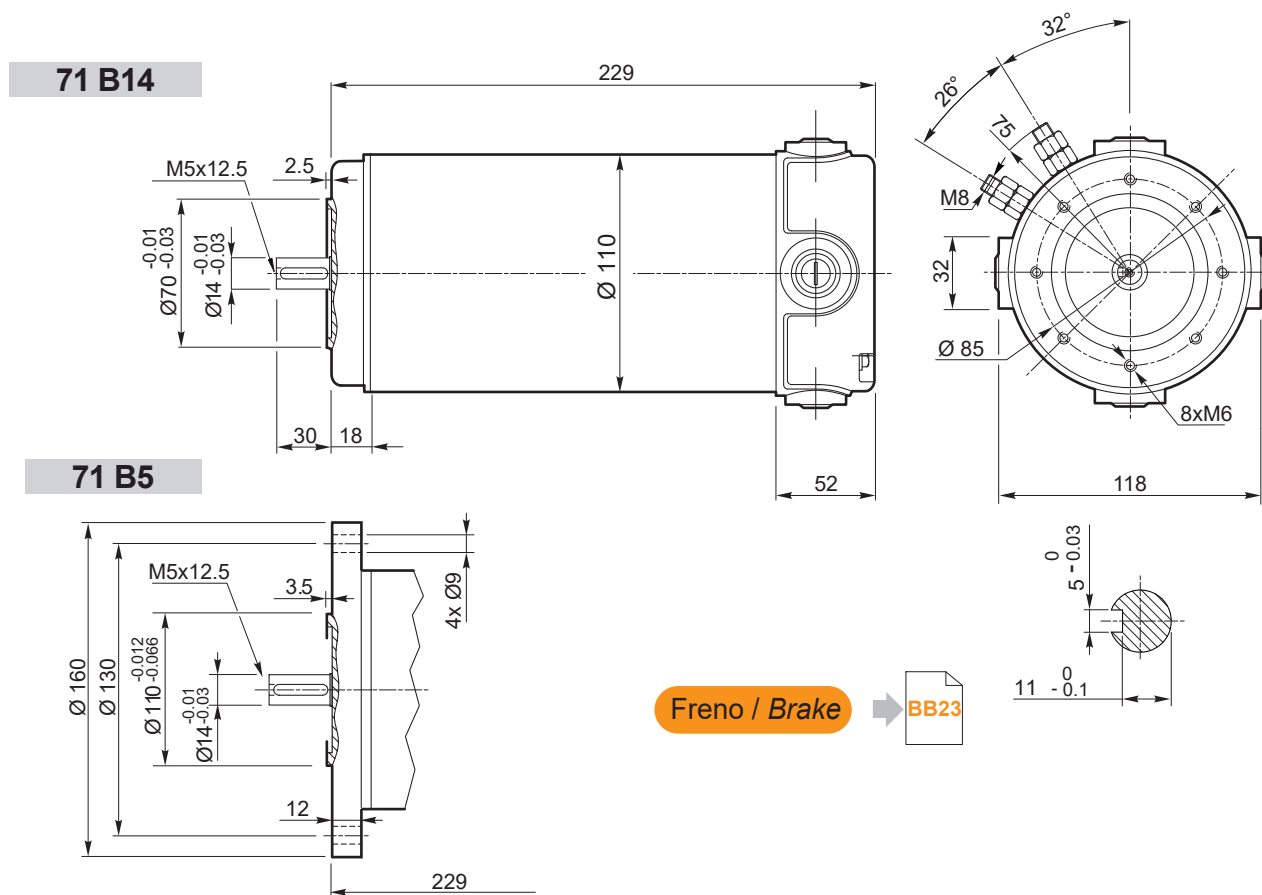
| | |
|---------------------|--------------------------------|
| Costruzione | Tubolare, senza ventilazione |
| Grandezza | Ø 110 mm |
| Potenza | 800 W S2 (600 W S1) |
| Magneti | 4 |
| Supporti | Cuscinetti a sfera |
| Fori di montaggio | 8 |
| Alimentazione | Bassa tensione, 12 o 24 Vcc |
| Spazzole | 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 |

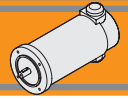
| | |
|-----------------|---|
| Construction | Tubular, without fan |
| Size | Ø 110 mm |
| Power | 800 W S2 (600 W S1) |
| Magnets | 4 |
| Bearings | Ball bearings |
| Mounting holes | 8 |
| Power supply | Low voltage, 12 or 24 Vdc |
| Brushes | 4 brushes made of graphite/copper composite |
| Brushes 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



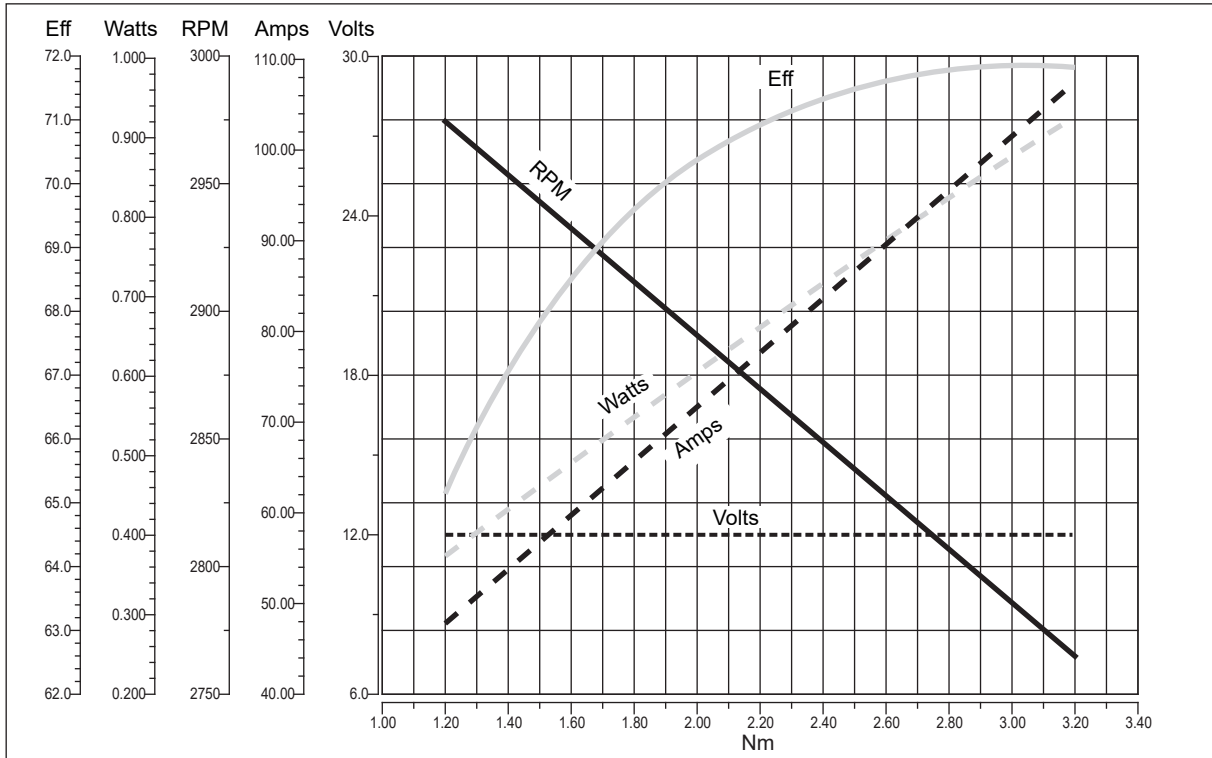


EC600.120 - EC600.240

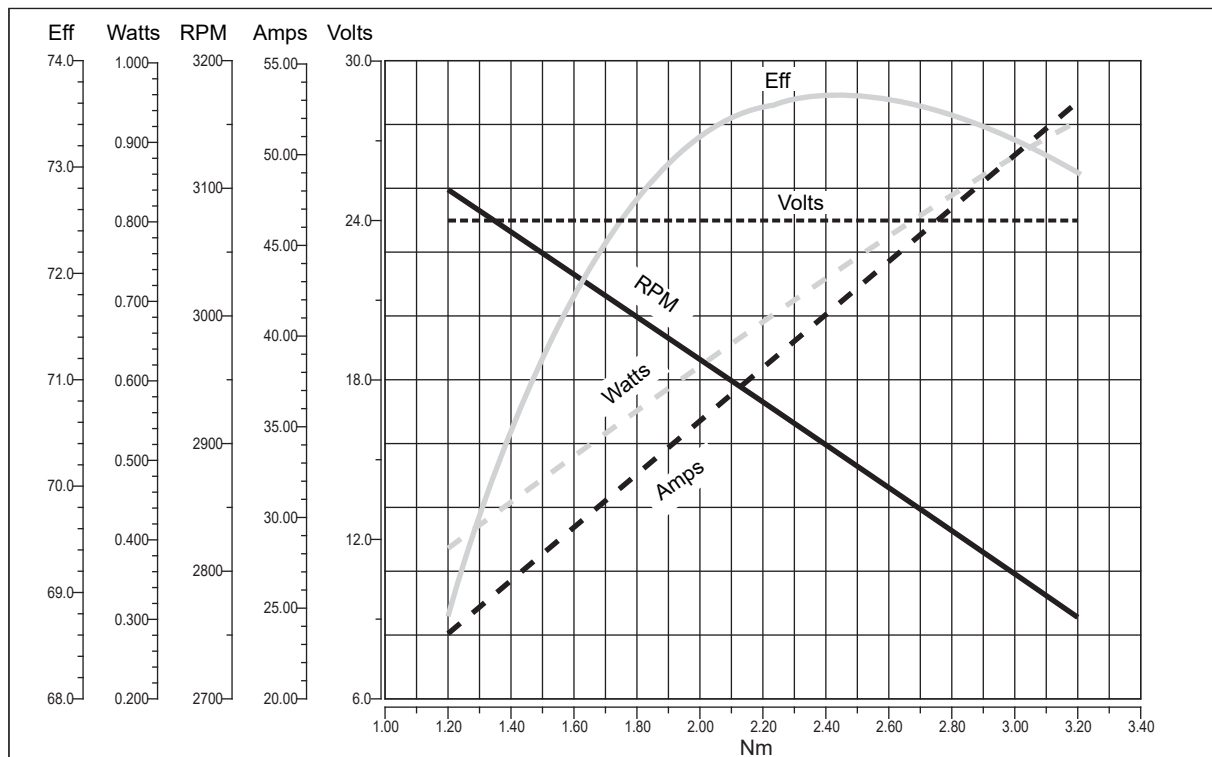
Prestazioni

Performances

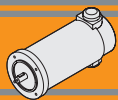
EC600.120



EC600.240



DC

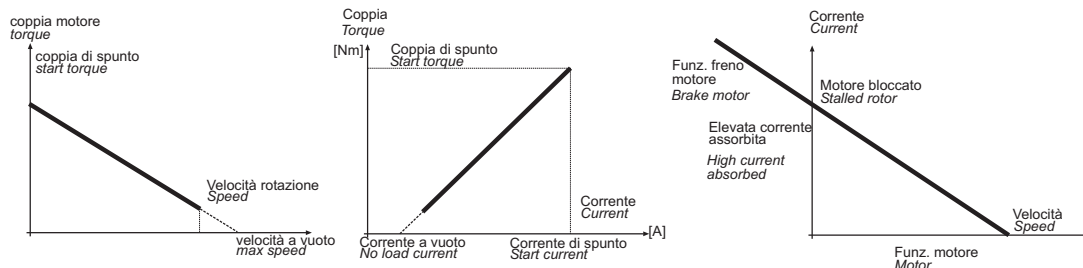


Legenda / Glossario dei grafici

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.

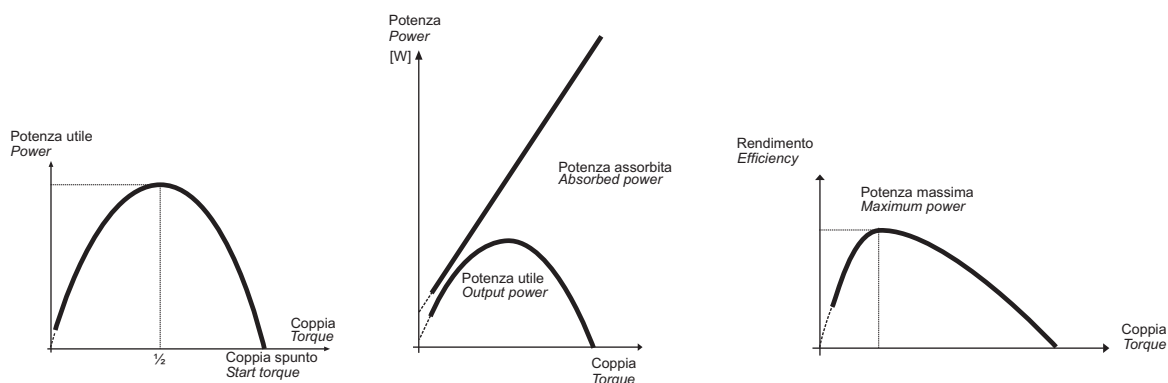


La potenza utile (potenza all' albero) si ricava dalla formula:

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

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.

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

$$P_a = V \cdot I$$

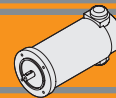
$$P_n = V \cdot I \cdot \eta$$

$$P_n = M_n \cdot S_v$$

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

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

Example 2 HP = approx. 1500 W.

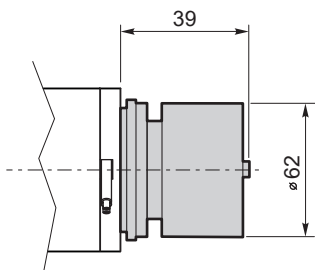


Freno

Brake

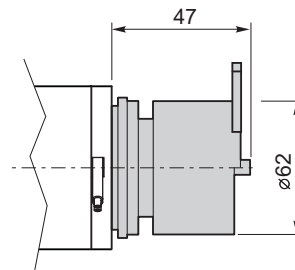
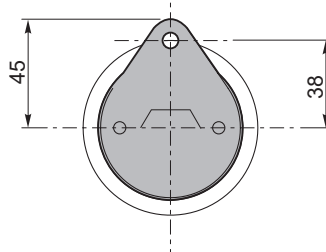
Freno / Brake

EC050...BR
EC070...BR



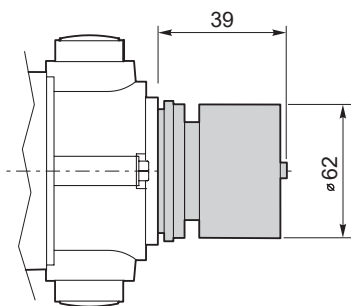
Freno con leva di sblocco/ Brake with hand release

EC050...BRL
EC070...BRL

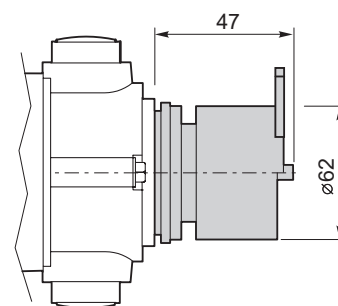
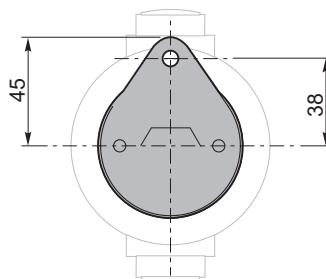


| | Pn [W] | V [V] | Mn [Nm] | n ₁ [min ⁻¹] |
|---|-----------|----------|------------|--|
| Caratteristiche del freno / Break features | 14 | 12 24 | 1.8 | 3000 |

EC100.24E BR
EC180.24E BR

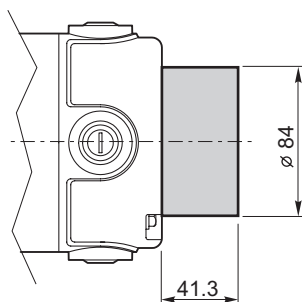


EC100.24E BRL
EC180.24E BRL

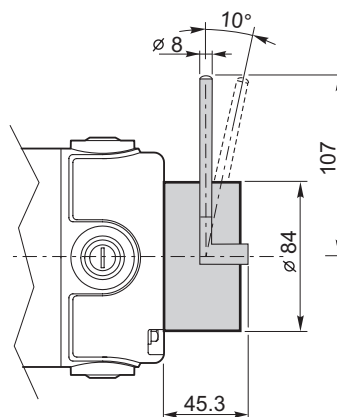


| | Pn [W] | V [V] | Mn [Nm] | n ₁ [min ⁻¹] |
|---|-----------|----------|------------|--|
| Caratteristiche del freno / Break features | 14 | 12 24 | 1.8 | 3000 |

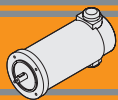
EC350...BR
EC600...BR



EC350...BRL
EC600...BRL



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



Encoder

Encoder

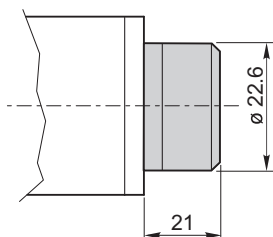
EC020.24E ME22

EC050.12E ME22

EC050.24E ME22

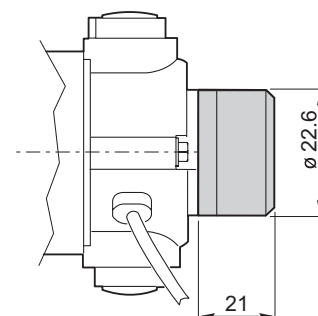
EC070.12E ME22

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

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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 |
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| | Dimensioni | <i>Dimensions</i> | BC6 |
| | Prestazioni | <i>Performances</i> | BC6 |
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| | Dimensioni | <i>Dimensions</i> | BC8 |
| | Prestazioni | <i>Performances</i> | BC9 |
| 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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*This section replaces any previous edition and revision. If you obtained this catalogue other than through controlled distribution channels, the most up to date content is not guaranteed. **In this case the latest version is available on our web site www.transtecno.com***



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 |

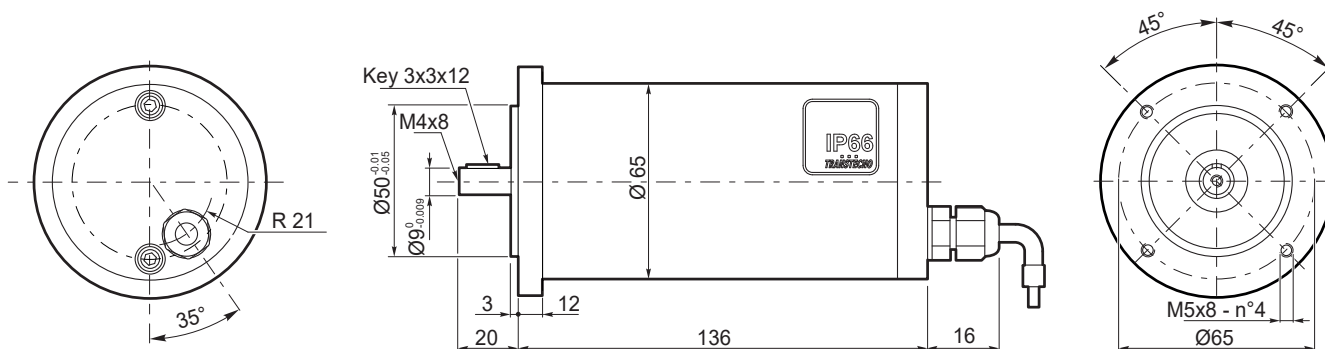
| | |
|----------------|--|
| Construction | Tubular, without fan |
| Size | Ø 65 mm |
| Power | 100 W S2 (70 W S1) |
| Magnets | 2 |
| Bearings | Ball bearings |
| Mounting holes | 4 |
| Power supply | Low voltage, 12 or 24 Vdc |
| Brushes | 2 inside brushes made of graphite/copper composite |
| Electric 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 | | | 0.22 | | | |
| | S2 30' | 100 | | 5.9 | | | 0.31 | | | |

Dimensioni

Dimensions

EC070.120.66
EC070.240.66



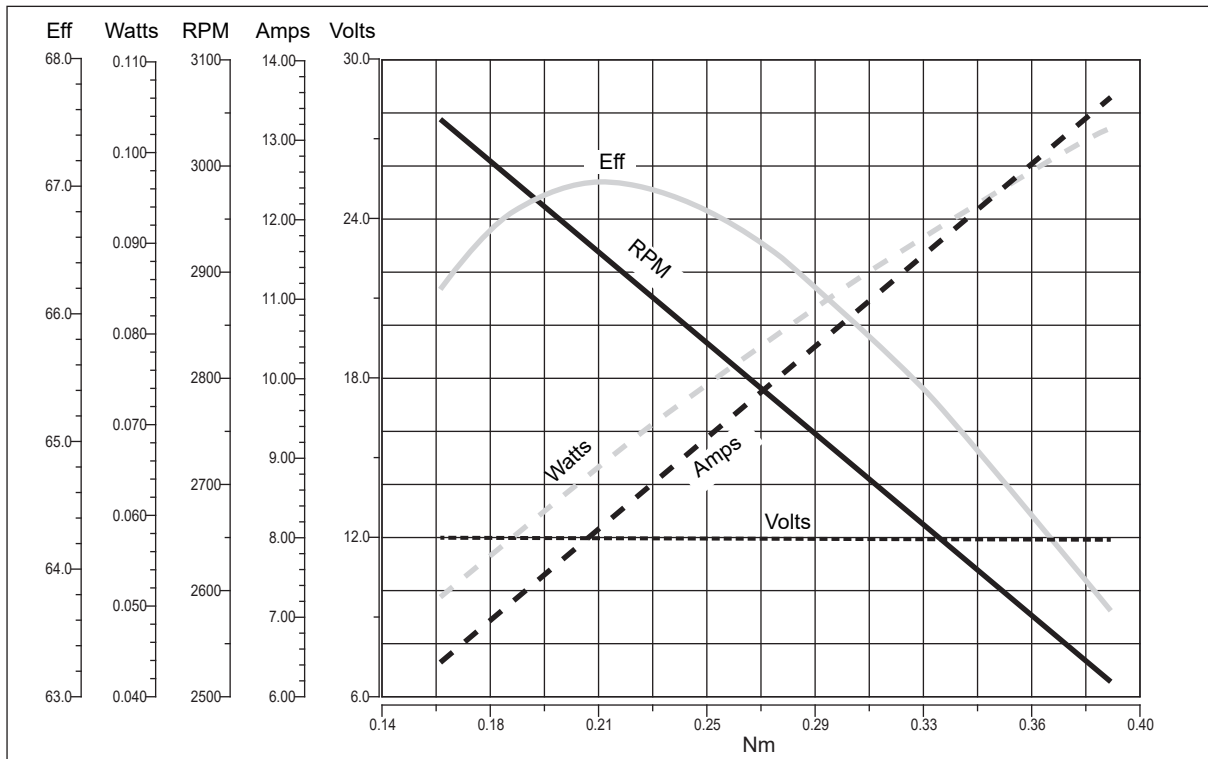


EC070.120.66 - EC070.240.66

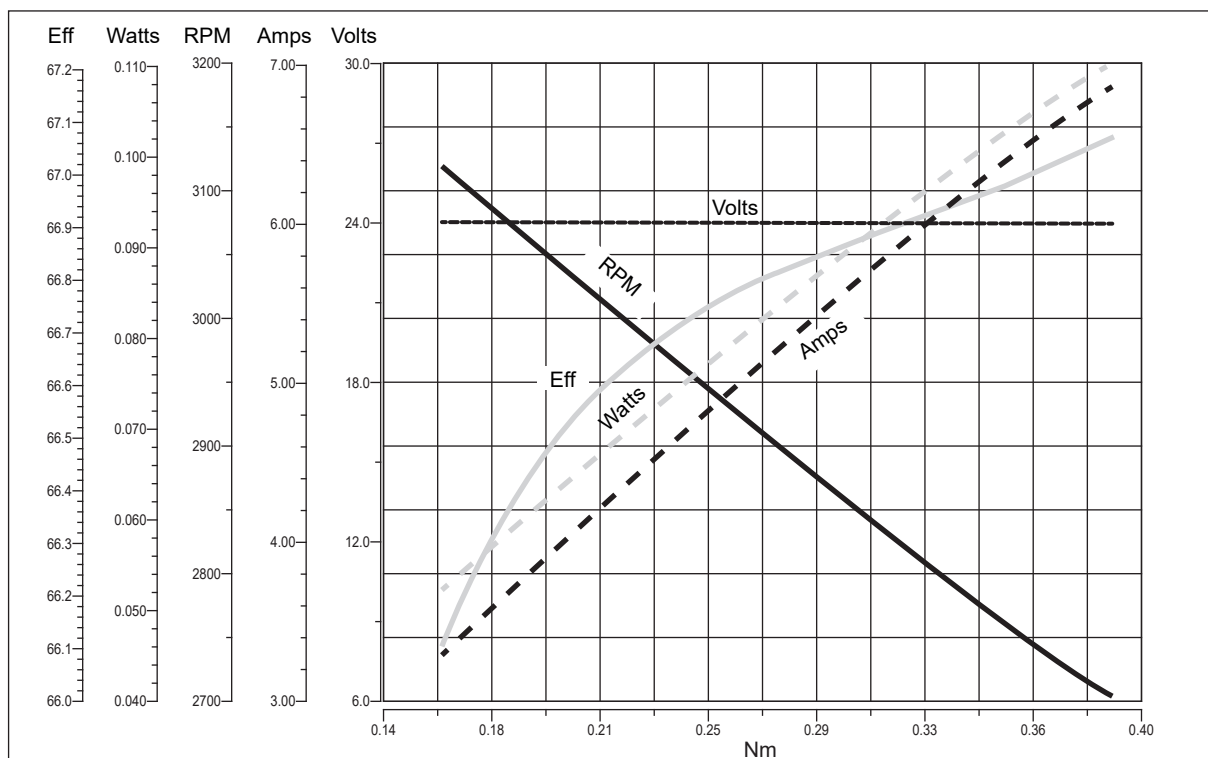
Prestazioni

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 |

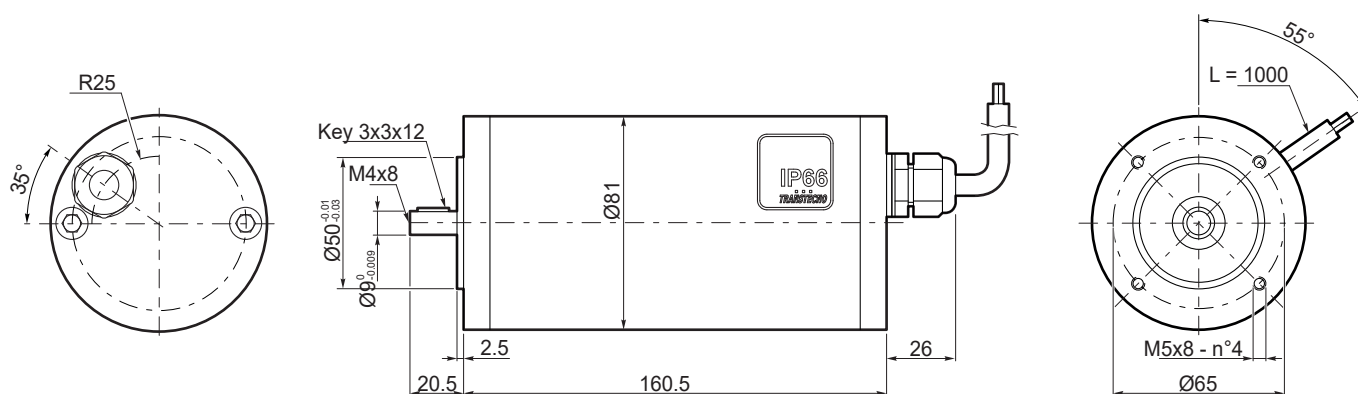
| | |
|----------------|---------------------------|
| Construction | Tubular, without fan |
| Size | Ø 80 mm |
| Power | 140 W S2 (100 W S1) |
| Magnets | 2 |
| Bearings | Ball bearings |
| Mounting holes | 4 |
| Power supply | Low voltage, 12 or 24 Vdc |
| Electric cable | Length: 1000 mm |

| 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 | | | 0.31 | | | |
| | S2 25' | 140 | | 8.4 | | | 0.43 | | | |

Dimensioni

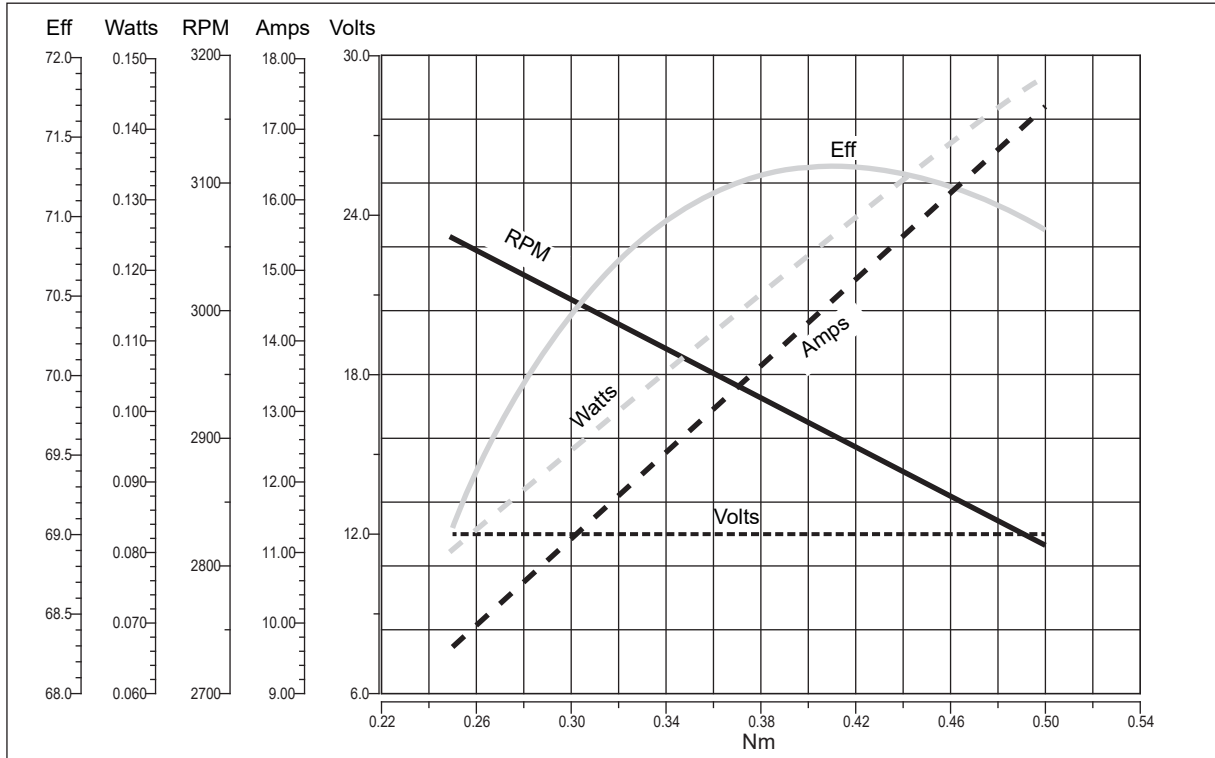
Dimensions

EC100.120.66
EC100.240.66

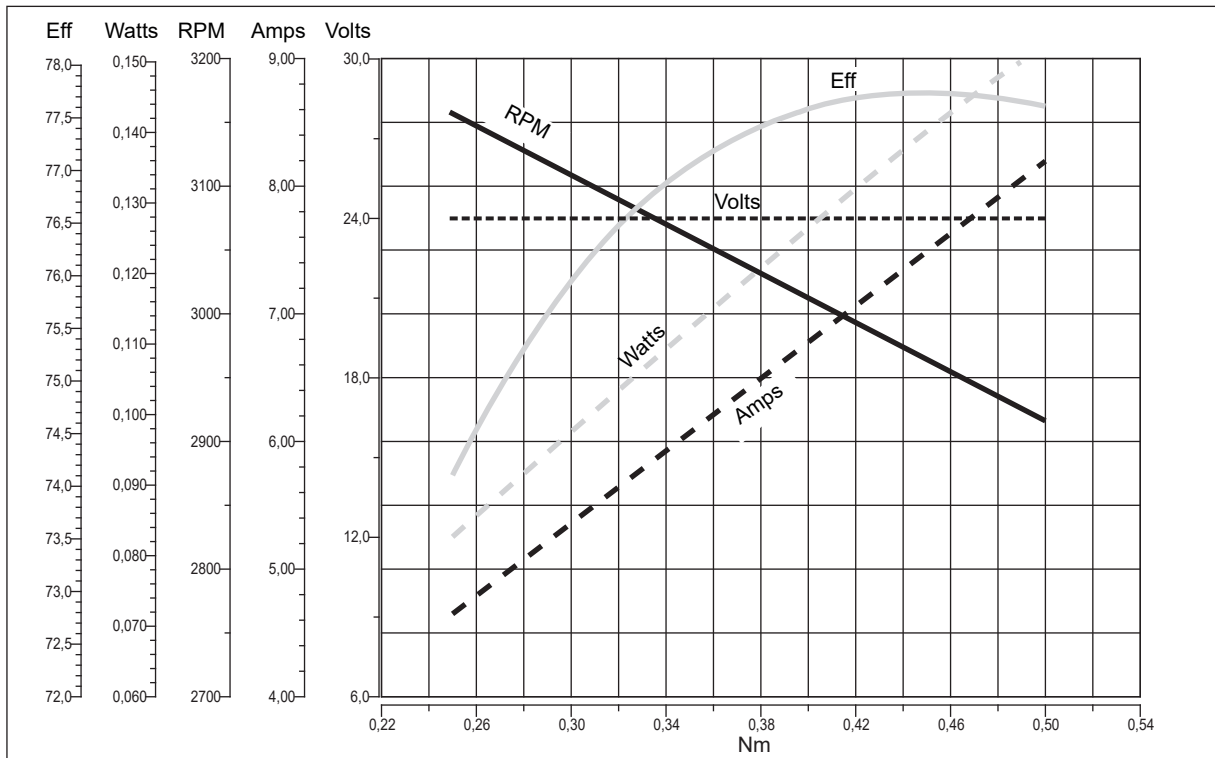




EC100.120.66



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 |

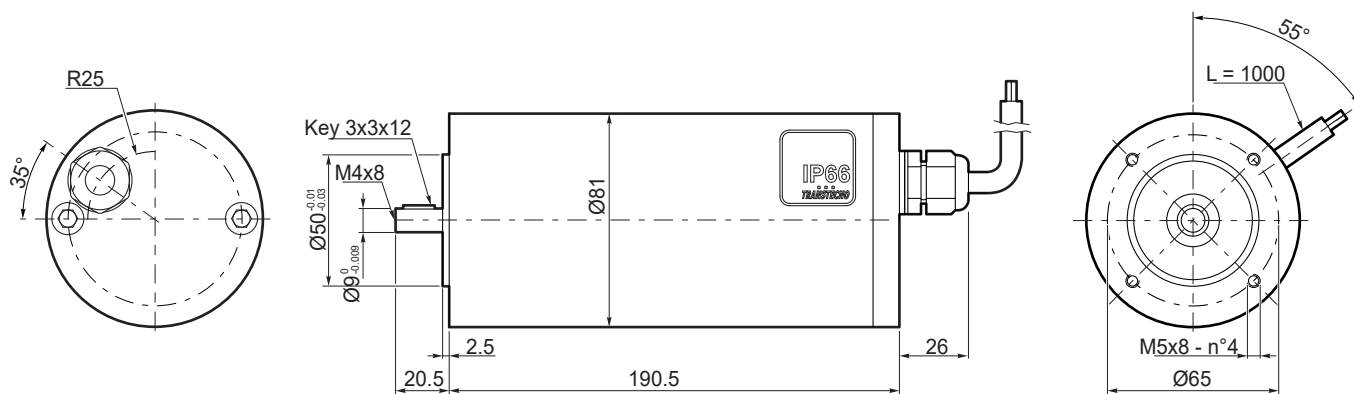
| Tipo Type | S | Pn [W] | V [V] | I [A] | IC | FF | Mn [Nm] | n ₁ [min ⁻¹] | IP | Kg |
|--------------|--------|-----------|----------|----------|----|----|------------|--|----|-----|
| EC180.120.66 | S1 | 180 | 12 | 21.5 | F | 1 | 0.57 | 3000 | 66 | 3.4 |
| | S2 25' | 250 | | 30 | | | 0.8 | | | |
|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

Dimensioni

Dimensions

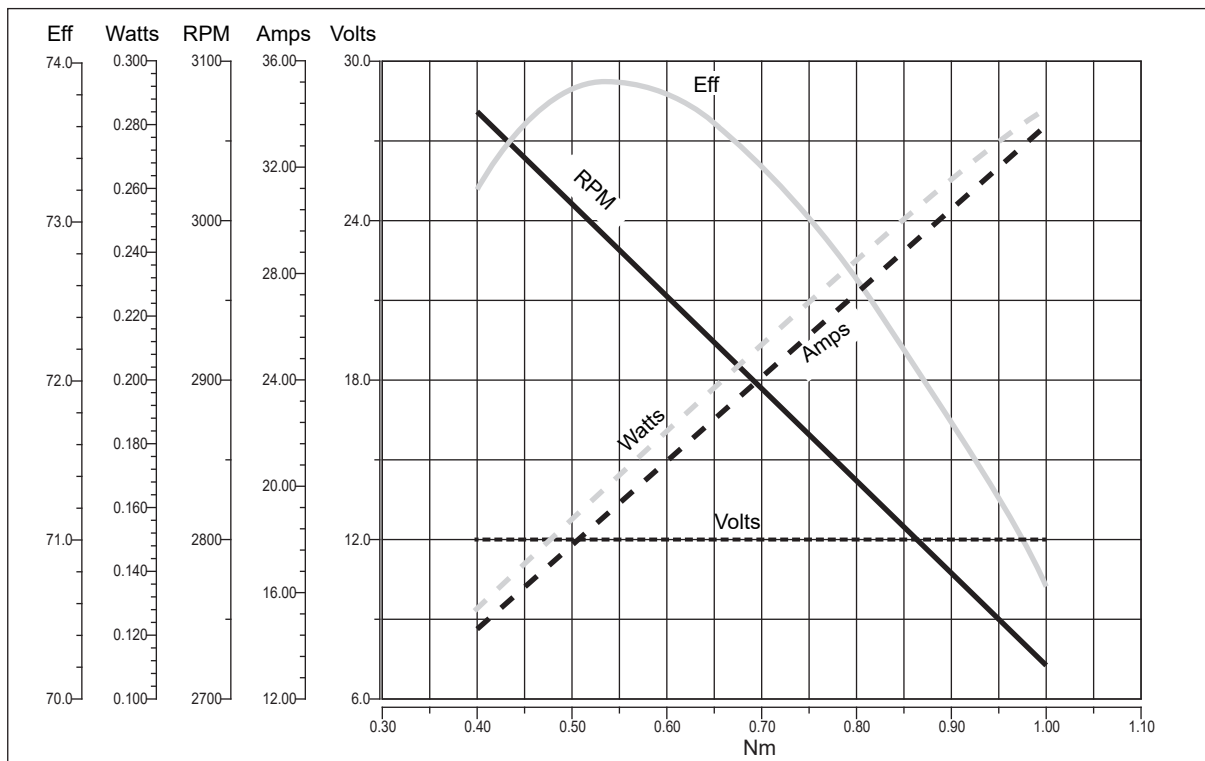
EC180.120.66

EC180.240.66

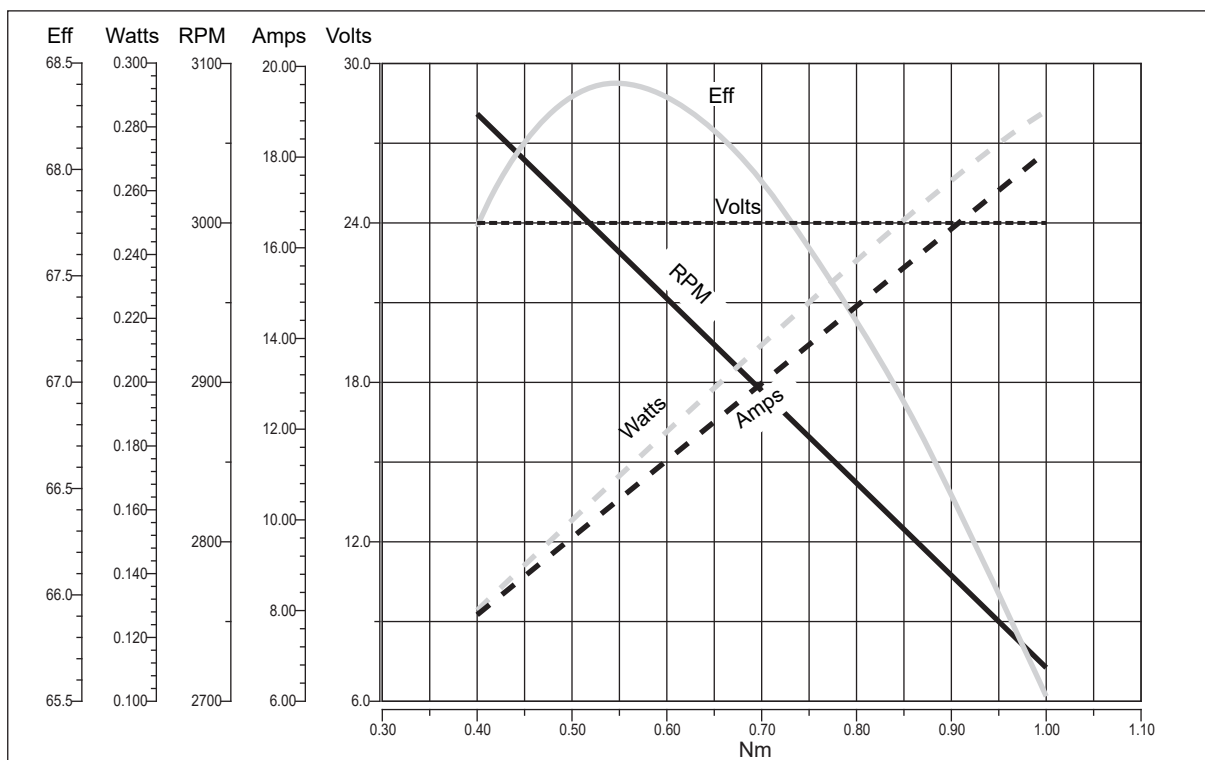




EC180.120.66



EC180.240.66



DC



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 |

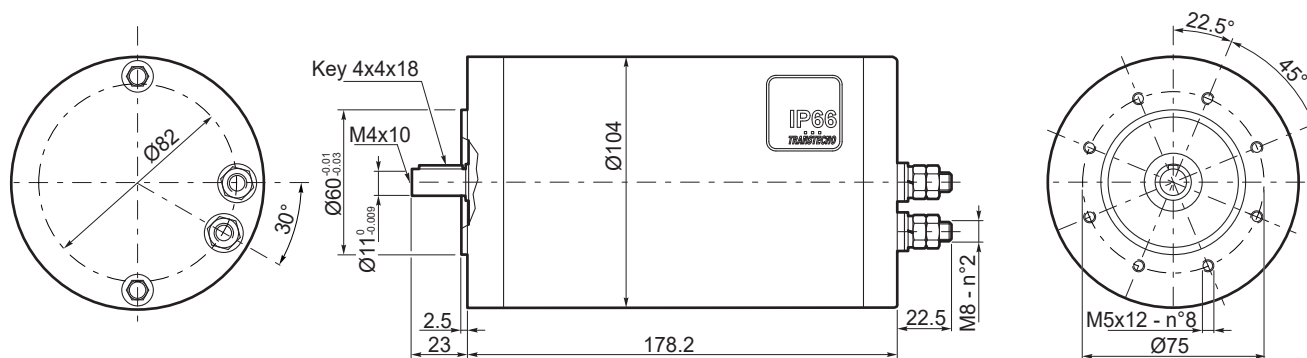
| Tipo Type | S | Pn [W] | V [V] | I [A] | IC | FF | Mn [Nm] | n ₁ [min ⁻¹] | IP | Kg |
|--------------|--------|-----------|----------|----------|----|----|------------|--|----|------|
| EC250.120.66 | S1 | 250 | 12 | 30 | F | 1 | 0.8 | 3000 | 66 | 4.15 |
| | S2 25' | 350 | | 38.5 | | | 1.12 | | | |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

Dimensioni

Dimensions

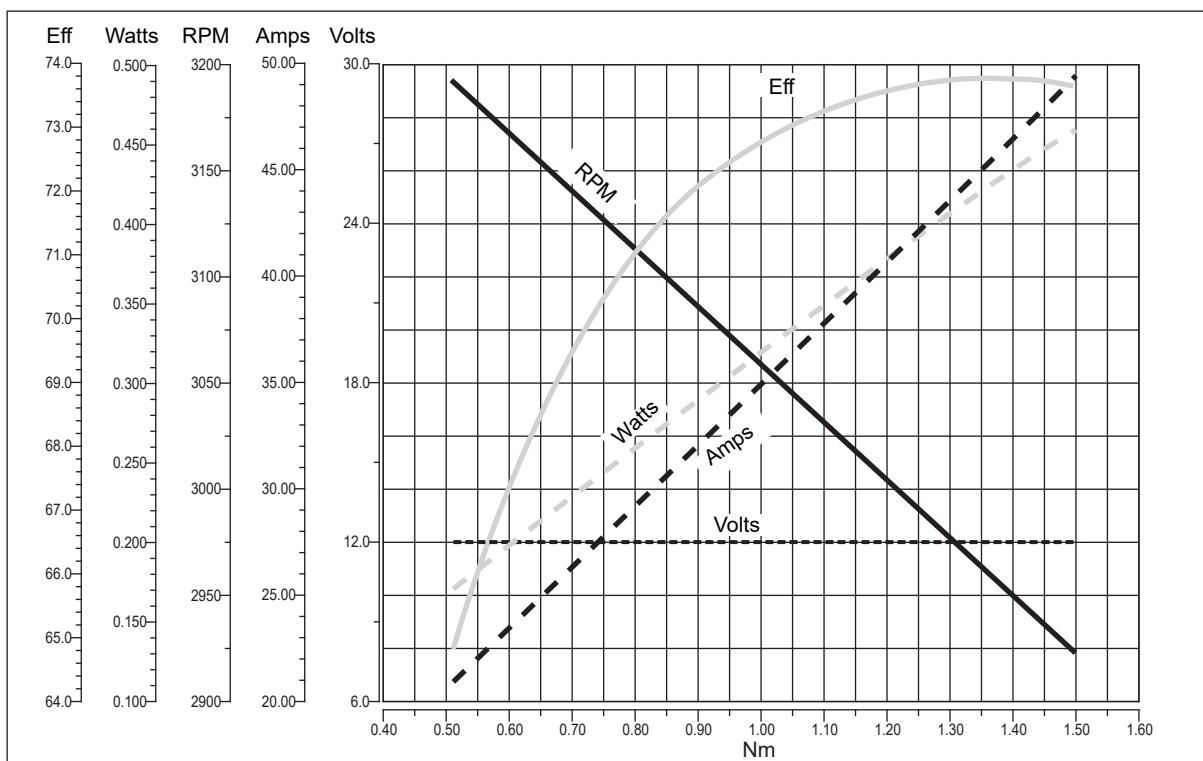
EC250.120.66

EC250.240.66

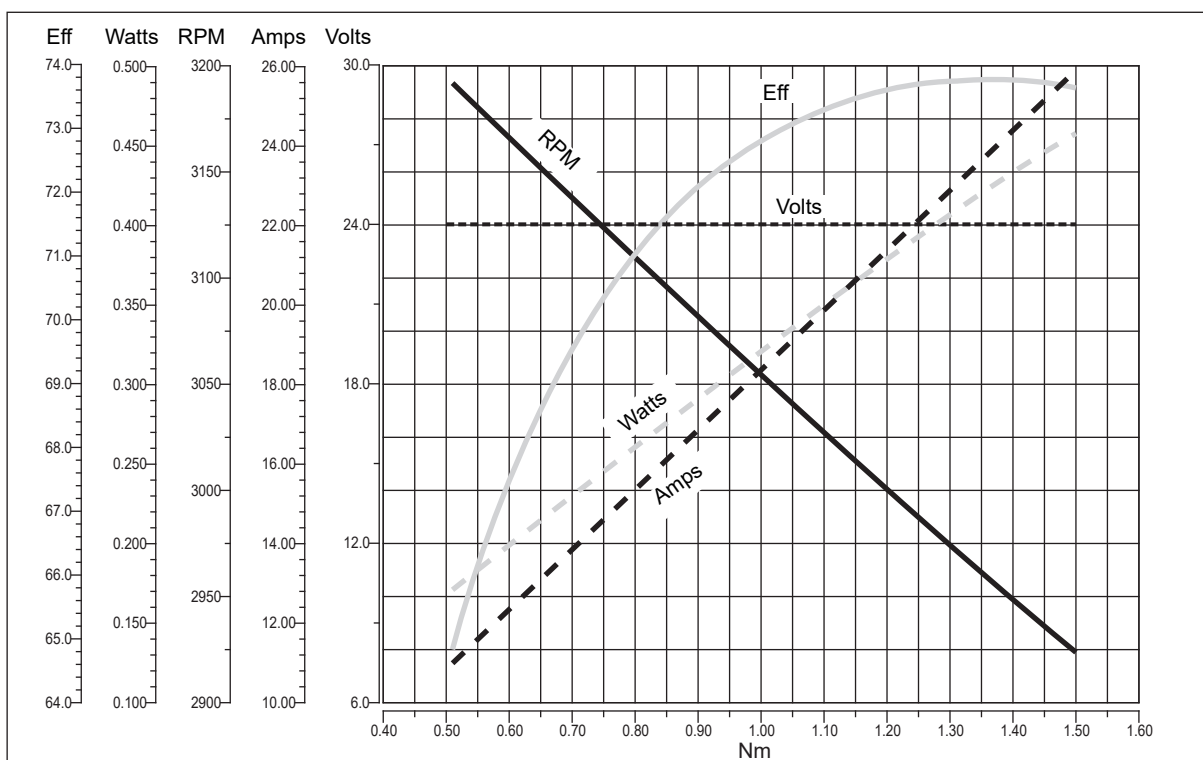




EC250.120.66



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 |

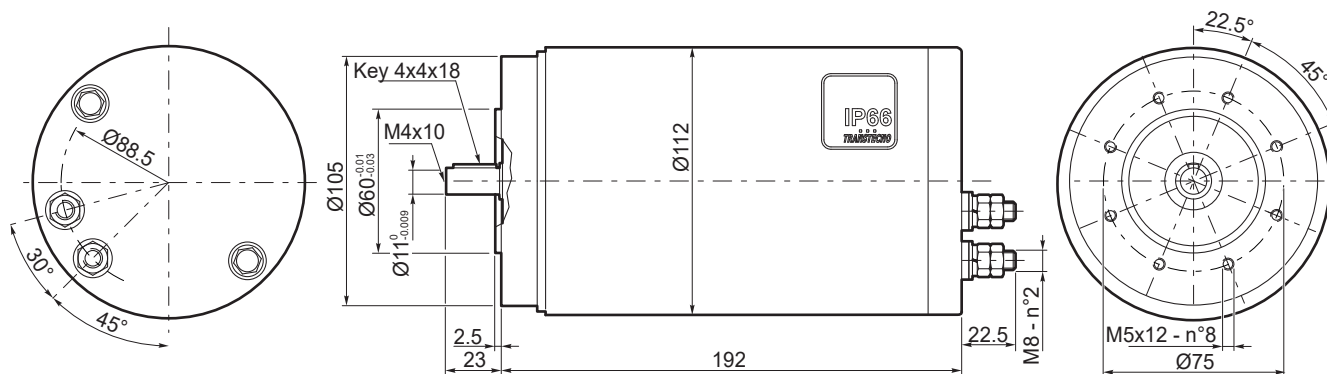
| Tipo Type | S | Pn [W] | V [V] | I [A] | IC | FF | Mn [Nm] | n ₁ [min ⁻¹] | IP | Kg |
|--------------|--------|-----------|----------|----------|----|----|------------|--|----|-----|
| EC350.120.66 | S1 | 350 | 12 | 42 | F | 1 | 1.12 | 3000 | 66 | 5.1 |
| | S2 30' | 500 | | 58.8 | | | 1.57 | | | |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

Dimensioni

Dimensions

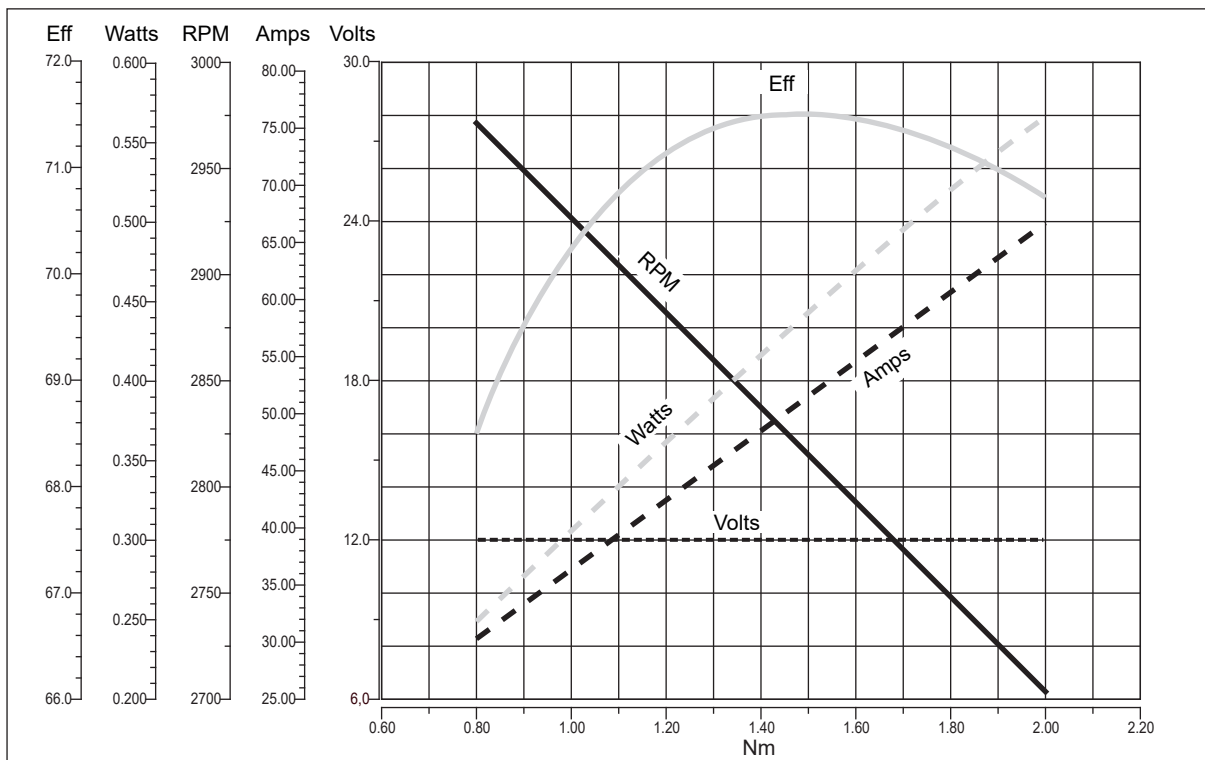
EC350.120.66

EC350.240.66

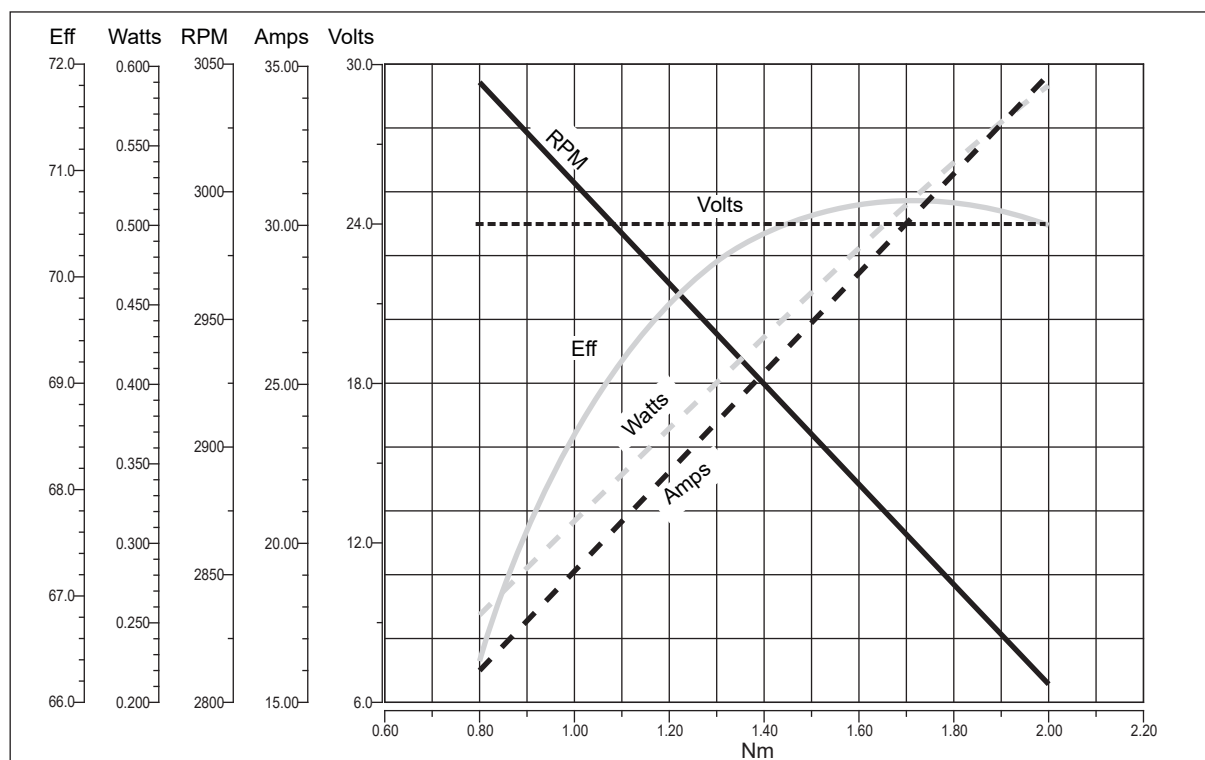




EC350.120.66



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 |

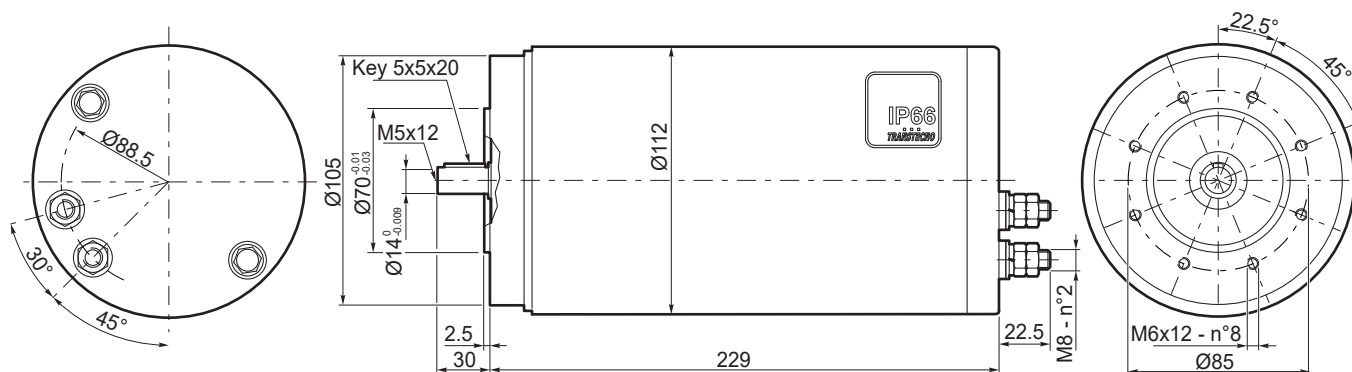
| Tipo Type | S | Pn [W] | V [V] | I [A] | IC | FF | Mn [Nm] | n ₁ [min ⁻¹] | IP | Kg |
|--------------|--------|-----------|----------|----------|----|----|------------|--|----|-----|
| EC600.120.66 | S1 | 600 | 12 | 71 | F | 1 | 1.91 | 3000 | 66 | 6.6 |
| | S2 30' | 800 | | 94.4 | | | 2.54 | | | |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

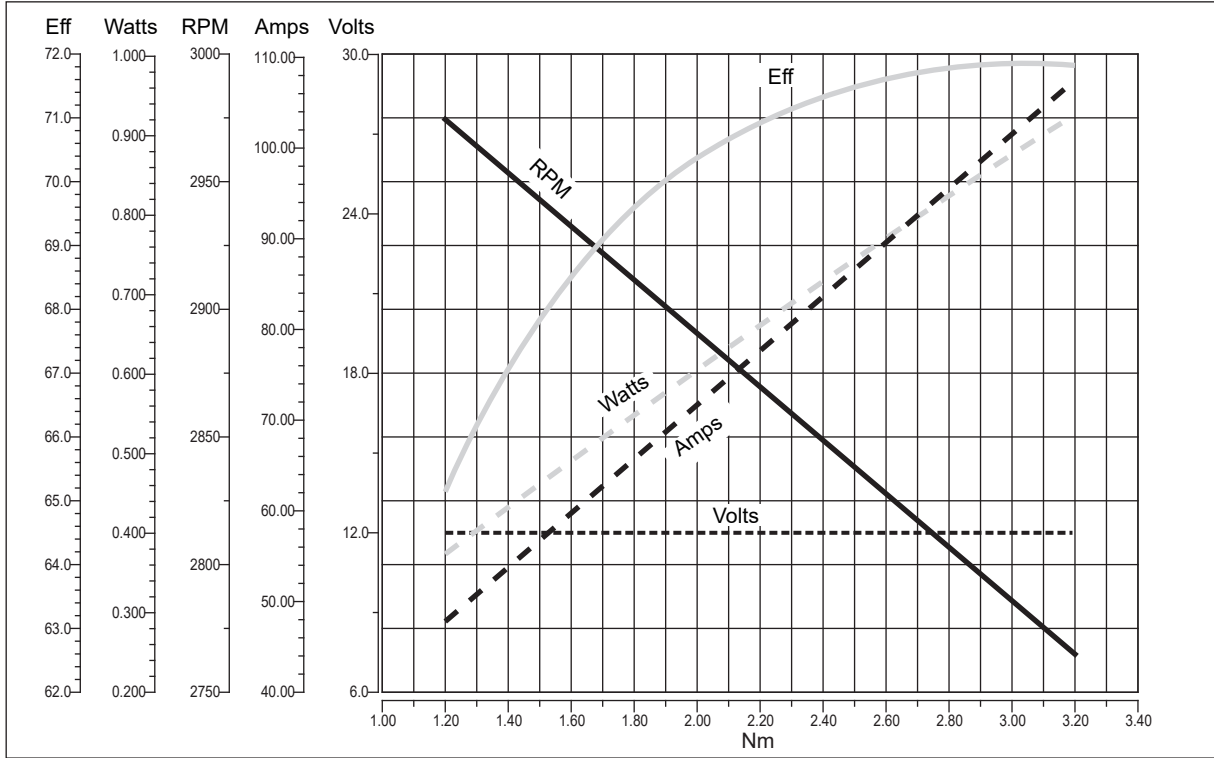




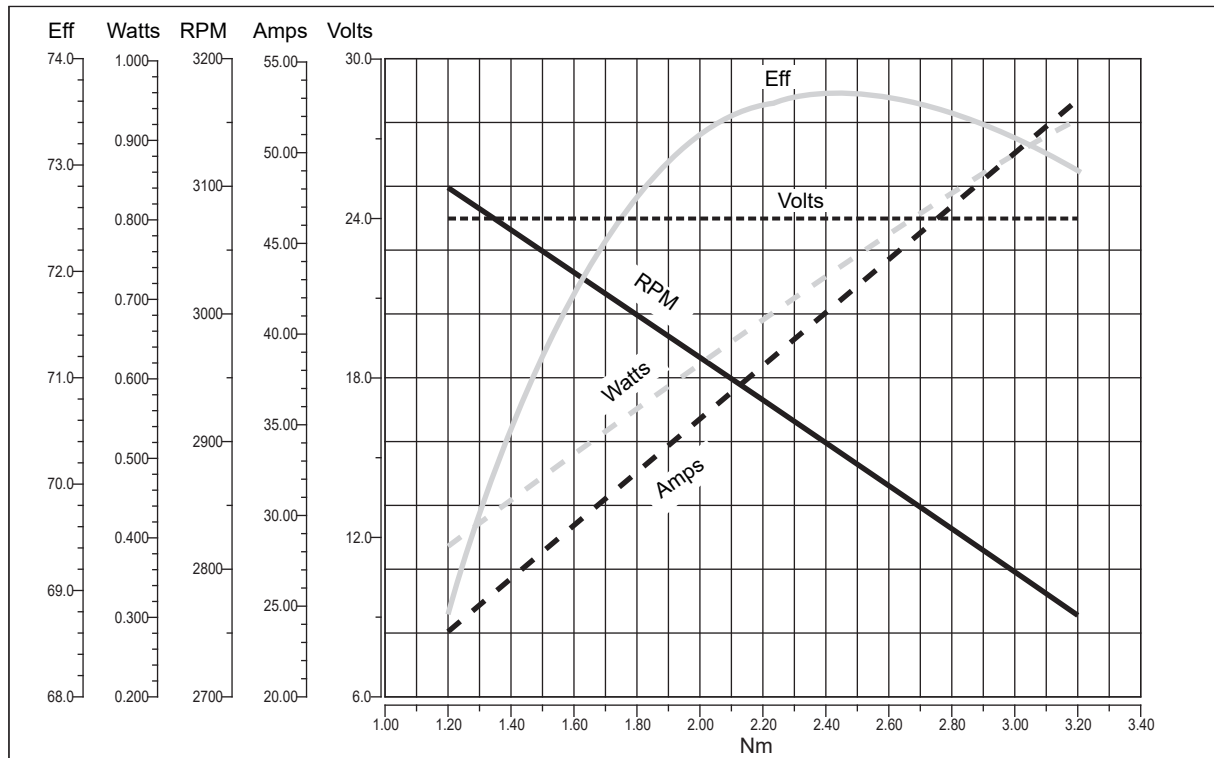
Prestazioni

Performances

EC600.120.66



EC600.240.66

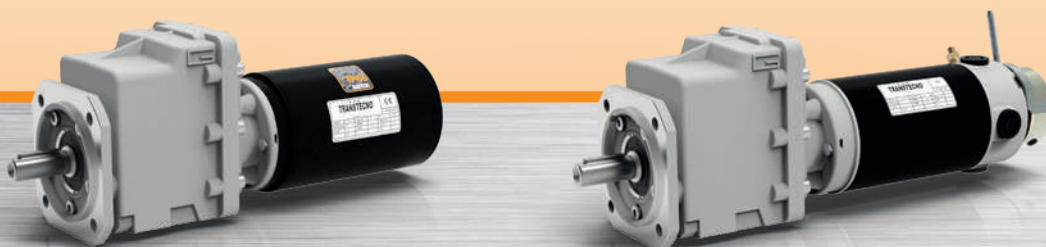


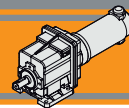
DC



Note/Notes

Motoriduttori CC ad ingranaggi cilindrici
DC helical in-line gearmotors

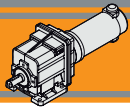




| Indice | Index | Pag. Page |
|------------------------------|-----------------------------------|--------------|
| Caratteristiche tecniche | <i>Technical features</i> | BD2 |
| Designazione | <i>Classification</i> | BD3 |
| Sensi di rotazione | <i>Direction of rotation</i> | BD3 |
| Lubrificazione | <i>Lubrication</i> | BD3 |
| Simbologia | <i>Symbols</i> | BD3 |
| 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 |

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Caratteristiche tecniche

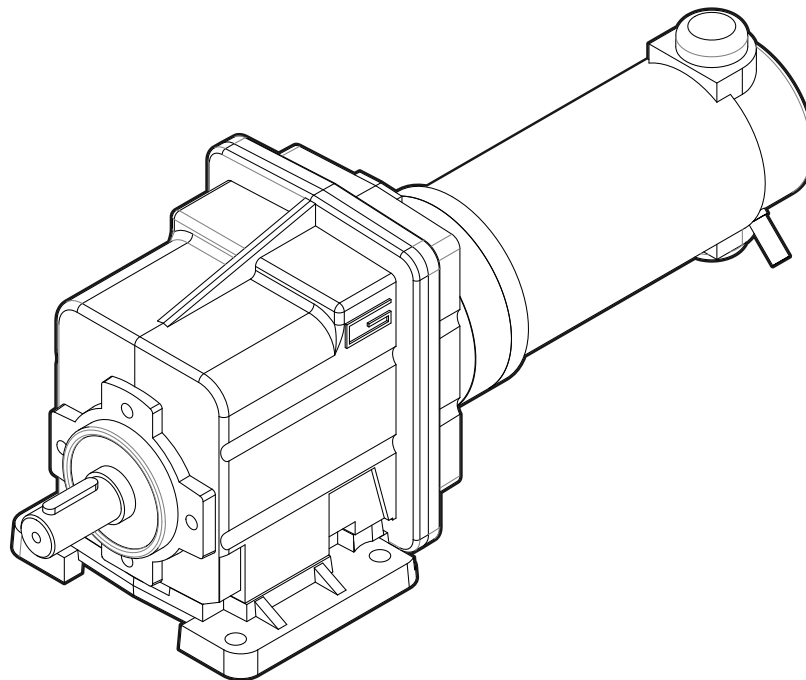
I motoriduttori CC ad ingranaggi cilindrici a magneti permanenti in neodimio **NDCMG** e in ferrite **ECMG** hanno le seguenti caratteristiche principali:

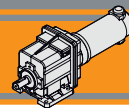
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 800W S2
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati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

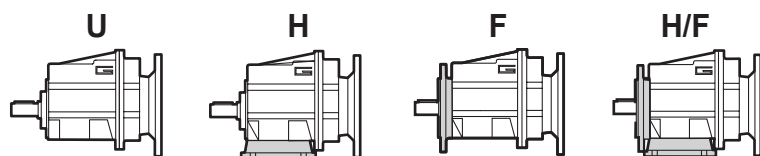
- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 to 800W S2
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Ground-hardened helical gears
- Available with input flexible couplin

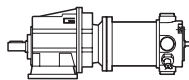


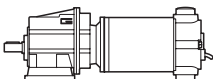



Designazione

Classification

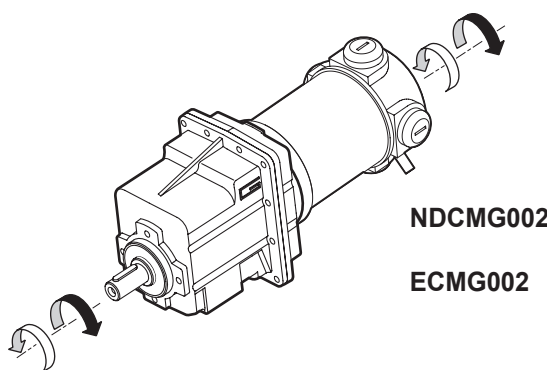


| MOTORIDUTTORE / GEARMOTOR | | | | | | |
|--|--------------------|-----------------------------------|----------------------------|-------------------------------|----------------------------------|--|
| NDCMG | 120/002 | U | 8.99 | D20 | 240 | |
| Tipo Type | Grandezza Size | Versione Version | Rapporto 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

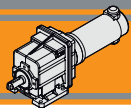
Tutti i riduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

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

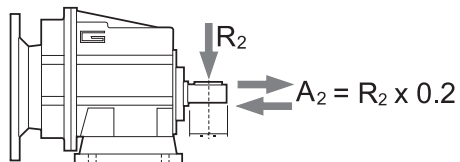
Symbols

| | | |
|-------|----------------------|--|
| 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

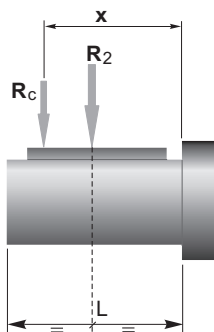
Radial loads



| 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 |

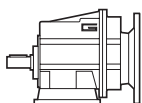
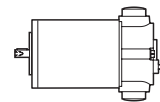
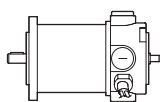
$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

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

$$R \leq R_c$$

Motori applicabili

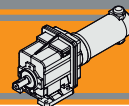
IEC Motor adapters

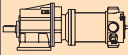
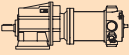


| CMG | 002 | ND | | EC | | | | | | |
|-----|-----|--------------------|--------------------|--------------------|-------------------------------|--------------------|---------|--------------------|--------------------|--------------------|
| | | 120.120 120.240 | 180.120 180.240 | 070.12E 070.24E | 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 | | |

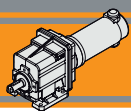
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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

Dati tecnici elettrici
Electrical technical data

ND 120 → 

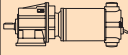
ND 180 → 

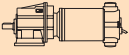


Dati tecnici per servizio S2

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

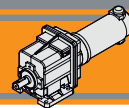
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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

Dati tecnici elettrici

Electrical technical data

| | | | | | |
|---|---|---|--|---|---|
| EC070 →  | EC100 →  | EC180 →  | EC250 →  | EC350 →  | EC600 →  |
|---|---|---|--|---|---|

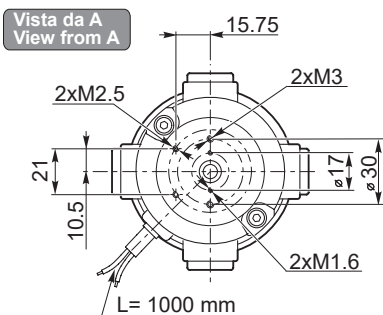
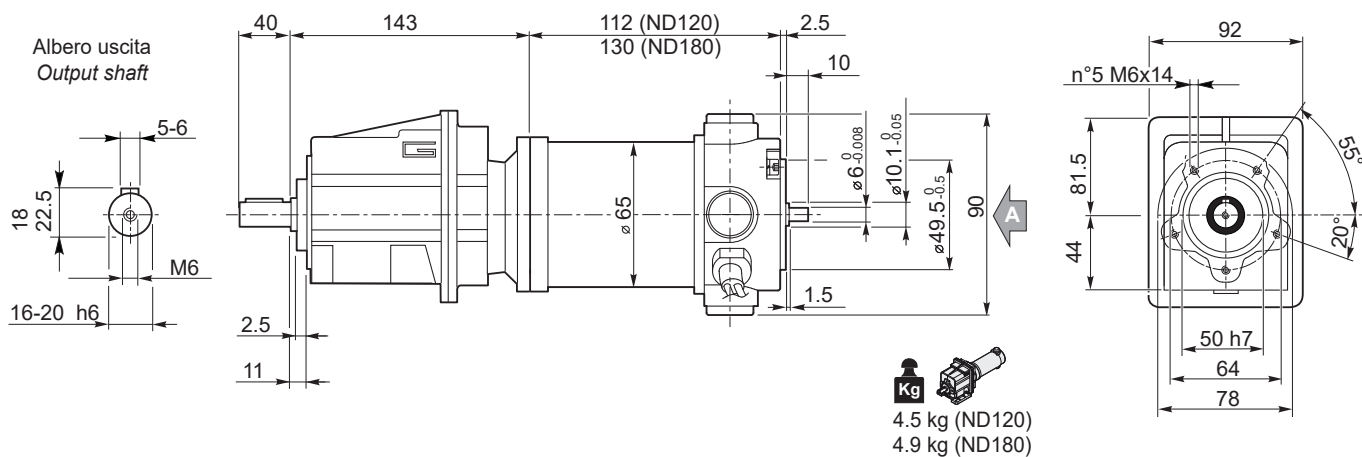


Dimensioni

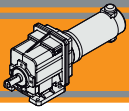
Dimensions

NDCMG..U

NDCMG120/002 U
NDCMG180/002 U



- NDCMG...H → [BD12](#)
- Freno / Brake → [BA9](#)
- NDCMG...F → [BD12](#)
- Encoder → [BA9](#)
- NDCMG...H/F → [BD13](#)

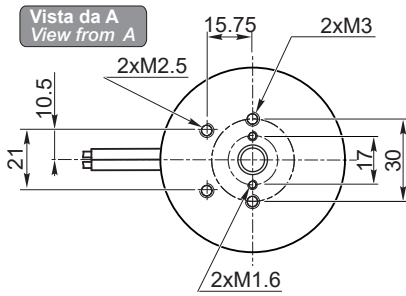
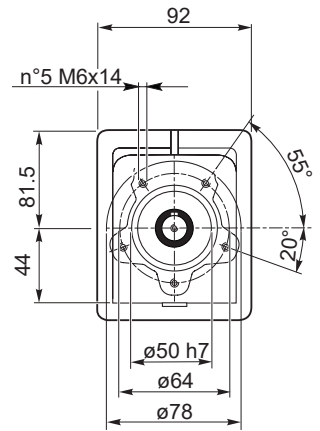
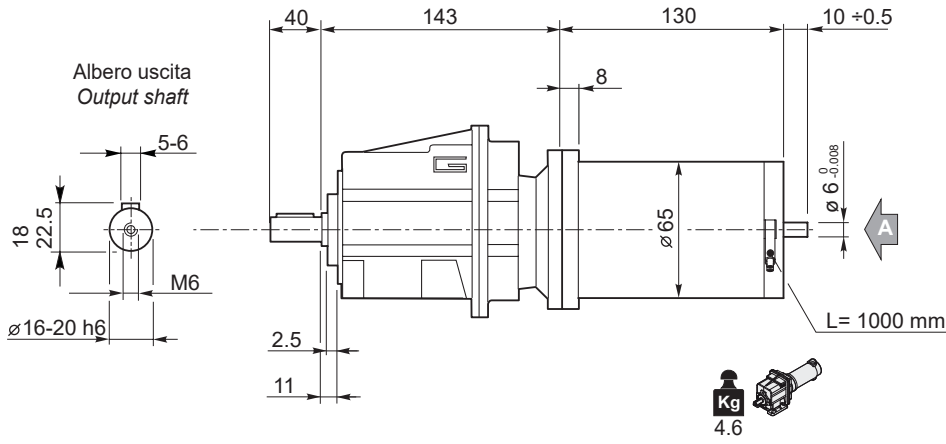


Dimensioni

Dimensions

ECMG..U

ECMG070/002 U



Freno / Brake



BB23

Encoder



BB24

Motori / Motors IP66



BC2

ECMG...H



BD12

ECMG...F

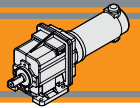


BD12

ECMG...H/F



BD13

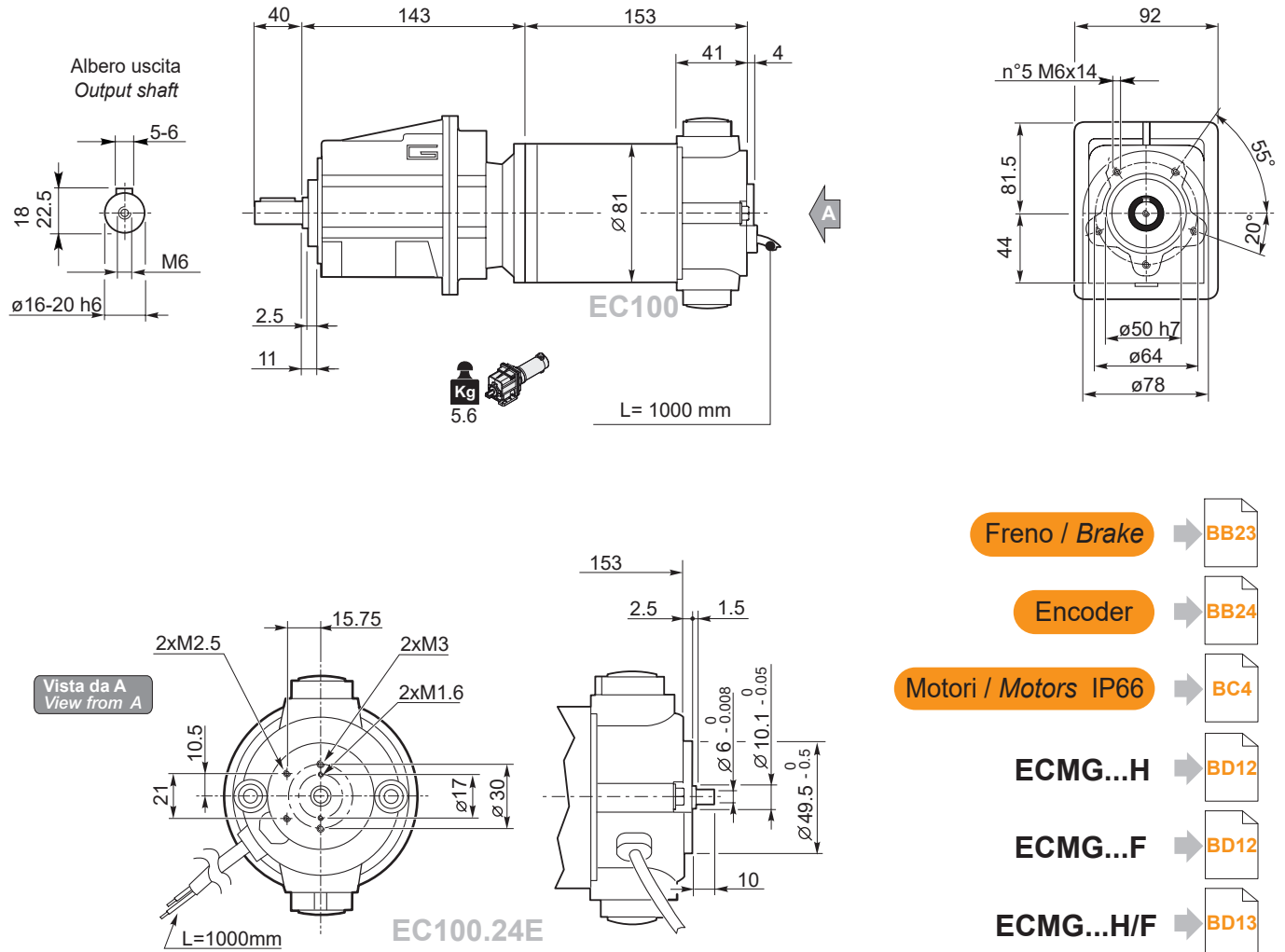


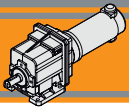
Dimensioni

Dimensions

ECMG..U

ECMG100/002 U



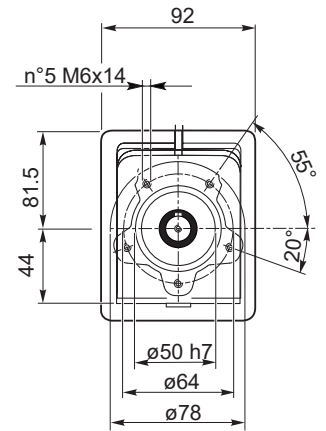
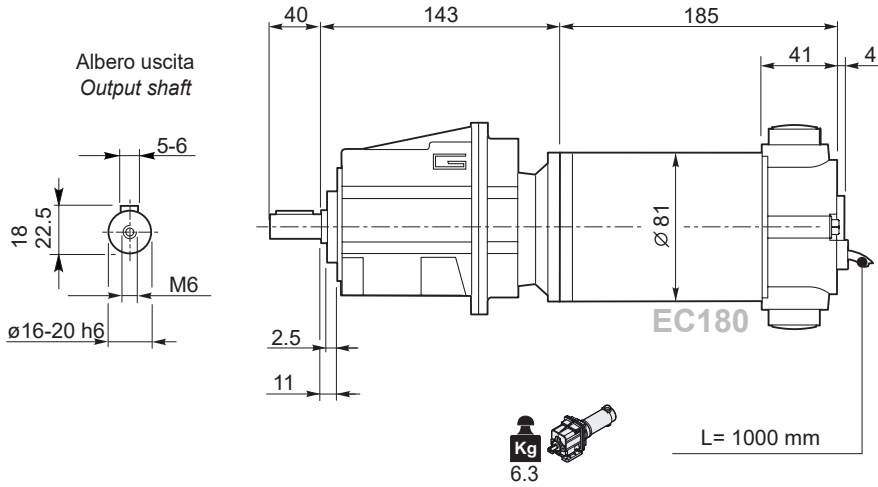


Dimensioni

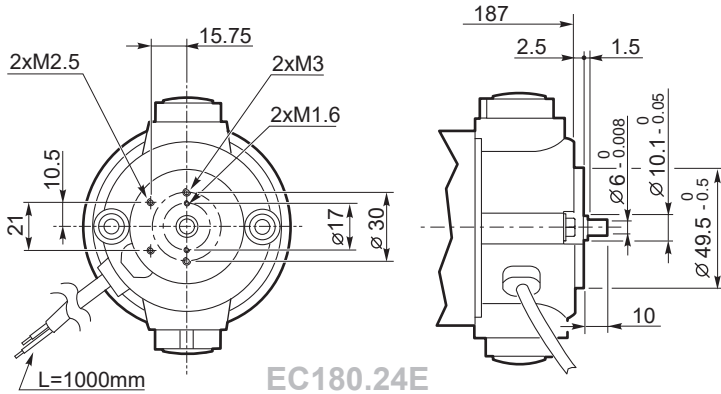
Dimensions

ECMG..U

ECMG180/002 U



Vista da A
View from A



Freno / Brake → [BB23](#)

Encoder → [BB24](#)

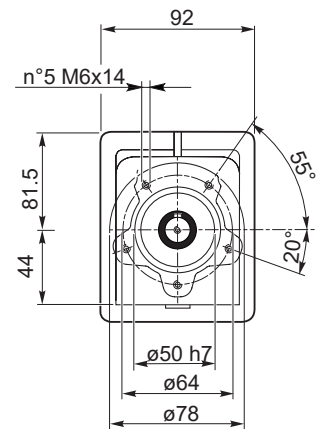
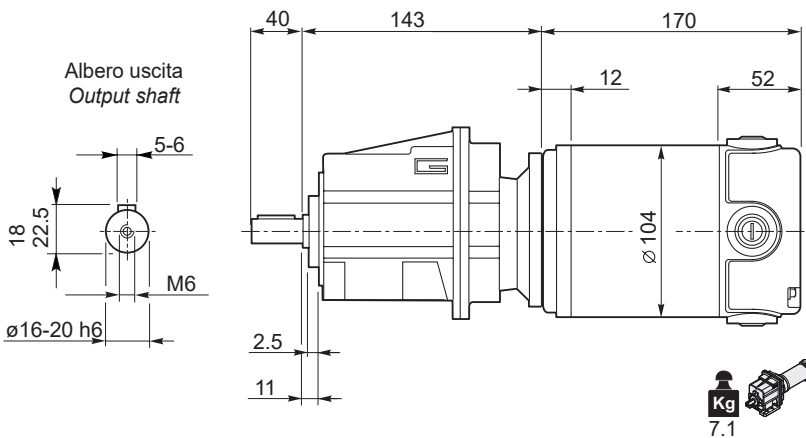
Motori / Motors IP66 → [BC6](#)

ECMG...H → [BD12](#)

ECMG...F → [BD12](#)

ECMG...H/F → [BD13](#)

ECMG250/002 U

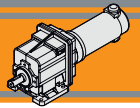


Motori / Motors IP66 → [BC8](#)

ECMG...H → [BD12](#)

ECMG...F → [BD12](#)

ECMG...H/F → [BD13](#)

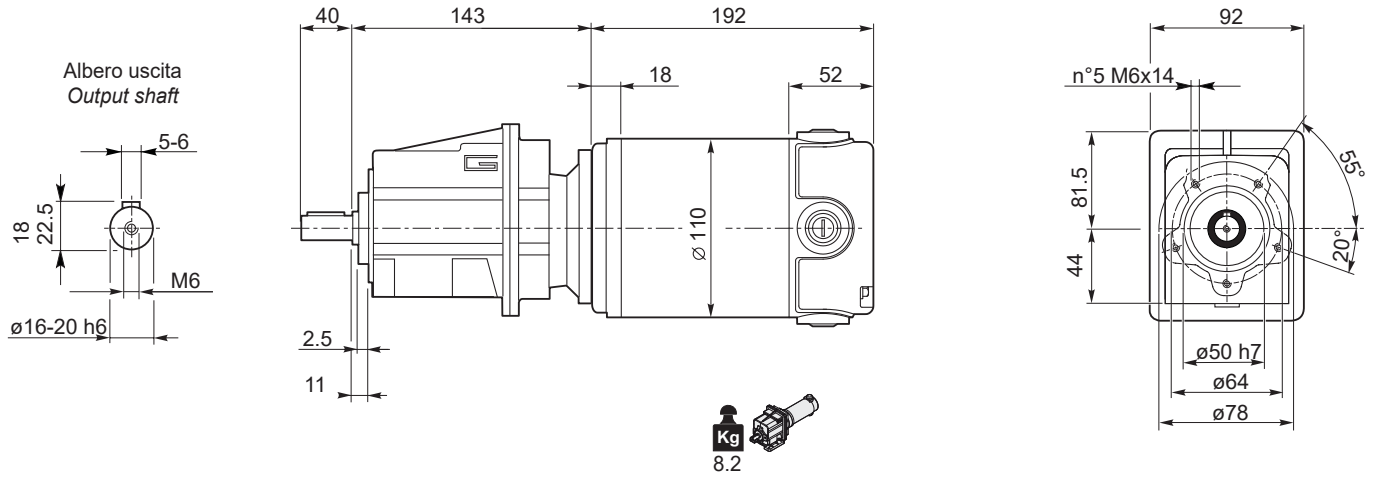


Dimensioni

Dimensions

ECMG..U

ECMG350/002 U



Freno / Brake



Motori / Motors IP66



ECMG...H



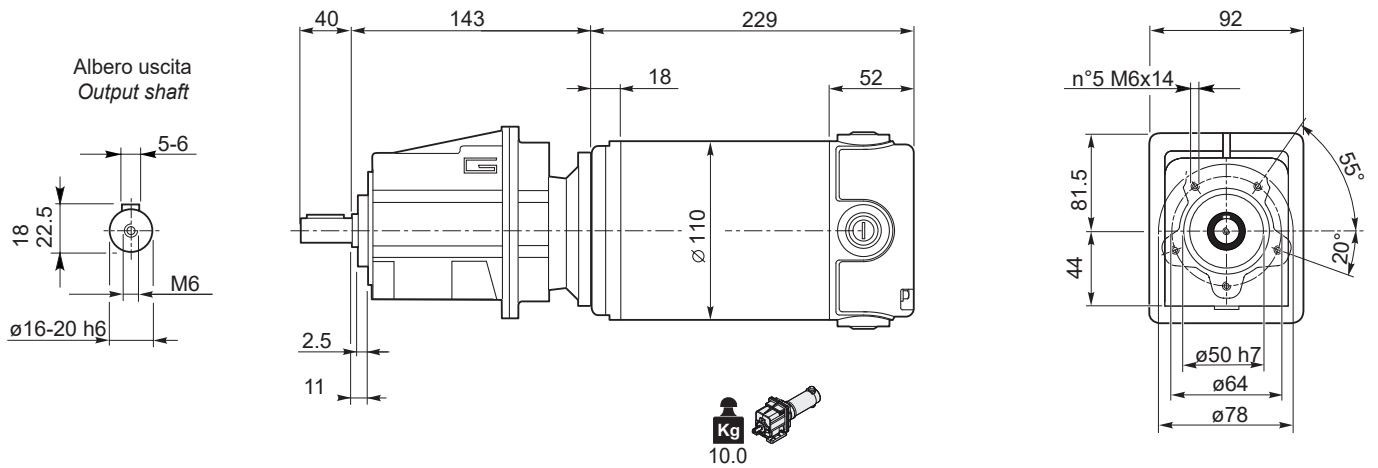
ECMG...F



ECMG...H/F



ECMG600/002 U



Freno / Brake



Motori / Motors IP66



ECMG...H



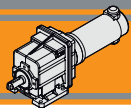
ECMG...F



ECMG...H/F



DC

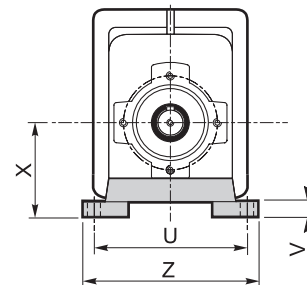
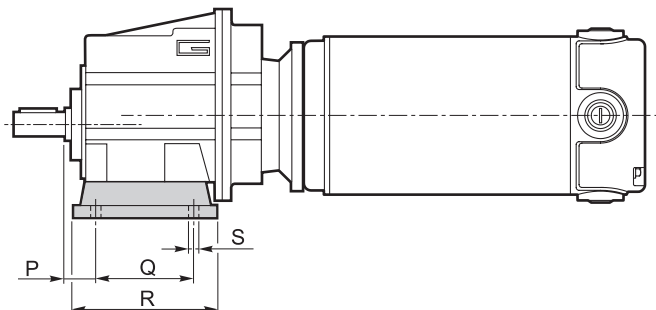


Dimensioni

Dimensions

NDCMG..H - ECMG..H

**NDCMG..2 H..
ECMG..2 H..**

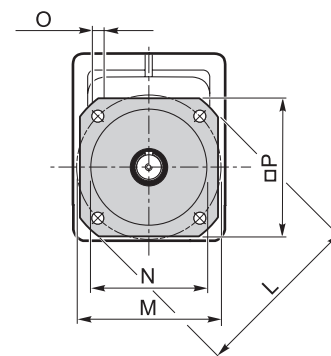
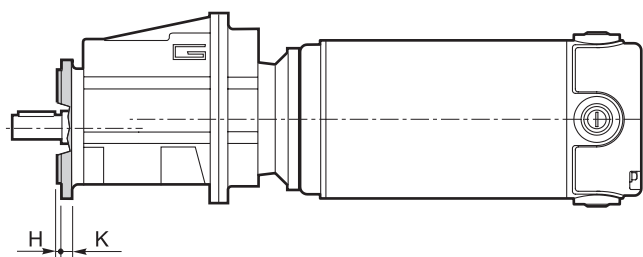


| Versione H / H Version | | | | | | | | | | |
|------------------------|----|---------|-----|---|-----------|----|----|-----|--------------|-----|
| CMG | P | Q | R | S | U | V | X | Z | Piede / Foot | |
| | | | | | | | | | Tipo / Type | Kg |
| 002 | 18 | 60 | 80 | 9 | 100 | 10 | 60 | 120 | H60 | 0.2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

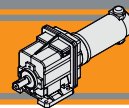
■ Preferenziale / Preferred

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 | |

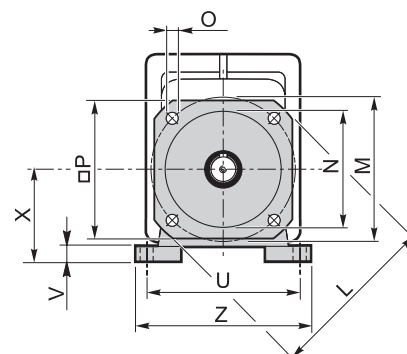
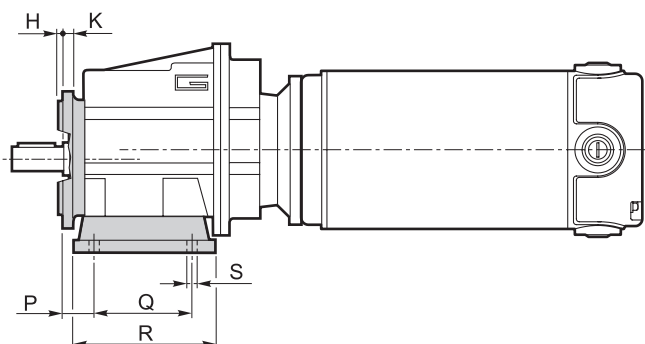


Dimensioni

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

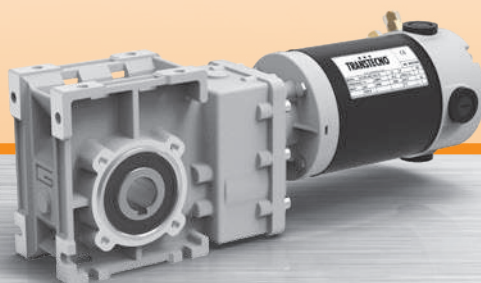
• Combinazioni possibili H/F / Possible combinations H/F

| 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

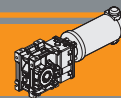
Motoriduttori CC ad assi ortogonali
DC helical bevel gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



DC



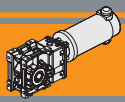
Pag.
Page



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| Designazione | <i>Classification</i> | BE2 |
| Sensi di rotazione | <i>Direction of rotation</i> | BE3 |
| Simbologia | <i>Symbols</i> | BE3 |
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| Motori applicabili | <i>Motor adapters</i> | BE6 |
| Dimensioni | <i>Dimensions</i> | BE6 |
| Accessori | <i>Accessories</i> | BE12 |

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Caratteristiche tecniche

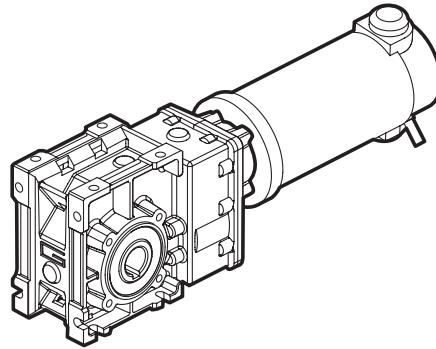
Technical features

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:

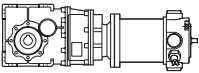
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 800W S2
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali, induriti e rettificati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

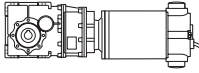

- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 to 800W S2
- Die-cast aluminum housing
- Permanent synthetic oil long-life lubrication
- Ground-hardened helical gears
- Available with input flexible couplin



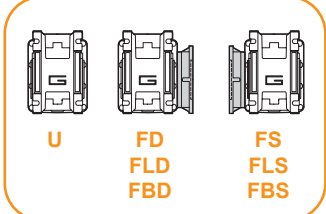
Designazione

Classification

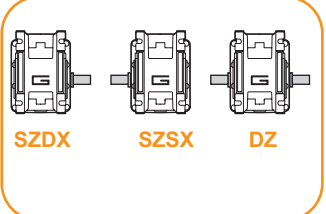
| MOTORIDUTTORE / GEARMOTOR | | | | | | | | |
|---|----------------------------------|--|-------------------------------------|-------------------------------------|---|---------------------------------|---|-------------------------------|
| NDCMB | 120/402 | U | 9.2 | D20 | SZDX | BRSX | 90 | 240 |
| 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  |

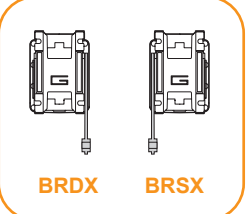
Versione Riduttore Gearbox Version



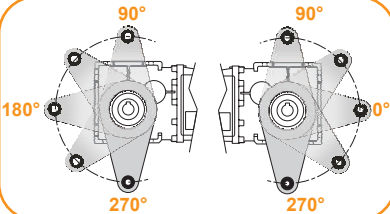
Albero di uscita Output shaft



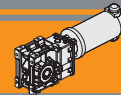
Braccio di reazione Torque arm *



Angolo Angle

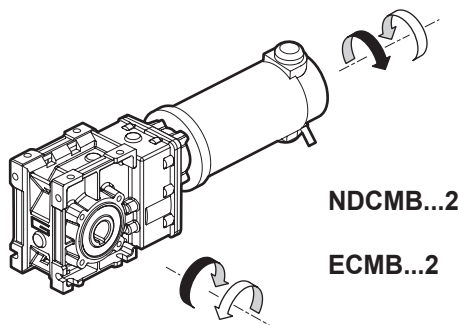


* NOTA: il braccio di reazione viene fornito smontato.
NOTE: the torque arm will be supplied not assembled.



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

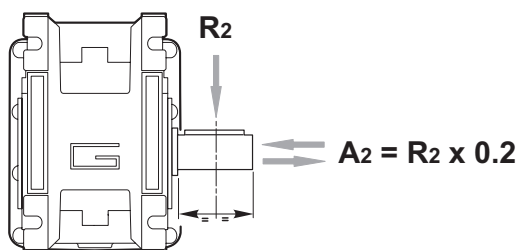
Lubrication

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

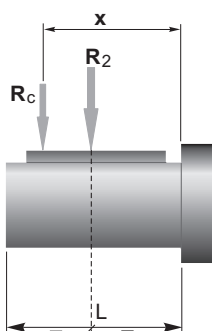
Radial loads



| 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:

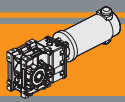


| | CMB 402 |
|------------|---------|
| a | 86 |
| b | 66 |
| R_{2MAX} | 3500 |

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

$$R \leq R_c$$

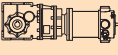
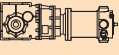
*a, b = valori riportati nella tabella
a, b = values given in the table*



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

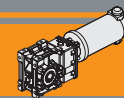
NOTE: for continuous or highly intermittent duty, please contact our technical service

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

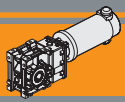
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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

Dati tecnici elettrici

Electrical technical data

| | | | | | |
|---------|---------|---------|---------|---------|---------|
| EC070 → | EC100 → | EC180 → | EC250 → | EC350 → | EC600 → |
|---------|---------|---------|---------|---------|---------|



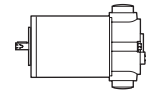
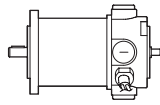
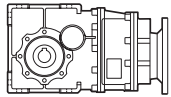
**NDCMB
ECMB**

**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 | | | | | | | |

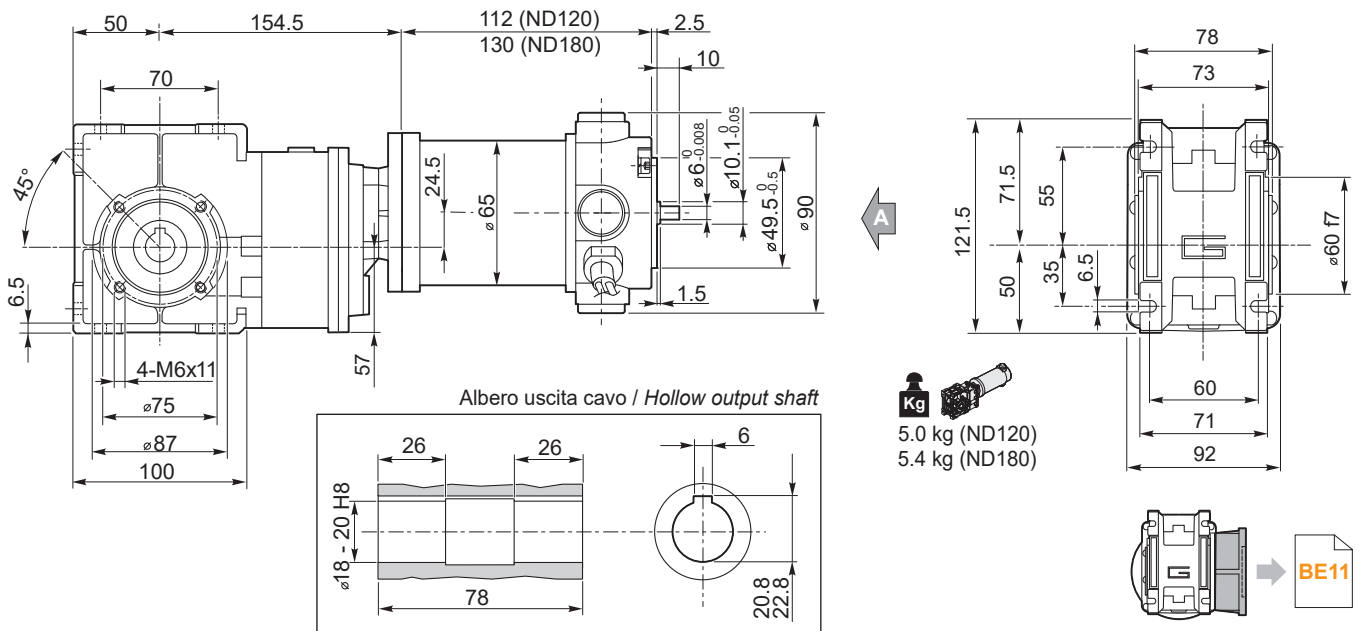
6.18 - 72.50

Rapporti di riduzione *i*
Ratio *i*

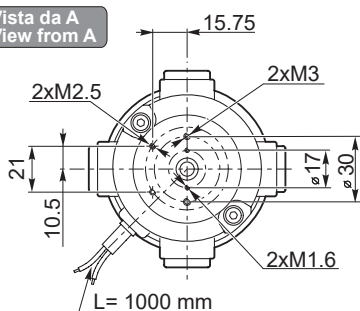
Dimensioni

Dimensions

**NDCMB120/402 U
NDCMB180/402 U**



Vista da A
View from A



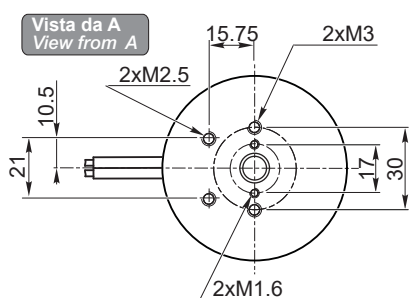
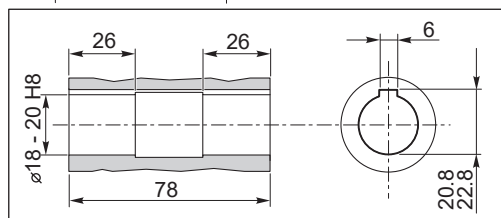
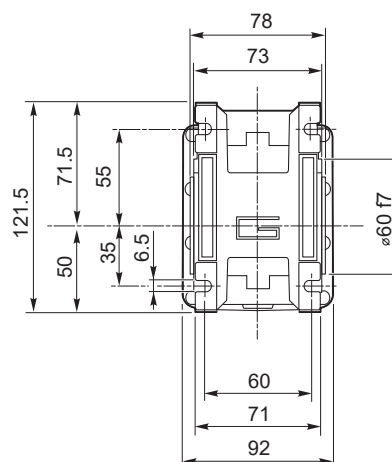
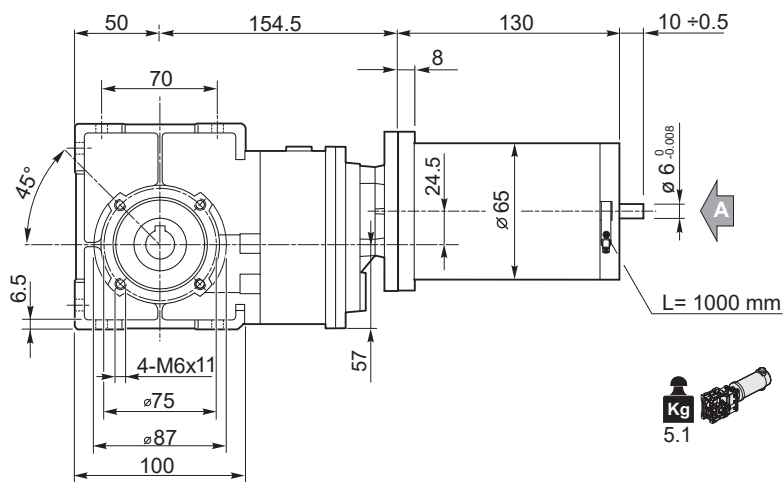
Freno / Brake → **BA9**

Encoder → **BA9**

Dimensioni

Dimensions

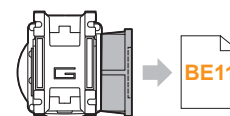
ECMB070/402 U

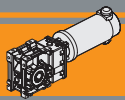


Freno / Brake → **BB23**

Encoder → **BB24**

Motori / Motors IP66 → **BC2**

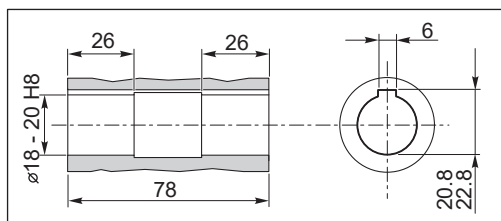
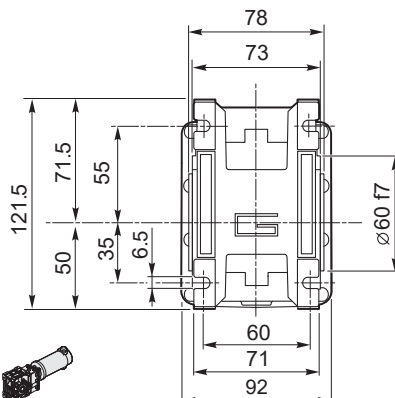
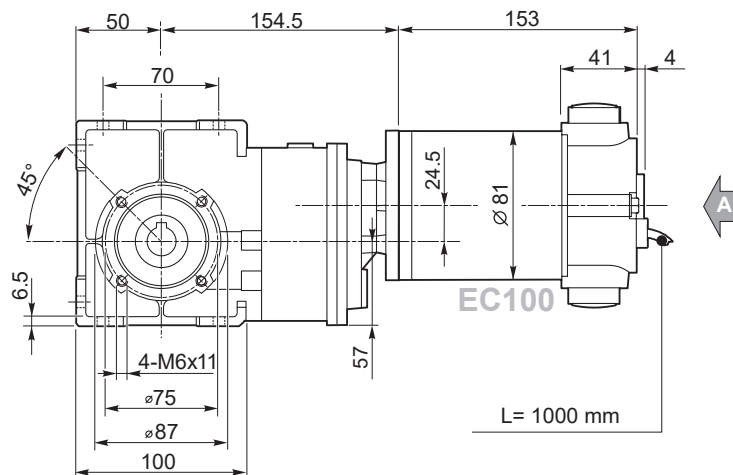




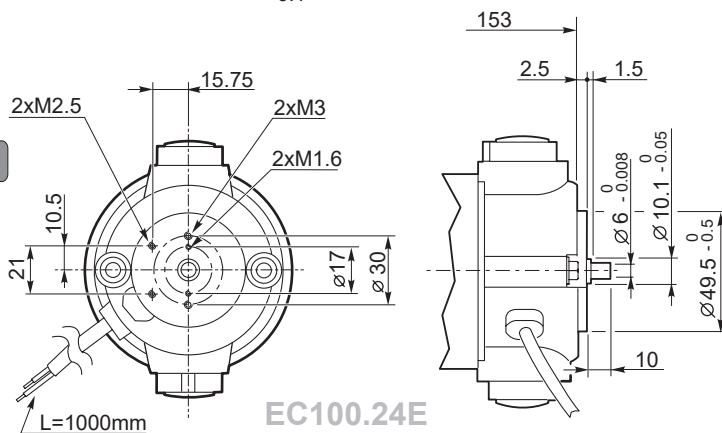
Dimensioni

Dimensions

ECMB100/402 U



Vista da A
View from A



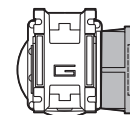
Motori / Motors IP66



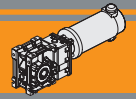
Encoder



Freno / Brake



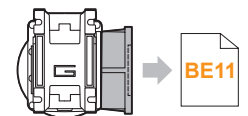
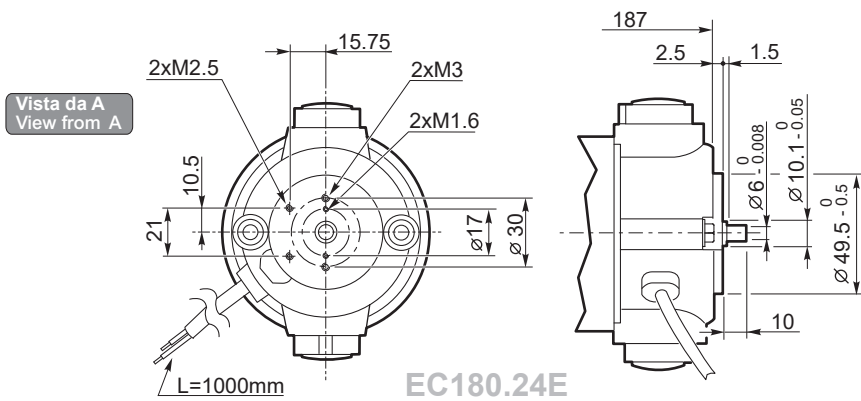
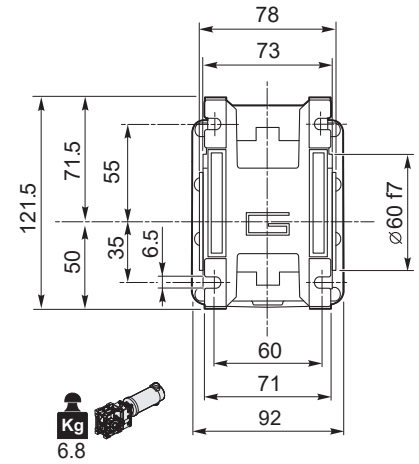
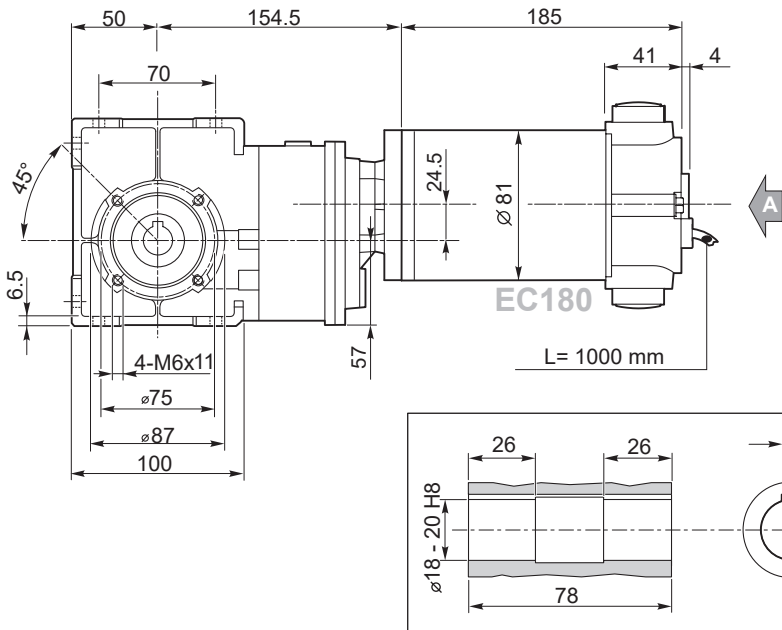
BE11



Dimensioni

Dimensions

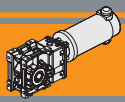
ECMB180/402 U



Freno / Brake

Encoder

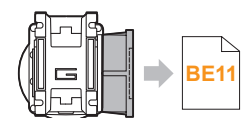
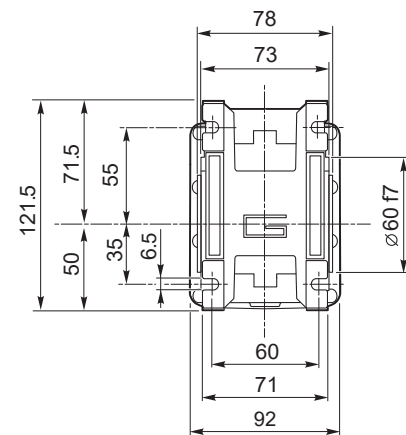
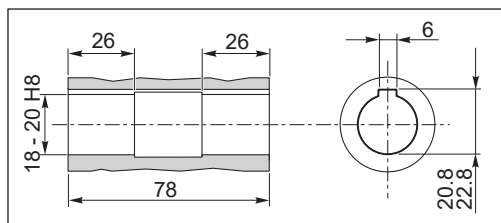
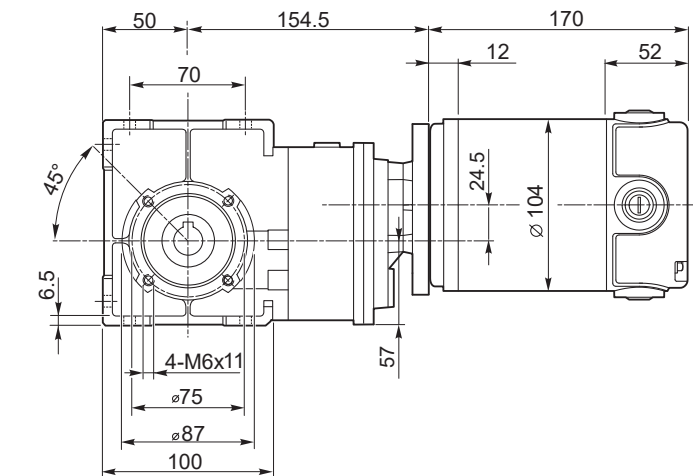
Motori / Motors IP66



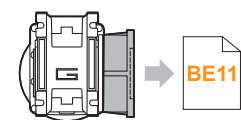
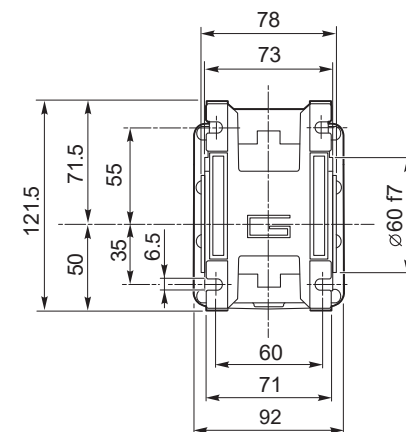
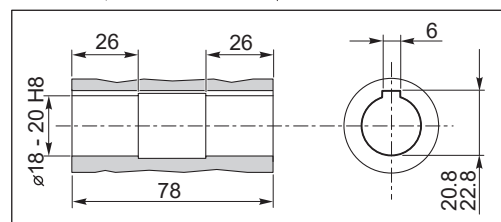
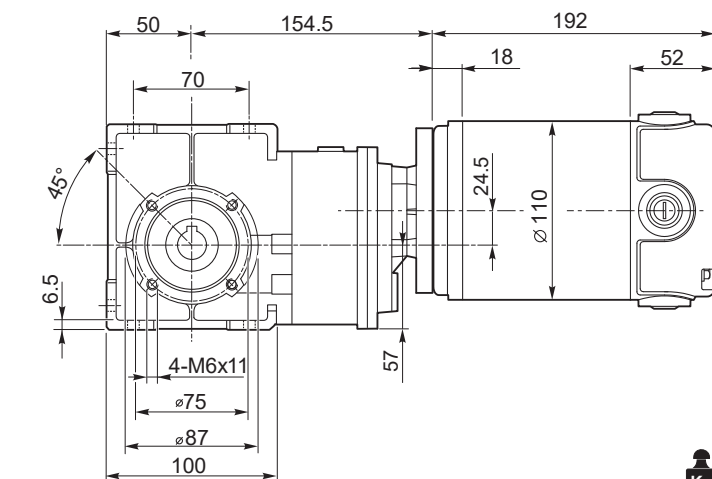
Dimensioni

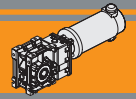
Dimensions

ECMB250/402 U



ECMB350/402 U

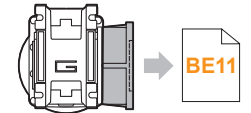
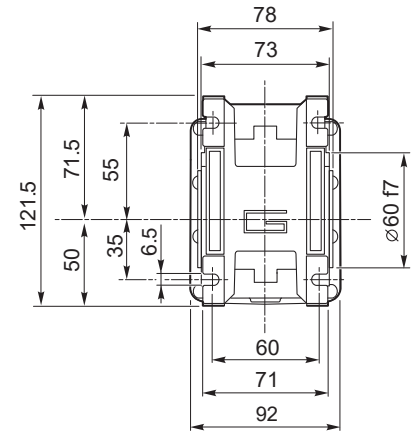
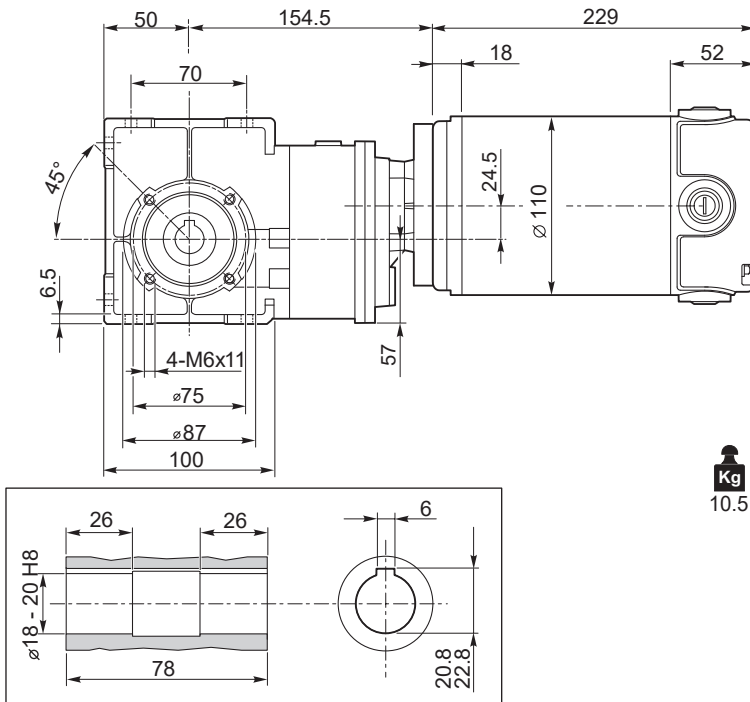




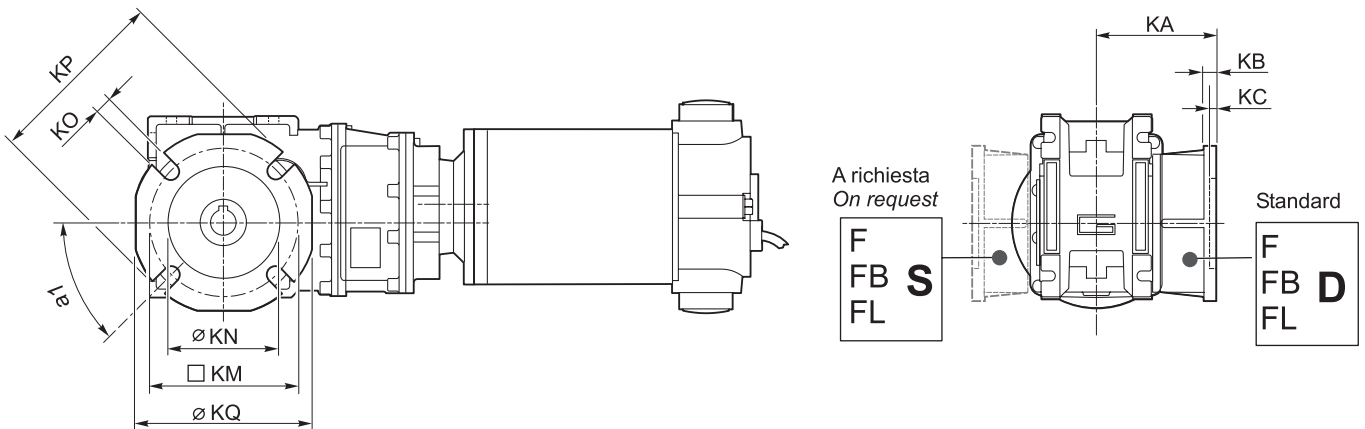
Dimensioni

Dimensions

ECMB600/402 U

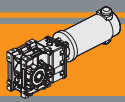


NDCMB.../ F... - ECMB.../... F... Flange uscita / Output flanges



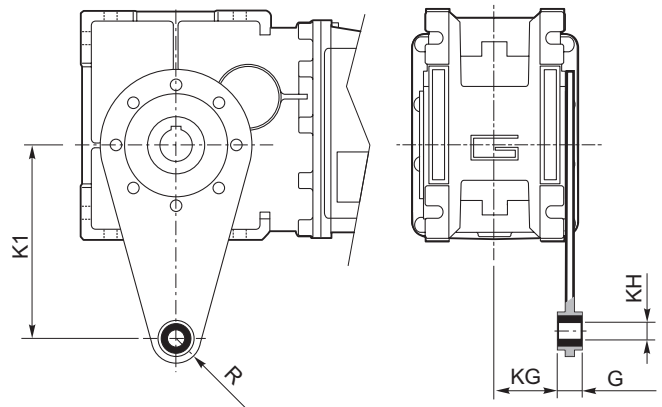
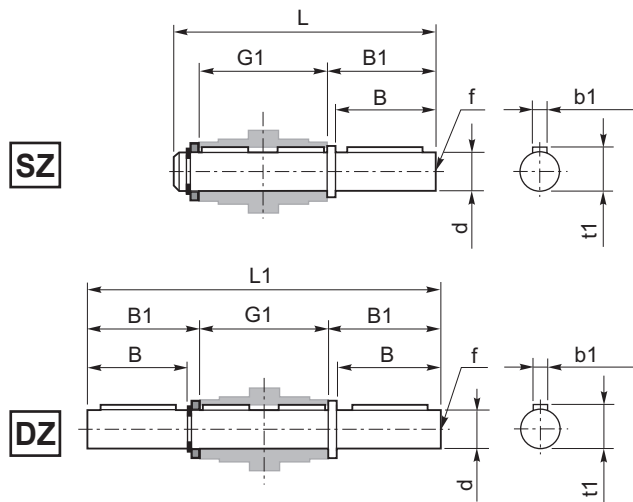
| CMB | Flange uscita / Output flanges | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|--------------------------------|----|-----|-----|-------|----------|----|-----|----|----------------|----|-----|-----|-------|----------|----|-----|----|----------------|----|-----|----|---------|----------|-----|-----|-----|
| | 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

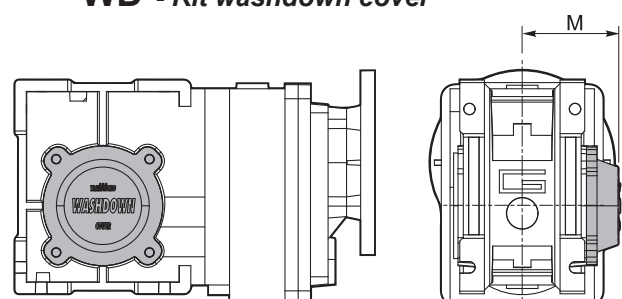
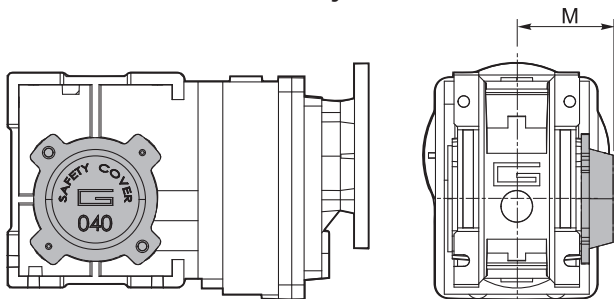
Braccio di reazione / Torque arm

| 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



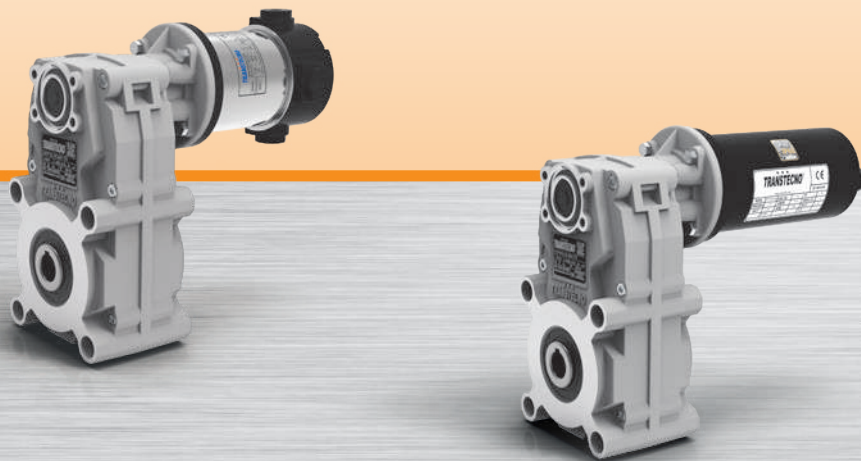
| CMB | M |
|------------|------|
| 402 | 54.5 |

| CMB | M |
|------------|------|
| 402 | 55.5 |

MINI  **TECNO**™
small but strong

NDFT
ECFT

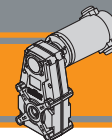
Motoriduttori CC pendolari
DC Helical parallel gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



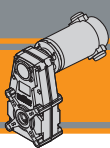
DC



| 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**

This section replaces any previous edition and revision. If you obtained this catalogue other than through controlled distribution channels, the most up to date content is not guaranteed. In this case the latest version is available on our web site www.transtecno.com

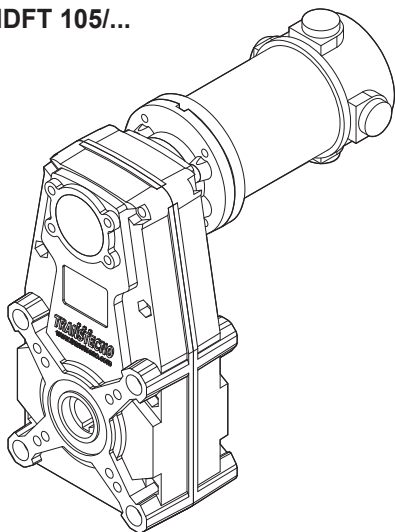
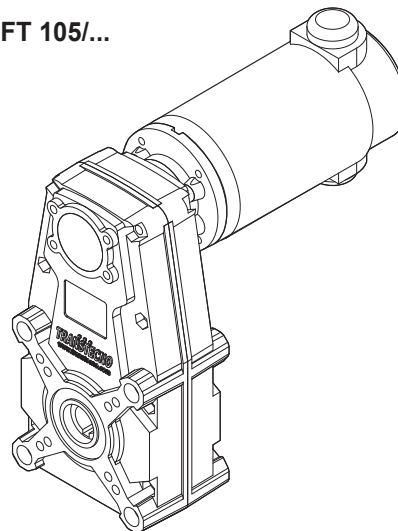
**NDFT
ECFT****Motoriduttori CC pendolari
DC Helical parallel gearmotors****Caratteristiche tecniche****Technical features**

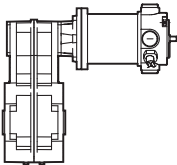
I motoriduttori CC pendolari a magneti permanenti in neodimio **NDFT** e in ferrite **ECFT** hanno le seguenti caratteristiche principali:

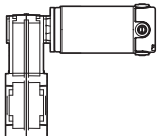
NDFT neodymium permanent magnets and **ECFT** ferrite permanent magnets DC helical parallel gearmotors range has the following main features:

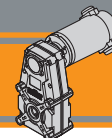
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 800W S2
- Carcasce dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico
- Ingranaggi cilindrici a denti elicoidali.

- 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 |

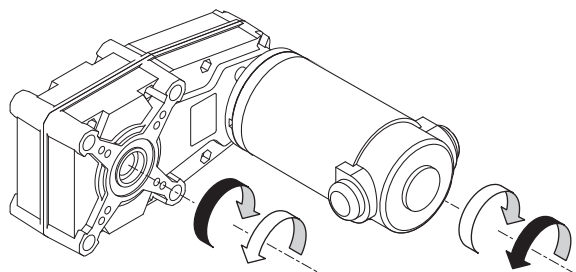
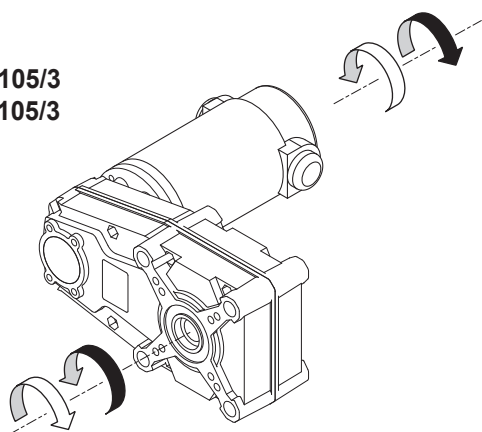
| MOTORIDUTTORE / GEARMOTORS | | | | | |
|--|---|---------------------|----------------------------|---|--|
| ECFT | 180/105 | U | 60.63 | O20 | 240 |
| Tipo Type | Grandezza Size | Versione Version | Rapporto Ratio | Albero cavo uscita Hollow output shaft | Versione motore Motor version |
| ECFT  | 070/105... 100/105... 180/105... | U... | vedi tabelle see tables | vedi tabelle see tables | 120 240 12E 24E |



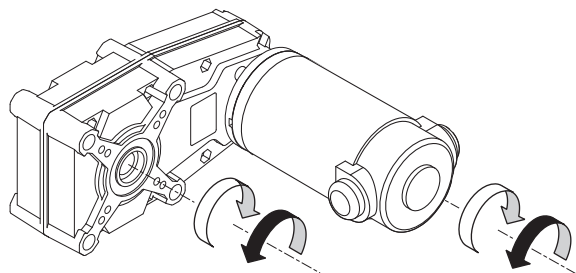
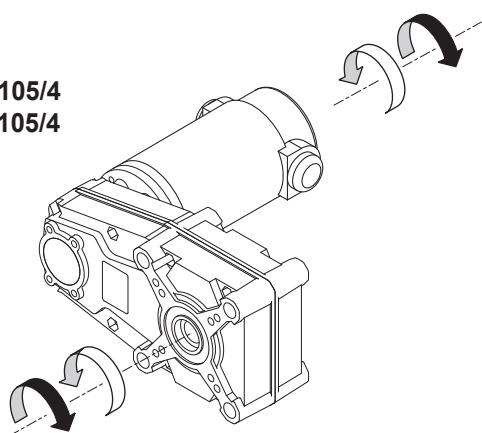
Sensi di rotazione

Direction of rotation

NDFT 105/3
ECFT 105/3



NDFT 105/4
ECFT 105/4



Simbologia

Symbols

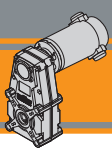
| | | |
|----------|-----------------------|--|
| n_1 | [min^{-1}] | Velocità in ingresso / <i>Input speed</i> |
| n_2 | [min^{-1}] | Velocità in uscita / <i>Output speed</i> |
| i | | Rapporto di riduzione / <i>Ratio</i> |
| P_1 | [kW] | Potenza in entrata / <i>Input power</i> |
| M_2 | [Nm] | Coppia 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

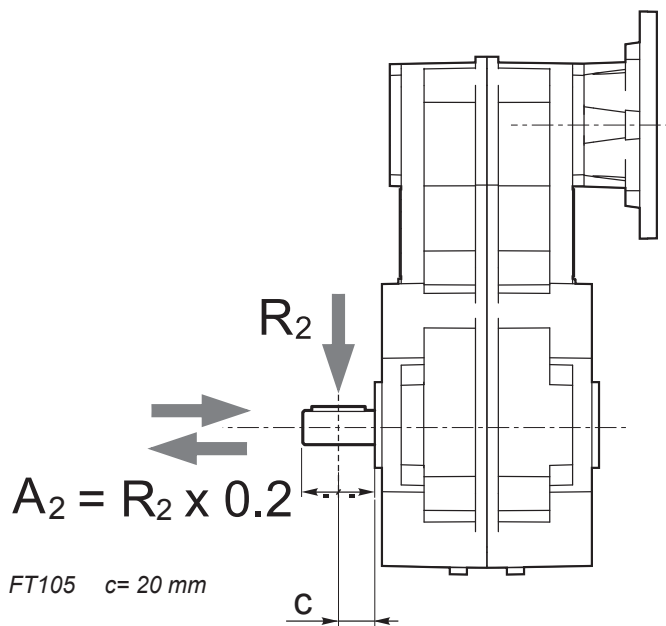
Tutti i motoriduttori sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

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

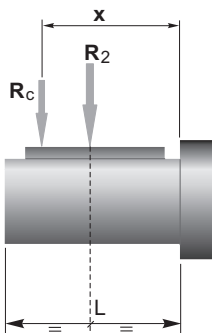
Radial loads



| 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:

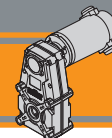




| | FT105 |
|------------|-------|
| a | 82 |
| b | 62 |
| R_{2MAX} | 2000 |

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

$$R \leq R_c$$

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

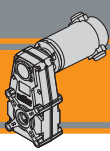
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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 |
|---------------------------|--|------------------------|-----|--------|---|----------------------------------|
| 100 | | | | | | |
| (3000 min ⁻¹) | 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 | | |
| | 8.1 | 86 | 0.6 | 368.19 |  | 070/105/4 12E/24E |
| | 5.6 | 86 | 0.6 | 534.98 | | |
| | 4.5 | 86 | 0.6 | 661.76 | | |
| | 3.2 | 86 | 0.6 | 929.40 | | |

| P ₁ [W] | n ₂ [min ⁻¹] | M ₂ [Nm] | sf | i |  | Versione motore Motor version |
|---------------------------|--|------------------------|-----|-------|---|----------------------------------|
| 250 | | | | | | |
| (3000 min ⁻¹) | 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) | 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

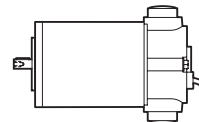
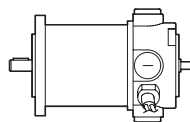
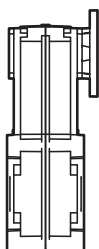
Dati tecnici elettrici

Electrical technical data



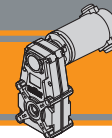
Motori applicabili

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

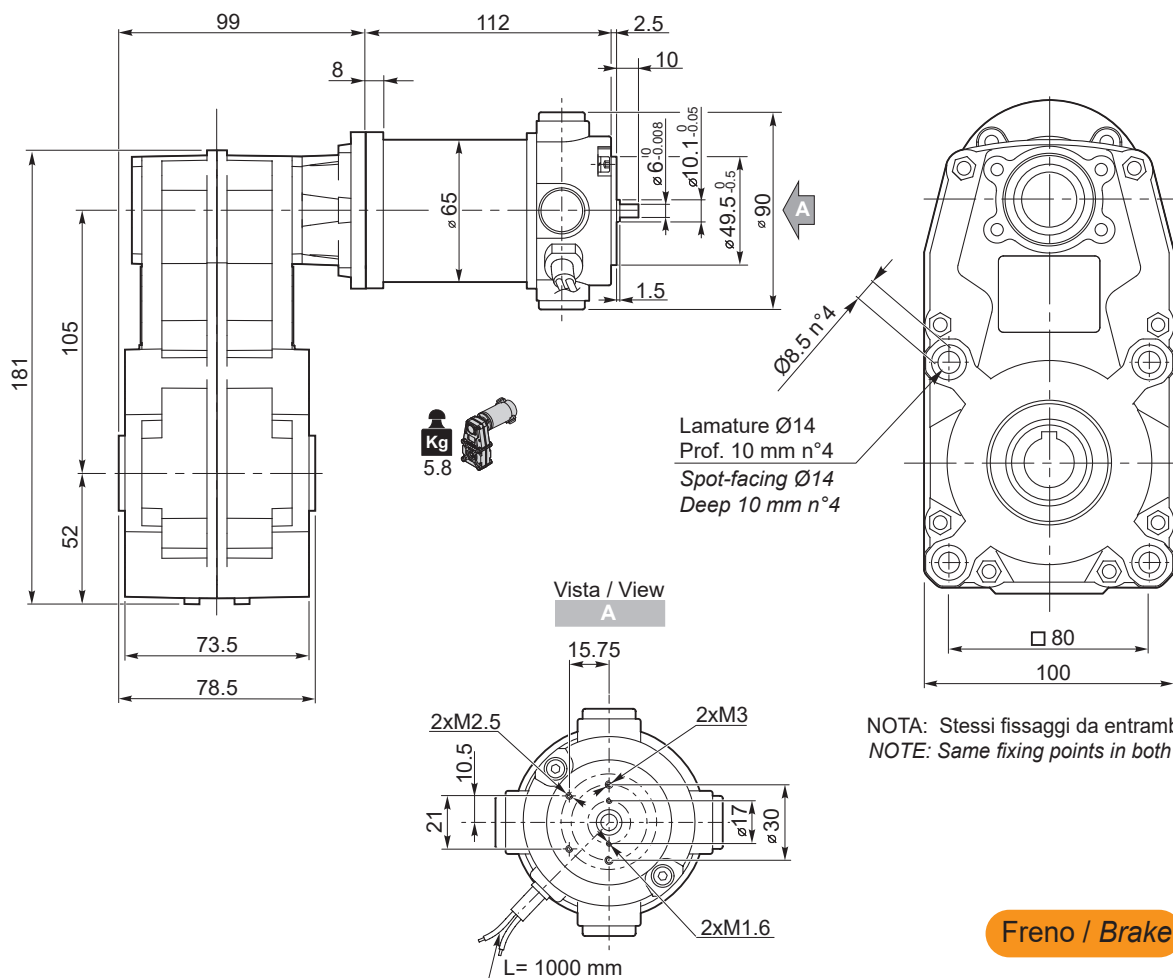


Dimensioni

Dimensions

NDFT 120/105

NDFT 120/105...U

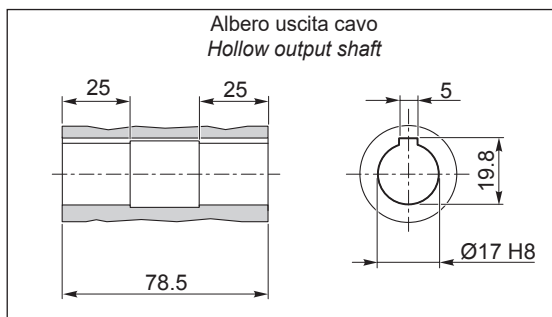


Lamature $\varnothing 14$
Prof. 10 mm n°4
Spot-facing $\varnothing 14$
Deep 10 mm n°4

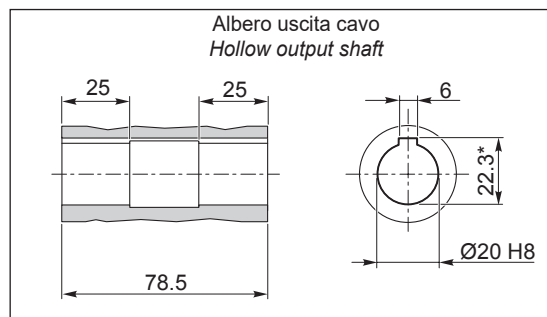
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

- Freno / Brake → BA9
- Encoder → BA9

O17

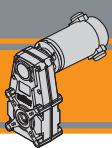


O20



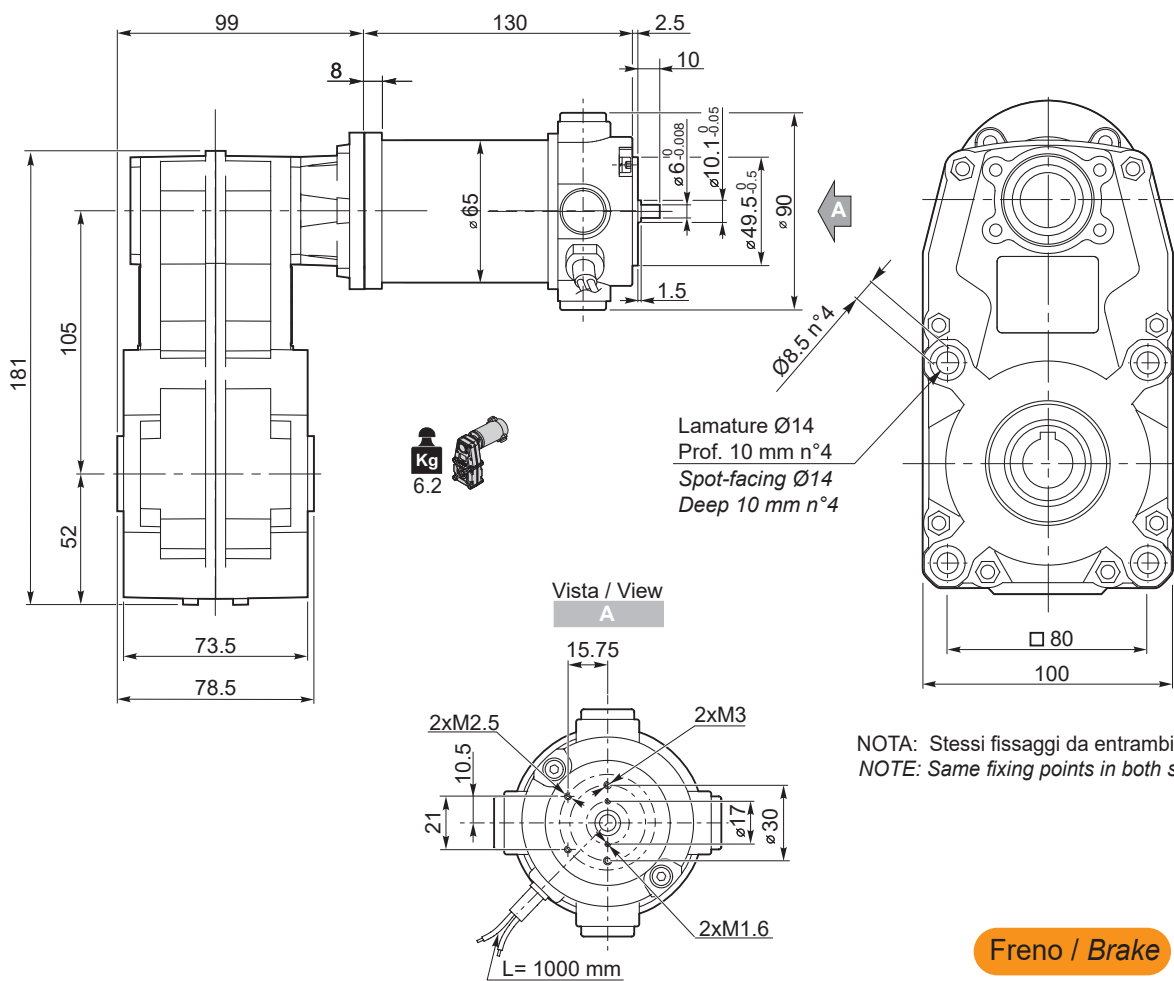
*: Sede linguetta ribassata / Special keyway

DC



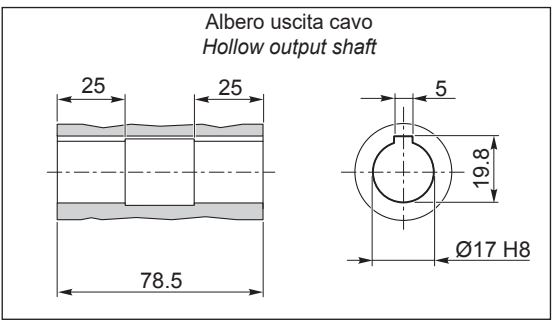
NDFT 180/105

NDFT 180/105...U

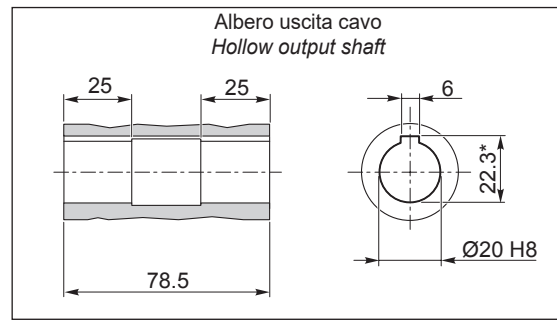


- Freno / Brake → BA9
- Encoder → BA9

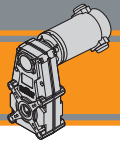
O17



O20



*: Sede linguetta ribassata / Special keyway

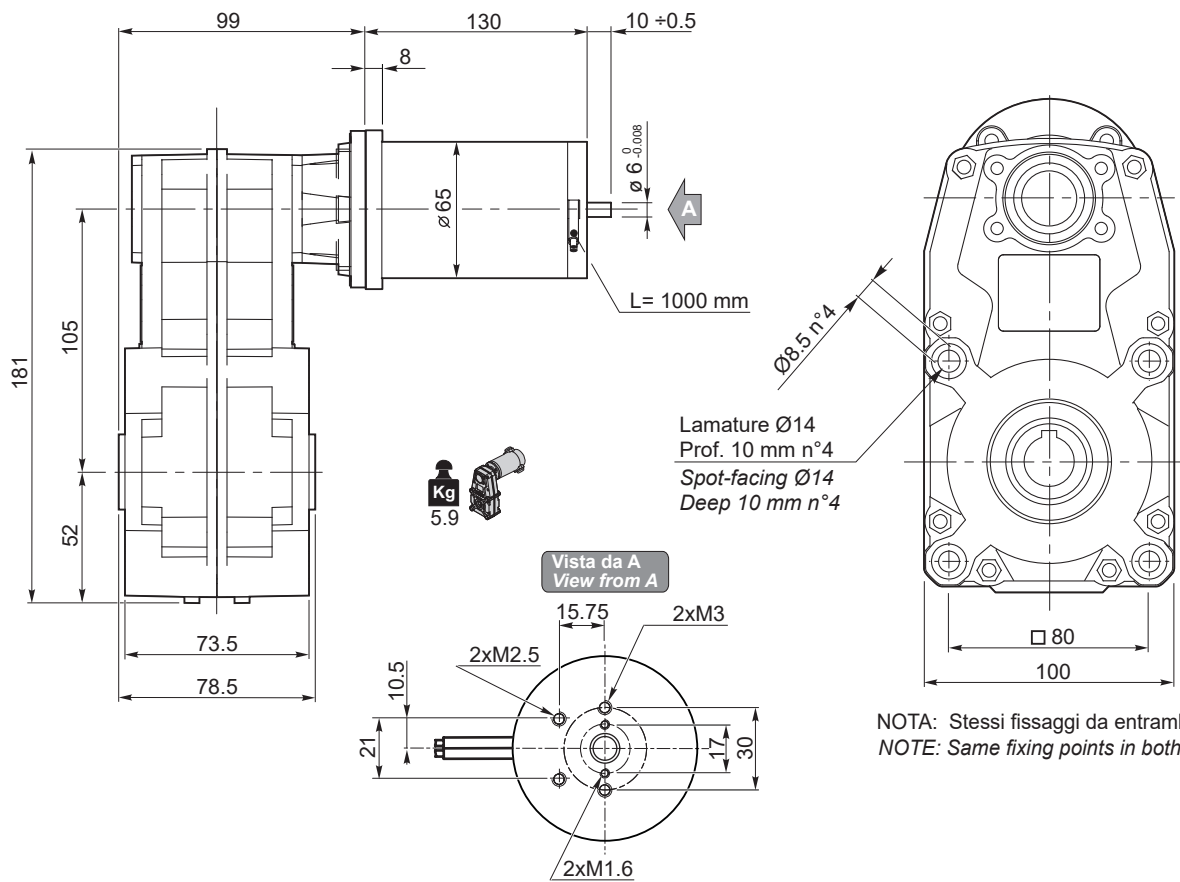


Dimensioni

Dimensions

ECFT 070/105

ECFT 070/105...U

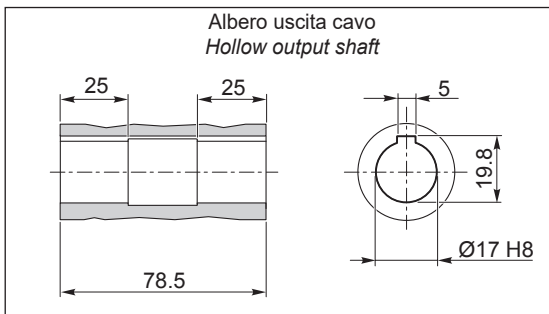


Freno / Brake → BB23

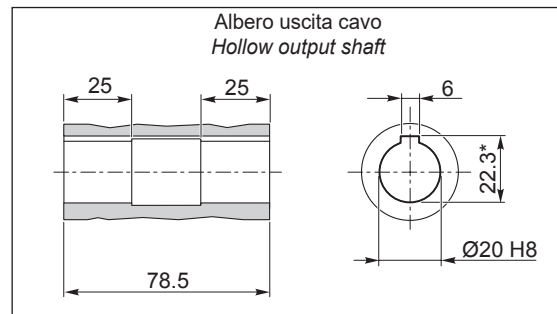
Encoder → BB24

Motori / Motors IP66 → BC2

O17

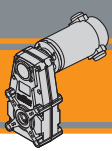


O20



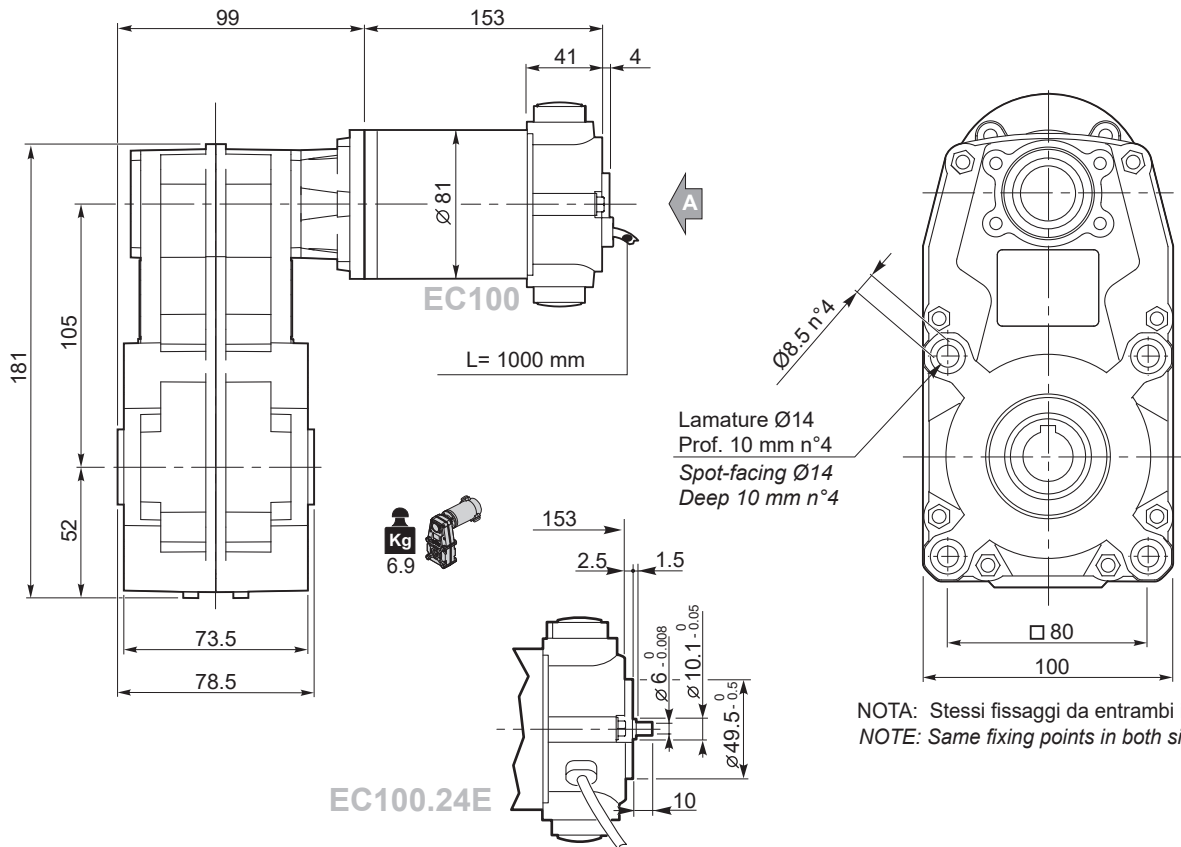
*: Sede linguetta ribassata / Special keyway

DC

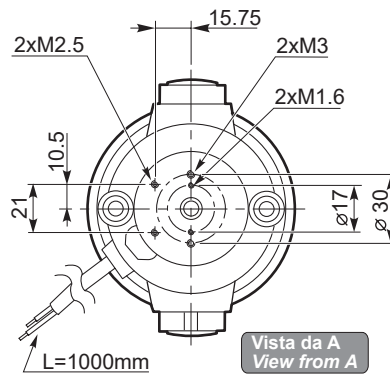


ECFT 100/105

ECFT 100/105...U



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

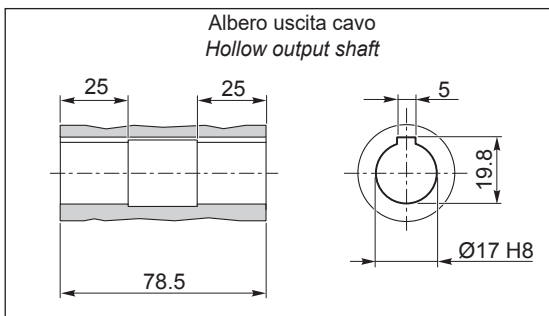


Freno / Brake → BB23

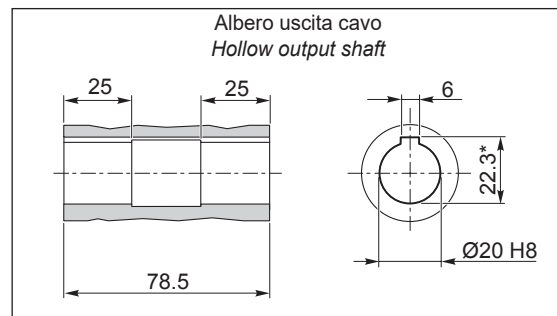
Encoder → BB24

Motori / Motors IP66 → BC4

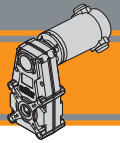
O17



O20



*: Sede linguetta ribassata / Special keyway

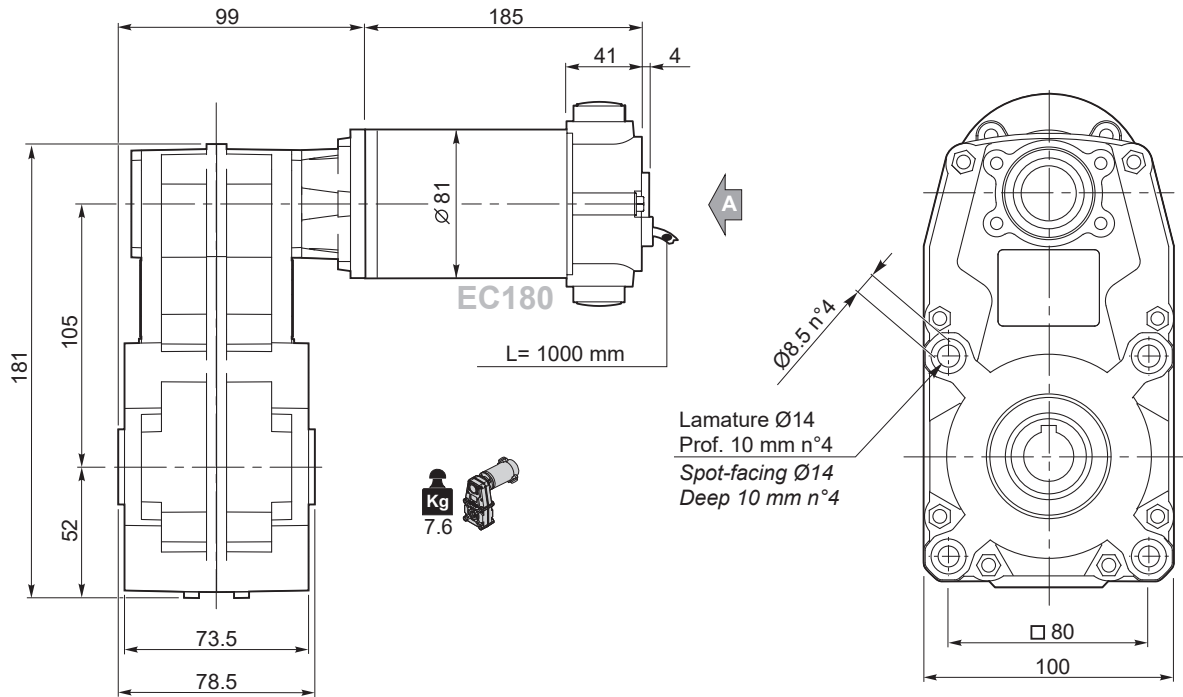


Dimensioni

Dimensions




ECFT 180/105

ECFT 180/105...U

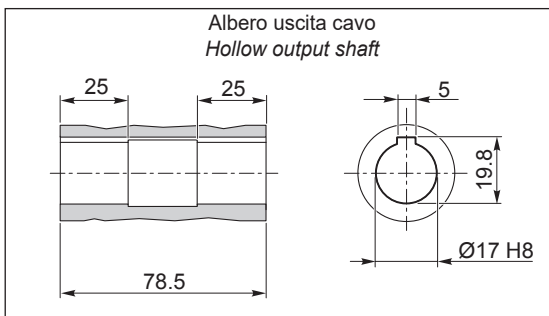


Lamature $\varnothing 14$
Prof. 10 mm n°4
Spot-facing $\varnothing 14$
Deep 10 mm n°4

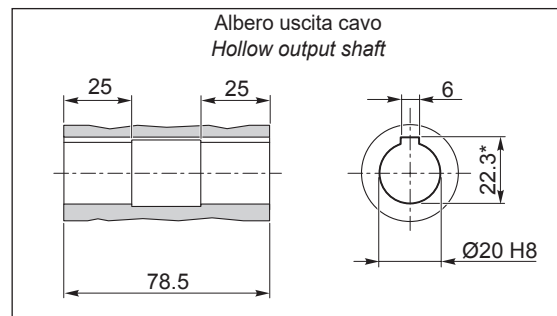
NOTA: Stessi fissaggi da entrambi i lati
NOTE: Same fixing points in both sides

- Freno / Brake →  **BB23**
- Encoder →  **BB24**
- Motori / Motors IP66 →  **BC6**

O17



O20



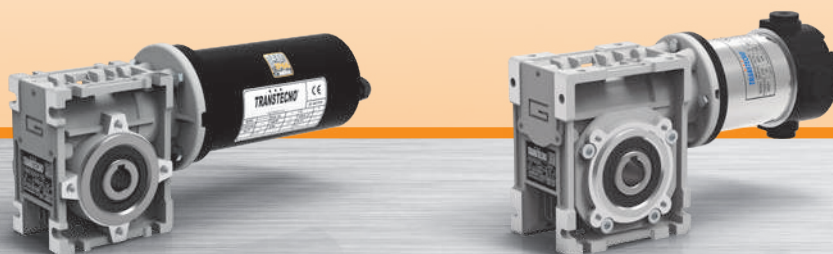
*: Sede linguetta ribassata / Special keyway

DC

MINI  **TECNO**™
small but strong

NDCM
ECM

Motoriduttori CC a vite senza fine
DC wormgearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



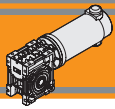
DC



| Indice | Index | Pag. Page |
|------------------------------|-----------------------------------|--------------|
| Caratteristiche tecniche | <i>Technical features</i> | BG2 |
| 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 |
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Questa sezione annulla e sostituisce ogni precedente edizione o revisione. Qualora questa sezione non Vi sia giunta in distribuzione controllata, l'aggiornamento dei dati ivi contenuto non è assicurato. **In tal caso la versione più aggiornata è disponibile sul nostro sito internet www.transtecno.com**

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Caratteristiche tecniche

Technical features

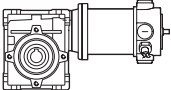
I motoriduttori CC a vite senza fine a magneti permanenti in neodimio **NDCM** e in ferrite **ECM** hanno le seguenti caratteristiche principali:

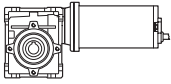
NDCM neodymium permanent magnets and **ECM** ferrite permanent magnets DC wormgearmotors range has the following main features:

- 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

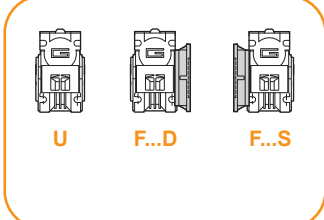
Designazione

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 | | | | | | | |

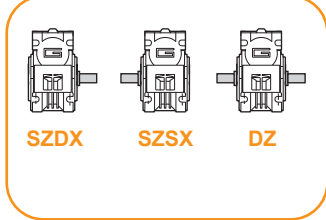
| MOTORIDUTTORE / GEARMOTOR | | | | | | | | | | | |
|---|-------------------|---------------|---------------|---------------|---------------------------------------|-------------------|----------------------------------|-----------------------------------|-----------------|----------------------------------|--------------------|
| 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 | 250/030 | U F... | Vedere tabella See tables | SZDX SZSX DZ | BRDX BRSX | 0° 90° 180° 270° | 120 240 24E |
| | 035/026 (D11) | 070/026 (D11) | 100/026 (D11) | 180/026 (D11) | 250/040 | | | | | | |
| | 035/026 (D14) | 070/026 (D14) | 100/026 (D14) | 180/026 (D14) | 350/030 | | | | | | |
| | 035/030 | 070/030 | 100/030 | 180/030 | 350/040 | | | | | | |
| | 050/026 | | 100/040 | 180/040 | 600/040 | | | | | | |
| | 050/026 (D11) | | | | | | | | | | |
| | 050/026 (D14) | | | | | | | | | | |
| 050/030 | | | | | | | | | | | |

Versione Riduttore
Gearbox Version



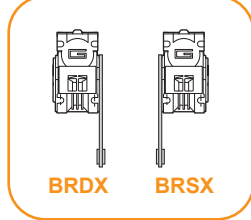
U F...D F...S

Albero di uscita
Output shaft



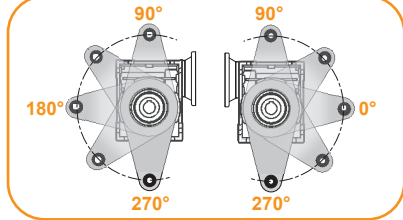
SZDX SZSX DZ

Braccio di reazione
Torque arm



BRDX BRSX

Angolo
Angle



90° 90°
180° 0°
270° 270°

* 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

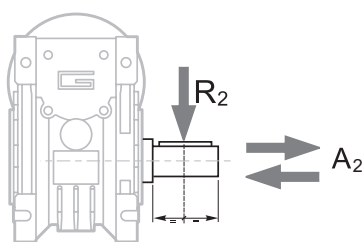
Lubrication

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

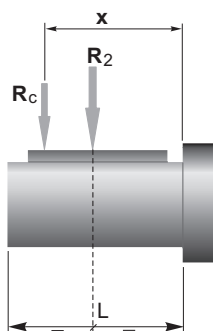


$$A_2 = R_2 \times 0.2$$

| 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:

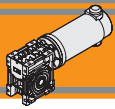


$$R_c = \frac{R_2 \cdot a}{(b + x)} \leq R_{2MAX}$$

$$R \leq R_c$$

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

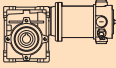
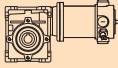
Efficiency

| | 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

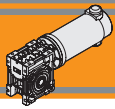
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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 | | |
| | 50 | 18 | 1.6 | 60 | | |
| | 38 | 21 | 1.3 | 80 | | |
| | 30 | 25 | 1.0 | 100 | | |
| | 100 | 10 | 3.7 | 30 |  | ECM100/040 120/240/24E |
| | 75 | 13 | 2.6 | 40 | | |
| | 60 | 15 | 2.1 | 50 | | |
| | 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 |
|-----------------------|--|------------------------|----|---|--|----------------------------------|
|-----------------------|--|------------------------|----|---|--|----------------------------------|

| P ₁ [W] | n ₂ [min ⁻¹] | M ₂ [Nm] | sf | i | | Versione motore Motor version |
|-----------------------|--|------------------------|----|---|--|----------------------------------|
|-----------------------|--|------------------------|----|---|--|----------------------------------|

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

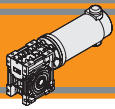
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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

Dati tecnici elettrici

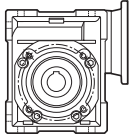
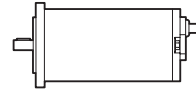
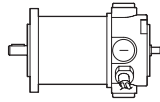
Electrical technical data

| | | | |
|----------------|----------------|----------------|----------------|
| EC180 → | EC250 → | EC350 → | EC600 → |
|----------------|----------------|----------------|----------------|



Motori applicabili

Motor adapters



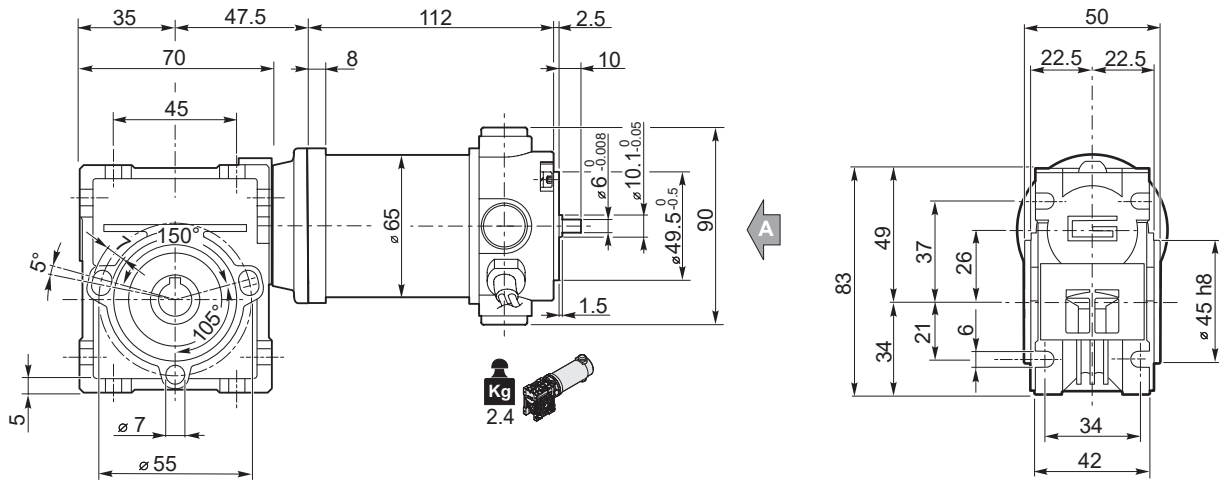
| | | ND | | EC | | | | | | | | |
|----|-----|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------------------|--------------------|---------|--------------------|--------------------|--------------------|
| | | 120.120 120.240 | 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

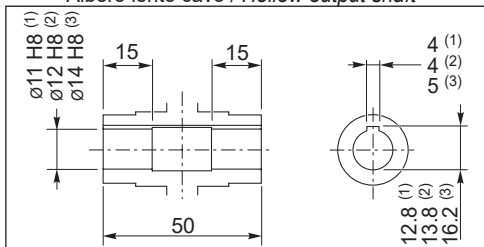
Dimensioni

Dimensions

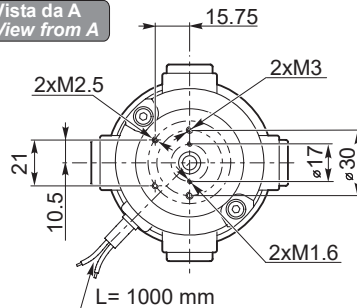
NDCM120/026 U



Albero lento cavo / Hollow output shaft



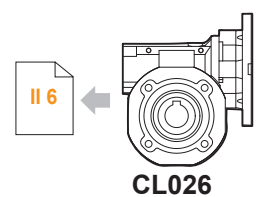
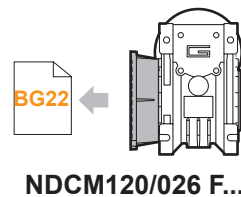
Vista da A
View from A

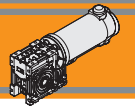


Freno / Brake → BA9

Encoder → BA9

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

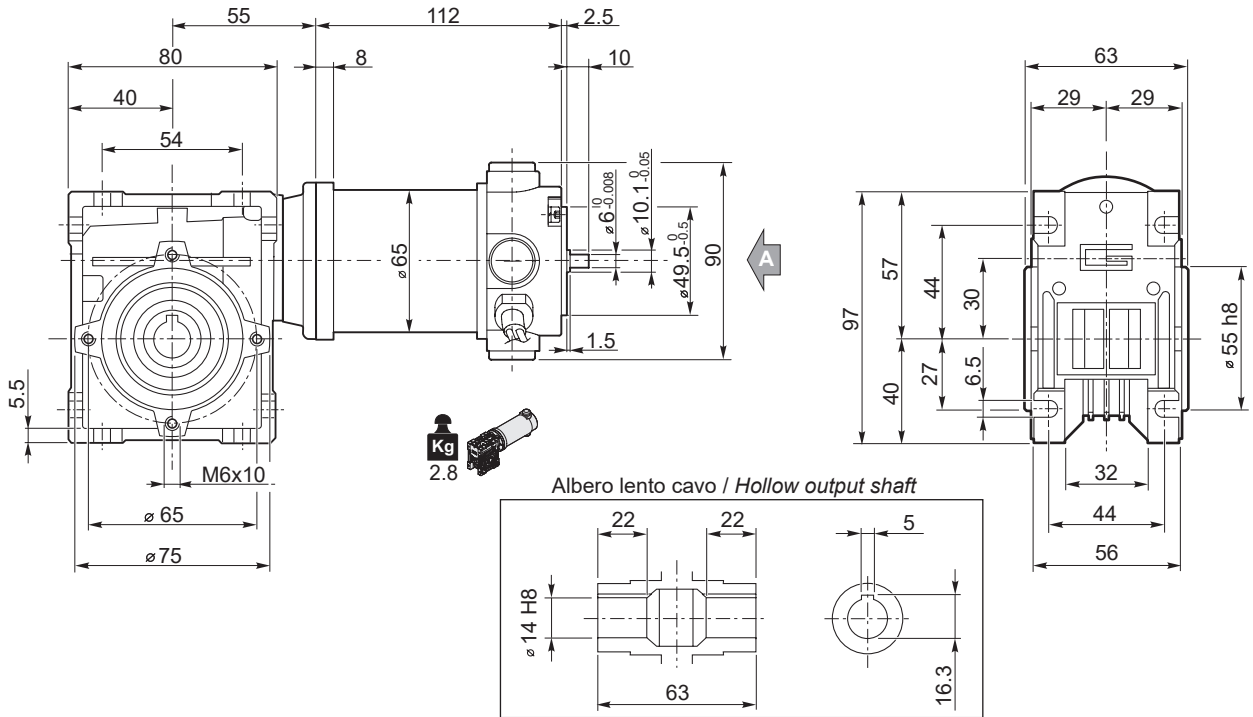




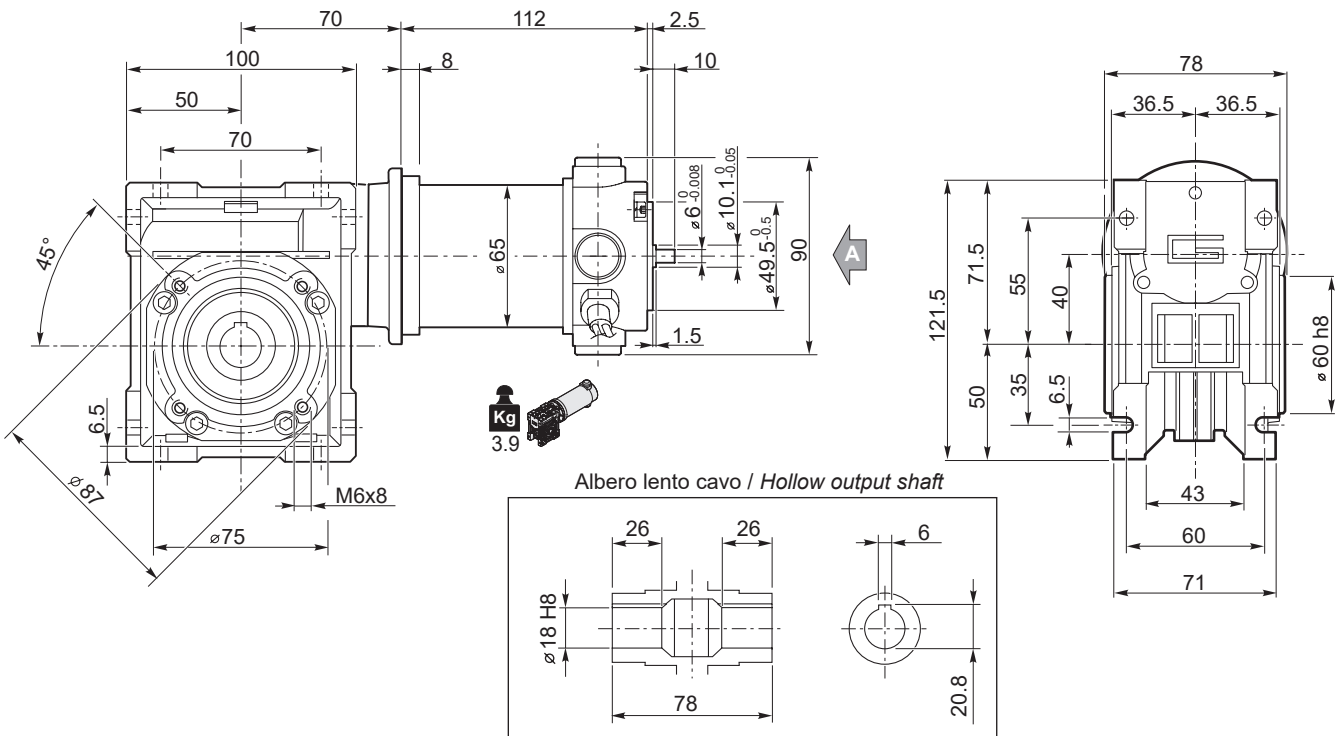
Dimensioni

Dimensions

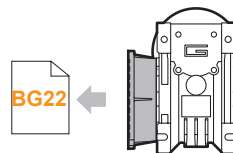
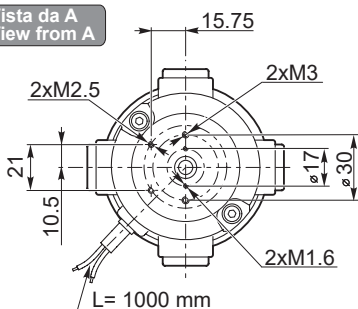
NDCM120/030 U



NDCM120/040 U

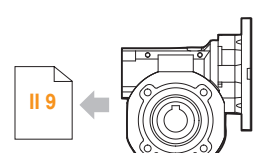


Vista da A
View from A



NDCM120/030 F
NDCM120/040 F...

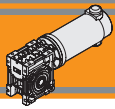
Freno / Brake



CL030
CL040

Encoder

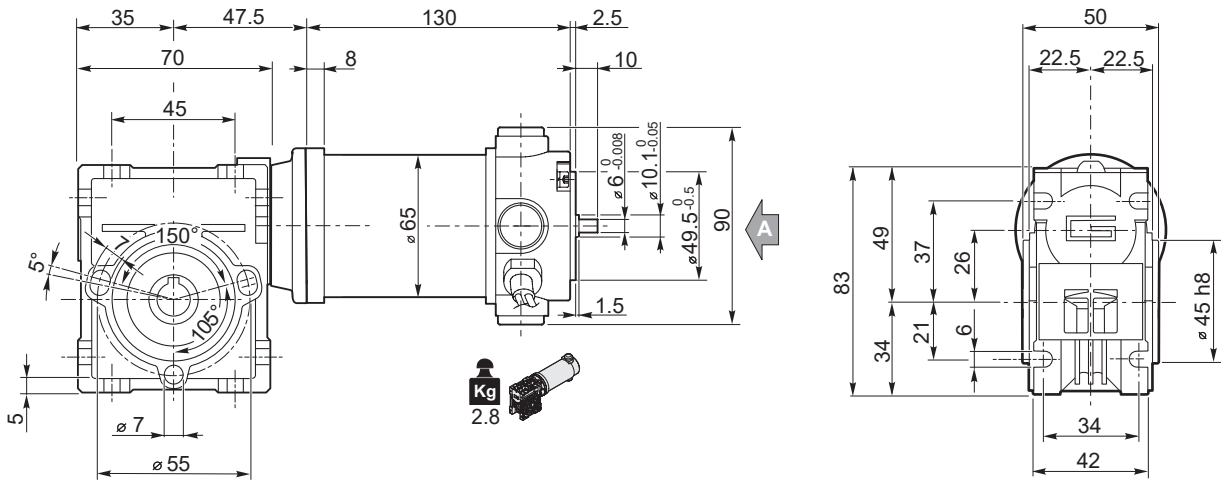




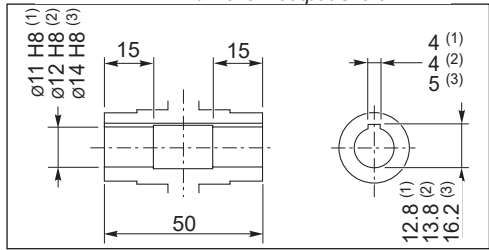
Dimensioni

Dimensions

NDCM180/026 U

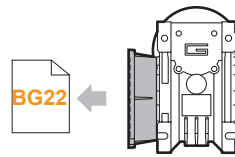
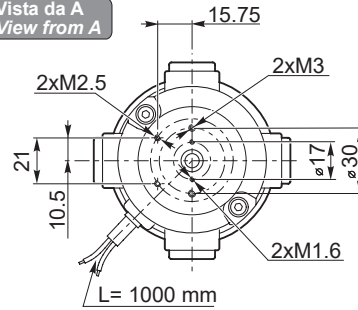


Albero lento cavo / Hollow output shaft

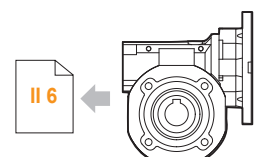


- (1): NDCM 180/026 (D11)
- (2): NDCM 180/026
- (3): NDCM 180/026 (D14)

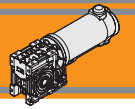
Vista da A View from A



NDCM180/026 F...



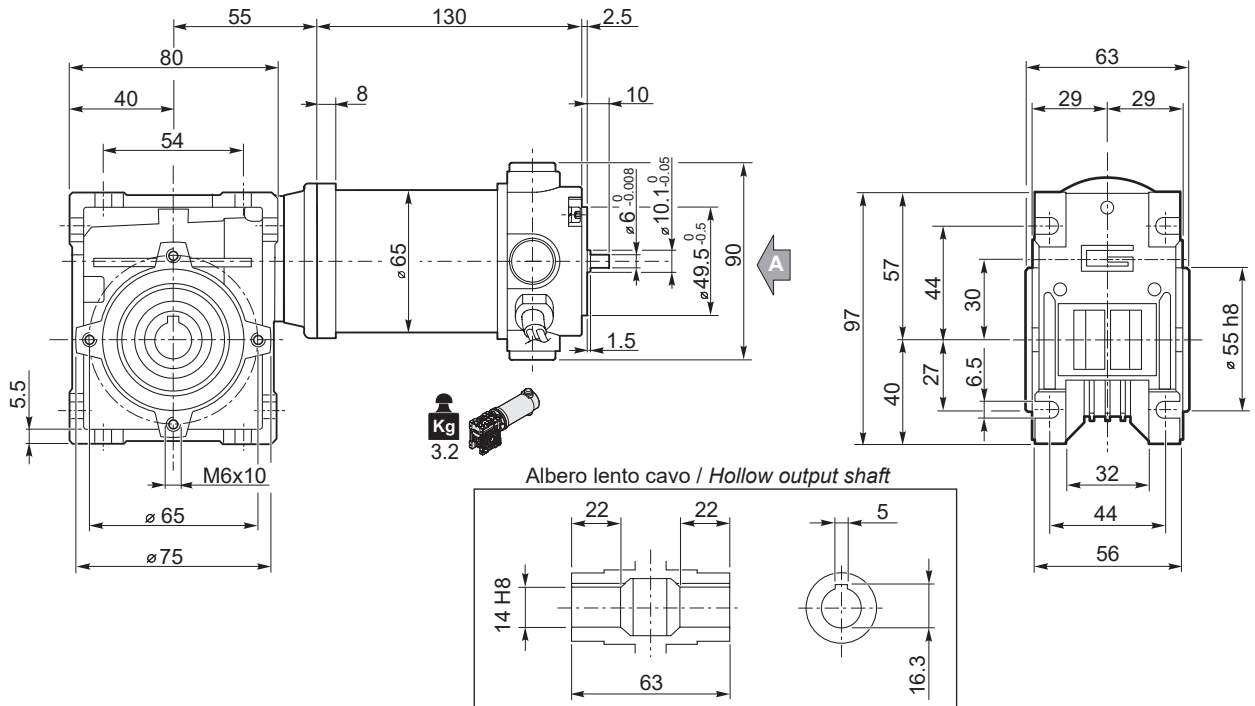
CL026



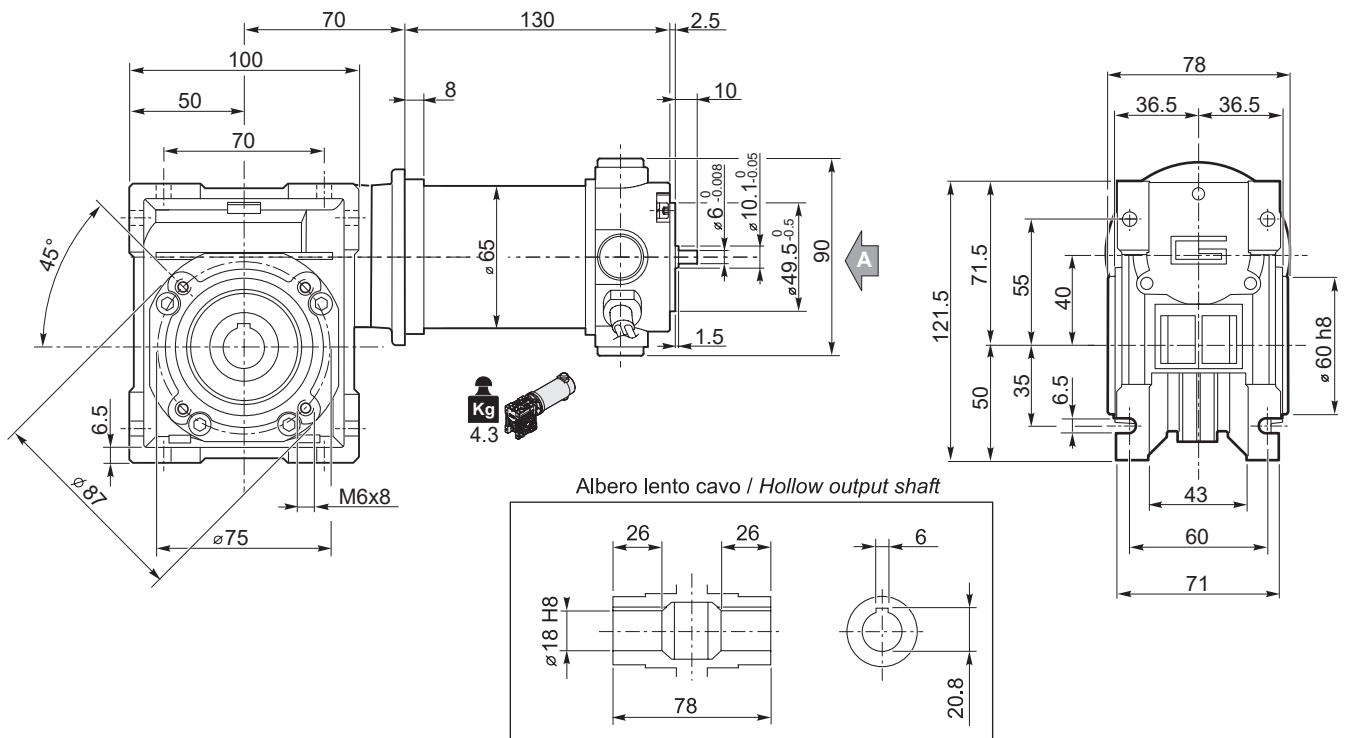
Dimensioni

Dimensions

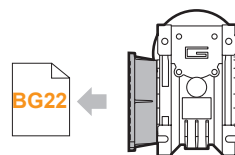
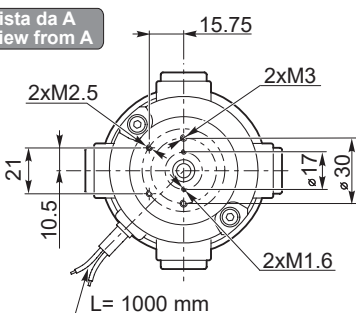
NDCM180/030 U



NDCM180/040 U

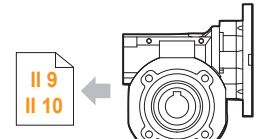


Vista da A
View from A



NDCM180/030 F
NDCM180/040 F...

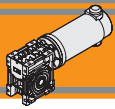
Freno / Brake



CL030
CL040

Encoder

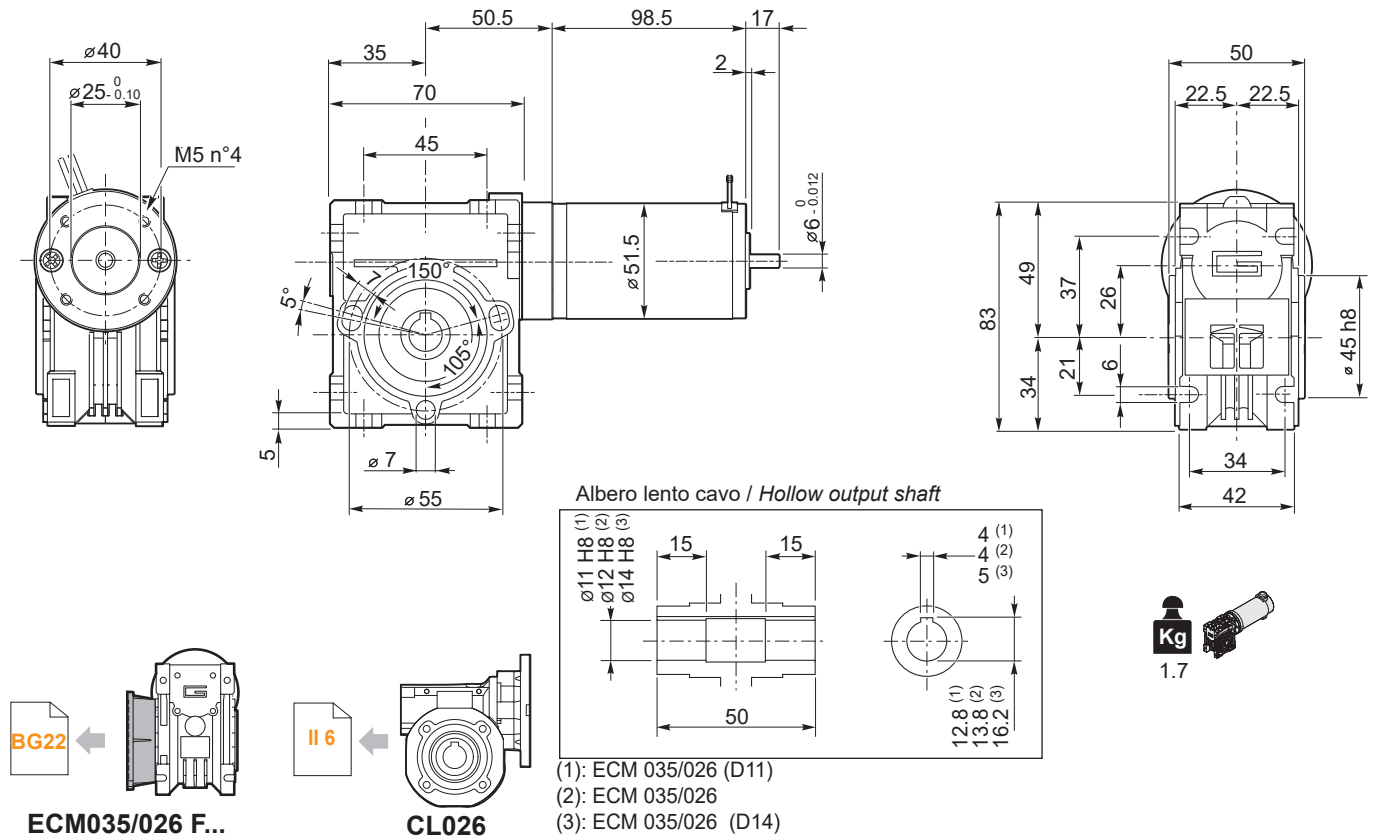




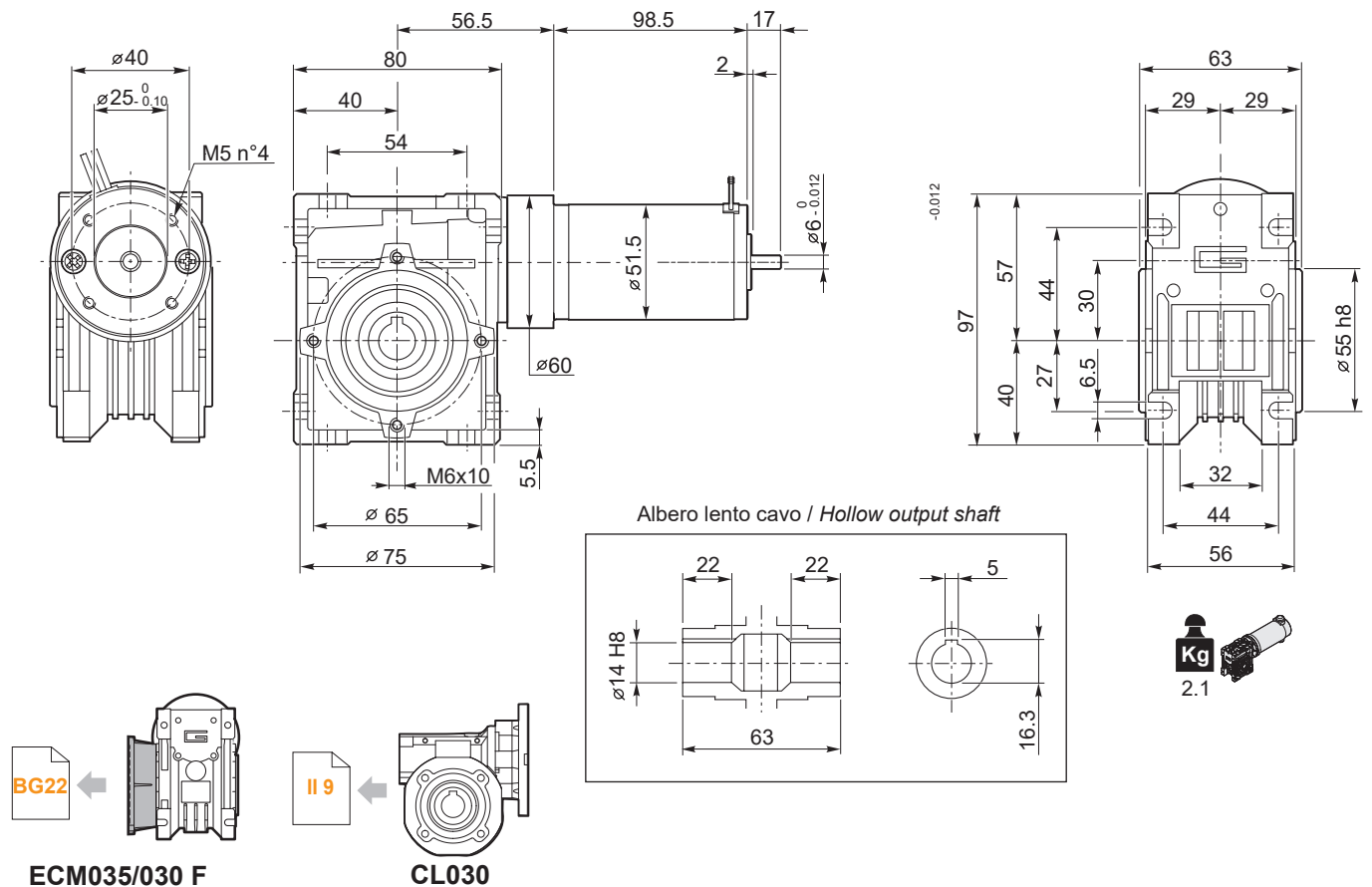
Dimensioni

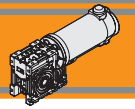
Dimensions

ECM035/026 U



ECM035/030 U

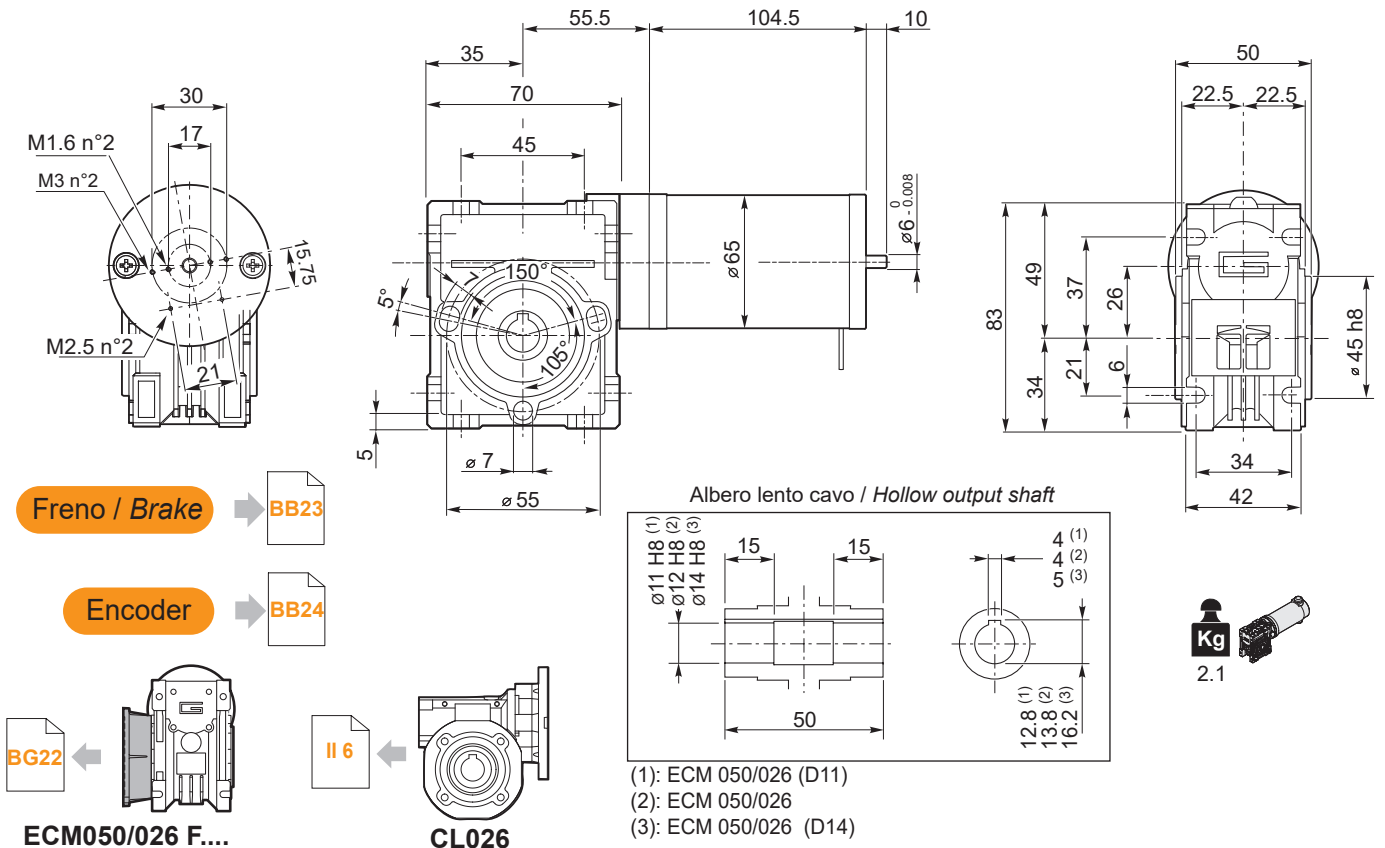




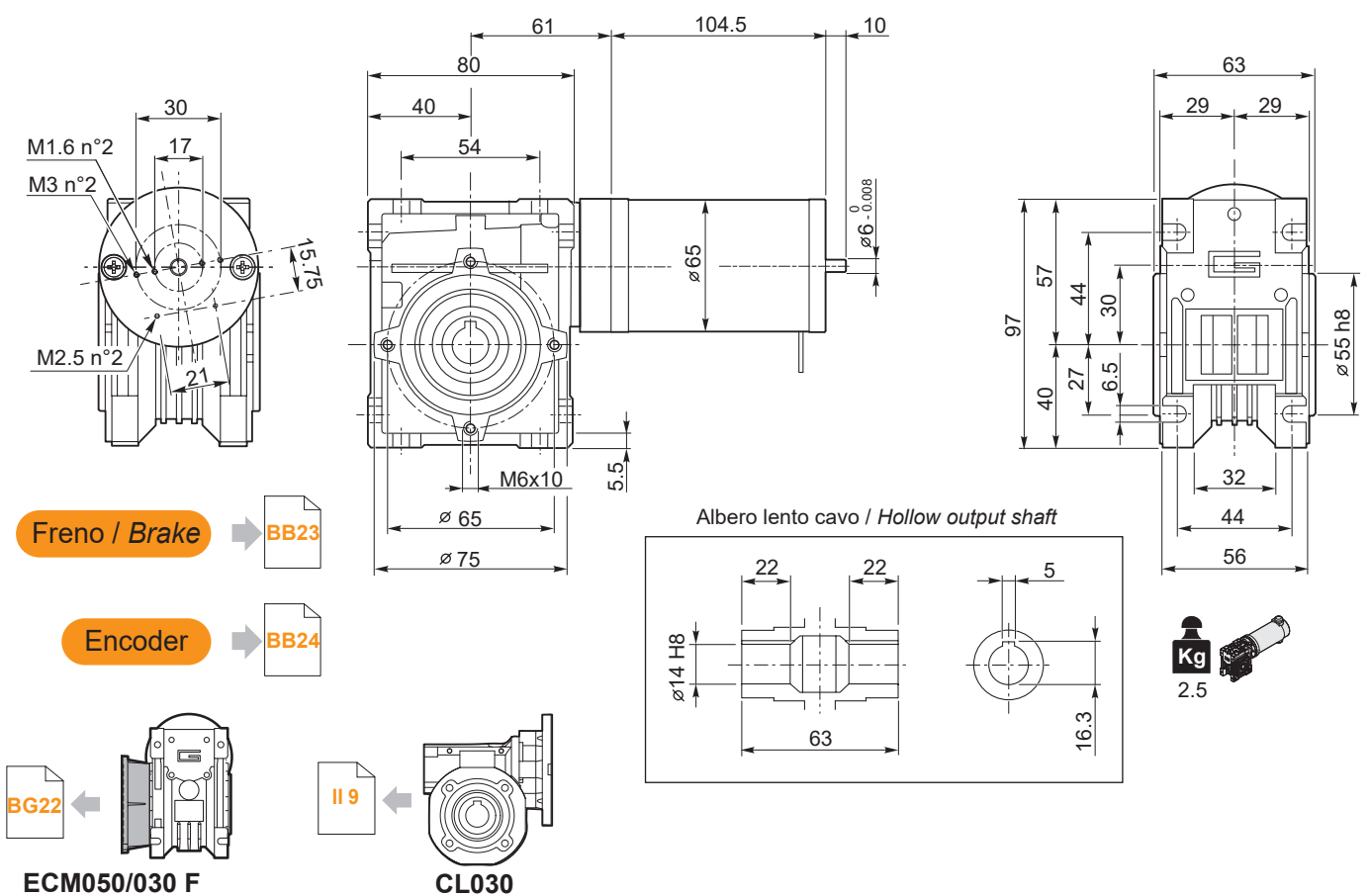
Dimensioni

Dimensions

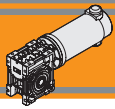
ECM050/026 U



ECM050/030 U



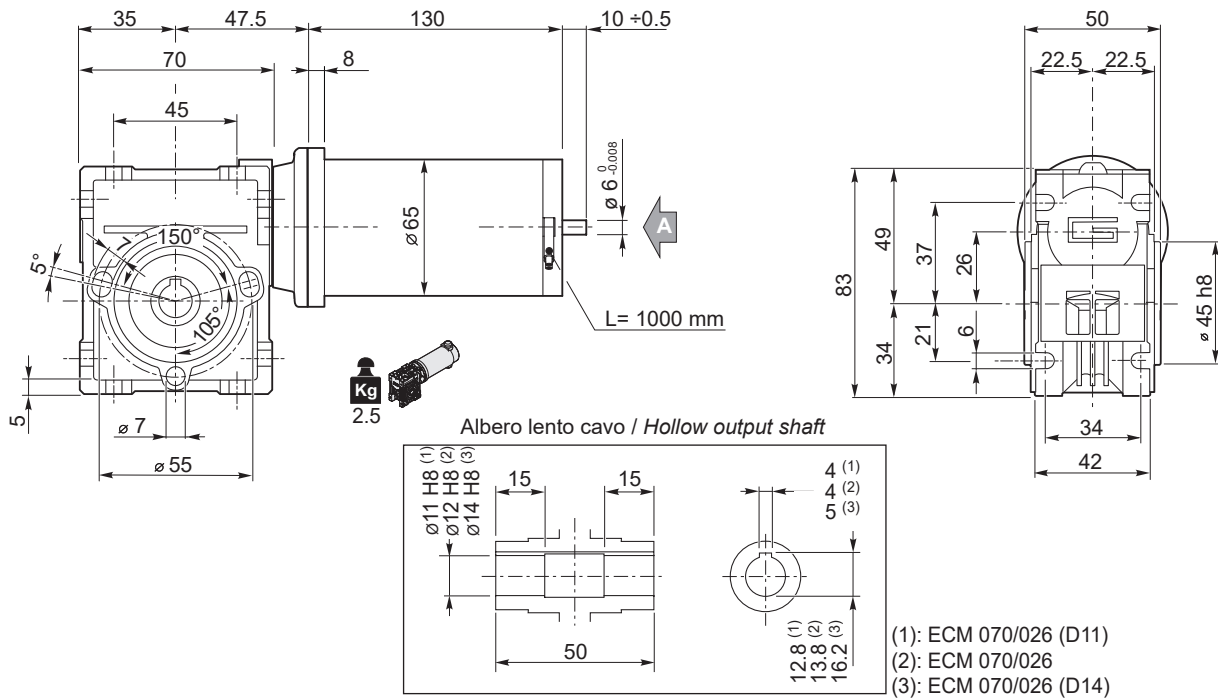
DC



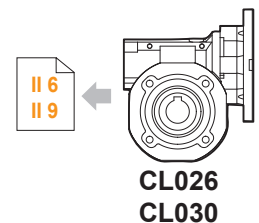
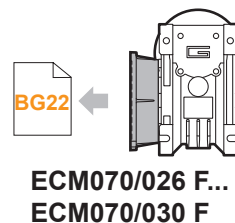
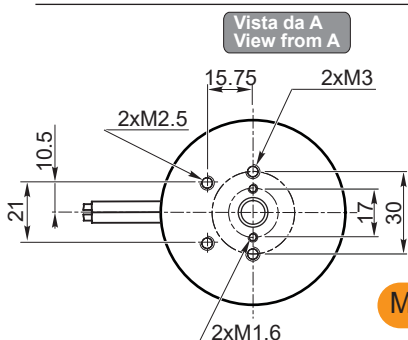
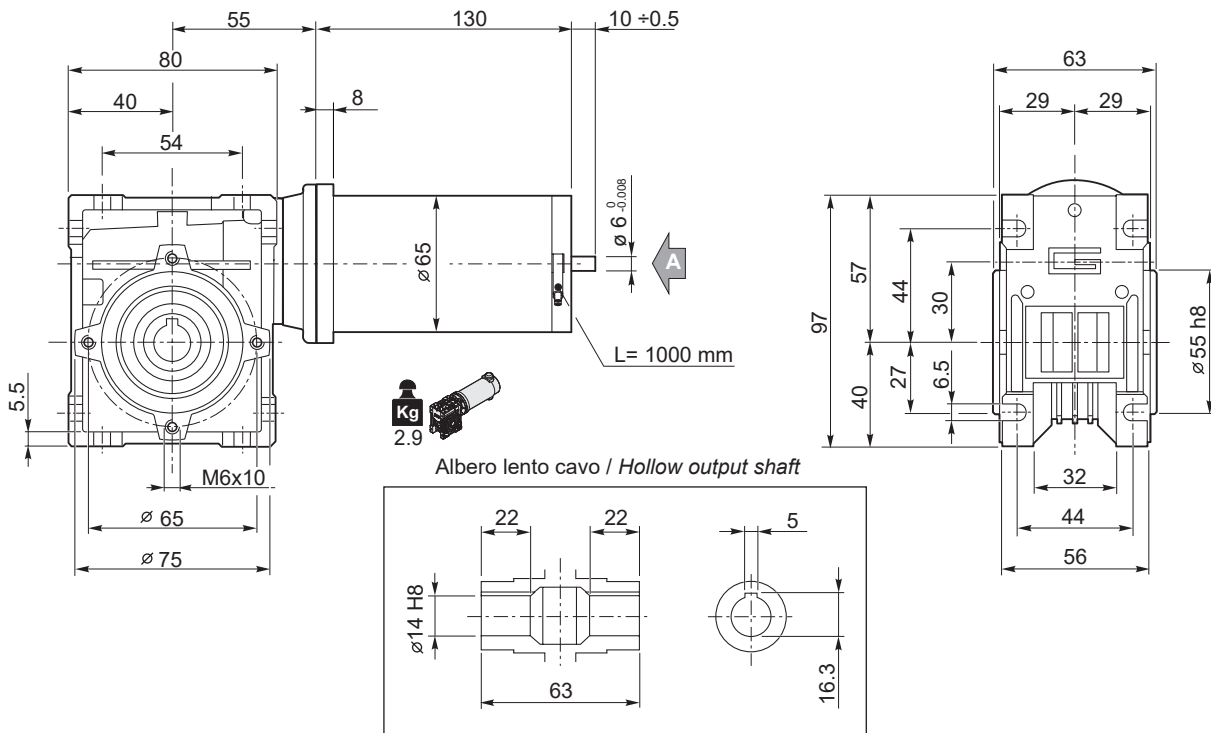
Dimensioni

Dimensions

ECM070/026 U



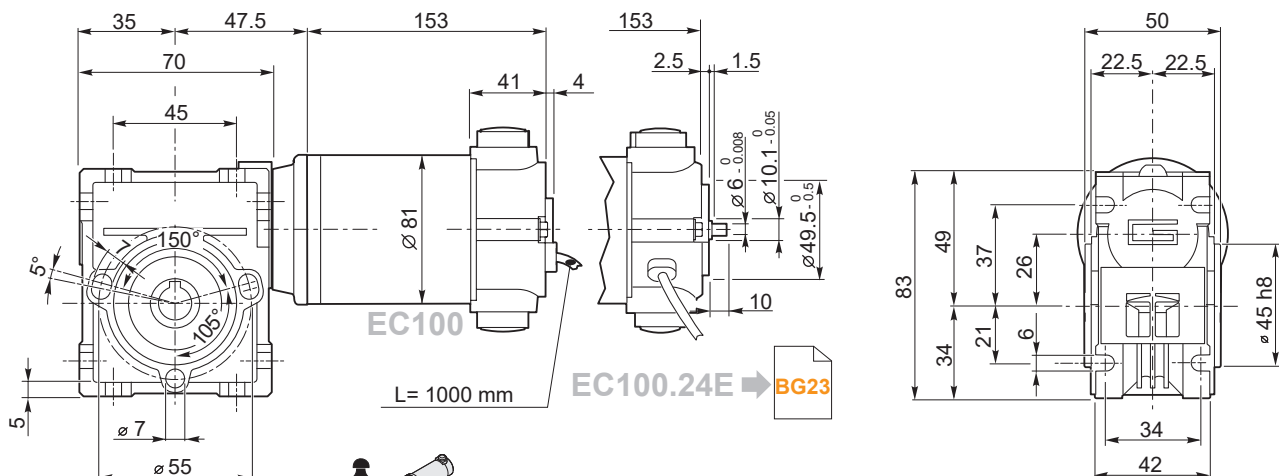
ECM070/030 U



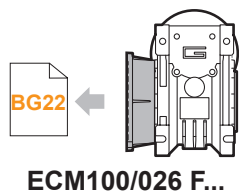
Motori / Motors IP66 → BC2

Freno / Brake → BB23

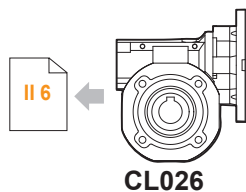
Encoder → BB24

**Dimensioni****Dimensions****ECM100/026 U**

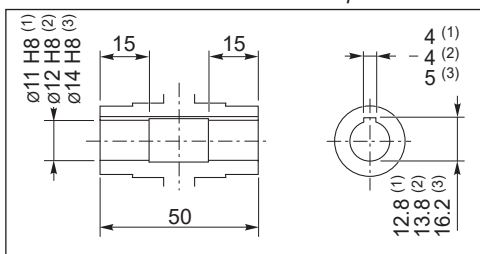
Albero lento cavo / Hollow output shaft



ECM100/026 F...

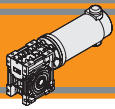


CL026



- (1): ECM 100/026 (D11)
 (2): ECM 100/026
 (3): ECM 100/026 (D14)

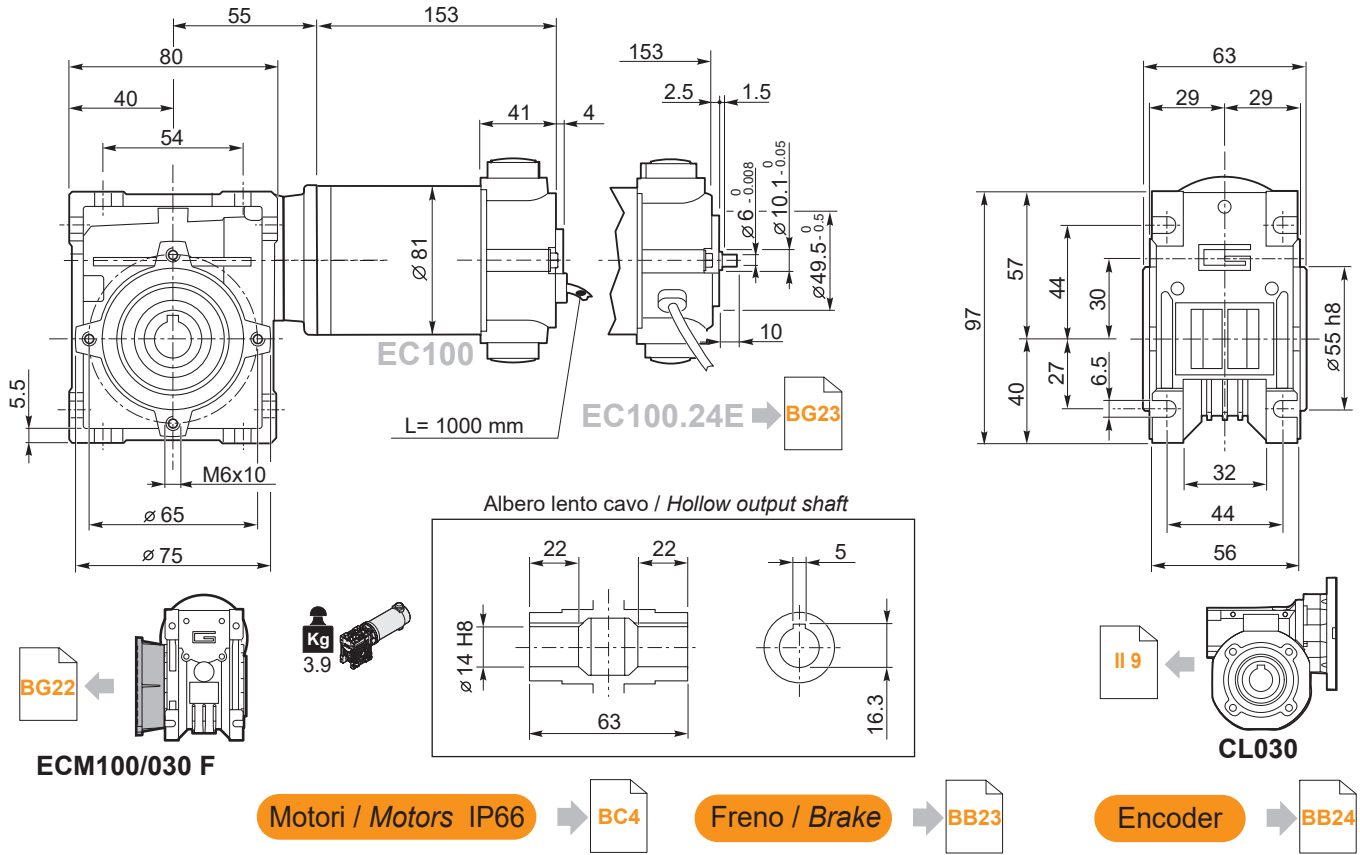
Motori / Motors IP66 → **BC4**Freno / Brake → **BB23**Encoder → **BB24**



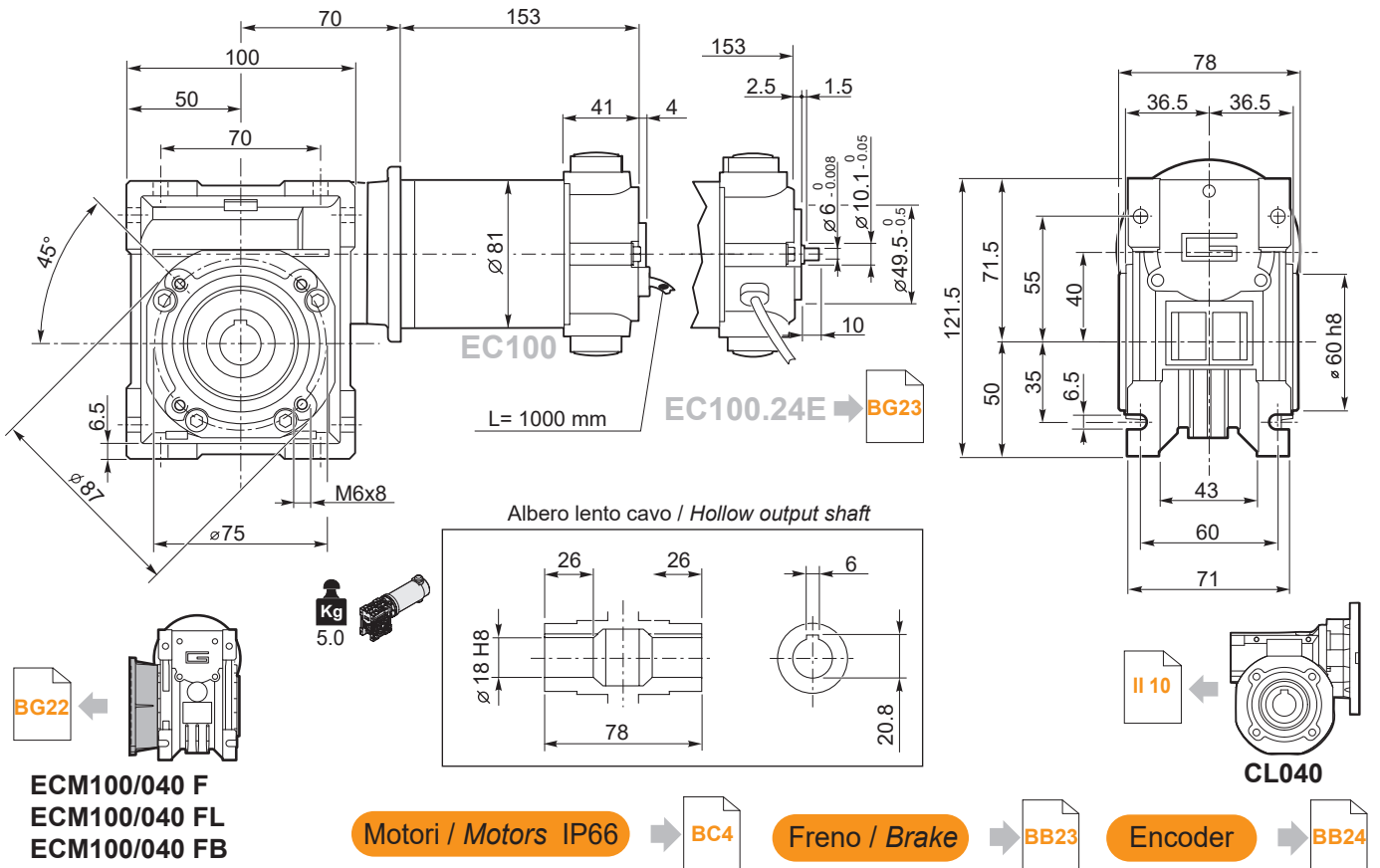
Dimensioni

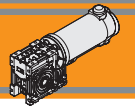
Dimensions

ECM100/030 U



ECM100/040 U

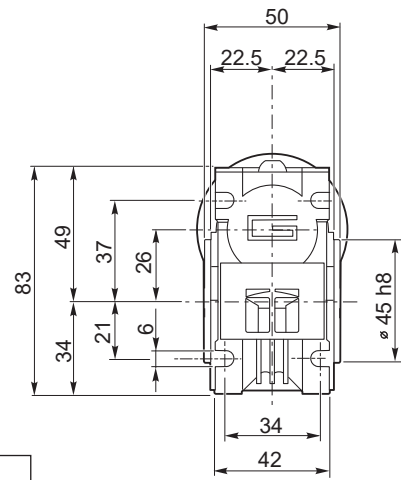
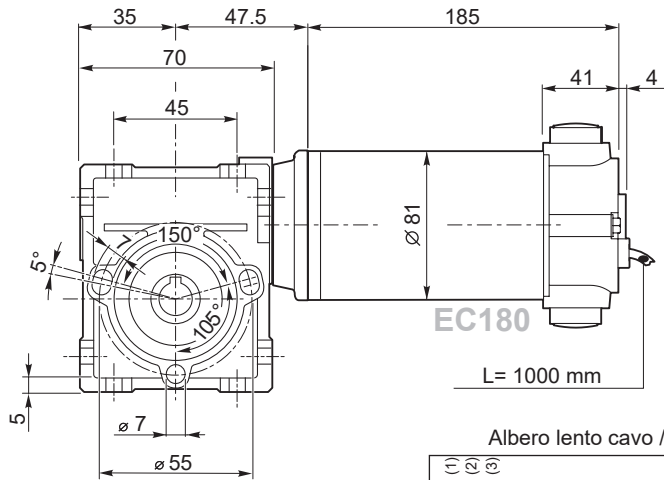




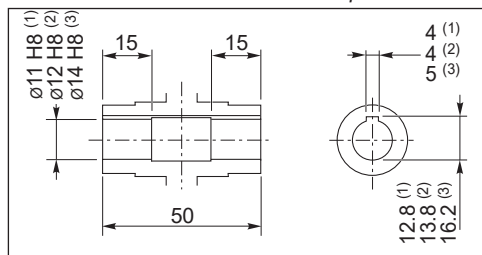
Dimensioni

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...

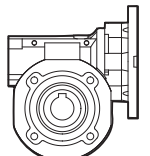
Motori / Motors IP66



Freno / Brake



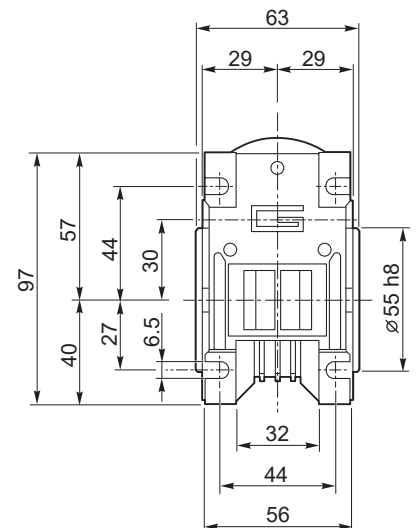
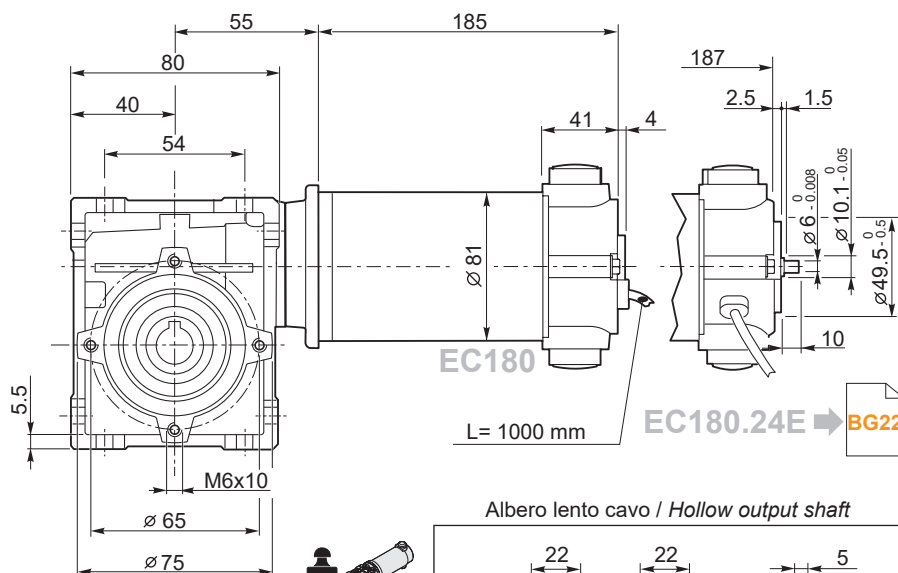
Encoder



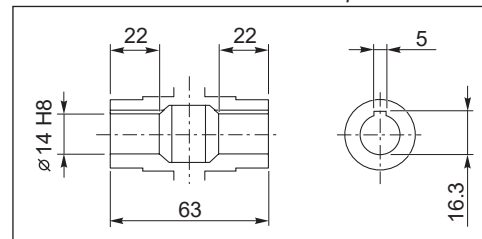
CL026

Encoder

ECM180/030 U



Albero lento cavo / Hollow output shaft



ECM180/030 F

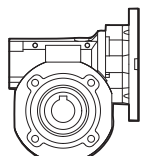
Motori / Motors IP66



Freno / Brake



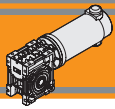
Encoder



CL030

Encoder

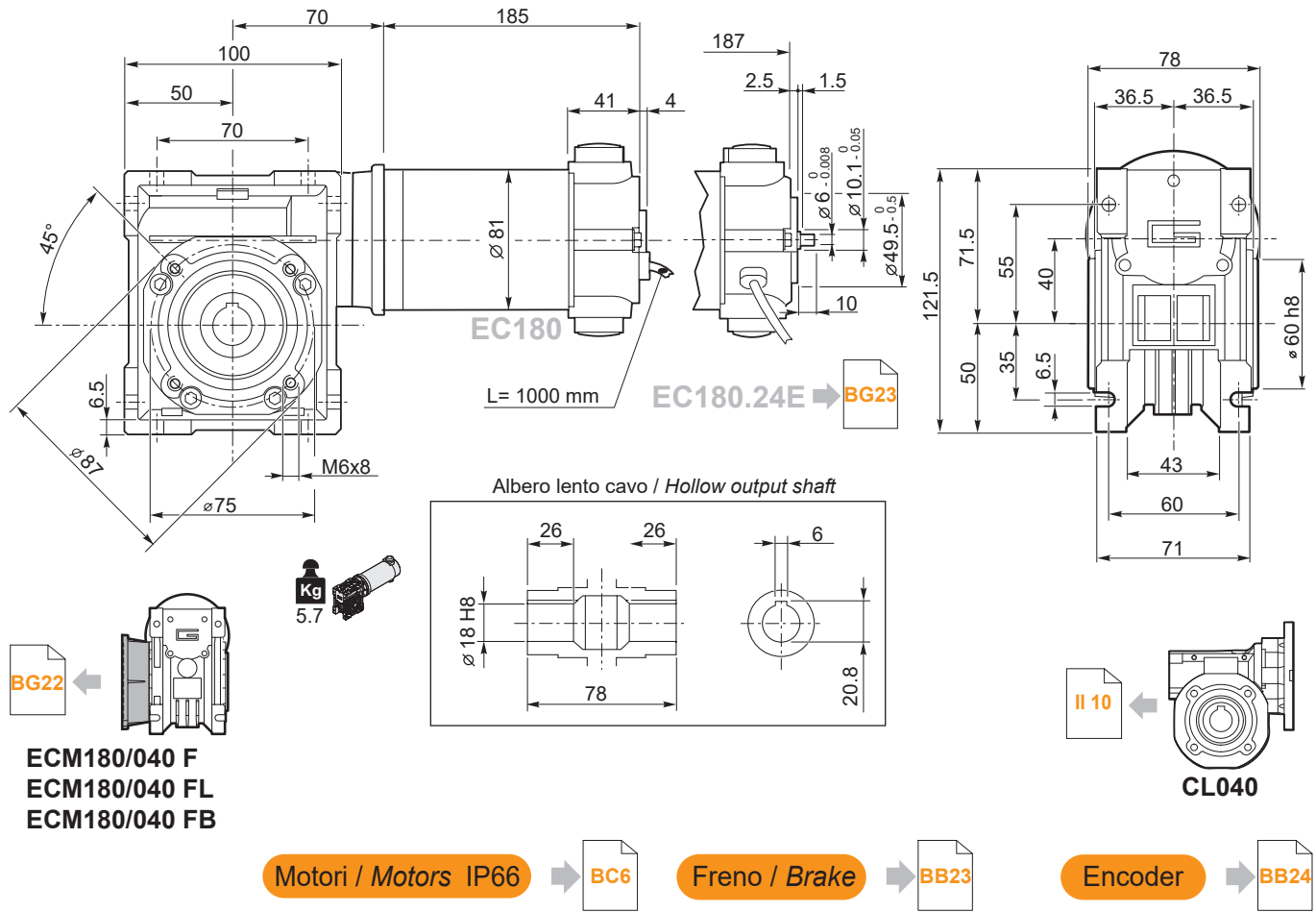
DC

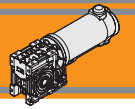


Dimensioni

Dimensions

ECM180/040 U

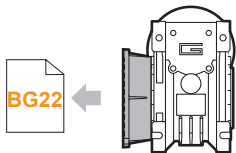
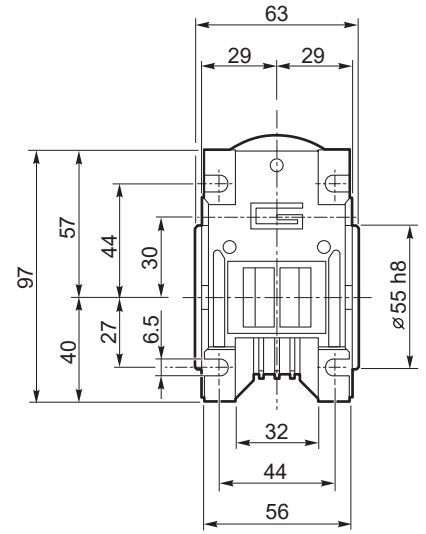
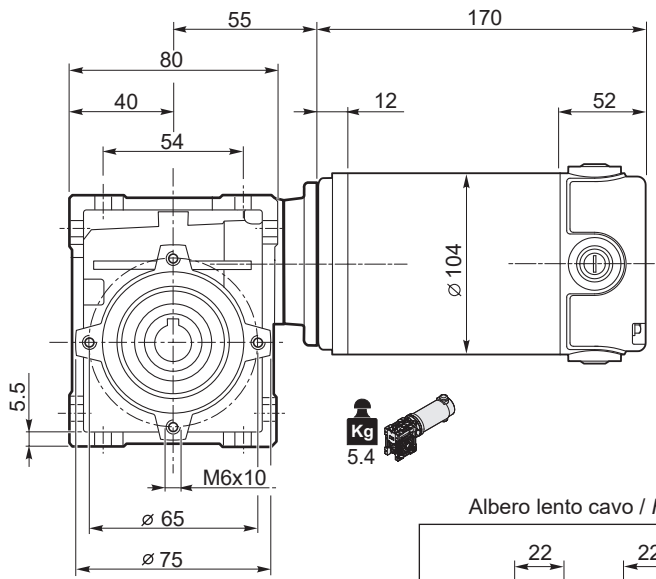




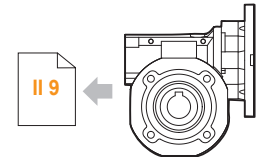
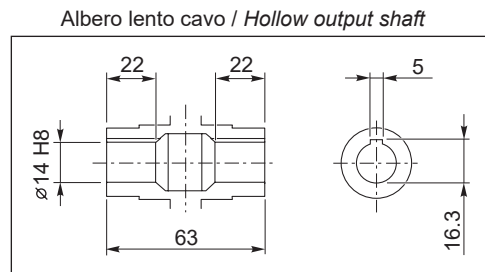
Dimensioni

Dimensions

ECM250/030 U



ECM250/030 F

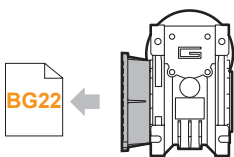
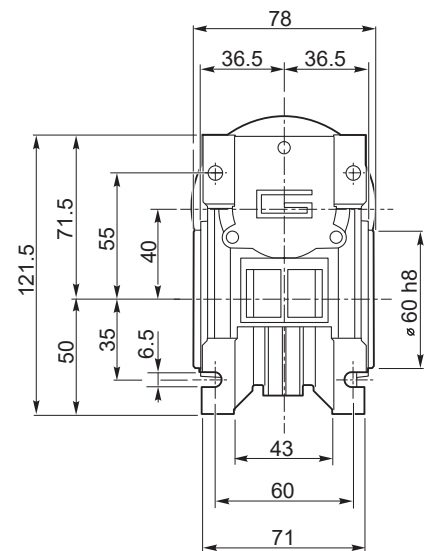
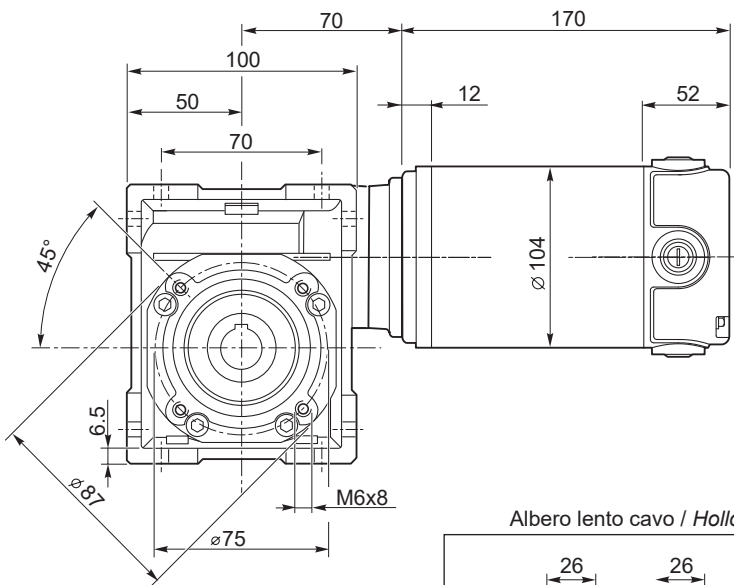


CL030

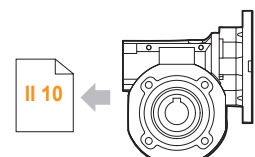
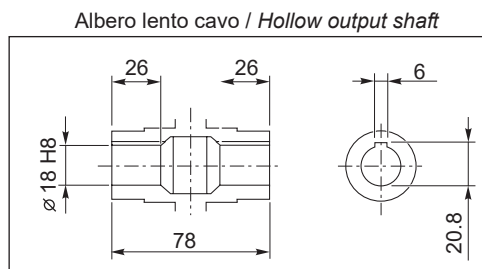
Motori / Motors IP66



ECM250/040 U



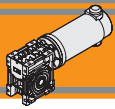
ECM250/040 F
ECM250/040 FL
ECM250/040 FB



CL040

Motori / Motors IP66

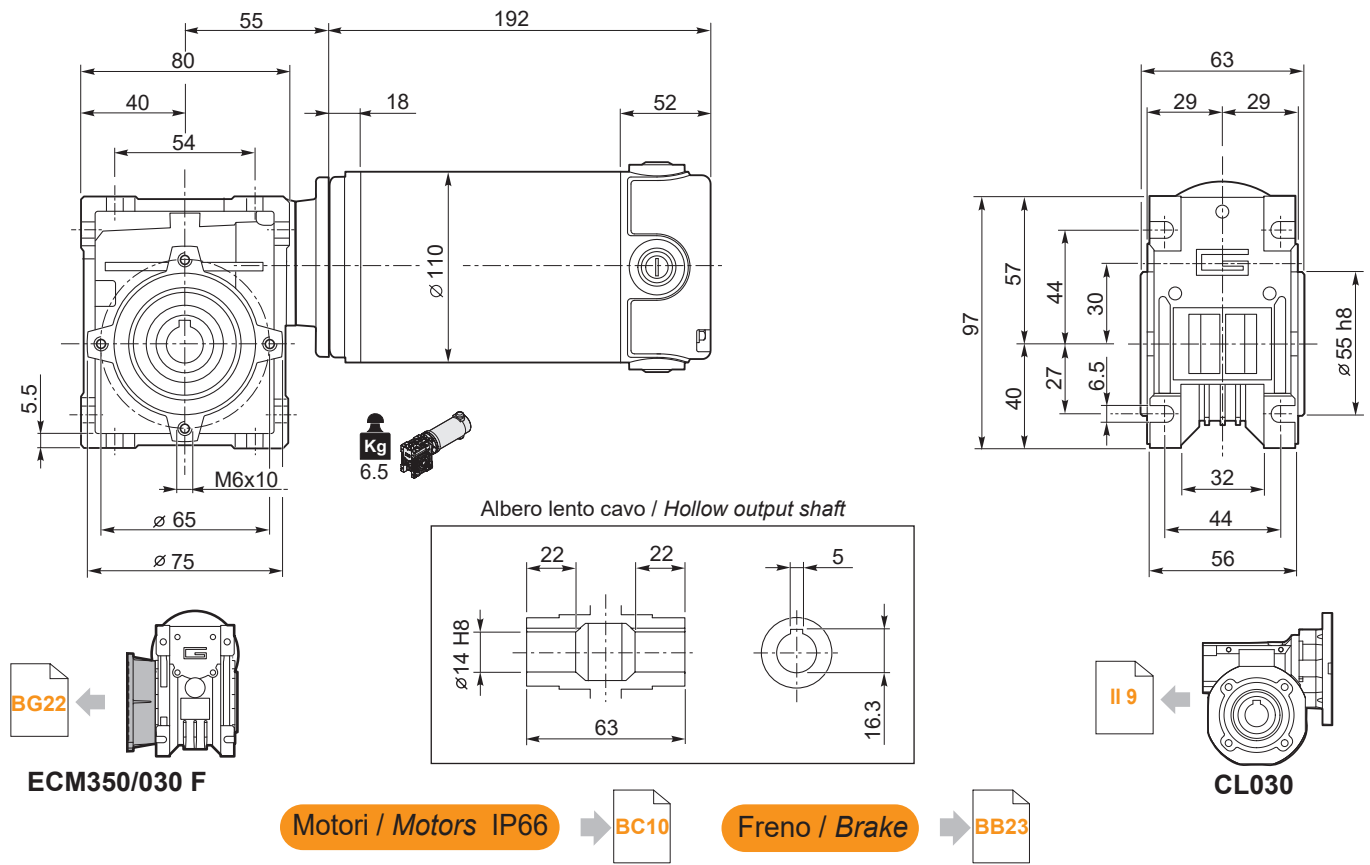




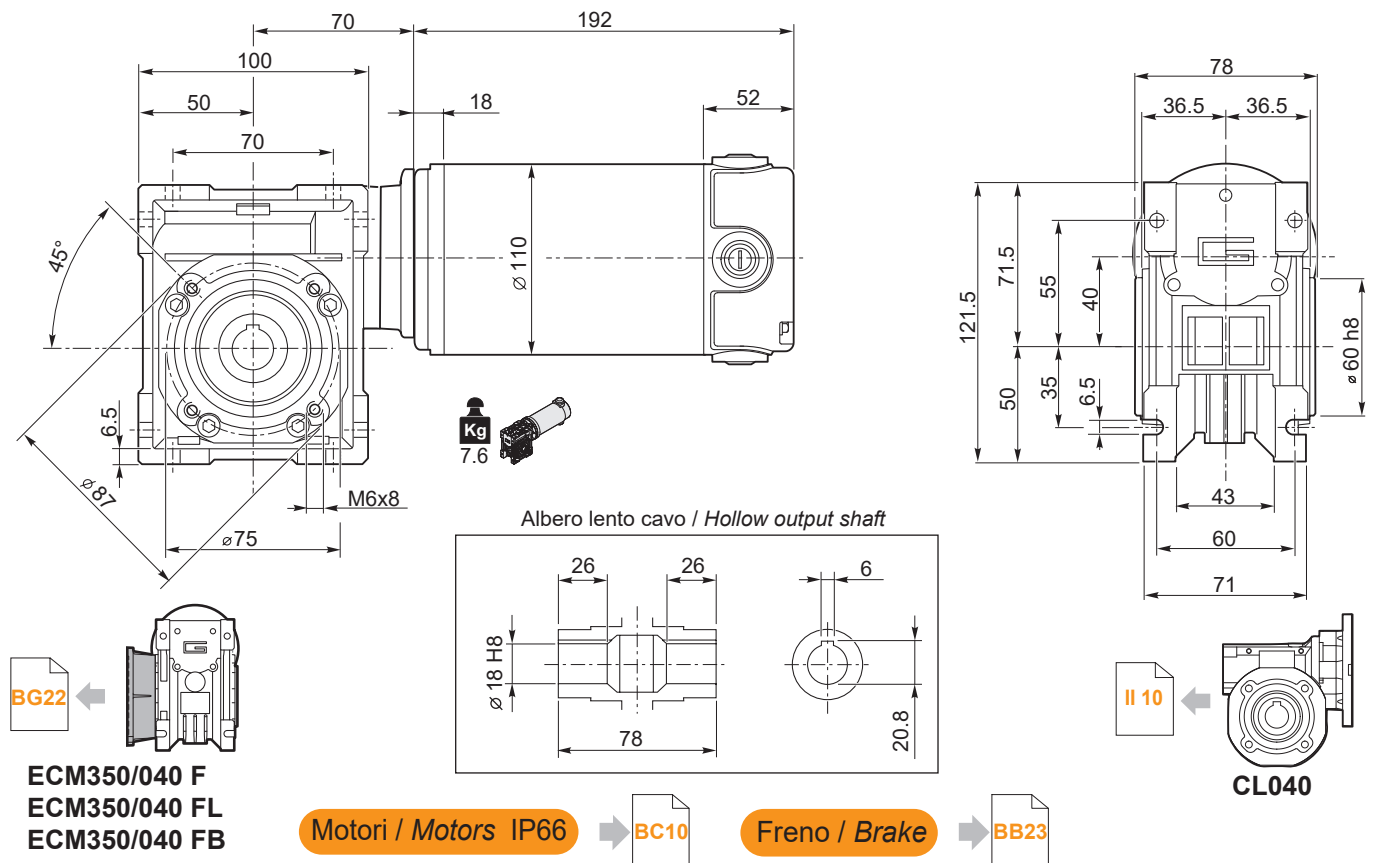
Dimensioni

Dimensions

ECM350/030 U



ECM350/040 U

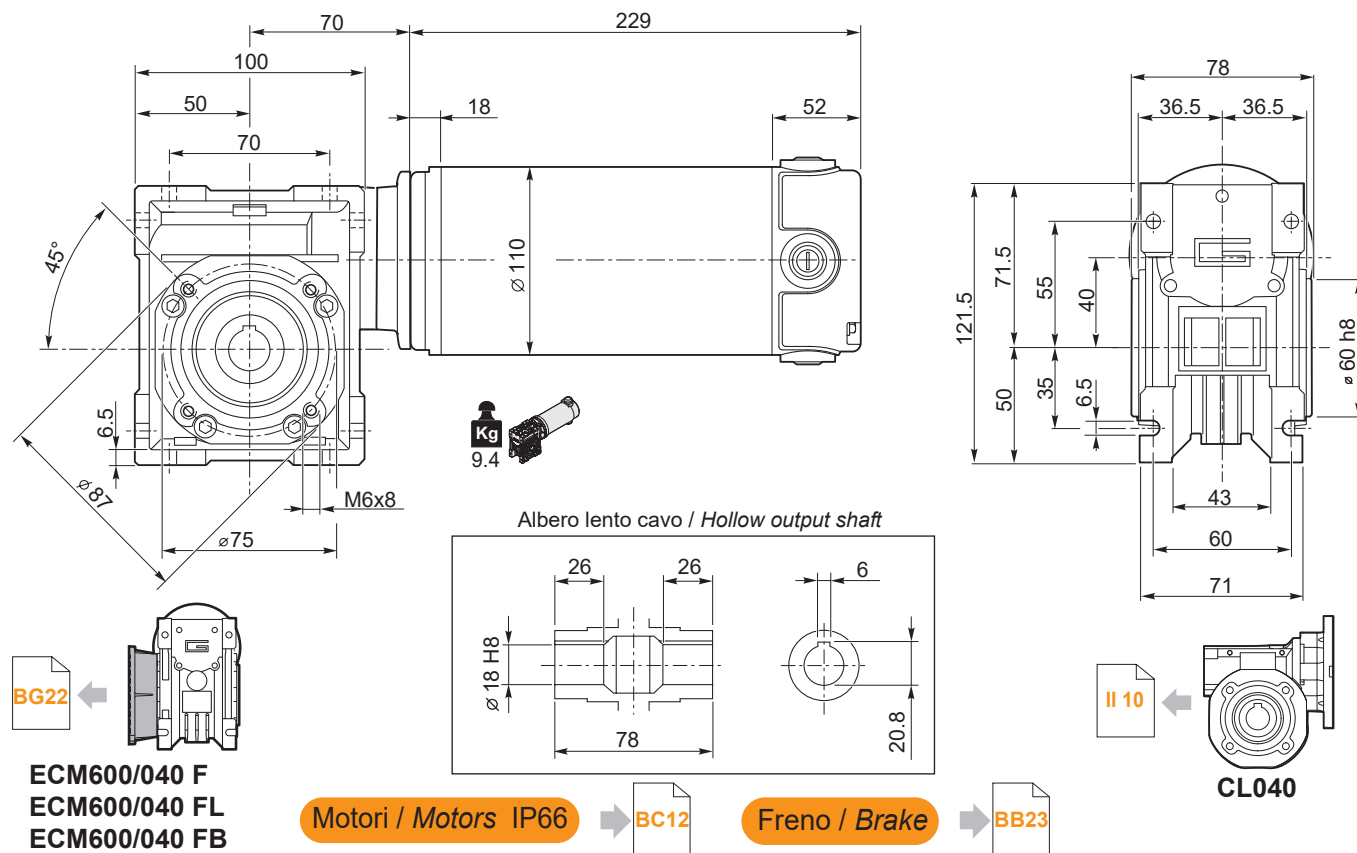


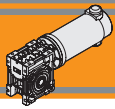


Dimensioni

Dimensions

ECM600/040 U

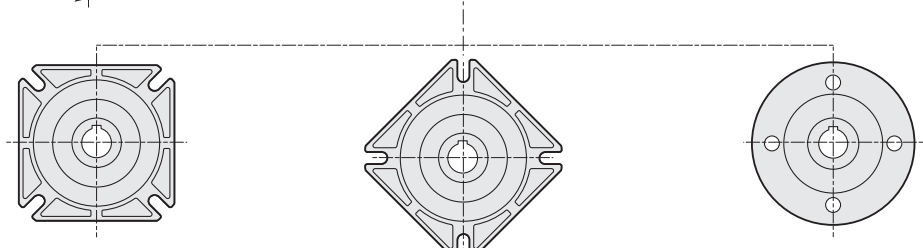
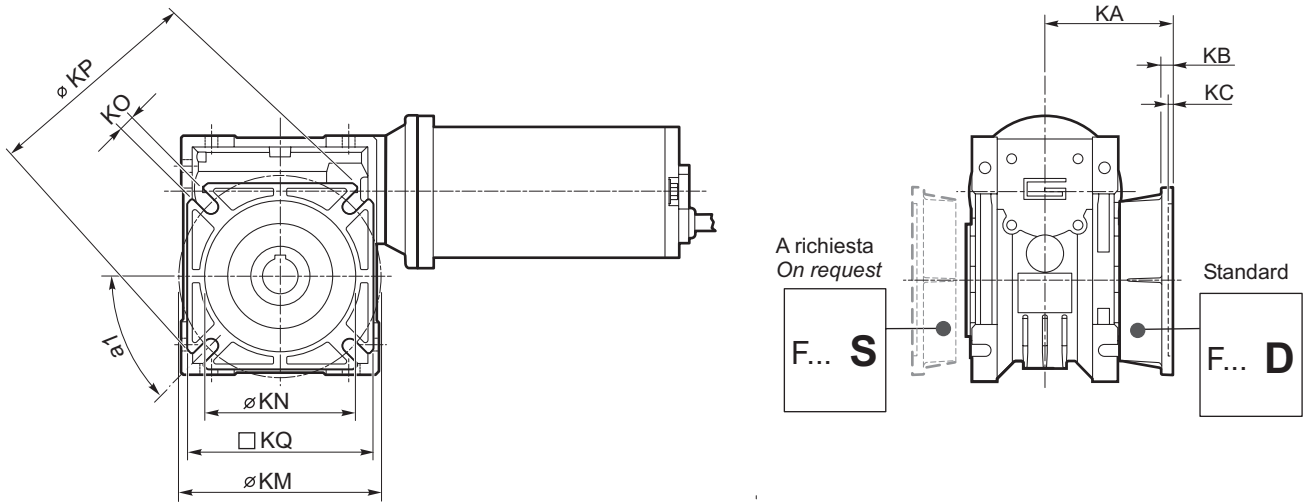




Dimensioni

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) | | | | | | | | | | | | | | | | | | | | | | | | | | | |

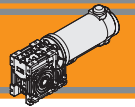
(1): F30S eseguita con F30 e distanziale di spessore 2 mm / F30S made with F30 and spacer with 2mm thickness

| | 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

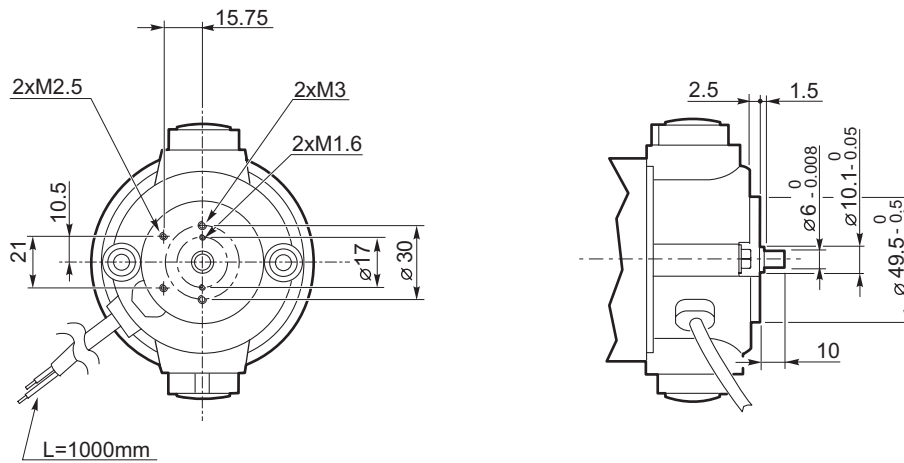
| CM | CM..F | | | | | | | CM..FB | | | | | | | CM..FL | | | | | | | | | | |
|-----|-------|------|-----|----|-------|------------------|----------|--------|----|----|-----|----|---------|------------------|----------|-----|-----|----|-----|-----|-------|------------------|---------|-----|----|
| | a1 | 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

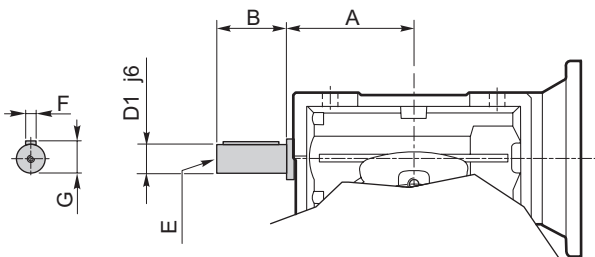
EC100.24E
EC180.24E



Opzioni

Options

VS - Vite sporgente / Extended input shaft



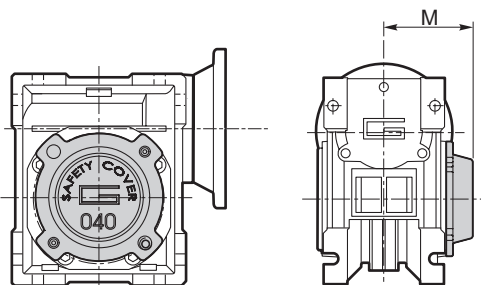
| | A | B | D ₁ j6 | E | F | G |
|--------|----|----|----------------------|----|---|------|
| CM 030 | 45 | 20 | 9 | M4 | 3 | 10.2 |
| CM 040 | 53 | 23 | 11 | M5 | 4 | 12.5 |

Costruito su richiesta
Built on request

Accessori

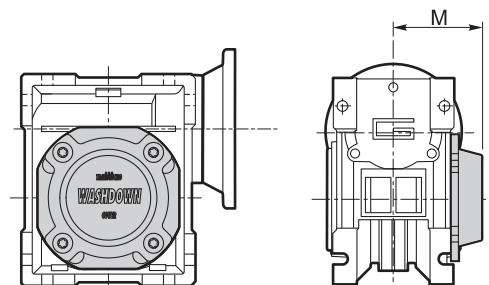
Accessories

SC - Safety cover

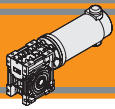


| | M |
|--------|------|
| CM 030 | 47 |
| CM 040 | 54.5 |

WD - Kit washdown cover



| | M |
|--------|------|
| CM 030 | 48 |
| CM 040 | 55.5 |

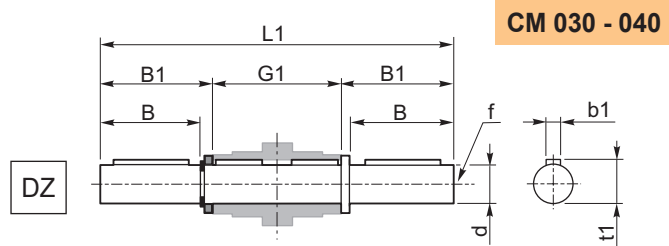


Accessori

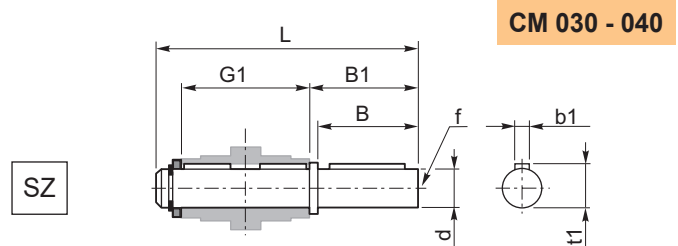
Accessories

Albero lento

Output shaft

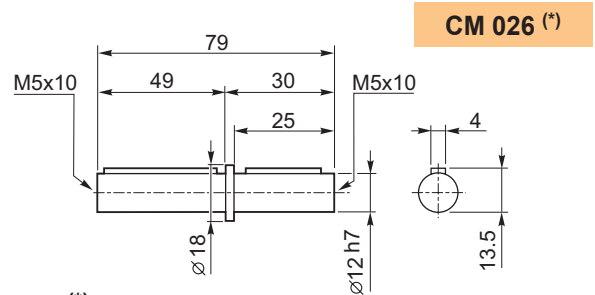


CM 030 - 040



CM 030 - 040

| | 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 |



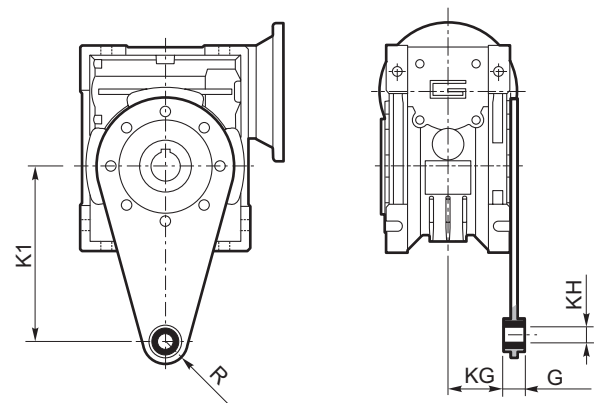
CM 026 (*)

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

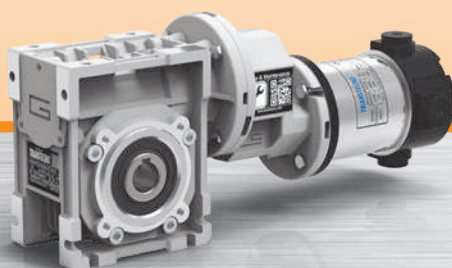
Braccio di reazione

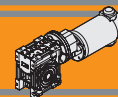
Torque arm

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



Motoriduttori CC a vite senza fine con precoppia
DC pre stage wormgearmotors

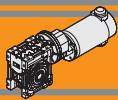




| Indice | Index | Pag. Page |
|------------------------------|-----------------------------------|--------------|
| Caratteristiche tecniche | <i>Technical features</i> | BH2 |
| Designazione | <i>Classification</i> | BH2 |
| Simbologia | <i>Symbols</i> | BH3 |
| Lubrificazione | <i>Lubrication</i> | BH3 |
| 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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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:

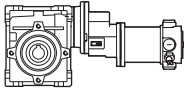
NDCMP neodymium permanent magnets and **ECMP** ferrite permanent magnets DC pre stage wormgearmotors range has the following main features:

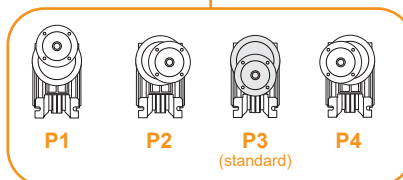
- Alimentazione in bassa tensione 12/24 Vcc
- Possibilità di montaggio encoder e freno
- Potenze motore disponibili da 100 a 350W S2
- Carcasse dei riduttori in pressofusione di alluminio
- Lubrificazione permanente con olio sintetico

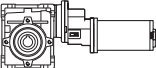
- Low voltage power supply 12/24 Vdc
- Suitable for encoder and brake assembly
- Motor power ratings available from 100 up to 350W S2
- Die-cast aluminum housings
- Permanent synthetic oil long-life lubrication.

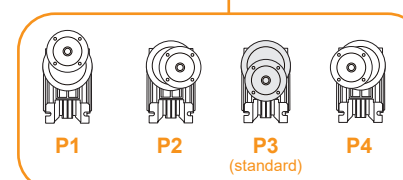
Designazione

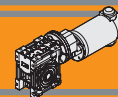
Classification

| 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 |
|  <p>NDCMP</p> | 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 |
|  <p>ECMP</p> | 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 | VS |
| | 070/056/040 | 180/056/040 | | | | | | | 240 | |
| | 100/056/030 | 250/063/040 | | | | | | | 24E | |
| | 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 90° 90° 180° 0° 270° 270° |
|---|---|--|---|

* 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

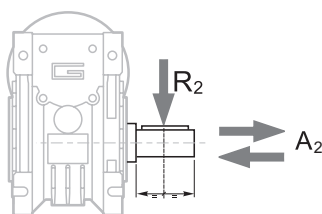
Lubrication

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

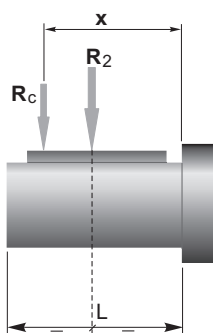
Radial loads



| 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 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:

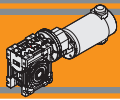


$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

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




| | CM | |
|------------|------|------|
| | 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

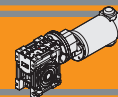
NOTE: for continuous or highly intermittent duty, please contact our technical service

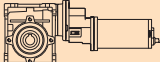
Dati tecnici elettrici

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 | | |
| | 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 | ECMP070/056/040 | 12E/24E |
| | 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 | | | | | |
| | 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 | ECMP180/056/040 | 120/240 | | | |
| | 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 | | |
| | 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 | ECMP100/056/040 | 120/240/24E |
| | 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

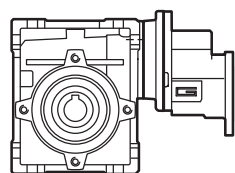
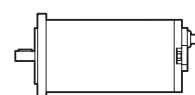
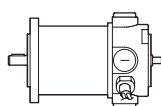
NOTE

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

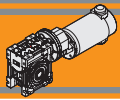
Dati tecnici elettrici
Electrical technical data

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

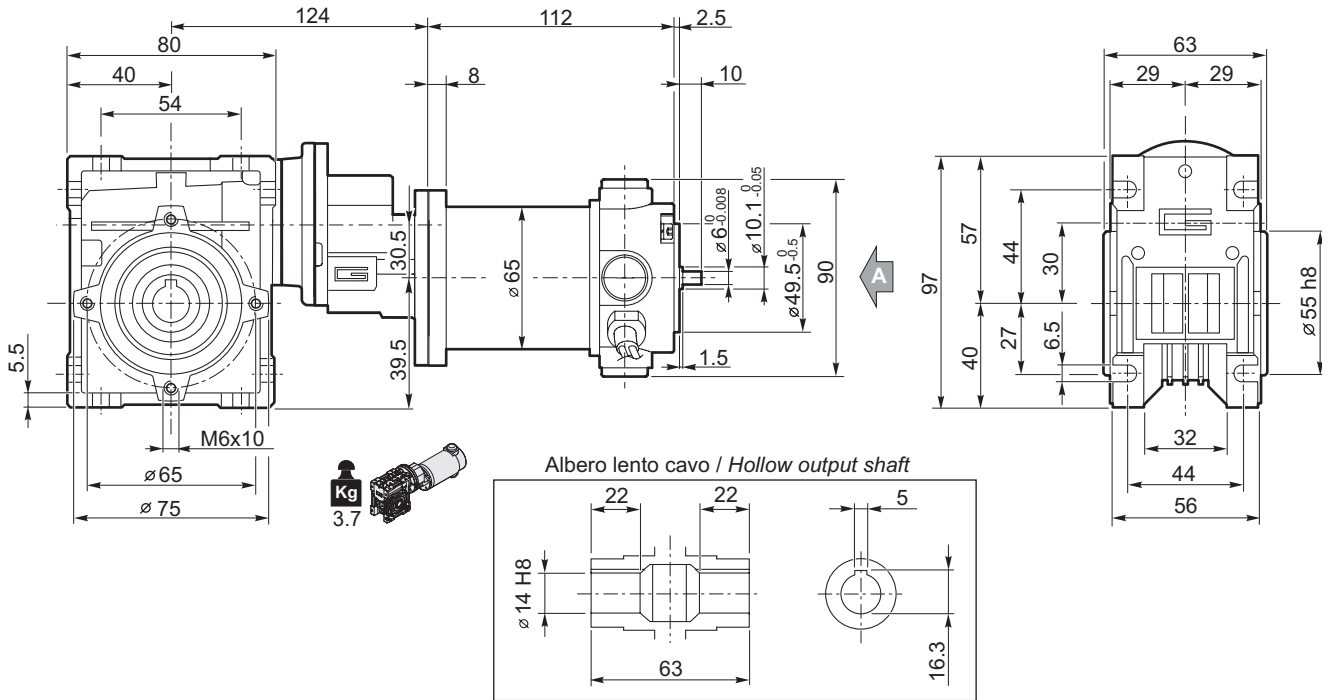
Rapporto di riduzione massimo i_{max}
Maximum ratio i_{max}



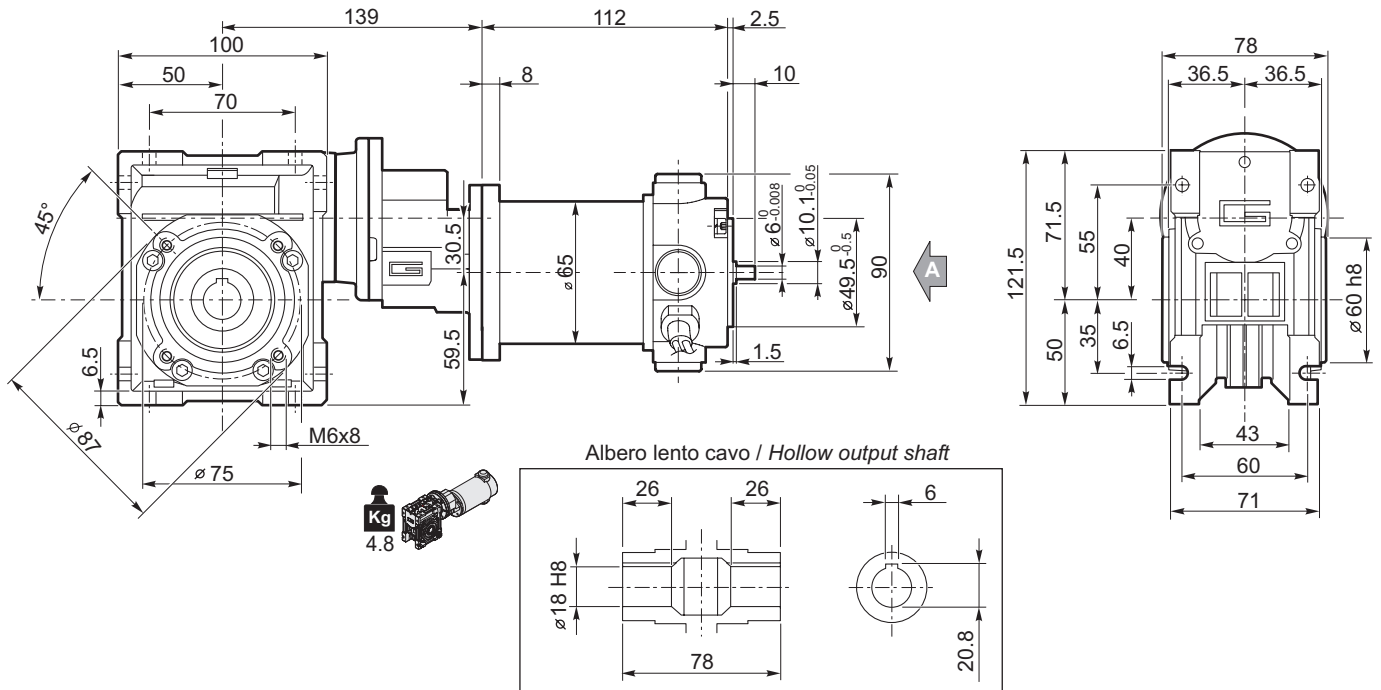
Dimensioni

Dimensions

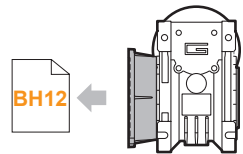
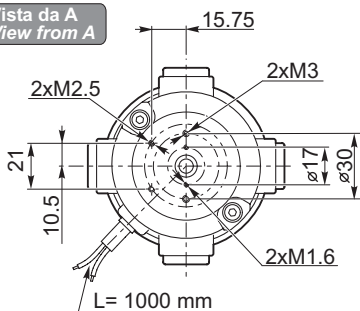
NDCMP120/056/030 U



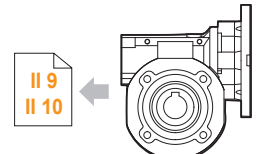
NDCMP120/056/040 U



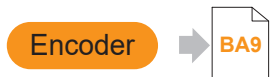
Vista da A
View from A

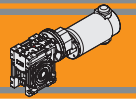


NDCMP120/056/030 F
NDCMP120/056/040 F...



CL030
CL040

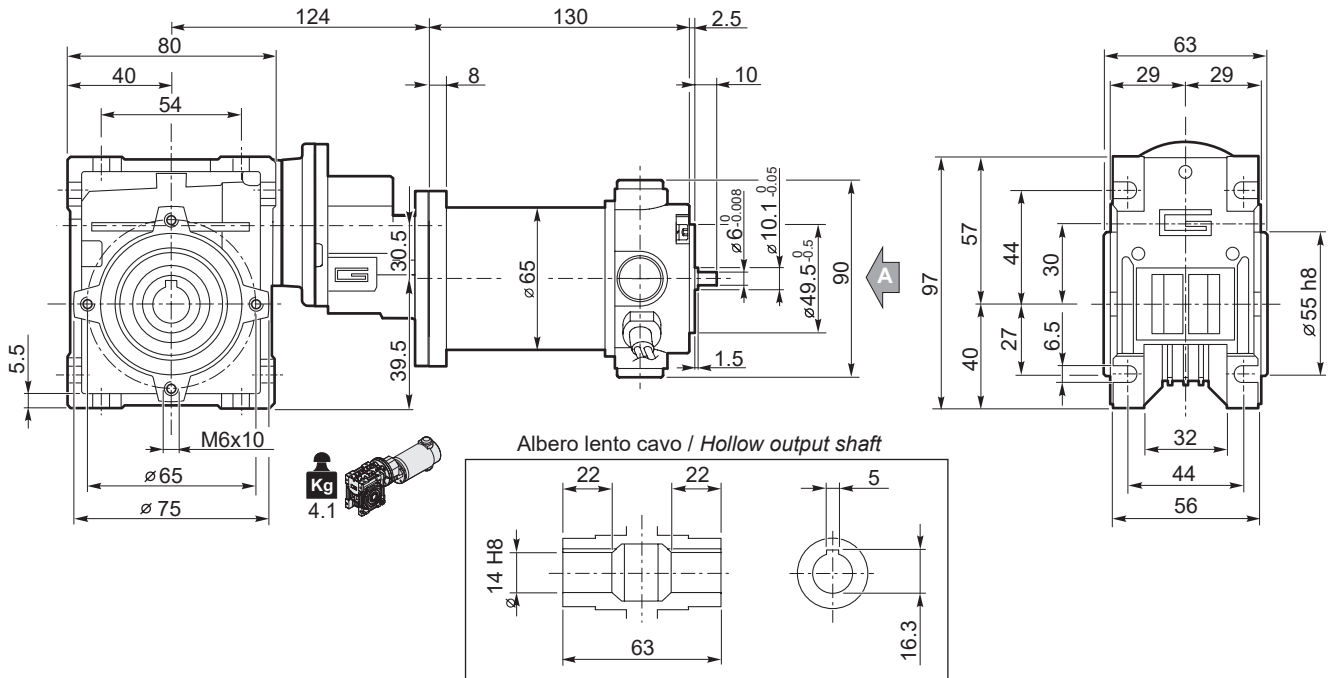




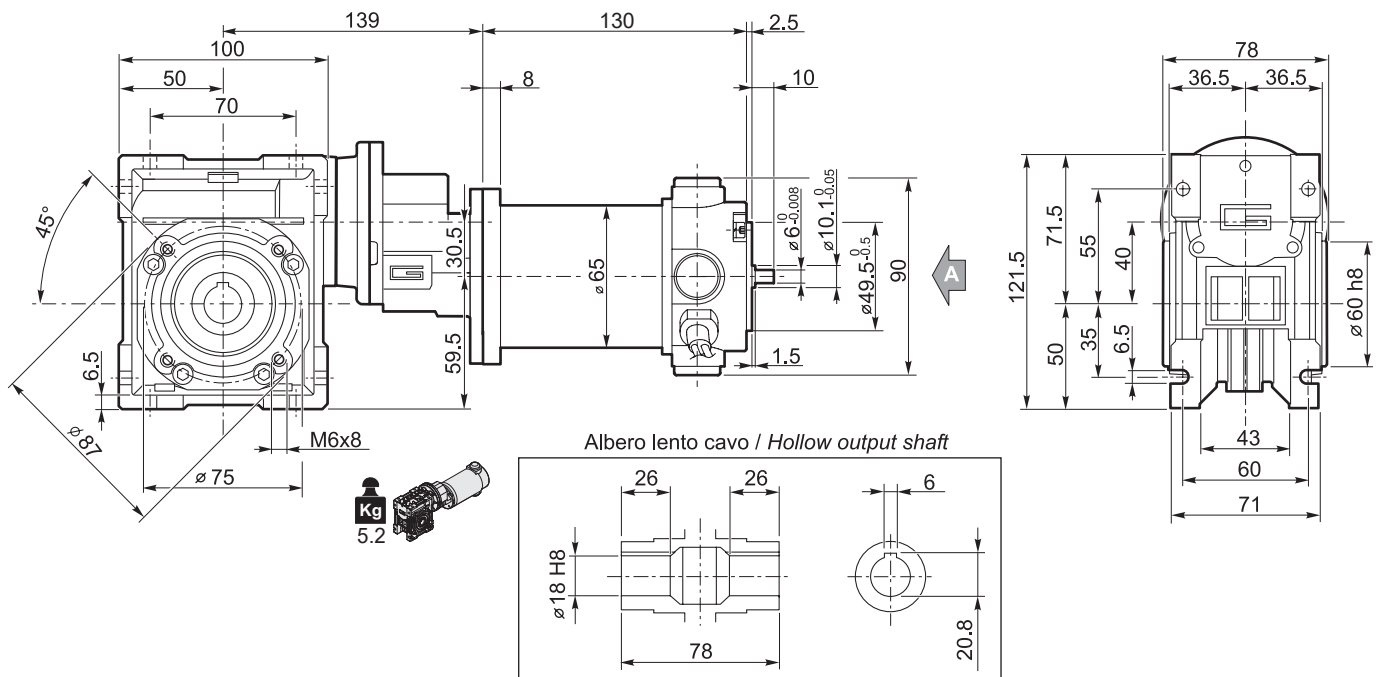
Dimensioni

Dimensions

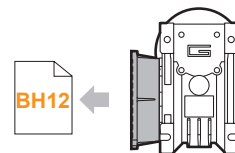
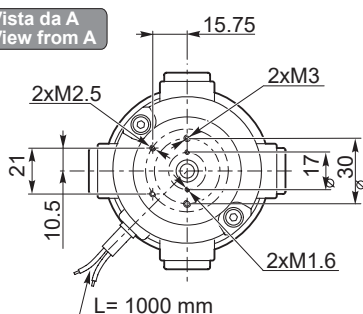
NDCMP180/056/030 U



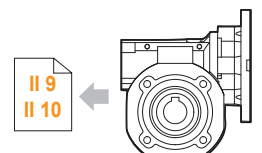
NDCMP180/056/040 U



Vista da A
View from A



NDCMP180/056/030 F
NDCMP180/056/040 F..



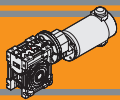
CL030
CL040

Freno / Brake



Encoder

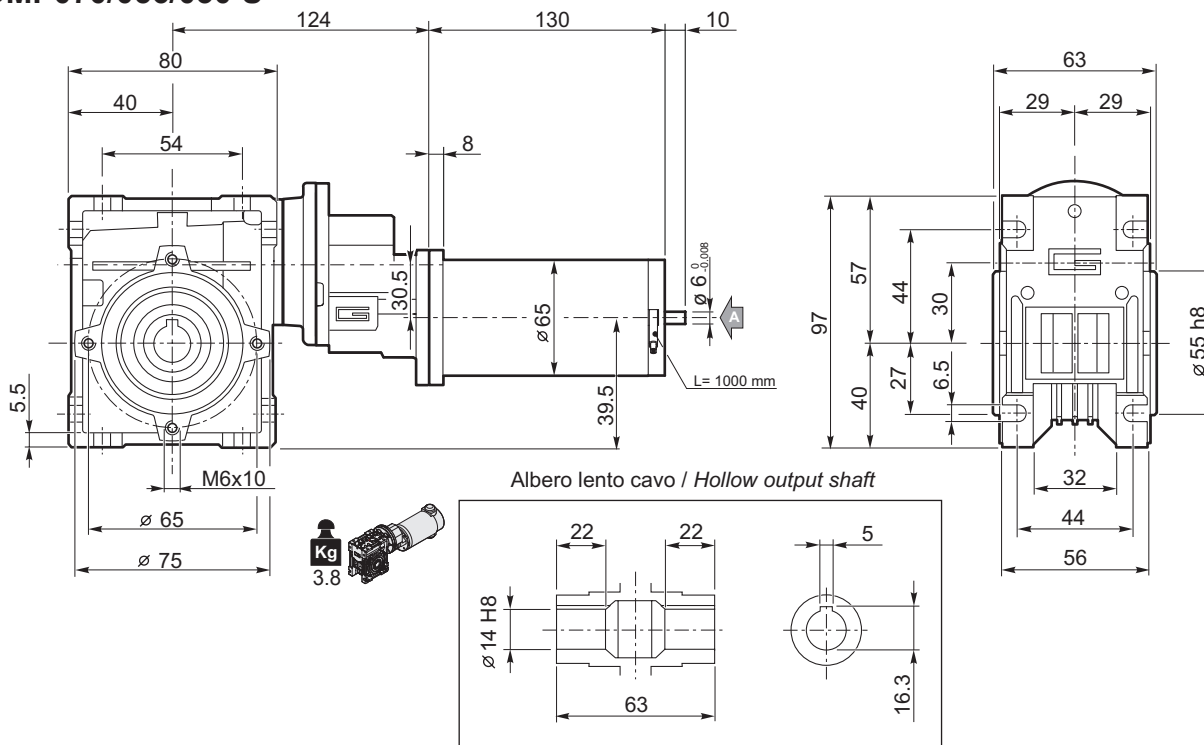




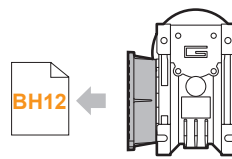
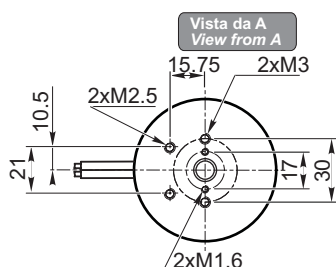
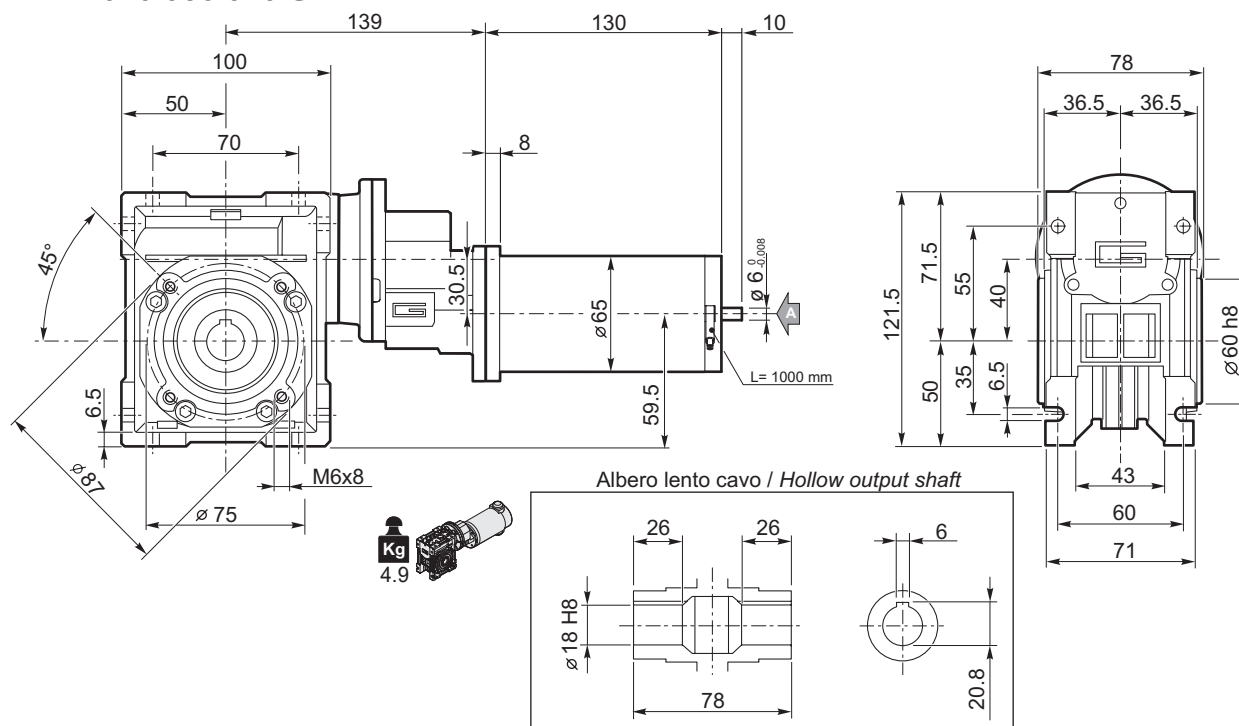
Dimensioni

Dimensions

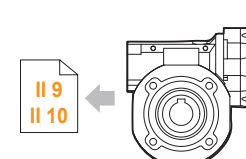
ECMP070/056/030 U



ECMP070/056/040 U



BH12
ECMP070/056/030 F
ECMP070/056/040 F..

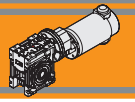


CL030
CL040

Motori / Motors IP66 → BC2

Freno / Brake → BB23

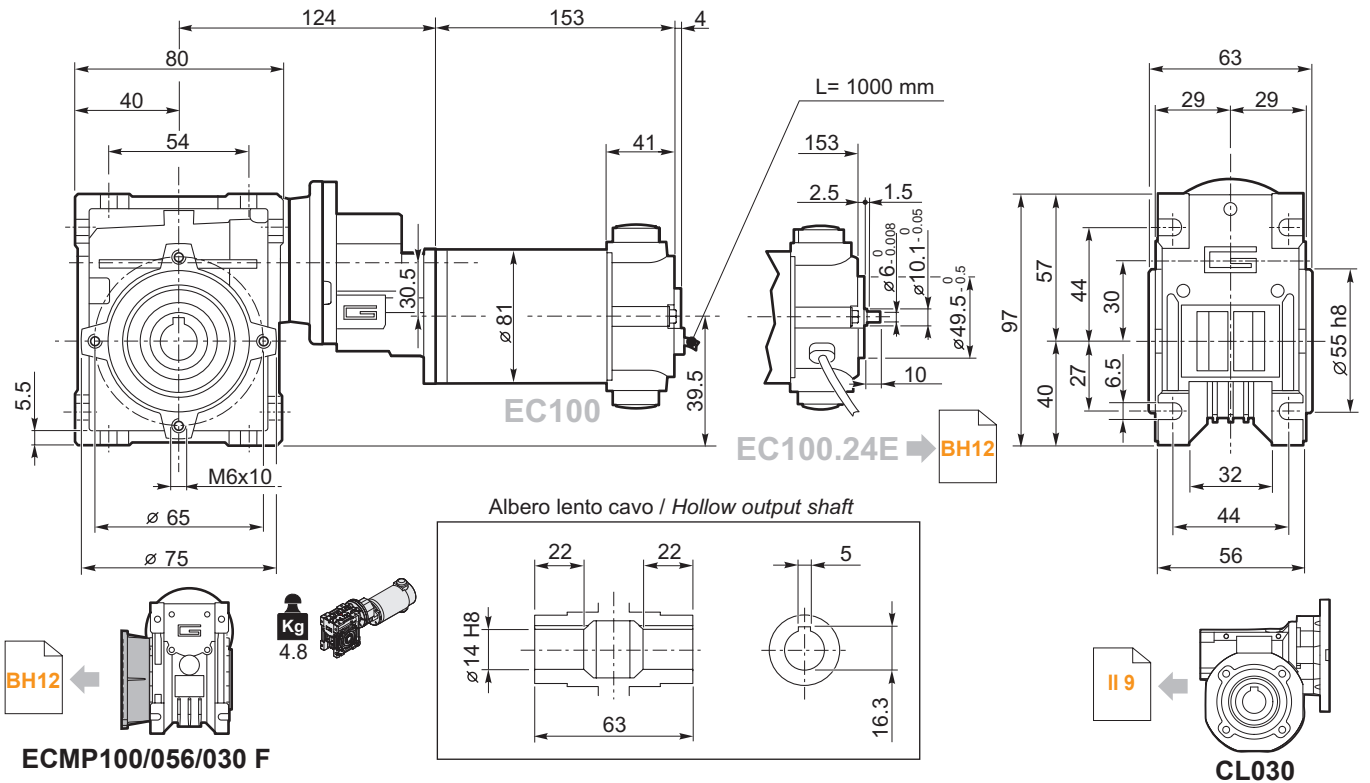
Encoder → BB24



Dimensioni

Dimensions

ECMP100/056/030 U



Motori / Motors IP66

BC4

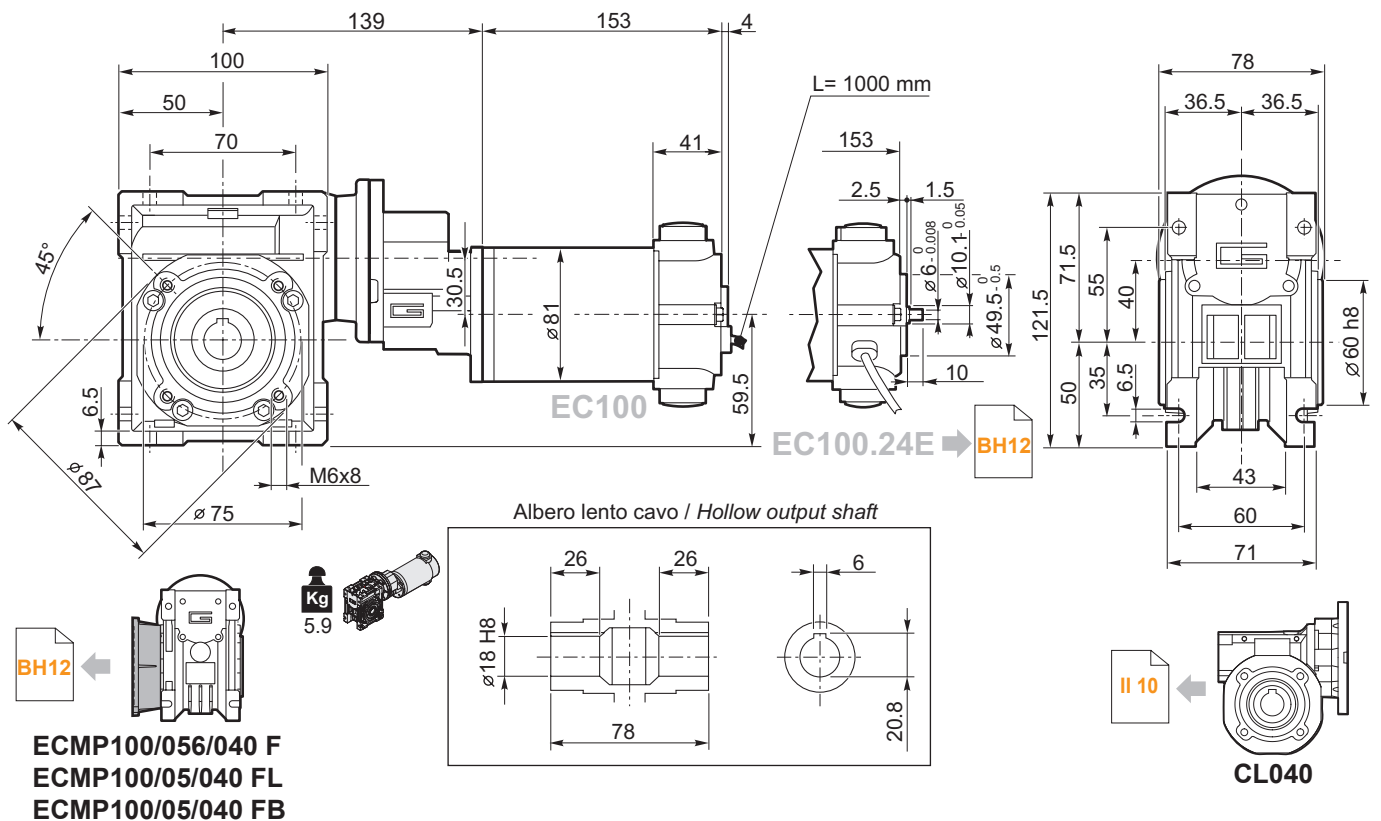
Freno / Brake

BB23

Encoder

BB24

ECMP100/056/040 U



Motori / Motors IP66

BC4

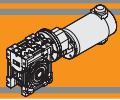
Freno / Brake

BB23

Encoder

BB24

DC



ECMP

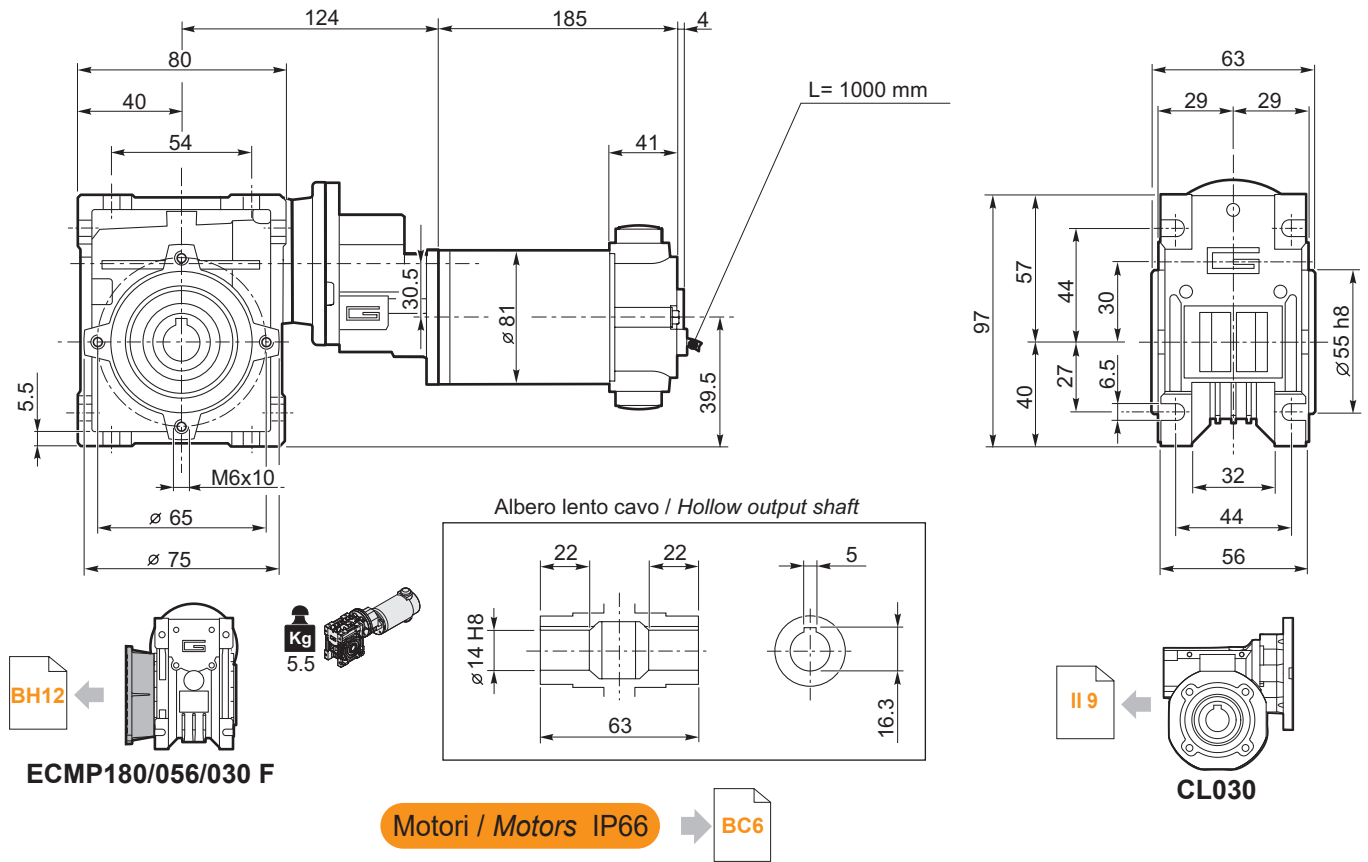
Motoriduttori CC a vite senza fine con precoppia DC Pre stage wormgearmotors



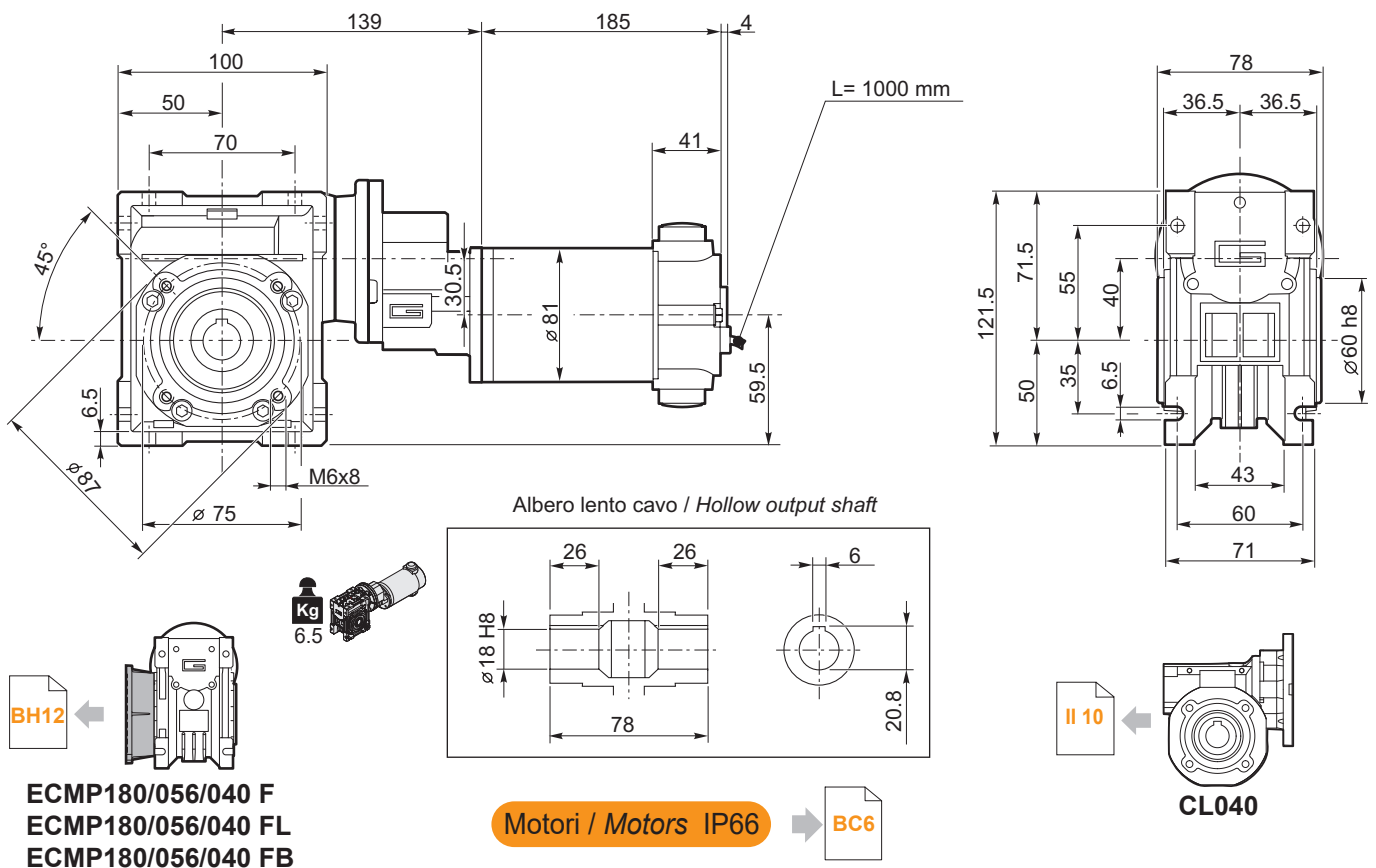
Dimensioni

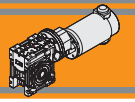
Dimensions

ECMP180/056/030 U



ECMP180/056/040 U

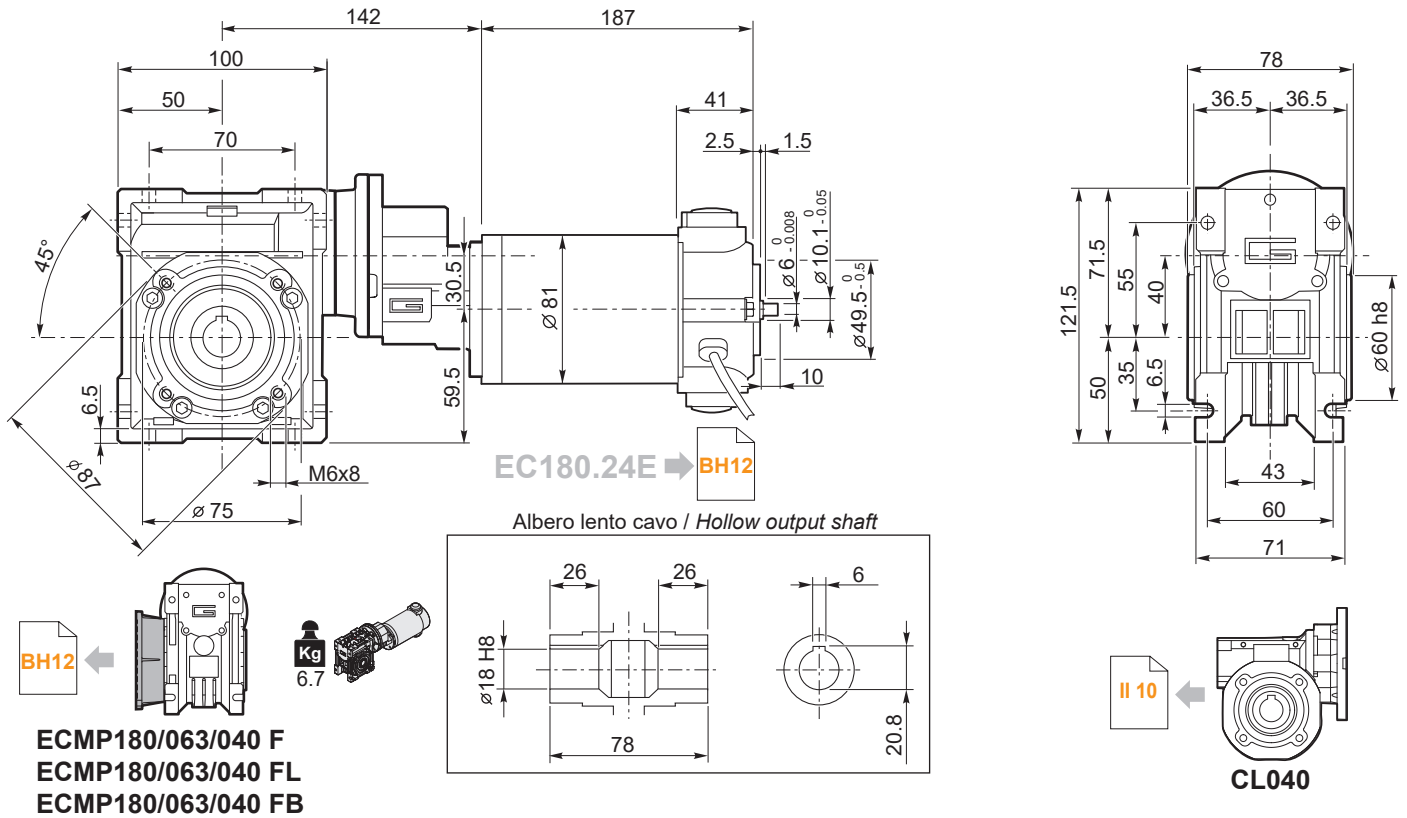




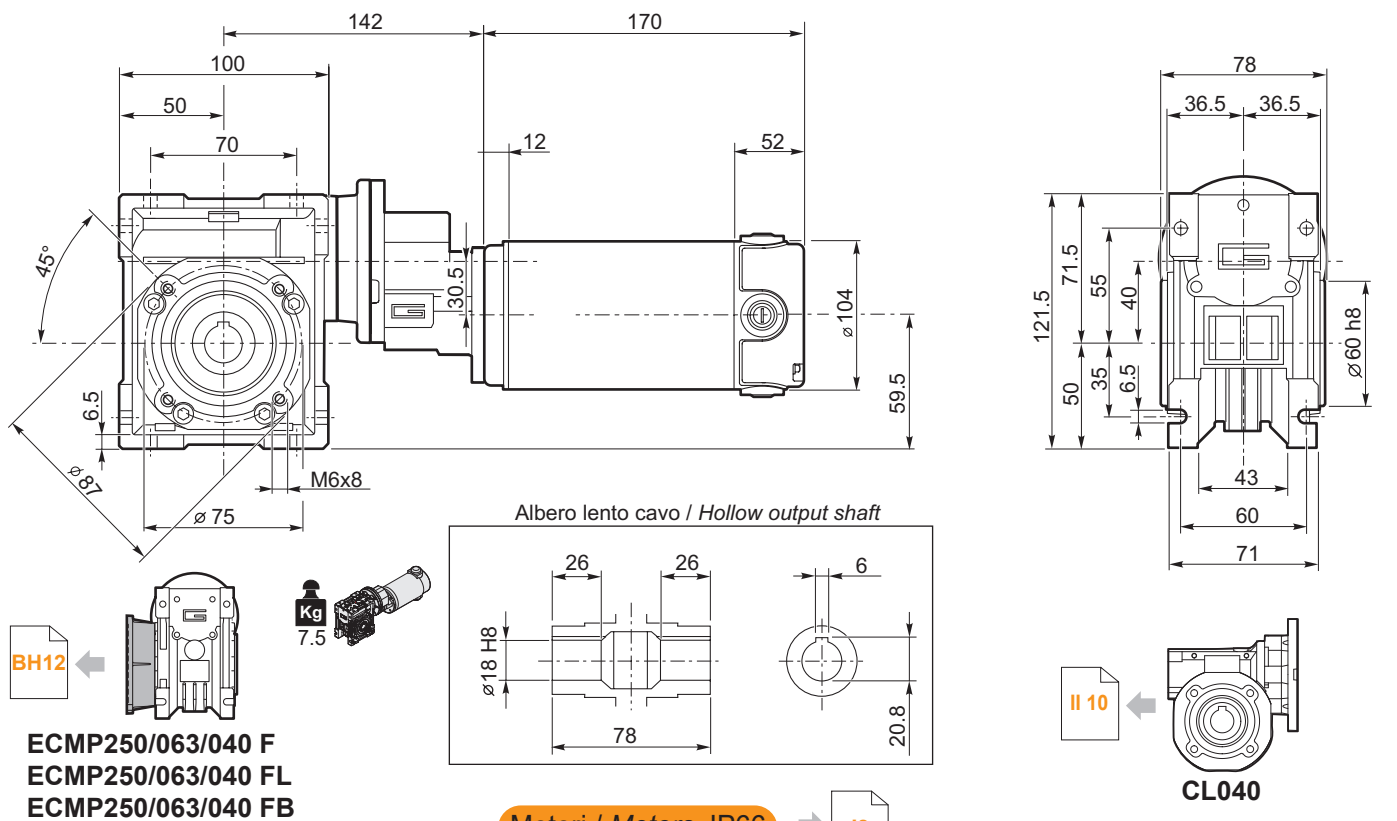
Dimensioni

Dimensions

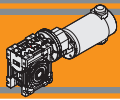
ECMP180/063/040 U



ECMP250/063/040 U



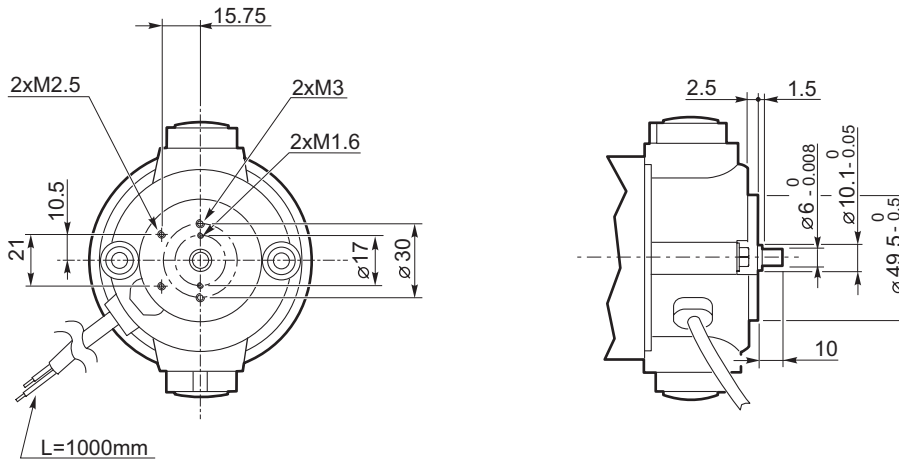
DC



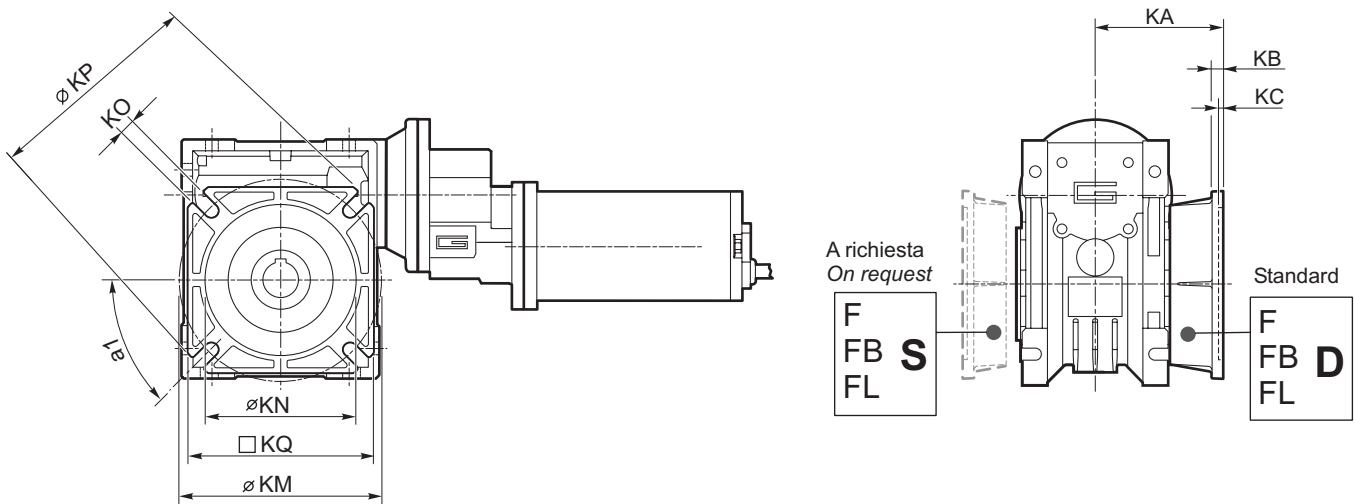
Dimensioni

Dimensions

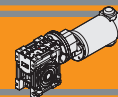
**EC100.24E
EC180.24E**



ECMP.../... F... Flange uscita / Output flanges



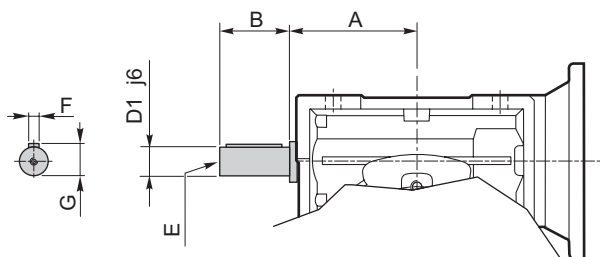
| CMP | CMP..F | | | | | | | | CMP..FB | | | | | | | CMP..FL | | | | | | | | | |
|--------------------|--------|------|-----|----|-------|------------------|----------|-----|---------|----|-----|----|---------|------------------|----------|---------|-----|----|-----|-----|-------|------------------|--------|-----|----|
| | 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 |

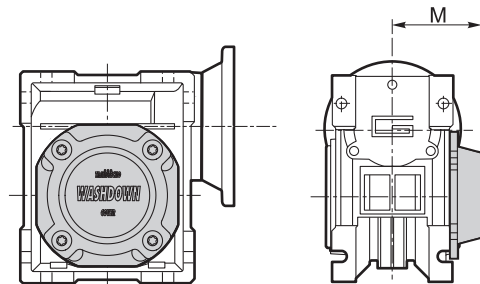
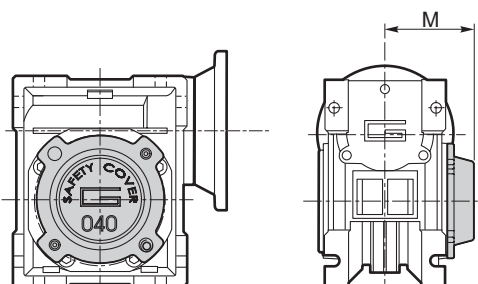
Costruito su richiesta
Built on request

Accessori

Accessories

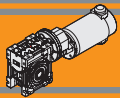
SC - Safety cover

WD - Kit washdown cover



| | M |
|--------|------|
| CM 030 | 47 |
| CM 040 | 54.5 |

| | M |
|--------|------|
| CM 030 | 48 |
| CM 040 | 55.5 |



Accessori

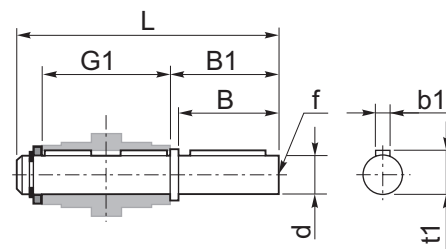
Accessories

Albero lento semplice e doppio

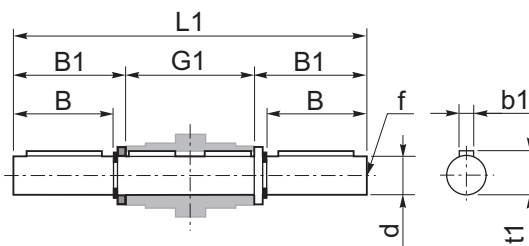
Single and double output shaft

| 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



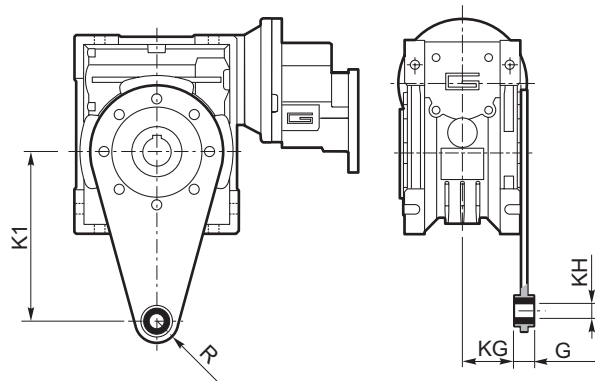
DZ



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 |



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small but strong

ECMM

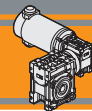
Motoriduttori CC a vite senza fine combinati
DC double reduction wormgearmotors



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 |

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

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**Caratteristiche tecniche****Technical features**

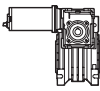
I motoriduttori CC a vite senza fine combinati a magneti permanenti in ferrite **ECMM** hanno le seguenti caratteristiche principali:

- 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

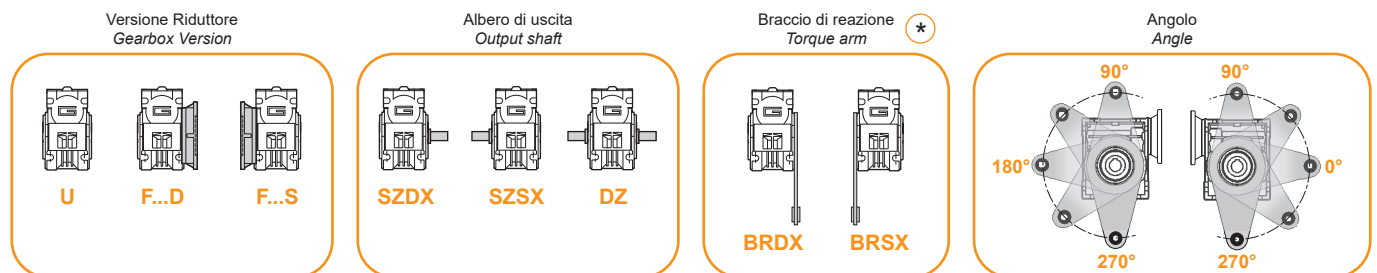
ECMM ferrite permanent magnets DC double reduction wormgearmotors range has the following main features:

- 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

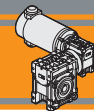
Designazione**Classification**

| 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 |
|  | 070/026/026 070/026/026 (D11) 070/026/026 (D14) 070/026/030 070/026/040 | 100/026/026 100/026/026 (D11) 100/026/026 (D14) | 180/026/040 180/030/040 | 250/030/040 350/030/040 | 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 |

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

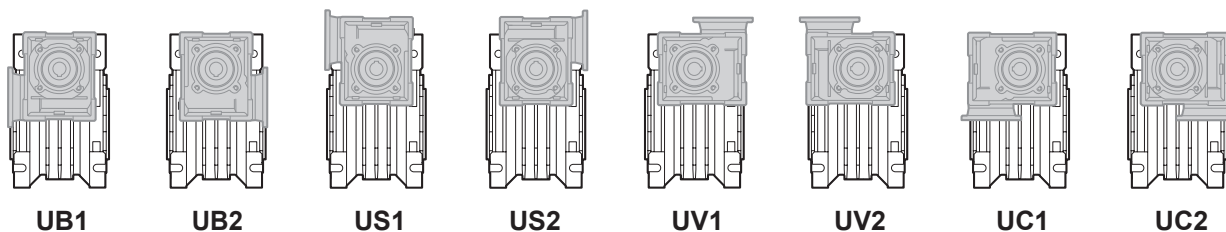
**Simbologia****Symbols**

| | | | | | |
|-------|-----------------------|------------------------------------|-------|------|---|
| 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 |



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

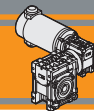
NOTE: for continuous or highly intermittent duty, please contact our technical service

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 | | |
| | 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

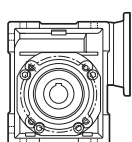
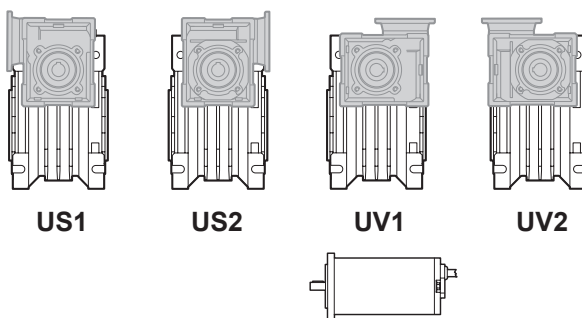
Dati tecnici elettrici

Electrical technical data



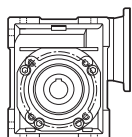
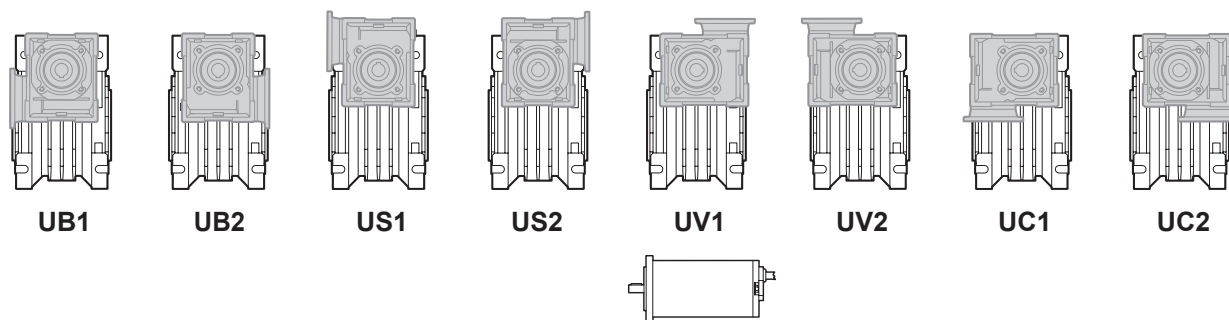
Motori applicabili

Motor adapters



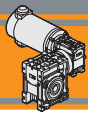
| | | EC | | | |
|------------|----------------|--------------------|--------------------|------------|--------------------|
| | | 070.12E 070.24E | 100.120 100.240 | 100.24E | 180.120 180.240 |
| CMM | 026/026 | 150 - 3600 | 150 - 3600 | 150 - 3600 | 150 - 3600 |

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 |

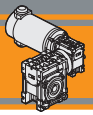
75 - 1500 Rapporti di riduzione i / Ratio i

**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 | |

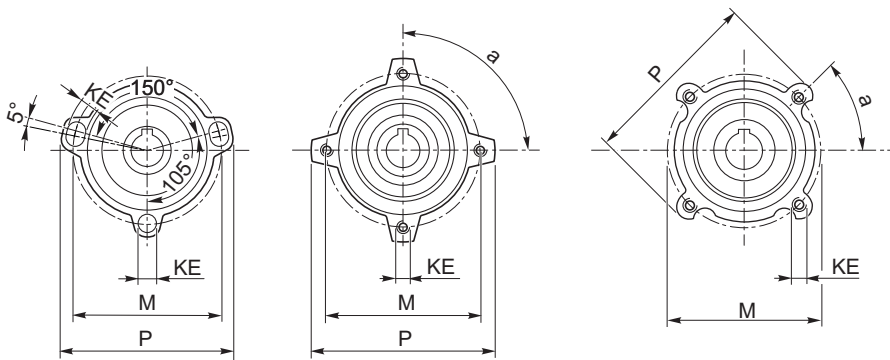
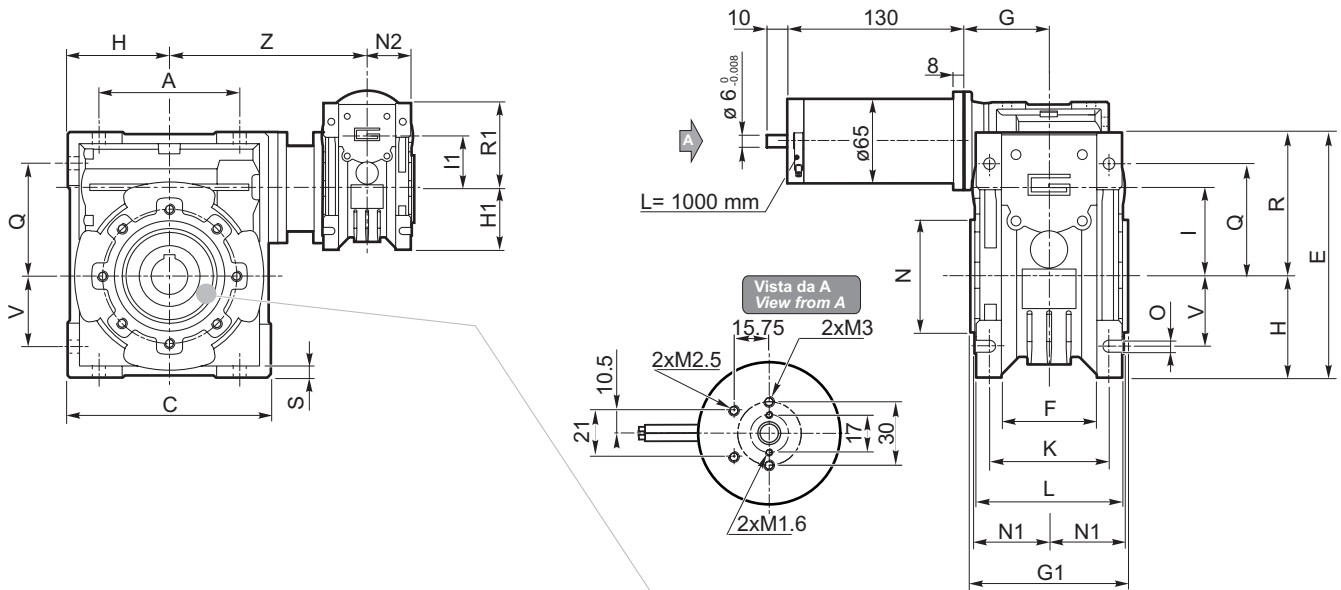
(*) **Nota:** Il peso in kg si riferisce al motoriduttore ECMM 070 /...**Note:** The weight in kg is referred to the gearmotor ECMM 070 /...



Dimensioni

Dimensions

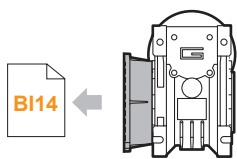
ECMM070/...U



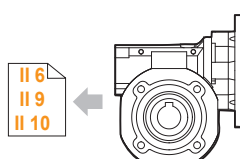
..026/026

..026/030

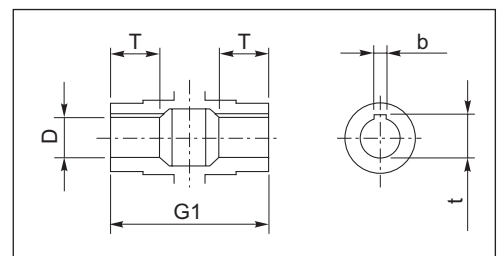
..026/040
..030/040



ECMM070/... F...
ECMM070/... FL
ECMM070/... FB



CL026
CL030
CL040



Albero lento cavo / Hollow output shaft

Motori / Motors IP66

BC2

Freno / Brake

BB23

Encoder

BB24

DC

**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 /...

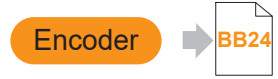
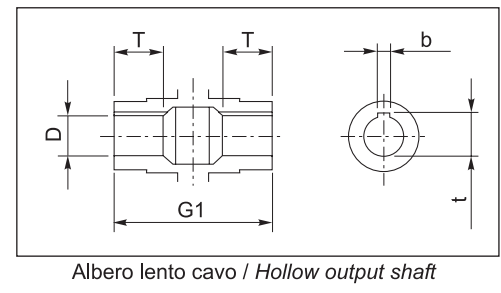
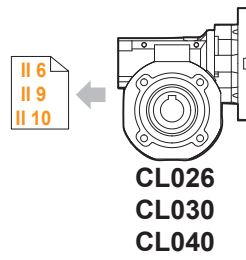
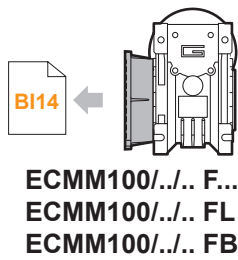
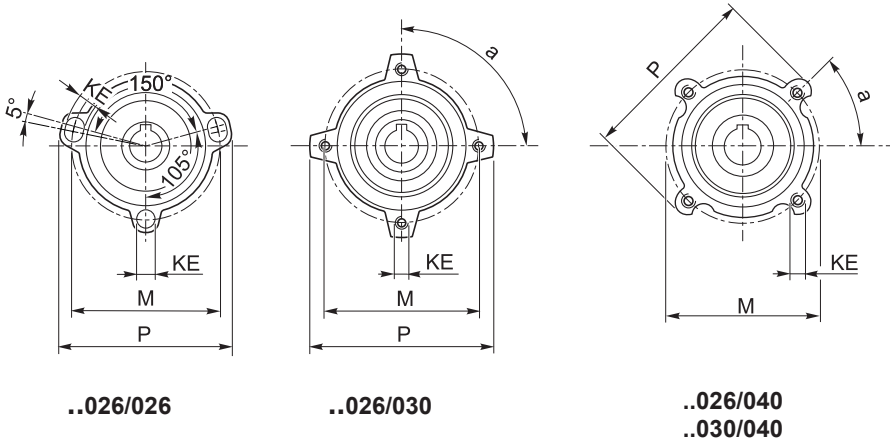
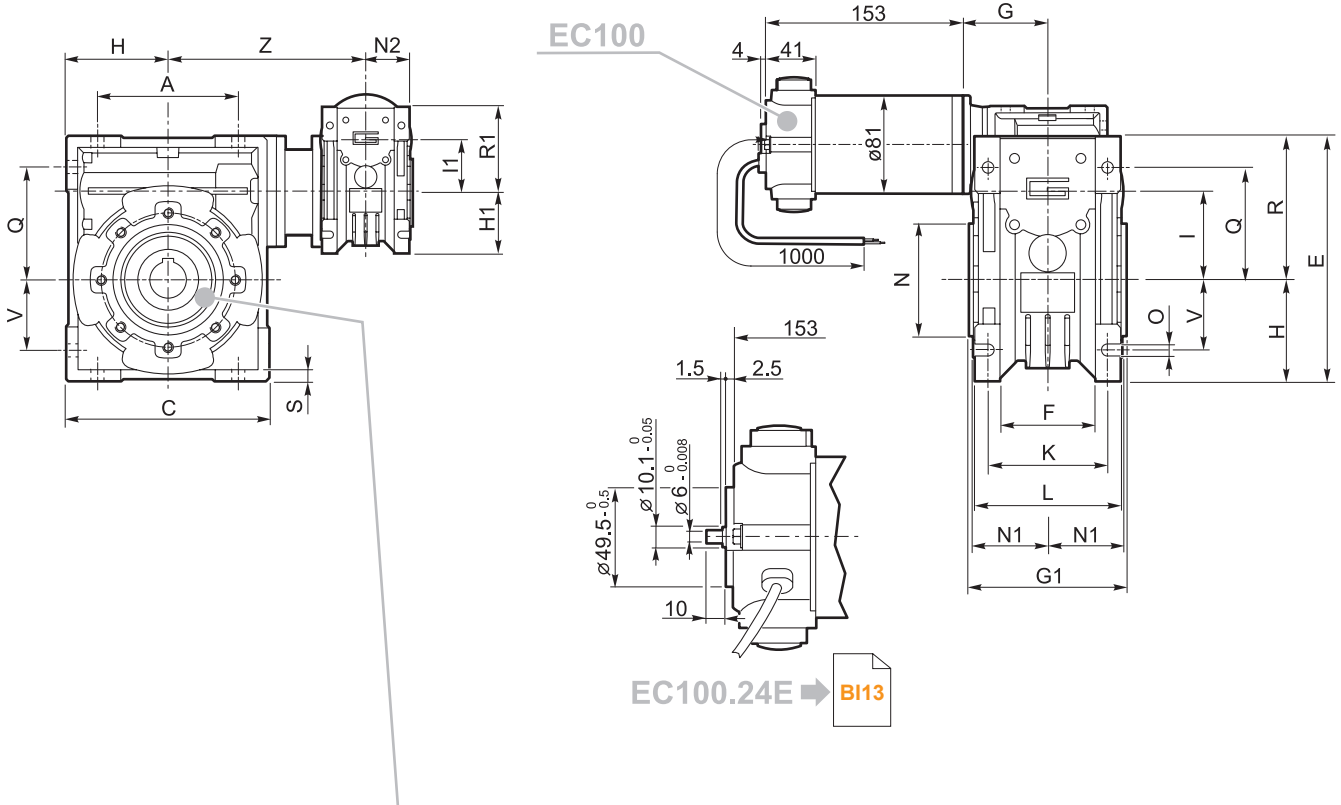
Note: The weight in kg is referred to the gearmotor ECMM 100 /...



Dimensioni

Dimensions

ECMM100/...U



DC



Dimensioni

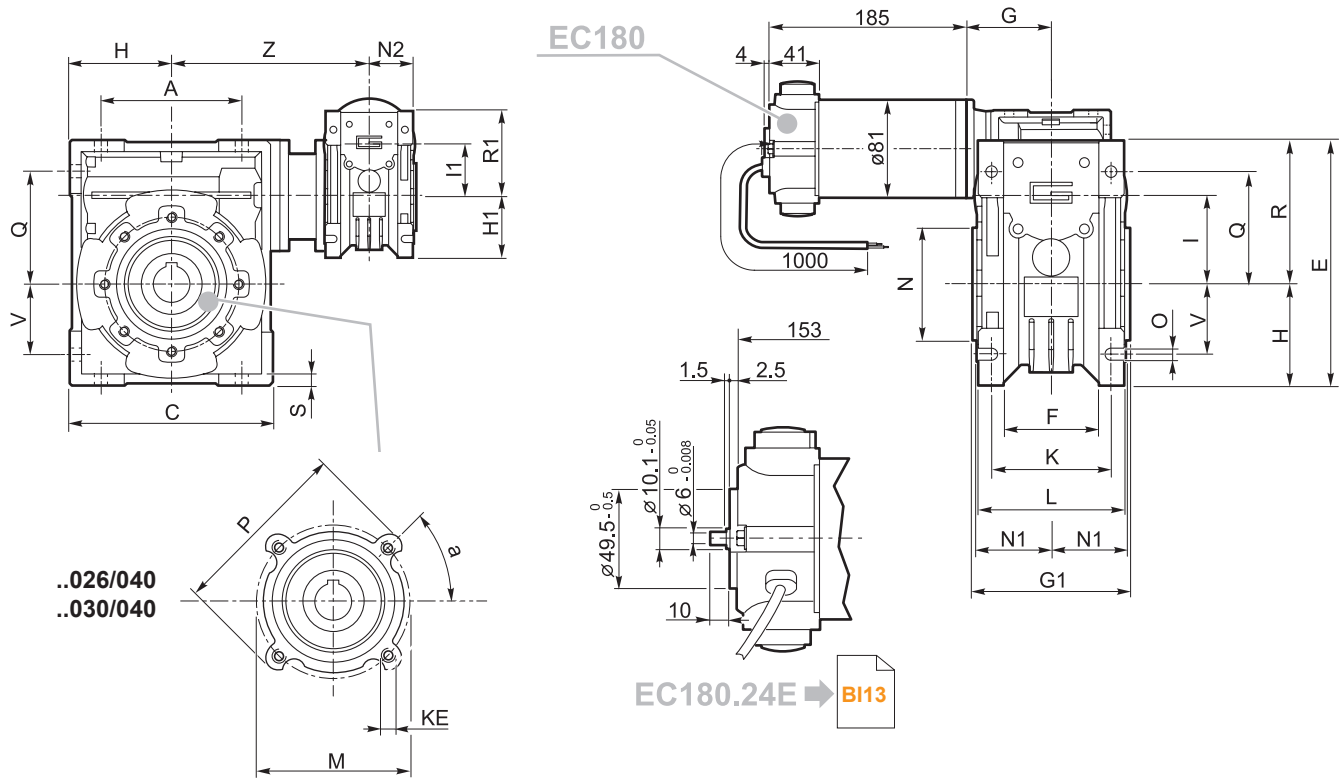
Dimensions

| 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 |
| 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 |

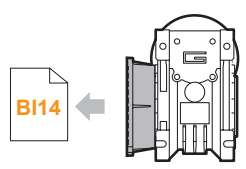
(*) **Nota:** Il peso in kg si riferisce al motoriduttore ECMM 180 /...
Note: The weight in kg is referred to the gearmotor ECMM 180 /...

ECMM180/...U

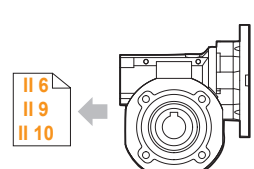


..026/040
..030/040

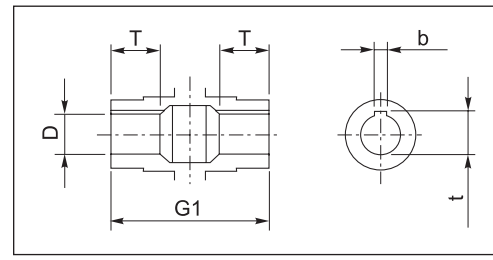
EC180.24E → BI13



ECMM180/... F
ECMM180/... FL
ECMM180/... FB



CL026
CL030
CL040

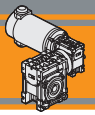


Albero lento cavo / Hollow output shaft

Motori / Motors IP66 → BC6

Freno / Brake → BB23

Encoder → BB24



Dimensioni

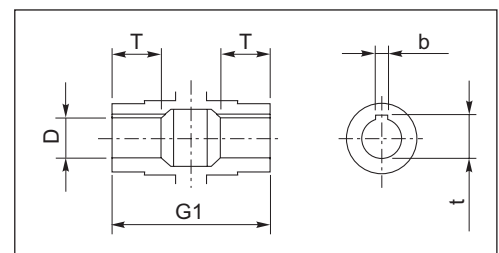
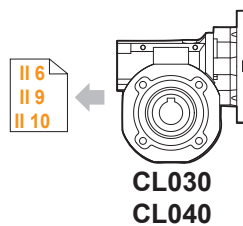
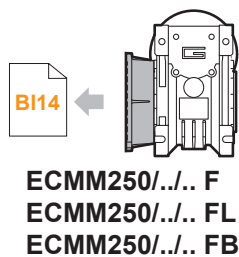
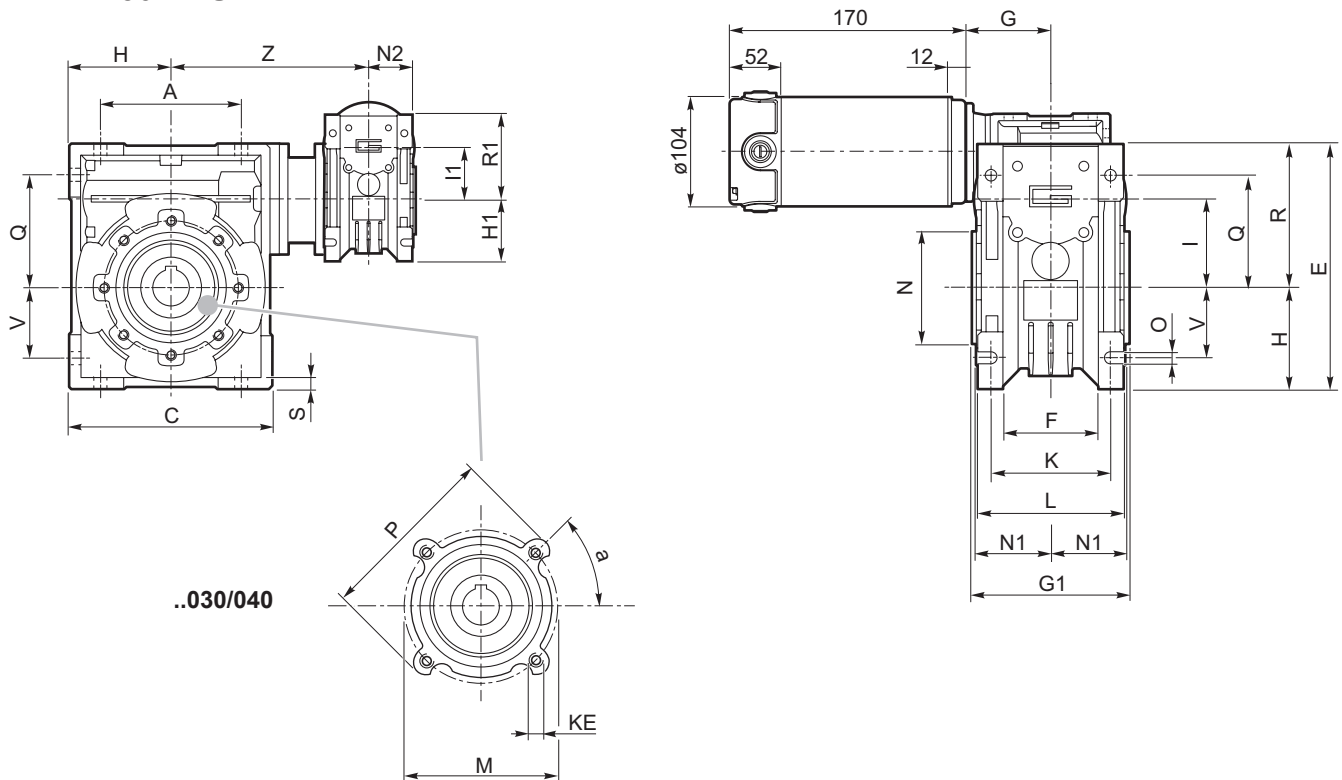
Dimensions

| 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

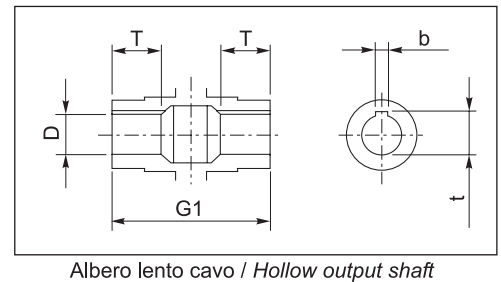
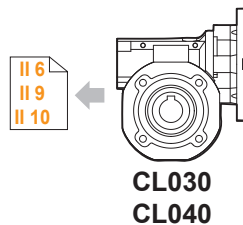
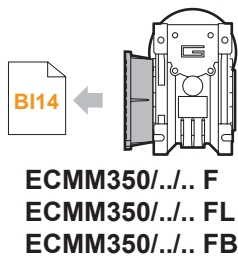
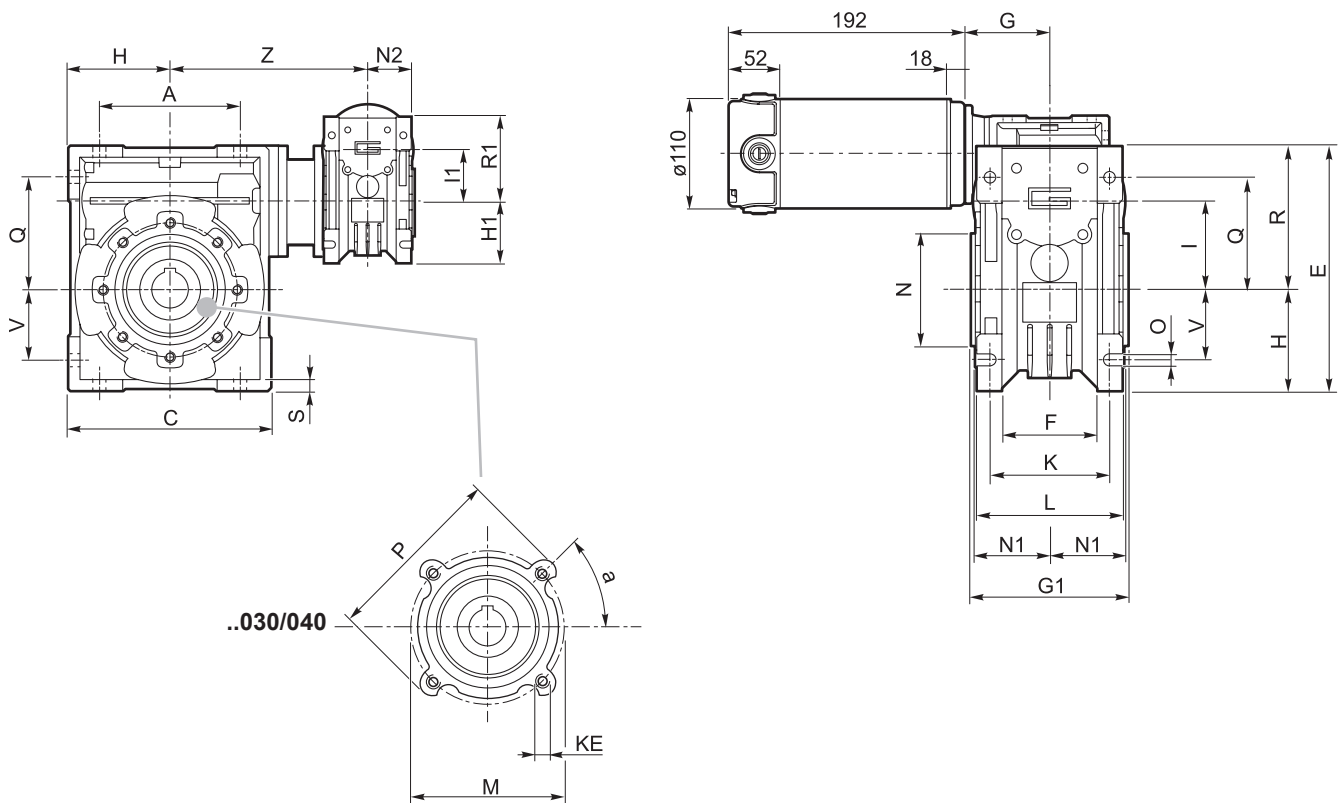
Dimensions

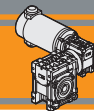
| CMM..U - CMM..F - CMM..FB - CMM..FL | | | | | | | | | | | | | | | | | |
|-------------------------------------|----|-----|-----------------|-------|----|----|----|----|----|----|----|----|----|----|-----------------|------|----|
| | A | C | D _{H8} | E | F | G | G1 | H | H1 | I | I1 | K | L | M | N _{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

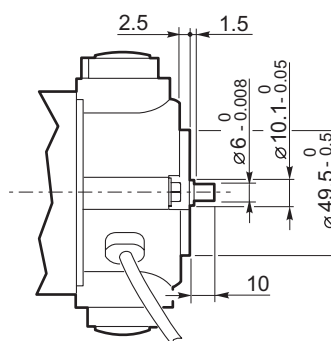
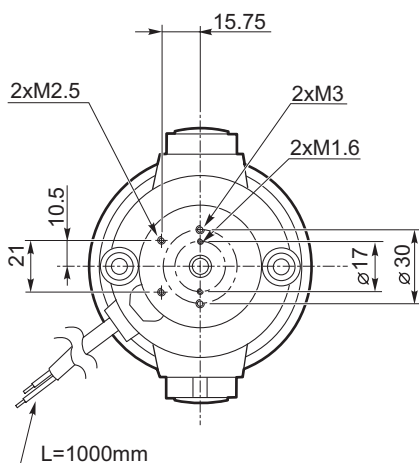


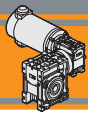


Dimensioni

Dimensions

EC100.24E
EC180.24E

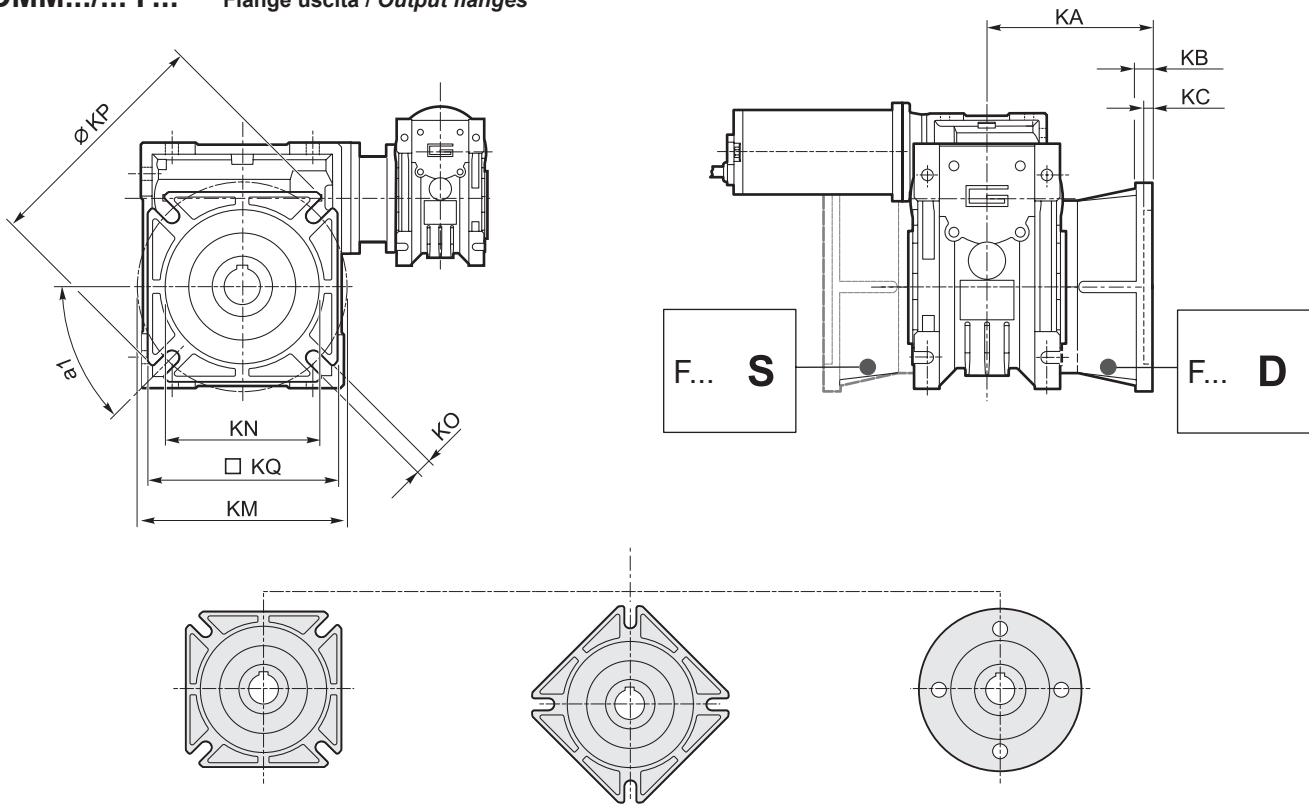




Dimensioni

Dimensions

ECMM.../... F... Flange uscita / Output flanges



- ..ECMM.../.../026.. F
..ECMM.../.../026.. F28
..ECMM.../.../026.. F30
..ECMM.../.../026.. F30S
...ECMM.../.../030.. F..
..ECMM.../.../040.. F..
- ..ECMM.../.../026.. F30C
..ECMM.../.../026.. F30SC
- ..ECMM.../.../026.. 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

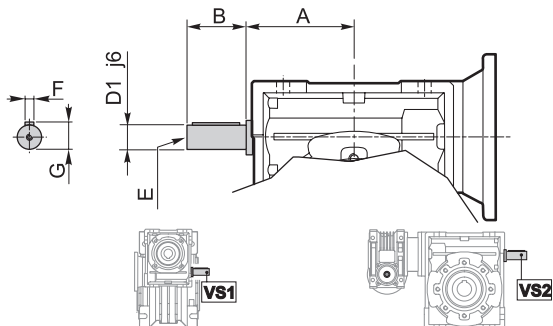
| CM | CM..F | | | | | | | CM..FB | | | | | | | CM..FL | | | | | | | | | | |
|------------|-------|------|-----|----|-------|------------------|----------|--------|----|----|-----|----|---------|------------------|----------|-----|-----|----|-----|-----|-------|------------------|---------|-----|----|
| | 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 |



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 |

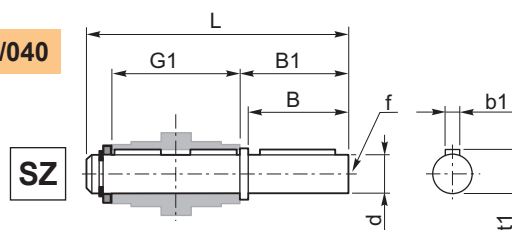
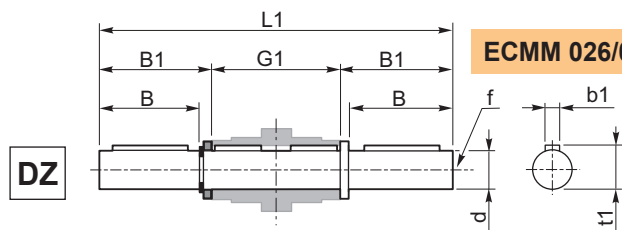
Costruito su richiesta
Built on request

Accessori

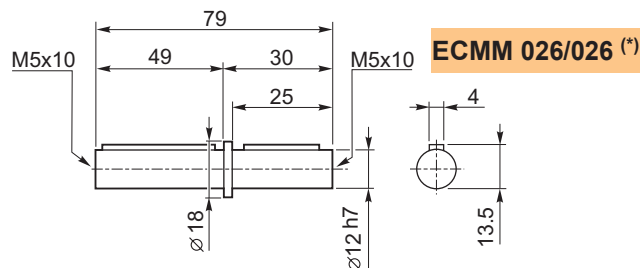
Accessories

Albero lento semplice e doppio

Single and double output shaft



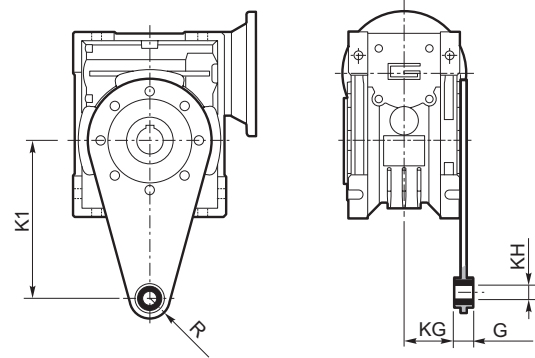
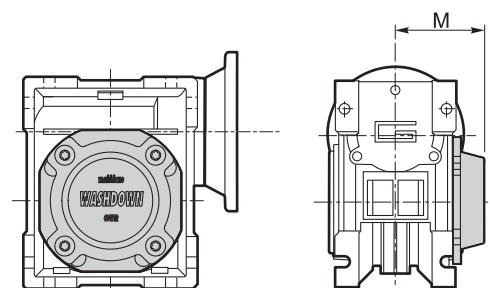
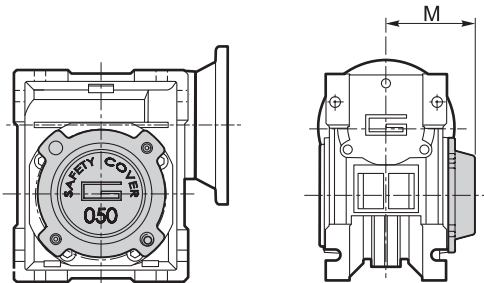
| ECMM | d h7 | B | B1 | G1 | L | L1 | f | b1 | t1 |
|--------------------|---------|----|------|----|-----|-----|----|----|------|
| 026/030 | 14 | 30 | 32.5 | 63 | 102 | 128 | M6 | 5 | 16 |
| 026/040 030/040 | 18 | 40 | 43 | 78 | 128 | 164 | M6 | 6 | 20.5 |



(*)
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

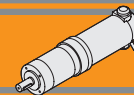
Motoriduttori CC epicicloidali
DC planetary gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



DC



| | | Pag. Page |
|--------------------------|---------------------------|--------------|
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| 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

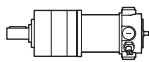
I motoriduttori CC epicicloidali a magneti permanenti in neodimio **NDP** e in ferrite **ECP** hanno le seguenti caratteristiche principali:


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

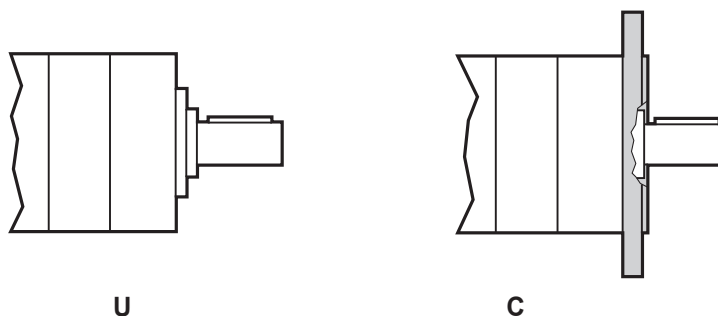
Classification

| 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

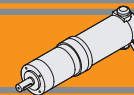
Versions



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

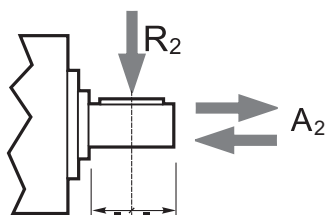
Lubrication

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 |

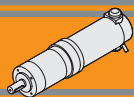
Rapporti

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.

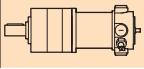
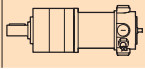
Disponibile a 4 stadi con rapporti fino a 2076
Available 4 stages with ratio up to 2076



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 | | | | | | | | |
| | 701 | 3 | 1.5 | 4.28 | | | 120/240 | | | | | | | |
| | 579 | 3 | 1.2 | 5.18 | | | | 120/240 | | | | | | |
| | 444 | 4 | 0.9 | 6.75 | | | | | 120/240 | | | | | |
| | 218 | 8 | 1.5 | 13.73 | NDP180/522 | 120/240 | | | | | | | | |
| | 189 | 10 | 1.3 | 15.88 | | | 120/240 | | | | | | | |
| | 163 | 11 | 1.1 | 18.36 | | | | 120/240 | | | | | | |
| | 156 | 12 | 1.0 | 19.20 | | | | | 120/240 | | | | | |
| | 135 | 13 | 0.9 | 22.20 | | | | | | 120/240 | | | | |
| | 120 | 15 | 0.8 | 25.01 | | | | | | | 120/240 | | | |
| | 112 | 16 | 0.7 | 26.85 | | | | | | | | 120/240 | | |
| | 104 | 17 | 0.7 | 28.93 | | | | | | | | | 120/240 | |
| | 86 | 17 | 0.7 | 34.97 | | | | | | | | | | 120/240 |
| | 66 | 17 | 0.7 | 45.56 | | | | | | | | | | |

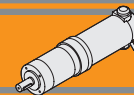
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

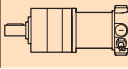
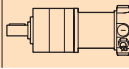
NOTE: for continuous or highly intermittent duty, please contact our technical service

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

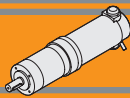
For sf=0.7 check that the duty torque does not exceed the value M2

 Motoriduttori preferenziali / Preferred gearmotors

Dati tecnici elettrici
Electrical technical data

ND 120 → 

ND 180 → 



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 | | |
|---------------------------|-------------------------------|---------------|------|---------------|---|----------------------------------|---------------------------|-------------------------------|---------------|------------|---------------|---|----------------------------------|-------------------|----------------|
| 30 | | | | | | | 55 | | | | | | | | |
| (2850 min ⁻¹) | 770 | 0.24 | 12.7 | 3.70 | ECP020/421 | 120/24E | (2850 min ⁻¹) | 31 | 12 | 1.3 | 95.17 | ECP035/423 | 120/240 | | |
| | 666 | 0.27 | 11.0 | 4.28 | | | | 30 | 13 | 1.2 | 99.50 | | | | |
| | 550 | 0.33 | 9.0 | 5.18 | | | | | | | | | | | |
| | 422 | 0.43 | 6.9 | 6.75 | | | | | | | | | | | |
| | 208 | 0.82 | 9.1 | 13.73 | | | | | | | | | | | |
| | 179 | 0.95 | 7.9 | 15.88 | | | | | | | | | | | |
| | 155 | 1.1 | 6.8 | 18.36 | | | | | | | | | | | |
| | 148 | 1.2 | 6.5 | 19.20 | | | | | | | | | | | |
| | 128 | 1.3 | 5.6 | 22.20 | | | | | | | | | | | |
| | 114 | 1.5 | 5.0 | 25.01 | | | | | | | | | | | |
| | 106 | 1.6 | 4.7 | 26.85 | | | | | | | | | | | |
| | 99 | 1.7 | 4.3 | 28.93 | | | | | | | | | | | |
| | 81 | 2.1 | 3.6 | 34.97 | | | | | | | | | | | |
| | 63 | 2.7 | 2.7 | 45.56 | | | | | | | | | | | |
| | 56 | 2.8 | 5.3 | 50.89 | ECP020/423 | 120/24E | | 811 | 0.53 | 7.5 | 3.70 | ECP035/521 | 120/240 | | |
| | 48 | 3.3 | 4.6 | 58.85 | | | | 701 | 0.62 | 6.5 | 4.28 | | | | |
| | 42 | 3.8 | 3.9 | 68.06 | | | | | | | | | | | |
| | 40 | 4.0 | 3.8 | 71.16 | | | | | | | | | | | |
| | 36 | 4.4 | 3.4 | 78.71 | | | | | | | | | | | |
| | 31 | 5.2 | 2.9 | 92.70 | | | | | | | | | | | |
| | 30 | 5.3 | 2.8 | 95.17 | | | | | | | | | | | |
| | 29 | 5.6 | 2.7 | 99.50 | | | | | | | | | | | |
| | 27 | 6.0 | 2.5 | 107.20 | | | | | | | | | | | |
| | 25 | 6.4 | 2.3 | 115.07 | | | | | | | | | | | |
| | 23 | 6.9 | 2.2 | 123.97 | | | | | | | | | | | |
| | 22 | 7.3 | 2.1 | 129.62 | | | | | | | | | | | |
| | 20 | 7.8 | 1.9 | 139.13 | | | | | | | | | | | |
| | 19 | 8.4 | 1.8 | 149.90 | | | | | | | | | | | |
| | 17 | 9.5 | 1.6 | 168.84 | | | | | | | | | | | |
| | 16 | 10 | 1.5 | 181.24 | | | | | | | | | | | |
| | 15 | 11 | 1.4 | 195.26 | | | | | | | | | | | |
| | 12 | 13 | 1.1 | 236.09 | | | | | | | | | | | |
| | 9.3 | 17 | 0.9 | 307.54 | | | | | | | | | | | |
| | | | | | | | | 579 | 0.75 | 5.4 | 5.18 | | | | |
| | | | | | | | | 444 | 0.97 | 4.1 | 6.75 | | | | |
| | | | | | | | | 218 | 1.9 | 6.5 | 13.73 | | | | |
| | | | | | | | | 189 | 2.1 | 5.6 | 15.88 | | | | |
| | | | | | | | | 163 | 2.5 | 4.8 | 18.36 | | | | |
| | | | | | | | | 156 | 2.6 | 4.6 | 19.20 | | | | |
| | | | | | | | | 135 | 3.0 | 4.0 | 22.20 | | | | |
| | | | | | | | | 120 | 3.4 | 3.6 | 25.01 | | | | |
| | | | | | | | | 112 | 3.6 | 3.3 | 26.85 | | | | |
| | | | | | | | | 104 | 3.9 | 3.1 | 28.93 | | | | |
| | | | | | | | | 86 | 4.7 | 2.5 | 34.97 | | | | |
| | | | | | | | | 66 | 6.2 | 2.0 | 45.56 | | | | |
| | | | | | | | | 59 | 6.4 | 3.9 | 50.89 | | | ECP035/523 | 120/240 |
| | | | | | | | | 51 | 7.4 | 3.4 | 58.85 | | | | |
| | | | | | | | | 44 | 8.6 | 2.9 | 68.06 | | | | |
| | | | | | | | | 42 | 9.0 | 2.8 | 71.16 | | | | |
| | | | | | | | | 38 | 9.9 | 2.5 | 78.71 | | | | |
| | | | | | | | | 32 | 11.7 | 2.1 | 92.70 | | | | |
| | | | | | | | | 31 | 12.0 | 2.1 | 95.17 | | | | |
| | | | | | | | | 30 | 12.5 | 2.0 | 99.50 | | | | |
| | | | | | | | | 28 | 13.5 | 1.9 | 107.20 | | | | |
| | | | | | | | | 26 | 14.5 | 1.7 | 115.07 | | | | |
| | | | | | | | | 24 | 15.6 | 1.6 | 123.97 | | | | |
| | | | | | | | | 23 | 16.3 | 1.5 | 129.62 | | | | |
| | | | | | | | | 22 | 17.5 | 1.4 | 139.13 | | | | |
| | | | | | | | | 20 | 18.9 | 1.3 | 149.90 | | | | |
| | | | | | | | | 18 | 21.3 | 1.2 | 168.84 | | | | |
| | | | | | | | | 17 | 22.8 | 1.1 | 181.24 | | | | |
| | | | | | | | | 15 | 24.6 | 1.0 | 195.26 | | | | |
| | | | | | | | | 13 | 29.7 | 0.8 | 236.09 | | | | |
| | | | | | | | | 10 | 35.7 | 0.7 | 307.54 | | | | |
| 55 | | | | | | | 70 | | | | | | | | |
| (3000 min ⁻¹) | 811 | 0.53 | 5.6 | 3.70 | ECP035/421 | 120/240 | (3000 min ⁻¹) | 811 | 0.65 | 4.6 | 3.70 | ECP050/421 | 12E/24E | | |
| | 701 | 0.62 | 4.9 | 4.28 | | | | 701 | 0.75 | 4.0 | 4.28 | | | | |
| | 579 | 0.75 | 4.0 | 5.18 | | | | | | | | | | | |
| | 444 | 0.97 | 3.1 | 6.75 | | | | | | | | | | | |
| | 218 | 1.9 | 4.0 | 13.73 | | | | | | | | | | | |
| | 189 | 2.1 | 3.5 | 15.88 | | | | | | | | | | | |
| | 163 | 2.5 | 3.0 | 18.36 | | | | | | | | | | | |
| | 156 | 2.6 | 2.9 | 19.20 | | | | | | | | | | | |
| | 135 | 3.0 | 2.5 | 22.20 | | | | | | | | | | | |
| | 120 | 3.4 | 2.2 | 25.01 | | | | | | | | | | | |
| | 112 | 3.6 | 2.1 | 26.85 | | | | | | | | | | | |
| | 104 | 3.9 | 1.9 | 28.93 | | | | | | | | | | | |
| | 86 | 4.7 | 1.6 | 34.97 | | | | | | | | | | | |
| | 65.8 | 6.2 | 1.2 | 45.56 | | | | | | | | | | | |
| | 59 | 6.4 | 2.3 | 50.89 | ECP035/423 | 120/240 | | 579 | 0.91 | 3.3 | 5.18 | | | | |
| | 51 | 7.4 | 2.0 | 58.85 | | | | 444 | 1.2 | 2.5 | 6.75 | | | | |
| | 44 | 8.6 | 1.7 | 68.06 | | | | | | | | | | | |
| | 42 | 9.0 | 1.7 | 71.16 | | | | | | | | | | | |
| | 38 | 9.9 | 1.5 | 78.71 | | | | | | | | | | | |
| | 32 | 12 | 1.3 | 92.70 | | | | | | | | | | | |
| | | | | | | | | | | 218 | 2.3 | | | 3.3 | 13.73 |
| | | | | | | | | | | 189 | 2.6 | | | 2.9 | 15.88 |
| | | | | | | | | | | 163 | 3.0 | | | 2.5 | 18.36 |
| | | | | | | | | 156 | 3.2 | 2.4 | 19.20 | | | | |
| | | | | | | | | 135 | 3.7 | 2.0 | 22.20 | | | | |
| | | | | | | | | 120 | 4.1 | 1.8 | 25.01 | | | | |
| | | | | | | | | 112 | 4.4 | 1.7 | 26.85 | | | | |
| | | | | | | | | 104 | 4.8 | 1.6 | 28.93 | | | | |
| | | | | | | | | 86 | 5.8 | 1.3 | 34.97 | | | | |
| | | | | | | | | 66 | 7.5 | 1.0 | 45.56 | | | | |

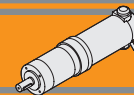
NOTA
Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

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

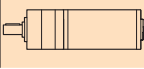
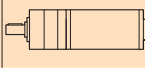
NOTE: for continuous or highly intermittent duty, please contact our technical service



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 | | | | | |
|---------------------------|-------------------------------|---------------|-----|--------|---|----------------------------------|---------------------------|-------------------------------|---------------|--------|-------------|---|----------------------------------|----------------|-------------------|----------------|--|--|
| 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.

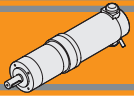
NOTE

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



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 | | | | |
| | 189 | 5.1 | 2.3 | 15.88 | | | | | | | | | | 32 | 28 | 1.8 | 92.70 | | |
| | 163 | 5.9 | 2.0 | 18.36 | | | | | | | | | | 31 | 29 | 1.7 | 95.17 | | |
| | 156 | 6.2 | 1.9 | 19.20 | | | | | | | | | | 30 | 30 | 1.7 | 99.50 | | |
| | 135 | 7.2 | 1.7 | 22.20 | | | | | | | | | | 28 | 32 | 1.5 | 107.20 | | |
| | 120 | 8.1 | 1.5 | 25.01 | | | | | | | | | | 26 | 35 | 1.4 | 115.07 | | |
| | 112 | 8.7 | 1.4 | 26.85 | | | | | | 24 | 37 | 1.3 | 123.97 | | | | | | |
| | 104 | 9.3 | 1.3 | 28.93 | | | | | | 23 | 39 | 1.3 | 129.62 | | | | | | |
| | 86 | 11 | 1.1 | 34.97 | | | | | | 22 | 42 | 1.2 | 139.13 | | | | | | |
| | 66 | 15 | 0.8 | 45.56 | | | | | | 20 | 45 | 1.1 | 149.90 | | | | | | |
| | 59 | 15 | 1.6 | 50.89 | ECP100/523 | 120/240/24E | | 18 | 51 | 1.0 | 168.84 | | | | | | | | |
| | 51 | 18 | 1.4 | 58.85 | | | | | | 17 | 55 | 0.9 | 181.24 | | | | | | |
| | 44 | 20 | 1.2 | 68.06 | | | | | | 15 | 59 | 0.9 | 195.26 | | | | | | |
| | 42 | 21 | 1.2 | 71.16 | | | | | | 13 | 71 | 0.7 | 236.09 | | | | | | |
| | 38 | 24 | 1.1 | 78.71 | | | | | | 9.8 | 71 | 0.7 | 307.54 | | | | | | |
| | 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 | | | | | | | | | | | | | | | |
| | 59 | 28 | 0.9 | 50.89 | | | ECP180/523 | 120/240 | | | | | | | | | | | |
| | 51 | 33 | 0.8 | 58.85 | | | | | | | | | | | | | | | |
| | 44 | 36 | 0.7 | 68.06 | | | | | | | | | | | | | | | |
| | 42 | 36 | 0.7 | 71.16 | | | | | | | | | | | | | | | |
| | 38 | 36 | 0.7 | 78.71 | | | | | | | | | | | | | | | |
| | 32 | 36 | 0.7 | 92.70 | | | | | | | | | | | | | | | |
| | 31 | 36 | 0.7 | 95.17 | | | | | | | | | | | | | | | |
| | 30 | 36 | 0.7 | 99.50 | | | | | | | | | | | | | | | |
| | 28 | 36 | 0.7 | 107.20 | | | | | | | | | | | | | | | |
| | 26 | 36 | 0.7 | 115.07 | | | | | | | | | | | | | | | |
| | 24 | 36 | 0.7 | 123.97 | | | | | | | | | | | | | | | |
| | 23 | 36 | 0.7 | 129.62 | | | | | | | | | | | | | | | |
| | 22 | 36 | 0.7 | 139.13 | | | | | | | | | | | | | | | |
| | 20 | 36 | 0.7 | 149.90 | | | | | | | | | | | | | | | |
| | 18 | 36 | 0.7 | 168.84 | | | | | | | | | | | | | | | |
| | 17 | 36 | 0.7 | 181.24 | | | | | | | | | | | | | | | |
| | 15 | 36 | 0.7 | 195.26 | | | | | | | | | | | | | | | |
| | 13 | 36 | 0.7 | 236.09 | | | | | | | | | | | | | | | |
| | 9.8 | 36 | 0.7 | 307.54 | | | | | | | | | | | | | | | |

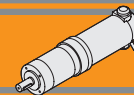
NOTA
Per sf=0.7 verificare che la coppia utilizzata non ecceda il valore M2 indicato.

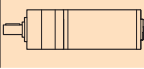
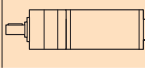
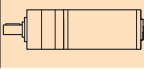
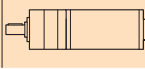
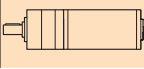
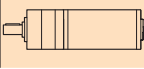
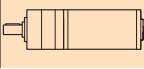
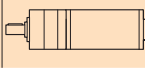
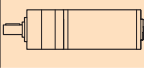
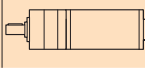
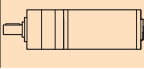
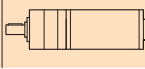
NOTE
For sf=0.7 check that the duty torque does not exceed the value M2

 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 | | | | | | | | |
| | 120 | 15 | 1.7 | 25.01 | | 24 | 71.0 | 0.7 | 123.97 | | | | | | | | |
| | 112 | 16 | 1.6 | 26.85 | | 23 | 71.0 | 0.7 | 129.62 | | | | | | | | |
| | 104 | 17 | 1.4 | 28.93 | | 22 | 71.0 | 0.7 | 139.13 | | | | | | | | |
| | 86 | 21 | 1.2 | 34.97 | | 20 | 71.0 | 0.7 | 149.90 | | | | | | | | |
| | 66 | 27 | 0.9 | 45.56 | | 18 | 71.0 | 0.7 | 168.84 | | | | | | | | |
| | 59 | 28 | 1.8 | 50.89 |  | ECP180/623 | 120/240/24E | | 17 | 71.0 | 0.7 | 181.24 | | 15 | 71.0 | 0.7 | 195.26 |
| | 51 | 33 | 1.5 | 58.85 | | | | | 13 | 71.0 | 0.7 | 236.09 | | | | | |
| | 44 | 38 | 1.3 | 68.06 | | | | | 9.8 | 71.0 | 0.7 | 307.54 | | | | | |
| | 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 | 21.0 | 1.2 | 25.01 | | 120 | 29 | 0.8 | 25.01 | | | | | | | | |
| | 112 | 22.6 | 1.1 | 26.85 | | 112 | 32 | 0.8 | 26.85 | | | | | | | | |
| | 104 | 24.3 | 1.0 | 28.93 | | 104 | 34 | 0.7 | 28.93 | | | | | | | | |
| | 86 | 29.4 | 0.9 | 34.97 | | 86 | 36 | 0.7 | 34.97 | | | | | | | | |
| | 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 | | | | | | | | |
| | 31 | 71 | 0.7 | 95.17 | | 31 | 71 | 0.7 | 95.17 | | | | | | | | |
| | 30 | 71 | 0.7 | 99.50 | | 30 | 71 | 0.7 | 99.50 | | | | | | | | |
| | 28 | 71 | 0.7 | 107.20 | | 28 | 71 | 0.7 | 107.20 | | | | | | | | |
| | 26 | 71 | 0.7 | 115.07 | | 26 | 71 | 0.7 | 115.07 | | | | | | | | |
| | 24 | 71 | 0.7 | 123.97 | | 24 | 71 | 0.7 | 123.97 | | | | | | | | |
| | 23 | 71 | 0.7 | 129.62 | | 23 | 71 | 0.7 | 129.62 | | | | | | | | |
| | 22 | 71 | 0.7 | 139.13 | | 22 | 71 | 0.7 | 139.13 | | | | | | | | |
| | 20 | 71 | 0.7 | 149.90 | | 20 | 71 | 0.7 | 149.90 | | | | | | | | |
| | 18 | 71 | 0.7 | 168.84 | | 18 | 71 | 0.7 | 168.84 | | | | | | | | |
| | 17 | 71 | 0.7 | 181.24 | | 17 | 71 | 0.7 | 181.24 | | | | | | | | |
| | 15 | 71 | 0.7 | 195.26 | | 15 | 71 | 0.7 | 195.26 | | | | | | | | |
| | 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 | | | | | | | | |

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

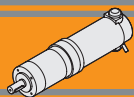
 Motoriduttori preferenziali / Preferred gearmotors

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 →  |



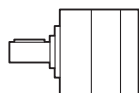
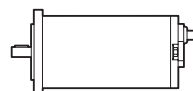
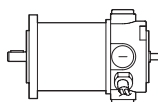
NDP
ECP

Motoriduttori CC epicicloidali DC planetary gearmotors



Motori applicabili

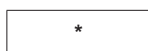
Motor adapters



| | | 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

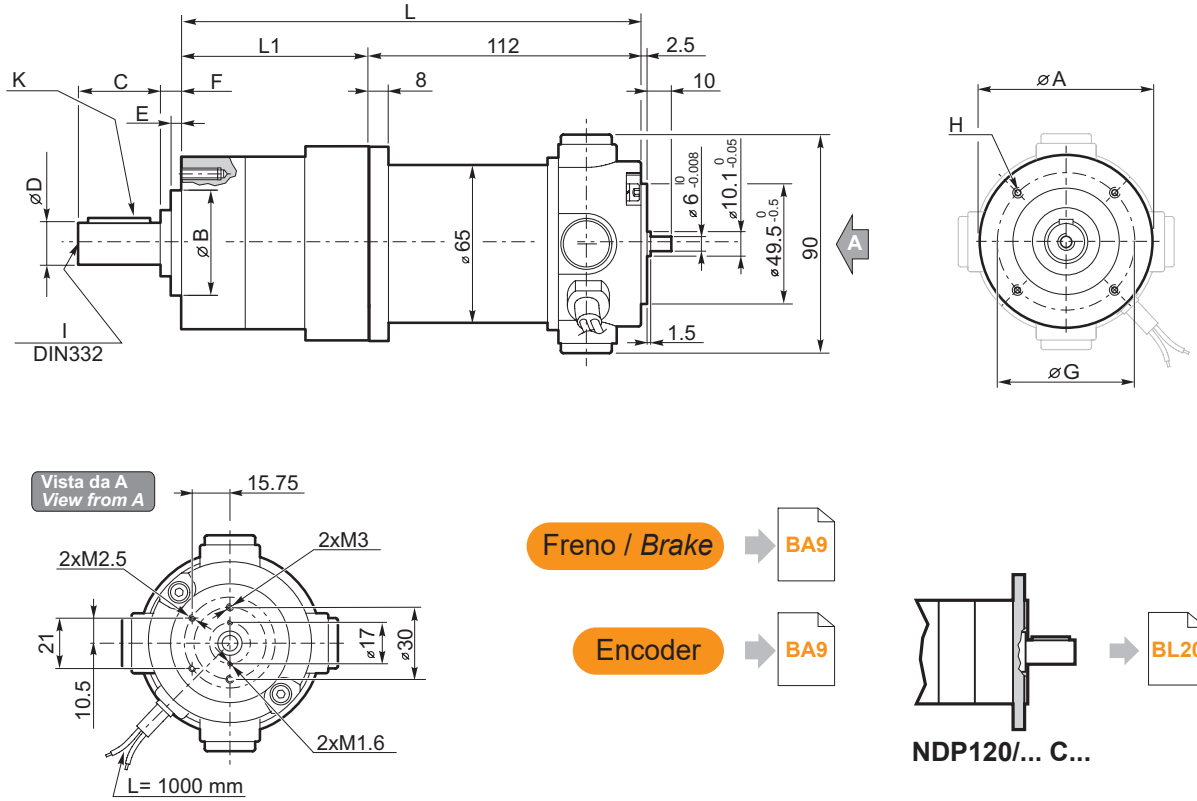


* Contattare il nostro servizio tecnico / Please contact our technical department

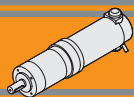
Dimensioni

Dimensions

NDP120/... U



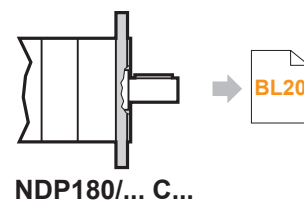
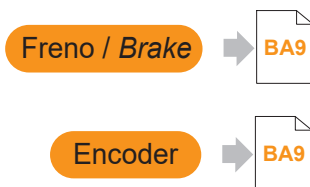
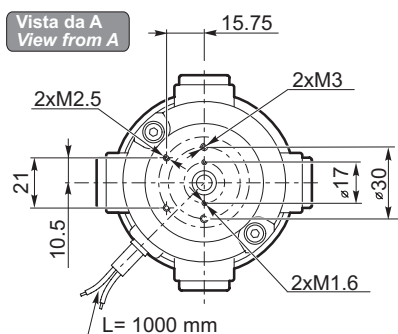
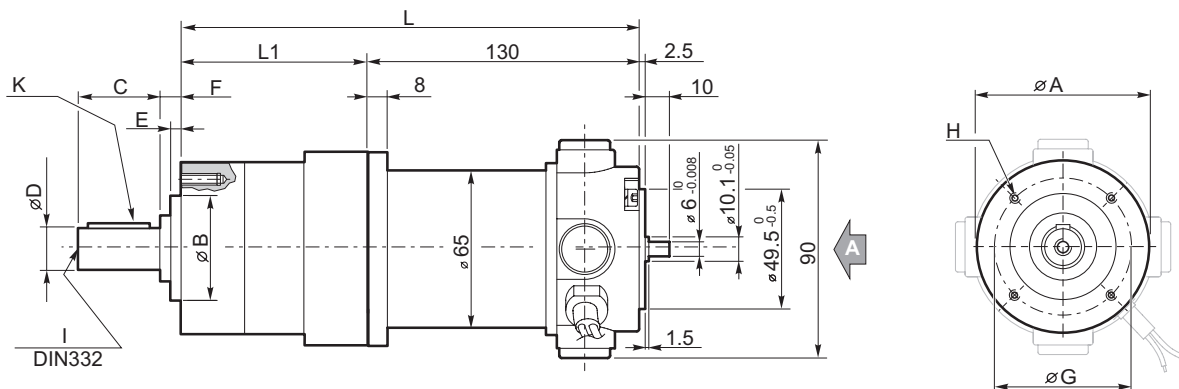
| Tipo Type | Numero di stadi Stages number | Dimensioni / Dimensions | | | | | | | | | | | |
|--------------|----------------------------------|-------------------------|-------|----|-------|------|-------|---|-----|----|-------|-------|--------|
| | | L1 | L | A | B | C | D | E | F | G | H | I | K |
| NDP120/52... | 1 | 73 | 185 | 52 | 32 h8 | 20.8 | 12 h7 | 3 | 4.2 | 40 | M5x10 | M4x10 | 4x4x16 |
| | 2 | 87.1 | 199.1 | | | | | | | | | | |
| | 3 | 101.4 | 213.4 | | | | | | | | | | |
| NDP120/62... | 1 | 72.8 | 184.8 | 62 | 40 j7 | 30 | 14 h7 | 5 | 9 | 52 | M5x10 | M5x12 | 5x5x18 |
| | 2 | 89.7 | 201.7 | | | | | | | | | | |
| | 3 | 106.7 | 218.7 | | | | | | | | | | |



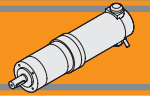
Dimensioni

Dimensions

NDP180/... U



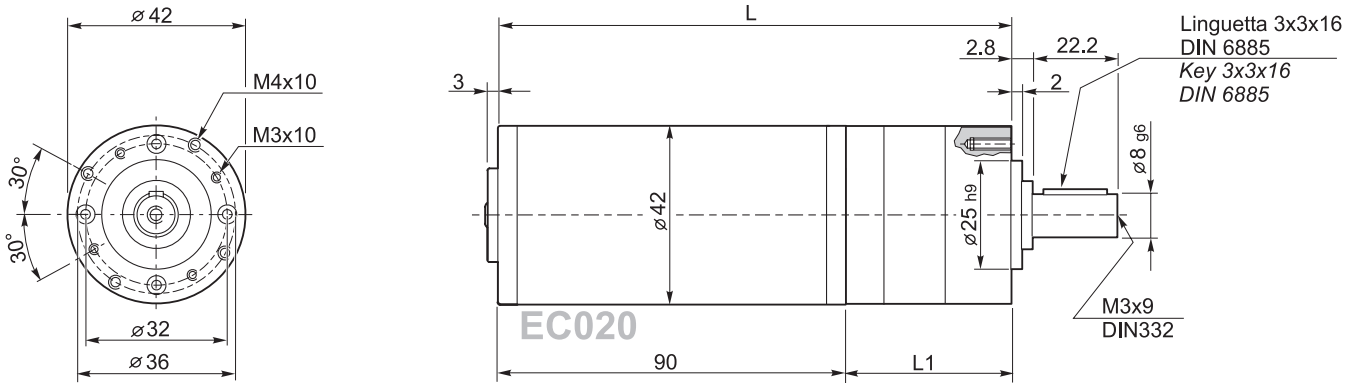
| Tipo Type | Numero di stadi Stages number | Dimensioni / Dimensions | | | | | | | | | | | |
|--------------|----------------------------------|-------------------------|-------|----|-------|------|-------|---|-----|----|-------|-------|--------|
| | | L1 | L | A | B | C | D | E | F | G | H | I | K |
| NDP180/52 | 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 | | | | | | | | | | |
| NDP180/62 | 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 | | | | | | | | | | |



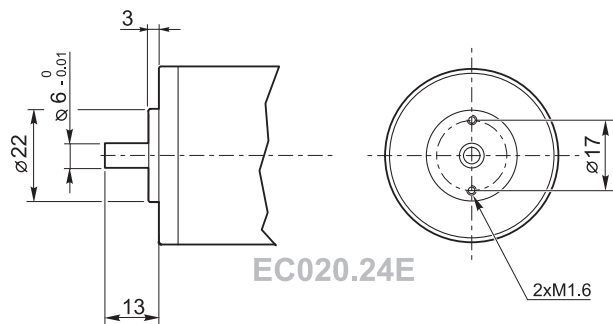
Dimensioni

Dimensions

ECP020/42... U

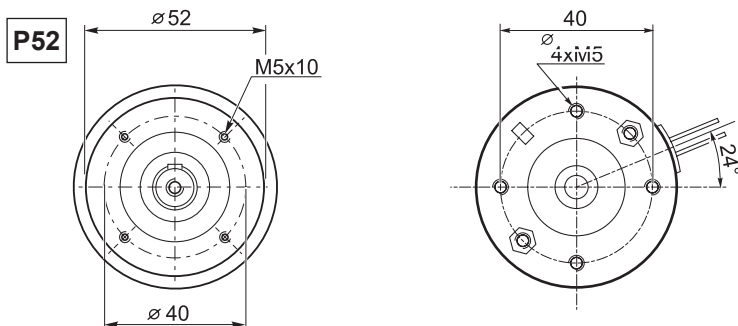
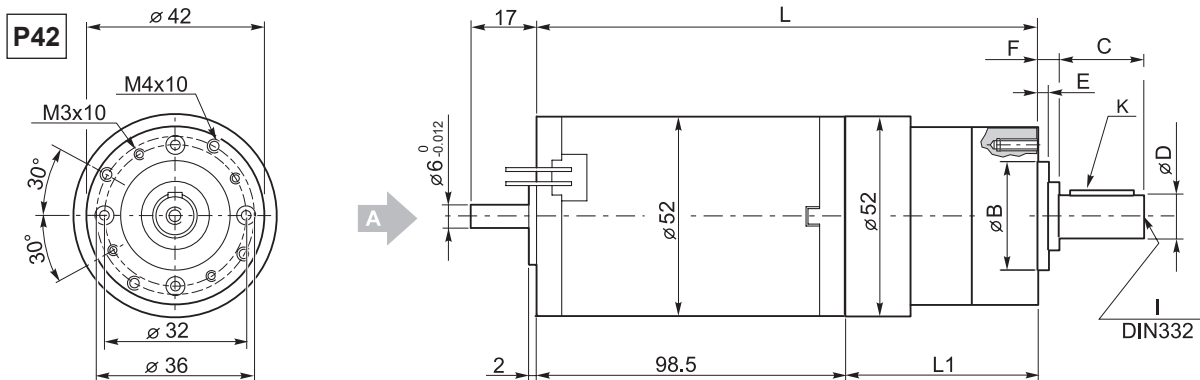


Encoder BB24



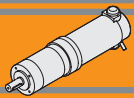
| | Numero di stadi / Stages number | | |
|--------------|---------------------------------|-------|-------|
| ECP020/42... | 1 | 2 | 3 |
| L1 | 60.5 | 73.6 | 86.6 |
| L | 150.5 | 163.6 | 176.6 |

ECP035/... U



| 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



ECP

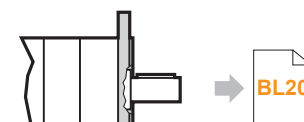
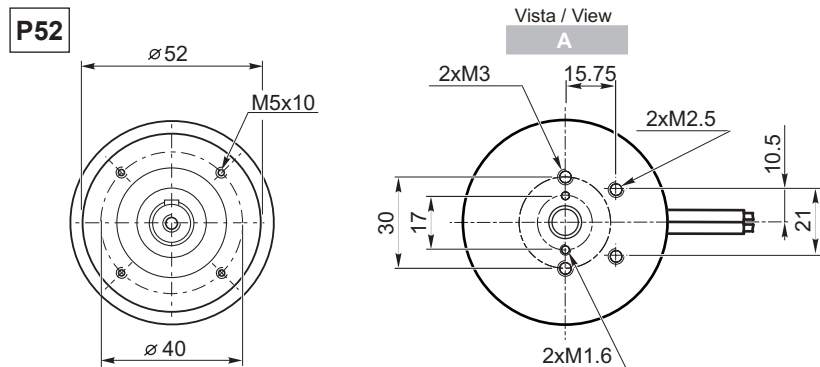
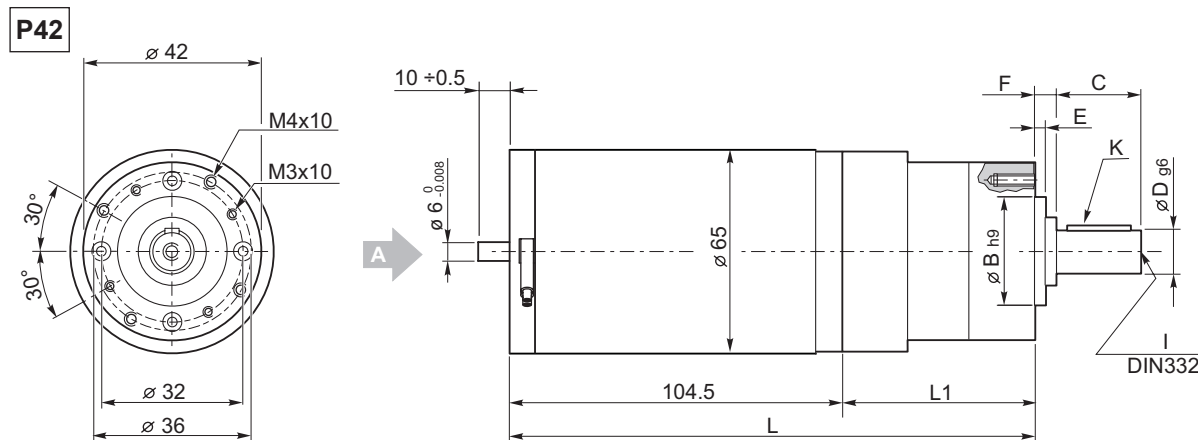
Motoriduttori CC epicycloidali
DC planetary gearmotors



Dimensioni

Dimensions

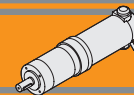
ECP050/... U



ECP050/... C...



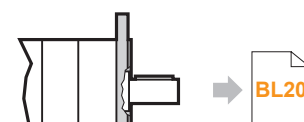
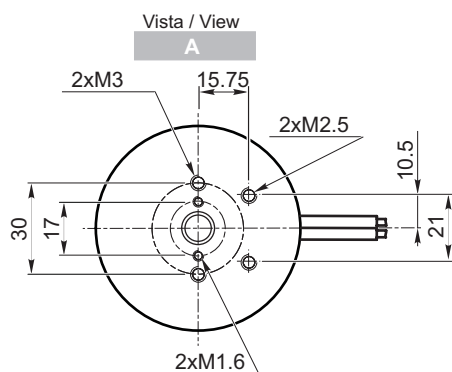
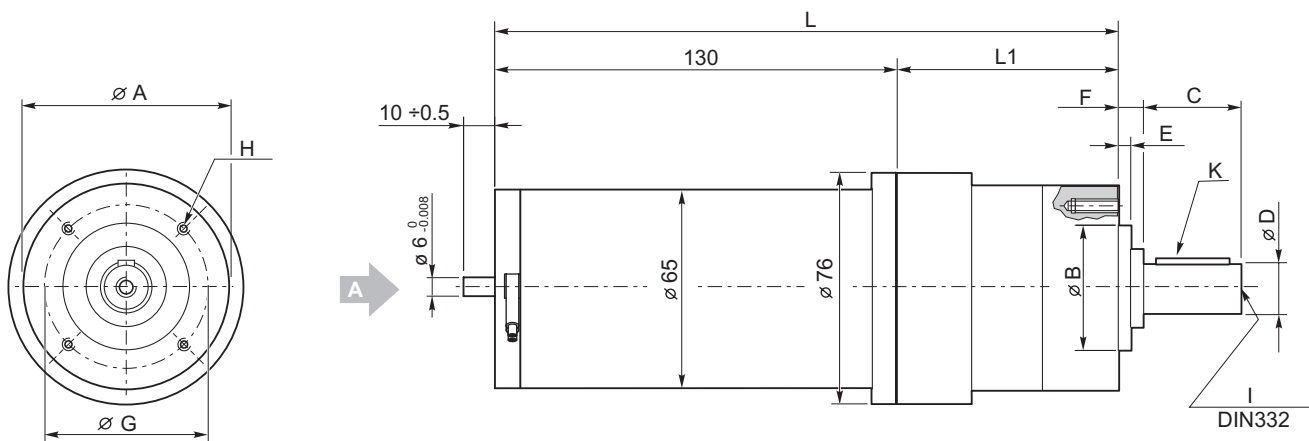
| Tipo Type | Numero di stadi Stages number | Dimensioni / Dimensions | | | | | | | | |
|--------------|----------------------------------|-------------------------|-------|-------|------|-------|---|-----|-------|--------|
| | | L1 | L | B | C | D | E | F | I | K |
| ECP050/42... | 1 | 60.5 | 165 | 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

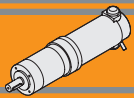
ECP070/... U



ECP070/... C...

- Motori / Motors IP66 → [BC2](#)
- Freno / Brake → [BB23](#)
- Encoder → [BB24](#)

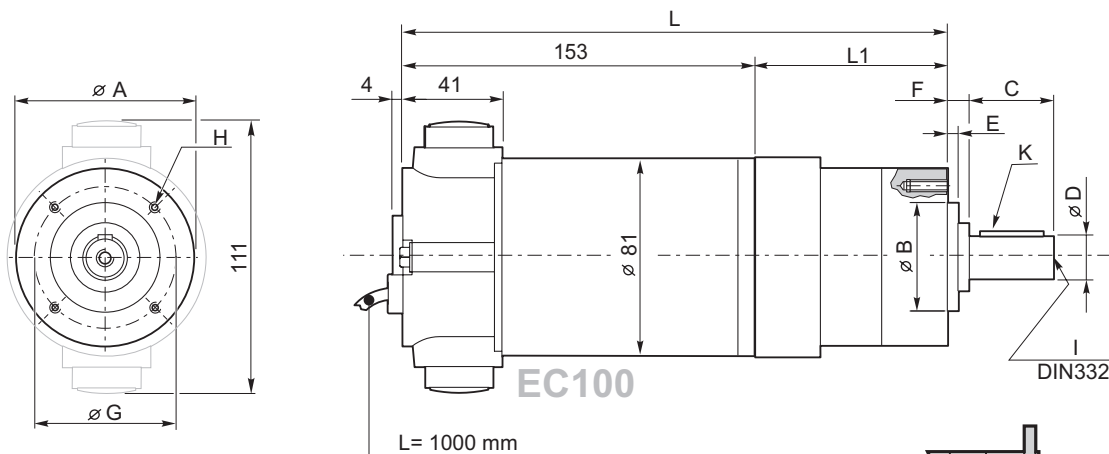
| Tipo Type | Numero di stadi Stages number | Dimensioni / Dimensions | | | | | | | | | | | |
|--------------|----------------------------------|-------------------------|-------|----|-------|------|-------|---|-----|----|-------|-------|--------|
| | | L1 | L | A | B | C | D | E | F | G | H | I | K |
| 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 | | | | | | | | | | |



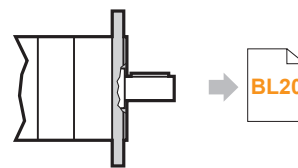
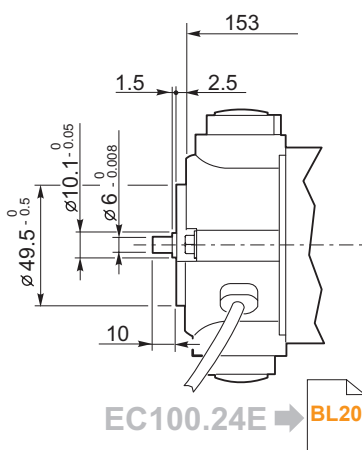
Dimensioni

Dimensions

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



ECP100/... U... 24E



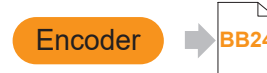
ECP100/... C...



Motori / Motors IP66

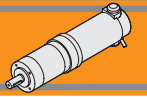


Freno / Brake



Encoder

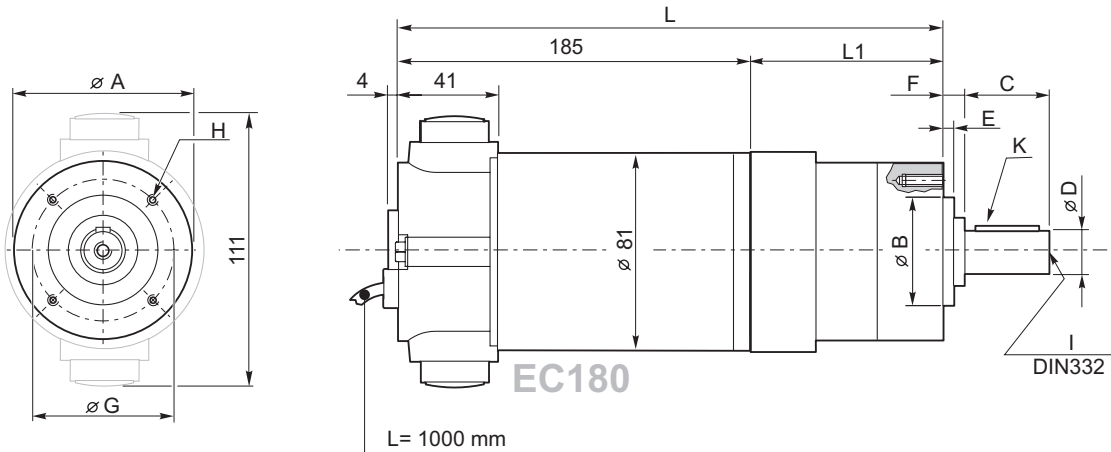
| Tipo Type | Numero di stadi Stages number | Dimensioni / Dimensions | | | | | | | | | | | |
|--------------|----------------------------------|-------------------------|-------|----|-------|------|-------|---|-----|----|-------|-------|--------|
| | | L1 | L | A | B | C | D | E | F | G | H | I | K |
| 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 | | | | | | | | | | |



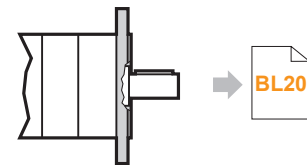
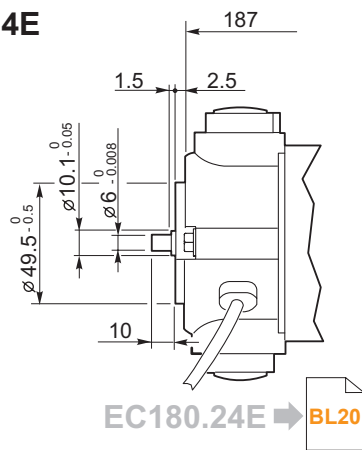
Dimensioni

Dimensions

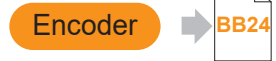
ECP180/... U... 120/240



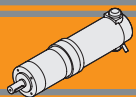
ECP180/62.. U... 24E



ECP180/... C...

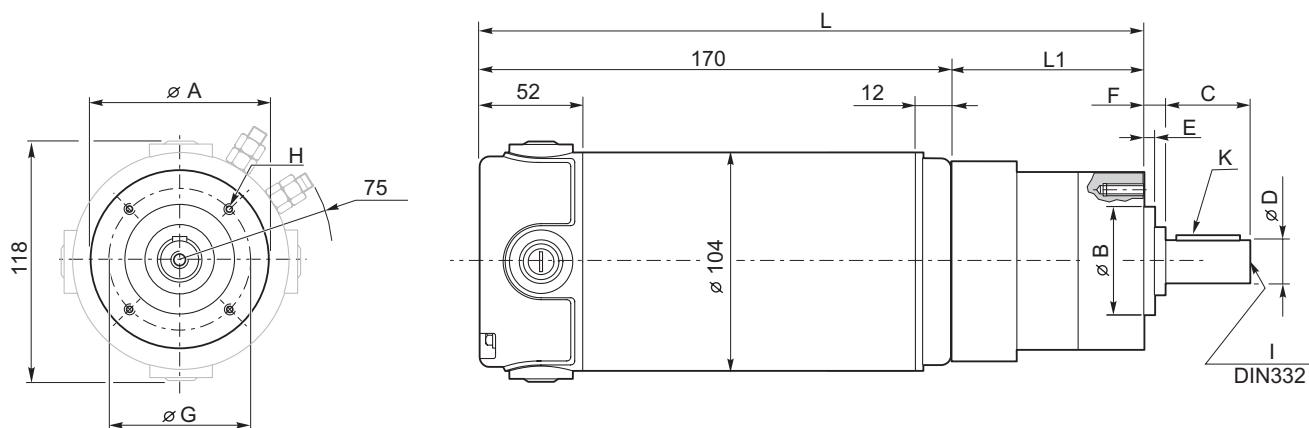


| Tipo Type | Numero di stadi Stages number | Dimensioni / Dimensions | | | | | | | | | | | | | |
|--------------|----------------------------------|-------------------------|-------|-----------|-----|-------------------|-------|------|-------|---|-----|----|-------|-------|--------|
| | | EC180 | | 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 | | | | | | | | | | |

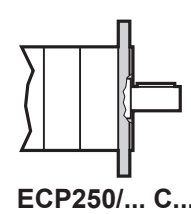
**ECP**

Motoriduttori CC epicicloidali
DC planetary gearmotors

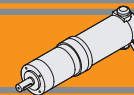
MINI
TECNO

Dimensioni**Dimensions****ECP250/... U**

Motori / Motors IP66



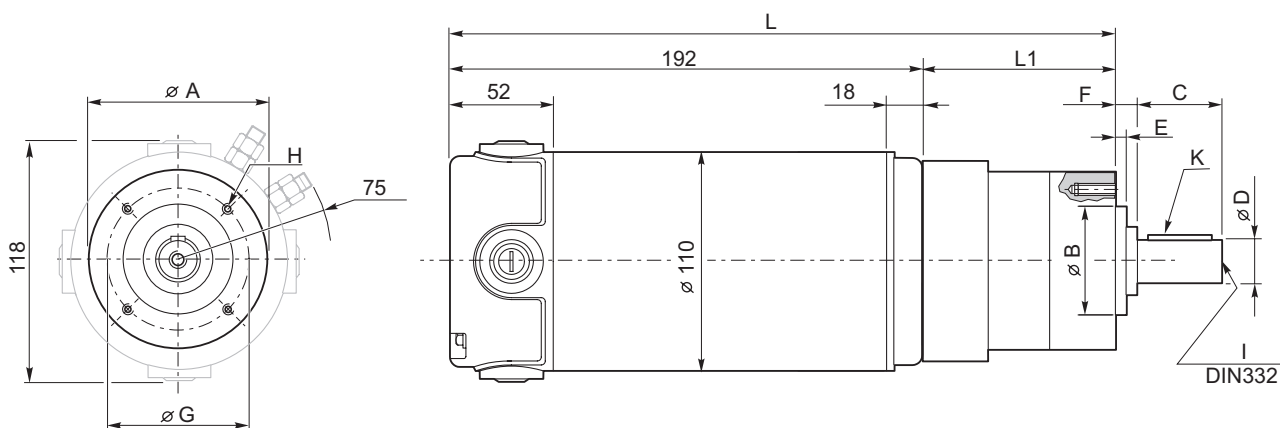
| Tipo Type | Numero di stadi Stages number | Dimensioni / Dimensions | | | | | | | | | | | |
|--------------|----------------------------------|-------------------------|-------|----|-------|----|-------|---|---|----|-------|-------|--------|
| | | L1 | L | A | B | C | D | E | F | G | H | I | K |
| 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

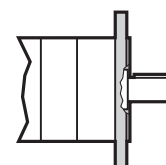
ECP350/... U



Motori / Motors IP66

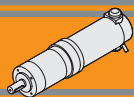


Freno / Brake



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**

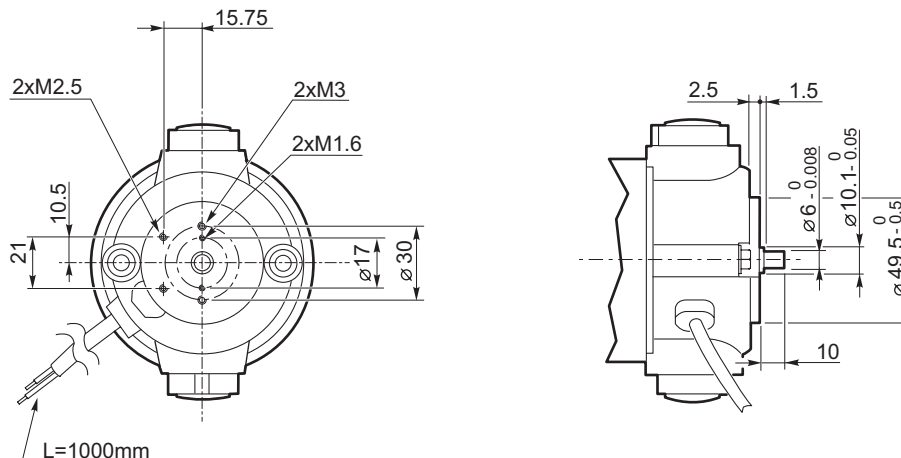
**Motoriduttori CC epicicloidali
DC planetary gearmotors**

**MINI
TECNO**

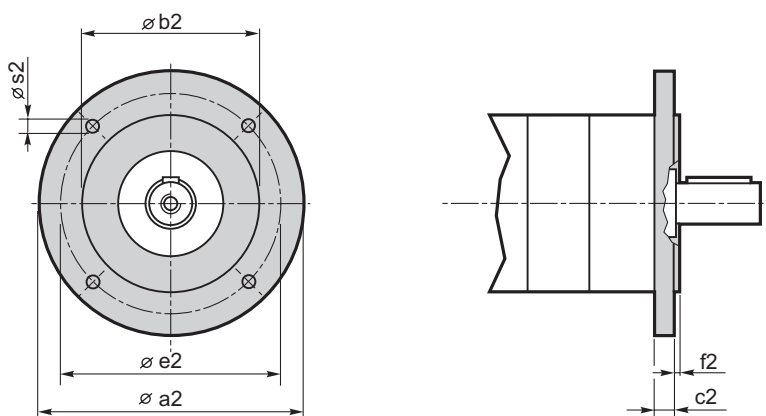
Dimensioni

Dimensions

**ECP100.24E
ECP180.24E**



NDP.../... C... - ECP.../... C... Flange uscita / Output flanges

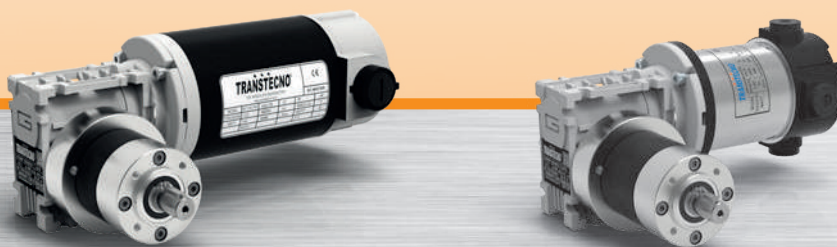


| Dimensioni / Dimensions | | | | | | | |
|-------------------------|-----|-------|----|-----|-----|-----|---------------------------------|
| PM | a2 | b2 | c2 | e2 | f2 | s2 | Flangia uscita Output flange |
| 52 | 80 | 50 j7 | 9 | 65 | 2.5 | M5 | C80 |
| | 90 | 60 j7 | 9 | 75 | 2.5 | 5.5 | C90 |
| | 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

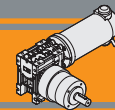
Motoriduttori CC combinati
DC double reduction gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



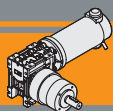
DC



| 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

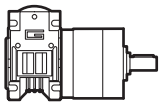
Technical features

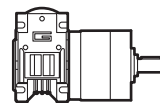
L'accoppiamento di un riduttore a vite senza fine con un riduttore epicicloidale consente di ottenere elevati rapporti di riduzione ($i_{max} = 1/18452$) e di disporre di un gruppo autolubrificato compatto, silenzioso e con un'elevata affidabilità.

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

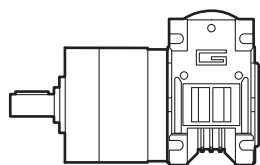
Classification

| 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 | | | |

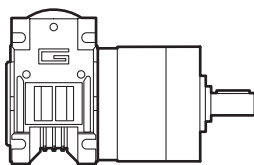
| MOTORIDUTTORE / GEARMOTOR | | | | | | | | | |
|---|--|--|-------------------|---|---------------------------------------|---------------------------------|------------------------------|--|-------------------------|
| ECWMP | 070/026/52 | | | 2 | CD | 90 | 405 | 240 | BR |
| Tipo Type | Grandezza Size | | | 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

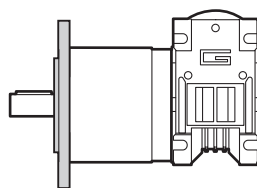
Versions



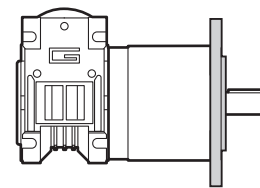
US



UD



CS

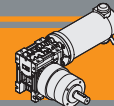


CD

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.

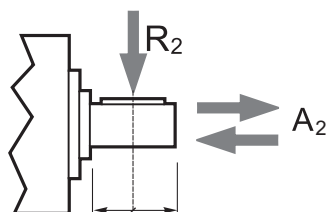
Permanent synthetic oil long-life lubrication allow to use CM wormgearbox range in all mounting position.

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



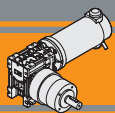
| Numero di stadi Stages number | Carichi Radiali R_2 [N] Radial Load R_2 [N] | | |
|----------------------------------|--|-----|------|
| | P52 | P62 | P81 |
| 1 | 200 | 240 | 400 |
| 2 | 320 | 360 | 600 |
| 3 | 450 | 520 | 1000 |

| 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

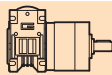
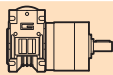
| Motoriduttore Gearmotor | Numero stadi epicicloidale Planetary stages number | Rapporto epicicloidale Planetary ratio | Rapporto vite senza fine Wormgearbox ratio | Rapporto finale Total ratio |
|----------------------------|---|---|---|--------------------------------|
| .../026/052 .../026/062 | 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 |
| | | | 60 | 1500.6 |
| | 45.56 | 60 | 2734 | |



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 | | 44.4 | 35.7 | | | 1.1 | 67.5 | 180/026/621 | 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

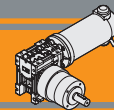
NOTE: for continuous or highly intermittent duty, please contact our technical service

Dati tecnici elettrici

Electrical technical data

ND 120 → 

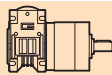
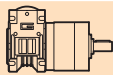
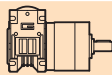
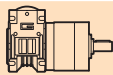
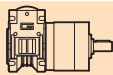
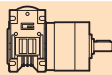
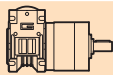
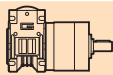
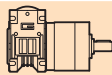
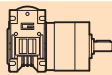
ND 180 → 



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 | | | | | | | | | | | |

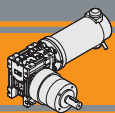
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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

Dati tecnici elettrici

Electrical technical data

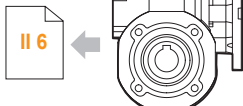
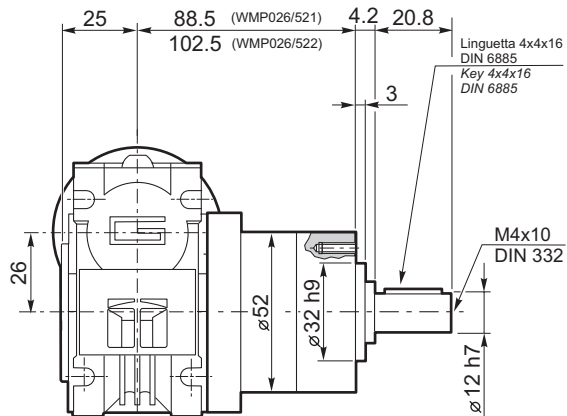
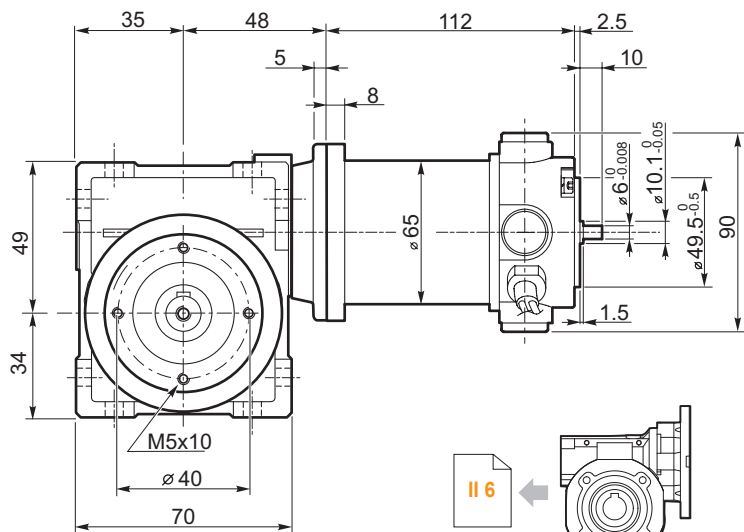




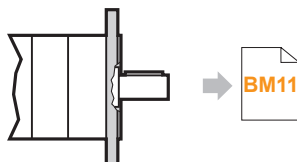
Dimensioni

Dimensions

NDWMP120/026/52...U



CL026



NDWMP120/026/52...C

Freno / Brake



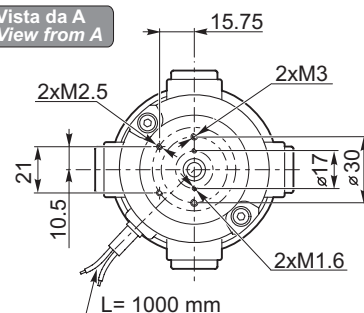
BA9

Encoder

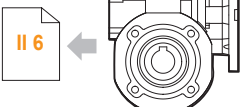
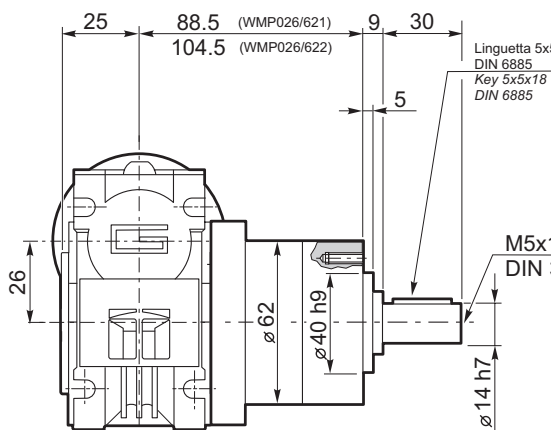
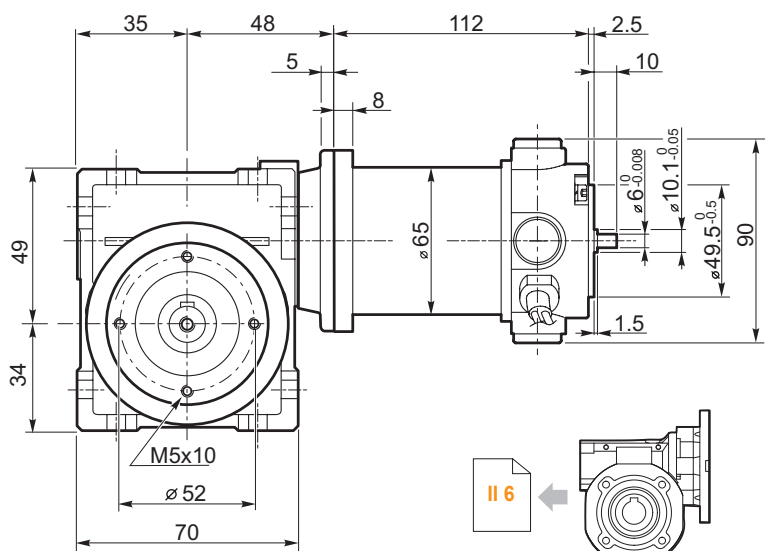


BA9

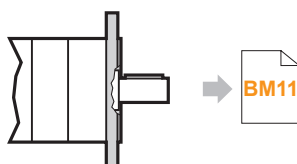
Vista da A
View from A



NDWMP120/026/62...U



CL026



NDWMP120/026/62...C

Freno / Brake



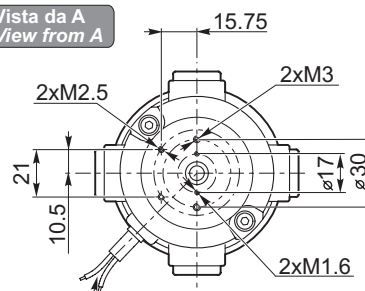
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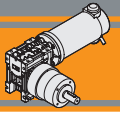
Encoder



BA9

Vista da A
View from A

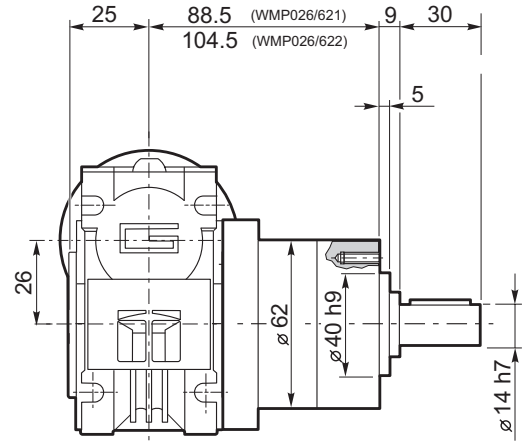
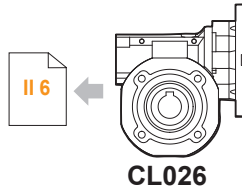
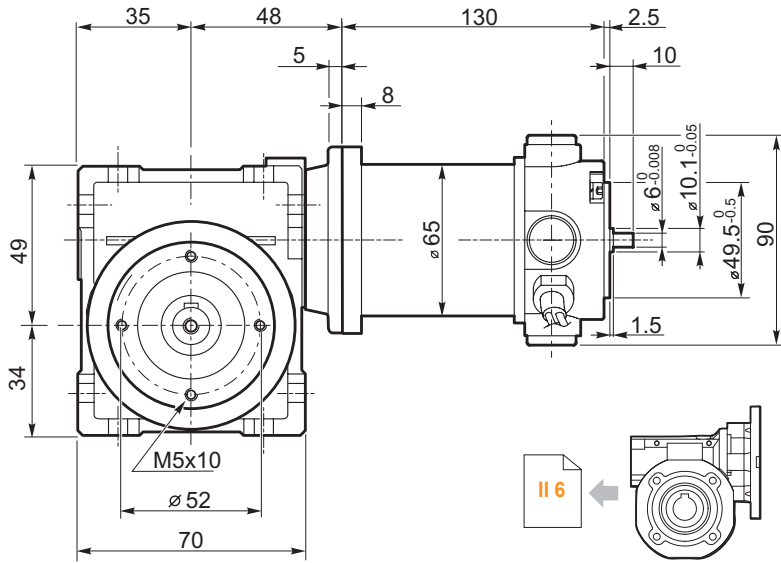




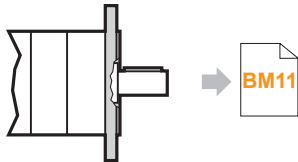
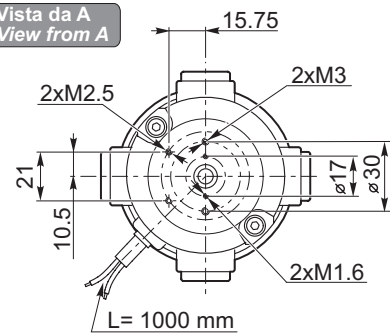
Dimensioni

Dimensions

NDWMP180/026/62...U



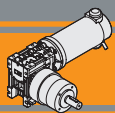
Vista da A
View from A



NDWMP180/026/62...C

Freno / Brake → **BA9**

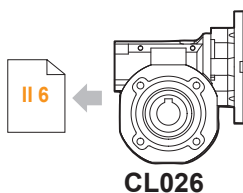
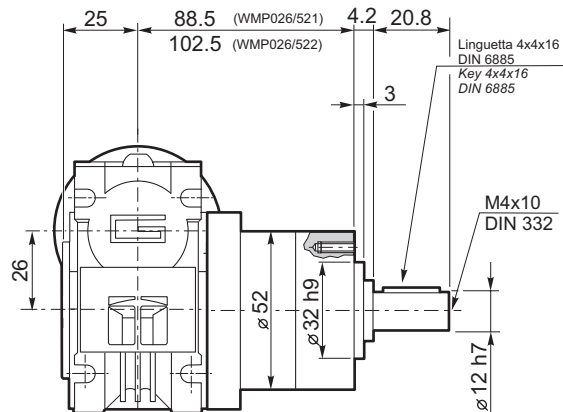
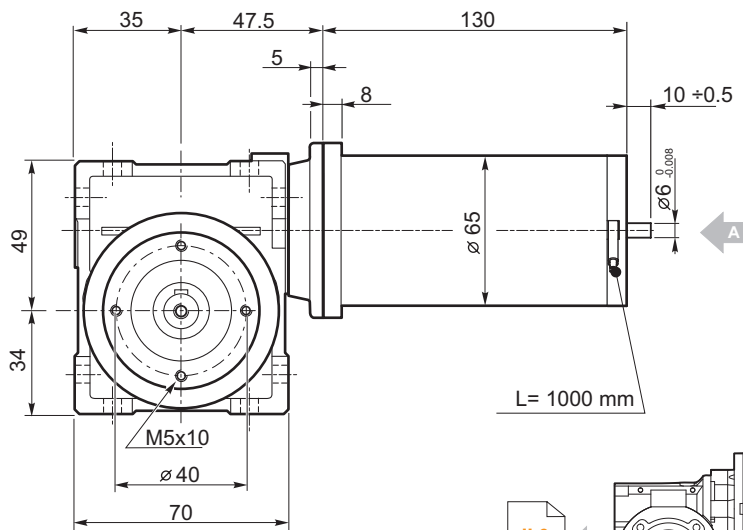
Encoder → **BA9**



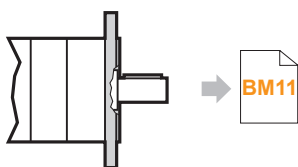
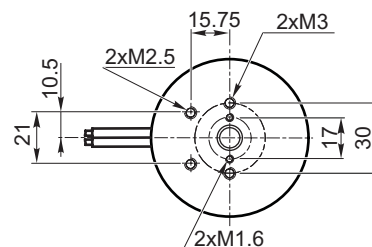
Dimensioni

Dimensions

ECWMP070/026/52...U



Vista / View A



ECWMP070/026/52...C

Motors / Motors IP66



BC2

Brake / Freno



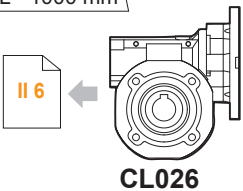
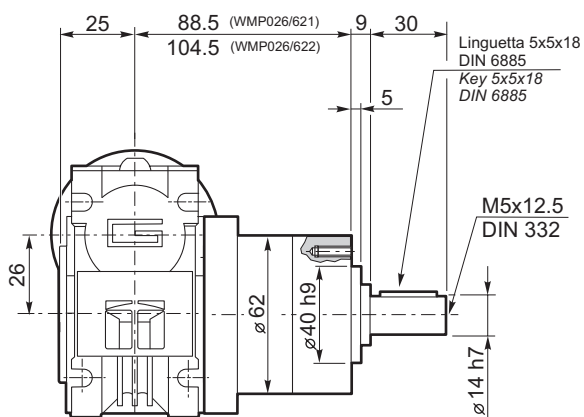
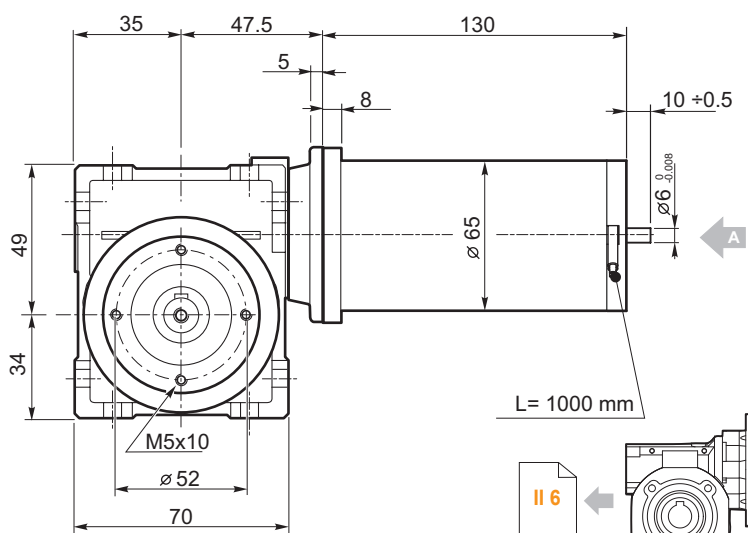
BB23

Encoder

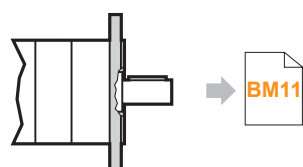
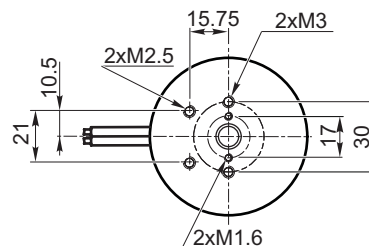


BB24

ECWMP070/026/62...U



Vista / View A



ECWMP070/026/62...C

Motors / Motors IP66



BC2

Brake / Freno

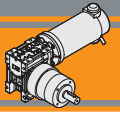


BB23

Encoder



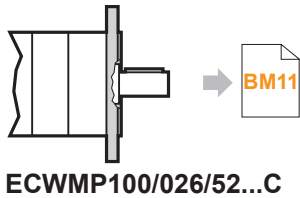
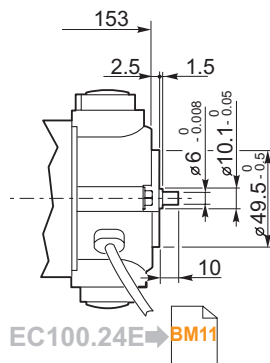
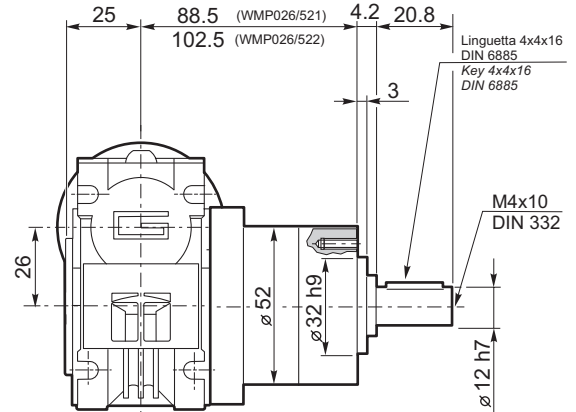
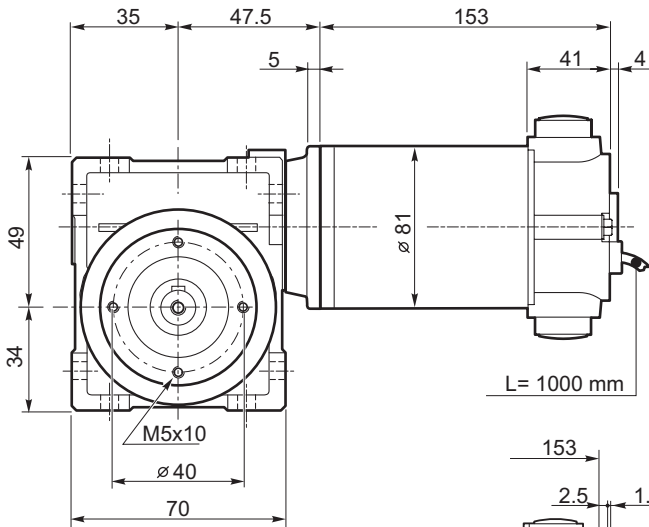
BB24



Dimensioni

Dimensions

ECWMP100/026/52...U



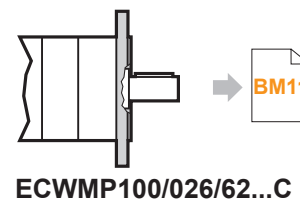
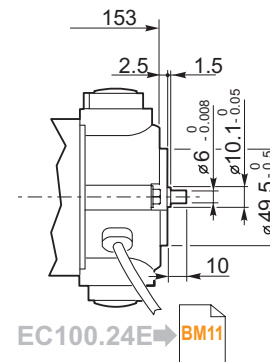
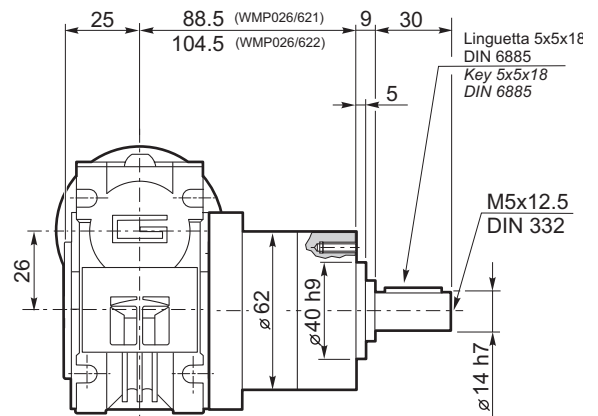
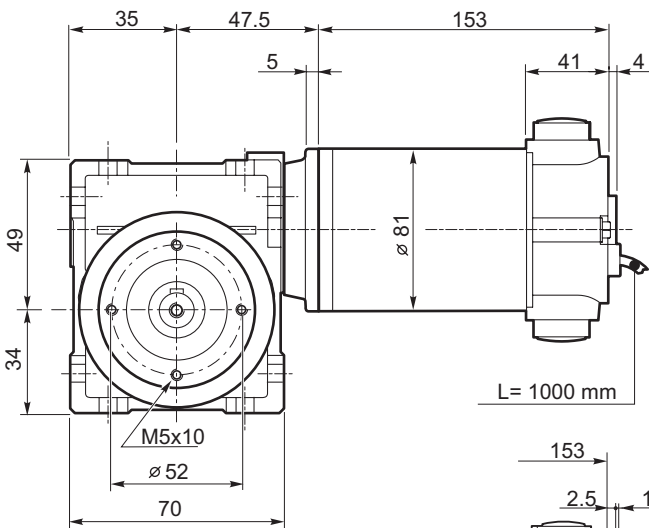
Motori / Motors IP66 → [BC4](#)

Freno / Brake → [BB23](#)

Encoder → [BB24](#)

II 6 ← **CL026**

ECWMP100/026/62...U



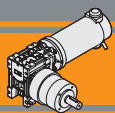
Motori / Motors IP66 → [BC4](#)

Freno / Brake → [BB23](#)

Encoder → [BB24](#)

II 6 ← **CL026**

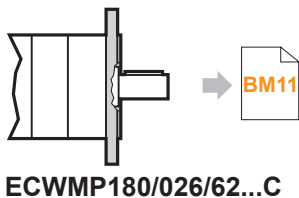
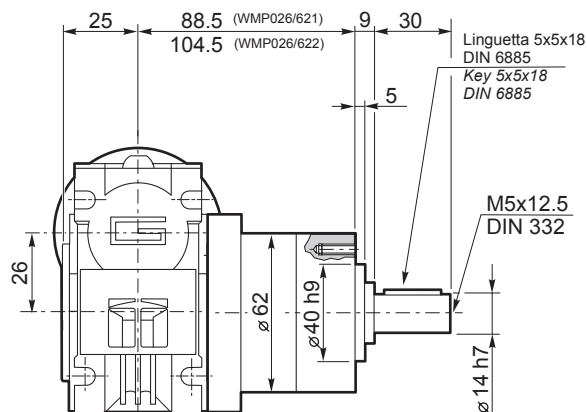
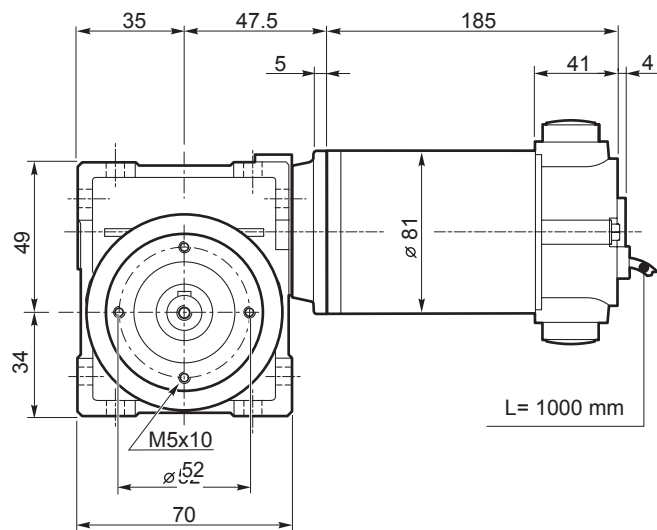
DC



Dimensioni

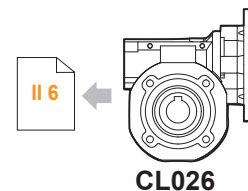
Dimensions

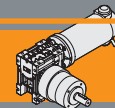
ECWMP180/026/62...U



ECWMP180/026/62...C

- Motori / Motors IP66 → **BC6**
- Freno / Brake → **BB23**
- Encoder → **BB24**

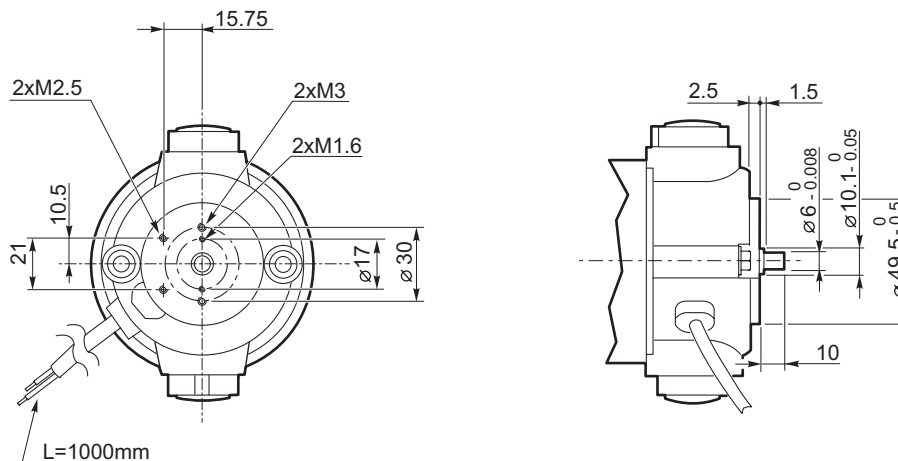




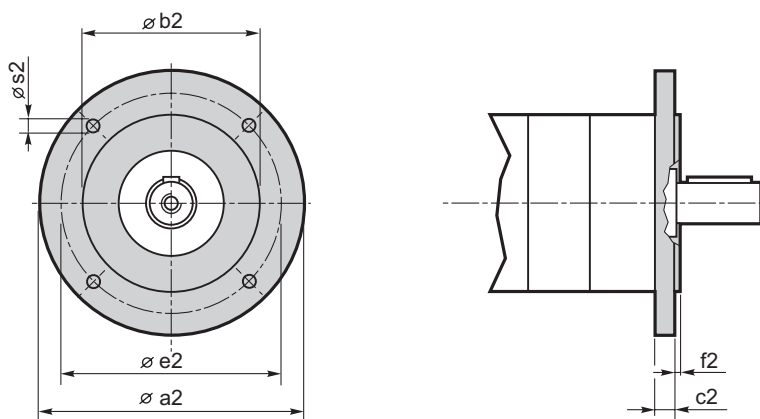
Dimensioni

Dimensions

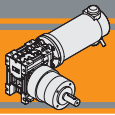
ECWMP100.24E
ECWMP180.24E



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 |



Note/Notes

MINI  **TECNO**™
small but strong

PLN

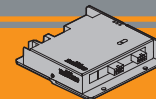
Azionamenti per motori CC
DC motor controls



MINI  **TECNO**™ brand of
TRANSTECNO®



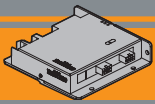
DC



| | 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**

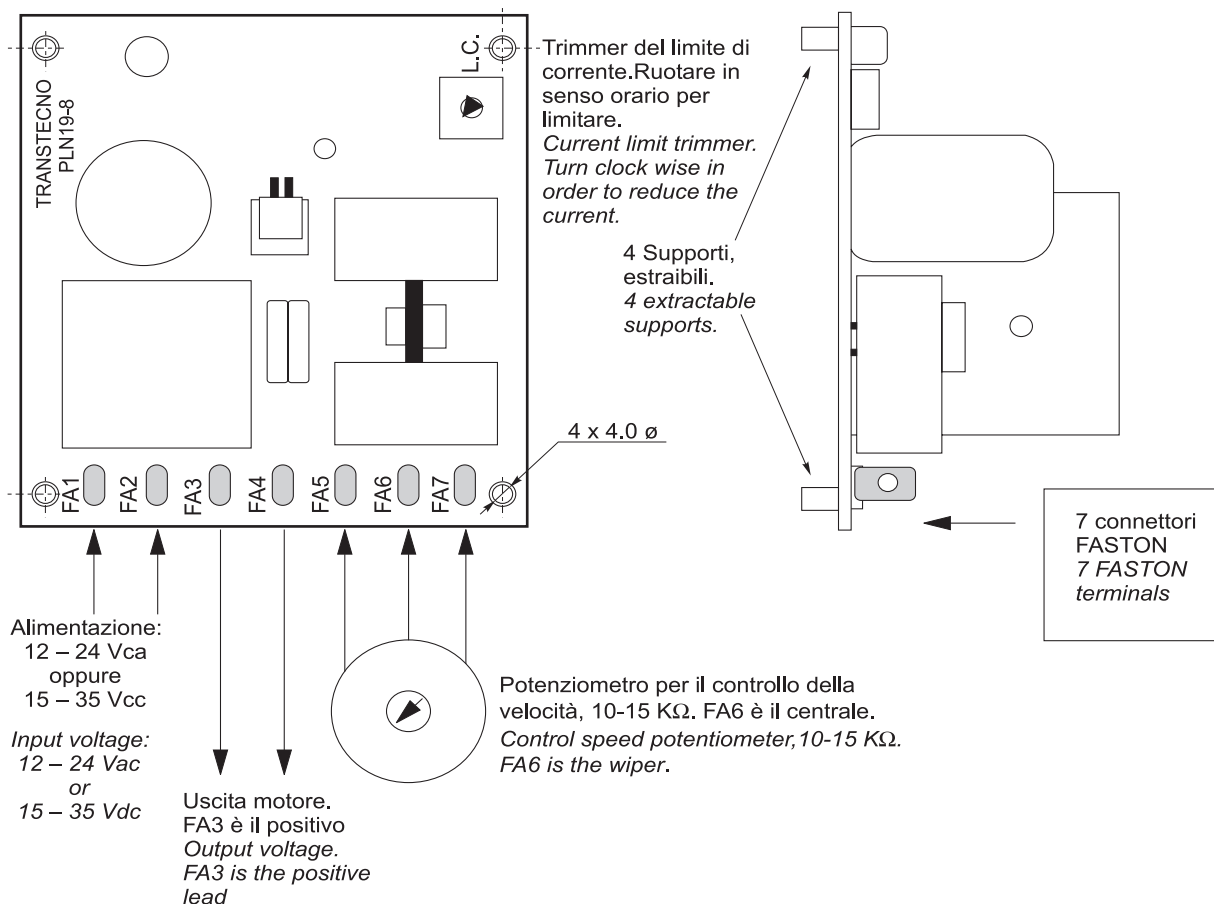
This section replaces any previous edition and revision. If you obtained this catalogue other than through controlled distribution channels, the most up to date content is not guaranteed. In this case the latest version is available on our web site www.transtecno.com



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



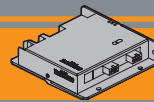
Attenzione: se si scollega il potenziometro con la scheda alimentata, il motore ruota alla velocità nominale.

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

Caratteristiche tecniche

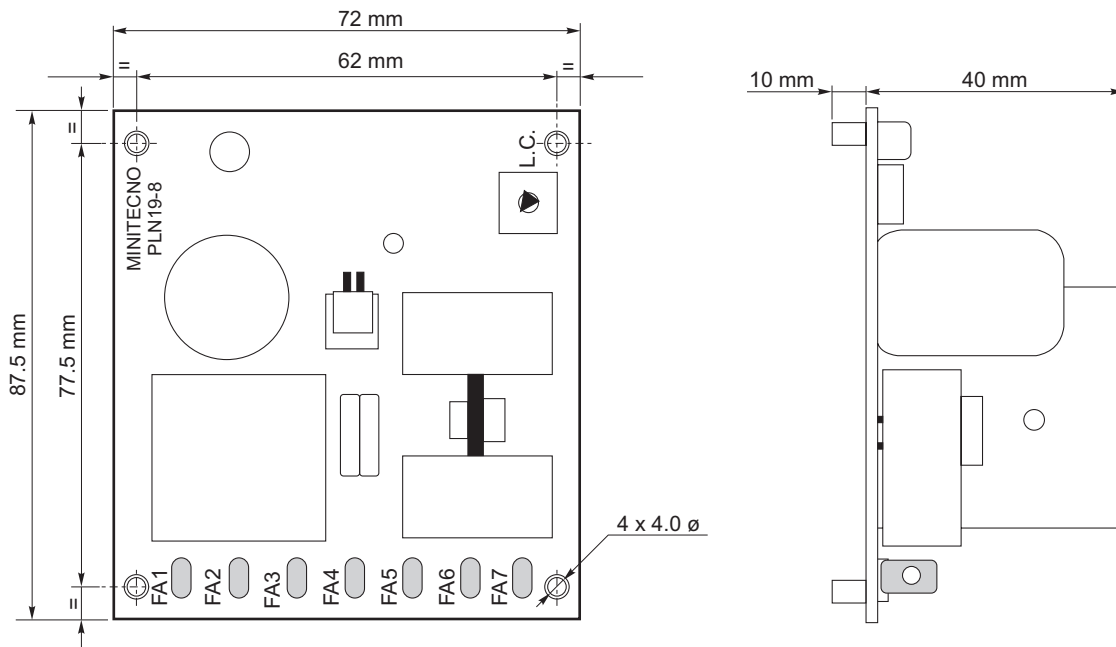
Technical features

- 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

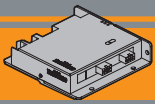
Options

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.

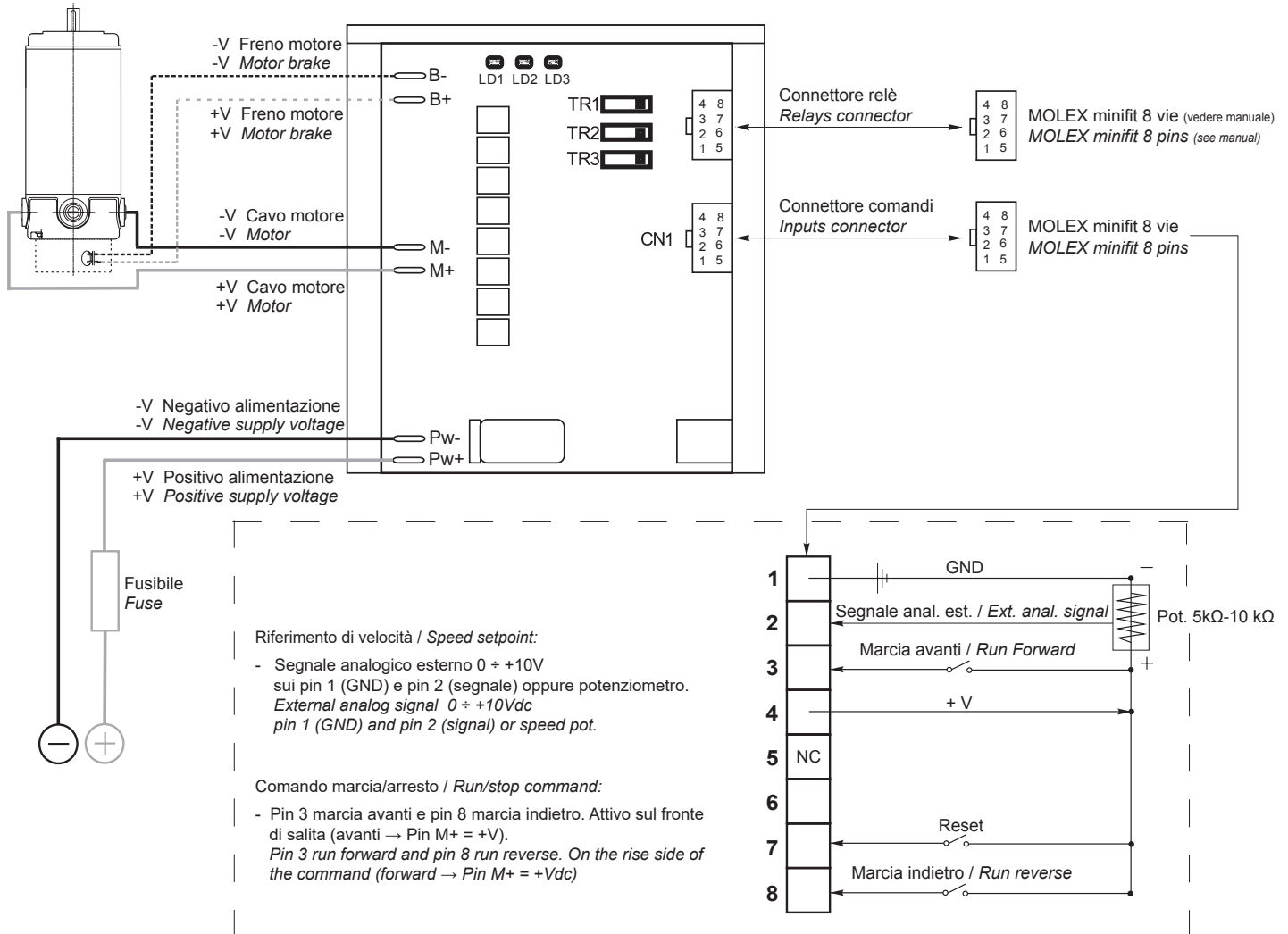
(*) *the maximum output current value must be used in a ventilated environment. Derate the maximum output current down to 4 A if the environment is not ventilated and the temperature is about 45 °C; continuous duty.*



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

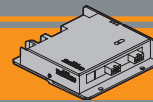
LD3: Segnalazione presenza alimentazione.

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*



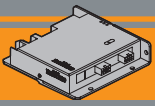
Manuale



User manual

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.



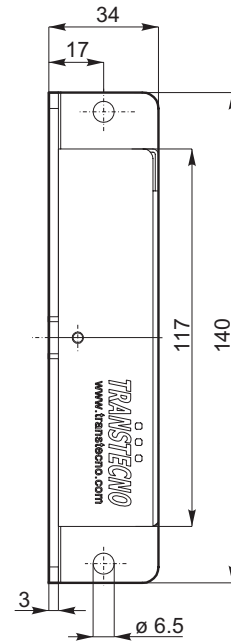
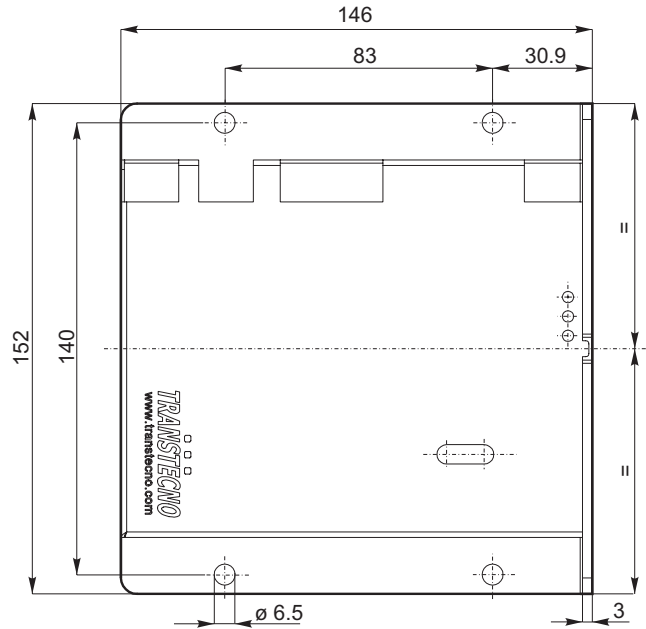
**AZIONAMENTO BIDIREZIONALE PWM PER LA
REGOLAZIONE DI VELOCITA' DEI MOTORI A
CORRENTE CONTINUA A BASSA TENSIONE**

**LOW VOLTAGE BIDIRECTIONAL
PWM DC MOTORS CONTROL**

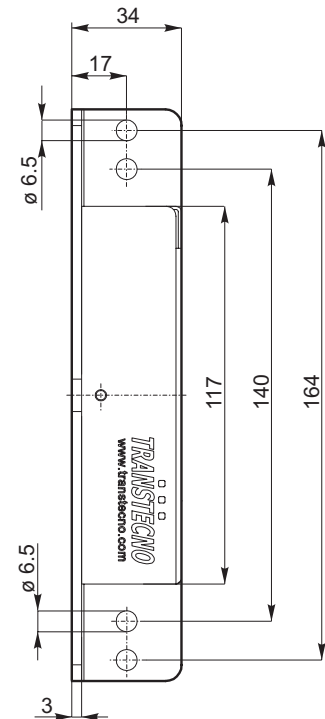
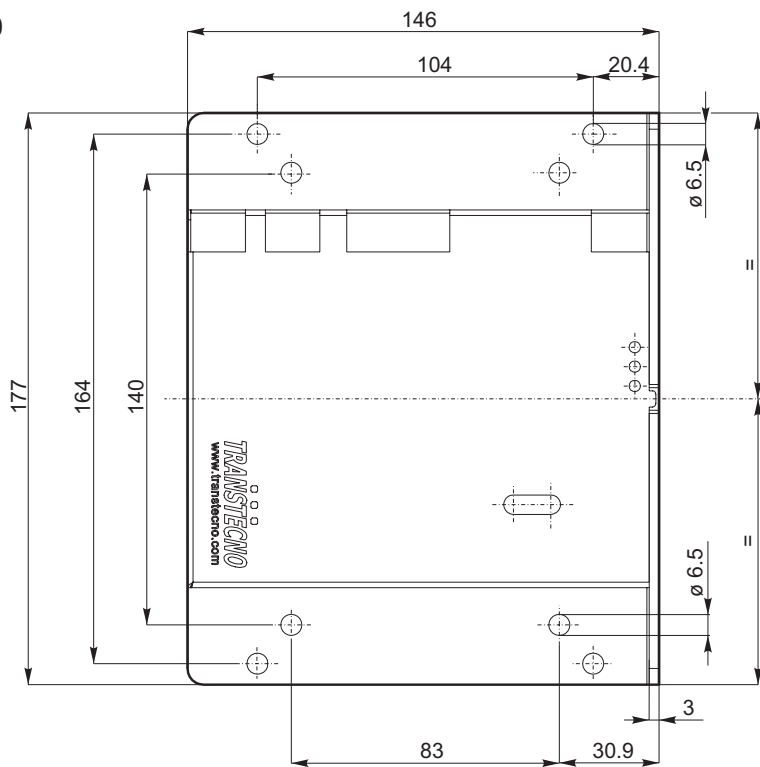
Dimensioni

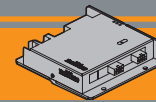
Dimensions

PLN20



PLN40





GUIDA alla selezione dell'azionamento

Drive selection GUIDE

Corrente di uso del motore ≤ Corrente nominale dell'azionamento

Real motor current ≤ Rated current of the drive

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

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

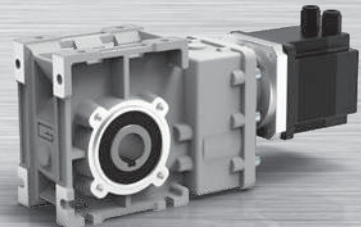
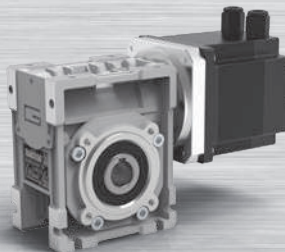
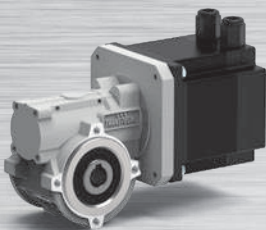
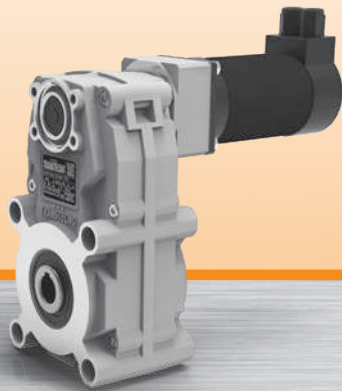
Vedere sotto la tabella per esemplificazioni

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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





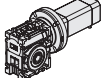

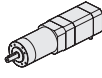


Motoriduttori BLDC
BLDC gearmotors



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TRANSTECNO®



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 |
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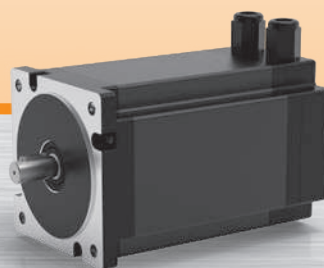
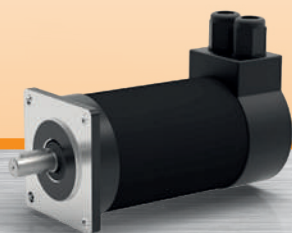
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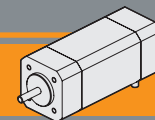
Motori brushless CC
Brushless DC motors



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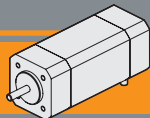
BLDC



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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 <i>Dust proof</i> | 5 | Protetto contro i getti d'acqua <i>Water jet proof</i> |
|----------|---|----------|---|

Classe di isolamento termico

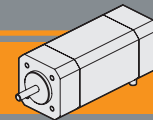
Insulation class

| 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. |

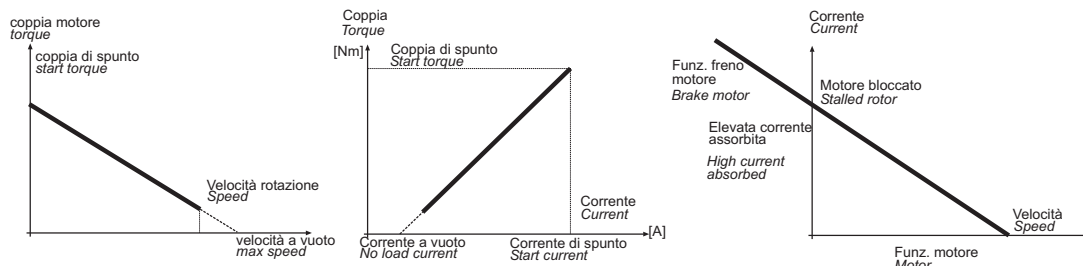


Legenda / Glossario dei grafici

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.

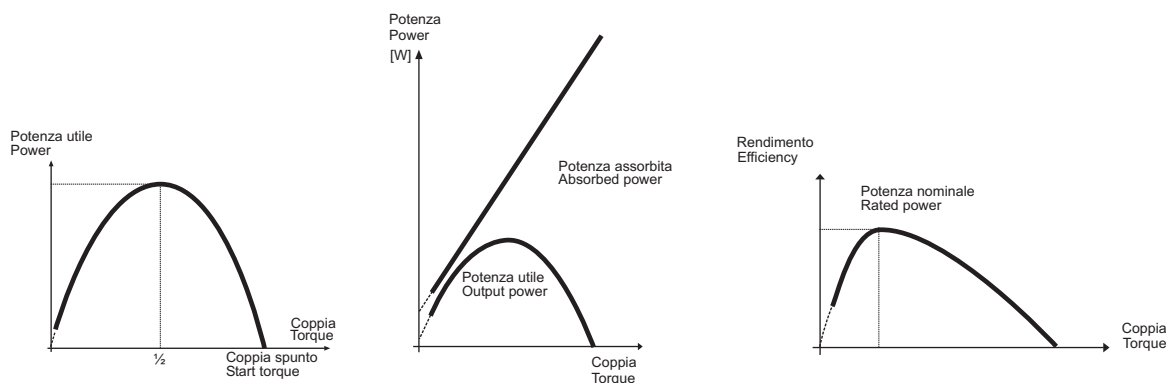


La potenza utile (potenza all' albero) si ricava dalla formula:

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

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

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

$$P_a = V \cdot I$$

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

$$P_n = M_n \cdot S_v$$

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

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

$$P_a = V \cdot I$$

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

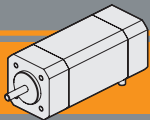
$$P_n = M_n \cdot S_v$$

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

[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

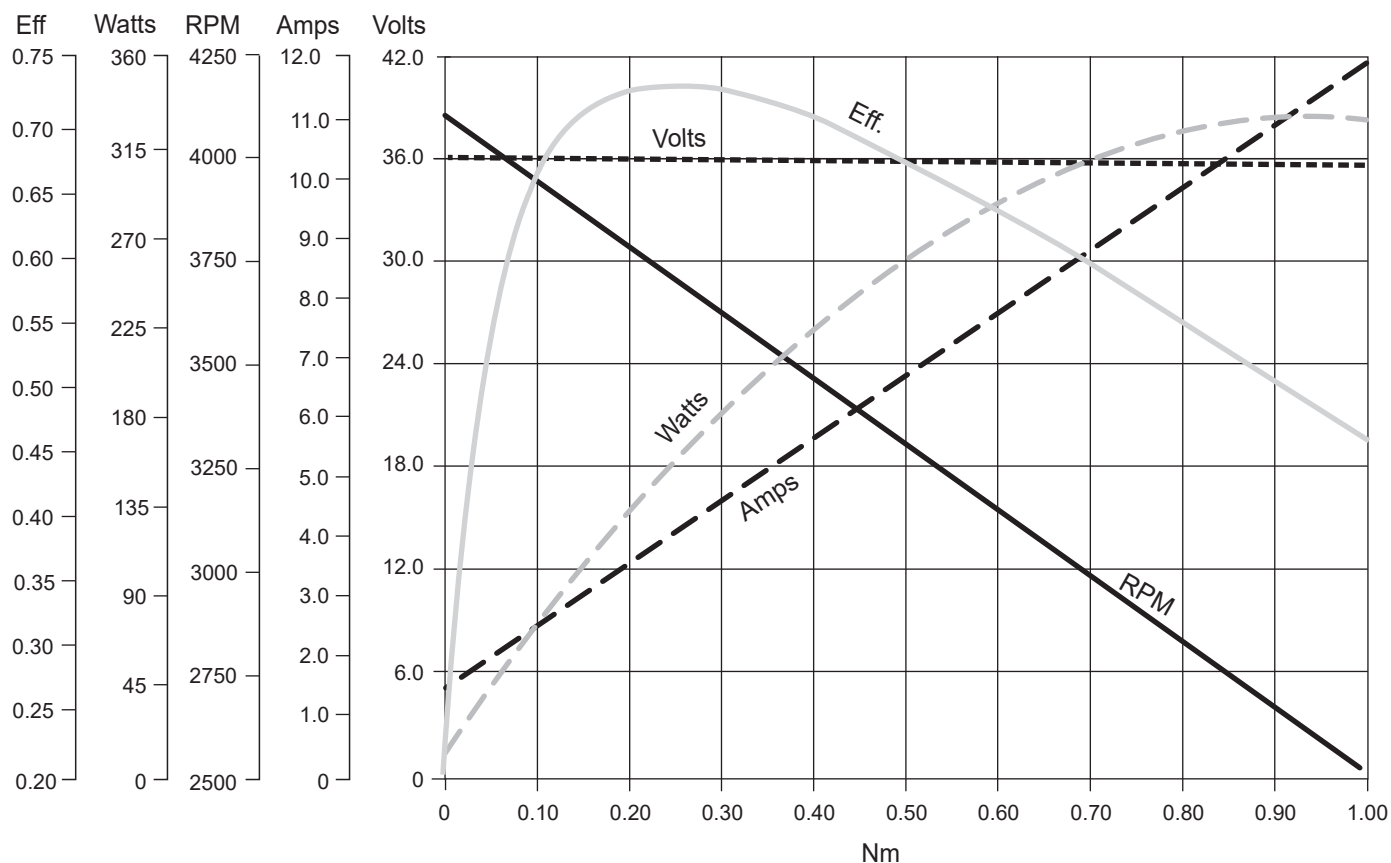
| | | | |
|---|--|--|--|
| Tipologia di avvolgimento <i>Winding type</i> | delta | Max forza radiale <i>Max radial force</i> | 75N @ 20 mm dalla flangia 75N @ 20 mm from flange |
| Angolo sensori Hall <i>HALL effect angle</i> | 120 gradi elettrici 120 degree electrical angle | Max forza assiale <i>Max 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 |

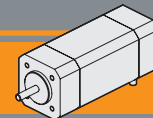
| Modello <i>Model</i> | Poli <i>Poles</i> | Fasi <i>Phases</i> | Tensione nominale | Velocità nominale | Coppia nominale | Potenza nominale | Coppia di picco | Corrente nominale | Corrente di picco | Resistenza fase-fase | Induttanza fase-fase | Costante di coppia | Costante FCEM | Inerzia rotore | 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 |

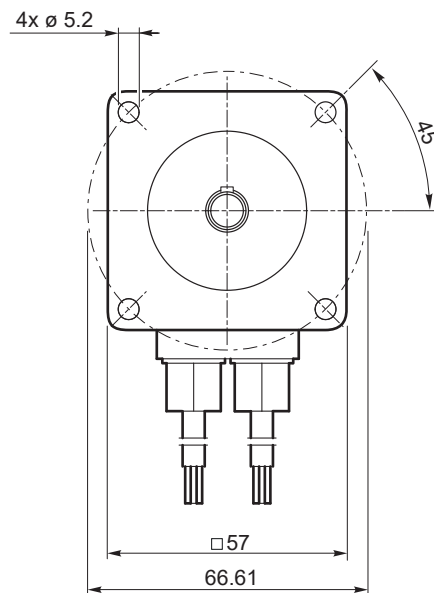
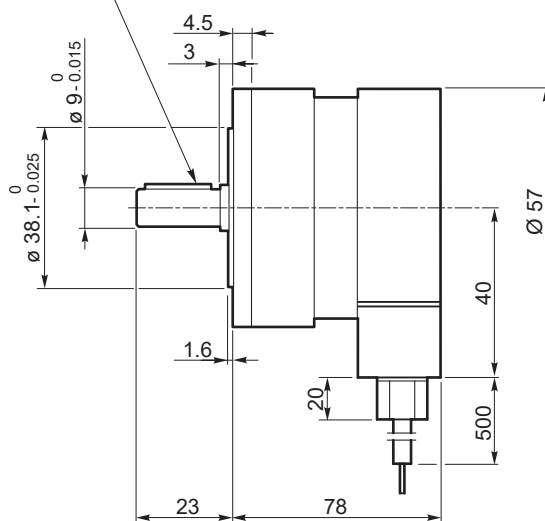


Prestazioni

Performances




BLS022.240
Dimensioni
Dimensions
BLS022.240

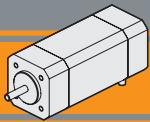
 Linguetta 3x3x16
 DIN 6885
 Key 3x3x16
 DIN 6885

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 |

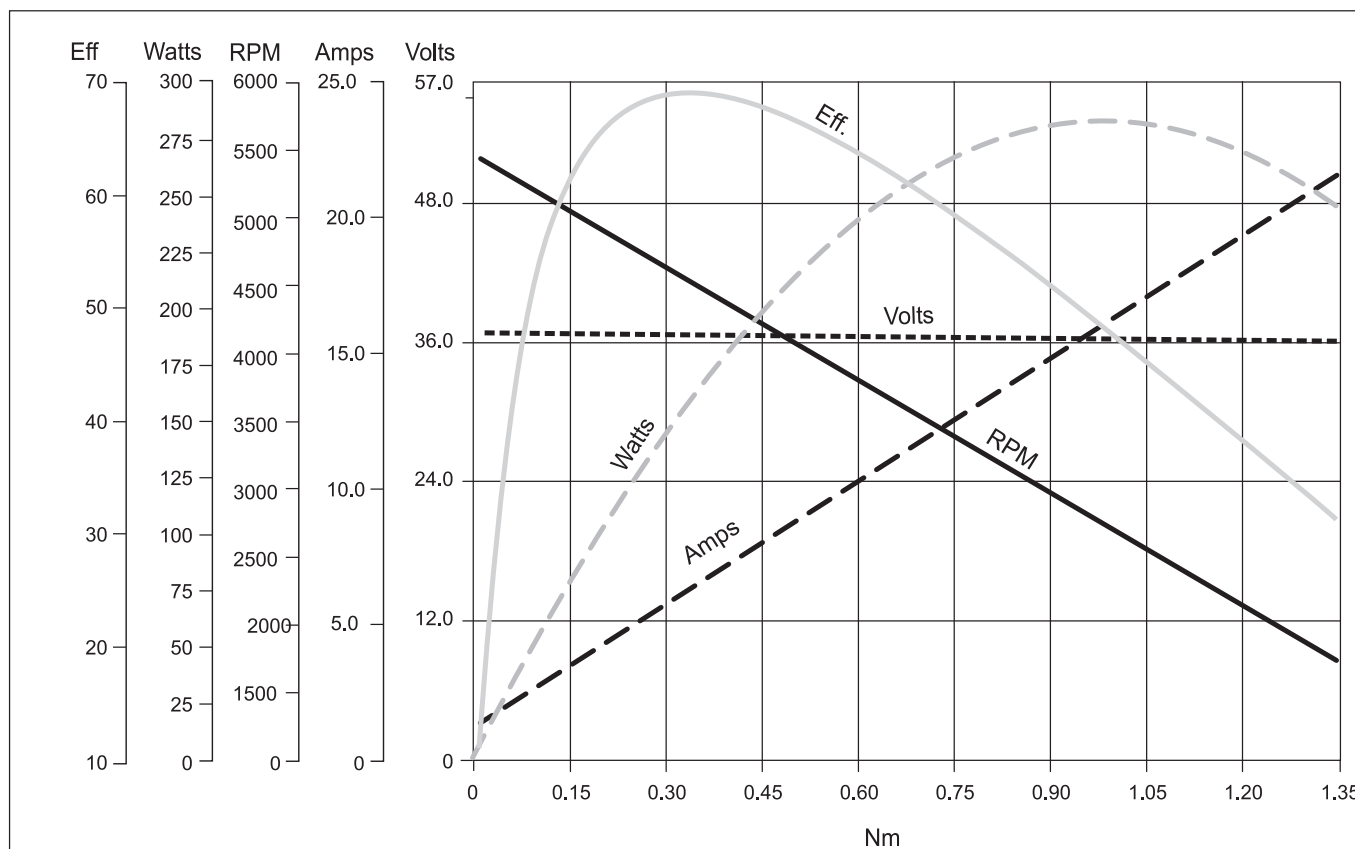
| | |
|--|---|
| Max forza radiale <i>Max radial force</i> | 75N @ 20 mm dalla flangia <i>75N @ 20 mm from flange</i> |
| Max forza assiale <i>Max axial force</i> | 15N |
| Classe di isolamento termico <i>Insulation class</i> | Classe B <i>Class B</i> |
| Isolamento dielettrico <i>Dielectric strength</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> |

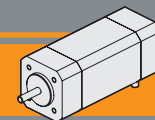
| Modello <i>Model</i> | Poli <i>Poles</i> | Fasi <i>Phases</i> | Tensione nominale | Velocità nominale | Coppia nominale | Potenza nominale | Coppia di picco | Corrente nominale | Corrente di picco | Resistenza fase-fase | Induttanza fase-fase | Costante di coppia | Costante FCEM | Inerzia rotore | 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 |

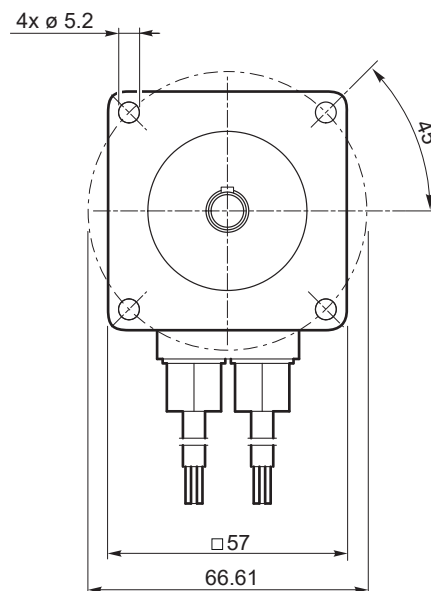
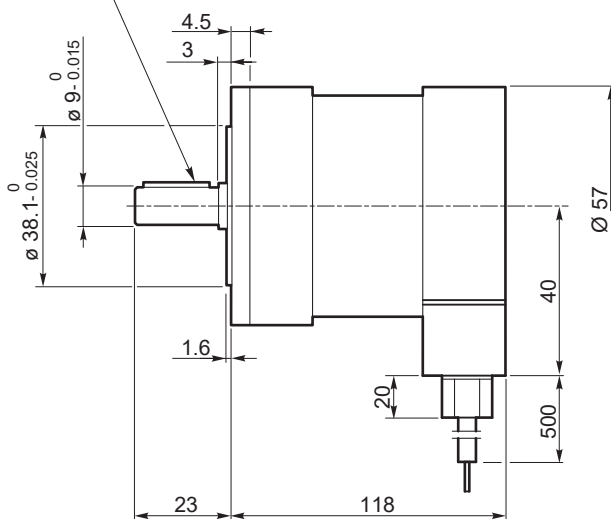


Prestazioni

Performances




BLS043.240
Dimensioni
Dimensions
BLS043.240

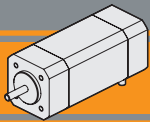
 Linguetta 3x3x16
 DIN 6885
 Key 3x3x16
 DIN 6885

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 |

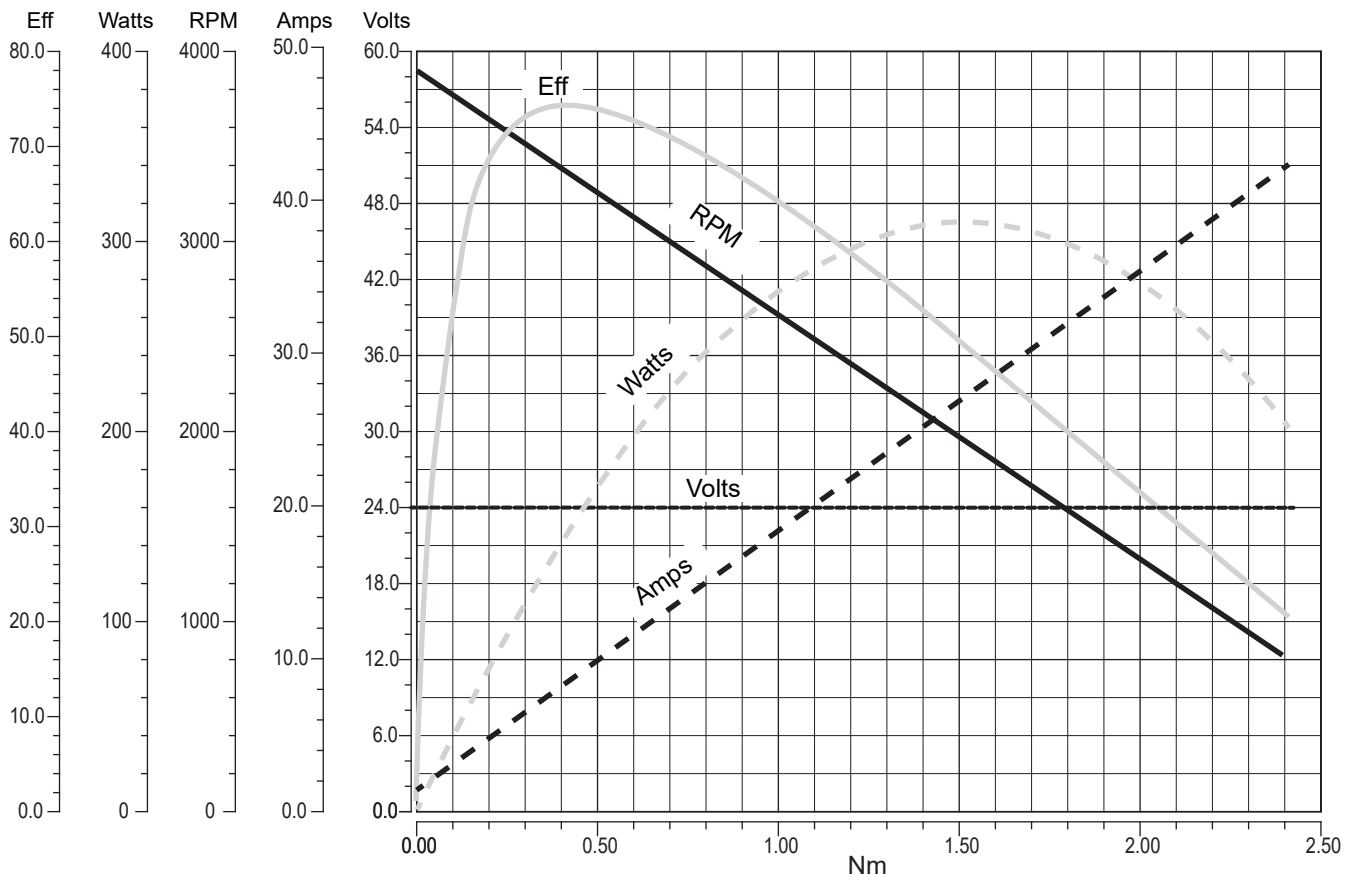
| | |
|--|---|
| Max forza radiale <i>Max radial force</i> | 220N @ 20 mm dalla flangia <i>220N @ 20 mm from flange</i> |
| Max forza assiale <i>Max axial force</i> | 60N |
| Classe di isolamento termico <i>Insulation class</i> | Classe B <i>Class B</i> |
| Isolamento dielettrico <i>Dielectric strength</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> |

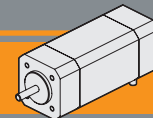
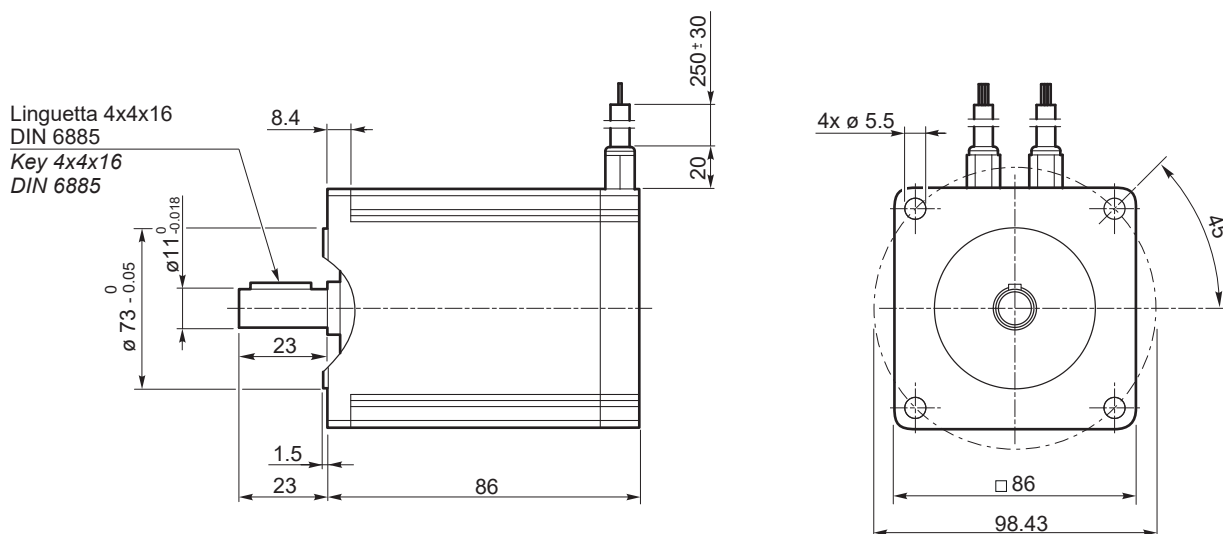
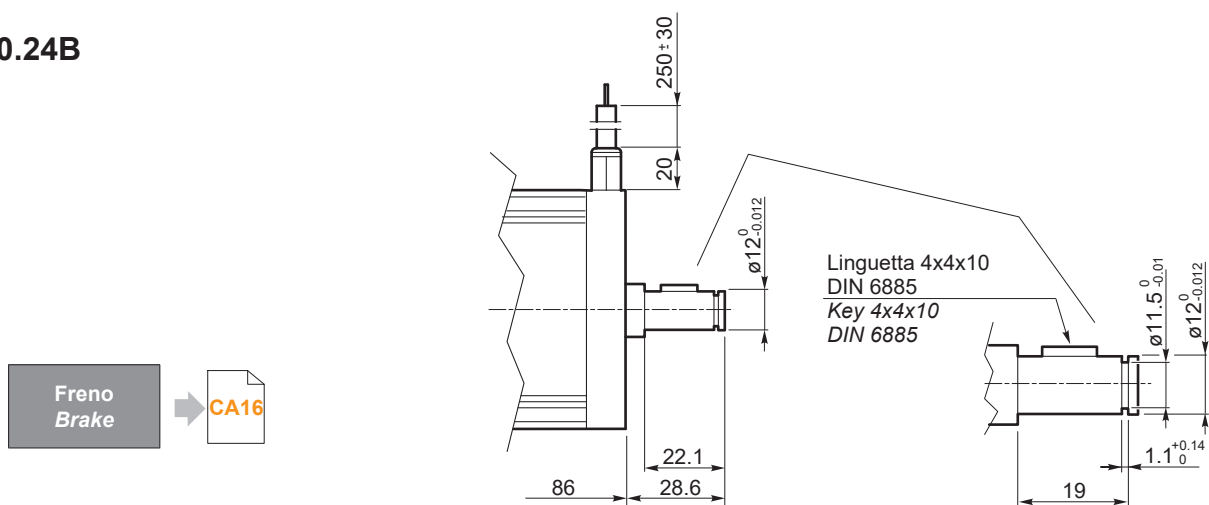
| Modello <i>Model</i> | Poli <i>Poles</i> | Fasi <i>Phases</i> | Tensione nominale <i>Rated voltage</i> | Velocità nominale <i>Rated speed</i> | Coppia nominale <i>Rated torque</i> | Potenza nominale <i>Rated power</i> | Coppia di picco <i>Peak torque</i> | Corrente nominale <i>Rated current</i> | Corrente 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] | |
| 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



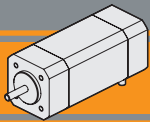

BL070.240 / BL070.24B
Dimensioni
Dimensions
BL070.240

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 |
| Scentratura albero <i>Shaft run out</i> | 0.05 mm |

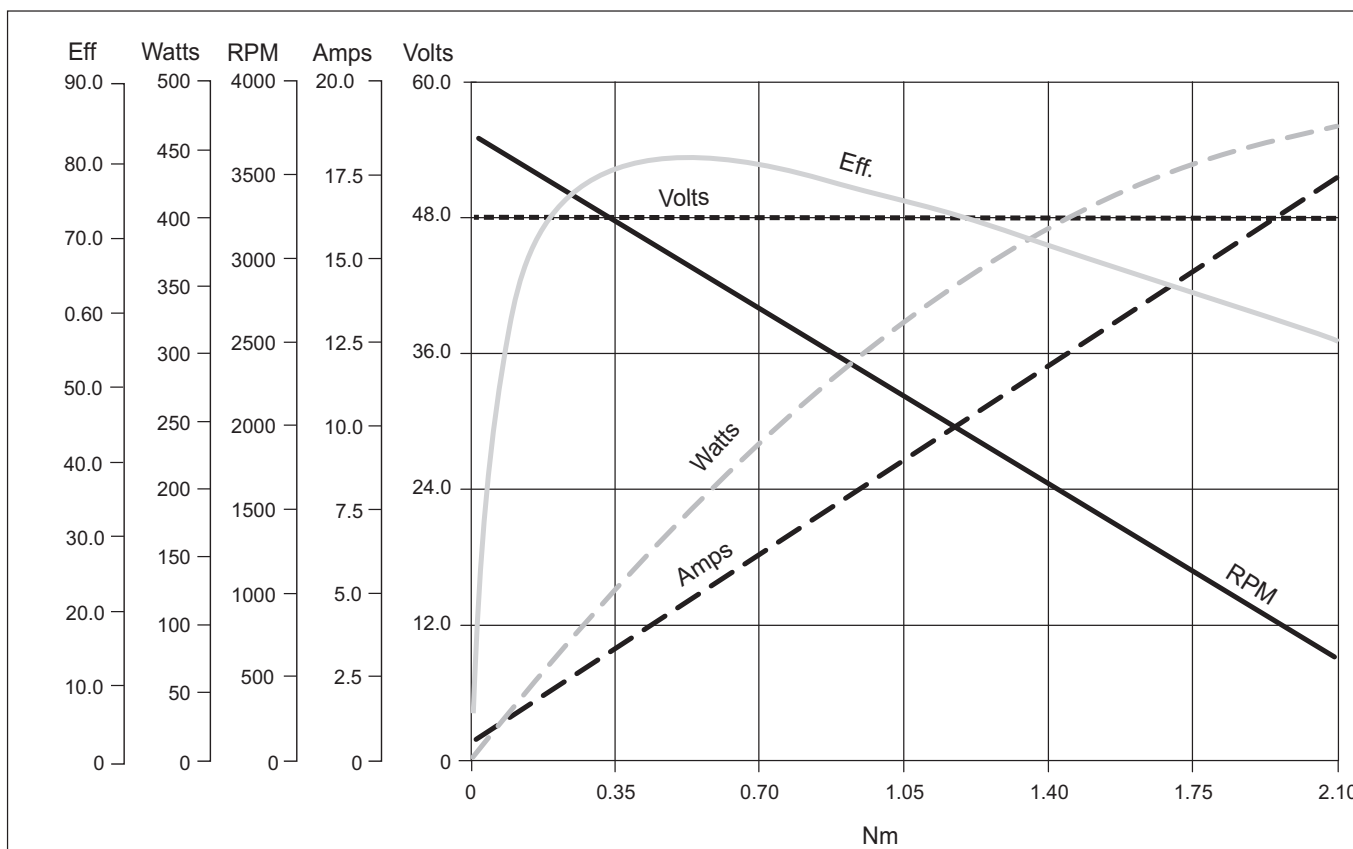
| | |
|---|---|
| Max forza radiale <i>Max radial force</i> | 220N @ 20 mm dalla flangia <i>220N @ 20 mm from flange</i> |
| Max forza assiale <i>Max axial force</i> | 60N |
| Classe di isolamento termico <i>Insulation class</i> | Classe B <i>Class B</i> |
| Isolamento dielettrico <i>Dielectric strength</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> |

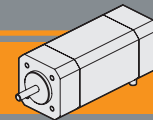
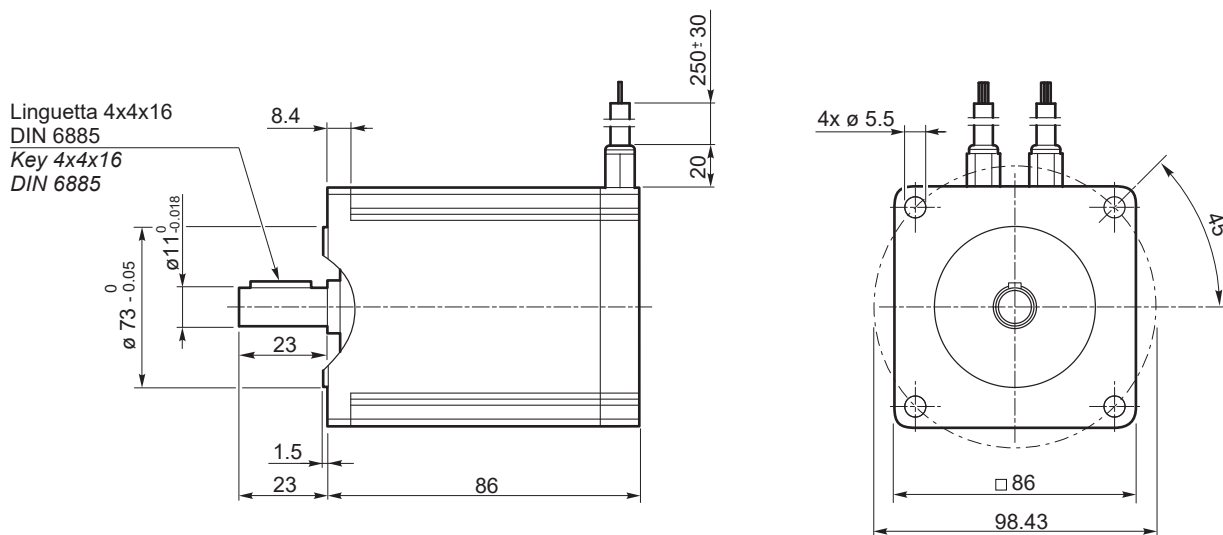
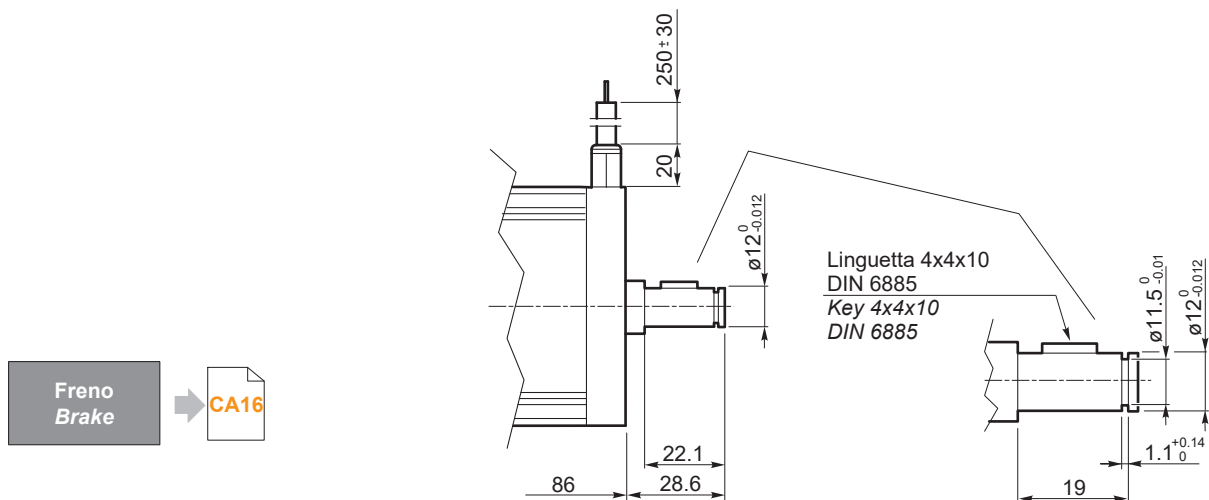
| Modello <i>Model</i> | Poli <i>Poles</i> | Fasi <i>Phases</i> | Tensione nominale <i>Rated voltage</i> | Velocità nominale <i>Rated speed</i> | Coppia nominale <i>Rated torque</i> | Potenza nominale <i>Rated power</i> | Coppia di picco <i>Peak torque</i> | Corrente nominale <i>Rated current</i> | Corrente 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] | |
| 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



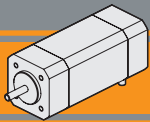

BL070.480 / BL070.48B
Dimensioni
Dimensions
BL070.480

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> |

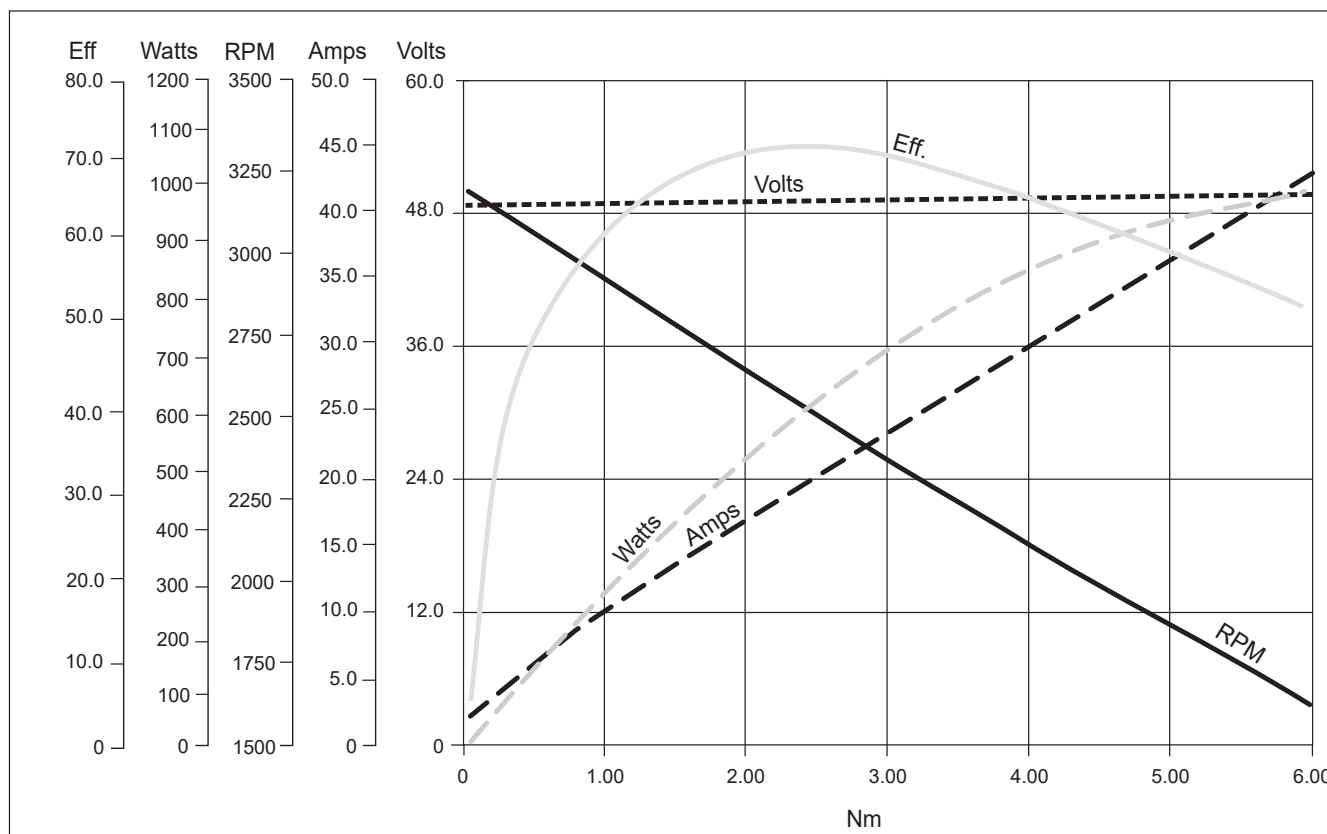
| Modello <i>Model</i> | Poli <i>Poles</i> | Fasi <i>Phases</i> | Tensione nominale | Velocità nominale | Coppia nominale | Potenza nominale | Coppia di picco | Corrente nominale | Corrente di picco | Resistenza fase-fase | Induttanza fase-fase | Costante di coppia | Costante FCEM | Inerzia rotore | 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] | |
| 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 |

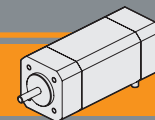
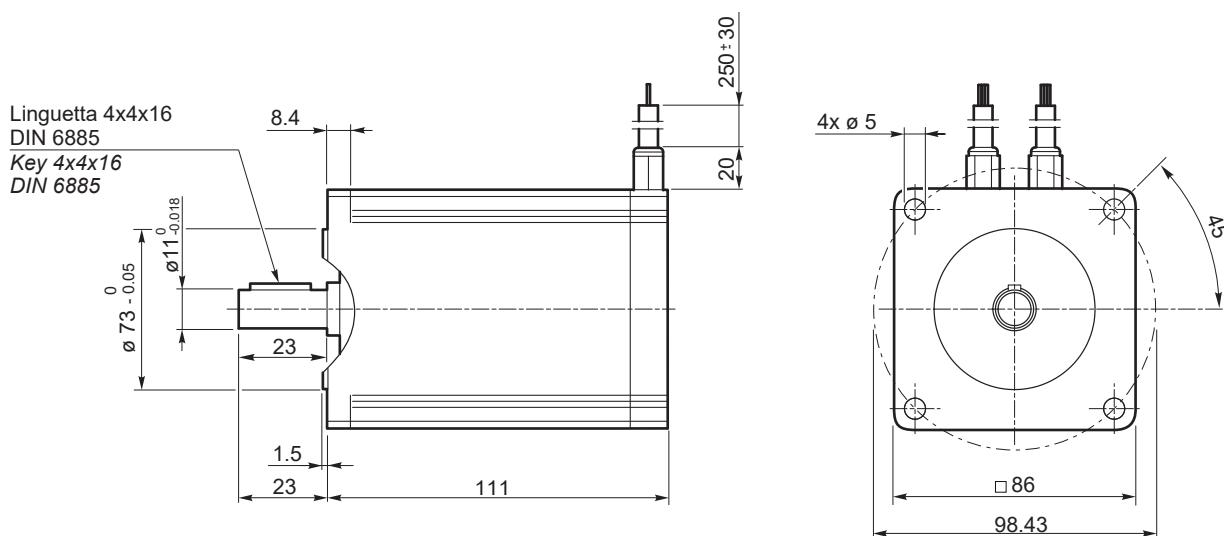
Azionamenti
Drives



Prestazioni

Performances



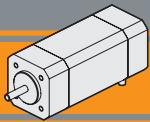

BL140.480
Dimensioni
Dimensions
BL140.480

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 |
| Scantatura albero <i>Shaft run out</i> | 0.05 mm |

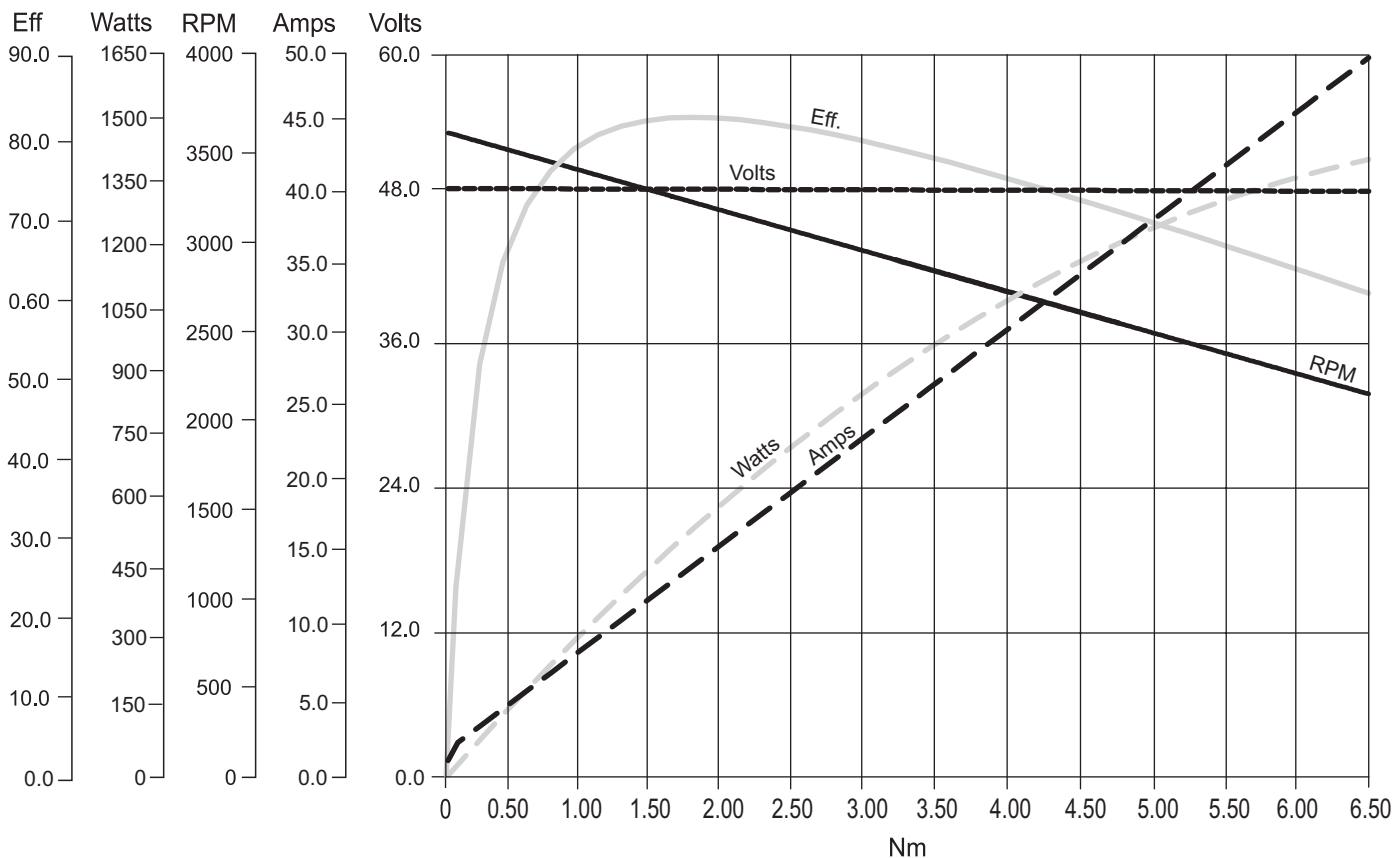
| | |
|--|---|
| Max forza radiale <i>Max radial force</i> | 220N @ 20 mm dalla flangia <i>220N @ 20 mm from flange</i> |
| Max forza assiale <i>Max axial force</i> | 60N |
| Classe di isolamento termico <i>Insulation class</i> | Classe B <i>Class B</i> |
| Isolamento dielettrico <i>Dielectric strength</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> |

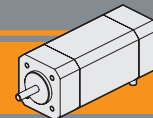
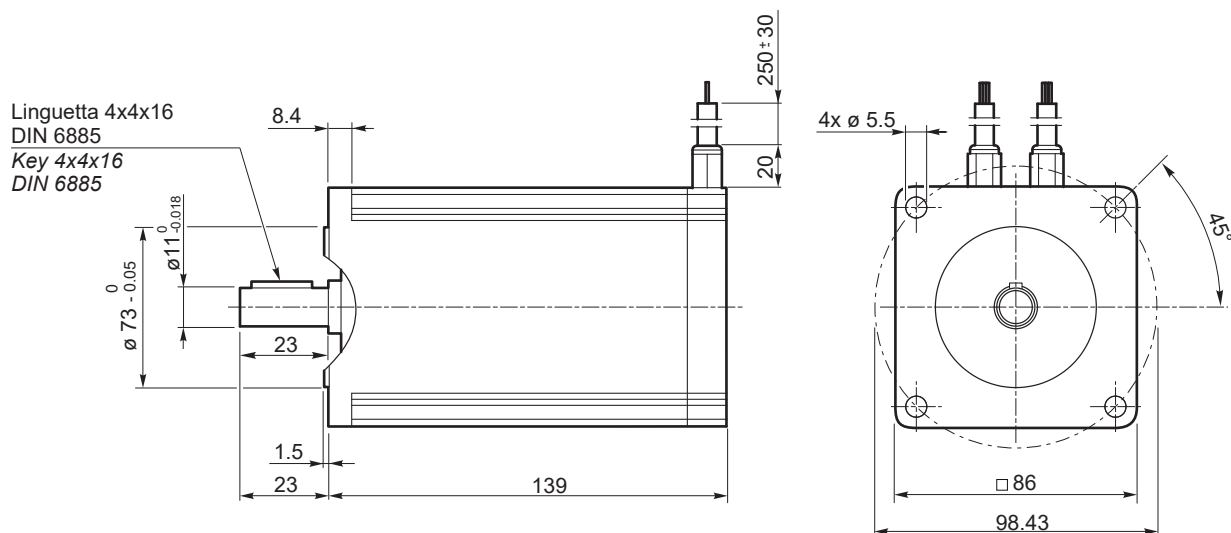
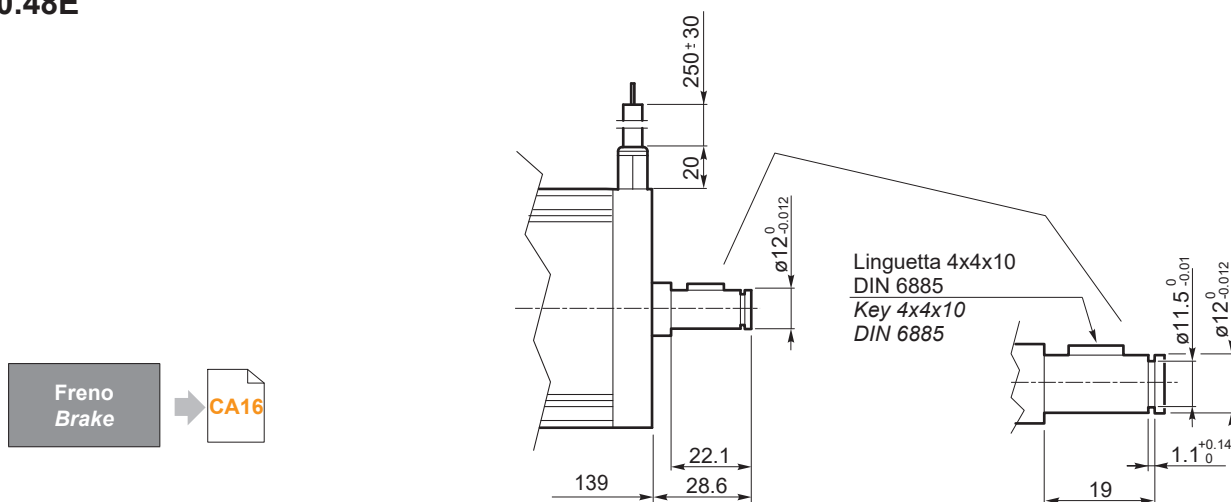
| Modello <i>Model</i> | Poli <i>Poles</i> | Fasi <i>Phases</i> | Tensione nominale | Velocità nominale | Coppia nominale | Potenza nominale | Coppia di picco | Corrente nominale | Corrente di picco | Resistenza fase-fase | Induttanza fase-fase | Costante di coppia | Costante FCEM | Inerzia rotore | 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] | |
| 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



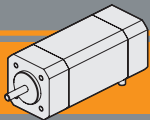

BL210.480 / BL210.48E
Dimensioni
Dimensions
BL210.480

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

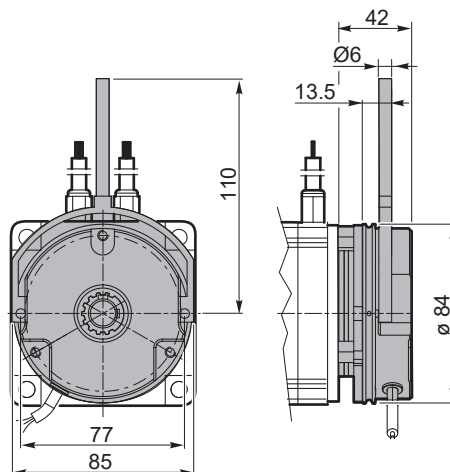
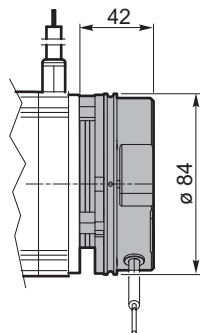
Brake

Freno / Brake

Freno con leva di sblocco/ Brake with hand release

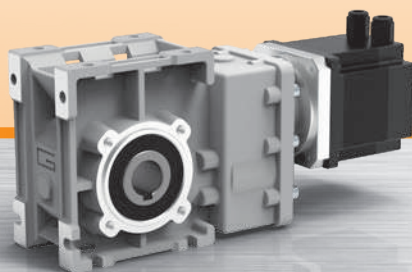
BL070.24B-BR
BL070.48B-BR
BL210.48E-BR

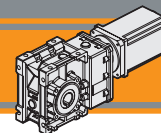
BL070.24B-BRL
BL070.48B-BRL
BL210.48E-BRL



| | 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

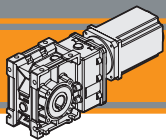




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| Designazione | <i>Classification</i> | CB2 |
| Simbologia | <i>Symbols</i> | CB3 |
| Lubrificazione e temperatura | <i>Lubrication and temperature</i> | CB3 |
| Carichi radiali | <i>Radial loads</i> | CB3 |
| CMB402 con motore brushless BLS043.240 | <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 |
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| 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 |

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

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Caratteristiche tecniche

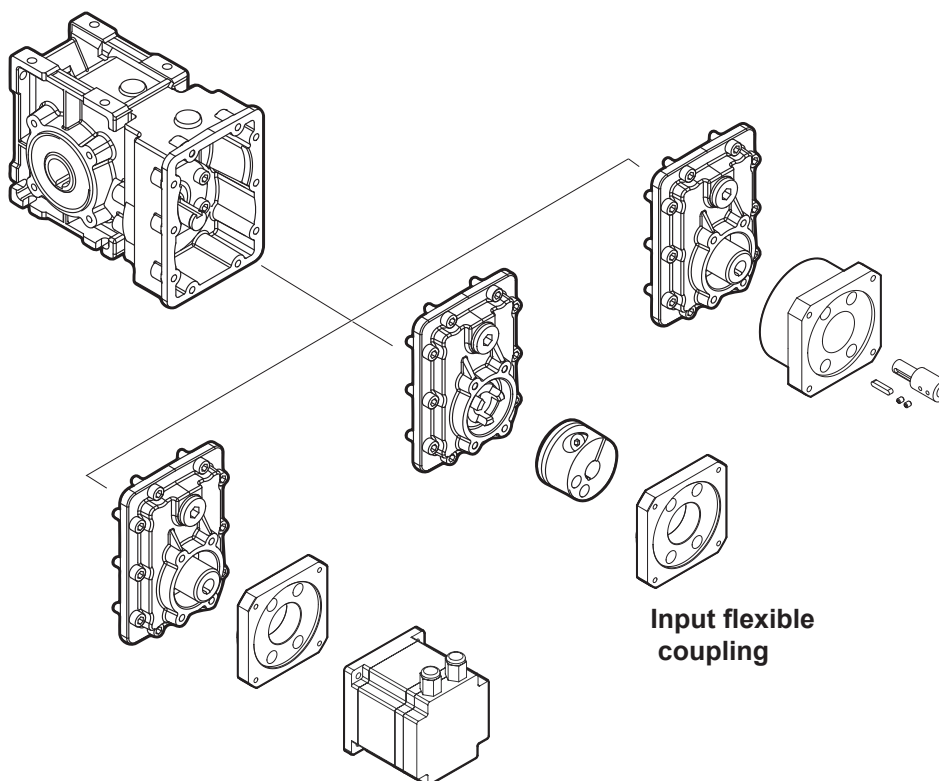
Technical features

Le caratteristiche principali dei motoriduttori 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

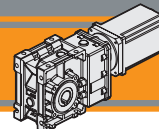


Designazione

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

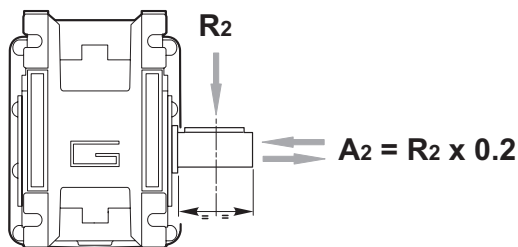
Lubrication and temperature

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

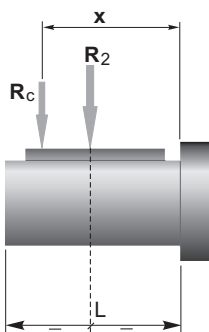
Radial loads



| 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:

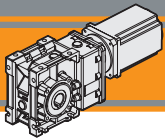


| | CMB 402 |
|-------------------|---------|
| a | 86 |
| b | 66 |
| R _{2MAX} | 3500 |

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

$$R \leq R_c$$

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

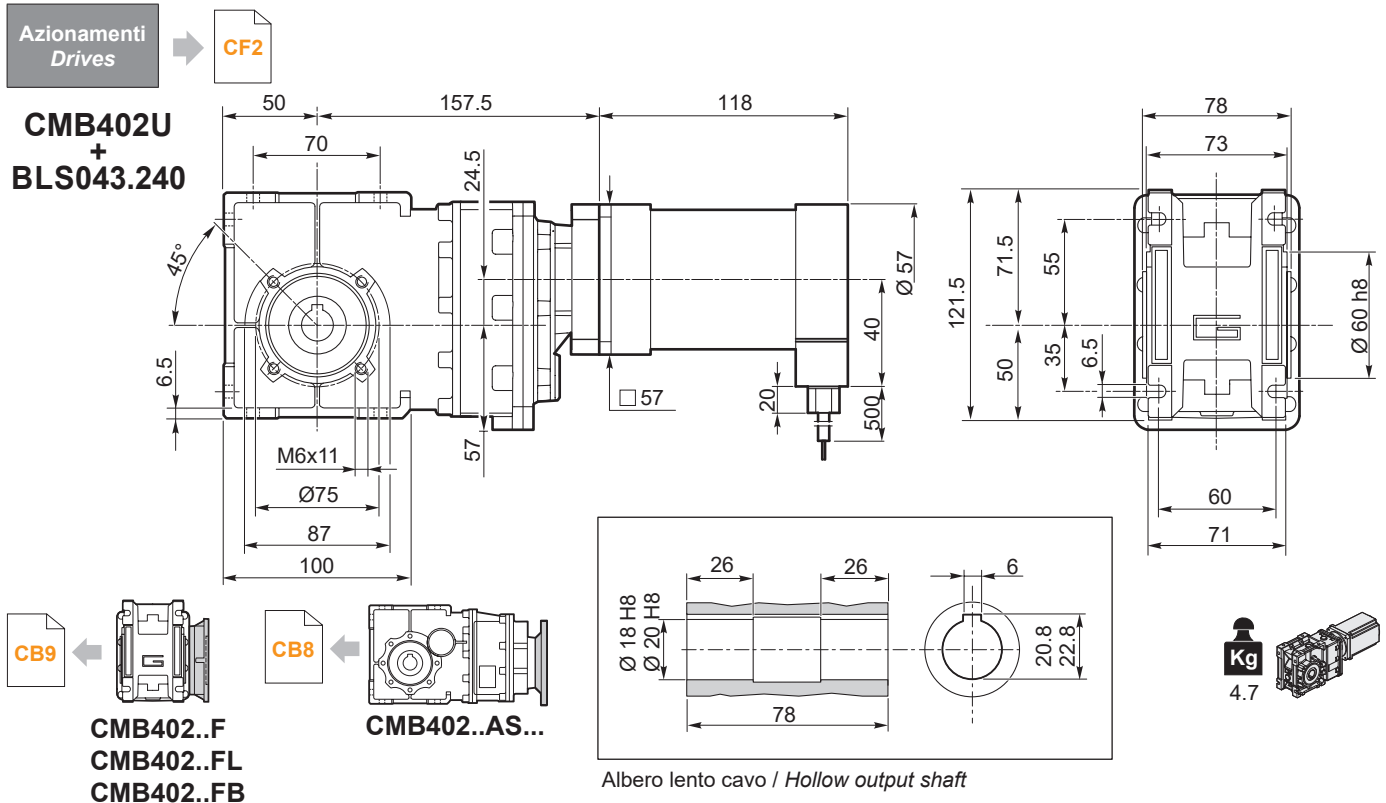


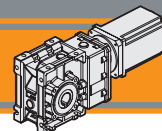
| CMB402 | BLS043.240 | | | | | | | | | | | | | |
|---------------------|---------------------------|-----|---------------------|---------------------------|-----|---------------------|---------------------------|---------------------------|-----|---------------------|---------------------------|-----|---------------------------|------|
| | 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

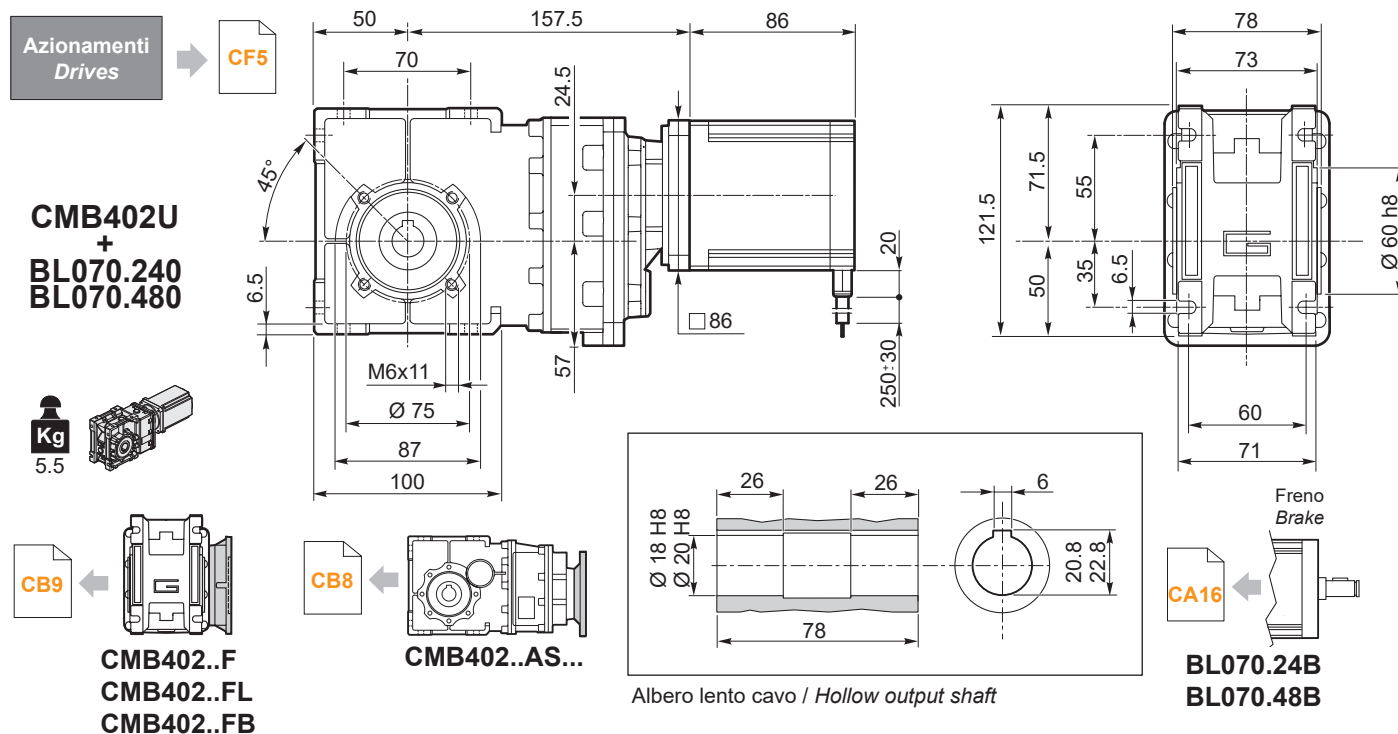
| CMB402 | BL070.240 / BL070.24B / BL070.480 / BL070.48B | | | | | |
|---------------------|---|---------------------------|---------------------|-----|---------------------------|-----|
| | 24V / 48V | | | | | |
| | ir | n _{2MIN} [rpm] | | | n _{2MAX} [rpm] | |
| M ₂ [Nm] | | sf | M ₂ [Nm] | sf | n _{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 |

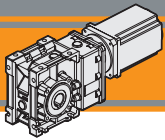
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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 |





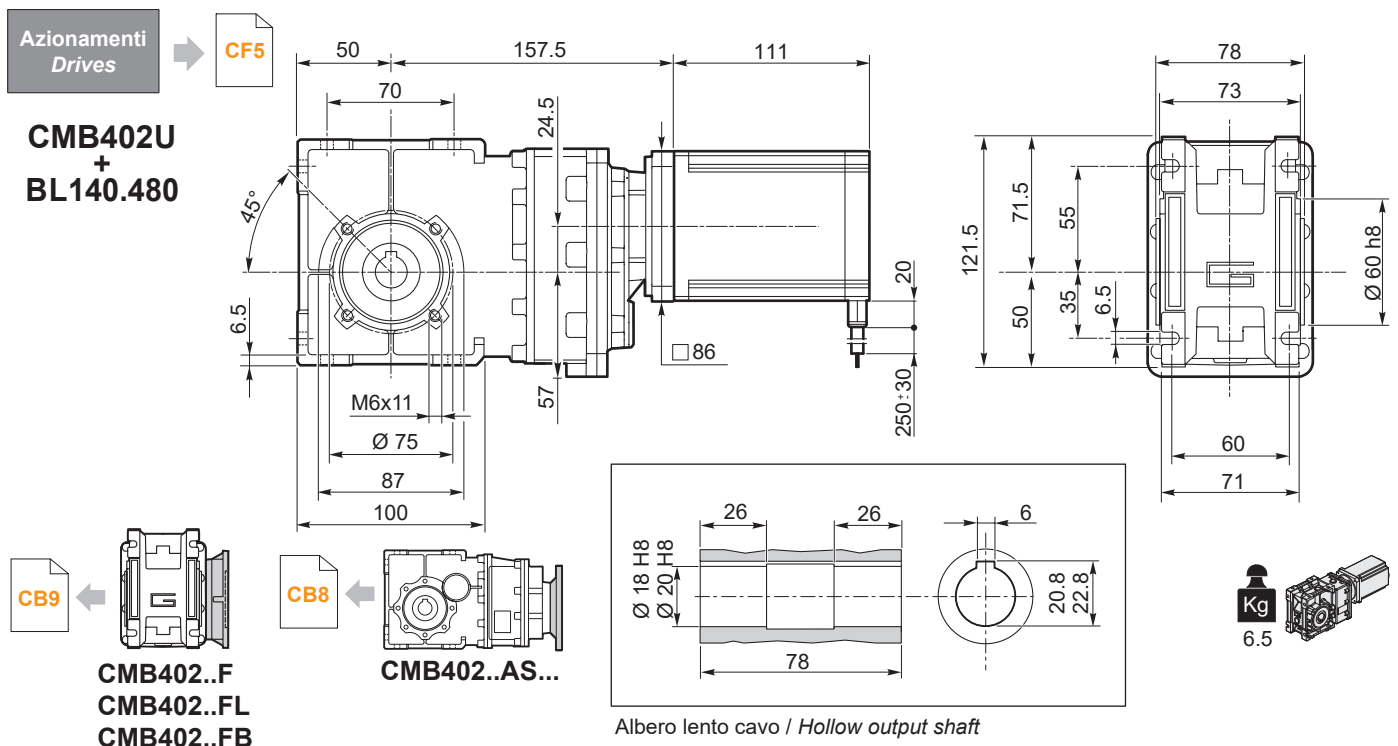
| CMB402 | BL140.480 | | | | | |
|--------|-----------|---------------------------|-----|-----|---------------------------|-----|
| | 48V | | | | | |
| | ir | n _{2MIN} [rpm] | | | n _{2MAX} [rpm] | |
| | | M ₂ [Nm] | sf | | M ₂ [Nm] | sf |
| 6.2 | 49 | 8.1 | 5.7 | 486 | 8.1 | 3.8 |
| 7.5 | 40 | 9.9 | 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 |

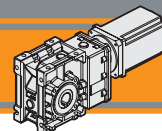
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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.

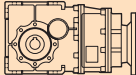
| Tipo Type | Numero di poli Number of poles | Numero di fasi Number of phase | Tensione Rated voltage [V] | Numero di giri Rated speed [rpm] | Coppia nominale Rated torque [Nm] | Potenza nominale Rated power [W] |
|-----------|-----------------------------------|---------------------------------------|-------------------------------|------------------------------------|-------------------------------------|------------------------------------|
| 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 |

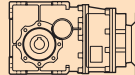




Dati tecnici

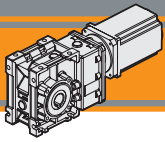
Technical data

|  | 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

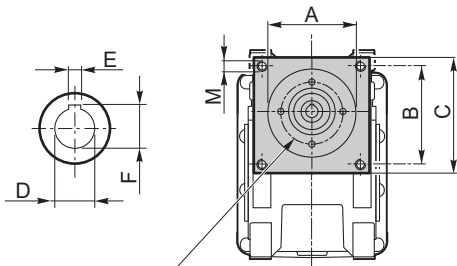
NOTE: for continuous or highly intermittent duty, please contact our technical service



Dimensioni CMB con flange motore AS

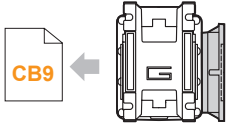
CMB dimensions with motor flanges AS

CMB402 - U - AS...

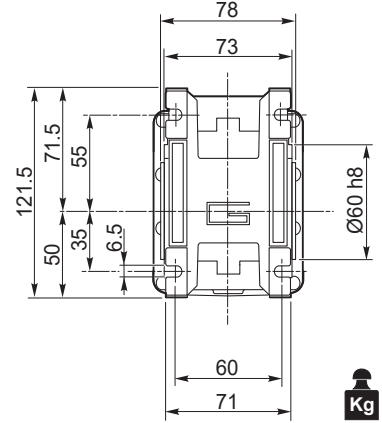
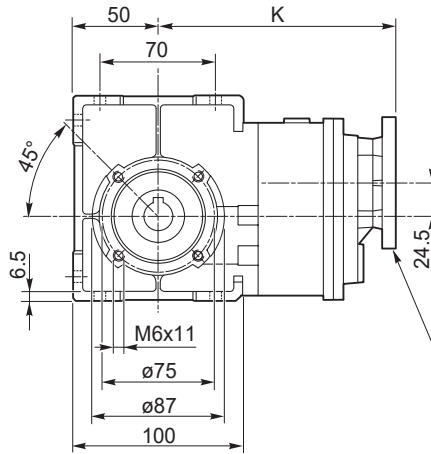


Connessione con boccola o giunto in funzione del diametro dell'albero motore.

Connection with sleeve or coupling depending on motorshaft's diameter.



CMB402..F
CMB402..FL
CMB402..FB

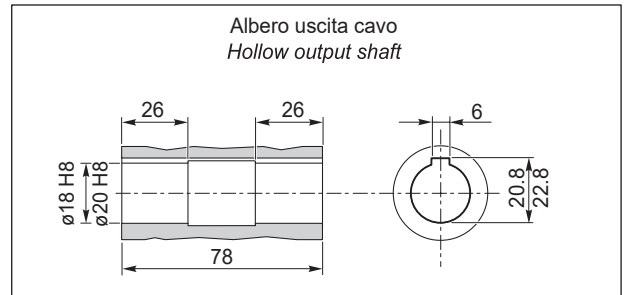


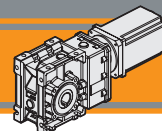
3.4

Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

Flange's thickness may vary depending on motorshaft's lenght.

| 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 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... |

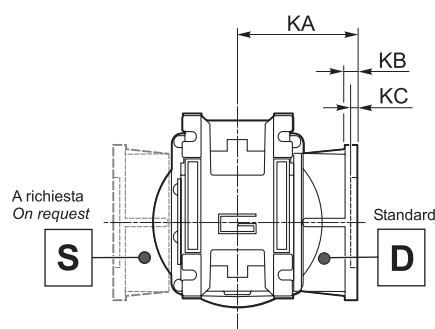
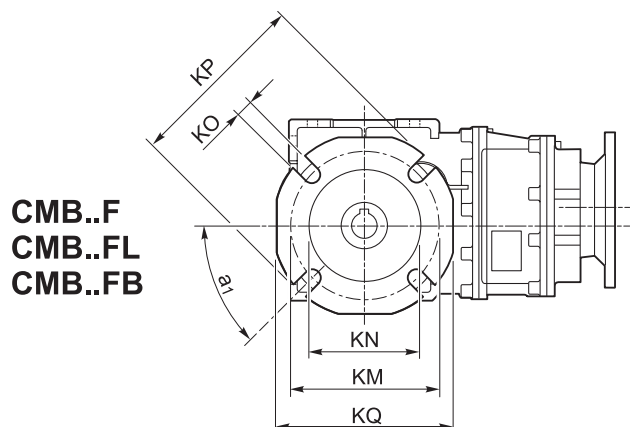


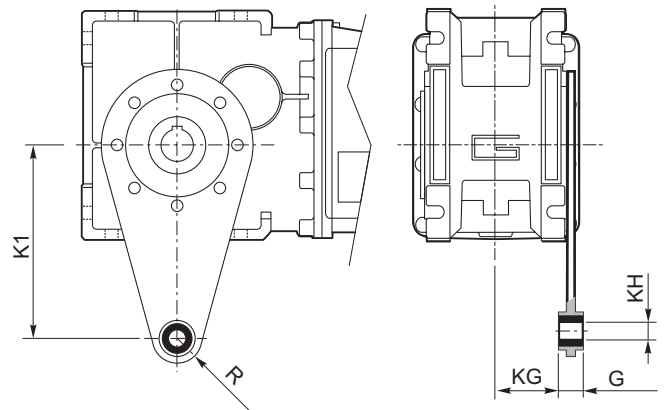
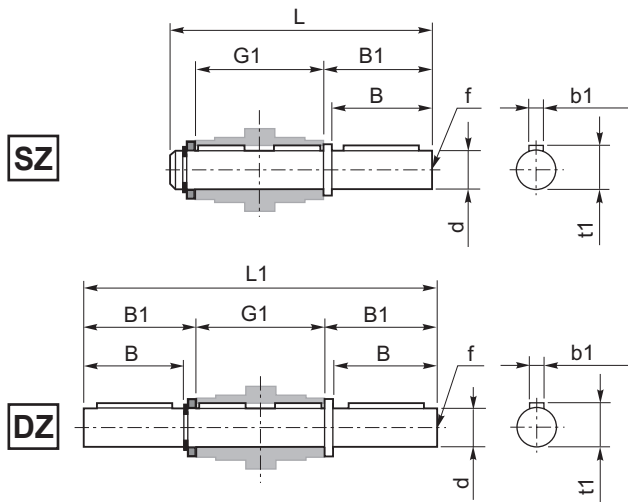
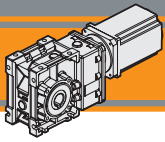


Flange uscita

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 |





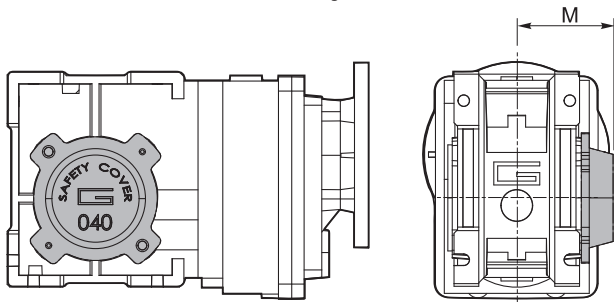
Albero lento / Output shaft

| 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

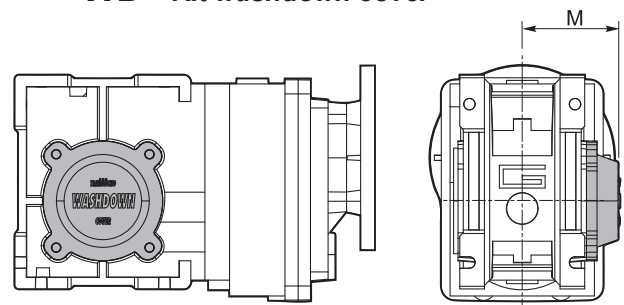
| CMB | K1 | G | KG | KH | R |
|-----|-----|----|----|----|----|
| 402 | 100 | 14 | 31 | 10 | 18 |

SC - Safety cover



| CMB | M |
|-----|------|
| 402 | 54.5 |

WD - Kit washdown cover

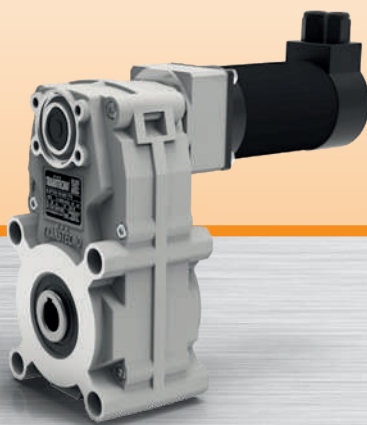


| CMB | M |
|-----|------|
| 402 | 55.5 |

MINITM
TECNO
small but strong

BLFT

Motoriduttori brushless CC pendolari
Brushless DC helical parallel gearmotors



MINITM
TECNO brand of
TRANSTECNO[®]



BLDC



| Indice | Index | Pag. Page |
|---------------------------------------|--|--------------|
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| 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 |
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| Dimensioni FT con flange motore AS | <i>FT dimensions with motor flanges AS</i> | CC6 |

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Caratteristiche tecniche

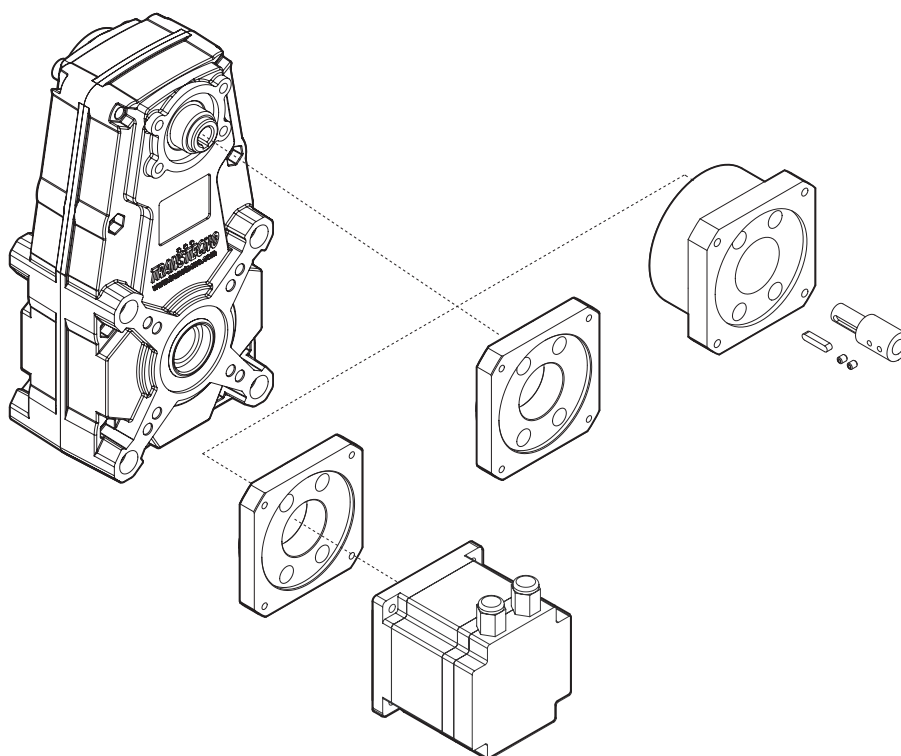
Technical features

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

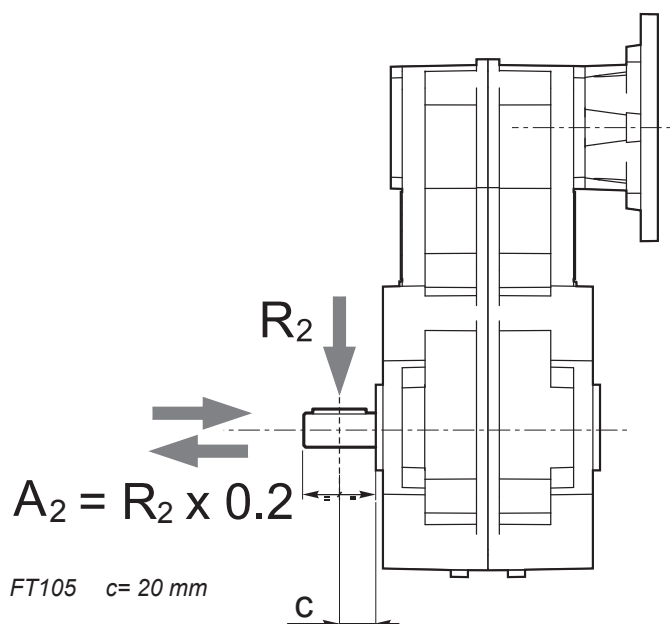
Lubrication and temperature

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

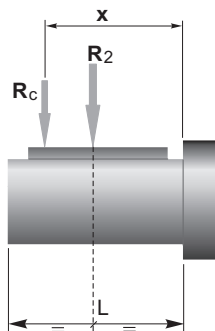
Radial loads



| 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 |

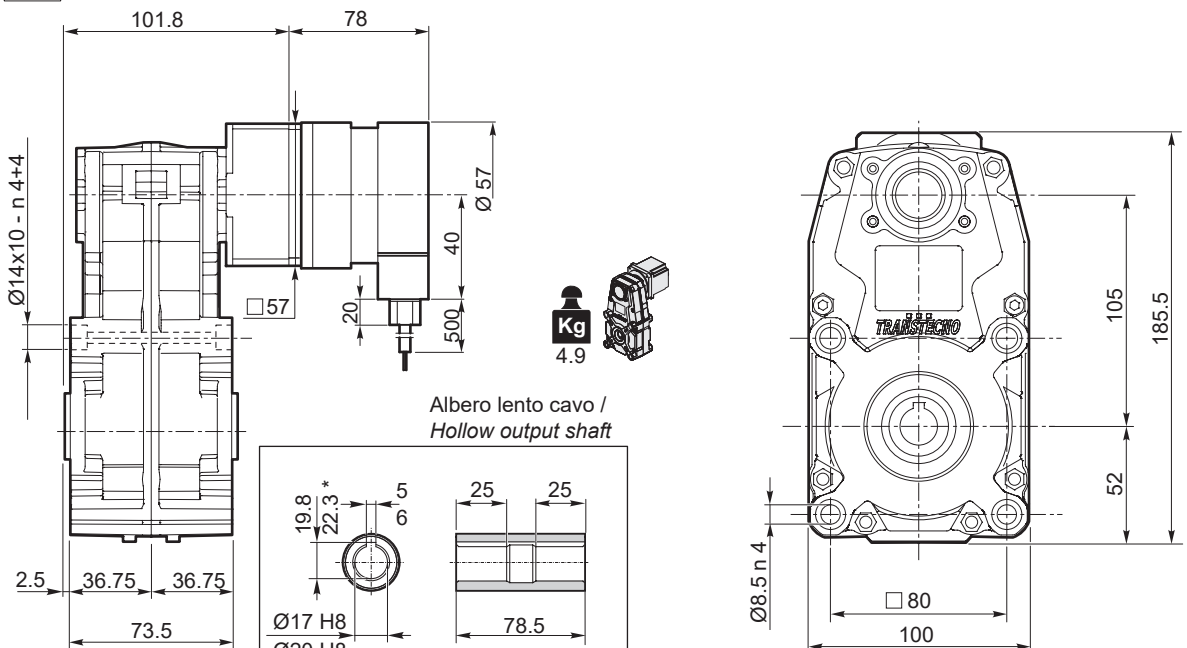
Azionamenti Drives

CF2

FT105U + BLS022.240

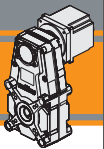
CC6

FT105.. AS...



Albero lento cavo / Hollow output shaft

*Sede linguetta ribassata /
*Special keyway



FT105 con motore brushless

FT105 with brushless motor

| FT105 | | 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 | | M ₂ [Nm] | sf | | | | | |
| 20.6 | 3 | 14.6 | 8.3 | 5.5 | 146 | 8.3 | 3.8 | 3000 | 19.4 | 8.3 | 5.5 | 194 | 8.3 | 3.3 | 4000 |
| 33.3 | | 9.0 | 13 | 4.3 | 90 | 13 | 2.9 | | 12.0 | 13 | 4.3 | 120 | 13 | 2.6 | |
| 44.4 | | 6.8 | 18 | 4.2 | 68 | 18 | 2.8 | | 9.0 | 18 | 4.2 | 90 | 18 | 2.5 | |
| 54.9 | | 5.5 | 22 | 3.4 | 55 | 22 | 2.3 | | 7.3 | 22 | 3.4 | 73 | 22 | 2.0 | |
| 71.8 | | 4.2 | 29 | 2.6 | 42 | 29 | 1.7 | | 5.6 | 29 | 2.6 | 56 | 29 | 1.5 | |
| 77.1 | | 3.9 | 31 | 2.4 | 39 | 31 | 1.6 | | 5.2 | 31 | 2.4 | 52 | 31 | 1.4 | |
| 88.9 | | 3.4 | 36 | 2.1 | 34 | 36 | 1.4 | | 4.5 | 36 | 2.1 | 45 | 36 | 1.2 | |
| 124.8 | | 2.4 | 50 | 1.5 | 24 | 50 | 1.0 | | 3.2 | 50 | 1.5 | 32 | 50 | 0.9 | |
| 181.4 | | 1.7 | 73 | 1.0 | 17 | 72 | 0.7 | | 2.2 | 73 | 1.0 | 22 | 64 | 0.7 | |
| 224.3 | | 1.3 | 91 | 0.8 | 13 | 72 | 0.7 | | 1.8 | 91 | 0.8 | 18 | 64 | 0.7 | |
| 315.1 | | 1.0 | 105 | 0.7 | 10 | 72 | 0.7 | | 1.3 | 105 | 0.7 | 13 | 64 | 0.7 | |
| 368.2 | | 0.8 | 105 | 0.7 | 8.1 | 72 | 0.7 | | 1.1 | 105 | 0.7 | 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] |
|------------|-----------------------------------|---------------------------------------|-------------------------------|------------------------------------|-------------------------------------|------------------------------------|
| 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 |

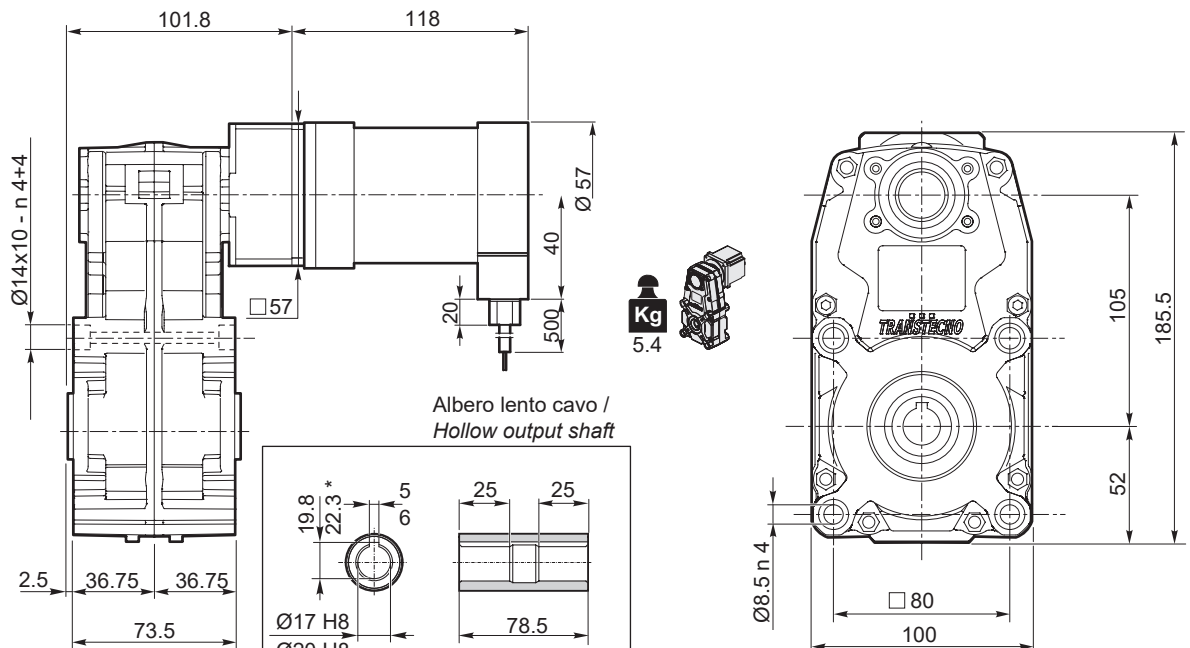
Azionamenti Drives

CF2

FT105U + BLS043.240

CC6

FT105.. AS...





*Sede linguetta ribassata /
*Special keyway



Dati tecnici

Technical data

|  | n_2 [min ⁻¹] | Mn_2 [Nm] | Pn_1 [kW] | i | |
|---|-------------------------------|----------------|----------------|--------|--------|
| FT105 | | | | | |
| FT105/3 | $n_1 = 1400$ 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 |
| | | 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 | 65 | 0.028 | 368.19 |
| | | 2.6 | | 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 | | | | | |
| FT105/3 | $n_1 = 3000$ 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 |
| | | 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 | 51 | 0.05 | 368.19 |
| | | 5.6 | | 0.03 | 534.98 |
| | | 4.5 | | 0.03 | 661.76 |
| | | 3.2 | | 0.02 | 929.40 |

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

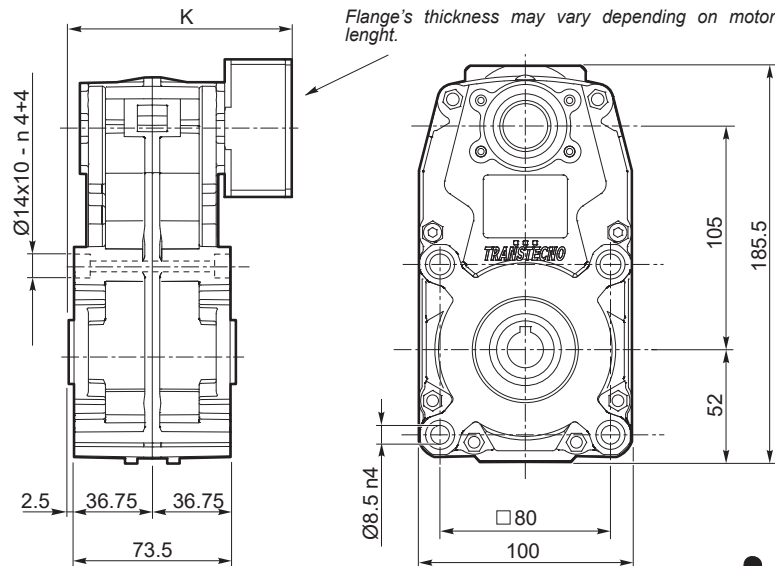
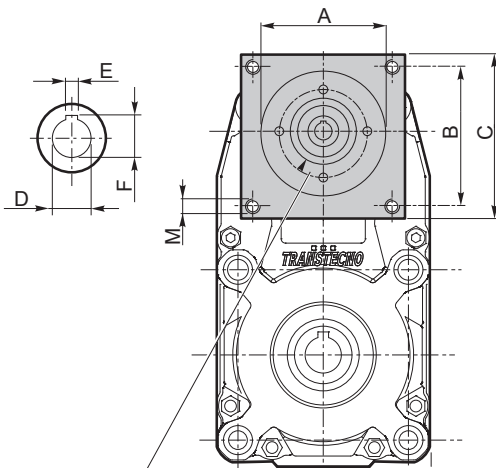
Dimensioni FT con flange motore AS

FT dimensions with motor flanges AS

FT105 - U - AS...

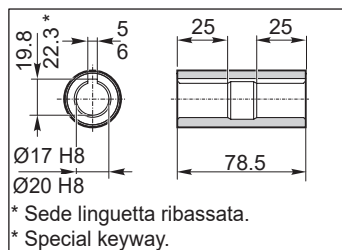
Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

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.



Albero lento cavo / Hollow output shaft

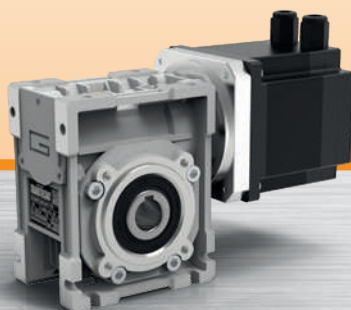
Kg
4.2

| 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 |
| ... | ... | ... | ... | ... | ... | ... | ... | ... |

MINI  **TECNO**™
small but strong

BLCM

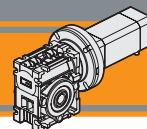
Motoriduttori brushless CC a vite senza fine
Brushless DC wormgearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



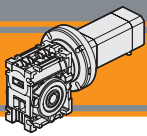
BLDC



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| 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

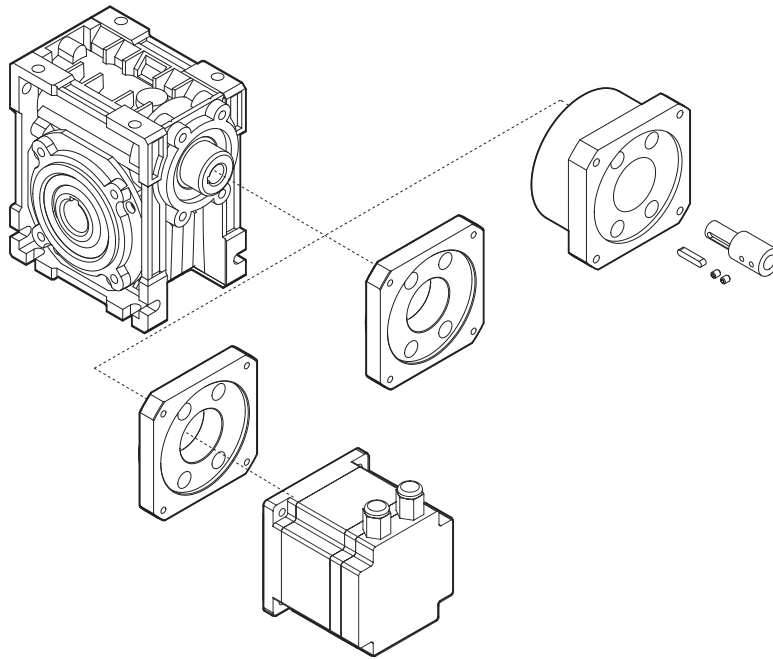
Technical features

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

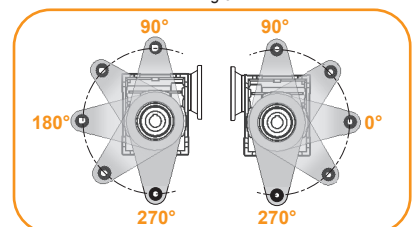
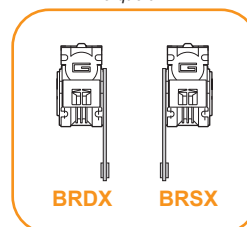
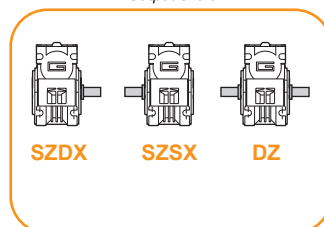
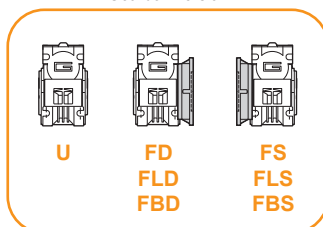
| RIDUTTORE / GEARBOX | | | | MOTORE / MOTOR | | |
|---------------------|---|------------------------------------|---------------------|---|--|----------------|
| CM | 030 | 20 | U | BL070.480 | 48V | BR |
| Tipo Type | Grandezza Size | Rapporto in Ratio in | Versione Version | Tipo Type | Tensione 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 |

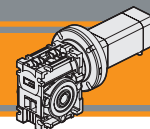
Versione Riduttore
Gearbox Version

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).

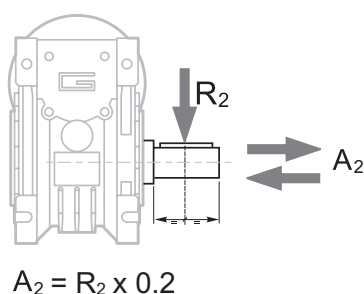
Ambient temperature 0 ÷ 40 °C (in the absence of freezing and condensation).

Per temperature diverse, contattare nostro UT.

For temperature outside this range please contact our technical dept.

Carichi radiali

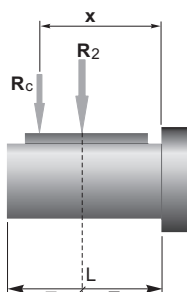
Radial loads



| 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:

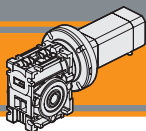


| | CM | | |
|-------------------|-----|------|------|
| | 026 | 030 | 040 |
| a | 56 | 65 | 84 |
| b | 43 | 50 | 64 |
| R _{2MAX} | 610 | 1600 | 3000 |

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

$$R \leq R_c$$

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 |

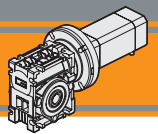
Reversibilità e irreversibilità

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

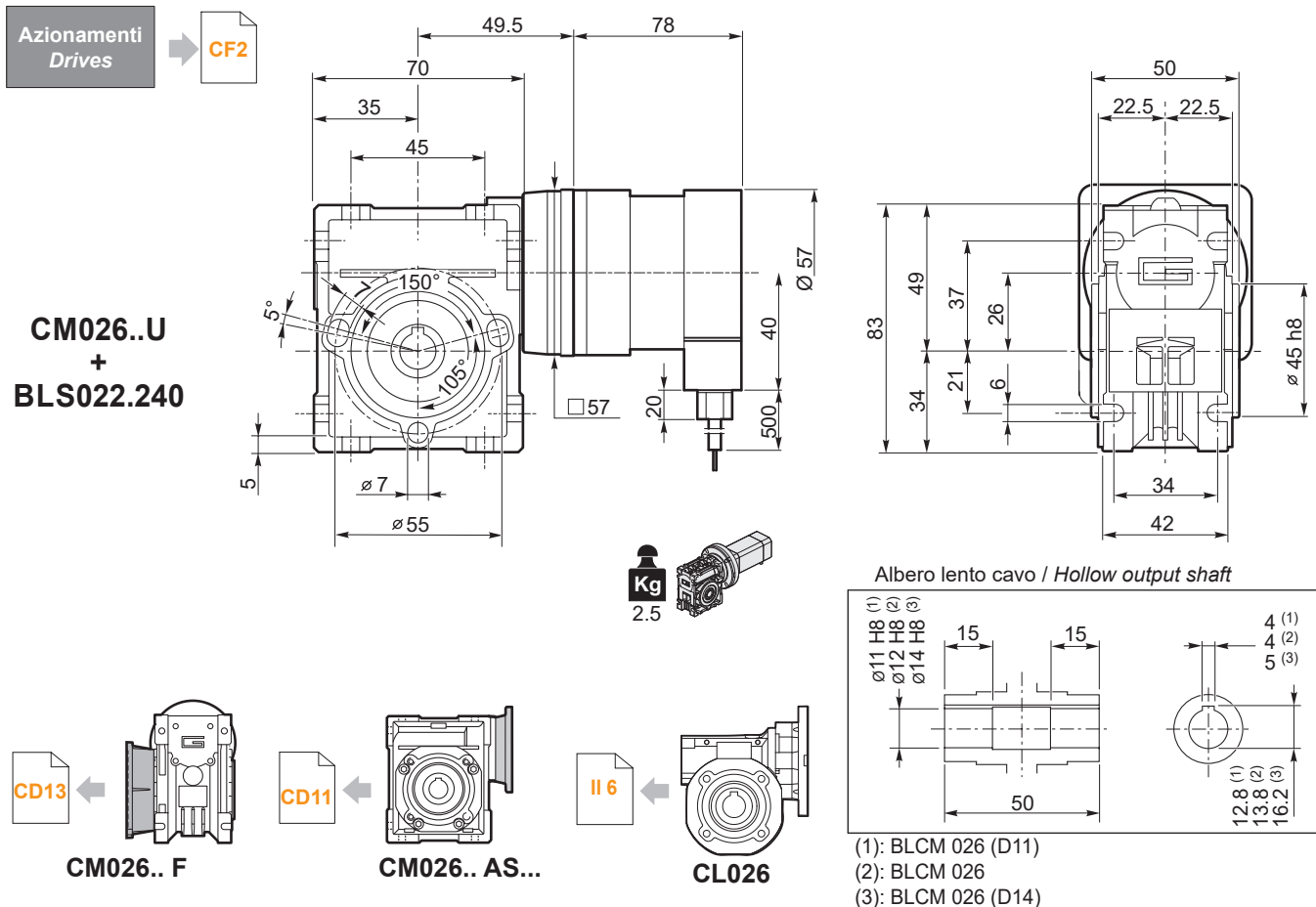
| CM026 | BLS022.240 | | | | | | | | | | | | | |
|----------------|--------------------|----------------|--------------------|----------------|-------------------------------|--------------------|----------------|--------------------|-----|-------------------------------|-----|-----|-----|------|
| | 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 | |

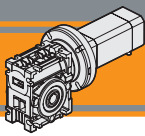
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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

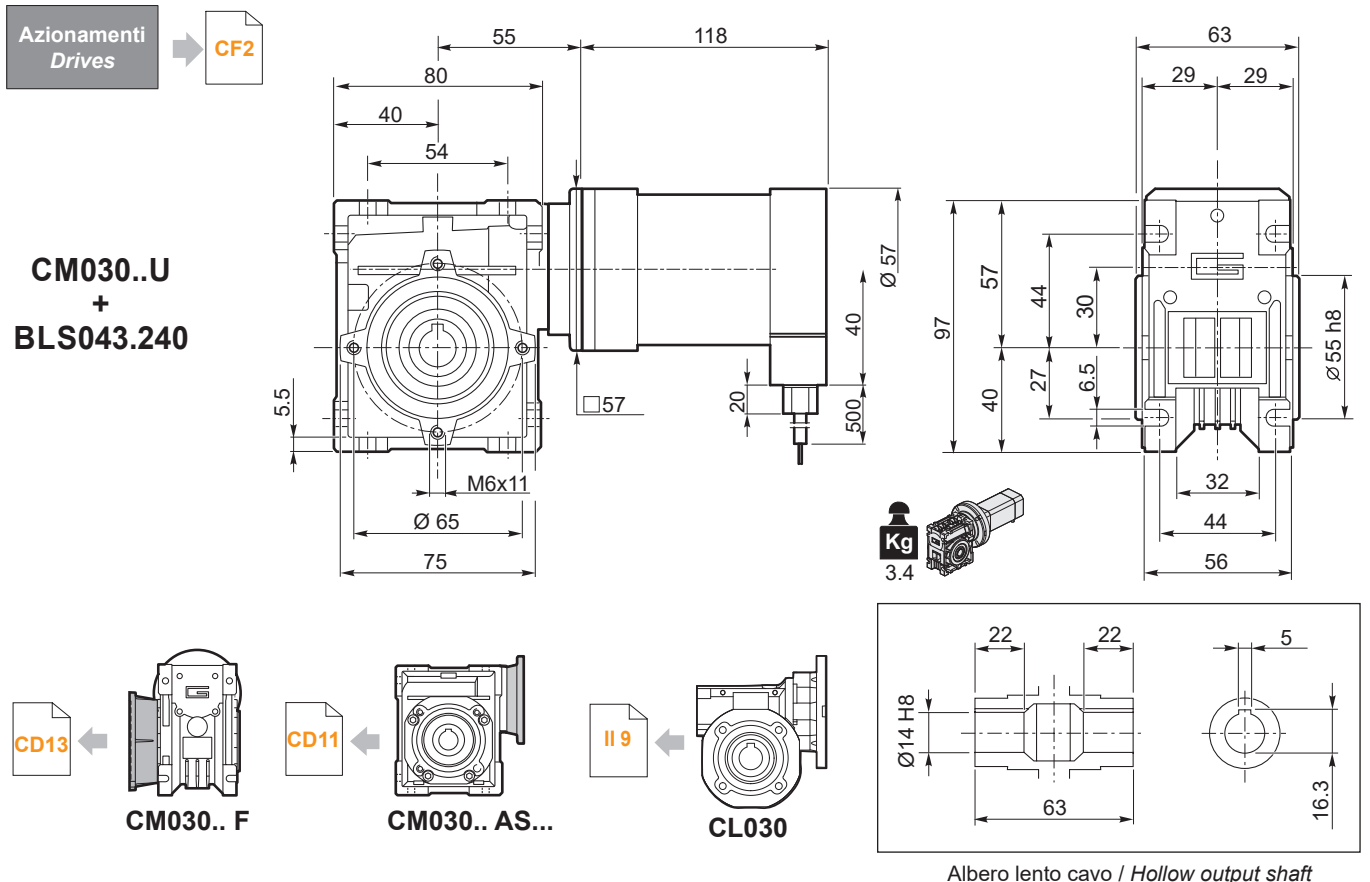
| CM030 | BLS043.240 | | | | | | | | | | | |
|----------------|--------------------|----------------|-----|--------------------|----------------|--------------------------|--------------------|----------------|-----|--------------------|-----|--------------------------|
| | 24V | | | | | | 36V | | | | | |
| | n ₂ MIN | | sf | n ₂ MAX | | n ₁ MAX [rpm] | n ₂ MIN | | sf | n ₂ MAX | | n ₁ MAX [rpm] |
| M ₂ | | M ₂ | | | M ₂ | | | M ₂ | | | | |
| 5 | 60 | 1.7 | 20 | 600 | 1.9 | 6.8 | 80 | 1.7 | 20 | 800 | 1.9 | 6.8 |
| 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 |

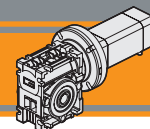
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

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

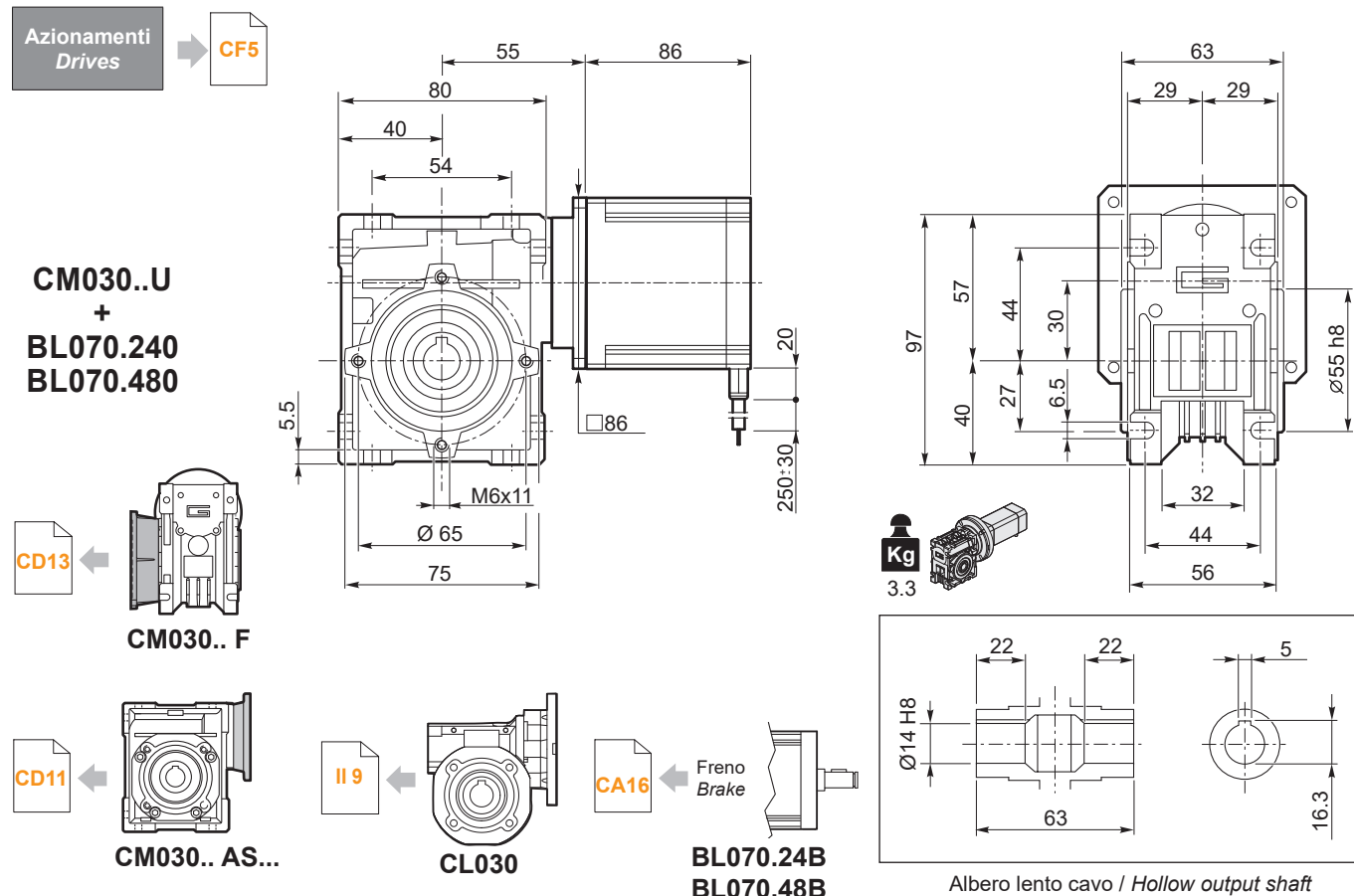
| CM030 | BL070.240 / BL070.24B / BL070.480 / BL070.48B | | | | | | |
|-------|---|----------------|-----|--------------------|----------------|-----|----------------------------|
| | 24V / 48V | | | | | | |
| ir | n ₂ MIN | | | n ₂ MAX | | | n ₁ MAX [rpm] |
| | | M ₂ | sf | | M ₂ | sf | |
| 5 | 60 | 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

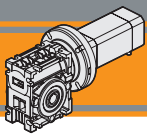
NOTE: for continuous or highly intermittent duty, please contact our technical service

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 |



Albero lento cavo / Hollow output shaft



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

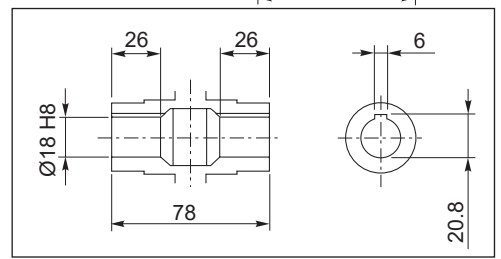
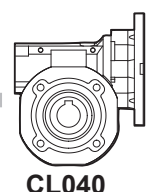
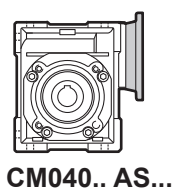
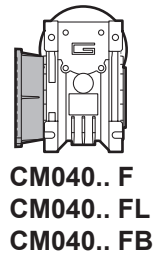
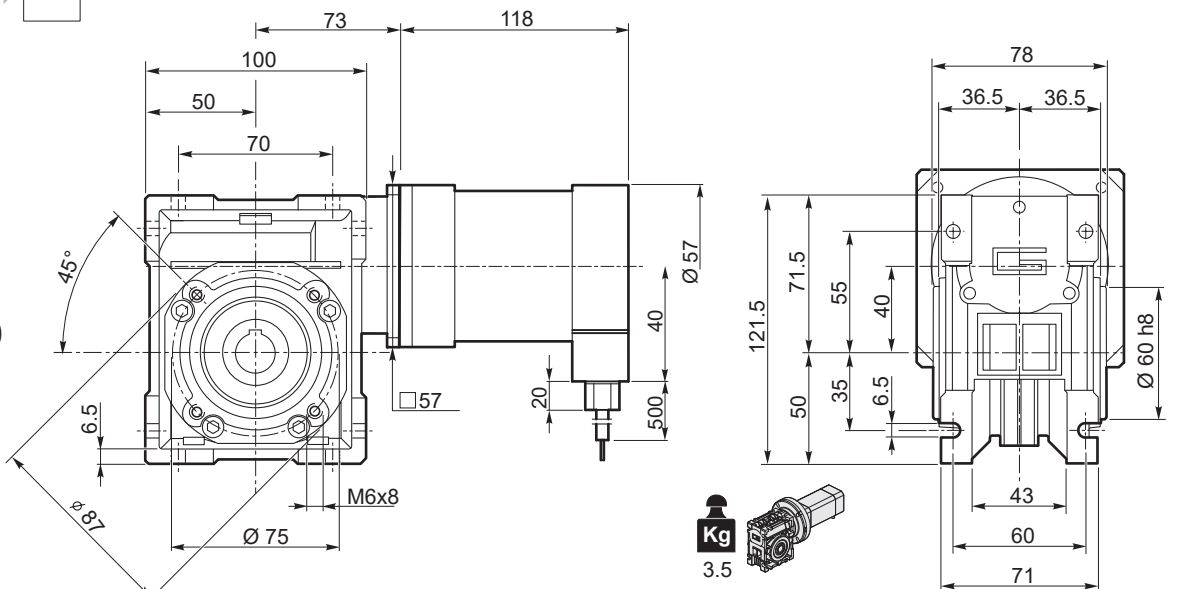
NOTE: for continuous or highly intermittent duty, please contact our technical service

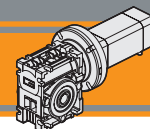
| Tipo Type | Numero di poli Number of poles | Numero di fasi Number of phase | Tensione Rated voltage [V] | Numero di giri Rated speed [rpm] | Coppia nominale Rated torque [Nm] | Potenza nominale Rated power [W] |
|------------|---------------------------------|-------------------------------------|-----------------------------|----------------------------------|-----------------------------------|----------------------------------|
| 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





CM040 con motore brushless

CM040 with brushless motor

| CM040 | BL070.240 / BL070.24B BL070.480 / BL070.48B | | | | | | BL140.480 | | | | | | BL210.480 / BL210.48E | | | | | |
|-------|--|-----|--------------------|-----|----------------|-----------------------------|--------------------|-----|--------------------|-----|----------------|-----------------------------|-----------------------|----------------|--------------------|----------------|-----|-----------------------------|
| | 24V / 48V | | | | | | 48V | | | | | | 48V | | | | | |
| ir | n ₂ MIN | | n ₂ MAX | | | n ₁ MAX [rpm] | 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 | | M ₂ | sf | M ₂ | sf | M ₂ | | sf | M ₂ | sf | M ₂ | sf | |
| 5 | 60 | 2.9 | 25 | 600 | 3.2 | 9.2 | 60 | 5.8 | 13 | 600 | 6.3 | 4.6 | 60 | 8.6 | 8.5 | 600 | 9.4 | 3.1 |
| 7.5 | 40 | 4.2 | 18 | 400 | 4.7 | 6.6 | 40 | 8.4 | 9.0 | 400 | 9.3 | 3.3 | 40 | 12 | 6.1 | 400 | 14 | 2.2 |
| 10 | 30 | 5.3 | 14 | 300 | 6.1 | 5.4 | 30 | 11 | 7.1 | 300 | 12 | 2.7 | 30 | 16 | 4.7 | 300 | 18 | 1.8 |
| 15 | 20 | 7.4 | 11 | 200 | 8.8 | 3.9 | 20 | 15 | 5.1 | 200 | 18 | 2.0 | 20 | 22 | 3.6 | 200 | 27 | 1.3 |
| 20 | 15 | 9.5 | 7.1 | 150 | 12 | 2.6 | 15 | 19 | 3.6 | 150 | 23 | 1.3 | 15 | 29 | 2.3 | 150 | 35 | 0.9 |
| 25 | 12 | 11 | 5.4 | 120 | 14 | 2.0 | 12 | 22 | 2.8 | 120 | 28 | 1.0 | 12 | 34 | 1.8 | 120 | 42 | 0.7 |
| 30 | 10 | 12 | 6.7 | 100 | 16 | 2.3 | 10 | 24 | 3.4 | 100 | 32 | 1.2 | 10 | 37 | 2.2 | 100 | 49 | 0.8 |
| 40 | 7.5 | 15 | 4.5 | 75 | 20 | 1.6 | 8 | 29 | 2.4 | 75 | 41 | 0.8 | 7.5 | 45 | 1.5 | 75 | 52 | 0.7 |
| 50 | 6.0 | 17 | 3.7 | 60 | 24 | 1.3 | 6 | 33 | 1.9 | 60 | 41 | 0.7 | 6.0 | 50 | 1.2 | 60 | 41 | 0.7 |
| 60 | 5.0 | 19 | 3.0 | 50 | 28 | 1.0 | 5 | 37 | 1.5 | 50 | 36 | 0.7 | 5.0 | 57 | 1.0 | 50 | 36 | 0.7 |
| 80 | 3.7 | 22 | 2.2 | 38 | 34 | 0.8 | 4 | 43 | 1.2 | 38 | 39 | 0.7 | 3.7 | 66 | 0.7 | 38 | 39 | 0.7 |
| 100 | 3.0 | 24 | 1.8 | 30 | 33 | 0.7 | 3 | 47 | 1.0 | 30 | 33 | 0.7 | 3.0 | 63 | 0.7 | 30 | 33 | 0.7 |

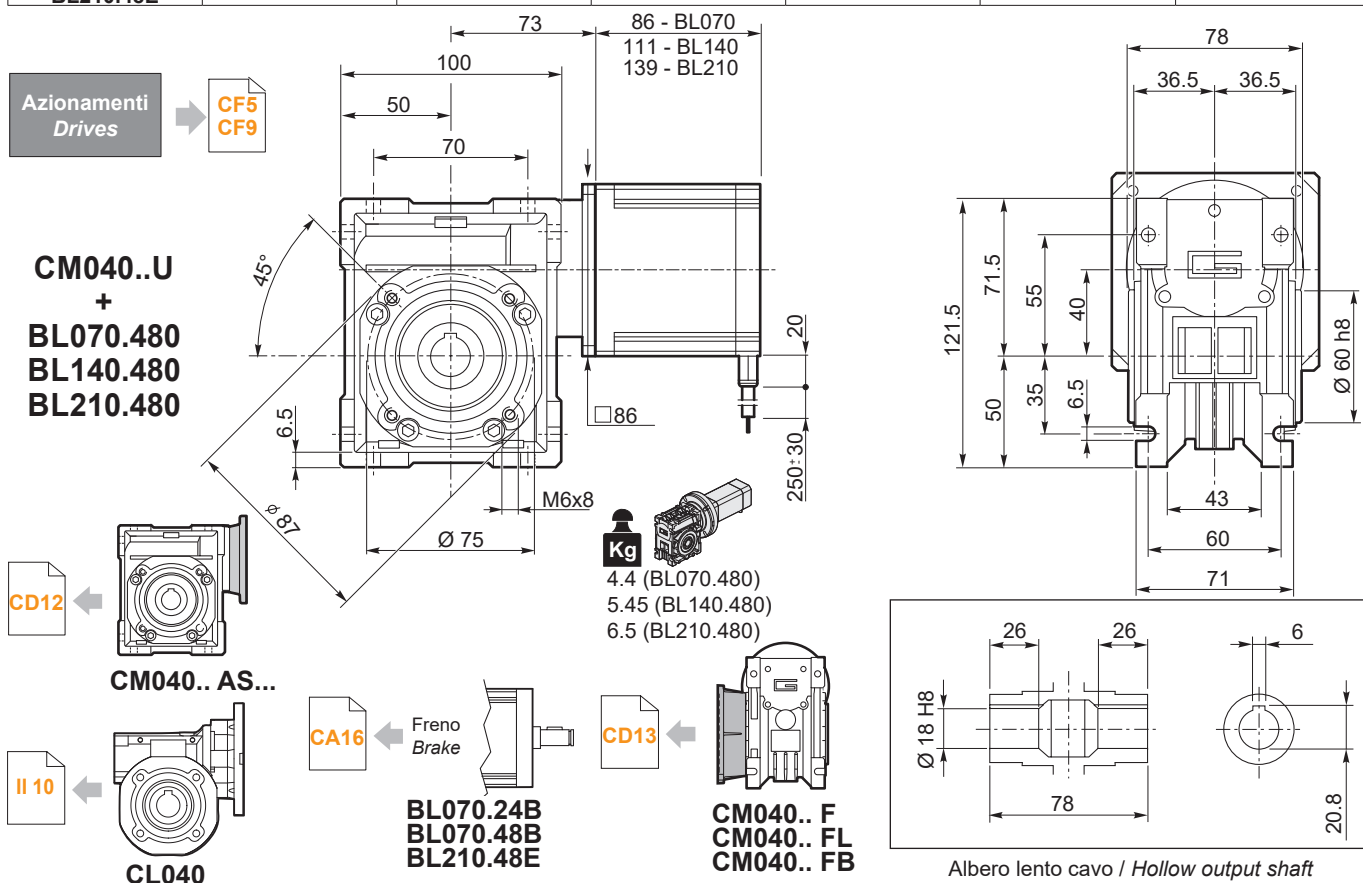
NOTA: per servizio continuo o altamente intermittente, contattare il servizio tecnico

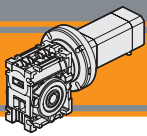
NOTE: for continuous or highly intermittent duty, please contact our technical service


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 |
| BL140.480 | 8 | 3 | 48 | 3000 | 1.4 | 440 |
| BL210.480 BL210.48E | 8 | 3 | 48 | 3000 | 2.1 | 660 |

| 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 |
| BL210.480 BL210.48E | 4.2 | 18.7 | 0.115 | 0.31 | 37 | 4.2 |



**Dati tecnici****Technical data**

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

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

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

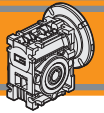
| $n_1 = 1400 \text{ rpm}$ | n_2 | Mn_2 | Pn_1 | i |
|--------------------------|------------|--------|--------|-----|
| | 280 | 41 | 1.37 | 5 |
| | 187 | 44 | 1.00 | 7,5 |
| | 140 | 45 | 0.79 | 10 |
| | 93 | 45 | 0.54 | 15 |
| | 70 | 40 | 0.38 | 20 |
| | 56 | 38 | 0.30 | 25 |
| | 47 | 48 | 0.34 | 30 |
| | 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

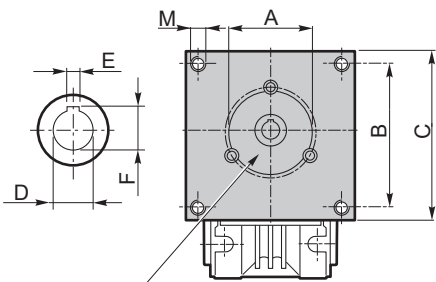
NOTE: for continuous or highly intermittent duty, please contact our technical service



Dimensioni CM con flange motore AS

CM dimensions with motor flanges AS

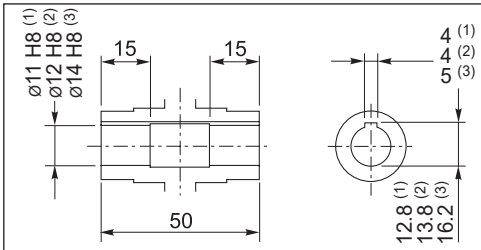
CM026 - U - AS...



Connessione con boccola o giunto in funzione del diametro dell'albero motore.

Connection with sleeve or coupling depending on motorshaft's diameter.

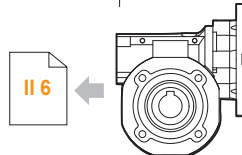
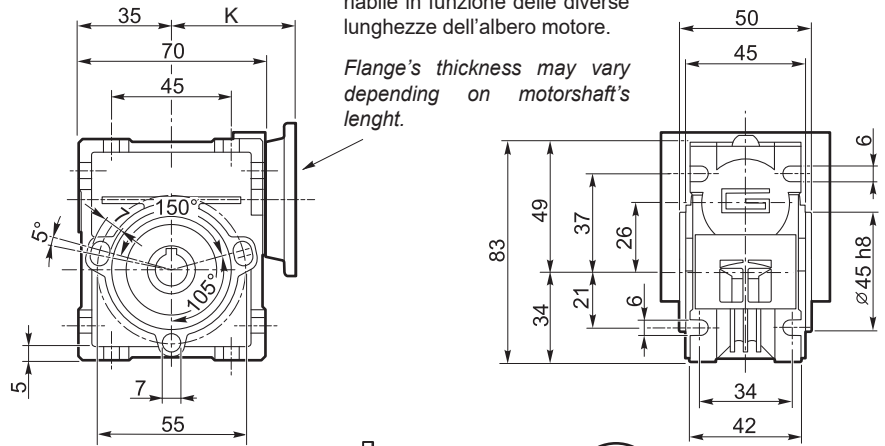
Albero lento cavo / Hollow output shaft



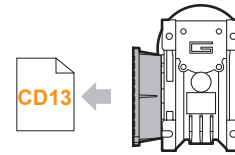
- (1): BLCM 026 (D11)
- (2): BLCM 026
- (3): BLCM 026 (D14)

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

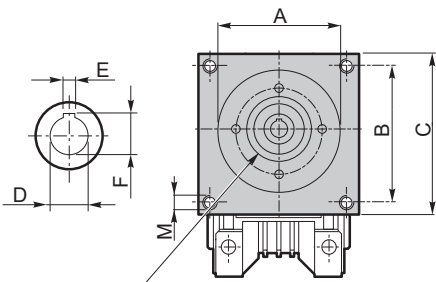


CM026.. F

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...

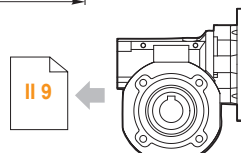
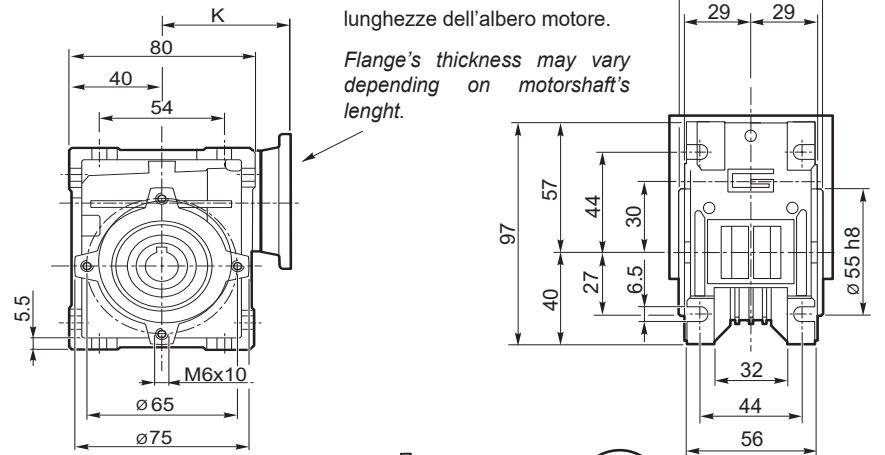


Connessione con boccola o giunto in funzione del diametro dell'albero motore.

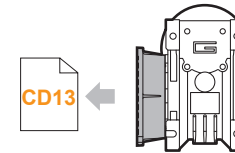
Connection with sleeve or coupling depending on motorshaft's diameter.

Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

Flange's thickness may vary depending on motorshaft's lenght.

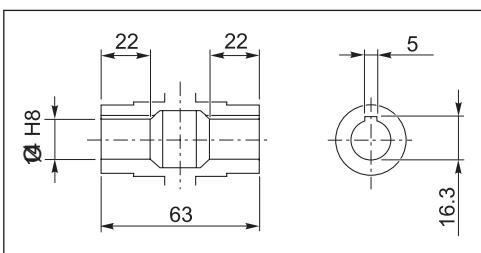


CL030



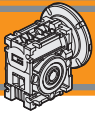
CM030.. F

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

MINI
TECNO

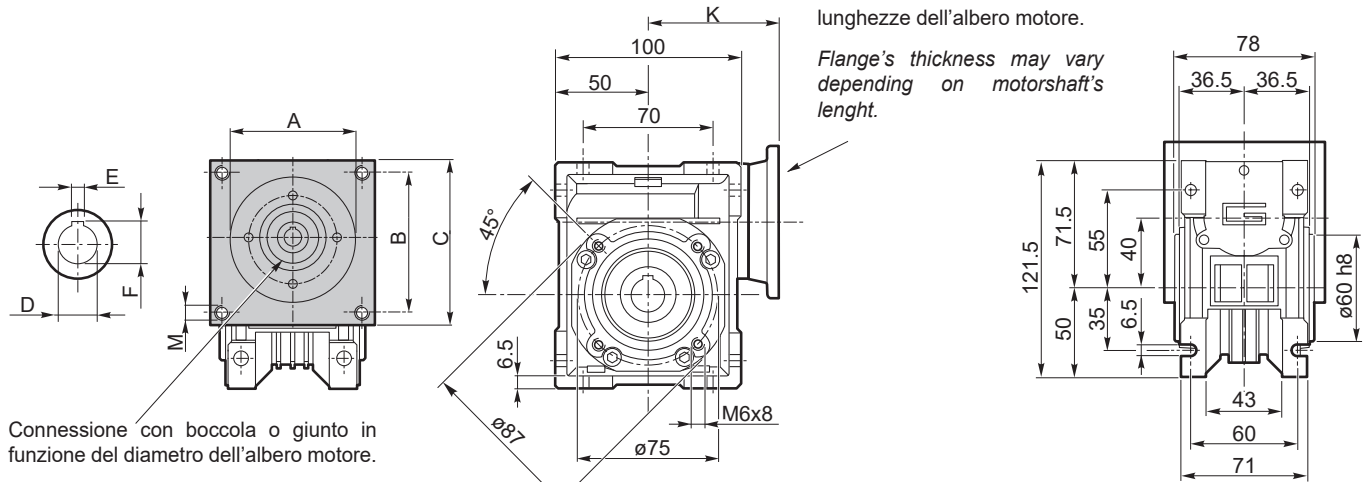
Dimensioni CM con flange motore AS

CM dimensions with motor flanges AS

CM040 - U - AS...

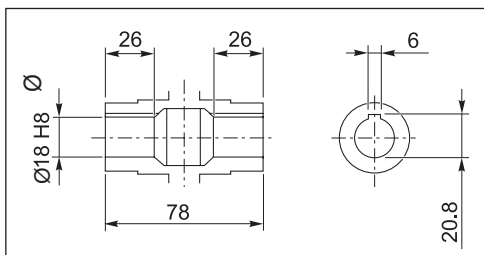
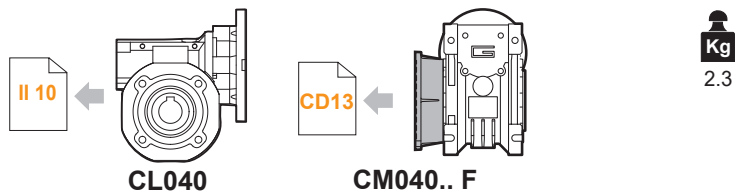
Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

Flange's thickness may vary depending on motorshaft's length.



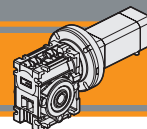
Connessione con boccola o giunto in funzione del diametro dell'albero motore.

Connection with sleeve or coupling depending on motorshaft's diameter.



Albero lento cavo / Hollow output shaft

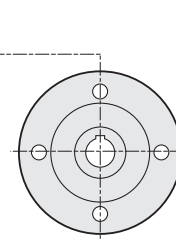
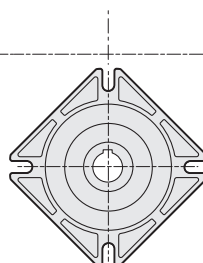
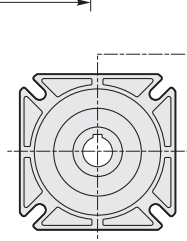
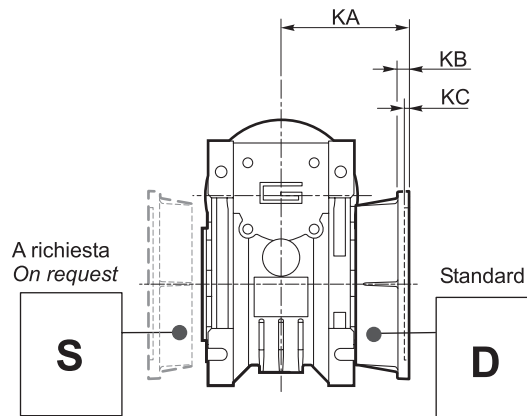
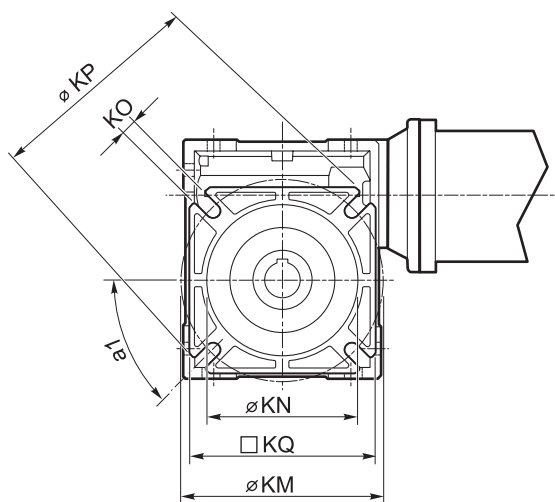
| Dimensioni / Dimensions | | | | | | | | | | | |
|-------------------------|------|------|-----|-----|-----|------------------|-----|------|----------|-----|------|
| AS | A | B | C | M | K | Rapporti / Ratio | | | | | |
| | | | | | | 5...40 | | | 50...100 | | |
| | | | | | | D | E | F | D | E | F |
| 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) | | | | | | | (n.4) | | | | | | | | | | | | | | | | | | | | | | | | | | |

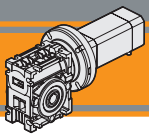
(1): F30S eseguita con F30 e distanziale di spessore 2 mm / F30S made with F30 and spacer with 2mm thickness

| | 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

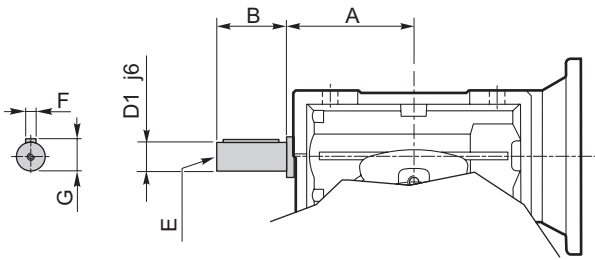
| CM | CM..F | | | | | | | CM..FB | | | | | | | CM..FL | | | | | | | | | | |
|-----|-------|------|-----|----|-------|------------------|----------|--------|----|----|-----|----|---------|------------------|----------|-----|-----|----|-----|-----|-------|------------------|---------|-----|----|
| | a1 | 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*



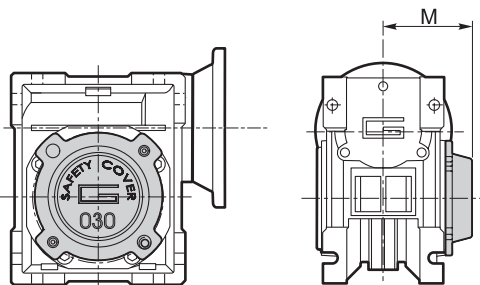
| | A | B | D ₁ j6 | E | F | G |
|--------|----|----|----------------------|----|---|------|
| CM 030 | 45 | 20 | 9 | M4 | 3 | 10.2 |
| CM 040 | 53 | 23 | 11 | M5 | 4 | 12.5 |

Costruito su richiesta
Built on request

Accessori

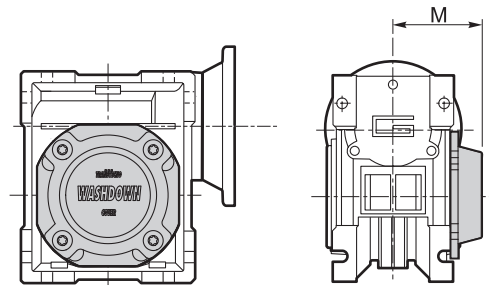
Accessories

SC - Safety cover

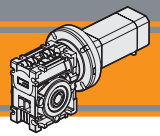


| | M |
|--------|------|
| CM 030 | 47 |
| CM 040 | 54.5 |

WD - Kit washdown cover



| | M |
|--------|------|
| CM 030 | 48 |
| CM 040 | 55.5 |

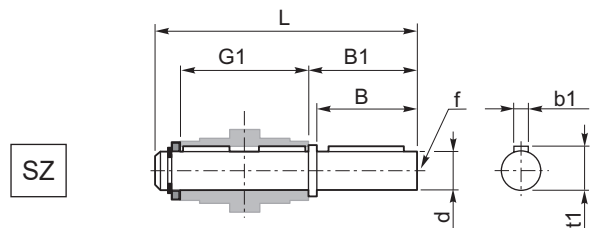
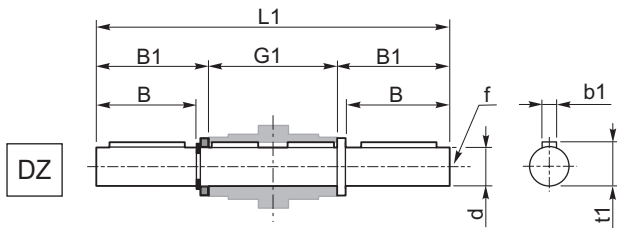


Accessori

Accessories

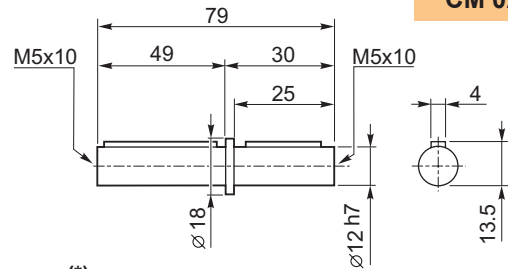
Albero lento

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 (*)

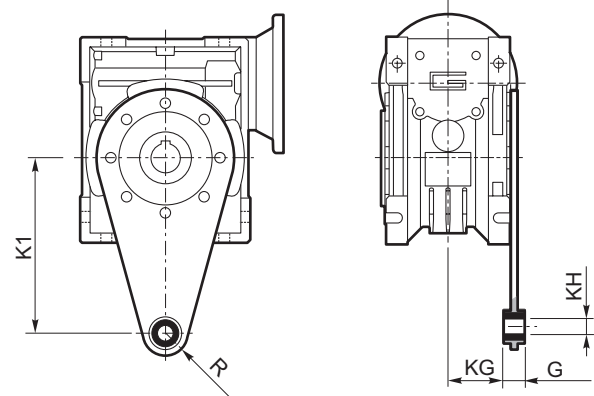


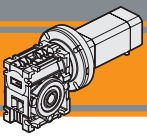
(*)
Nota: disponibile solo per cavo uscita Ø12
Note: available for output hollow shaft Ø12 only

Braccio di reazione

Torque arm

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





Note/Notes

MINI  **TECNO**™
small but strong

BLP

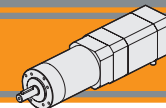
Motoriduttori brushless CC epicicloidali
Brushless DC planetary gearmotors



MINI  **TECNO**™ brand of
TRANSTECNO®



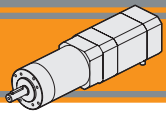
BLDC



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

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Caratteristiche tecniche

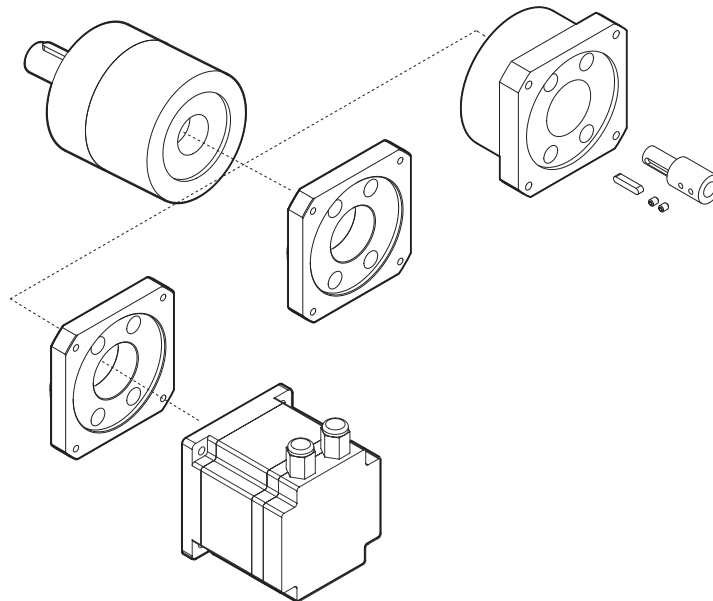
Technical features

Le caratteristiche principali dei motoriduttori 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

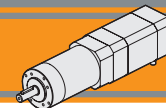
Classification

| RIDUTTORE / GEARBOX | | | | MOTORE / MOTOR | | |
|---------------------|-------------------|-----------------------------------|------------------------------------|---|---|----------------|
| PM | 52 | 2 | 46 | BL070.480 | 48V | BR |
| Tipo Type | Grandezza Size | Stadi riduttore Gearbox stages | Rapporto in Ratio in | Tipo Type | Tensione Voltage | Freno Brake |
| PM | 52 62 | 1 2 3 | Vedere tabelle See tables | 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

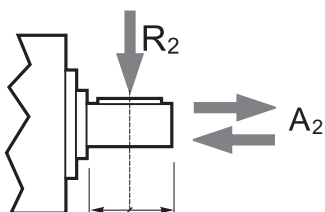
Lubrication and temperature

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 |

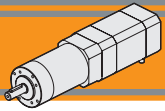
Rapporti

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

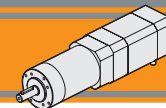
| PM52 | | | BLS022.240 | | | | | | | | | | | | | |
|---------------|-------------|----------|---------------------------|-----|-----|---------------------------|-----|-----|---------------------------|---------------------------|-----|-----|---------------------------|-----|-----|---------------------------|
| | | | 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 | |
| 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 | | |
| 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.



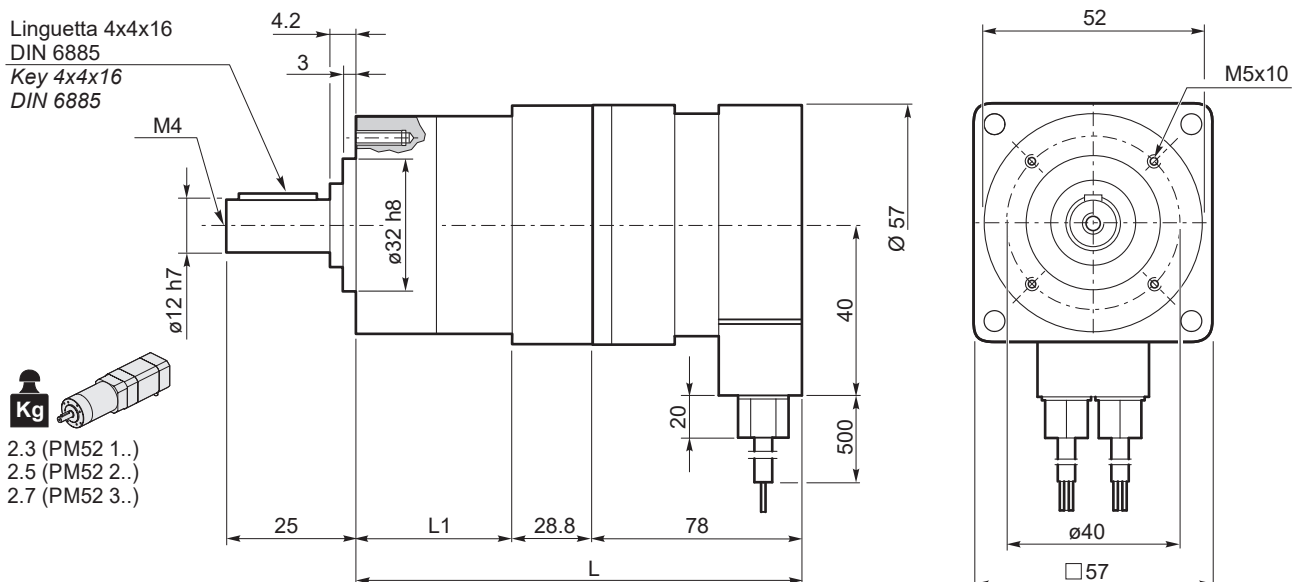
PM52 con motore brushless

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 |

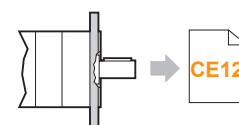


PM52..
+
BLS022.240

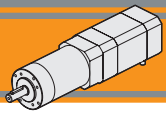


| Kg |
|----------------|
| 2.3 (PM52 1..) |
| 2.5 (PM52 2..) |
| 2.7 (PM52 3..) |

| PM52 | BLS022.240 | | |
|------|------------|------|-------|
| | Ns | L1 | L |
| | 1 | 47.2 | 155.5 |
| | 2 | 61.3 | 169.5 |
| | 3 | 75.6 | 183.5 |



PM52.. AS...



PM52 con motore brushless

PM52 with brushless motor

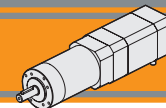
| PM52 | | | BLS043.240 | | | | | | | | | | | | | |
|---------------|---------------|------------|---------------------------|-----|-----|---------------------------|------|-----|---------------------------|---------------------------|-----|-----|---------------------------|-----|------|---------------------------|
| | | | 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 | 3000 | 29 | 4.4 | 3.9 | 291 | 4.4 | 2.3 | 4000 |
| | 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 | |
| | 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 | |
| 3 | 68.1 | 68 | 4.4 | 20 | 1.8 | 44 | 20 | 1.2 | 5.9 | 20 | 1.8 | 59 | 20 | 1.1 | 3000 | 4000 |
| | 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.



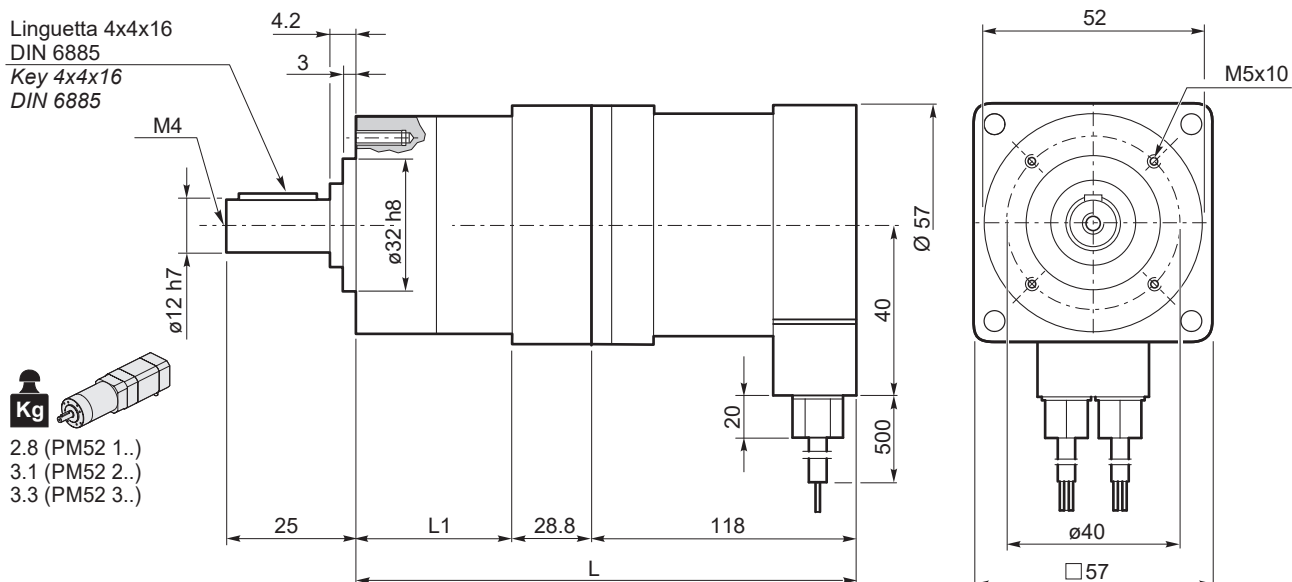
PM52 con motore brushless

PM52 with brushless motor

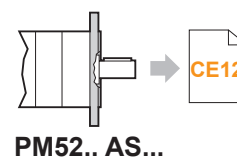
| Tipo Type | Numero di poli Number of poles | Numero di fasi Number of phase | Tensione Rated voltage [V] | Numero di giri Rated speed [rpm] | Coppia nominale Rated torque [Nm] | Potenza nominale Rated power [W] |
|------------|-----------------------------------|---------------------------------------|-------------------------------|------------------------------------|-------------------------------------|------------------------------------|
| 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 |

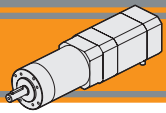


PM52..
+
BLS043.240



| PM52 | BLS043.240 | | |
|------|------------|------|-------|
| | Ns | L1 | L |
| | 1 | 47.2 | 195.5 |
| | 2 | 61.3 | 209.5 |
| | 3 | 75.6 | 223.5 |





PM62 con motore brushless

PM62 with brushless motor

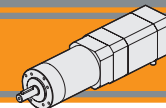
| PM62 | | | BL070.240 / BL070.24B BL070.480 / BL070.48B | | | | | | BL140.480 | | | | | | | | | | |
|--------|-------|------|--|-----|-----|---------------------------|-----|-----|---------------------------|---------------------------|------|-----|---------------------------|------|-----|---------------------------|----|-----|------|
| | | | 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.

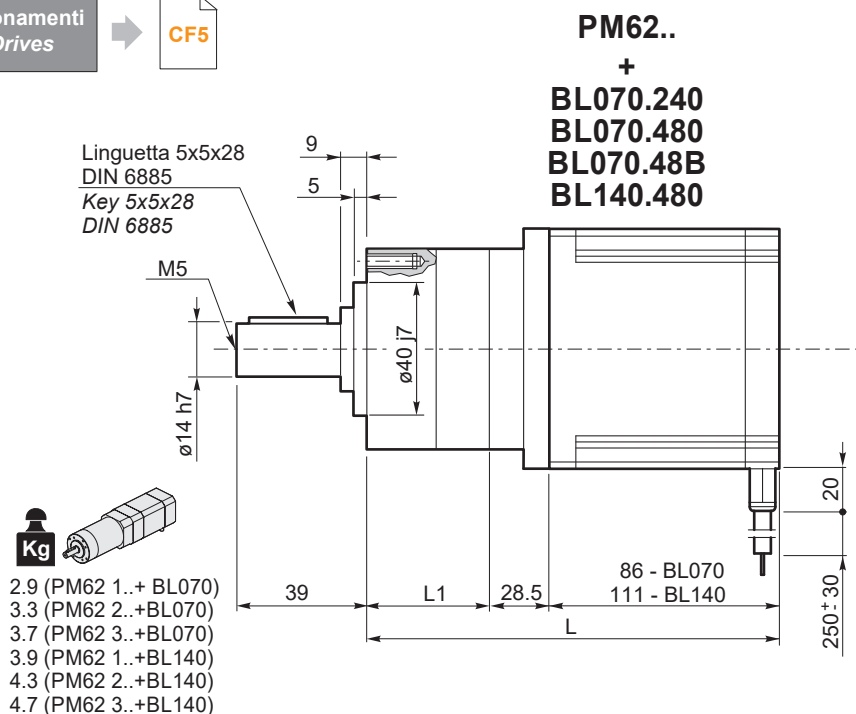


PM62 con motore brushless

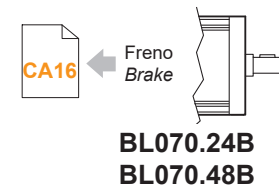
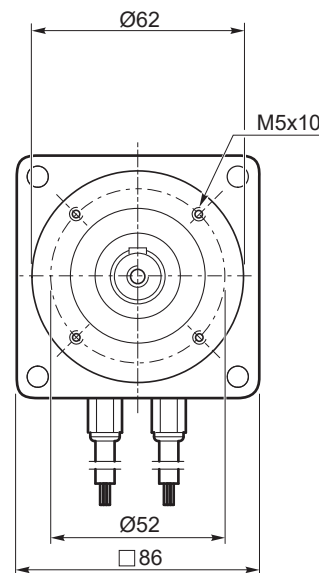
PM62 with brushless motor

| 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 |

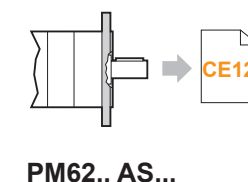
Azionamenti Drives → **CF5**

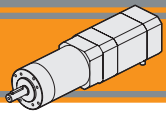


- Kg**
- 2.9 (PM62 1.+ BL070)
 - 3.3 (PM62 2.+ BL070)
 - 3.7 (PM62 3.+ BL070)
 - 3.9 (PM62 1.+ BL140)
 - 4.3 (PM62 2.+ BL140)
 - 4.7 (PM62 3.+ BL140)



| 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 |





Dati tecnici

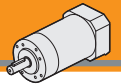
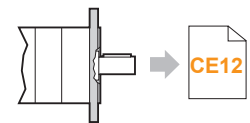
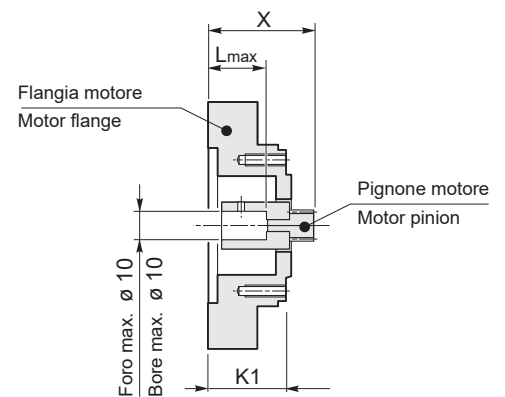
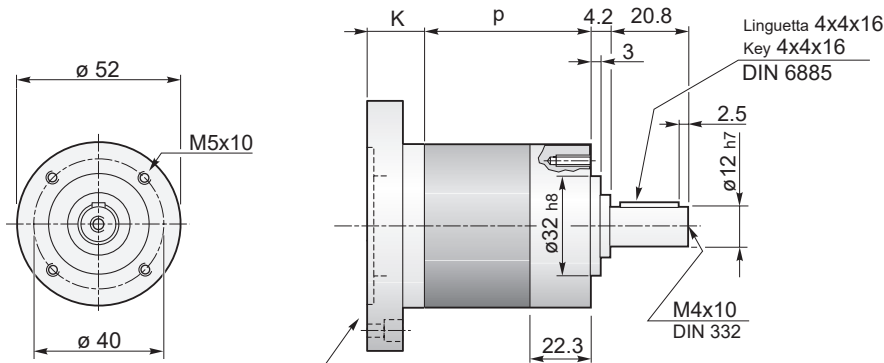
$n_1 = 3000$ rpm

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.

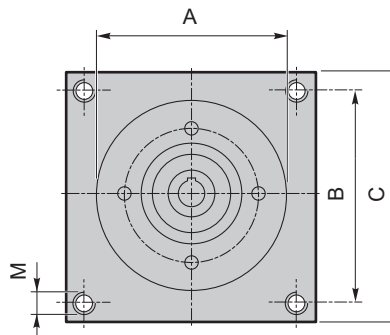
Disponibili 4 stadi con rapporti fino a 2076 / Available 4 stages with ratio up to 2076


Dimensioni PM con flange motore AS
PM dimensions with motor flanges AS
PM52 - U - AS...

PM52.. C...

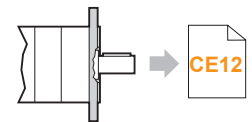
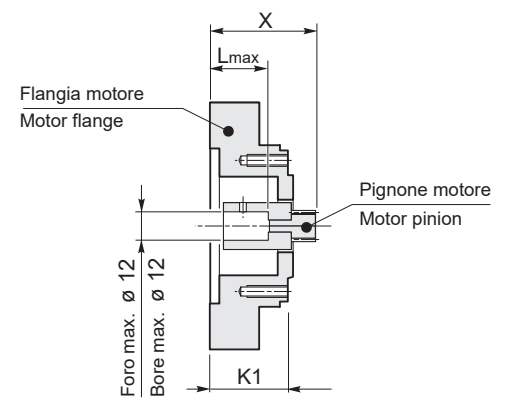
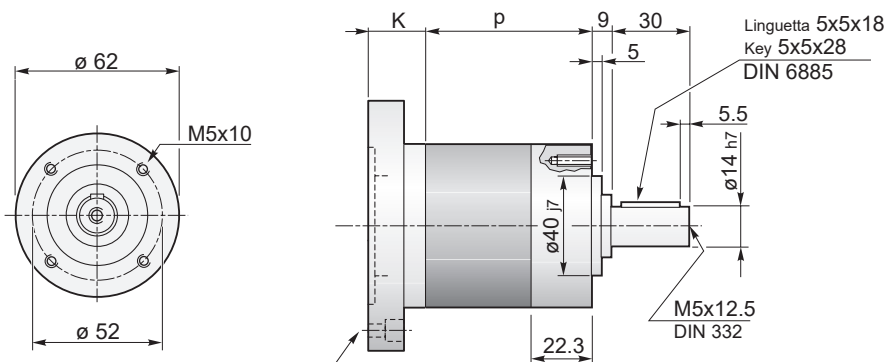
Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

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 |
| ... | ... | ... | ... | ... | ... | ... | ... |



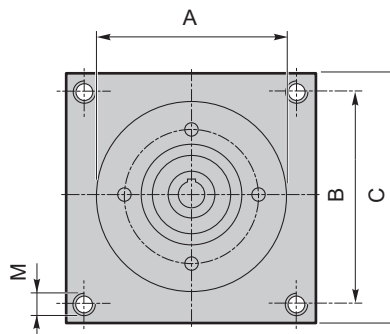
| | Lunghezza riduttore Gearbox length | | Kg |
|---------|---------------------------------------|------|-----|
| | P | | |
| PM52... | 1 | 47.2 | 0.7 |
| | 2 | 61.3 | 0.9 |
| | 3 | 75.6 | 1.1 |

PM62 - U - AS...

PM62.. C...

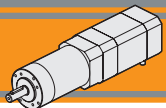
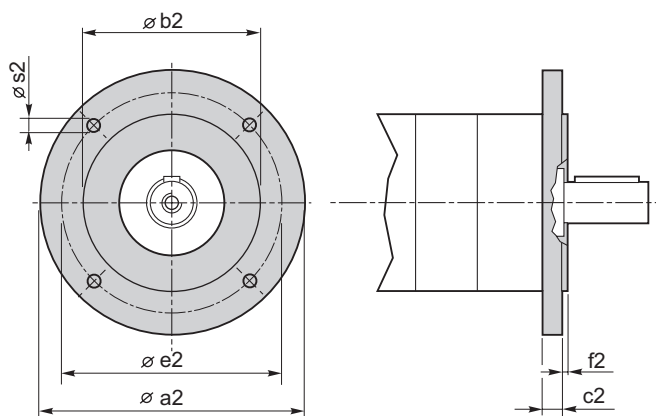
Lo spessore della flangia è variabile in funzione delle diverse lunghezze dell'albero motore.

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 |

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**

This section replaces any previous edition and revision. If you obtained this catalogue other than through controlled distribution channels, the most up to date content is not guaranteed. In this case the latest version is available on our web site www.transtecno.com

**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**

- 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
- 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**

- 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 (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*



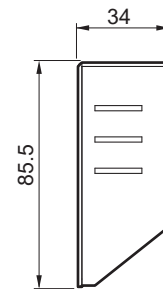
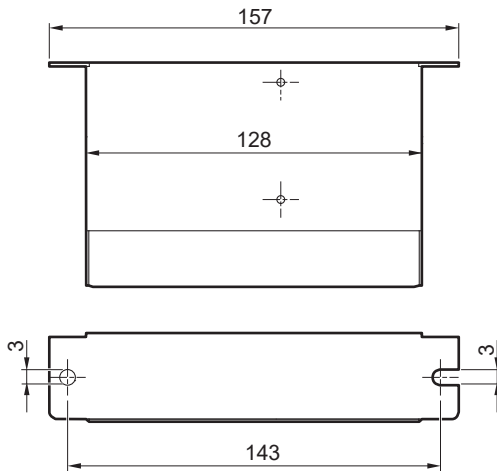
BLD07-IT

**AZIONAMENTO 4Q
PER MOTORI BRUSHLESS CC**

**4Q DRIVE
FOR DC BRUSHLESS MOTORS**

Dimensioni

Dimensions



Collegamenti

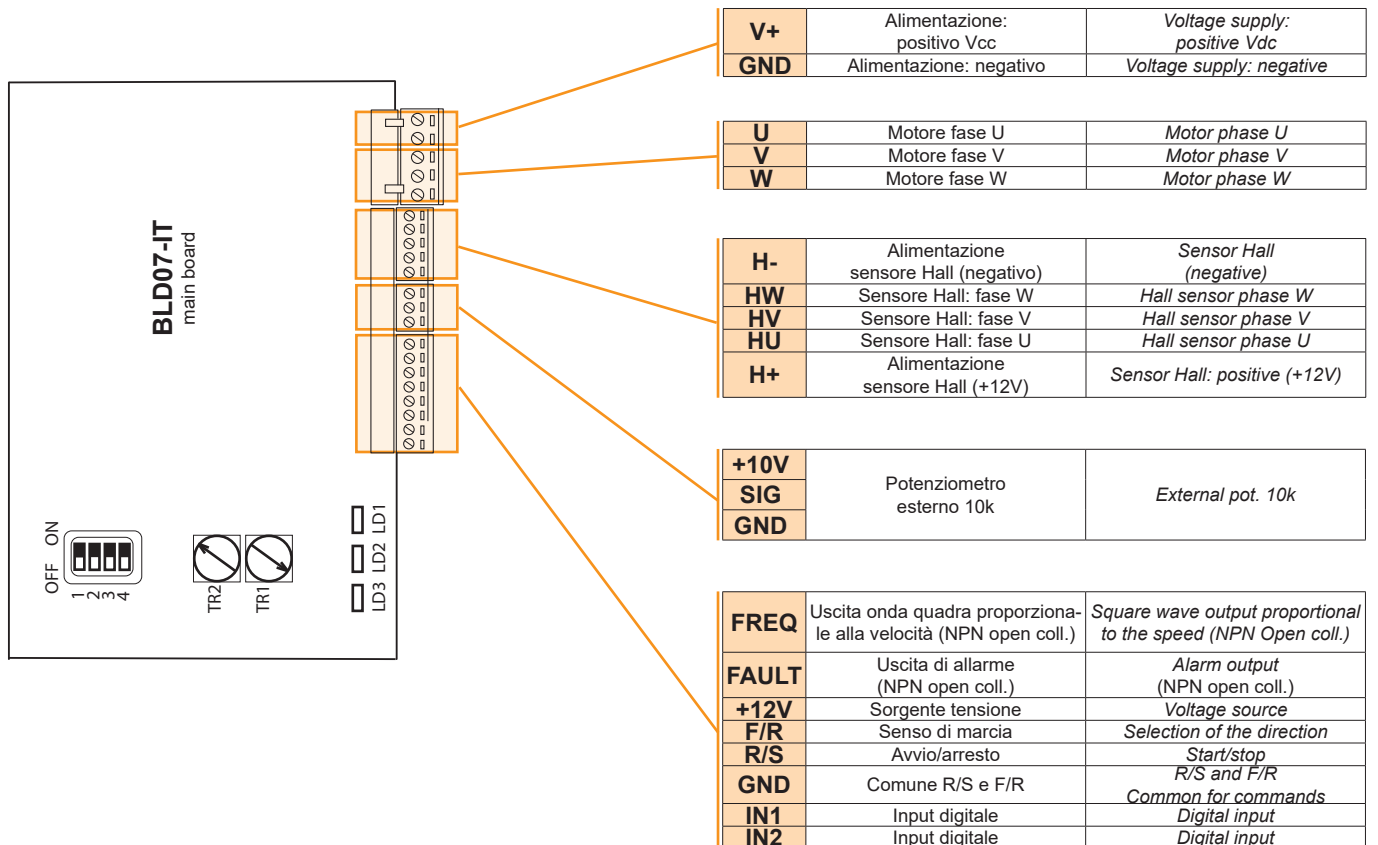
Connections

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.





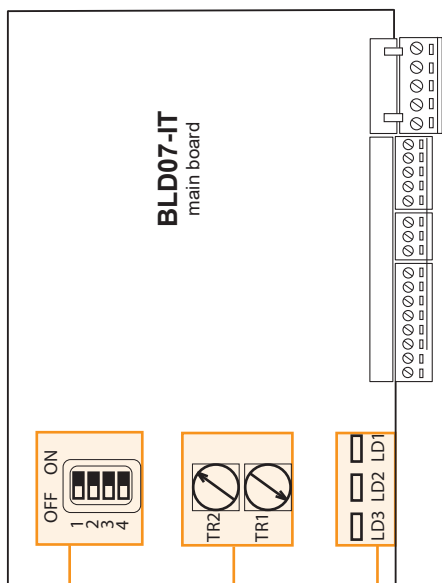
BLD07-IT

**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

- 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
- TORQUE control version
- ModBus RTU RS485 version
- CANOpen CIA301-CIA402 version

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*



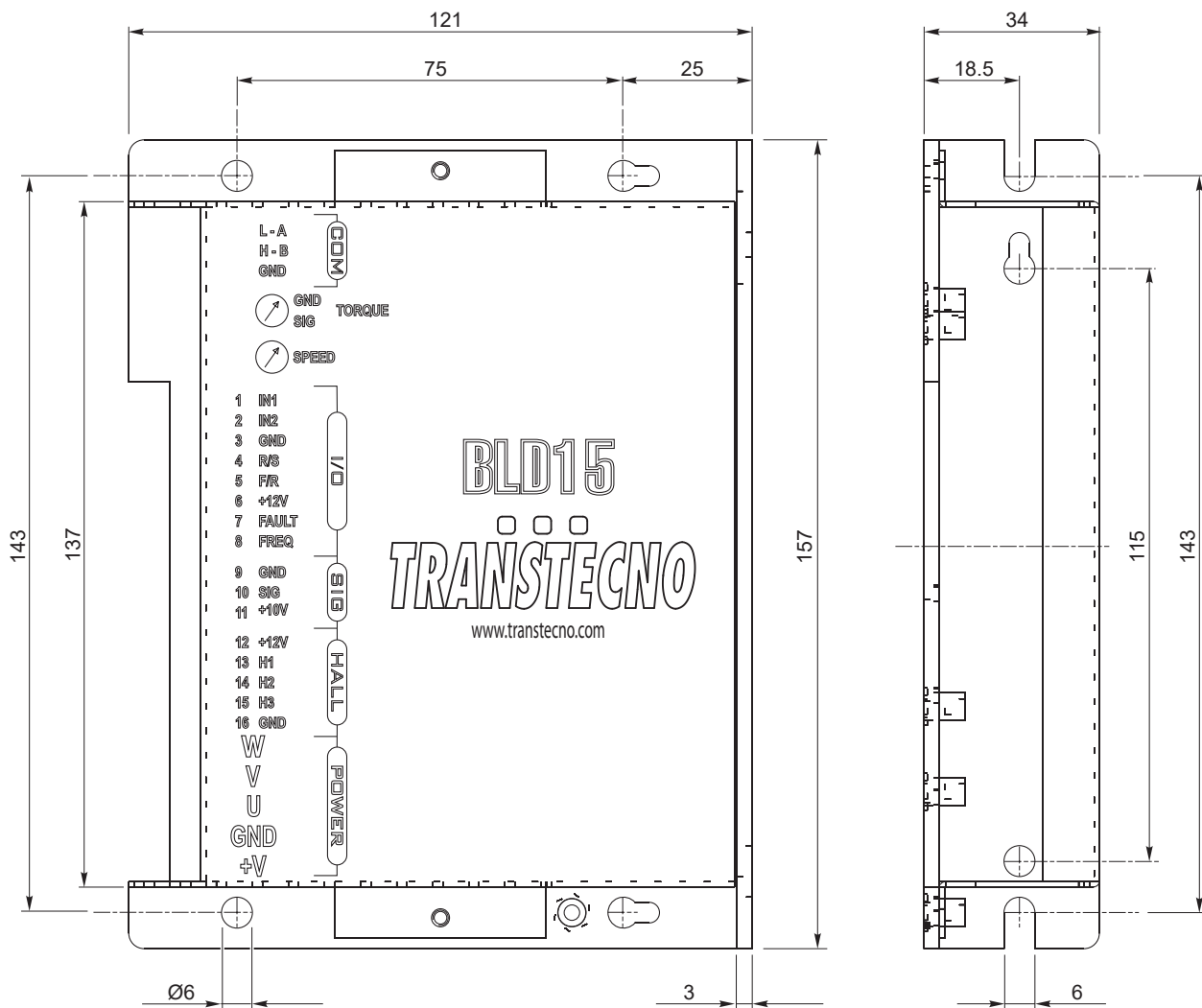
BLD15

**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:

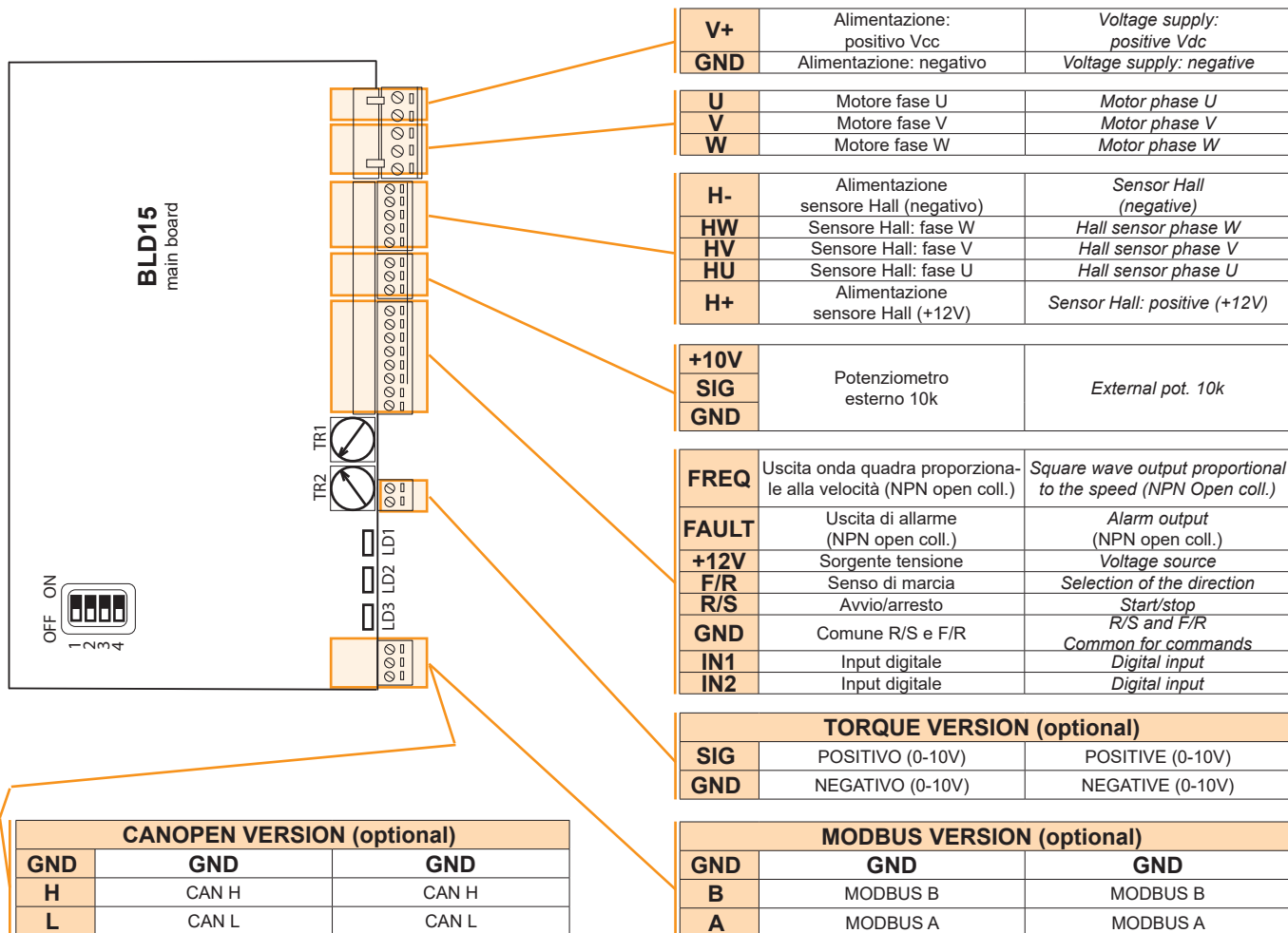
- removable connector with 5 terminals for the power part;
- 3 removable connectors, for a total of 16 terminals, for the management of the input and output signal.

TORQUE Version

- removable connector with 2 terminals

ModBus/CANOpen Version

- removable connector with 3 terminals





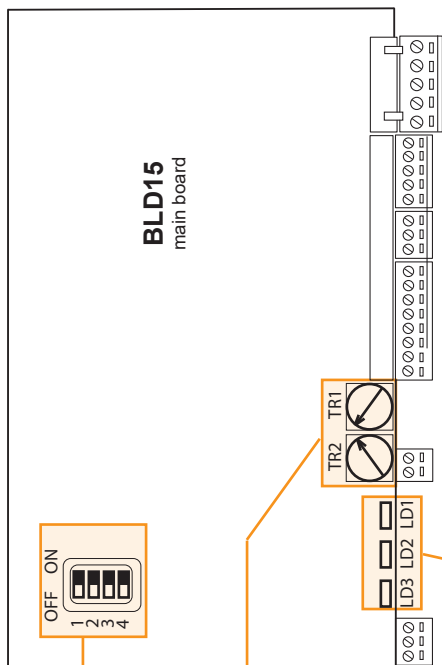
BLD15

**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.

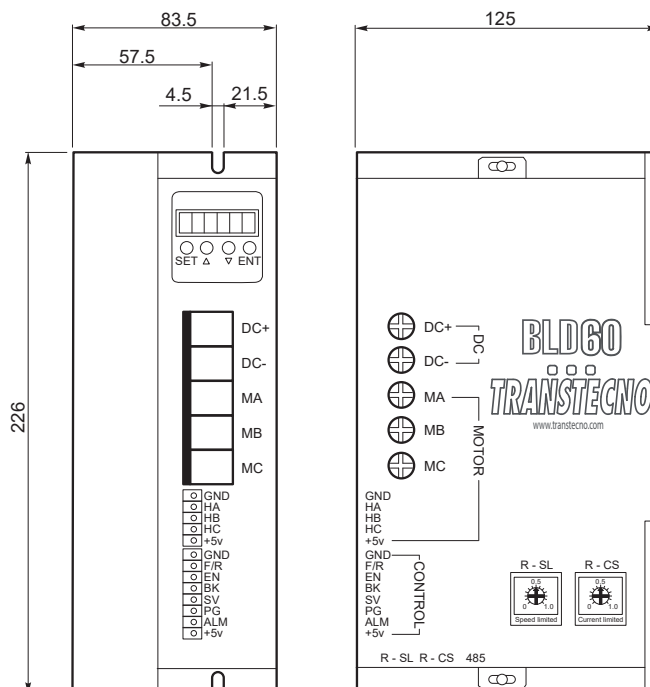
Standard characteristic

- **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:

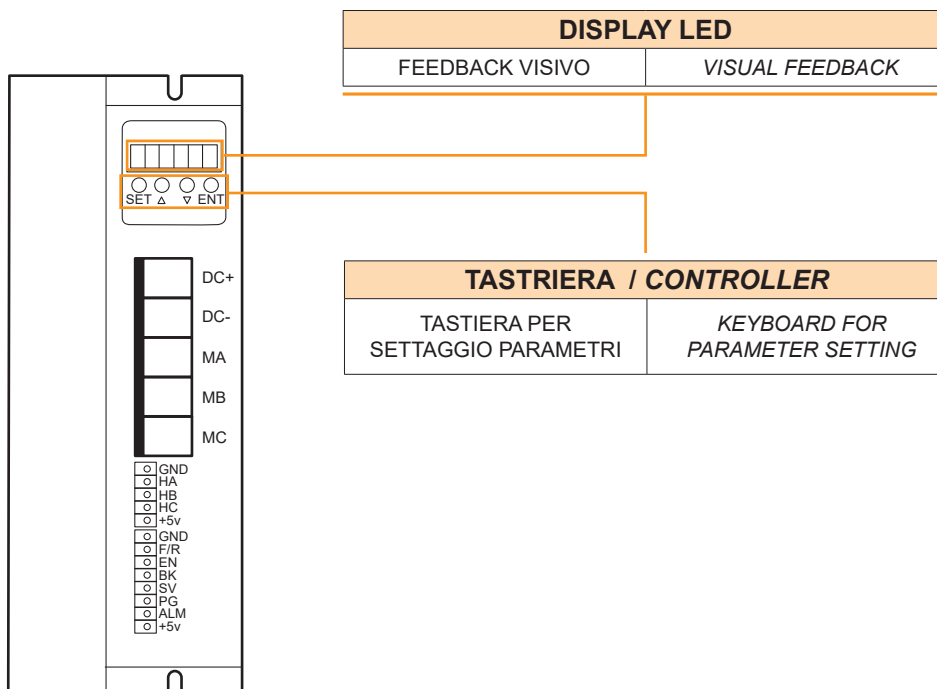
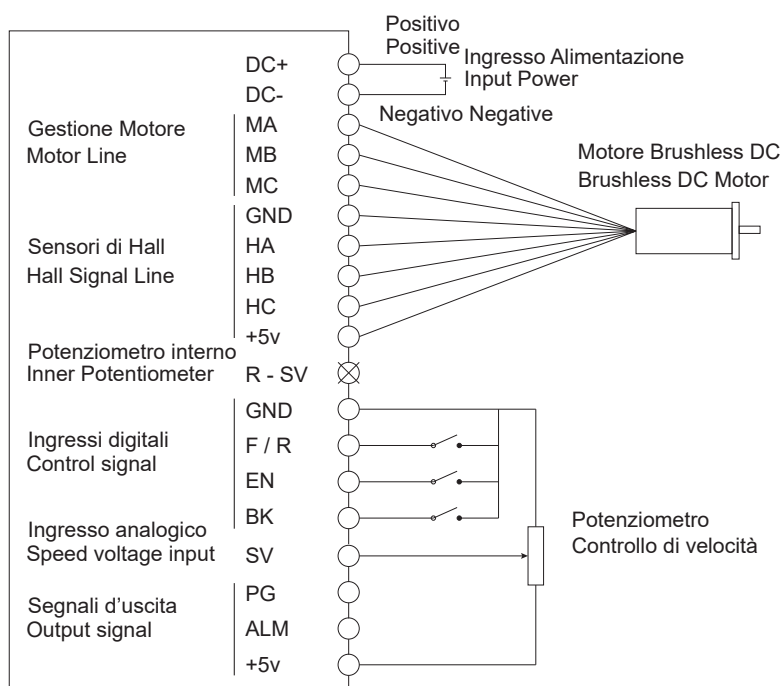
- phase motor U: pin MA
- phase motor V: pin MB
- phase motor W: pin MC

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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the modular gearmotor

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