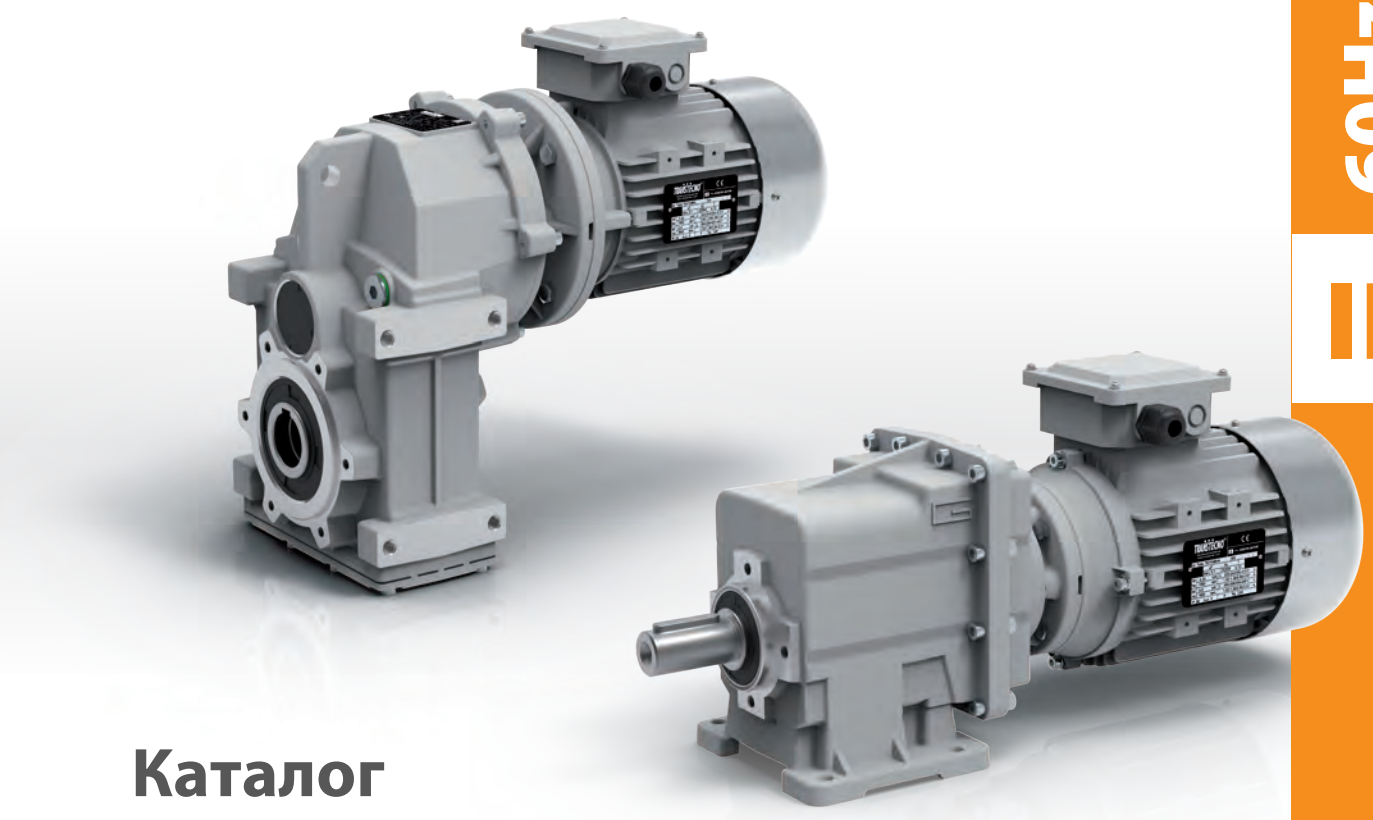
TRANSTECNO®
the modular gearmotor

AC Alu

60Hz

IEC



Каталог

Мотор-редукторы в алюминиевом корпусе ALU AC

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Información general

Para una mejor comprensión de los temas y de los datos presentes en el catálogo, proponemos una simbología acompañada por la información necesaria para una selección correcta de los motorreductores.

Información general

Para melhor compreender os assuntos e os dados expostos neste catálogo, propormos a simbologia utilizada acompanhando-a das informações de base para atingir uma correta seleção dos motoredutores.

General information

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.

Velocidad de entrada

Velocidade entrada

Input speed

n_1 [min^{-1}]

Es la velocidad en la entrada del reductor y está relacionada con el tipo de motor seleccionado.

Cuando se requieran otras velocidades, contactar con nuestro servicio técnico

Representa a velocidade referida no tipo de motorização pré-estabelecida e é aplicada na entrada no redutor.
Para seleções de velocidades diversas daquelas referidas, consulte nosso Serviço Técnico.

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

When different speeds are required, contact our Technical Service.

Relación de reducción

Relação de redução

Gear ratio

i

Es una magnitud adimensional y está relacionada con el número de dientes de los engranajes internos del reductor. En los reductores sinfín corona se obtiene dividiendo el número de dientes de la corona entre el número de roscas (Z) del tornillo sinfín. Con los datos del catálogo se puede obtener con la siguiente fórmula:

É uma tamanho sem dimensão e é em função do número dos dentes das engrenagens internas no redutor.
Nos redutores com rosca sem fim, obtém-se dividindo o número de dente da coroa pelo número dos filetes (Z) da rosca sem fim. Pelos dados do catálogo, obtém-se com a relação:

This value is strictly related to the size and number of teeth gears inside the gearbox. This value is obtained in wormgearboxes by dividing the number of wheel teeth by the number of starts (Z) of the worm.
From the data given in the catalogue, the value can be calculated using the following formula:

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

Velocidad de salida

Velocidade na saída

Output speed

n_2 [min^{-1}]

Es la velocidad resultante en el eje de salida del reductor y se obtiene de la fórmula anterior:

É a velocidade resultante no eixo de saída do redutor e é retirada da relação precedente:

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

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

Par requerido

Torque Solicitado

Requested torque

Mr_2 [Nm]

Es el par requerido para la aplicación y es necesario para selecionar la motorización. Puede ser comunicado por el usuario o calculado a través de los datos de la aplicación (si se conocen).

É o torque solicitado pela aplicação e é indispensável pela seleção de uma motorização. Este pode ser comunicado pelo usuário ou calculado com base nos dados de aplicação (se fornecidos).

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).

Par nominal — *Torque nominal* — Nominal torque

Mn_2 [Nm]

Es el par transmisible a la salida del reductor, en base a la velocidad en entrada n1 y a la relación de reducción i.
Se calcula considerando un servicio con una carga continua constante, que corresponde a un factor de servicio igual a 1. Este valor no aparece en el catálogo, pero se puede calcular aproximadamente mediante la relación siguiente entre M2 (par de salida) y SF (factor de servicio):

Representa o torque na saída transmissível pelo redutor com base na velocidade na entrada n_1 e na relação de redução i. Este é calculado com base num serviço com carga contínua uniforme correspondente com um fator de serviço igual a 1. Este valor não é indicado no presente catálogo, mas pode ser retirado aproximadamente com a seguinte relação entre M_2 (binário transmitido) e sf (fator de serviço):

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):

$$Mn_2 = M_2 \cdot sf$$

Par transmitido — *Torque Transmitido* — Output torque

M_2 [Nm]

Es el par transmitido en la salida del reductor.
Depende de la potencia P1 del motor instalado, de las revoluciones de salida n2 y del rendimiento dinámico Rd.
Se puede calcular mediante la relación:

É o torque transmitido na saída do redutor. Depende da potência P_1 do motor instalado, do número de giros na saída n_2 e do rendimento dinâmico Rd e pode ser calculado com a relação:

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:

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

o: or: or:

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

dónde: onde: where:

$$P_2 = P_1 \cdot Rd$$

Rendimiento — *Rendimento* — Efficiency

Rd; Rs

Los cálculos de rendimiento se basan en el rendimiento dinámico Rd de los reductores (el valor óptimo se alcanza en velocidad de marcha después del rodaje).

En los reductores combinados, el rendimiento total es el resultado del producto de los rendimientos de los dos reductores, considerando que en el segundo reductor el rendimiento se evaluará según la velocidad de entrada reducida que se obtiene dividiendo n1 entre la relación de reducción del primer reductor.

Es necesario considerar que en los reductores sinfín corona hay también un rendimiento estático Rs, durante el arranque, que reduce el momento resultante: es importante tomarlo en consideración cuando se seleccionan motorreductores para aplicaciones intermitentes (ej. levantamientos).

En la tabla de la pág.G7 están indicados los valores del rendimiento dinámico y estático de los reductores sinfín corona. En los reductores de engranajes CMG y CMB el rendimiento medio es 94%.

Os cálculos das prestações foram efetuados com base no rendimento dinâmico Rd dos redutores (valor optimal que se atinge no funcionamento com regime depois da rodagem).
Nos redutores combinados, o rendimento global é dado pelo produto dos rendimentos dos dois redutores, considerando, porém, que no segundo redutor deverá ser avaliado com base na velocidade reduzida na entrada obtida dividindo n_1 para a relação i do primeiro redutor.

É importante considerar que nos redutores com rosca sem fim tem-se um valor de rendimento estático Rs, presente na fase de arranque, que desqualifica sensivelmente o torque resultante; por isso influência de modo determinante a escolha de motorizações destinadas a aplicações intermitentes (ex: elevações).

O valor dos rendimentos dinâmico e estático dos redutores com rosca sem fim são indicados na tabela da pág. G7. Nos redutores de engrenagens CMG, CMB e PU o rendimento médio é de 94%.

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

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.

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.

Dynamic and static efficiency of wormgearboxes are given in the table on page G7. On helical gearboxes CMG, CMB and PU the average efficency is 94%.

Reversibilidad e irreversibilidad

La consecuencia directa del rendimiento (estático y dinámico) es la reversibilidad del reductor tornillo sin fin, que es la posibilidad de girar el eje de entrada, aplicando una fuerza en el eje de salida.
La incapacidad o dificultad en hacer esta acción determina el grado de reversibilidad (o irreversibilidad) del reductor.

Esta característica, muy significativa del reductor sinfín corona, se ve afectada por numerosos factores, como el ángulo de hélice (es decir, la relación de reducción), la lubricación, la temperatura, el acabado superficial del tornillo, las vibraciones, etc.
En las aplicaciones que incluyen traslaciones, es necesario asegurar una reversibilidad alta para evitar que las inercias de las masas en movimiento causen picos de carga inaceptables en los órganos de transmisión.

En las aplicaciones donde se necesita el no retorno de la carga (por ejemplo, levantamientos o cintas transportadoras inclinadas) en ausencia de un freno motor, es necesario seleccionar un reductor con alto grado de irreversibilidad.

Sin embargo debemos mencionar que el no retorno de la carga debe ser totalmente garantizado solamente instalando un motor auto frenante (u otro dispositivo externo)

En la siguiente tabla hay una indicación de los diferentes grados de reversibilidad e irreversibilidad de los reductores sinfín en función de los rendimientos estático Rd y dinámico Rs.

Reversibilidade e irreversibilidade

A consequência direta do rendimento (estático e dinâmico) é a reversibilidade do redutor com rosca sem fim que consiste na possibilidade de fazer girar a eixo de entrada através da aplicação de uma torção mais ou menos acentuada na eixo de saída.

A impossibilidade ou dificuldade em efetuar a ação acima descrita determina o grau de reversibilidade (ou irreversibilidade) de um redutor.

Esta característica, muito significativa nos redutores com rosca sem fim, é influenciada por múltiplos fatores como o ângulo da hélice (portanto relação de transmissão), lubrificação, temperatura, acabamento superficial da rosca sem fim, presença de vibrações, etc.

Em aplicações em que estão presentes translações, é necessário garantir uma elevada reversibilidade onde evitar que as inércias das massas em movimento possam determinar pontas de carga inadmissíveis nas peças de transmissão.
Em aplicações na quais é pedido um não retorno da carga (ex: elevações ou fitas transportadoras inclinadas) na ausência de um freio motor é necessário escolher um redutor caracterizado por um elevado grau de irreversibilidade.

De qualquer forma, evidenciamos que a garantia absoluta de não retorno é dada exclusivamente pela instalação de um motor autotravagem ou de um outro dispositivo de travagem externo.

A tabela subjacente indica a título puramente indicativo os vários graus de reversibilidade/irreversibilidade nos redutores com rosca sem fim em função do rendimento dinâmico Rd e estático Rs.

Reversibility and irreversibility

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	**Reversibilidad e irreversibilidad dinámica**	***Reversibilidade e irreversibilidade dinâmica***	**Dynamic reversibility and irreversibility**
> 0.6	Reversibilidad dinámica	*Reversibilidade dinâmica*	Dynamic reversibility
0.5 - 0.6	Reversibilidad dinámica incierta	*Reversibilidade dinâmica incerta*	Uncertain dynamic reversibility
0.4 - 0.5	Adecuada irreversibilidad dinámica	*Boa irreversibilidade dinâmica*	Good dynamic irreversibility
<0.4	Irreversibilidad dinámica	*Irreversibilidade dinâmica*	Dynamic irreversibility
Rs	**Reversibilidad e irreversibilidad estática**	***Reversibilidade e irreversibilidade estática***	**Static reversibility and irreversibility**
> 0.55	Reversibilidad estática	*Reversibilidade estática*	Static reversibility
0.5 - 0.55	Reversibilidad estática incierta	*Reversibilidade estática incerta*	Uncertain static reversibility
<0.5	Irreversibilidad estática	*Irreversibilidade estática*	Static irreversibility

Potencia de entrada — *Potência de entrada* — *Input power*

P_1 [kW]

Es la potencia del motor aplicada en la entrada al reductor y se refiere a la velocidad n1.
Se puede calcular de la siguiente manera:

É a potência do motor aplicada na entrada do redutor e indicada na velocidade n_1.

Pode ser calculada como a seguir:

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:

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

Factor de servicio — *Fator de serviço* — Service factor

sf

Es un magnitud adimensional que indica el sobredimensionamiento aplicable a una motorización para garantizar la resistencia a los choques y la durabilidad necesaria.

Las tablas del catálogo ofrecen una amplia selección de motorizaciones con factores de servicio diferentes que pueden satisfacer a la mayoría de las aplicaciones.

Para una correcta interpretación de los valores del factor de servicio
sf en las selecciones propuestas, encontraran en las tablas siguientes los valores aproximados de las clases de carga A, B, C, de las horas de funcionamiento cotidiano y del número de arranques por hora.

Una vez definida la clase de carga de la aplicación, se busca en la tabla el correspondiente valor de sf para elegir la unidad más adecuada.

É uma grandeza adimensional que indica o superdimensionamento a aplicar numa determinada motorização para garantir a resistência aos choques e a duração pedida.
As tabelas do catálogo oferecem uma vasta escolha de motorizações com fatores de serviço diferenciados que podem satisfazer a maior parte das aplicações mais ou menos penosas.
Para uma correta interpretação dos valores do fator de serviço sf indicados ao lado de cada seleção proposta, indicamos nas seguintes tabelas os valores indicativos atribuídos às classes de carga A, B, C e na duração de funcionamento diário h/d e ao número de arranques/hora.

Definindo a classe de carga à qual se refere a aplicação, deve ser procurado na tabela o valor correspondente de sf a utilizar na escolha da motorização ideal.

This value indicates how a certain drive system is to be over-sized in order to assure the requested service and stand up to shocks.

The tables given in the catalogue offer a wide range of drive systems with different service factors able to satisfy most types of applications. To correctly understand service factor values sf given for each item, approximate values for load classes A, B and C along with the number of hours of daily operation h/d and number of start-ups/hours need to be known.

Once the load class required for the application has been determined, locate corresponding value sf to be used when selecting the most suitable drive system.

		Tipo de carga	*Tipo de carga*	Type of load	fa
A	-	Carga uniforme	*Carga uniforme*	Uniform	**fa ≤ 0.3**
B	-	Carga con choques moderados	*Carga com choques moderado*	Moderate shocks	**fa ≤ 3**
C	-	Carga con choques fuertes	*Carga con choques fortes*	Heavy shocks	**fa ≤ 10**

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

- Je (kgm2) momento de inercia de las masas externas, referido al eje del motor.
- Jm (kgm2) momento de inercia del motor. Para valores > 10 se recomienda contactar con el Servicio Técnico

- *Je (kgm2) momento de inércia externo reduzido na árvore motor.*
- *Jm (kgm2) momento de inércia motor. Se faz > 10 consulte nosso Serviço Técnico.*

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

Factor de servicio — *Fator de serviço* — Service factor

A

Carga uniforme / *Carga uniforme* / *Uniform load*

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

B

Carga con choques moderados / *Carga con choques moderados* / *Moderate shock load*

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

C

Carga con choques fuertes / *Carga con choques fortes* / Heavy *shock load*

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

Como establecer el **sf**:
Cinta transportadora atribuible a la clase de carga **B** (**carga con choques moderados**), previsto para una hora de funcionamiento diaria (h/d) **16** horas y con **8** arranques/hora
De la tabla obtenemos: **sf = 1.5**

*Como calcular o **sf**:*
*Fita transportadora atribuível à classe de carga **B** (**carga com choques moderados**) e prevista para uma duração de funcionamento diária (h/d) de **16** horas e com **8** arranques/hora.*
*Pela tabela indicamos **sf = 1.5***

How to establish **sf**:
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**

A

Tornillos de Arquímedes para materiales ligeros, ventiladores, líneas de montaje, cintas transportadoras para materiales ligeros, pequeños agitadores, elevadores, máquinas limpiadoras, máquinas llenadoras, máquinas comprobadoras, cintas trasportadoras.

A

Rosca transportadora para materiais leves , ventiladores, linhas de montagem , correias transportadoras para materiais leves , pequenos misturadores, elevadores, máquinas de limpeza, máquinas de controle .

A

Screw feeders for light materials, fans, assembly lines, conveyor belts for light materials, small mixers, lifts, cleaning machines, fillers,control machines.

B

Dispositivos de enrollado, alimentadores de las máquinas para la madera, montacargas, equilibradores, roscadoras, agitadores medios y mezcladores, cintas transportadoras para materiales pesados, cabrestantes, puertas corredizas, raspadores de abono, máquinas empaquetadoras, hormigoneras, mecanismos para el movimiento de las grúas, fresadoras, plegadoras, bombas de engranajes.

B

Dispositivos de elevação, alimentadores de máquinas para trabalhar madeira, monta-cargas, balanceadores, tornos, misturadores médios, correias transportadoras para materiais pesados, guinchos, portas de correr, raspadores de fertilizantes, máquinas de embalagem, betoneiras, mecanismos de guindaste, fresas, máquinas de dobrar, engrenagem , bombas.

B

Winding devices, woodworking machine feeders, goods lifts, balancers, threading machines, medium mixers, conveyor belts for heavy materials, winches, sliding doors, fertilizer scrapers, packing machines, concrete mixers, crane mechanisms, milling cutters, folding machines, gear pumps.

C

Agitadores para materiales pesados, cizallas, prensas, centrifugadoras, soportes rotativos, cabrestantes y elevadores para materiales pesados, tornos para la rectificación, molinos de piedras, elevadores de cangilones, perforadoras, moledores a percusión, prensas de excéntrica, plegadoras, mesas giratorias, pulidoras, vibradores, cortadoras.

C

Misturadores para materiais pesados, tesouras, prensas, centrífugas, suporte rotativo, guinchos e elevadores para materiais pesados, moedores, elevadores de caçamba, máquinas de perfuração, prensas, máquinas para dobra, plataformas giratórias, máquinas para perfuração vibradores, trituradores .

C

Mixers for heavy materials, shears, presses, centrifuges, rotating supports, winches and lifts for heavy materials, grinding lathes, stone mills, bucket elevators, drilling machines, hammer mills, cam presses, folding machines, turntables, tumbling barrels, vibrators, shredders.

Carga radial — *Carga radial* — Radial load

R; R_2 [N]

La aplicación en el eje de salida del reductor de piñones, poleas, etc. determina fuerzas radiales que es necesario considerar para evitar excesivo estrés y el riesgo de daños del reductor.

El cálculo de la carga radial externa R que actúa sobre el eje del reductor se puede calcular de la siguiente manera:

A aplicação na eixo de saída do redutor de pinhão, roldanas, etc. determina forças radiais que devem necessariamente ser consideradas para evitar solicitações excessivas com o risco de danos do mesmo.

O cálculo da carga radial externa R agente no eixo do redutor pode ser determinado como 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:

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

donde:
d [mm] Diámetro primitivo del piñón o polea
kr coeficiente con relación al tipo de transmisión:

kr = 1.4 transmisión por cadena
kr = 1.1 transmisión por cadena
kr = 1.5 - 2.5 polea para correa trapecial

onde:
***d** [mm]* *diâmetro primitivo do pinhão ou da roldana*
kr *coeficiente referido ao tipo de transmissão:*

***kr = 1.4** roda para corrente*
***kr = 1.1** engrenagem*
***kr = 1.5 - 2.5** roldana para cinta em 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

Señalamos que los valores R2 son válidos para cargas aplicadas a la mitad del eje de salida, entonces la comparación debe hacerse en las mismas condiciones.

Señalamos que los valores R2 son válidos para cargas aplicadas a la mitad del eje de salida, entonces la comparación debe hacerse en las mismas condiciones.

Keep in mind that values R_2 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.

Carga axial — *Carga axial* — Axial load

A; A_2 [N]

A veces, junto con la carga radial también puede estar presente una fuerza A que actúa axialmente en el eje de salida; en este caso tener en cuenta que la carga axial admisible A2 en el eje es:

Ás vezes, juntamente à carga axial, pode estar presente também a força A que age axialmente na árvore de saída; neste caso leve em conta que a carga axial admissível A_2 na árvore é a considerar:

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

$$A_2 = R_2 \cdot 0.2$$

Si el valor de la carga axial A en el eje resulta superior a A_2, consultar con nuestro servicio técnico.

No caso em que o valor da carga axial A agente na árvore resulte superior a A_2 contate nosso Serviço Técnico.

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

Seleccionando el motorreductor

Para seleccionar el motorreductor requerido realizar el siguiente procedimiento:

1. Determinar el factor de servicio fs para la aplicación deseada haciendo referencia a los gráficos dados en la página A6. Esto está hecho considerando la clase de carga, la operación horas/ días y el número de puesta en marcha/hora.

2. Si la potencia de salida del motor requerido P es conocida, ir al punto 3); si el torque de salida requerido M es conocido, determine la salida del motor P usando las siguientes fórmulas:

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

Motor reductor
Motoredutores
Gearmotor

donde Rd es para la eficiencia dinámica (indicada en la página G7) y n2 indica la salida requerida RPM del motorreductor.

3. Use la gráfica de especificación para buscar la unidad de potencia donde P1 es mayor que o igual a P con una velocidad n2/n2max que se aproxima al valor deseado. Elija una unidad de potencia donde el factor de servicio indicado fs es igual o mayor que la unidad calculada en el punto 1).

Escolha dos motoredutores

Para a escolha de um motoredutor é necessário seguir procedimento indicado.

1. *Para a aplicação desejada, retire o fator de serviço sf das tabelas na pág. A6 com base na classe de carga, nas horas de funcionamento diário e no número de arranques horários.*

2. *Se conhece-se a potência do motor P [kW] pedida, passe ao ponto 3); nota-se em na saída o torque M solicitado, é necessário calcular a potência motor P com as fórmulas:*

onde Rd é o rendimento dinâmico (indicado na pág. G7) e n_2 o número de giros pedidos na saída no motoredutor.

3. *Nas tabelas dos dados técnicos procure a motorização em que seja P_1 maior ou igual a P e com referência a uma velocidade $n_2/n_{2máx}$ próxima àquela desejada, escolha a motorização em que o fator de serviço sf indicado resulte igual ou superior aquele retirado no ponto 1).*

Selecting the gearmotors

To select the required gearmotor, perform the procedure below:

1. Determine the service factor sf for the desired application by referring to the charts given on page A6. This is to be done by considering the class of load, the operational hours/day and the number of start-ups/ hour.

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

where Rd stands for the dynamic efficiency (indicated on page G7) and n_2 indicates the required output rpm of the gearmotor.

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

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		
0.18						
63B4 (1750 min^{-1})	**27.7**	58	*2.1*	63.22	**CMG013**	**B5**
	23.3	69	*1.7*	75.08		**B5**
	19.6	82	*1.5*	89.17		**B5**
	15.5	104	*1.1*	113.05		**B5**
	13	124	*1*	134.27		

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		
0.18						
63B4 (1750 min^{-1})	**117**	12	3.8	15	**CM040**	**B5/B14**
	88	15	2.6	20		**B5/B14**
	70	18	2.1	25		**B5/B14**
	58	21	2.3	30		**B5/B14**
	44	26	1.6	40		**B5/B14**
	35	29	1.3	50		**B5/B14**
	29	34	1.1	60		**B5/B14**

Ejemplo: / *Exemplo:* / *Example:*

Aplicación / *Aplicação* / Application:
Cinta transportadora / *Esteira transportadora* / Conveyor belt

P : 0.18 kW
sf : 1.5
n_2 : 23 min^{-1}

Motorización seleccionada / *Motorização escolhida* / Power unit selected:

CMG013 i = 75.08, P_1 = 0.18 kW, sf = 1.7

Ejemplo: / *Exemplo:* / *Example:*

Aplicación / *Aplicação* / Application:
Cinta transportadora / *Esteira transportadora* / Conveyor belt

P : 0.17 kW
sf : 1.5
n_2 : 45 min^{-1}

Motorización seleccionada / *Motorização escolhida* / Power unit selected:

CM040 i = 40, P_1 = 0.18 kW, sf = 1.6

Lubricación

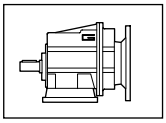
Los reductores de las serie CMG, CMB, KFT105, FT, ATS, CM, CMM y de la PU se suministran con lubricante sintético viscosidad 320 de larga duración y no requieren mantenimiento.

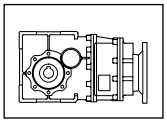
Lubrificação

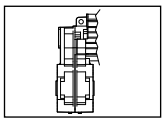
Os redutores da série CMG, CMB, KFT105, FT, ATS, CM, CMM *e PU são fornecidos completos de lubrificante sintético de viscosidade 320 com longa duração, portanto não necessitam de manutenção.*

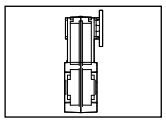
Lubrication

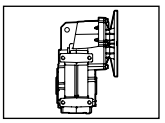
All unit sizes of CMG, CMB, KFT105, FT, ATS, CM, CMP, CMM and PU series are complete with a long life synthetic lubricant, viscosity 320 and do not require maintenance.

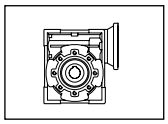

CMG

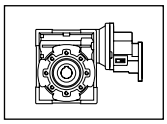

CMB

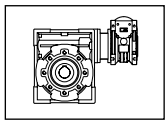

KFT105

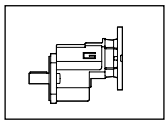

FT


ATS


CM


CMP


CMM


PU

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

En las secciones del catálogo se encuentran las tablas con las cantidades aproximadas de aceite contenido/necesario.
En el pedido es necesario indicar siempre la posición de montaje.

Nas seções específicas são indicadas as tabelas com as quantidades indicativas de lubrificante contidas e/ou a introduzir.
Na fase de pedido é necessário especificar sempre a posição de montagem desejada.

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

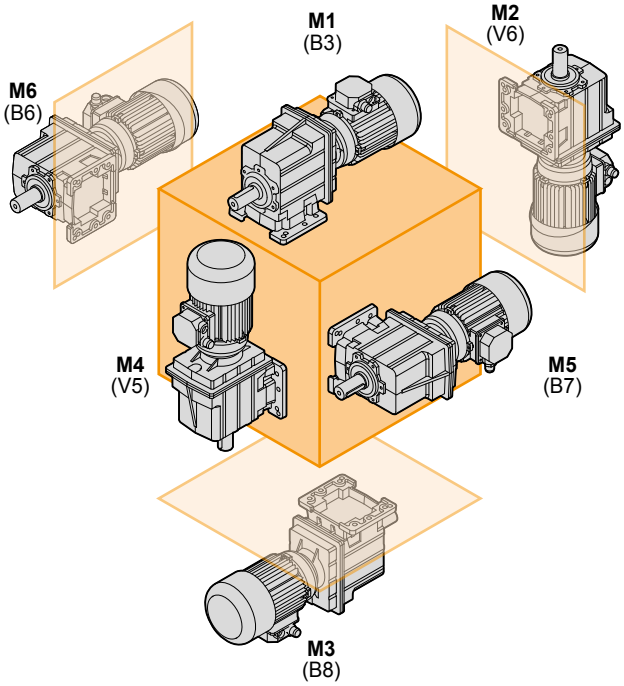
Always specify the desired installation position at the time of order.

Posición de Montaje

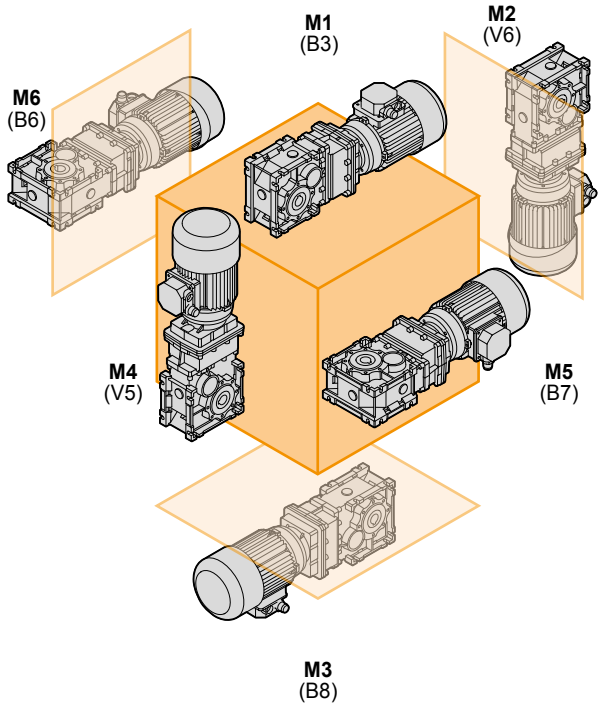
Posição de montagem

Mounting positions

CMG

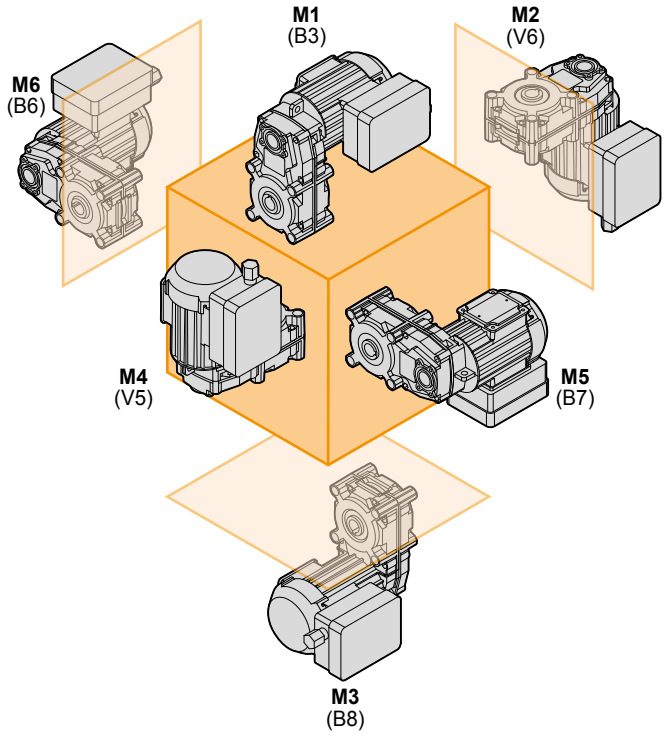


CMB

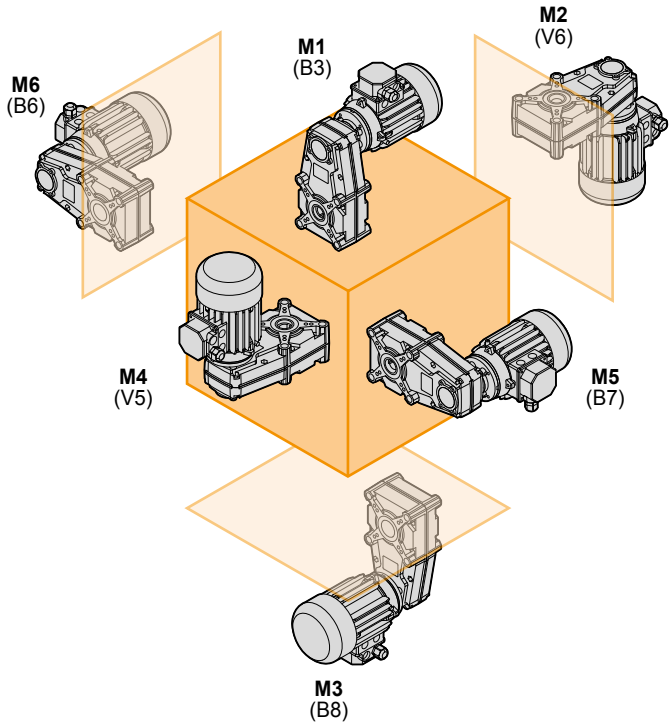


Posición de Montaje | ***Posição de montagem*** | **Mounting positions**

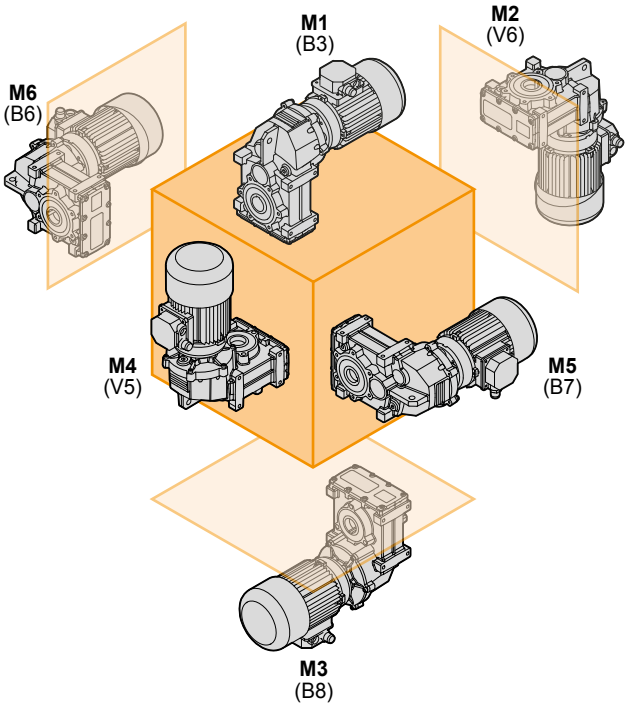
KFT 105



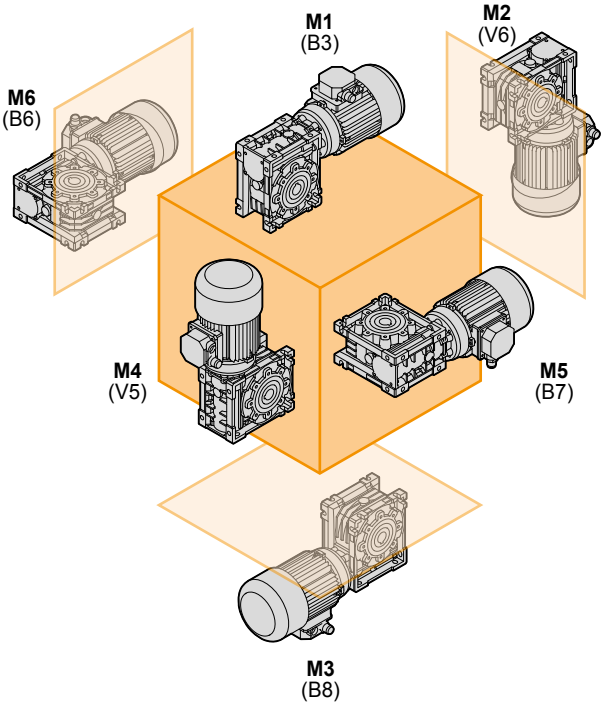
FT



ATS



CM



Temperatura de operación

La temperatura ambiente afecta las especificaciones de los reductores.

Temperatura de trabalho

A temperatura ambiental influi nas especificações de redutores e variadores.

Operating temperature

The ambient temperature affects specifications of gearboxes.

Gama de temperatura estándar / *Campo de temperatura padrão* / *Standard temperature range*

CMG	-35°C / +50°C
CMB	-35°C / +50°C
KFT105	-35°C / +50°C
FT	-35°C / +50°C
ATS	-35°C / +50°C
CM026 - CM050	-25°C / +50°C
CM063 - CM130	-35°C / +50°C
CMP	-35°C / +50°C
PU	-35°C / +50°C

Gamas de temperaturas especiales / *Campos de temperatura especiais* / *Special temperature range*

	<-15°C	-35°C/-25°C	<-35°C	>+50°C
CMG			usar sellos de aceite de silicona (VMQ) *use vedante rotacional de silicone (VMQ)* *use silicone (VMQ) oil seals*	usar sellos de aceite de Viton (FPM) *use vedante rotacional em Viton (FPM)* *use Viton (FPM) oil seals*
CMB				
KFT105				
FT				
ATS				
CM026 - CM050		sustituir el sello de aceite con NBR *substituir vedante rotacional da entrada com NBR* replace input oil seal with NBR		
CM063 - CM110			usar lubricantes para bajas temperaturas *use lubrificante para baixas temperaturas* use low temperature lubricant	usar lubricante para altas temperaturas *use lubrificante para altas temperaturas* use high temperature lubricant
CM130	reducir las cargas radiales en salida *reduzir as cargas radiais na saída halve* reduce radial loads in halph			
CMP				
PU				

Si la temperatura es <0°:
- verificar que el motor sea idóneo para trabajar a bajas temperaturas;
- verificar que el motor pueda proveer mayor par de arranque a causa del aumento de la viscosidad del lubricante;
- para una lubricación óptima accionar sin carga algunos minutos;

Para temperaturas <0°C refira-se às seguintes notas:
- *verifique se o motor está apto ao funcionamento com baixa temperatura;*
- *assegure-se que o motor possa fornecer maior torque de arranque por causa do aumento de viscosidade do lubrificante;*
- *proceda alguns minutos de funcionamento a vácuo para garantir a optimal lubrificação;*

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

Instalación y controles

Al momento de la instalación del equipo reductor es recomendable verificar que:

- Los datos en la placa correspondan al producto pedido;
- Las superificies de acoplamiento y los ejes sean limpios y sin abolladuras;
- Las supeficies donde se instala el reductor sean planas y bastante rígidas;
- El eje de la máquina operadora y del reductor sean correctamente alineados;
- Se hayan instalados los limitadores de par si hay probabilidad de golpes o bloqueo durante el funcionamiento;
- Las partes rotativas de las maquinas lleven las protecciones de seguridad necesarias;
- Para instalaciones al exterior, sean presentes adecuadas protecciones contra la exposición a los agentes atmosféricos;
- El ambiente de trabajo no sea expuesto a agentes corrosivos (a menos que no haya sido comunicado en el pedido, a fin de preparar el reductor para este uso);
- Los piñones y poleas sean correctamente ensamblados en el eje de salida o de entrada del reductor, para evitar cargas radiales y/o axiales superiores a las admitidas;
- Todos los acoplamientos sean tratados con adecuado producto anticorrosivo para evitar oxidaciones;
- Todos los tornillo de sujeción estén bien apretados;
- Verificar la cantidad de lubricante dependiendo de la posicion de montaje en todos los motorreductores CM 130.

Instalação e verificações

Na fase de instalação do redutor ou motovariador é importante verificar se:

- *os dados referidos na placa de identificação correspondem ao produto que foi pedido;*
- *as superfícies de acoplamento e ás eixos estão cuidadosamente limpas e sem machucaduras;*
- *as superfícies nas quais será instalado o redutor estão perfeitamente planas e suficientemente rígidas;*
- *a eixo da máquina e aquela do redutor estão corretamente alinhadas;*
- *foram instalados sistemas de limitação do torque se forem previstos choques ou bloqueios da máquina durante o funcionamento;*
- *foram colocadas as proteções necessárias para antinfortunísticas nas peças rotativas;*
- *foram criadas as coberturas necessárias para a proteção dos agentes atmosféricos se a instalação é efetuada à área aberta e está sujeita às intempéries;*
- *o ambiente de trabalho não é corrosivo (a menos que esta especificação não tenha sido declarada no pedido com o fim de predispor o redutor à esta utilização);*
- *os eventuais pinhões ou roldanas montados na eixo de saída ou entrada do redutor estão contraídos corretamente de modo tal a não gerar cargas radiais e/ou superiores àquelas admissíveis;*
- *em todos os acoplamentos foi aplicado uma proteção anti-oxidante adequada para prevenir eventuais oxidações por contato;*
- *todos os parafusos de fixação estão fechados corretamente;*
- *para todos os variadores e os redutores de grandeza CMG 05, CMB 1103, CM 130 e CM150 a correta quantidade de lubrificante em função da posição de montagem.*

Installation and inspection

While installing the gearbox, always make sure that:

- the specifications stamped on the rating plate match those indicated for the unit actually ordered;
- the mating surfaces and the shafts are thoroughly clean and free of dents;
- the surfaces where the gearbox are to be mounted on are flat and strong enough;
- the machine drive shaft and the gearbox shaft are perfectly aligned;
- the required torque limiters have been installed if the machine is likely to produce shocks or blockages during operation;
- the rotary parts have been provided with the required safety guards;
- adequate weatherproof covering has been provided if the machine is to be installed outdoor;
- the working environment is not exposed to corrosive agents (unless this has been indicated while placing the order so that the gearbox can be adequately set up);
- the pinions or pulleys on the gearbox input/output shafts are properly fitted in order not to produce radial and/or axial loads that exceed the maximum allowable limits;
- all the couplings have been treated with adequate rust preventative in order to avoid oxidation provoked by contact;
- all the mounting screws have been securely tightened;
- check the lubricant quantity depending on the mounting position on all gearboxes CM 130.w

Aplicaciones críticas

En estos casos consultar con nuestro Servicio Técnico

- uso como multiplicador;
- uso como montacargas;
- uso en posiciones no contempladas en el catálogo;
- uso en ambientes con presión diferente de la atmosférica;
- uso en ambiente con temperaturas <-35°C or >+50°C

Aplicações críticas

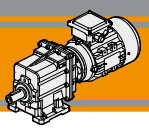
En estos casos consultar con nuestro Servicio Técnico

- *utilização como multiplicador;*
- *utilização como guincho de elevação;*
- *utilização em posições não previstas no catálogo;*
- *utilização em ambiente com pressão diversas daquela atmosférica;*
- *utilização em ambiente com temperaturas <-35°C o >+50°C*

Critical applications

In these cases please contact the Technical Service

- used to increase speed ;
- used as a hoist;
- used in mounting positions not shown in the catalogue;
- use in environment pressure other than atmospheric pressure;
- use in places with temperature <-35°C or >+50°C



ENERGY SAVING

Características técnicas

Los motorreductores a engranajes cilíndricos de la serie CMG son caracterizados por un elevado grado de modularidad: partiendo de un cuerpo base, es posible configurarlo de acuerdo a las exigencias, con brida o base.

Características comunes para toda la serie:

- Cuerpo y bridas de entrada en inyección de aluminio;
- Bridas de salida y base en fierro vaciado;
- Engranajes siempre rectificados;
- Lubricación permanente con aceite sintético.

Características técnicas

Os redutores da série CMG são caracterizados por um elevado grau de modularidade: partindo de um corpo de base, é possível configurá-lo de acordo com as exigências, com flange ou pé.

Características comuns a toda a série:

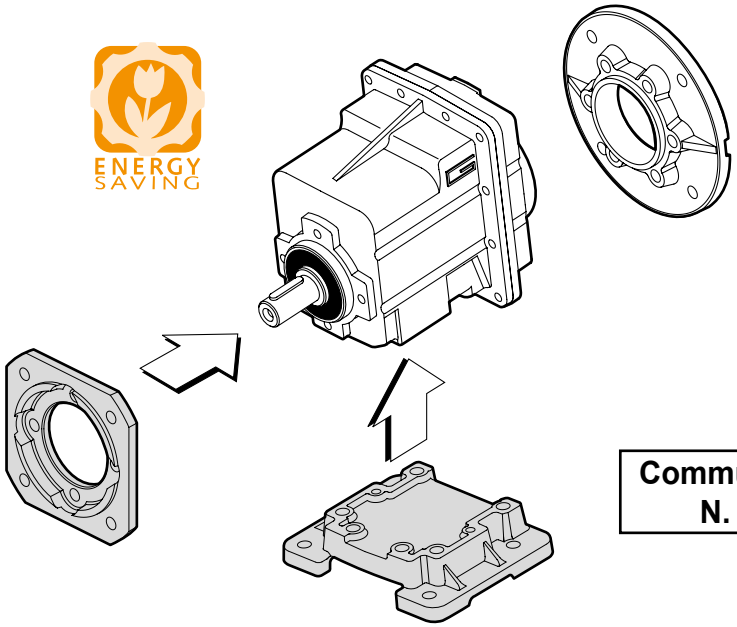
- *Carcaça e flange PAM em pressofusão de alumínio para os tamanhos;*
- *Pé e flange de saída em ferro fundido;*
- *Engrenagens sempre retificadas;*
- *Lubrificação permanente com óleo sintético.*

Technical features

The high degree of modularity is a design feature of CMG helical in-line gearmotors range. It is possible to set up the version required using flanges or feet.

The main features of CMG range are:

- Die-cast aluminum housings and input flanges for sizes 00, 01, 02, 03 and 04;
- Cast iron feet and output flanges;
- Ground-hardened helical gears;
- Permanent synthetic oil long-life lubrication.

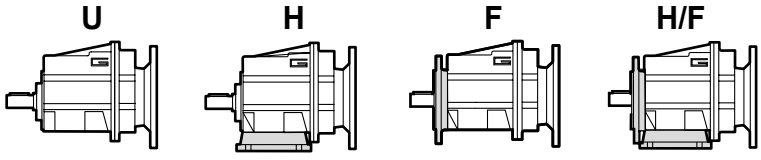


Community Design
N. 1004428

Clasificación

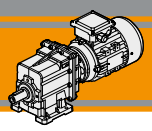
Designação

Classification



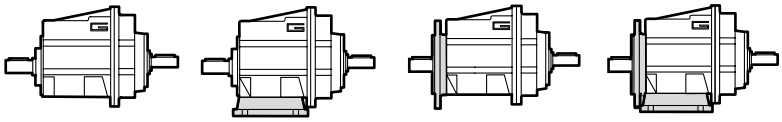
REDUCTOR / *REDUTOR* / GEARBOX

CMG	01	2	H65	9.81	D20	71	B14
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Etapas *Estágios* Stages	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	ø Eje de salida *ø Eixo saída* ø Output shaft	IEC	Forma constructiva *Forma construtiva* Version
CMG	**00** **01** **02** **03** **04**	**2** **3**	**U...** **H...** **F...** **H.../F...**	Véase tablas *Veja tabelas* see tables	Véase tablas *Veja tabelas* see tables	**56..** **—** **112..**	**B5** **B14**



Clasificación — *Designação* — Classification

U H F H/F



REDUCTOR / *REDUTOR* / GEARBOX

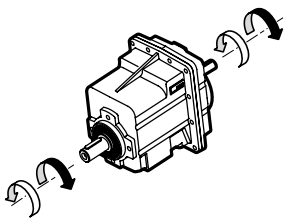
CMGIS	01	2	U	9.81	D20
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Etapas *Estágios* Stages	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	ø Eje de salida *ø Eixo saída* ø Output shaft
CMGIS	**01** **02** **03** **04**	**2** **3**	**U...** **H...** **F...** **H.../F...**	Veja tabelas *Véase tablas* see tables	Veja tabelas *Véase tablas* see tables

MOTOR / *MOTOR* / MOTOR

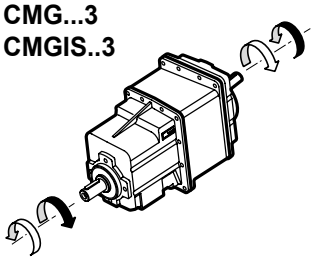
0.75kW	4p	3ph	230/400V	60Hz	T1
Potencia *Potência* Power	Polos *Pólos* Poles	Fases *Fases* Phases	Tensión *Tensão* Voltage	Frecuencia *Frequência* Frequency	Posición caja de bornes *Pos. Conexão* Terminal box pos.
Veja tabelas *Véase tablas* see tables	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**230V** **230/400V**	**60Hz**	**T1** (Std) **T4** **T2** **T3**

Sentidos de rotación — *Sentidos de rotação* — Direction of rotation

CMG...2
CMGIS..2



CMG...3
CMGIS..3



Nomenclatura — *Simbologia* — Legend

n_1	[rpm]	Velocidad de entrada / *Velocidade na entrada* / Input speed
n_2	[rpm]	Velocidad de salida / *Velocidade na saída* / Output speed
i		Relación de reducción / *Relação de redução* / Ratio
P_1	[kW]	Potencia en la entrada / *Potência da entrada* / Input power
M_2	[Nm]	Par en la salida en función de P_1 / *Torque na saída em função de* P_1 / Output torque referred to P_1
Pn_1	[kW]	Potencia nominal en la entrada / *Potência nominal na entrada* / Nominal input power
Mn_2	[Nm]	Par nominal en la salida en función de Pn_1 / *Torque nominal na saída em função de* Pn_1 / Nominal output torque referred to Pn_1
sf		Factor de servicio / *Fator de serviço* / Service factor
R_2	[N]	Carga radial admisible en la salida / *Carga radial admissível na saída* / Maximum output radial load
A_2	[N]	Carga axial admisible en la salida / *Carga axial admissível na saída* / Maximum output axial load

Lubricación

Todos los motorreductores son previamente lubricados con aceite sintético con grado de viscosidad 320, por lo tanto, pueden ser instalados en cualquier posición de montaje y no requieren mantenimiento.

Lubrificação

Todos os motoredutores são fornecidos completos de lubrificante sintético de viscosidade 320, portanto, podem ser instalados em qualquer posição de montagem e não necessitam de manutenção

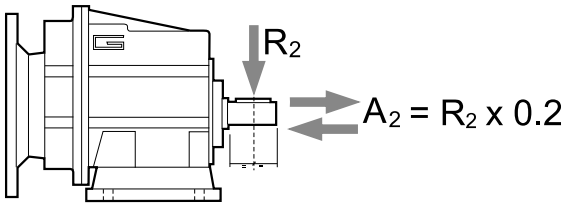
Lubrication

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

Cargas radiales

Cargas radiais

Radial loads

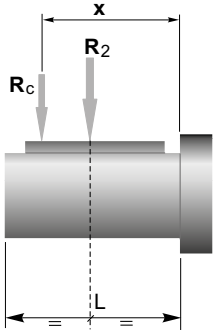


n_2 [min^{-1}]	R_2 [N]				
	CMG 00	CMG 01	CMG 02	CMG 03	CMG 04
700	416	764	1529	1987	2379
600	437	805	1609	2092	2504
500	465	855	1710	2223	2661
400	501	921	1842	2395	2866
250	586	1077	2154	2801	3353
180	653	1323	2554	3321	3897
150	748	1406	2714	3529	4244
120	806	1631	3467	3801	4572
100	958	1842	3684	4507	5234
80	1032	1984	3969	5042	5991
60	1136	2184	4368	5549	6594
40	1300	2500	5000	6500	8000
10	1300	2500	5000	6500	8000

Cuando la carga radial no se aplica en el punto medio del eje, es necesario calcular la carga efectiva a través la siguiente fórmula:

Quando a carga radial resultante não é aplicada na linha mediana da eixo, é preciso calcular aquela efetiva com a seguinte fórmula:

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:

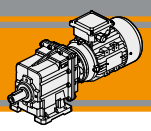


	CMG 00	CMG 01	CMG 02	CMG 03	CMG 04
a	73	104	117	132	150
b	53	84	92	102	115
R_{2MAX}	1300	2500	5000	6500	8000

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

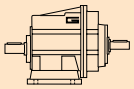
$$R \leq R_c$$

a, b = valores dados en la tabla
a, b = valores referidos na tabela
a, b = values given in the table



Datos técnicos | ***Dados técnicos*** | **Technical data**

n_1 1750 [min^{-1}]



n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters			
CMGIS 002				**56 B5/B14**	**63 B5/B14**	**71 B5/B14**	**80 B5/B14**
348	40	1.5	5.03				
287	40	1.3	6.10				
234	40	1.0	7.49				
195	50	1.1	8.99				
172	50	0.94	10.16				
145	50	0.79	12.07				
131	70	1.00	13.40				
116	70	0.88	15.14				
96	70	0.74	18.17				
81	70	0.62	21.58				*
74	70	0.57	23.51				*
70	70	0.53	25.10				*
65	70	0.49	27.08				*
54	70	0.41	32.49				*
42	70	0.32	42.04				*
39	70	0.30	44.89			*	*
36	70	0.27	48.86			*	*
32	70	0.24	55.10			*	*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

N.B.
As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.

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

⚠ * = El Factor de servicio (sf) se deberá seleccionar con respecto a la aplicación: Favor de contactar con nuestro Servicio Técnico

⚠ * = *O fator de serviço (sf) deve ser escolhido em função da aplicação: entre em contato com o nosso Serviço Técnico.*

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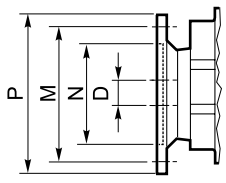
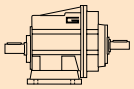


IEC Dimensión / *IEC Dimensões* / IEC Dimensions								
	56 B5	**56 B14**	**63 B5**	**63 B14**	**71 B5**	**71 B14**	**80 B5**	**80 B14**
N	80	50	95	60	110	70	130	80
M	100	65	115	75	130	85	165	100
P	120	80	140	90	160	105	200	120
D	9		11		14		19	

Datos técnicos | ***Dados técnicos*** | **Technical data**

n_1 1750 [min^{-1}]



n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters			
CMGIS 012				**63 B5**	**71 B5/B14**	**80 B5/B14**	**90 B5/B14**
458	60	3.0	3.82				
378	60	2.5	4.63				
308	60	2.0	5.69				
227	80	2.0	7.72				
191	80	1.7	9.17				
178	80	1.6	9.81				
152	100	1.7	11.50				
147	100	1.6	11.90				
127	120	1.7	13.80				
120	120	1.6	14.62				
98	120	1.3	17.86				
92	120	1.2	19.07				*
88	120	1.2	19.83				*
74	120	1.0	23.56				*
59	120	0.78	29.56				*
49	120	0.65	35.47				*
38	120	0.50	45.89			*	*
36	120	0.47	49.00			*	*
33	120	0.43	53.33			*	*
29	120	0.38	60.15			*	*
CMGIS 013				**63 B5**	**71 B5/B14**	**80 B5/B14**	**90 B5/B14**
28	120	0.37	63.22			*	*
23	120	0.31	75.08		*	*	*
20	120	0.26	89.17		*	*	*
15	120	0.21	113.05		*	*	*
13	120	0.17	134.27		*	*	*
10	120	0.13	173.72		*	*	*
8.7	120	0.12	202.16		*	*	*
6.7	120	0.09	261.57		*	*	*
5.8	120	0.08	304.00		*	*	*
4.4	120	0.06	393.33		*	*	*
3.9	120	0.05	443.59		*	*	*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

N.B.
As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.

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

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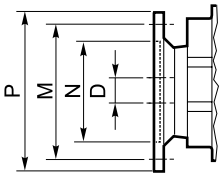
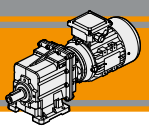
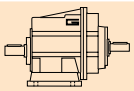


IEC Dimensión / *IEC Dimensões* / IEC Dimensions							
	63 B5	**71 B5**	**71 B14**	**80 B5**	**80 B14**	**90 B5**	**90 B14**
N	95	110	70	130	80	130	95
M	115	130	85	165	100	165	115
P	140	160	105	200	120	200	140
D	11	14		19		24	



Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]



n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters: 63 B5	71 B5/B14	80 B5/B14	90 B5/B14
CMGIS 022							
479	100	5.2	3.66				
395	100	4.3	4.43				
321	100	3.5	5.45				
237	120	3.1	7.39				
199	120	2.6	8.78				
176	120	2.3	9.93				
159	200	3.5	11.01				
145	200	3.2	12.05				
132	200	2.9	13.21				
118	200	2.6	14.81				
102	160	1.8	17.10				
96	160	1.7	18.26				
87	200	1.9	20.08				
73	200	1.6	23.85				
58	200	1.3	29.93				
49	200	1.1	35.91				*
38	200	0.82	46.46				*
35	200	0.77	49.61				*
32	200	0.71	54.00				*
29	200	0.63	60.90			*	*
CMGIS 023				63 B5	71 B5/B14	80 B5/B14	90 B5/B14
27	200	0.61	64.01			*	*
23	200	0.51	76.02			*	*
19	200	0.43	90.29			*	*
15	200	0.34	114.46			*	*
13	200	0.29	135.95		*	*	*
9.9	200	0.22	175.89		*	*	*
8.5	200	0.19	204.69		*	*	*
6.6	200	0.15	264.84		*	*	*
5.7	200	0.13	307.80		*	*	*
4.4	200	0.10	398.25		*	*	*
3.9	200	0.09	449.14		*	*	*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

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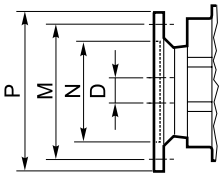
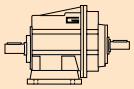


IEC Dimensión / *IEC Dimensões* / IEC Dimensions	63 B5	71 B5	71 B14	80 B5	80 B14	90 B5	90 B14
N	95	110	70	130	80	130	95
M	115	130	85	165	100	165	115
P	140	160	105	200	120	200	140
D	11	14		19		24	

Datos técnicos | ***Dados técnicos*** | **Technical data**

n_1 1750 [min^{-1}]



n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters				
CMGIS 032				**71 B5**	**80 B5/B14**	**90 B5/B14**	**100 B5/B14**	**112 B5/B14**
468	150	7.7	3.74	**B**				
389	150	6.4	4.50	**B**				
319	150	5.2	5.48	**B**				
277	180	5.4	6.31	**B**				
221	180	4.3	7.93	**B**				
193	180	3.8	9.08	**B**				*
160	180	3.1	10.93	**B**				*
139	250	3.8	12.60	**B**				*
132	250	3.6	13.30	**B**				*
114	280	3.5	15.30	**B**				*
96	280	2.9	18.21	**B**				*
91	280	2.8	19.24	**B**				*
83	280	2.5	21.15	**B**			*	*
70	300	2.3	24.99	**B**			*	*
57	300	1.9	30.57	**B**			*	*
51	300	1.7	34.20	**B**			*	*
45	300	1.5	38.63	**B**			*	*
40	300	1.3	44.18	**B**			*	*
34	300	1.1	51.30	**B**		*	*	*
29	300	0.90	60.80	**B**		*	*	*

				63 B5	**71 B5/B14**	**80 B5/B14**	**90 B5/B14**
CMGIS 033							
24	300	0.80	72.83				*
18	300	0.60	97.45			*	*
15	300	0.51	115.74			*	*
12	300	0.42	140.81			*	*
10	300	0.34	174.26			*	*
7.8	300	0.26	225.47		*	*	*
6.7	300	0.22	262.05		*	*	*
5.4	300	0.18	325.79		*	*	*
4.6	300	0.15	378.64		*	*	*
4.1	300	0.14	427.03		*	*	*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

N.B.
As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.

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

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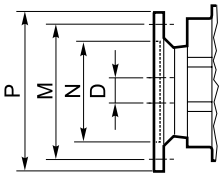
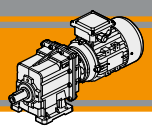
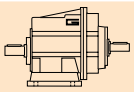


IEC Dimensión / *IEC Dimensões* / IEC Dimensions									
	63 B5	**71 B5**	**71 B14**	**80 B5**	**80 B14**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**
N	95	110	70	130	80	130	95	180	110
M	115	130	85	165	100	165	115	215	130
P	140	160	105	200	120	200	140	250	160
D	11	14		19		24		28	



Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]



n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters: 71 B5	80 B5/B14	90 B5/B14	100 B5/B14	112 B5/B14
CMGIS 042								
468	230	11.7	3.74	B				
389	230	9.7	4.50	B				
319	230	8.0	5.48	B				
277	260	7.9	6.31	B				
221	260	6.3	7.93	B				
193	280	5.9	9.08	B				
160	280	4.9	10.93	B				
139	350	5.3	12.60	B				
132	350	5.0	13.30	B				
114	420	5.2	15.30	B				
96	420	4.4	18.21	B				
91	420	4.2	19.24	B				
70	500	3.8	24.99	B				*
57	500	3.1	30.57	B				*
51	500	2.8	34.20	B			*	*
45	500	2.5	38.63	B			*	*
40	500	2.2	44.18	B			*	*
34	500	1.9	51.30	B			*	*
29	480	1.5	60.80	B			*	*

n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	63 B5	71 B5/B14	80 B5/B14	90 B5/B14
CMGIS 043							
24	500	1.34	72.83				
18	500	1.00	97.45				*
15	500	0.84	115.74				*
12	500	0.69	140.81				*
10	500	0.56	174.26			*	*
7.8	500	0.43	225.47			*	*
6.7	500	0.37	262.05			*	*
5.4	500	0.30	325.79		*	*	*
4.6	500	0.26	378.64		*	*	*
4.1	500	0.23	427.03		*	*	*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

N.B.
As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.

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

⚠ * = El Factor de servicio (sf) se deberá seleccionar con respecto a la aplicación: Favor de contactar con nuestro Servicio Técnico

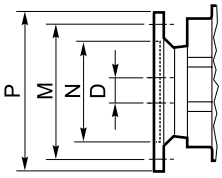
⚠ * = *O fator de serviço (sf) deve ser escolhido em função da aplicação: entre em contato com o nosso Serviço Técnico.*

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

Antes de seleccionar cualquier reductor, favor de revisar los valores dedesempeño en las páginas B10 a la B15.

Antes de executar a escolha do motoredutor analisar o desempenho listado nas tabelas das páginas B10 a pag. B15.

Before selecting any gearbox, please read the performance values shown in the tables on page B10 to B15.



IEC Dimensión / *IEC Dimensões* / IEC Dimensions	63 B5	71 B5	71 B14	80 B5	80 B14	90 B5	90 B14	100/112 B5	100/112 B14
N	95	110	70	130	80	130	95	180	110
M	115	130	85	165	100	165	115	215	130
P	140	160	105	200	120	200	140	250	160
D	11	14		19		24		28	

Datos técnicos | ***Dados técnicos*** | **Technical data**

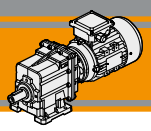
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.09						
(0.12 hp)	**348**	2.4	16.9	5.03	**CMG002**	**B5/B14**
	287	2.9	13.9	6.10		**B5/B14**
56B4	**234**	3.5	11.3	7.49		**B5/B14**
(1750 min^{-1})	**195**	4.2	11.8	8.99		**B5/B14**
	172	4.8	10.4	10.16		**B5/B14**
	145	5.7	8.8	12.07		**B5/B14**
	131	6.3	11.1	13.40		**B5/B14**
	116	7.1	9.8	15.14		**B5/B14**
	96	8.6	8.2	18.17		**B5/B14**
	81	10	6.9	21.58		**B5/B14**
	74	11	6.3	23.51		**B5/B14**
	70	12	5.9	25.10		**B5/B14**
	65	13	5.5	27.08		**B5/B14**
	54	15	4.6	32.49		**B5/B14**
	42	20	3.5	42.04		**B5/B14**
	39	21	3.3	44.89		**B5/B14**
	36	23	3.0	48.86		**B5/B14**
	32	26	2.7	55.10		**B5/B14**
0.12						
(0.16 hp)	**348**	3.2	12.7	5.03	**CMG002**	**B5/B14**
	287	3.8	10.4	6.10		**B5/B14**
63A4	**234**	4.7	8.5	7.49		**B5/B14**
(1750 min^{-1})	**195**	5.7	8.8	8.99		**B5/B14**
	172	6.4	7.8	10.16		**B5/B14**
	145	7.6	6.6	12.07		**B5/B14**
	131	8.4	8.3	13.40		**B5/B14**
	116	10	7.4	15.14		**B5/B14**
	96	11	6.1	18.17		**B5/B14**
	81	14	5.2	21.58		**B5/B14**
	74	15	4.7	23.51		**B5/B14**
	70	16	4.4	25.10		**B5/B14**
	65	17	4.1	27.08		**B5/B14**
	54	20	3.4	32.49		**B5/B14**
	42	26	2.6	42.04		**B5/B14**
	39	28	2.5	44.89		**B5/B14**
	36	31	2.3	48.86		**B5/B14**
	32	35	2.0	55.10		**B5/B14**
	38	29	4.2	45.89	**CMG012**	**B5**
	36	31	3.9	49.00		**B5**
	33	34	3.6	53.33		**B5**
	29	38	3.2	60.15		**B5**
	28	39	3.1	63.22	**CMG013**	**B5**
	23	46	2.6	75.08		**B5**
	20	55	2.2	89.17		**B5**
	15	70	1.7	113.05		**B5**
	13	83	1.5	134.27		**B5**
	10	107	1.1	173.72		**B5**
	8.7	124	1.0	202.16		**B5**
	6.7	161	0.7	261.57		**B5**
	5.8	171	0.7	304.00		**B5**
	4.4	171	0.7	393.33		**B5**
	3.9	171	0.7	443.59		**B5**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
(0.16 hp)	**27**	39	5.1	64.01	**CMG023**	**B5**
	23	47	4.3	76.02		**B5**
63A4	**19**	56	3.6	90.29		**B5**
(1750 min^{-1})	**15**	70	2.8	114.46		**B5**
	13	84	2.4	135.95		**B5**
	10	108	1.8	175.89		**B5**
	8.5	126	1.6	204.69		**B5**
	6.6	163	1.2	264.84		**B5**
	5.7	189	1.1	307.80		**B5**
	4.4	245	0.8	398.25		**B5**
	3.9	276	0.7	449.14		**B5**
	10	107	2.8	174.26	**CMG033**	**B5**
	7.8	139	2.2	225.47		**B5**
	6.7	161	1.9	262.05		**B5**
	5.4	201	1.5	325.79		**B5**
	4.6	233	1.3	378.64		**B5**
	4.1	263	1.1	427.03		**B5**
	7.8	139	3.6	225.47	**CMG043**	**B5**
	6.7	161	3.1	262.05		**B5**
	5.4	201	2.5	325.79		**B5**
	4.6	233	2.1	378.64		**B5**
	4.1	263	1.9	427.03		**B5**
0.18						
(0.25 hp)	**348**	4.7	8.4	5.03	**CMG002**	**B5/B14**
	287	5.8	7.0	6.10		**B5/B14**
63B4	**234**	7.1	5.7	7.49		**B5/B14**
(1750 min^{-1})	**195**	8.5	5.9	8.99		**B5/B14**
	172	10	5.2	10.16		**B5/B14**
	145	11	4.4	12.07		**B5/B14**
	131	13	5.5	13.40		**B5/B14**
	116	14	4.9	15.14		**B5/B14**
	96	17	4.1	18.17		**B5/B14**
	81	20	3.4	21.58		**B5/B14**
	74	22	3.2	23.51		**B5/B14**
	70	24	3.0	25.10		**B5/B14**
	65	26	2.7	27.08		**B5/B14**
	54	31	2.3	32.49		**B5/B14**
	42	40	1.8	42.04		**B5/B14**
	39	42	1.7	44.89		**B5/B14**
	36	46	1.5	48.86		**B5/B14**
	32	52	1.3	55.10		**B5/B14**
	74	22	5.4	23.56	**CMG012**	**B5**
	59	28	4.3	29.56		**B5**
	49	33	3.6	35.47		**B5**
	38	43	2.8	45.89		**B5**
	36	46	2.6	49.00		**B5**
	33	50	2.4	53.33		**B5**
	29	57	2.1	60.15		**B5**

NOTA:
Por favor verifique que el torque de salida M2 no exceda el valor de las áreas grises

N.B.
Sempre verifique que o torque M2 não exceda o valor indicado nas caixas cinzas

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



Datos técnicos | *Dados técnicos* | Technical data

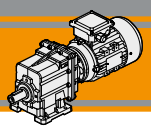
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.18						
(0.25 hp)	**28**	58	2.1	63.22	**CMG013**	**B5**
	23	69	1.7	75.08		**B5**
63B4	**20**	82	1.5	89.17		**B5**
(1750 min^{-1})	**15**	104	1.1	113.05		**B5**
	13	124	1.0	134.27		**B5**
	27	59	3.4	64.01	**CMG023**	**B5**
	23	70	2.8	76.02		**B5**
	19	83	2.4	90.29		**B5**
	15	106	1.9	114.46		**B5**
	13	126	1.6	135.95		**B5**
	10	162	1.2	175.89		**B5**
	8.5	189	1.1	204.69		**B5**
	12	130	2.3	140.81	**CMG033**	**B5**
	10	161	1.9	174.26		**B5**
	7.8	208	1.4	225.47		**B5**
	6.7	242	1.2	262.05		**B5**
	5.4	301	1.0	325.79		**B5**
	4.6	350	0.9	378.64		**B5**
	10	161	3.1	174.26	**CMG043**	**B5**
	7.8	208	2.4	225.47		**B5**
	6.7	242	2.1	262.05		**B5**
	5.4	301	1.7	325.79		**B5**
	4.6	350	1.4	378.64		**B5**
	4.1	394	1.3	427.03		**B5**
0.25						
(0.33 hp)	**348**	6.6	6.1	5.03	**CMG002**	**B5/B14**
	287	8.0	5.0	6.10		**B5/B14**
63C4	**234**	10	4.1	7.49		**B5/B14**
(1750 min^{-1})	**195**	12	4.2	8.99		**B5/B14**
	172	13	3.8	10.16		**B5/B14**
	145	16	3.2	12.07		**B5/B14**
	131	18	4.0	13.40		**B5/B14**
	116	20	3.5	15.14		**B5/B14**
	96	24	2.9	18.17		**B5/B14**
	81	28	2.5	21.58		**B5/B14**
	74	31	2.3	23.51		**B5/B14**
	70	33	2.1	25.10		**B5/B14**
	65	35	2.0	27.08		**B5/B14**
	54	43	1.6	32.49		**B5/B14**
	42	55	1.3	42.04		**B5/B14**
	39	59	1.2	44.89		**B5/B14**
	36	64	1.1	48.86		**B5/B14**
	32	72	1.0	55.10		**B5/B14**
	92	25	4.8	19.07	**CMG012**	**B5**
	88	26	4.6	19.83		**B5**
	74	31	3.9	23.56		**B5**
	59	39	3.1	29.56		**B5**
	49	46	2.6	35.47		**B5**
	38	60	2.0	45.89		**B5**
	36	64	1.9	49.00		**B5**
	33	70	1.7	53.33		**B5**
	29	79	1.5	60.15		**B5**
	28	81	1.5	63.22	**CMG013**	**B5**
	23	96	1.2	75.08		**B5**
	20	114	1.0	89.17		**B5**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.25						
(0.33 hp)	**38**	61	3.3	46.46	**CMG022**	**B5**
	35	65	3.1	49.61		**B5**
63C4	**32**	71	2.8	54.00		**B5**
(1750 min^{-1})	**29**	80	2.5	60.90		**B5**
	27	82	2.4	64.01	**CMG023**	**B5**
	23	97	2.1	76.02		**B5**
	19	116	1.7	90.29		**B5**
	15	147	1.4	114.46		**B5**
	13	174	1.1	135.95		**B5**
	10	226	0.9	175.89		**B5**
	24	93	3.2	72.83	**CMG033**	**B5**
	18	125	2.4	97.45		**B5**
	15	148	2.0	115.74		**B5**
	12	181	1.7	140.81		**B5**
	10	223	1.3	174.26		**B5**
	7.8	289	1.0	225.47		**B5**
	6.7	336	0.9	262.05		**B5**
	15	148	3.4	115.74	**CMG043**	**B5**
	12	181	2.8	140.81		**B5**
	10	223	2.2	174.26		**B5**
	7.8	289	1.7	225.47		**B5**
	6.7	336	1.5	262.05		**B5**
	5.4	418	1.2	325.79		**B5**
	4.6	486	1.0	378.64		**B5**
	4.1	548	0.9	427.03		**B5**
0.37						
(0.50 hp)	**348**	10	4.1	5.03	**CMG002**	**B5/B14**
	287	12	3.4	6.10		**B5/B14**
71A4	**234**	15	2.8	7.49		**B5/B14**
(1750 min^{-1})	**195**	17	2.9	8.99		**B5/B14**
	172	20	2.5	10.16		**B5/B14**
	145	23	2.1	12.07		**B5/B14**
	131	26	2.7	13.40		**B5/B14**
	116	29	2.4	15.14		**B5/B14**
	96	35	2.0	18.17		**B5/B14**
	81	42	1.7	21.58		**B5/B14**
	74	46	1.5	23.51		**B5/B14**
	70	49	1.4	25.10		**B5/B14**
	65	52	1.3	27.08		**B5/B14**
	54	63	1.1	32.49		**B5/B14**
	42	81	0.9	42.04		**B5/B14**
	147	23	4.3	11.90	**CMG012**	**B5/B14**
	127	27	4.5	13.80		**B5/B14**
	120	28	4.2	14.62		**B5/B14**
	98	35	3.5	17.86		**B5/B14**
	92	37	3.2	19.07		**B5/B14**
	88	38	3.1	19.83		**B5/B14**
	74	46	2.6	23.56		**B5/B14**
	59	57	2.1	29.56		**B5/B14**
	49	69	1.7	35.47		**B5/B14**
	38	89	1.3	45.89		**B5/B14**
	36	95	1.3	49.00		**B5/B14**
	33	103	1.2	53.33		**B5/B14**
	29	117	1.0	60.15		**B5/B14**
	28	120	1.0	63.22	**CMG013**	**B5/B14**

Datos técnicos / *Dados técnicos* / Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.37						
(0.50 hp)	**58**	58	3.4	29.93	**CMG022**	**B5/B14**
	49	70	2.9	35.91		**B5/B14**
71A4	**38**	90	2.2	46.46		**B5/B14**
(1750 min^{-1})	**35**	96	2.1	49.61		**B5/B14**
	32	105	1.9	54.00		**B5/B14**
	29	118	1.7	60.90		**B5/B14**
	27	121	1.6	64.01	**CMG023**	**B5/B14**
	23	144	1.4	76.02		**B5/B14**
	19	171	1.2	90.29		**B5/B14**
	15	217	0.9	114.46		**B5/B14**
	34	99	3.0	51.30	**CMG032**	**B5**
	29	118	2.5	60.80		**B5**
	24	138	2.2	72.83	**CMG033**	**B5/B14**
	18	185	1.6	97.45		**B5/B14**
	15	220	1.4	115.74		**B5/B14**
	12	267	1.1	140.81		**B5/B14**
	10	331	0.9	174.26		**B5/B14**
	24	138	3.6	72.83	**CMG043**	**B5/B14**
	18	185	2.7	97.45		**B5/B14**
	15	220	2.3	115.74		**B5/B14**
	12	267	1.9	140.81		
	10	331	1.5	174.26		**B5/B14**
	7.8	428	1.2	225.47		**B5/B14**
	6.7	497	1.0	262.05		**B5/B14**
0.55						
(0.75 hp)	**348**	14	2.8	5.03	**CMG002**	**B5/B14**
	287	18	2.3	6.10		**B5/B14**
71B4	**234**	22	1.9	7.49		**B5/B14**
(1750 min^{-1})	**195**	26	1.9	8.99		**B5/B14**
	172	29	1.7	10.16		**B5/B14**
	145	35	1.4	12.07		**B5/B14**
	131	39	1.8	13.40		**B5/B14**
	116	44	1.6	15.14		**B5/B14**
	96	52	1.3	18.17		**B5/B14**
	81	62	1.1	21.58		**B5/B14**
	74	68	1.0	23.51		**B5/B14**
	70	72	1.0	25.10		**B5/B14**
	65	78	0.9	27.08		**B5/B14**
	458	11	5.5	3.82	**CMG012**	**B5/B14**
	378	13	4.5	4.63		**B5/B14**
	308	16	3.7	5.69		**B5/B14**
	227	22	3.6	7.72		**B5/B14**
	191	26	3.0	9.17		**B5/B14**
	178	28	2.8	9.81		**B5/B14**
	152	33	3.0	11.50		**B5/B14**
	147	34	2.9	11.90		**B5/B14**
	127	40	3.0	13.80		**B5/B14**
	120	42	2.8	14.62		**B5/B14**
	98	51	2.3	17.86		**B5/B14**
	92	55	2.2	19.07		**B5/B14**
	88	57	2.1	19.83		**B5/B14**
	74	68	1.8	23.56		**B5/B14**
	59	85	1.4	29.56		**B5/B14**
	49	102	1.2	35.47		**B5/B14**
	38	132	0.9	45.89		**B5/B14**
	36	141	0.8	49.00		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.55						
(0.75 hp)	**73**	69	2.9	23.85	**CMG022**	**B5/B14**
	58	86	2.3	29.93		**B5/B14**
71B4	**49**	103	1.9	35.91		**B5/B14**
(1750 min^{-1})	**38**	134	1.5	46.46		**B5/B14**
	35	143	1.4	49.61		**B5/B14**
	32	156	1.3	54.00		**B5/B14**
	29	175	1.1	60.90		**B5/B14**
	27	181	*1.1*	64.01	**CMG023**	**B5/B14**
	23	214	*0.9*	76.02		**B5/B14**
	57	88	3.4	30.57	**CMG032**	**B5**
	51	99	3.0	34.20		**B5**
	45	111	2.7	38.63		**B5**
	40	127	2.4	44.18		**B5**
	34	148	2.0	51.30		**B5**
	29	175	1.7	60.80		**B5**
	24	205	1.5	72.83	**CMG033**	**B5/B14**
	18	275	1.1	97.45		**B5/B14**
	15	327	0.9	115.74		**B5/B14**
	34	148	3.4	51.30	**CMG042**	**B5**
	29	175	2.7	60.80		**B5**
	24	205	2.4	72.83	**CMG043**	**B5/B14**
	18	275	1.8	97.45		**B5/B14**
	15	327	1.5	115.74		**B5/B14**
	12	397	1.3	140.81		**B5/B14**
	10	492	1.0	174.26		**B5/B14**
0.75						
(1.0 hp)	**348**	20	2.0	5.03	**CMG002**	**B5/B14**
	287	24	1.7	6.10		**B5/B14**
80A4	**234**	29	1.4	7.49		**B5/B14**
(1750 min^{-1})	**195**	35	1.4	8.99		**B5/B14**
	172	40	1.3	10.16		**B5/B14**
	145	47	1.1	12.07		**B5/B14**
	131	53	1.3	13.40		**B5/B14**
	116	59	1.2	15.14		**B5/B14**
	96	71	1.0	18.17		**B5/B14**
	458	15	4.0	3.82	**CMG012**	**B5/B14**
	378	18	3.3	4.63		**B5/B14**
	308	22	2.7	5.69		**B5/B14**
	227	30	2.6	7.72		**B5/B14**
	191	36	2.2	9.17		**B5/B14**
	178	39	2.1	9.81		**B5/B14**
	152	45	2.2	11.50		**B5/B14**
	147	47	2.1	11.90		**B5/B14**
	127	54	2.2	13.80		**B5/B14**
	120	57	2.1	14.62		**B5/B14**
	98	70	1.7	17.86		**B5/B14**
	92	75	1.6	19.07		**B5/B14**
	88	78	1.5	19.83		**B5/B14**
	74	93	1.3	23.56		**B5/B14**
	59	116	1.0	29.56		**B5/B14**
	49	139	0.9	35.47		**B5/B14**

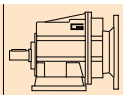


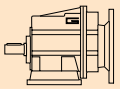
Datos técnicos — *Dados técnicos* — Technical data

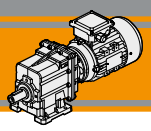
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.75						
(1.0 hp)	**176**	39	3.1	9.93	**CMG022**	**B5/B14**
	159	43	4.6	11.01		**B5/B14**
80A4	**145**	47	4.2	12.05		**B5/B14**
(1750 min^{-1})	**132**	52	3.9	13.21		**B5/B14**
	118	58	3.4	14.81		**B5/B14**
	102	67	2.4	17.10		**B5/B14**
	96	72	2.2	18.26		**B5/B14**
	87	79	2.5	20.08		**B5/B14**
	73	94	2.1	23.85		**B5/B14**
	58	118	1.7	29.93		**B5/B14**
	49	141	1.4	35.91		**B5/B14**
	38	183	1.1	46.46		**B5/B14**
	35	195	1.0	49.61		**B5/B14**
	32	212	0.9	54.00		**B5/B14**
	83	83	3.4	21.15	**CMG032**	**B5/B14**
	70	98	3.1	24.99		**B5/B14**
	57	120	2.5	30.57		**B5/B14**
	51	134	2.2	34.20		**B5/B14**
	45	152	2.0	38.63		**B5/B14**
	40	174	1.7	44.18		**B5/B14**
	34	202	1.5	51.30		**B5/B14**
	29	239	1.3	60.80		**B5/B14**
	24	280	1.1	72.83	**CMG033**	**B5/B14**
	51	134	3.7	34.20	**CMG042**	**B5/B14**
	45	152	3.3	38.63		**B5/B14**
	40	174	2.9	44.18		**B5/B14**
	34	202	2.5	51.30		**B5/B14**
	29	239	2.0	60.80		**B5/B14**
	24	280	1.8	72.83	**CMG043**	**B5/B14**
	18	375	1.3	97.45		**B5/B14**
	15	445	1.1	115.74		**B5/B14**
	12	542	0.9	140.81		**B5/B14**
1.1						
(1.5 hp)	**348**	29	1.4	5.03	**CMG002**	**B5/B14**
	287	35	1.1	6.10		**B5/B14**
80B4	**234**	43	0.9	7.49		**B5/B14**
(1750 min^{-1})	**195**	52	1.0	8.99		**B5/B14**
	172	59	0.9	10.16		**B5/B14**
	131	77	0.9	13.40		**B5/B14**
	458	22	2.7	3.82	**CMG012**	**B5/B14**
	378	27	2.2	4.63		**B5/B14**
	308	33	1.8	5.69		**B5/B14**
	227	44	1.8	7.72		**B5/B14**
	191	53	1.5	9.17		**B5/B14**
	178	57	1.4	9.81		**B5/B14**
	152	66	1.5	11.50		**B5/B14**
	147	69	1.5	11.90		**B5/B14**
	127	80	1.5	13.80		**B5/B14**
	120	84	1.4	14.62		**B5/B14**
	98	103	1.2	17.86		**B5/B14**
	92	110	1.1	19.07		**B5/B14**
	88	114	1.0	19.83		**B5/B14**
	74	136	0.9	23.56		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
1.1						
(1.5 hp)	**479**	21	4.7	3.66	**CMG022**	**B5/B14**
	395	26	3.9	4.43		**B5/B14**
80B4	**321**	31	3.2	5.45		**B5/B14**
(1750 min^{-1})	**237**	43	2.8	7.39		**B5/B14**
	199	51	2.4	8.78		**B5/B14**
	176	57	2.1	9.93		**B5/B14**
	159	63	3.2	11.01		**B5/B14**
	145	69	2.9	12.05		**B5/B14**
	132	76	2.6	13.21		**B5/B14**
	118	85	2.3	14.81		**B5/B14**
	102	99	1.6	17.10		**B5/B14**
	96	105	1.5	18.26		**B5/B14**
	87	116	1.7	20.08		**B5/B14**
	73	137	1.5	23.85		**B5/B14**
	58	172	1.2	29.93		**B5/B14**
	49	207	1.0	35.91		**B5/B14**
	160	63	2.9	10.93	**CMG032**	**B5/B14**
	139	73	3.4	12.60		**B5/B14**
	132	77	3.3	13.30		**B5/B14**
	114	88	3.2	15.30		**B5/B14**
	96	105	2.7	18.21		**B5/B14**
	91	111	2.5	19.24		**B5/B14**
	83	122	2.3	21.15		**B5/B14**
	70	144	2.1	24.99		**B5/B14**
	57	176	1.7	30.57		**B5/B14**
	51	197	1.5	34.20		**B5/B14**
	45	223	1.3	38.63		**B5/B14**
	40	255	1.2	44.18		**B5/B14**
	34	296	1.0	51.30		**B5/B14**
	29	350	0.9	60.80		**B5/B14**
	91	111	3.8	19.24	**CMG042**	**B5/B14**
	70	144	3.5	24.99		**B5/B14**
	57	176	2.8	30.57		**B5/B14**
	51	197	2.5	34.20		**B5/B14**
	45	223	2.2	38.63		**B5/B14**
	40	255	2.0	44.18		**B5/B14**
	34	296	1.7	51.30		**B5/B14**
	29	350	1.4	60.80		**B5/B14**
	24	411	1.2	72.83	**CMG043**	**B5/B14**
	18	550	0.9	97.45		**B5/B14**
1.5						
(2.0 hp)	**458**	30	2.0	3.82	**CMG012**	**B5/B14**
	378	36	1.6	4.63		**B5/B14**
90S4	**308**	45	1.3	5.69		**B5/B14**
(1750 min^{-1})	**227**	61	1.3	7.72		**B5/B14**
	191	72	1.1	9.17		**B5/B14**
	178	77	1.0	9.81		**B5/B14**
	152	90	1.1	11.50		**B5/B14**
	147	94	1.1	11.90		**B5/B14**
	127	108	1.1	13.80		**B5/B14**
	120	115	1.0	14.62		**B5/B14**
	98	140	0.9	17.86		**B5/B14**

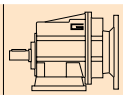
Datos técnicos — *Dados técnicos* — Technical data

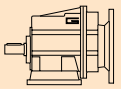
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
1.5						
(2.0 hp)	**479**	29	3.5	3.66	**CMG022**	**B5/B14**
	395	35	2.9	4.43		**B5/B14**
90S4	**321**	43	2.3	5.45		**B5/B14**
(1750 min^{-1})	**237**	58	2.1	7.39		**B5/B14**
	199	69	1.7	8.78		**B5/B14**
	176	78	1.5	9.93		**B5/B14**
	159	87	2.3	11.01		**B5/B14**
	145	95	2.1	12.05		**B5/B14**
	132	104	1.9	13.21		**B5/B14**
	118	116	1.7	14.81		**B5/B14**
	102	134	1.2	17.10		**B5/B14**
	96	143	1.1	18.26		**B5/B14**
	87	158	1.3	20.08		**B5/B14**
	73	187	1.1	23.85		**B5/B14**
	58	235	0.9	29.93		**B5/B14**
	468	29	5.1	3.74	**CMG032**	**B5/B14**
	389	35	4.2	4.50		**B5/B14**
	319	43	3.5	5.48		**B5/B14**
	277	50	3.6	6.31		**B5/B14**
	221	62	2.9	7.93		**B5/B14**
	193	71	2.5	9.08		**B5/B14**
	160	86	2.1	10.93		**B5/B14**
	139	99	2.5	12.60		**B5/B14**
	132	105	2.4	13.30		**B5/B14**
	114	120	2.3	15.30		**B5/B14**
	96	143	2.0	18.21		**B5/B14**
	91	151	1.9	19.24		**B5/B14**
	83	166	1.7	21.15		**B5/B14**
	70	196	1.5	24.99		**B5/B14**
	57	240	1.2	30.57		**B5/B14**
	51	269	1.1	34.20		**B5/B14**
	45	304	1.0	38.63		**B5/B14**
	40	347	0.9	44.18		**B5/B14**
	160	86	3.3	10.93	**CMG042**	**B5/B14**
	139	99	3.5	12.60		**B5/B14**
	132	105	3.3	13.30		**B5/B14**
	114	120	3.5	15.30		**B5/B14**
	96	143	2.9	18.21		**B5/B14**
	91	151	2.8	19.24		**B5/B14**
	70	196	2.5	24.99		**B5/B14**
	57	240	2.1	30.57		**B5/B14**
	51	269	1.9	34.20		**B5/B14**
	45	304	1.6	38.63		**B5/B14**
	40	347	1.4	44.18		**B5/B14**
	34	403	1.2	51.30		**B5/B14**
	29	478	1.0	60.80		**B5/B14**
	24	560	0.9	72.83	**CMG043**	**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
2.2						
(3.0 hp)	**458**	44	1.4	3.82	**CMG012**	**B5/B14**
	378	53	1.1	4.63		**B5/B14**
90L4	**308**	66	0.9	5.69		**B5/B14**
(1750 min^{-1})	**227**	89	0.9	7.72		**B5/B14**
	479	42	2.4	3.66	**CMG022**	**B5/B14**
	395	51	2.0	4.43		**B5/B14**
	321	63	1.6	5.45		**B5/B14**
	237	85	1.4	7.39		**B5/B14**
	199	101	1.2	8.78		**B5/B14**
	176	115	1.0	9.93		**B5/B14**
	159	127	1.6	11.01		**B5/B14**
	145	139	1.4	12.05		**B5/B14**
	132	152	1.3	13.21		**B5/B14**
	118	171	1.2	14.81		**B5/B14**
	468	43	3.5	3.74	**CMG032**	**B5/B14**
	389	52	2.9	4.50		**B5/B14**
	319	63	2.4	5.48		**B5/B14**
	277	73	2.5	6.31		**B5/B14**
	221	91	2.0	7.93		**B5/B14**
	193	105	1.7	9.08		**B5/B14**
	160	126	1.4	10.93		**B5/B14**
	139	145	1.7	12.60		**B5/B14**
	132	153	1.6	13.30		**B5/B14**
	114	176	1.6	15.30		**B5/B14**
	96	210	1.3	18.21		**B5/B14**
	91	222	1.3	19.24		**B5/B14**
	83	244	1.1	21.15		**B5/B14**
	70	288	1.0	24.99		**B5/B14**
	57	352	0.9	30.57		**B5/B14**
	468	43	5.3	3.74	**CMG042**	**B5/B14**
	389	52	4.4	4.50		**B5/B14**
	319	63	3.6	5.48		**B5/B14**
	277	73	3.6	6.31		**B5/B14**
	221	91	2.8	7.93		**B5/B14**
	193	105	2.7	9.08		**B5/B14**
	160	126	2.2	10.93		**B5/B14**
	139	145	2.4	12.60		**B5/B14**
	132	153	2.3	13.30		**B5/B14**
	114	176	2.4	15.30		**B5/B14**
	96	210	2.0	18.21		**B5/B14**
	91	222	1.9	19.24		**B5/B14**
	70	288	1.7	24.99		**B5/B14**
	57	352	1.4	30.57		**B5/B14**
	51	394	1.3	34.20		**B5/B14**
	45	445	1.1	38.63		**B5/B14**
	40	509	1.0	44.18		**B5/B14**



Datos técnicos | ***Dados técnicos*** | **Technical data**

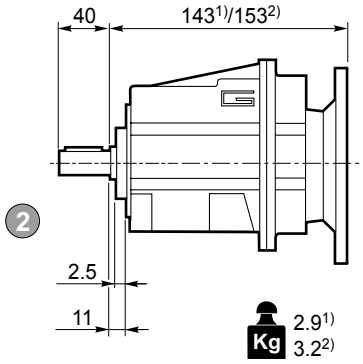
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
3						
(4.0 hp)	**468**	59	2.6	3.74	**CMG032**	**B5/B14**
	389	71	2.1	4.50		**B5/B14**
100LA4	**319**	86	1.7	5.48		**B5/B14**
(1750 min^{-1})	**277**	99	1.8	6.31		**B5/B14**
	221	125	1.4	7.93		**B5/B14**
	193	143	1.3	9.08		**B5/B14**
	160	172	1.0	10.93		**B5/B14**
	139	198	1.3	12.60		**B5/B14**
	132	209	1.2	13.30		**B5/B14**
	114	240	1.2	15.30		**B5/B14**
	96	286	1.0	18.21		**B5/B14**
	91	302	0.9	19.24		**B5/B14**
	468	59	3.9	3.74	**CMG042**	**B5/B14**
	389	71	3.2	4.50		**B5/B14**
	319	86	2.7	5.48		**B5/B14**
	277	99	2.6	6.31		**B5/B14**
	221	125	2.1	7.93		**B5/B14**
	193	143	2.0	9.08		**B5/B14**
	160	172	1.6	10.93		**B5/B14**
	139	198	1.8	12.60		**B5/B14**
	132	209	1.7	13.30		**B5/B14**
	114	240	1.7	15.30		**B5/B14**
	96	286	1.5	18.21		**B5/B14**
	91	302	1.4	19.24		**B5/B14**
	70	393	1.3	24.99		**B5/B14**
	57	480	1.0	30.57		**B5/B14**
	51	538	0.9	34.20		**B5/B14**
3.7						
(5.0 hp)	**468**	73	2.1	3.74	**CMG032**	**B5/B14**
	389	87	1.7	4.50		**B5/B14**
100LB4	**319**	106	1.4	5.48		**B5/B14**
(1750 min^{-1})	**277**	122	1.5	6.31		**B5/B14**
	221	154	1.2	7.93		**B5/B14**
	193	176	1.0	9.08		**B5/B14**
	160	212	0.8	10.93		**B5/B14**
	139	244	1.0	12.60		**B5/B14**
	132	258	1.0	13.30		**B5/B14**
	114	297	0.9	15.30		**B5/B14**
	468	73	3.2	3.74	**CMG042**	**B5/B14**
	389	87	2.6	4.50		**B5/B14**
	319	106	2.2	5.48		**B5/B14**
	277	122	2.1	6.31		**B5/B14**
	221	154	1.7	7.93		**B5/B14**
	193	176	1.6	9.08		**B5/B14**
	160	212	1.3	10.93		**B5/B14**
	139	244	1.4	12.60		**B5/B14**
	132	258	1.4	13.30		**B5/B14**
	114	297	1.4	15.30		**B5/B14**
	96	353	1.2	18.21		**B5/B14**
	91	373	1.1	19.24		**B5/B14**
	70	484	1.0	24.99		**B5/B14**
	57	593	0.8	30.57		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
4.5						
(6.0 hp)	**468**	88	1.7	3.74	**CMG032**	**B5/B14**
	389	106	1.4	4.50		**B5/B14**
112MA4	**319**	129	1.2	5.48		**B5/B14**
(1750 min^{-1})	**277**	149	1.2	6.31		**B5/B14**
	221	187	1.0	7.93		**B5/B14**
	468	88	2.6	3.74	**CMG042**	**B5/B14**
	389	106	2.2	4.50		**B5/B14**
	319	129	1.8	5.48		**B5/B14**
	277	149	1.7	6.31		**B5/B14**
	221	187	1.4	7.93		**B5/B14**
	193	214	1.3	9.08		**B5/B14**
	160	258	1.1	10.93		**B5/B14**
	139	297	1.2	12.60		**B5/B14**
	132	314	1.1	13.30		**B5/B14**
	114	361	1.2	15.30		**B5/B14**
	96	429	1.0	18.21		**B5/B14**
	91	454	0.9	19.24		**B5/B14**
	70	589	0.8	24.99		**B5/B14**
5.5						
(7.5 hp)	**468**	108	1.4	3.74	**CMG032**	**B5/B14**
	389	130	1.2	4.50		**B5/B14**
112MB4	**319**	158	0.9	5.48		**B5/B14**
(1750 min^{-1})	**277**	182	1.0	6.31		**B5/B14**
	468	108	2.1	3.74	**CMG042**	**B5/B14**
	389	130	1.8	4.50		**B5/B14**
	319	158	1.5	5.48		**B5/B14**
	277	182	1.4	6.31		**B5/B14**
	221	229	1.1	7.93		**B5/B14**
	193	262	1.1	9.08		**B5/B14**
	160	315	0.9	10.93		**B5/B14**
	139	363	1.0	12.60		**B5/B14**
	132	383	0.9	13.30		**B5/B14**
	114	441	1.0	15.30		**B5/B14**

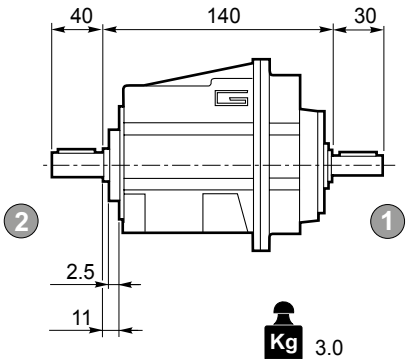
Dimensiones | ***Dimensões*** | **Dimensions**

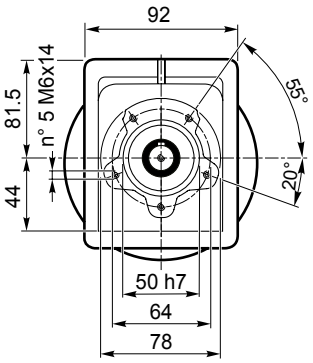
CMG 002 U

CMG 002 U



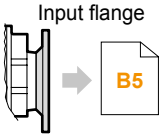
CMGIS 002 U



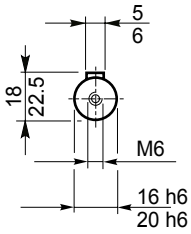


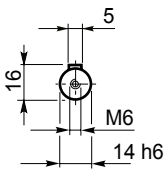
[1)]IEC 63/71, [2)]IEC 80

Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2



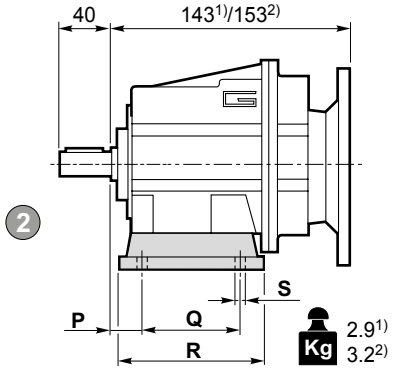


Eje de entrada
Eixo entrada
Input shaft
1

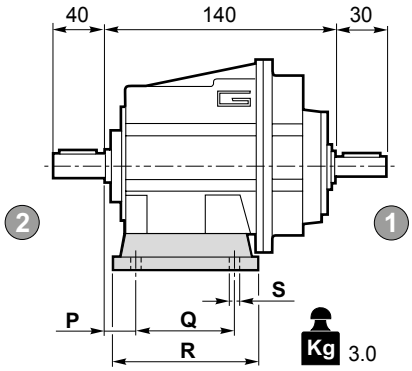
Dimensiones | ***Dimensões*** | **Dimensions**

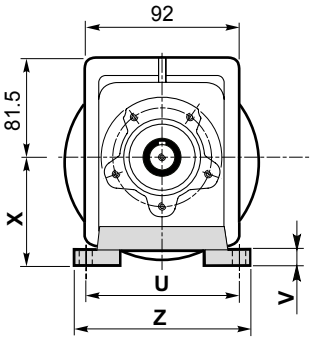
CMG 002 H..

CMG 002 H..



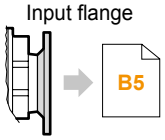
CMGIS 002 H..



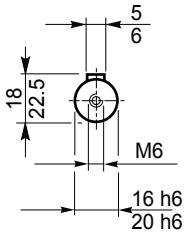


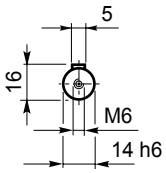
[1)]IEC 63/71, [2)]IEC 80

Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





Eje de entrada
Eixo entrada
Input shaft
1

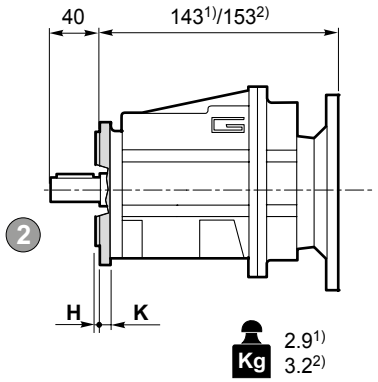
Versión H / *Versão H* / H Version										
CMG CMGIS	**P**	**Q**	**R**	**S**	**U**	**V**	**X**	**Z**	**Patas / *Base* / Foot**	
									Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
002	**18**	**60**	**80**	**9**	**100**	**10**	**60**	**120**	**H60**	**0.2**
	18	80	104	9	110 - 120	10	75	145	H75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

Preferencial / *Preferencial* / Preferred

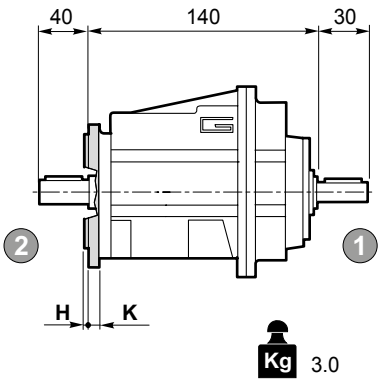
Dimensiones | ***Dimensões*** | **Dimensions**

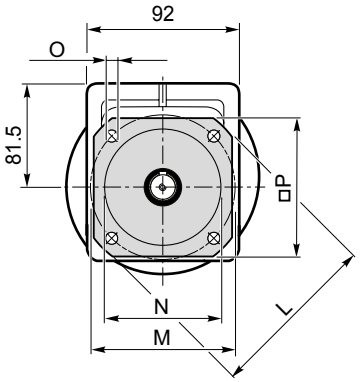
CMG 002 F..

CMG 002 F..



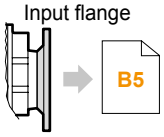
CMGIS 002 F..



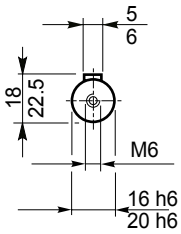


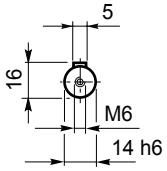
[1]IEC 63/71, [2]IEC 80

Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





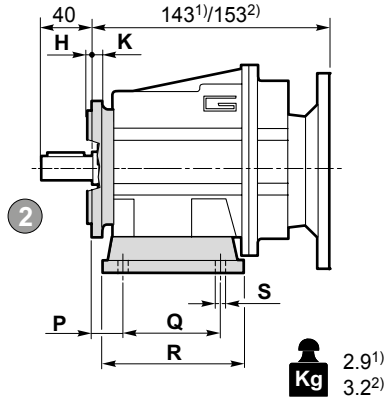
Eje de entrada
Eixo entrada
Input shaft
1

Versión F / *Versão F* / F Version									
CMG CMGIS	**H**	**K**	**L**	**M**	**N** f7	**O**	**P**	**Brida / *Flange* / Flange**	
								Tipo / *Tipo* / Type	Peso / *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

Dimensiones | ***Dimensões*** | **Dimensions**

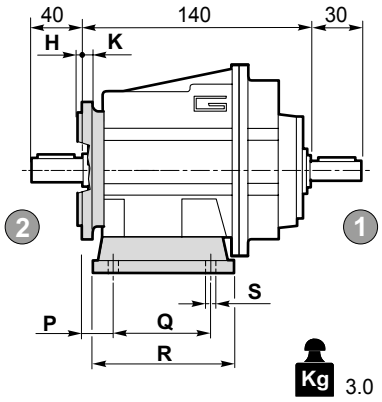
CMG 002 H../F..

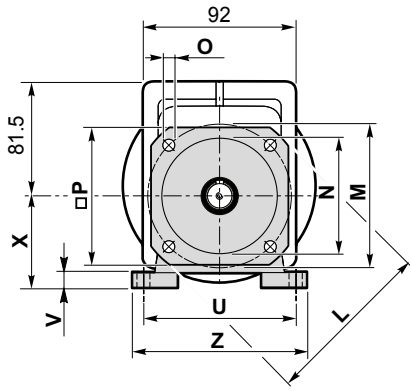
CMG 002 H../F..



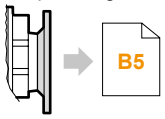
[1]IEC 63/71, [2]IEC 80

CMGIS 002 H../F..

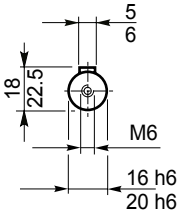


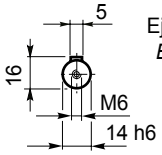


Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





Eje de entrada
Eixo entrada
Input shaft
1

Versión H / *Versão H* / H Version											Combinaciones posibles H/F *Combinações possíveis H/F* Possible combinations H/F		
CMG CMGIS	P	Q	R	S	U	V	X	Z	Patas / *Base* / Foot Tipo / *Tipo* / Type	Kg	F105	F120	F140
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	•	•	•

Preferencial / *Preferencial* / Preferred

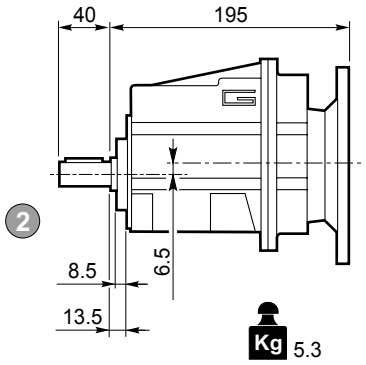
• Combinaciones posibles H/F / *Combinações possíveis H/F* / Possible combinations H/F

Versión F / *Versão F* / F Version									
CMG CMGIS	H	K	L	M	N f7	O	P	Brida / *Flange* / Flange Tipo / *Tipo* / Type	Peso / *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

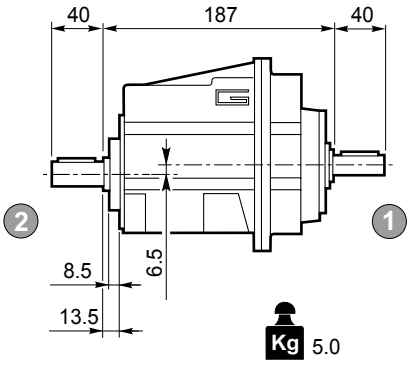
Dimensiones | ***Dimensões*** | **Dimensions**

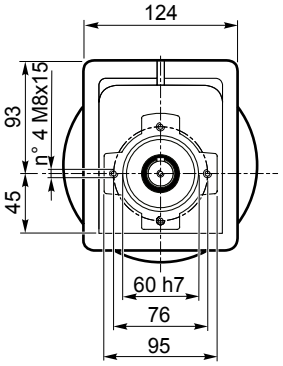
CMG 012 U - CMG 013 U

CMG 012 U

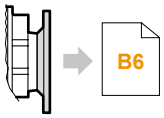


CMGIS 012 U

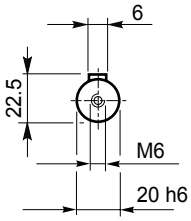


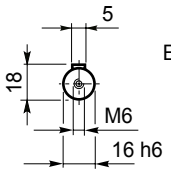


Bridas Motor
Flange do motor
Input flange



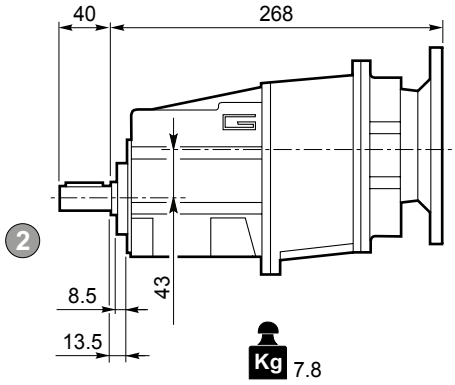
Eje de salida
Eixo saída
Output shaft
2



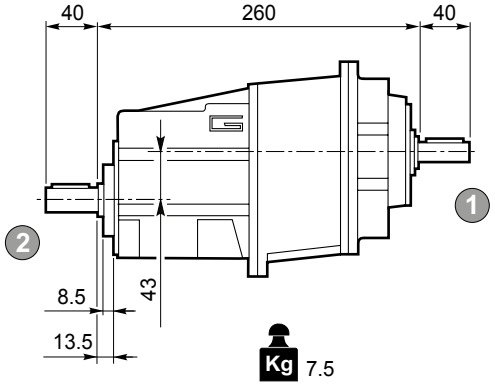


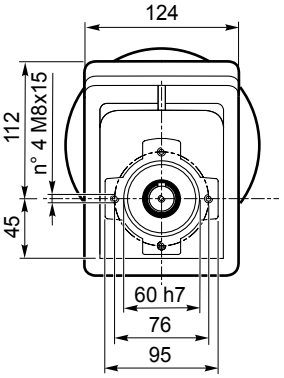
Eje de entrada
Eixo entrada
Input shaft
1

CMG 013 U

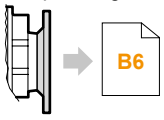


CMGIS 013 U

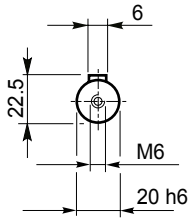


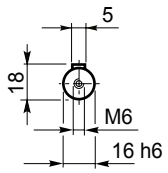


Bridas Motor
Flange do motor
Input flange

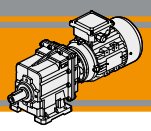


Eje de salida
Eixo saída
Output shaft
2





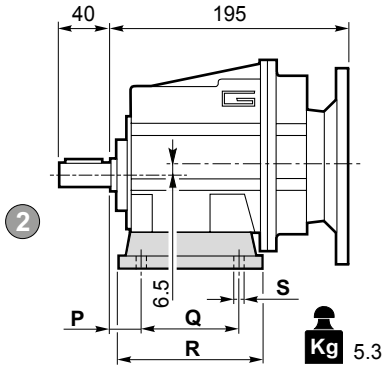
Eje de entrada
Eixo entrada
Input shaft
1



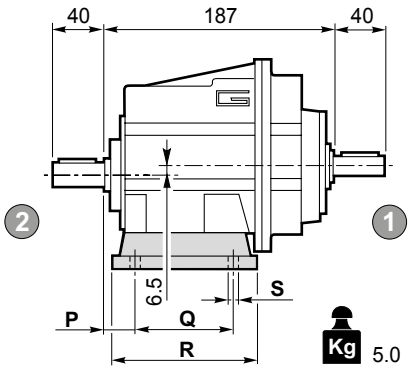
Dimensiones | *Dimensões* | Dimensions

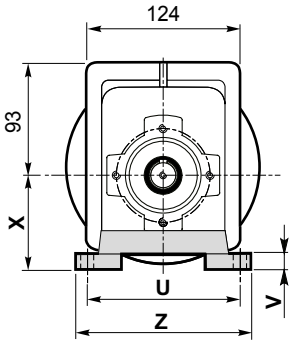
CMG 012 H.. - CMG 013 H..

CMG 012 H..

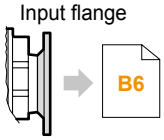


CMGIS 012 H..

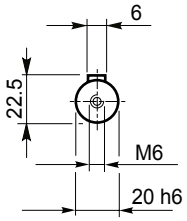


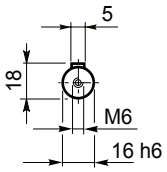


Bridas Motor
Flange do motor
Input flange



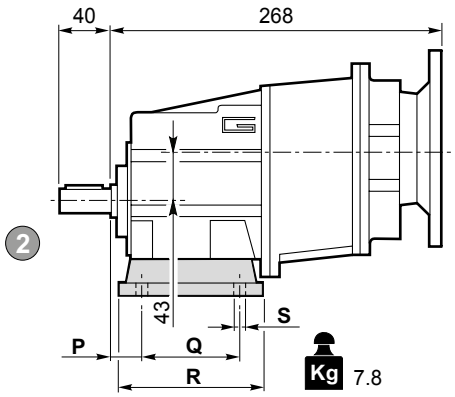
Eje de salida
Eixo saída
Output shaft
2



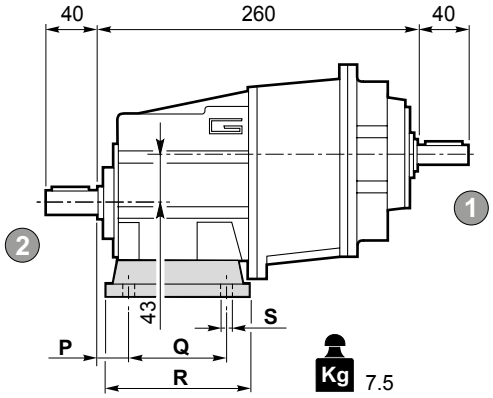


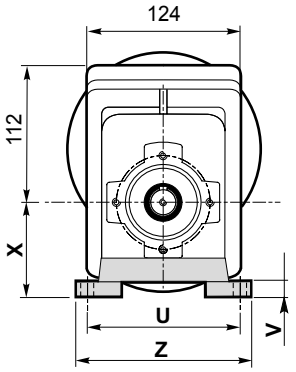
Eje de entrada
Eixo entrada
Input shaft
1

CMG 013 H..

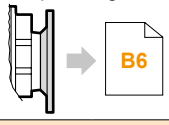


CMGIS 013 H..

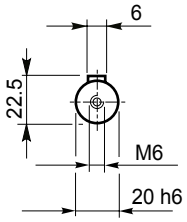


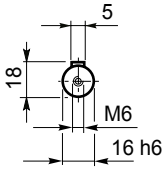


Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





Eje de entrada
Eixo entrada
Input shaft
1

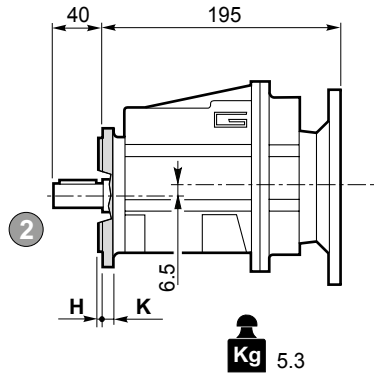
Versión H / *Versão H* / H Version										
CMG CMGIS	**P**	**Q**	**R**	**S**	**U**	**V**	**X**	**Z**	**Patas / *Base* / Foot**	
									Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
012 013	**20**	**85**	**108**	**9**	**115**	**12**	**65**	**139**	**H65**	**0.7**
	18	80	118	9	110	12	75	140	**H75**	1.0
	25	85	120	9	120	12	80	140	**H80**	1.1
	18	50 - 87	118	9	110	12	85	130	**H85**	1.2
	25	130	154	9	110	12	90	135	**H90**	1.5
	18	60 - 107.5	135	11	130	12	100	155	**H100**	1.7

Preferencial / *Preferencial* / Preferred

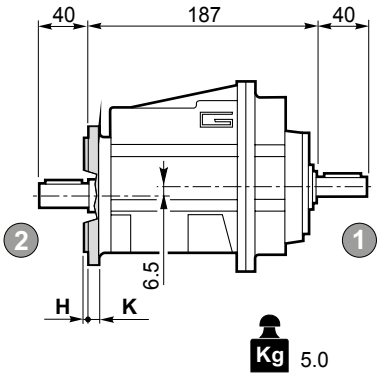
Dimensiones | *Dimensões* | Dimensions

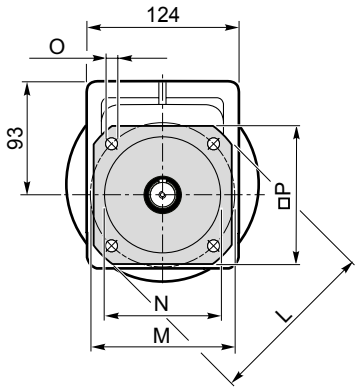
CMG 012 F.. - CMG 013 F..

CMG 012 F..

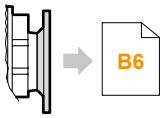


CMGIS 012 F..

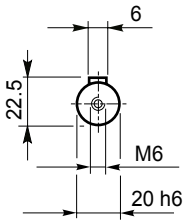


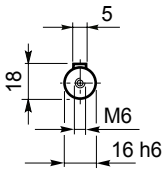


Bridas Motor
Flange do motor
Input flange



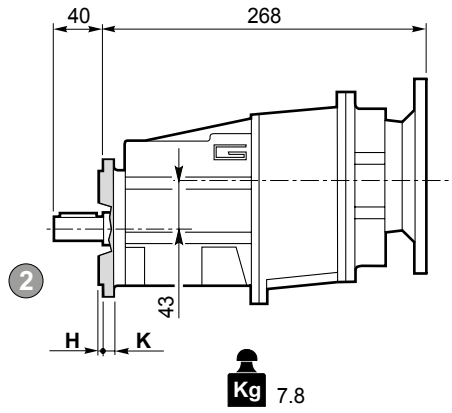
Eje de salida
Eixo saída
Output shaft
2



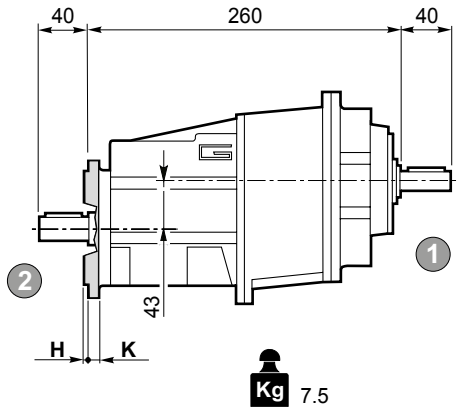


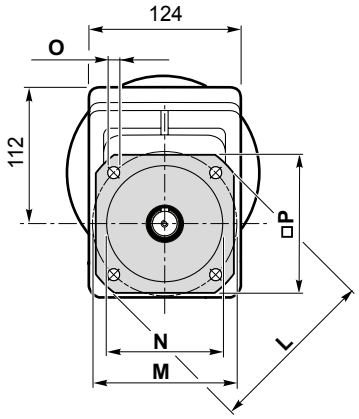
Eje de entrada
Eixo entrada
Input shaft
1

CMG 013 F..

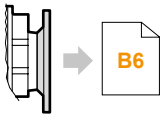


CMGIS 013 F..

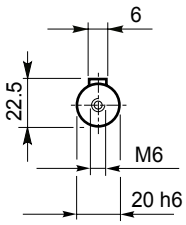


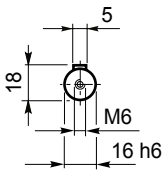


Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





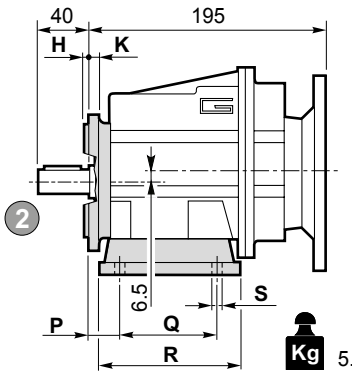
Eje de entrada
Eixo entrada
Input shaft
1

Versión F / *Versão F* / F Version									
CMG CMGIS	**H**	**K**	**L**	**M**	**N** f7	**O**	**P**	**Brida / *Flange* / Flange**	
								Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
012 013	3	9	120	100	80	9	106	**F120**	0.5
	3.5	9	140	115	95	9	115	**F140**	0.8
	3.5	9	160	130	110	9	126	**F160**	1.1
	3.5	11	200	165	130	11	165	**F200**	1.8

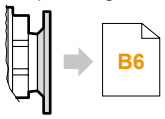
Dimensiones | ***Dimensões*** | **Dimensions**

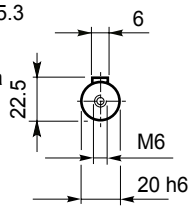
CMG 012 H../F.. - CMG 013 H../F..

CMG 012 H../F..



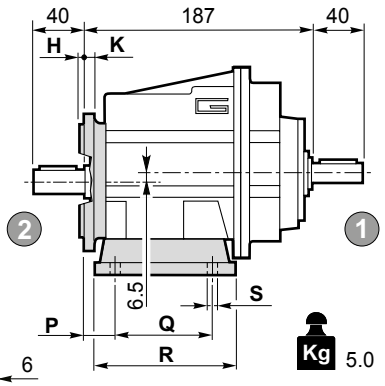
Bridas Motor
Flange do motor
Input flange

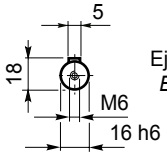




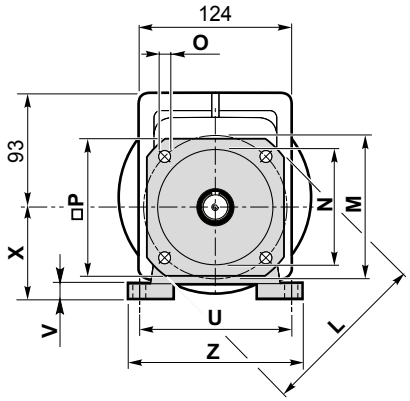
Eje de salida
Eixo saída
Output shaft
2

CMGIS 012 H../F..

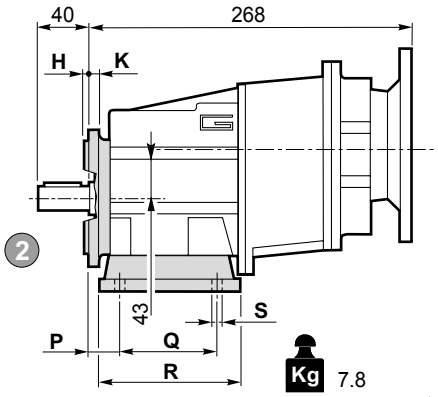




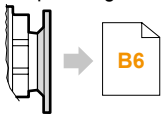
Eje de entrada
Eixo entrada
Input shaft
1

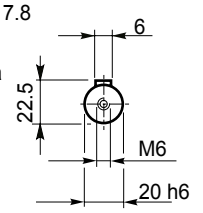


CMG 013 H../F..



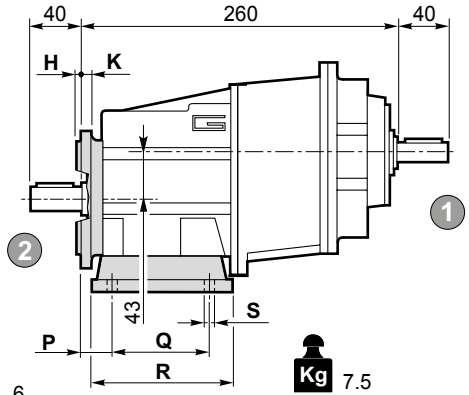
Bridas Motor
Flange do motor
Input flange

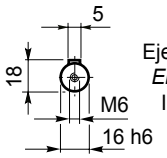




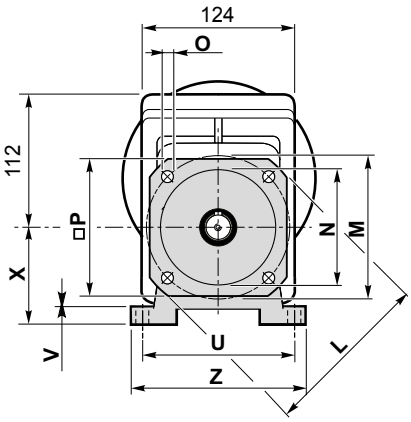
Eje de salida
Eixo saída
Output shaft
2

CMGIS 013 H../F..





Eje de entrada
Eixo entrada
Input shaft
1



CMG CMGIS	P	Q	R	S	U	V	X	Z	Patas / *Base* / Foot		Combinaciones posibles H/F *Combinações possíveis H/F* Possible combinations H/F			
									Tipo / *Tipo* / Type	Kg	F120	F140	F160	F200
012 013	**20**	**85**	**108**	**9**	**115**	**12**	**65**	**139**	**H65**	**0.7**	•	•		
	18	80	118	9	110	12	75	140	**H75**	1.0	•	•	•	
	25	85	120	9	120	12	80	140	**H80**	1.1	•	•	•	
	18	50 - 87	118	9	110	12	85	130	**H85**	1.2	•	•	•	
	25	130	154	9	110	12	90	135	**H90**	1.5	•	•	•	•
	18	60 - 107.5	135	11	130	12	100	155	**H100**	1.7	•	•	•	•

Versión H / ***Versão H*** / **H Version**

Preferencial / *Preferencial* / Preferred • Combinaciones posibles H/F / *Combinações possíveis H/F* / Possible combinations H/F

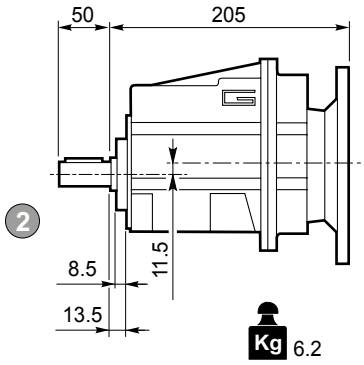
CMG CMGIS	H	K	L	M	N f7	O	P	Brida / *Flange* / Flange	
								Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
012 013	3	9	120	100	80	9	106	**F120**	0.5
	3.5	9	140	115	95	9	115	**F140**	0.8
	3.5	9	160	130	110	9	126	**F160**	1.1
	3.5	11	200	165	130	11	165	**F200**	1.8

Versión F / ***Versão F*** / **F Version**

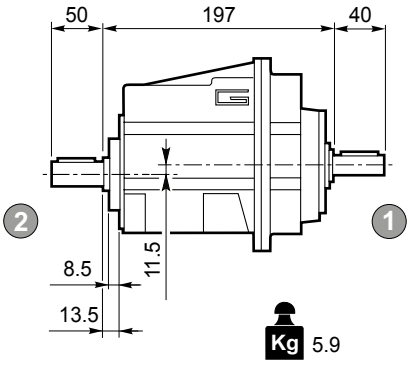
Dimensiones | ***Dimensões*** | **Dimensions**

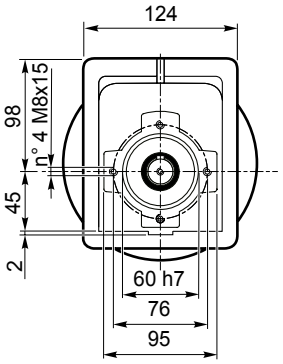
CMG 022 U - CMG 023 U

CMG 022 U

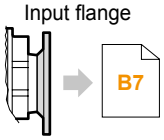


CMGIS 022 U

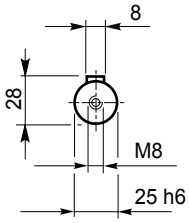


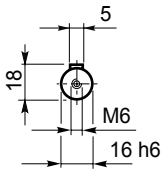


Bridas Motor
Flange do motor
Input flange



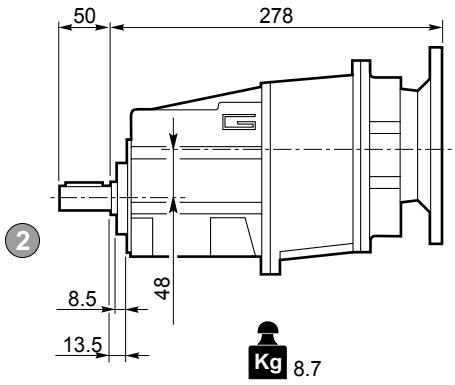
Eje de salida
Eixo saída
Output shaft
2



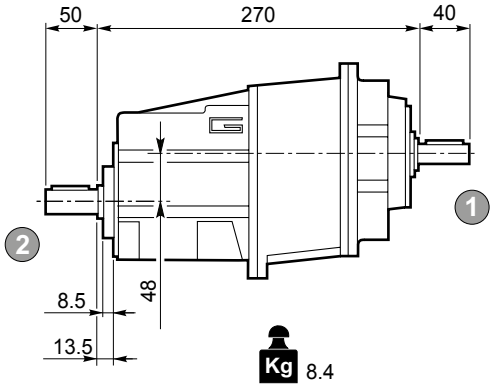


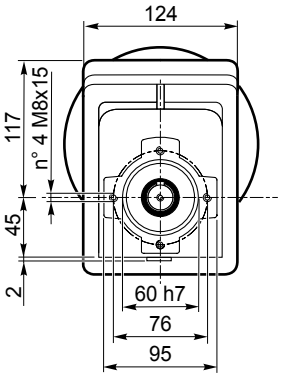
Eje de entrada
Eixo entrada
Input shaft
1

CMG 023 U

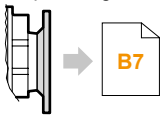


CMGIS 023 U

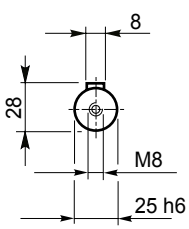


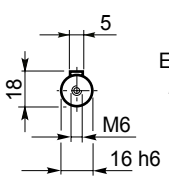


Bridas Motor
Flange do motor
Input flange

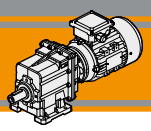


Eje de salida
Eixo saída
Output shaft
2





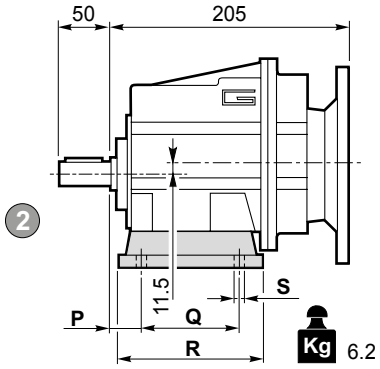
Eje de entrada
Eixo entrada
Input shaft
1



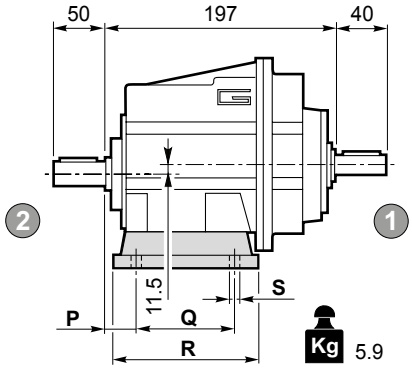
Dimensiones | *Dimensões* | Dimensions

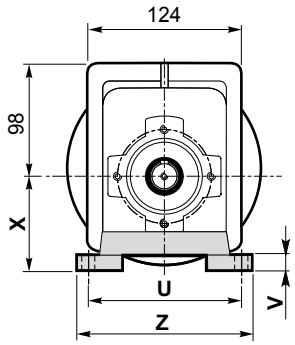
CMG 022 H.. - CMG 023 H..

CMG 022 H..

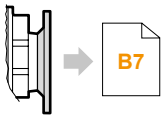


CMGIS 022 H..

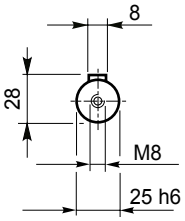


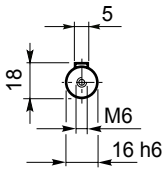


Bridas Motor
Flange do motor
Input flange



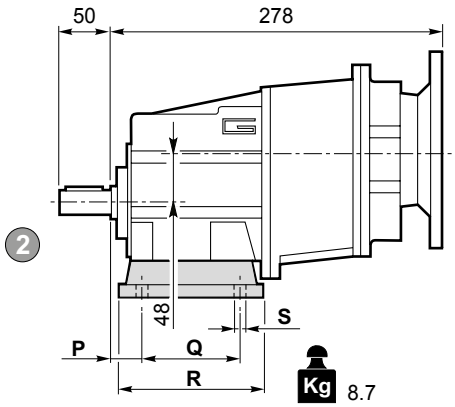
Eje de salida
Eixo saída
Output shaft
2



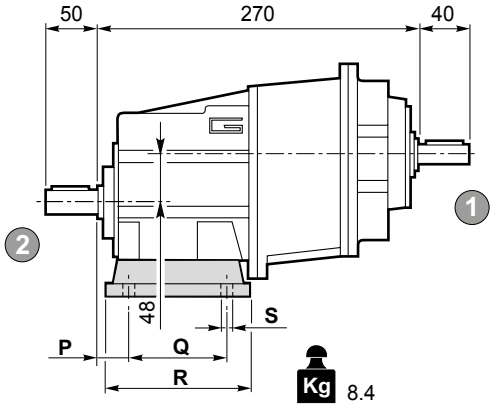


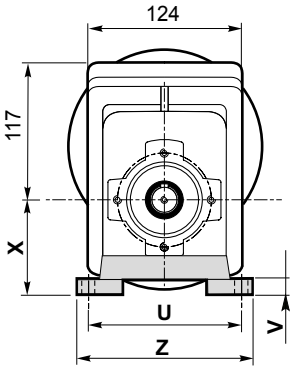
Eje de entrada
Eixo entrada
Input shaft
1

CMG 023 H..

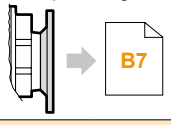


CMGIS 023 H..

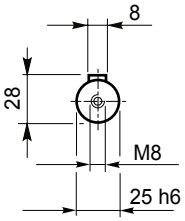


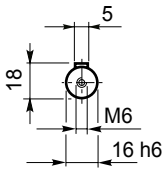


Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





Eje de entrada
Eixo entrada
Input shaft
1

Versión H / *Versão H* / H Version

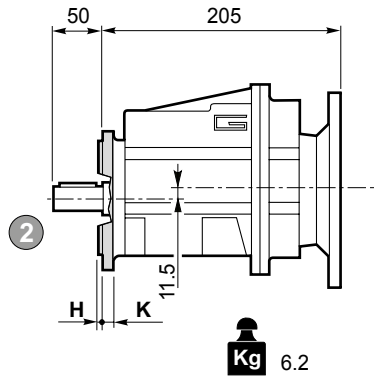
CMG CMGIS	P	Q	R	S	U	V	X	Z	Patas / *Base* / Foot	
									Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
022 023	**20**	**85**	**108**	**9**	**115**	**12**	**65**	**139**	**H65**	**0.7**
	18	80	118	9	110	12	75	140	**H75**	1.0
	25	85	120	9	120	12	80	140	**H80**	1.1
	18	50 - 87	118	9	110	12	85	130	**H85**	1.2
	25	130	154	9	110	12	90	135	**H90**	1.5
	18	60 - 107.5	135	11	130	12	100	155	**H100**	1.7

Preferencial / *Preferencial* / Preferred

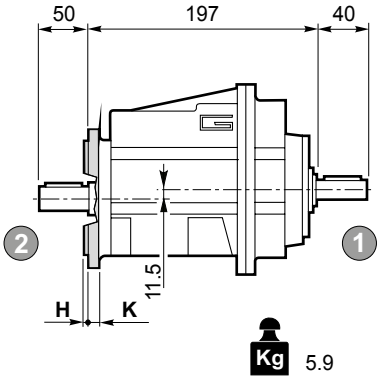
Dimensiones | *Dimensões* | Dimensions

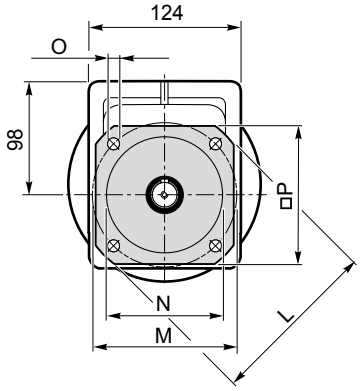
CMG 022 F.. - CMG 023 F..

CMG 022 F..

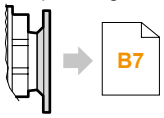


CMGIS 022 F..

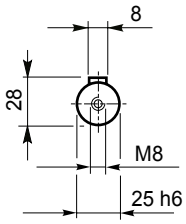


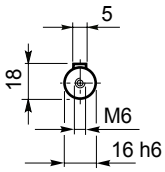


Bridas Motor
Flange do motor
Input flange



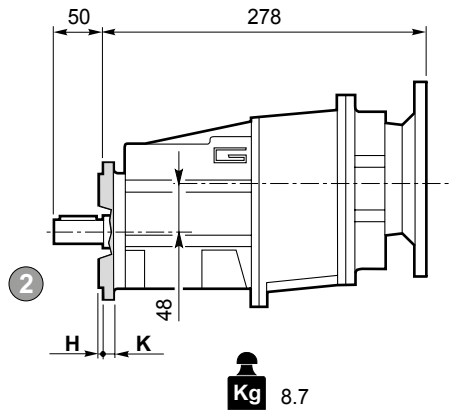
Eje de salida
Eixo saída
Output shaft
2



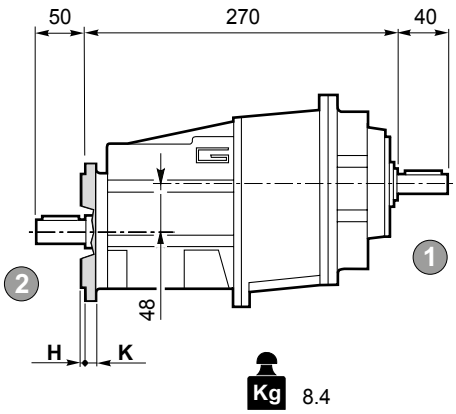


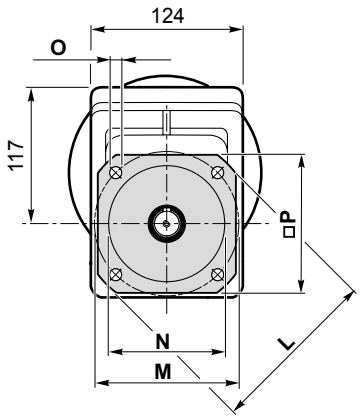
Eje de entrada
Eixo entrada
Input shaft
1

CMG 023 F..

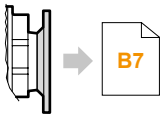


CMGIS 023 F..

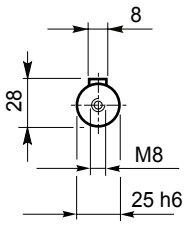


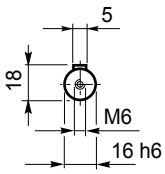


Bridas Motor
Flange do motor
Input flange



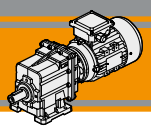
Eje de salida
Eixo saída
Output shaft
2





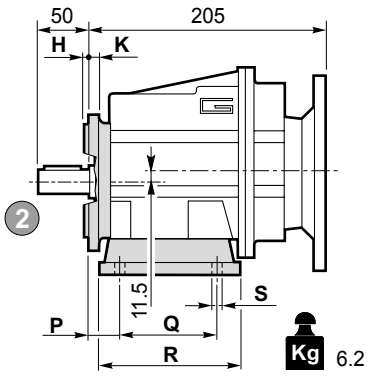
Eje de entrada
Eixo entrada
Input shaft
1

Versión F / *Versão F* / F Version									
CMG CMGIS	**H**	**K**	**L**	**M**	**N** f7	**O**	**P**	**Brida / *Flange* / Flange**	
								Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
022 023	3	9	120	100	80	9	106	**F120**	0.5
	3.5	9	140	115	95	9	115	**F140**	0.8
	3.5	9	160	130	110	9	126	**F160**	1.1
	3.5	11	200	165	130	11	165	**F200**	1.8

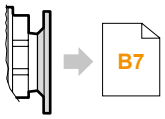


CMG 022 H../F.. - CMG 023 H../F..

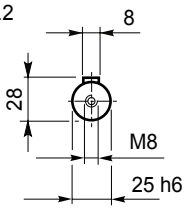
CMG 022 H../F..



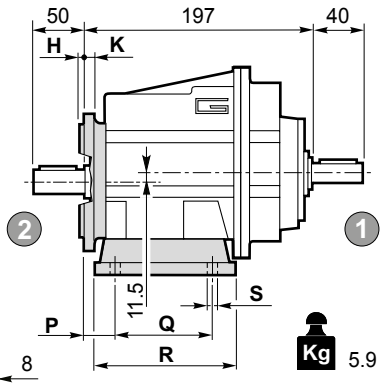
Bridas Motor
Flange do motor
Input flange

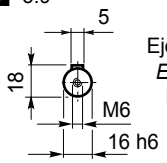


Eje de salida
Eixo saída
Output shaft
2

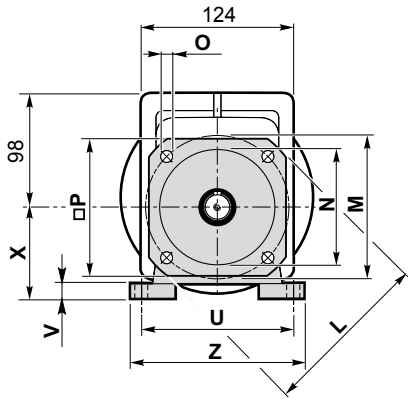


CMGIS 022 H../F..

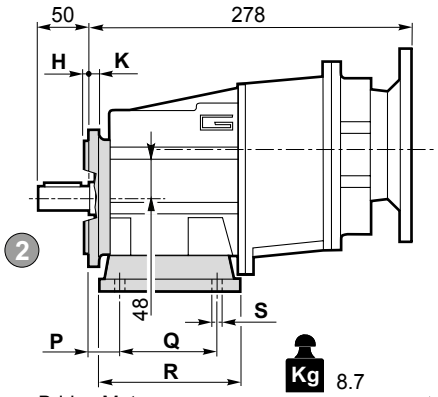




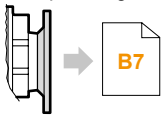
Eje de entrada
Eixo entrada
Input shaft
1



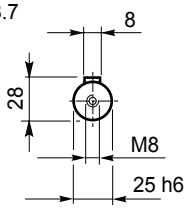
CMG 023 H../F..



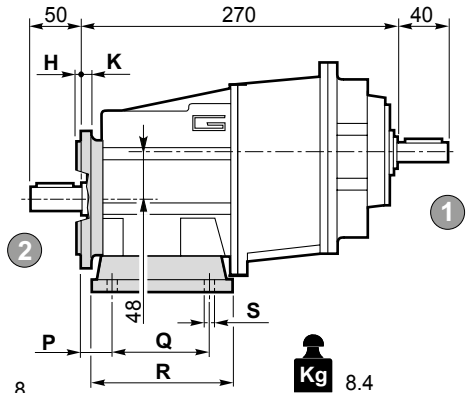
Bridas Motor
Flange do motor
Input flange

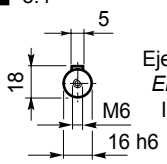


Eje de salida
Eixo saída
Output shaft
2

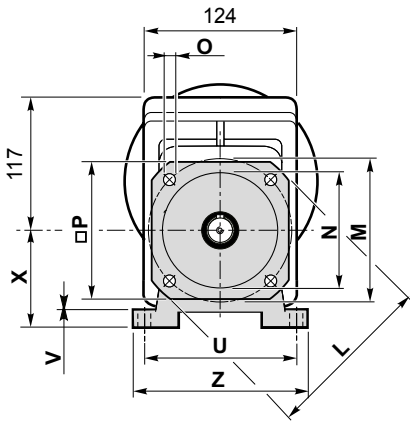


CMGIS 023 H../F..





Eje de entrada
Eixo entrada
Input shaft
1



Versión H / *Versão H* / H Version											Combinaciones posibles H/F *Combinações possíveis H/F* Possible combinations H/F			
CMG CMGIS	P	Q	R	S	U	V	X	Z	Patas / *Base* / Foot		F120	F140	F160	F200
									Tipo / *Tipo* / Type	Kg				
022 023	**20**	**85**	**108**	**9**	**115**	**12**	**65**	**139**	**H65**	**0.7**	•	•		
	18	80	118	9	110	12	75	140	**H75**	1.0	•	•	•	
	25	85	120	9	120	12	80	140	**H80**	1.1	•	•	•	
	18	50 - 87	118	9	110	12	85	130	**H85**	1.2	•	•	•	
	25	130	154	9	110	12	90	135	**H90**	1.5	•	•	•	•
	18	60 - 107.5	135	11	130	12	100	155	**H100**	1.7	•	•	•	•

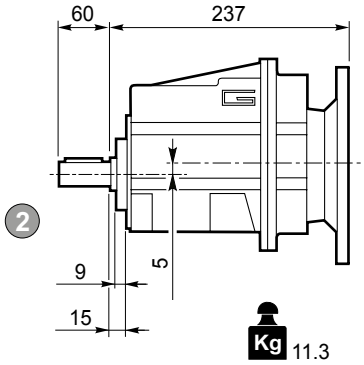
Preferencial / *Preferencial* / Preferred • Combinaciones posibles H/F / *Combinações possíveis H/F* / Possible combinations H/F

Versión F / *Versão F* / F Version									
CMG CMGIS	H	K	L	M	N f7	O	P	Brida / *Flange* / Flange	
								Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
022 023	3	9	120	100	80	9	106	**F120**	0.5
	3.5	9	140	115	95	9	115	**F140**	0.8
	3.5	9	160	130	110	9	126	**F160**	1.1
	3.5	11	200	165	130	11	165	**F200**	1.8

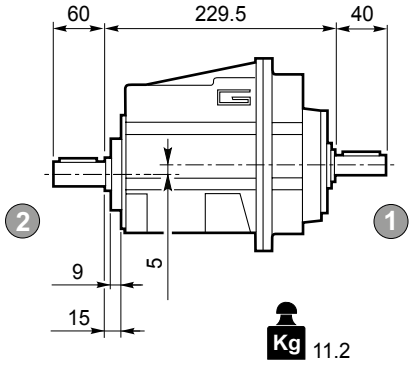
Dimensiones | ***Dimensões*** | **Dimensions**

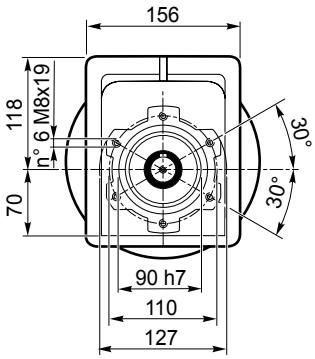
CMG 032 U - CMG 033 U

CMG 032 U

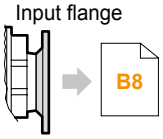


CMGIS 032 U

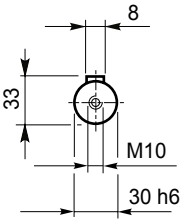


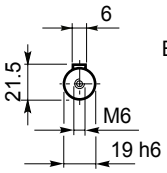


Bridas Motor
Flange do motor
Input flange



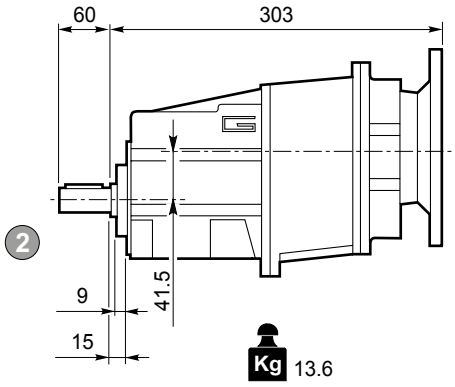
Eje de salida
Eixo saída
Output shaft
2



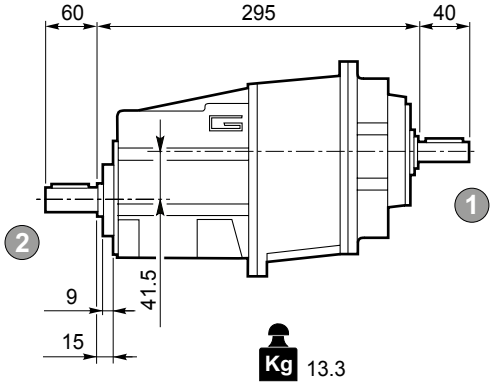


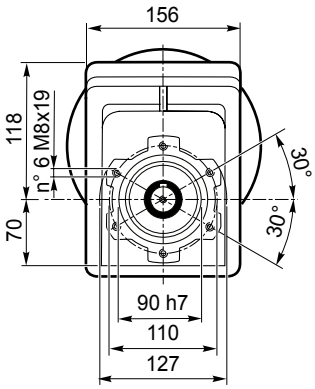
Eje de entrada
Eixo entrada
Input shaft
1

CMG 033 U

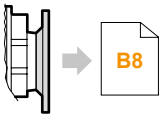


CMGIS 033 U

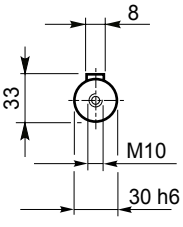


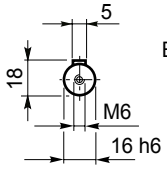


Bridas Motor
Flange do motor
Input flange

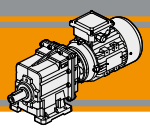


Eje de salida
Eixo saída
Output shaft
2





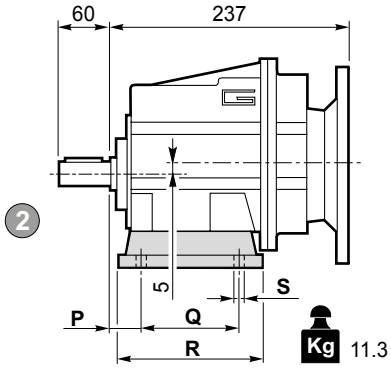
Eje de entrada
Eixo entrada
Input shaft
1



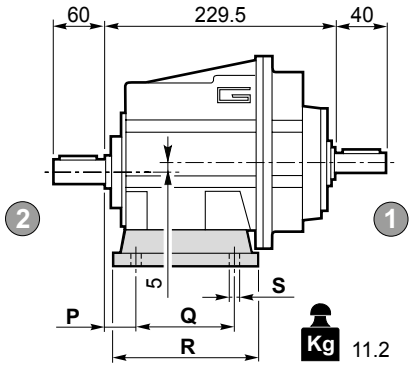
Dimensiones | *Dimensões* | Dimensions

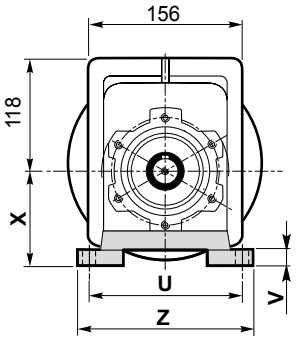
CMG 032 H.. - CMG 033 H..

CMG 032 H..

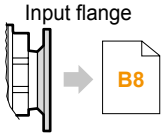


CMGIS 032 H..

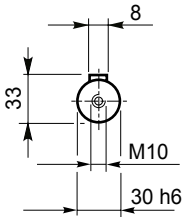


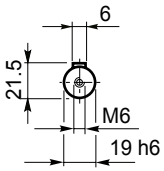


Bridas Motor
Flange do motor
Input flange



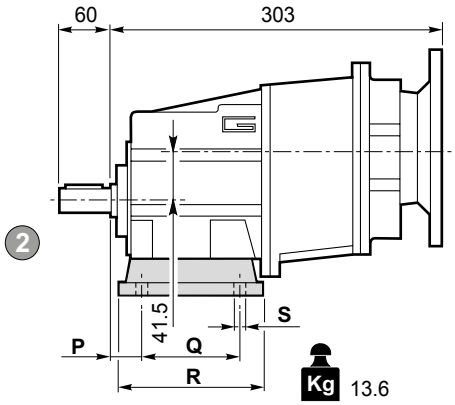
Eje de salida
Eixo saída
Output shaft
2



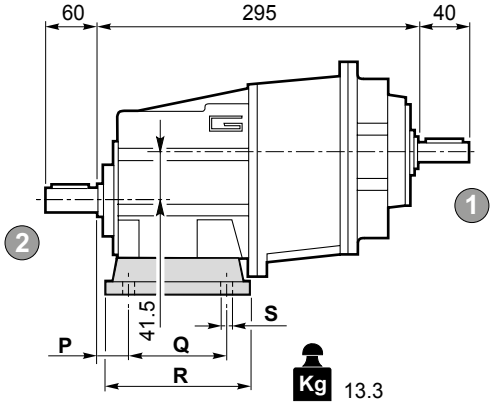


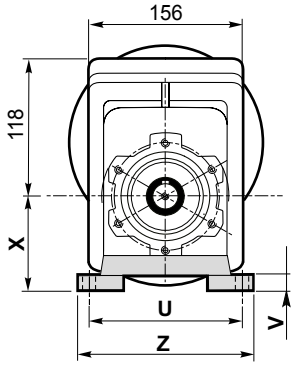
Eje de entrada
Eixo entrada
Input shaft
1

CMG 033 H..

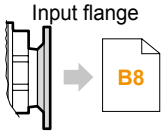


CMGIS 033 H..

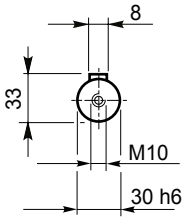


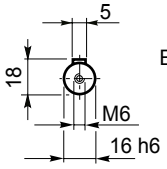


Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





Eje de entrada
Eixo entrada
Input shaft
1

Versión H / *Versão H* / H Version

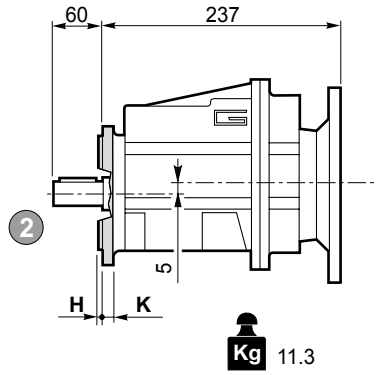
CMG CMGIS	P	Q	R	S	U	V	X	Z	Patas / *Base* / Foot	
									Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
032 033	**30**	**105**	**136**	**14**	**160**	**14**	**95**	**194**	**H95**	**1.5**
	30	100	150	11	150	14	110	185	**H110**	1.9
	18	70			160					
	30	165	195	14	135	14	115	170	**H115**	2.2
	35	110	160	14	170	14	120	210	**H120**	2.6
	19.5	149.5	184	14	180	18	130	214	**H130**	2.9

Preferencial / *Preferencial* / Preferred

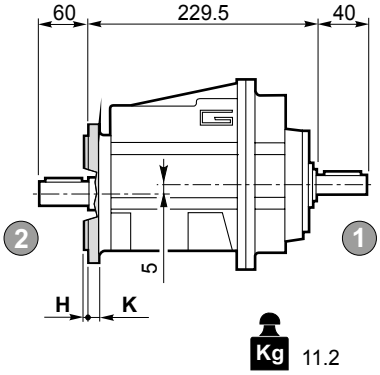
Dimensiones | *Dimensões* | Dimensions

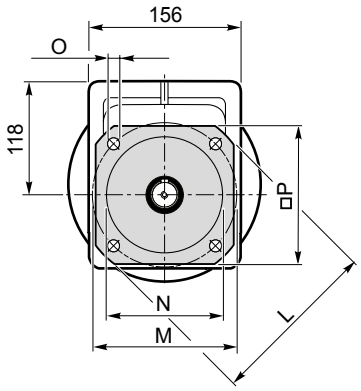
CMG 032 F.. - CMG 033 F..

CMG 032 F..

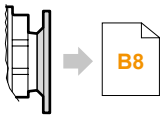


CMGIS 032 F..

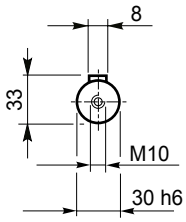


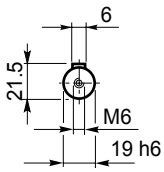


Bridas Motor
Flange do motor
Input flange



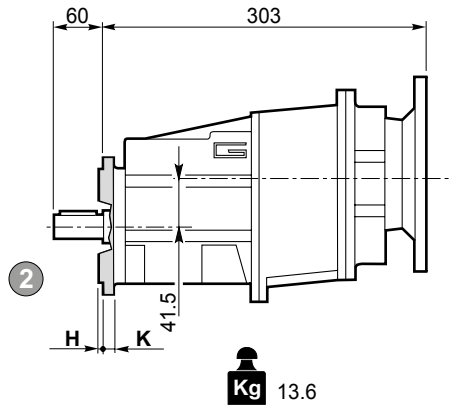
Eje de salida
Eixo saída
Output shaft
2



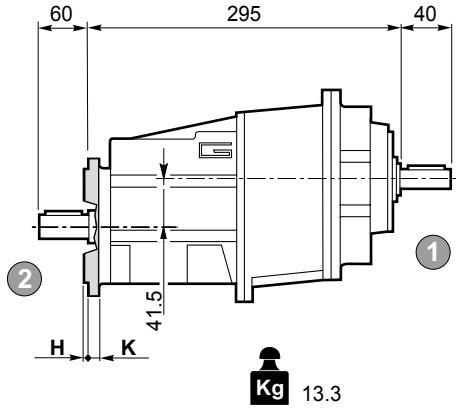


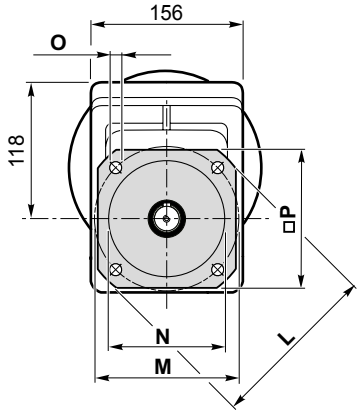
Eje de entrada
Eixo entrada
Input shaft
1

CMG 033 F..

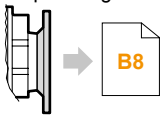


CMGIS 033 F..

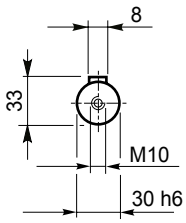


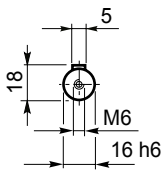


Bridas Motor
Flange do motor
Input flange



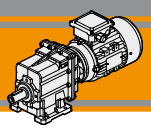
Eje de salida
Eixo saída
Output shaft
2





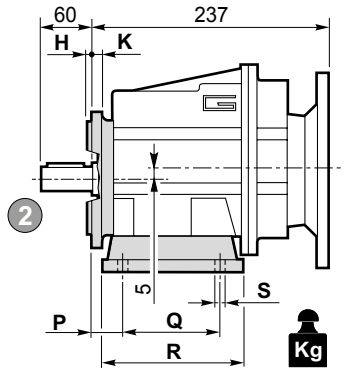
Eje de entrada
Eixo entrada
Input shaft
1

Versión F / *Versão F* / F Version									
CMG CMGIS	H	K	L	M	N f7	O	P	Brida / *Flange* / Flange	
								Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
032 033	3.5	11	160	130	110	9	140	**F160**	1.0
	3.5	11	200	165	130	11	165	**F200**	1.8
	4	13	250	215	180	14	215	**F250**	2.9

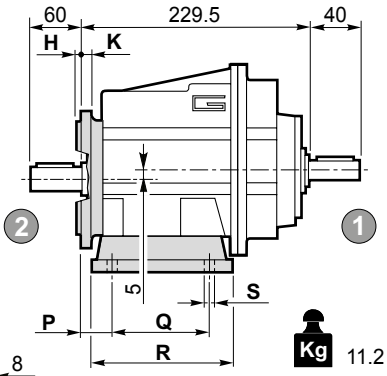


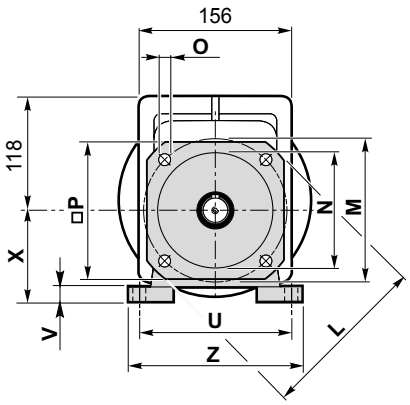
CMG 032 H../F.. - CMG 033 H../F..

CMG 032 H../F..

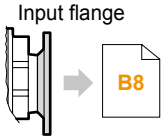


CMGIS 032 H../F..

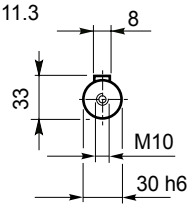


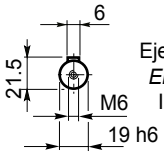


Bridas Motor
Flange do motor
Input flange



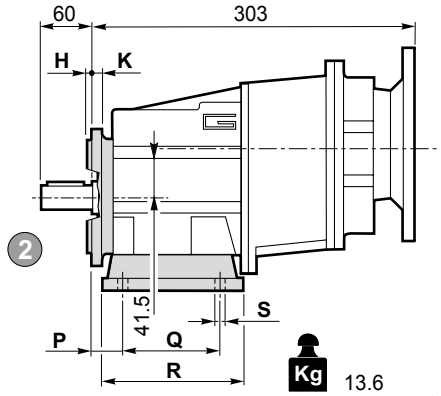
Eje de salida
Eixo saída
Output shaft
2



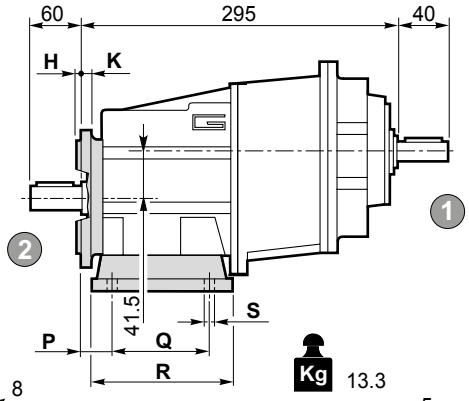


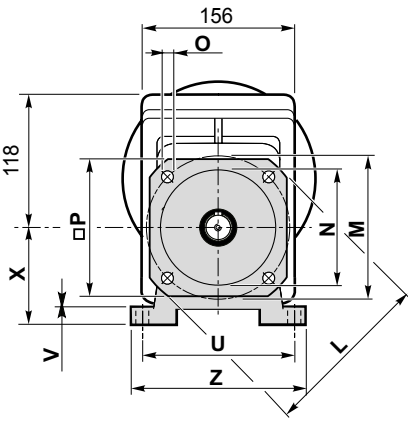
Eje de entrada
Eixo entrada
Input shaft
1

CMG 033 H../F..

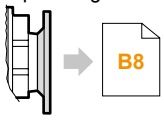


CMGIS 033 H../F..

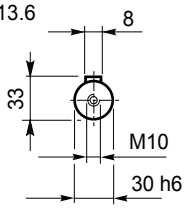


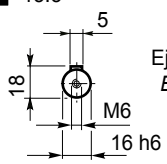


Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





Eje de entrada
Eixo entrada
Input shaft
1

Versión H / *Versão H* / H Version											Combinazioni possibili H/F *Possible combinations H/F*		
CMG CMGIS	P	Q	R	S	U	V	X	Z	Patas / *Base* / Foot		F160	F200	F250
									Tipo / *Tipo* / Type	Kg			
032 033	**30**	**105**	**136**	**14**	**160**	**14**	**95**	**194**	**H95**	**1.5**	•	•	
	30	100	150	11	150	14	110	185	**H110**	1.9	•	•	
	18	70			160								
	30	165	195	14	135	14	115	170	**H115**	2.2	•	•	•
	35	110	160	14	170	14	120	210	**H120**	2.6	•	•	•
	19.5	149.5	184	14	180	18	130	214	**H130**	2.9	•	•	•

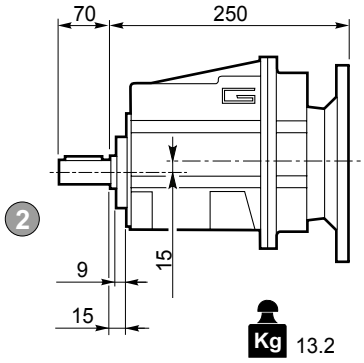
Preferencial / *Preferencial* / Preferred • Combinaciones posibles H/F / *Combinações possíveis H/F* / Possible combinations H/F

Versión F / *Versão F* / F Version									
CMG CMGIS	H	K	L	M	N f7	O	P	Brida / *Flange* / Flange	
								Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
032 033	3.5	11	160	130	110	9	140	**F160**	1.0
	3.5	11	200	165	130	11	165	**F200**	1.8
	4	13	250	215	180	14	215	**F250**	2.9

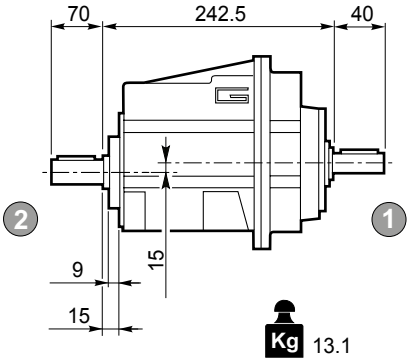
Dimensiones | *Dimensões* | Dimensions

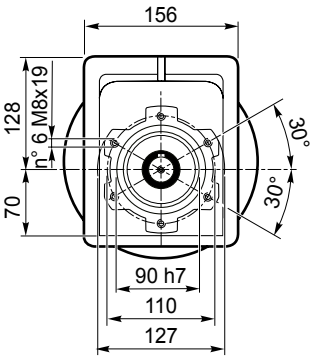
CMG 042 U - CMG 043 U

CMG 042 U

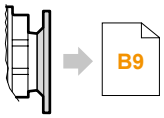


CMGIS 042 U

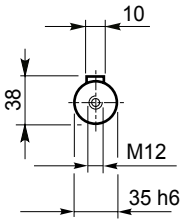


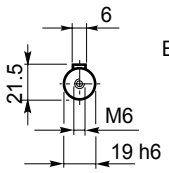


Bridas Motor
Flange do motor
Input flange



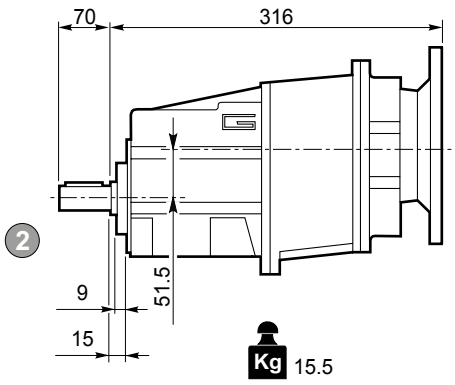
Eje de salida
Eixo saída
Output shaft
2



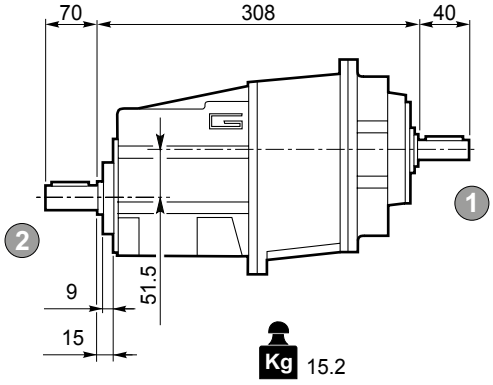


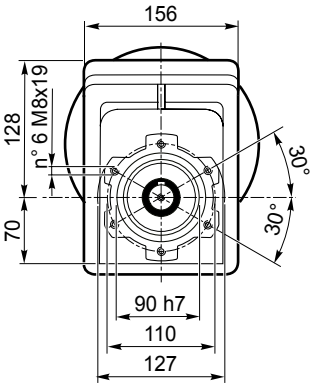
Eje de entrada
Eixo entrada
Input shaft
1

CMG 043 U

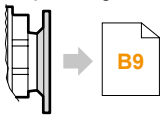


CMGIS 043 U

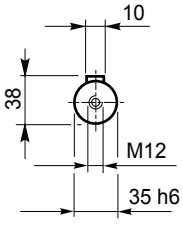


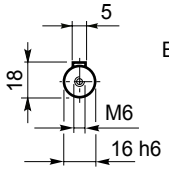


Bridas Motor
Flange do motor
Input flange

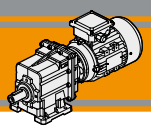


Eje de salida
Eixo saída
Output shaft
2





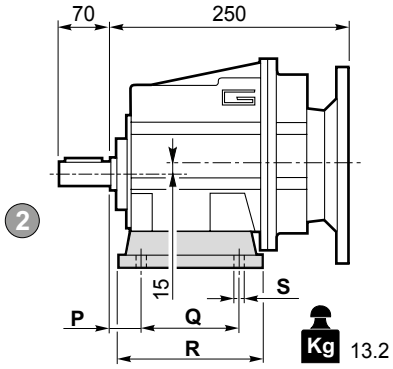
Eje de entrada
Eixo entrada
Input shaft
1



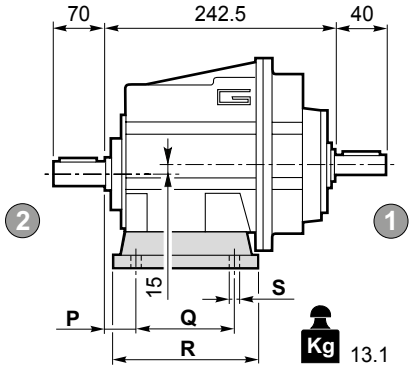
Dimensiones | ***Dimensões*** | **Dimensions**

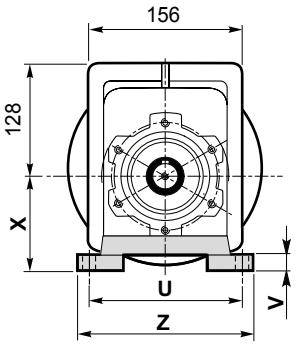
CMG 042 H.. - CMG 043 H..

CMG 042 H..

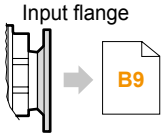


CMGIS 042 H..

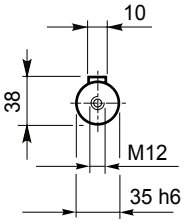


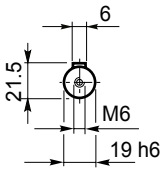


Bridas Motor
Flange do motor
Input flange



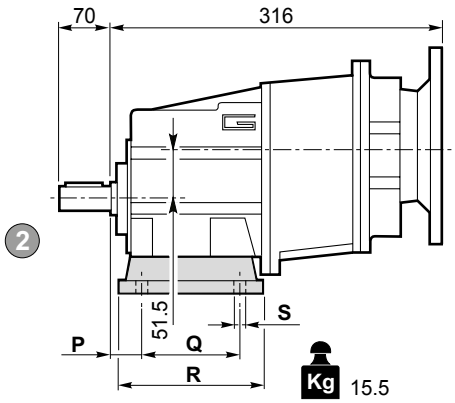
Eje de salida
Eixo saída
Output shaft
2



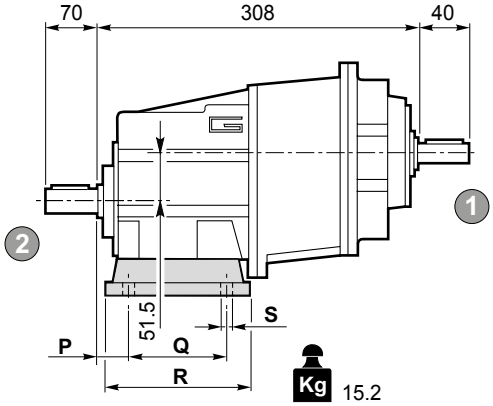


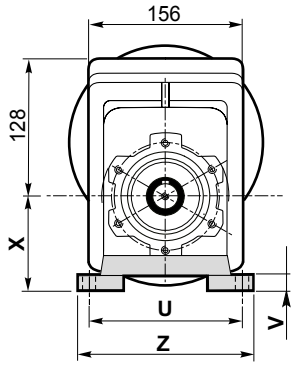
Eje de entrada
Eixo entrada
Input shaft
1

CMG 043 H..

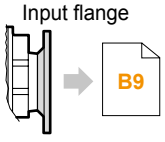


CMGIS 043 H..

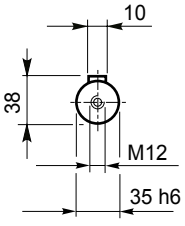


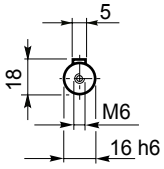


Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





Eje de entrada
Eixo entrada
Input shaft
1

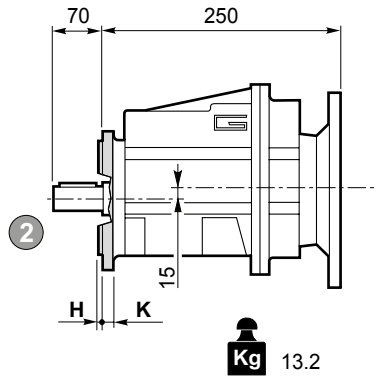
Versión H / *Versão H* / H Version										
CMG CMGIS	**P**	**Q**	**R**	**S**	**U**	**V**	**X**	**Z**	**Patas / *Base* / Foot**	
									Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
042 043	**30**	**105**	**136**	**14**	**160**	**14**	**95**	**194**	**H95**	**1.5**
	30	100	150	11	150	14	110	185	**H110**	1.9
	18	70			160					
	30	165	195	14	135	14	115	170	**H115**	2.2
	35	110	160	14	170	14	120	210	**H120**	2.6
	19.5	149.5	184	14	180	18	130	214	**H130**	2.9

Preferencial / *Preferencial* / Preferred

Dimensiones | *Dimensões* | Dimensions

CMG 042 F.. - CMG 043 F..

CMG 042 F..



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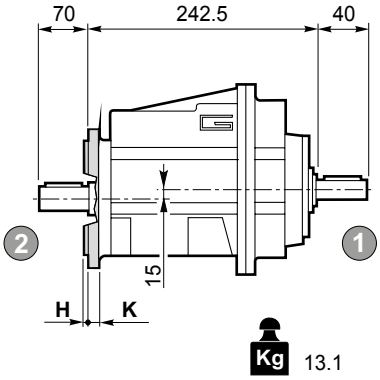
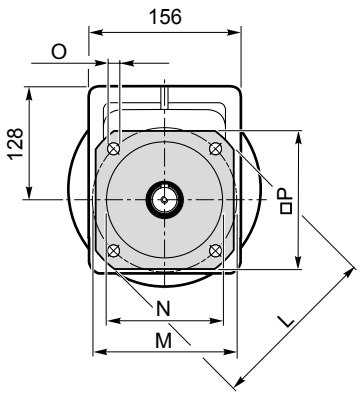
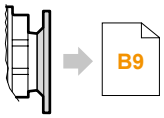
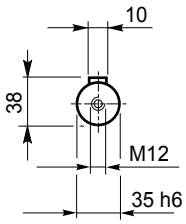


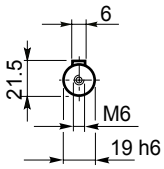


Bridas Motor
Flange do motor
Input flange



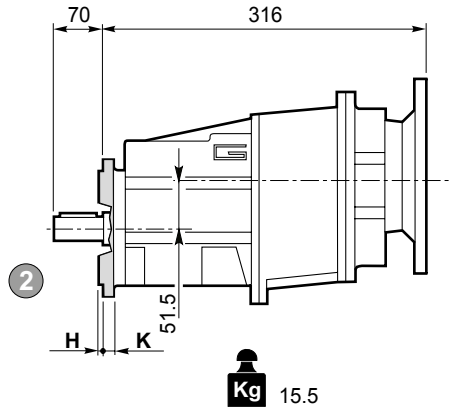
Eje de salida
Eixo saída
Output shaft
2



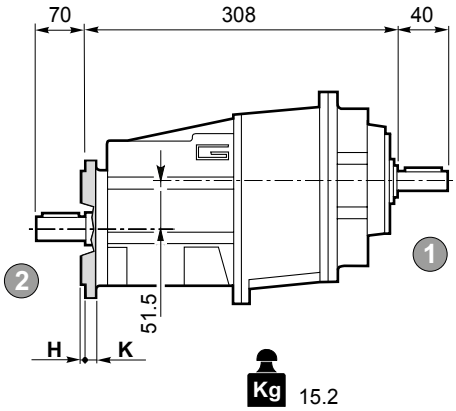


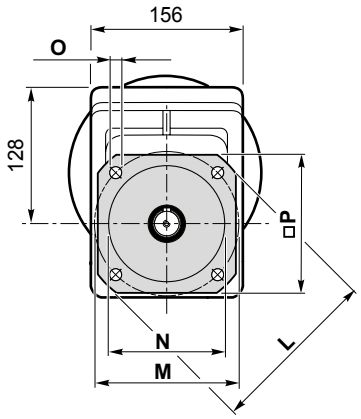
Eje de entrada
Eixo entrada
Input shaft
1

CMG 043 F..

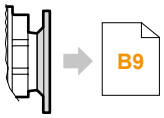


CMGIS 043 F..

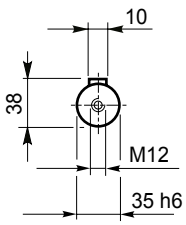


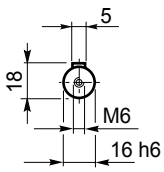


Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2





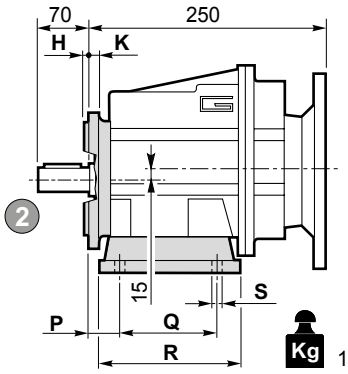
Eje de entrada
Eixo entrada
Input shaft
1

Versión F / *Versão F* / F Version									
CMG CMGIS	**H**	**K**	**L**	**M**	**N** f7	**O**	**P**	**Brida / *Flange* / Flange**	
								Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
042 043	3.5	11	160	130	110	9	140	**F160**	1.0
	3.5	11	200	165	130	11	165	**F200**	1.8
	4	13	250	215	180	14	215	**F250**	2.9

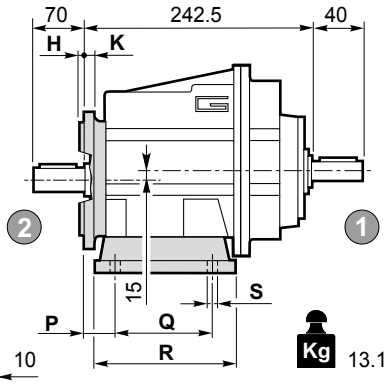
Dimensiones | *Dimensões* | Dimensions

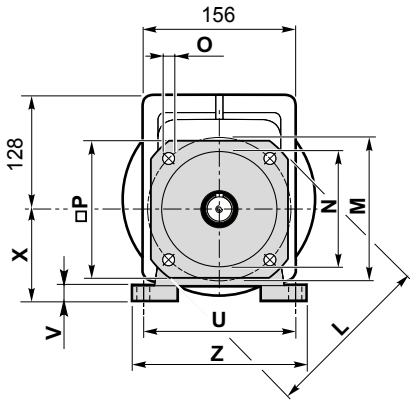
CMG 042 H../F.. - CMG 043 H../F..

CMG 042 H../F..

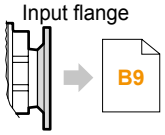


CMGIS 042 H../F..

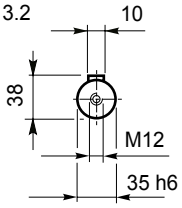


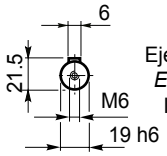


Bridas Motor
Flange do motor
Input flange



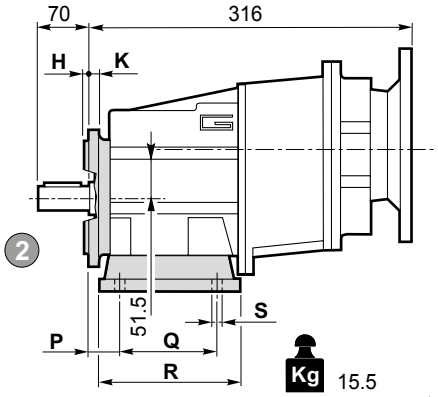
Eje de salida
Eixo saída
Output shaft
2



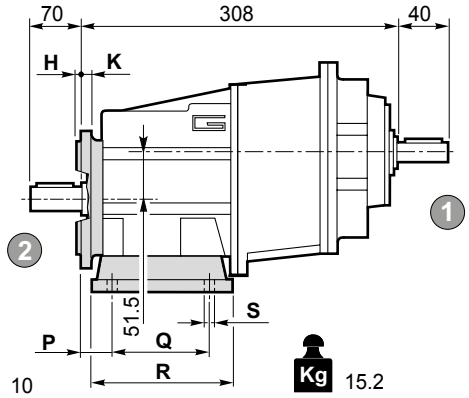


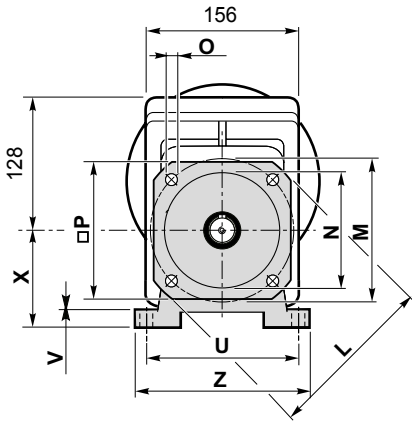
Eje de entrada
Eixo entrada
Input shaft
1

CMG 043 H../F..

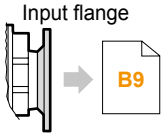


CMGIS 043 H../F..

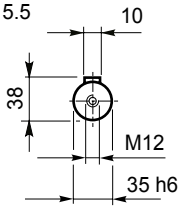


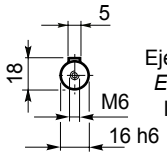


Bridas Motor
Flange do motor
Input flange



Eje de salida
Eixo saída
Output shaft
2



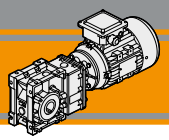


Eje de entrada
Eixo entrada
Input shaft
1

Versión H / *Versão H* / H Version											Combinaciones posibles H/F *Combinações possíveis H/F* Possible combinations H/F		
CMG CMGIS	P	Q	R	S	U	V	X	Z	Patas / *Base* / Foot				
									Tipo / *Tipo* / Type	Kg	F160	F200	F250
042 043	**30**	**105**	**136**	**14**	**160**	**14**	**95**	**194**	**H95**	**1.5**	•	•	
	30	100	150	11	150	14	110	185	**H110**	1.9	•	•	
	18	70			160								
	30	165	195	14	135	14	115	170	**H115**	2.2	•	•	•
	35	110	160	14	170	14	120	210	**H120**	2.6	•	•	•
	19.5	149.5	184	14	180	18	130	214	**H130**	2.9	•	•	•

Preferencial / *Preferencial* / Preferred • Combinaciones posibles H/F / *Combinações possíveis H/F* / Possible combinations H/F

Versión F / *Versão F* / F Version									
CMG CMGIS	H	K	L	M	N f7	O	P	Brida / *Flange* / Flange	
								Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
042 043	3.5	11	160	130	110	9	140	**F160**	1.0
	3.5	11	200	165	130	11	165	**F200**	1.8
	4	13	250	215	180	14	215	**F250**	2.9



ENERGY SAVING

Características técnicas

Los motoreductores de ejes ortogonales serie CMB se caracterizan por un alto grado de modularidad, de hecho, fueron desarollados con una carcasa completamente intercambiable con la de los reductores de tornillo sinfin de la serie CM. Por lo tanto, se configuran de acuerdo con las necesidades de la aplicación: con brida de salida, eje de salida, brazo de reacción.

Características comunes a toda la serie:
- Carcasa en aluminio en los tamaños.
- Engranajes siempre rectificados.
- Lubricación permanente con aceite sintético de larga vida.

Características técnicas

Os motoredutores CMB, são caracterizados por um elevado grau de modularidade: sua carcaça é completamente intercambiável com a série CM (rosca sem-fim). Eles são configurados de acordo com as necessidades da aplicação, com flange de saída, eixo de saída ou braço de torção.

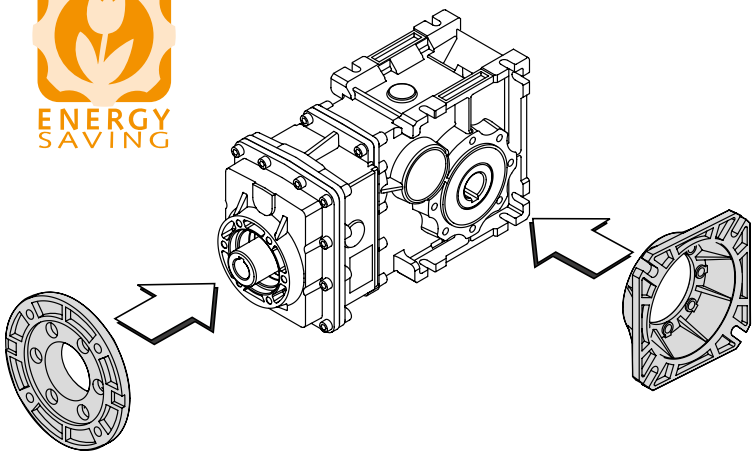
Características comuns a toda a série:
- *Carcaça em alumínio nos tamanhos.*
- *Lubrificação permanente com óleo sintético.*
- *Lubrificação permanente com óleo sintético*

Technical features

The high degree of modularity of CMB helical bevel gearmotors allows it to be completely interchangeable with CM wormgearboxes.
It is possible to set up the version required using output flanges, output shafts and optional torque arms.

Common features of all CMB range are:
- Die-cast aluminum housing.
- Ground helical gears.
- Permanent synthetic oil long-life lubrication.

ENERGY SAVING



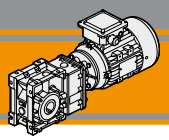
Clasificación / *Designação* / Classification

REDUCTOR / *REDUTOR* / GEARBOX

CMB	63	3	U	9.81	D25	90	B5	SZDX	BRSX	90
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Etapas *Estágios* Stages	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	Eje de salida hueco *Eixo saída vazado* Hollow output shaft	IEC	Forma constructiva *Forma construtiva* Version	ø Eje de salida *ø Eixo saída* ø Output shaft	Brazo de reacción *Braço de reação* Torque arm	Ângulo *Ângulo* Angle
CMB	**40** **50** **63** **90**	**2** **3**	**U** **FD** **FS** **FBD** **FBS** **FLD** **FLS**	Véase tablas *Veja tabelas* see tables	Véase tablas *Veja tabelas* see tables	**56..** **—** **90..**	**B5** **B14**	**SZDX** **SZSX** **DZ**	**BRDX** **BRSX**	**0°** **90°** **180°** **270°**

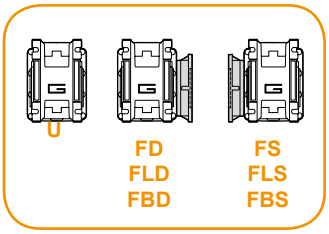
REDUCTOR / *REDUTOR* / GEARBOX

CMBIS	63	3	U	9.81	D25	SZDX	BRSX	90
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Etapas *Estágios* Stages	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	Eje de salida hueco *Eixo saída vazado* Hollow output shaft	ø Eje de salida *ø Eixo saída* ø Output shaft	Brazo de reacción *Braço de reação* Torque arm	Ângulo *Ângulo* Angle
CMBIS	**40** **50** **63** **90**	**2** **3**	**U** **FD** **FS** **FBD** **FBS** **FLD** **FLS**	Véase tablas *Veja tabelas* see tables	Véase tablas *Veja tabelas* see tables	**SZDX** **SZSX** **DZ**	**BRDX** **BRSX**	**0°** **90°** **180°** **270°**

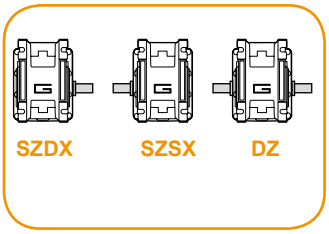


Clasificación — *Designação* — Classification

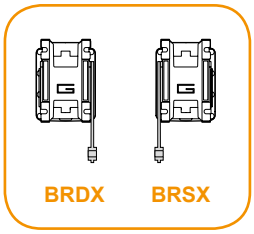
Relación de reducción / *Versão Redutor* / Gearbox Version



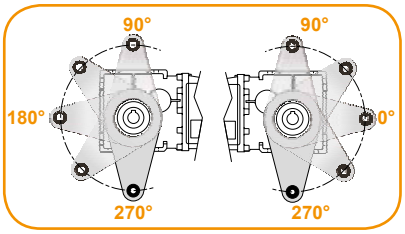
Eje de salida / *Eixo de saída* / Output shaft



Brazo de reacción / *Braço de reação* / Torque arm



Ángulo / *Ângulo* / Angle

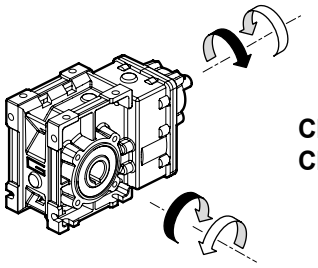


MOTOR / *MOTOR* / MOTOR

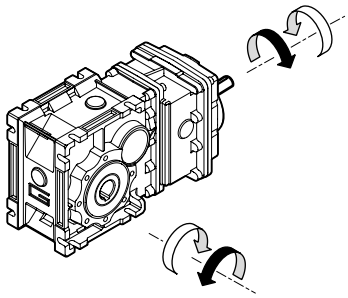
0.75kW	4p	3ph	230/400V	60Hz	T1
Potencia *Potência* Power	Polos *Pólos* Poles	Fases *Fases* Phases	Tensión *Tensão* Voltage	Frecuencia *Frequência* Frequency	Posición caja de bornes *Pos. Conexão* Terminal box pos.
Veja tabelas *Véase tablas* see tables	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**230V** **230/400V**	**60Hz**	**T1** (Std) **T4** **T2** **T3**

Sentidos de rotación — *Sentidos de rotação* — Direction of rotation

CMB...2
CMBIS..2



CMB...3
CMBIS..3



Nomenclatura — *Simbologia* — Legend

n_1	[rpm]	Velocidad de entrada / *Velocidade na entrada* / Input speed
n_2	[rpm]	Velocidad de salida / *Velocidade na saída* / Output speed
i		Relación de reducción / *Relação de redução* / Ratio
P_1	[kW]	Potencia en la entrada / *Potência da entrada* / Input power
M_2	[Nm]	Par en la salida en función de P_1 / *Torque na saída em função de P_1* / Output torque referred to P_1
Pn_1	[kW]	Potencia nominal en la entrada / *Potência nominal na entrada* / Nominal input power
Mn_2	[Nm]	Par nominal en la salida en función de Pn_1 / *Torque nominal na saída em função de Pn_1* / Nominal output torque referred to Pn_1
sf		Factor de servicio / *Fator de serviço* / Service factor
R_2	[N]	Carga radial admisible en la salida / *Carga radial admissível na saída* / Maximum output radial load
A_2	[N]	Carga axial admisible en la salida / *Carga axial admissível na saída* / Maximum output axial load

Lubricación

Todos los motoreductores de ejes ortogonales se suministran con lubricante sintético, viscosidad 320, por lo que se pueden instalar en cualquier posición de montaje y no requieren mantenimiento.

Lubrificação

Todas os são fornecidos com lubrificante sintético, viscosidade 320, de modo que possam ser instalado em qualquer posição.

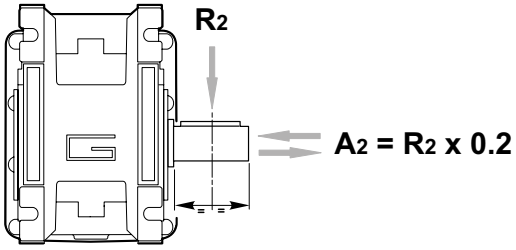
Lubrication

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

Cargas radiales

Cargas radiais

Radial loads

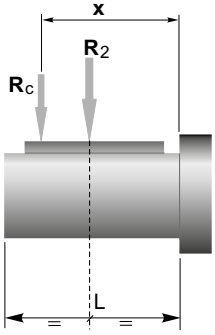


n_2 [min^{-1}]	R_2 [N]			
	CMB 402	CMB 502	CMB 633	CMB 903
400	905	1116	1835	2682
300	996	1228	2020	2952
200	1141	1406	2312	3379
170	1204	1484	2441	3567
140	1414	1743	2604	3806
100	1582	1949	2913	4686
90	1638	2019	3321	4853
60	2047	2490	3801	5556
40	2524	3029	4492	6614
30	2778	3334	5159	7540
20	3180	3816	5906	8631
15	3500	4200	6500	9500
10	3500	4200	6500	9500

Cuando la carga radial no se aplica en el punto medio del eje, es necesario calcular la carga efectiva a través la siguiente fórmula:

Quando a carga radial resultante não é aplicada na linha mediana da eixo, é preciso calcular aquela efetiva com a seguinte fórmula:

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:

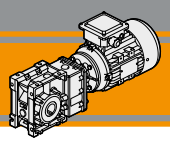


	CMB 402	CMB 502	CMB 633	CMB 903
a	86	104	118	157
b	66	79	93	117
R_{2MAX}	3500	4200	6500	9500

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

$$R \leq R_c$$

a, b = valores dados en la tabla
a, b = valores referidos na tabela
a, b = values given in the table



Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters: 56 B5/B14	63 B5/B14	71 B5/B14	80 B5/B14
CMBIS 402								
	283	40	1.3	6.18				*
	234	40	1.0	7.49				*
	190	40	0.85	9.20				*
	148	45	0.74	11.83				*
	140	45	0.70	12.48				*
	118	45	0.59	14.83				*
	99	45	0.50	17.63				*
	94	55	0.58	18.60				*
	78	55	0.48	22.33				*
	73	55	0.45	23.91				*
	61	65	0.44	28.89				*
	57	65	0.41	30.84				*
	52	65	0.38	33.57				*
	49	65	0.36	35.63				*
	41	65	0.30	42.75			*	*
	32	65	0.23	55.31			*	*
	30	65	0.21	59.06			*	*
	27	65	0.20	64.29			*	*
	24	65	0.17	72.50			*	*
CMBIS 502					56 B5/B14	63 B5/B14	71 B5/B14	80 B5/B14
	283	70	2.2	6.18				
	234	70	1.8	7.49				
	190	70	1.5	9.20				
	148	90	1.5	11.83				
	140	90	1.4	12.48				
	118	90	1.2	14.83				
	99	90	1.0	17.63				
	94	110	1.2	18.60				
	78	110	0.96	22.33				
	73	110	0.90	23.91				
	61	125	0.84	28.89				
	57	125	0.79	30.84				
	52	125	0.73	33.57				
	49	125	0.68	35.63				
	41	125	0.57	42.75				*
	32	125	0.44	55.31				*
	30	125	0.41	59.06				*
	27	125	0.38	64.29				*
	24	125	0.34	72.50				*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

N.B.
As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.

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

⚠ * = El Factor de servicio (sf) se deberá seleccionar con respecto a la aplicación: Favor de contactar con nuestro Servicio Técnico

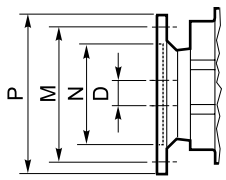
⚠ * = *O fator de serviço (sf) deve ser escolhido em função da aplicação: entre em contato com o nosso Serviço Técnico.*

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

Antes de seleccionar cualquier reductor, favor de revisar los valores dedesempeño en las páginas C8 a la C11.

Antes de executar a escolha do motoredutor analisar o desempenho listado nas tabelas das páginas C8 a pag. C11.

Before selecting any gearbox, please read the performance values shown in the tables on page C8 to C11.



IEC Dimension / *IEC Dimensões* / IEC Dimensions	56 B5	56 B14	63 B5	63 B14	71 B5	71 B14	80 B5	80 B14
N	80	50	95	60	110	70	130	80
M	100	65	115	75	130	85	165	100
P	120	80	140	90	160	105	200	120
D	9		11		14		19	

Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters			
CMBIS 633					**63 B5**	**71 B5/B14**	**80 B5/B14**	**90 B5/B14**
	266	150	4.4	6.58				
	219	150	3.7	7.99				
	178	150	3.0	9.81				
	168	150	2.8	10.44				
	140	150	2.3	12.53				
	131	150	2.2	13.31				
	111	170	2.1	15.81				
	98	220	2.4	17.77				
	81	220	2.0	21.56				
	66	220	1.6	26.48				
	62	220	1.5	28.17				
	52	220	1.3	33.81				
	49	220	1.2	35.92				*
	45	250	1.3	38.88				*
	37	250	1.0	47.16				*
	30	250	0.84	57.93				*
	28	250	0.79	61.63				*
	24	250	0.66	73.96				*
	22	250	0.62	78.58			*	*
	19	250	0.52	93.33			*	*
	12	250	0.35	140.52			*	*
	9.6	250	0.27	181.81		*	*	*
	8.3	250	0.23	211.31		*	*	*
	7.3	250	0.20	238.31		*	*	*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

N.B.
As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.

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

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*** =** *O fator de serviço (sf) deve ser escolhido em função da aplicação: entre em contato com o nosso Serviço Técnico.*

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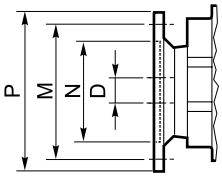
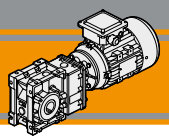
Before selecting any gearbox, please read the performance values shown in the tables on page C8 to C11.

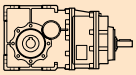


IEC Dimension / *IEC Dimensões* / IEC Dimensions							
	63 B5	**71 B5**	**71 B14**	**80 B5**	**80 B14**	**90 B5**	**90 B14**
N	95	110	70	130	80	130	95
M	115	130	85	165	100	165	115
P	140	160	105	200	120	200	140
D	11	14		19		24	



Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters			
CMBIS 903					**71 B5**	**80 B5/B14**	**90 B5/B14**	**100/112 B5/B14**
	263	280	8.2	6.65	**B**			
	219	280	6.8	8.00	**B**			
	180	280	5.6	9.74	**B**			
	156	280	4.9	11.21	**B**			
	124	300	4.1	14.09	**B**			
	98	450	4.9	17.95	**B**			
	81	450	4.1	21.60	**B**			
	67	450	3.3	26.30	**B**			
	58	450	2.9	30.25	**B**			
	45	500	2.5	39.26	**B**			*
	37	500	2.1	47.25	**B**			*
	30	500	1.7	57.52	**B**			*
	26	500	1.5	66.17	**B**			*
	21	500	1.2	83.20	**B**		*	*
	16	500	0.90	108.09	**B**		*	*
	13	500	0.74	132.23	**B**		*	*
	12	500	0.66	147.92	**B**		*	*
	10	500	0.58	167.09	**B**	*	*	*
	9.2	500	0.51	191.06	**B**	*	*	*
	7.9	500	0.44	221.88	**B**	*	*	*
	6.7	500	0.37	262.96	**B**	*	*	*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

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As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.

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

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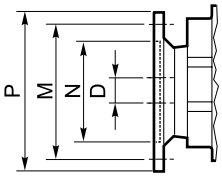
Before selecting any gearbox, please read the performance values shown in the tables on page C8 to C11.

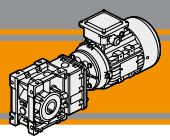


IEC Dimension / *IEC Dimensões* / IEC Dimensions							
	71 B5	**80 B5**	**80 B14**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**
N	110	130	80	130	95	180	110
M	130	165	100	165	115	215	130
P	160	200	120	200	140	250	160
D	14	19		24		28	

Datos técnicos / *Dados técnicos* / Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.09						
(0.12 hp)	**283**	2.9	14.0	6.18	**CMB402**	**B5/B14**
	234	3.5	11.6	7.49		**B5/B14**
56B4	**190**	4.2	9.4	9.20		**B5/B14**
(1750 min^{-1})	**148**	5.5	8.2	11.83		**B5/B14**
	140	5.8	7.8	12.48		**B5/B14**
	118	6.8	6.6	14.83		**B5/B14**
	99	8.1	5.5	17.63		**B5/B14**
	94	8.6	6.4	18.60		**B5/B14**
	78	10	5.3	22.33		**B5/B14**
	73	11	5.0	23.91		**B5/B14**
	61	13	4.9	28.89		**B5/B14**
	57	14	4.6	30.84		**B5/B14**
	52	15	4.2	33.57		**B5/B14**
	49	16	4.0	35.63		**B5/B14**
	41	20	3.3	42.75		**B5/B14**
	32	26	2.5	55.31		**B5/B14**
	30	27	2.4	59.06		**B5/B14**
	27	30	2.2	64.29		**B5/B14**
	24	33	1.9	72.50		**B5/B14**
	32	26	4.9	55.31	**CMB502**	**B5/B14**
	30	27	4.6	59.06		**B5/B14**
	27	30	4.2	64.29		**B5/B14**
	24	33	3.7	72.50		**B5/B14**
0.12						
(0.16 hp)	**283**	3.8	10.5	6.18	**CMB402**	**B5/B14**
	234	4.6	8.7	7.49		**B5/B14**
63A4	**190**	5.7	7.1	9.20		**B5/B14**
(1750 min^{-1})	**148**	7.3	6.2	11.83		**B5/B14**
	140	7.7	5.9	12.48		**B5/B14**
	118	9.1	4.9	14.83		**B5/B14**
	99	11	4.1	17.63		**B5/B14**
	94	11	4.8	18.60		**B5/B14**
	78	14	4.0	22.33		**B5/B14**
	73	15	3.7	23.91		**B5/B14**
	61	18	3.7	28.89		**B5/B14**
	57	19	3.4	30.84		**B5/B14**
	52	21	3.1	33.57		**B5/B14**
	49	22	3.0	35.63		**B5/B14**
	41	26	2.5	42.75		**B5/B14**
	32	34	1.9	55.31		**B5/B14**
	30	36	1.8	59.06		**B5/B14**
	27	40	1.6	64.29		**B5/B14**
	24	45	1.5	72.50		**B5/B14**
	41	26	4.8	42.75	**CMB502**	**B5/B14**
	32	34	3.7	55.31		**B5/B14**
	30	36	3.4	59.06		**B5/B14**
	27	40	3.2	64.29		**B5/B14**
	24	45	2.8	72.50		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
(0.16 hp)	**24**	46	5.5	73.96	**CMB633**	**B5**
	22	48	5.2	78.58		**B5**
63A4	**19**	57	4.4	93.33		**B5**
(1750 min^{-1})	**12**	86	2.9	140.52		**B5**
	10	112	2.2	181.81		**B5**
	8.3	130	1.9	211.31		**B5**
	7.3	147	1.7	238.31		**B5**
0.18						
(0.25 hp)	**283**	5.7	7.0	6.18	**CMB402**	**B5/B14**
	234	6.9	5.8	7.49		**B5/B14**
63B4	**190**	8.5	4.7	9.20		**B5/B14**
(1750 min^{-1})	**148**	11	4.1	11.83		**B5/B14**
	140	12	3.9	12.48		**B5/B14**
	118	14	3.3	14.83		**B5/B14**
	99	16	2.8	17.63		**B5/B14**
	94	17	3.2	18.60		**B5/B14**
	78	21	2.7	22.33		**B5/B14**
	73	22	2.5	23.91		**B5/B14**
	61	27	2.4	28.89		**B5/B14**
	57	28	2.3	30.84		**B5/B14**
	52	31	2.1	33.57		**B5/B14**
	49	33	2.0	35.63		**B5/B14**
	41	39	1.6	42.75		**B5/B14**
	32	51	1.3	55.31		**B5/B14**
	30	55	1.2	59.06		**B5/B14**
	27	59	1.1	64.29		**B5/B14**
	24	67	1.0	72.50		**B5/B14**
	57	28	4.4	30.84	**CMB502**	**B5/B14**
	52	31	4.0	33.57		**B5/B14**
	49	33	3.8	35.63		**B5/B14**
	41	39	3.2	42.75		**B5/B14**
	32	51	2.4	55.31		**B5/B14**
	30	55	2.3	59.06		**B5/B14**
	27	59	2.1	64.29		**B5/B14**
	24	67	1.9	72.50		**B5/B14**
	30	53	4.7	57.93	**CMB633**	**B5**
	28	57	4.4	61.63		**B5**
	24	68	3.7	73.96		**B5**
	22	73	3.4	78.58		**B5**
	19	86	2.9	93.33		**B5**
	12	130	1.9	140.52		**B5**
	10	168	1.5	181.81		**B5**
	8.3	195	1.3	211.31		**B5**
	7.3	220	1.1	238.31		**B5**



Datos técnicos | *Dados técnicos* | Technical data

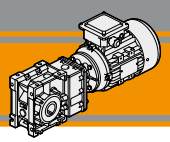
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.25						
(0.33 hp)	**283**	7.9	5.1	6.18	**CMB402**	**B5/B14**
	234	10	4.2	7.49		**B5/B14**
63C4	**190**	12	3.4	9.20		**B5/B14**
(1750 min^{-1})	**148**	15	3.0	11.83		**B5/B14**
	140	16	2.8	12.48		**B5/B14**
	118	19	2.4	14.83		**B5/B14**
	99	23	2.0	17.63		**B5/B14**
	94	24	2.3	18.60		**B5/B14**
	78	29	1.9	22.33		**B5/B14**
	73	31	1.8	23.91		**B5/B14**
	61	37	1.8	28.89		**B5/B14**
	57	40	1.6	30.84		**B5/B14**
	52	43	1.5	33.57		**B5/B14**
	49	46	1.4	35.63		**B5/B14**
	41	55	1.2	42.75		**B5/B14**
	32	71	0.9	55.31		**B5/B14**
	30	76	0.9	59.06		**B5/B14**
	94	24	4.6	18.60	**CMB502**	**B5/B14**
	78	29	3.8	22.33		**B5/B14**
	73	31	3.6	23.91		**B5/B14**
	61	37	3.4	28.89		**B5/B14**
	57	40	3.2	30.84		**B5/B14**
	52	43	2.9	33.57		**B5/B14**
	49	46	2.7	35.63		**B5/B14**
	41	55	2.3	42.75		**B5/B14**
	32	71	1.8	55.31		**B5/B14**
	30	76	1.7	59.06		**B5/B14**
	27	82	1.5	64.29		**B5/B14**
	24	93	1.3	72.50		**B5/B14**
	45	50	5.0	38.88	**CMB633**	**B5/B14**
	37	60	4.1	47.16		**B5/B14**
	30	74	3.4	57.93		**B5/B14**
	28	79	3.2	61.63		**B5/B14**
	24	95	2.6	73.96		**B5/B14**
	22	101	2.5	78.58		**B5/B14**
	19	120	2.1	93.33		**B5/B14**
	12	180	1.4	140.52		**B5/B14**
	10	233	1.1	181.81		**B5/B14**
	8.3	271	0.9	211.31		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.37						
(0.50 hp)	**283**	12	3.4	6.18	**CMB402**	**B5/B14**
	234	14	2.8	7.49		**B5/B14**
71A4	**190**	17	2.3	9.20		**B5/B14**
(1750 min^{-1})	**148**	22	2.0	11.83		**B5/B14**
	140	24	1.9	12.48		**B5/B14**
	118	28	1.6	14.83		**B5/B14**
	99	33	1.3	17.63		**B5/B14**
	94	35	1.6	18.60		**B5/B14**
	78	42	1.3	22.33		**B5/B14**
	73	45	1.2	23.91		**B5/B14**
	61	55	1.2	28.89		**B5/B14**
	57	59	1.1	30.84		**B5/B14**
	52	64	1.0	33.57		**B5/B14**
	49	68	1.0	35.63		**B5/B14**
	283	12	6.0	6.18	**CMB502**	**B5/B14**
	234	14	4.9	7.49		**B5/B14**
	190	17	4.0	9.20		**B5/B14**
	148	22	4.0	11.83		**B5/B14**
	140	24	3.8	12.48		**B5/B14**
	118	28	3.2	14.83		**B5/B14**
	99	33	2.7	17.63		**B5/B14**
	94	35	3.1	18.60		**B5/B14**
	78	42	2.6	22.33		**B5/B14**
	73	45	2.4	23.91		**B5/B14**
	61	55	2.3	28.89		**B5/B14**
	57	59	2.1	30.84		**B5/B14**
	52	64	2.0	33.57		**B5/B14**
	49	68	1.8	35.63		**B5/B14**
	41	81	1.5	42.75		**B5/B14**
	32	105	1.2	55.31		**B5/B14**
	30	112	1.1	59.06		**B5/B14**
	27	122	1.0	64.29		**B5/B14**
	24	138	0.9	72.50		**B5/B14**
	62	53	4.1	28.17	**CMB633**	**B5/B14**
	52	64	3.4	33.81		**B5/B14**
	49	68	3.2	35.92		**B5/B14**
	45	74	3.4	38.88		**B5/B14**
	37	90	2.8	47.16		**B5/B14**
	30	110	2.3	57.93		**B5/B14**
	28	117	2.1	61.63		**B5/B14**
	24	140	1.8	73.96		**B5/B14**
	22	149	1.7	78.58		**B5/B14**
	19	177	1.4	93.33		**B5/B14**
	12	267	0.9	140.52		**B5/B14**
	30	109	4.6	57.52	**CMB903**	**B5**
	26	126	4.0	66.17		**B5**
	21	158	3.2	83.20		**B5**
	16	205	2.4	108.09		**B5**
	13	251	2.0	132.23		**B5**
	12	281	1.8	147.92		**B5**
	10	317	1.6	167.09		**B5**
	9.2	363	1.4	191.06		**B5**
	7.9	421	1.2	221.88		**B5**
	6.7	499	1.0	262.96		**B5**

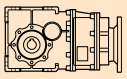
Datos técnicos | *Dados técnicos* | Technical data

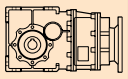
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.55						
(0.75 hp)	**283**	17	2.3	6.18	**CMB402**	**B5/B14**
	234	21	1.9	7.49		**B5/B14**
71B4	**190**	26	1.5	9.20		**B5/B14**
(1750 min^{-1})	**148**	33	1.3	11.83		**B5/B14**
	140	35	1.3	12.48		**B5/B14**
	118	42	1.1	14.83		**B5/B14**
	99	50	0.9	17.63		**B5/B14**
	94	52	1.0	18.60		**B5/B14**
	78	63	0.9	22.33		**B5/B14**
	283	17	4.0	6.18	**CMB502**	**B5/B14**
	234	21	3.3	7.49		**B5/B14**
	190	26	2.7	9.20		**B5/B14**
	148	33	2.7	11.83		**B5/B14**
	140	35	2.6	12.48		**B5/B14**
	118	42	2.2	14.83		**B5/B14**
	99	50	1.8	17.63		**B5/B14**
	94	52	2.1	18.60		**B5/B14**
	78	63	1.7	22.33		**B5/B14**
	73	67	1.6	23.91		**B5/B14**
	61	81	1.5	28.89		**B5/B14**
	57	87	1.4	30.84		**B5/B14**
	52	95	1.3	33.57		**B5/B14**
	49	101	1.2	35.63		**B5/B14**
	41	121	1.0	42.75		**B5/B14**
	168	29	5.1	10.44	**CMB633**	**B5/B14**
	140	35	4.2	12.53		**B5/B14**
	131	38	4.0	13.31		**B5/B14**
	111	45	3.8	15.81		**B5/B14**
	98	50	4.4	17.77		**B5/B14**
	81	61	3.6	21.56		**B5/B14**
	66	75	2.9	26.48		**B5/B14**
	62	79	2.8	28.17		**B5/B14**
	52	95	2.3	33.81		**B5/B14**
	49	101	2.2	35.92		**B5/B14**
	45	110	2.3	38.88		**B5/B14**
	37	133	1.9	47.16		**B5/B14**
	30	163	1.5	57.93		**B5/B14**
	28	174	1.4	61.63		**B5/B14**
	24	209	1.2	73.96		**B5/B14**
	22	222	1.1	78.58		**B5/B14**
	19	263	0.9	93.33		**B5/B14**
	58	85	5.3	30.25	**CMB903**	**B5/B14**
	45	111	4.5	39.26		**B5/B14**
	37	133	3.8	47.25		**B5/B14**
	30	162	3.1	57.52		**B5/B14**
	26	187	2.7	66.17		**B5/B14**
	21	235	2.1	83.20		**B5/B14**
	16	305	1.6	108.09		**B5/B14**
	13	373	1.3	132.23		**B5/B14**
	12	417	1.2	147.92		**B5/B14**
	10	471	1.1	167.09		**B5/B14**
	9.2	539	0.9	191.06		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.75						
(1.0 hp)	**283**	24	2.9	6.18	**CMB502**	**B5/B14**
	234	29	2.4	7.49		**B5/B14**
80A4	**190**	35	2.0	9.20		**B5/B14**
(1750 min^{-1})	**148**	46	2.0	11.83		**B5/B14**
	140	48	1.9	12.48		**B5/B14**
	118	57	1.6	14.83		**B5/B14**
	99	68	1.3	17.63		**B5/B14**
	94	72	1.5	18.60		**B5/B14**
	78	86	1.3	22.33		**B5/B14**
	73	92	1.2	23.91		**B5/B14**
	61	111	1.1	28.89		**B5/B14**
	57	119	1.1	30.84		**B5/B14**
	52	129	1.0	33.57		**B5/B14**
	49	137	0.9	35.63		**B5/B14**
	266	25	5.9	6.58	**CMB633**	**B5/B14**
	219	31	4.9	7.99		**B5/B14**
	178	38	4.0	9.81		**B5/B14**
	168	40	3.7	10.44		**B5/B14**
	140	48	3.1	12.53		**B5/B14**
	131	51	2.9	13.31		**B5/B14**
	111	61	2.8	15.81		**B5/B14**
	98	68	3.2	17.77		**B5/B14**
	81	83	2.7	21.56		**B5/B14**
	66	102	2.2	26.48		**B5/B14**
	62	108	2.0	28.17		**B5/B14**
	52	130	1.7	33.81		**B5/B14**
	49	138	1.6	35.92		**B5/B14**
	45	150	1.7	38.88		**B5/B14**
	37	181	1.4	47.16		**B5/B14**
	30	223	1.1	57.93		**B5/B14**
	28	237	1.1	61.63		**B5/B14**
	24	285	0.9	73.96		**B5/B14**
	67	101	4.4	26.30	**CMB903**	**B5/B14**
	58	116	3.9	30.25		**B5/B14**
	45	151	3.3	39.26		**B5/B14**
	37	182	2.8	47.25		**B5/B14**
	30	221	2.3	57.52		**B5/B14**
	26	255	2.0	66.17		**B5/B14**
	21	320	1.6	83.20		**B5/B14**
	16	416	1.2	108.09		**B5/B14**
	13	509	1.0	132.23		**B5/B14**
	12	569	0.9	147.92		**B5/B14**
1.1						
(1.5 hp)	**283**	35	2.0	6.18	**CMB502**	**B5/B14**
	234	42	1.7	7.49		**B5/B14**
80B4	**190**	52	1.3	9.20		**B5/B14**
(1750 min^{-1})	**148**	67	1.3	11.83		**B5/B14**
	140	70	1.3	12.48		**B5/B14**
	118	84	1.1	14.83		**B5/B14**
	99	99	0.9	17.63		**B5/B14**
	94	105	1.0	18.60		**B5/B14**
	78	126	0.9	22.33		**B5/B14**



Datos técnicos — *Dados técnicos* — Technical data

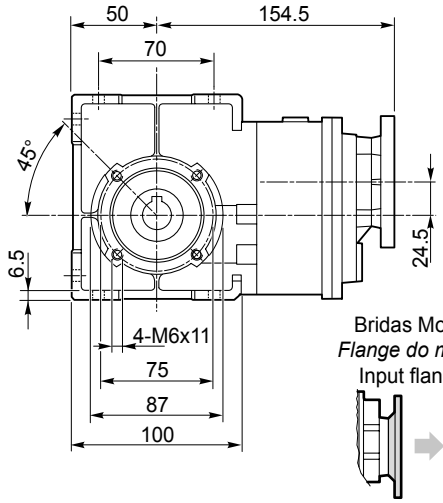
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
1.1						
(1.5 hp)	**266**	37	4.0	6.58	**CMB633**	**B5/B14**
	219	45	3.3	7.99		**B5/B14**
80B4	**178**	55	2.7	9.81		**B5/B14**
(1750 min^{-1})	**168**	59	2.5	10.44		**B5/B14**
	140	71	2.1	12.53		**B5/B14**
	131	75	2.0	13.31		**B5/B14**
	111	89	1.9	15.81		**B5/B14**
	98	100	2.2	17.77		**B5/B14**
	81	122	1.8	21.56		**B5/B14**
	66	149	1.5	26.48		**B5/B14**
	62	159	1.4	28.17		**B5/B14**
	52	191	1.2	33.81		**B5/B14**
	49	203	1.1	35.92		**B5/B14**
	45	219	1.1	38.88		**B5/B14**
	37	266	0.9	47.16		**B5/B14**
	263	38	7.5	6.65	**CMB903**	**B5/B14**
	219	45	6.2	8.00		**B5/B14**
	180	55	5.1	9.74		**B5/B14**
	156	63	4.4	11.21		**B5/B14**
	124	80	3.8	14.09		**B5/B14**
	98	101	4.4	17.95		**B5/B14**
	81	122	3.7	21.60		**B5/B14**
	67	148	3.0	26.30		**B5/B14**
	58	171	2.6	30.25		**B5/B14**
	45	222	2.3	39.26		**B5/B14**
	37	267	1.9	47.25		**B5/B14**
	30	325	1.5	57.52		**B5/B14**
	26	373	1.3	66.17		**B5/B14**
	21	469	1.1	83.20		**B5/B14**
1.5						
(2.0 hp)	**266**	51	3.0	6.58	**CMB633**	**B5/B14**
	219	61	2.4	7.99		**B5/B14**
90S4	**178**	76	2.0	9.81		**B5/B14**
(1750 min^{-1})	**168**	80	1.9	10.44		**B5/B14**
	140	96	1.6	12.53		**B5/B14**
	131	102	1.5	13.31		**B5/B14**
	111	122	1.4	15.81		**B5/B14**
	98	137	1.6	17.77		**B5/B14**
	81	166	1.3	21.56		**B5/B14**
	66	204	1.1	26.48		**B5/B14**
	62	217	1.0	28.17		**B5/B14**
	52	260	0.8	33.81		**B5/B14**
	263	51	5.5	6.65	**CMB903**	**B5/B14**
	219	62	4.5	8.00		**B5/B14**
	180	75	3.7	9.74		**B5/B14**
	156	86	3.2	11.21		**B5/B14**
	124	108	2.8	14.09		**B5/B14**
	98	138	3.3	17.95		**B5/B14**
	81	166	2.7	21.60		**B5/B14**
	67	202	2.2	26.30		**B5/B14**
	58	233	1.9	30.25		**B5/B14**
	45	302	1.7	39.26		**B5/B14**
	37	364	1.4	47.25		**B5/B14**
	30	443	1.1	57.52		**B5/B14**
	26	509	1.0	66.17		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
2.2						
(3.0 hp)	**266**	74	2.0	6.58	**CMB633**	**B5/B14**
	219	90	1.7	7.99		**B5/B14**
90L4	**178**	111	1.4	9.81		**B5/B14**
(1750 min^{-1})	**168**	118	1.3	10.44		**B5/B14**
	140	141	1.1	12.53		**B5/B14**
	131	150	1.0	13.31		**B5/B14**
	111	178	1.0	15.81		**B5/B14**
	98	201	1.1	17.77		**B5/B14**
	81	243	0.9	21.56		**B5/B14**
	263	75	3.7	6.65	**CMB903**	**B5/B14**
	219	90	3.1	8.00		**B5/B14**
	180	110	2.5	9.74		**B5/B14**
	156	126	2.2	11.21		**B5/B14**
	124	159	1.9	14.09		**B5/B14**
	98	203	2.2	17.95		**B5/B14**
	81	244	1.8	21.60		**B5/B14**
	67	297	1.5	26.30		**B5/B14**
	58	341	1.3	30.25		**B5/B14**
	45	443	1.1	39.26		**B5/B14**
	37	533	0.9	47.25		**B5/B14**
3						
(4.0 hp)	**263**	102	2.7	6.65	**CMB903**	**B5/B14**
	219	123	2.3	8.00		**B5/B14**
100LA4	**180**	150	1.9	9.74		**B5/B14**
(1750 min^{-1})	**156**	172	1.6	11.21		**B5/B14**
	124	217	1.4	14.09		**B5/B14**
	98	276	1.6	17.95		**B5/B14**
	81	332	1.4	21.60		**B5/B14**
	67	405	1.1	26.30		**B5/B14**
	58	466	1.0	30.25		**B5/B14**
3.7						
(5.0 hp)	**263**	126	2.2	6.65	**CMB903**	**B5/B14**
	219	152	1.8	8.00		**B5/B14**
112M4	**180**	185	1.5	9.74		**B5/B14**
(1750 min^{-1})	**156**	213	1.3	11.21		**B5/B14**
	124	267	1.1	14.09		**B5/B14**
	98	341	1.3	17.95		**B5/B14**
	81	410	1.1	21.60		**B5/B14**
	67	499	0.9	26.30		**B5/B14**
4.5						
(6.0 hp)	**263**	154	1.8	6.65	**CMB903**	**B5/B14**
	219	185	1.5	8.00		**B5/B14**
112MA4	**180**	225	1.2	9.74		**B5/B14**
(1750 min^{-1})	**156**	259	1.1	11.21		**B5/B14**
	124	325	0.9	14.09		**B5/B14**
	98	414	1.1	17.95		**B5/B14**
	81	499	0.9	21.60		**B5/B14**
5.5						
(7.5 hp)	**263**	188	1.5	6.65	**CMB903**	**B5/B14**
	219	226	1.2	8.00		**B5/B14**
112MB4	**180**	275	1.0	9.74		**B5/B14**
(1750 min^{-1})	**156**	316	0.9	11.21		**B5/B14**
	98	506	0.9	17.95		**B5/B14**

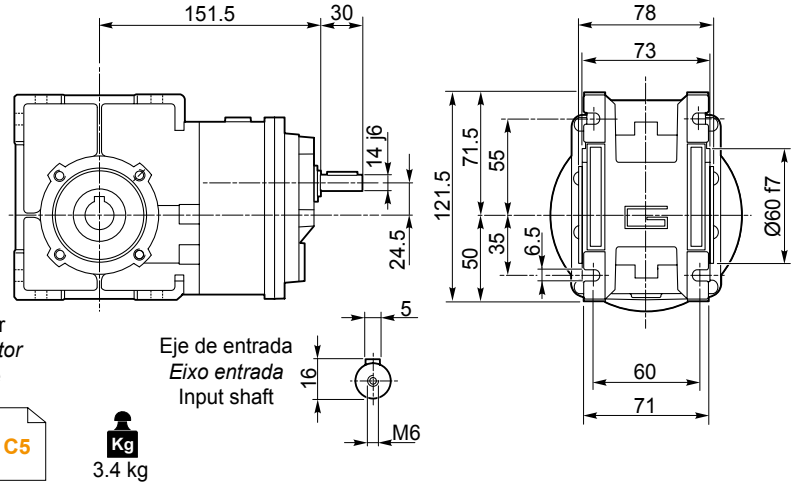
Dimensiones | ***Dimensões*** | **Dimensions**

CMB 402.. - CMBIS 402..

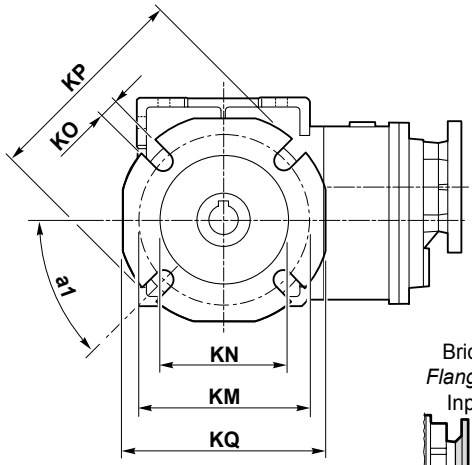
CMB 402 U..



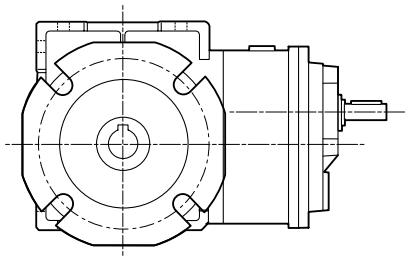
CMBIS 402 U..

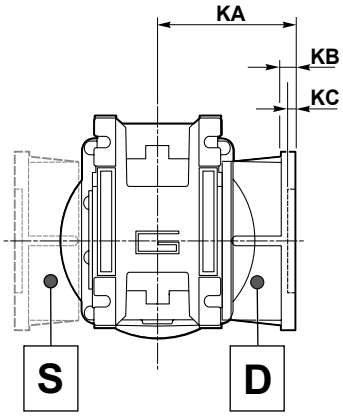


CMB 402 F..

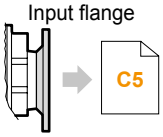


CMBIS 402 F..





Bridas Motor
Flange do motor
Input flange



Kg
3.5 kg

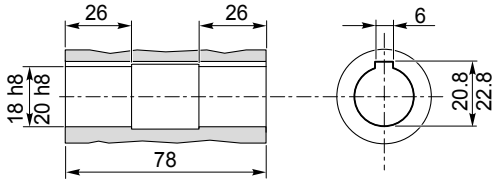
Bajo pedido
A petición
On request

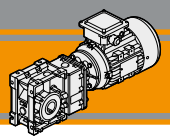
Estándar
Standard
Standard

Versión F / *Versão F* / F Version										
CMB CMBIS	**a_1**	**KA**	**KB**	**KC**	**KM**	**KN** H8	**KO**	**KP**	**KQ**	**Brida / *Flange* / Flange** Tipo / *Tipo* / Type
402	45°	67	7.5	4.5	80-95	60	9	110	95	**F**
	45°	97	7.5	4.5	80-95	60	9	110	95	**FL**
	45°	80	8.5	5	115-125	95	9.5	140	112	**FB**

CMB 402.. D.. - CMBIS 402.. D..

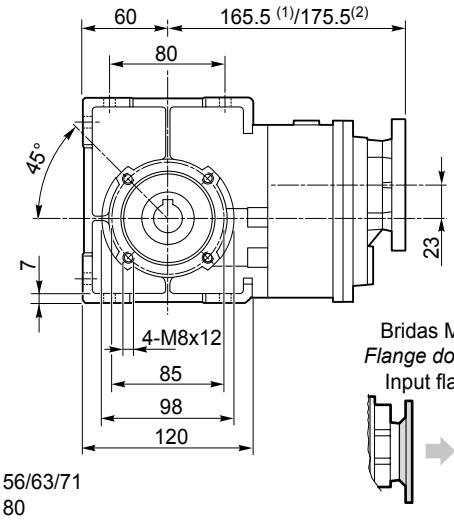
Eje de salida hueco
Eixo saída vazado
Hollow output shaft





CMB 502.. - CMBIS 502..

CMB 502 U..

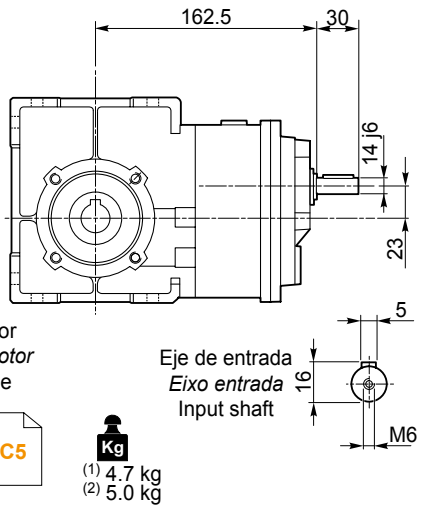


(1)IEC 56/63/71
(2)IEC 80

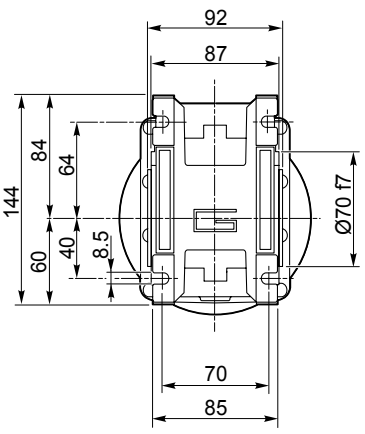
Bridas Motor
Flange do motor
Input flange

Kg
(1) 4.7 kg
(2) 5.0 kg

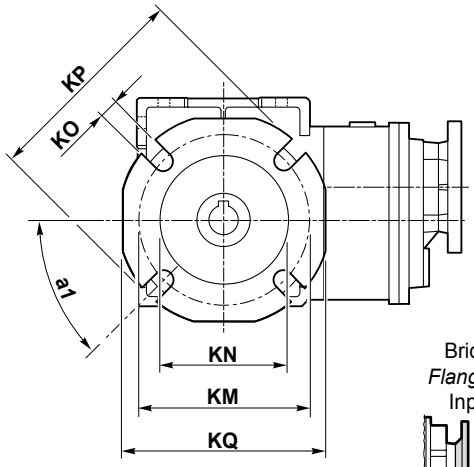
CMBIS 502 U..



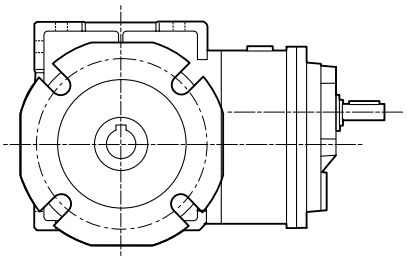
Eje de entrada
Eixo entrada
Input shaft



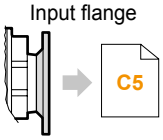
CMB 502 F..



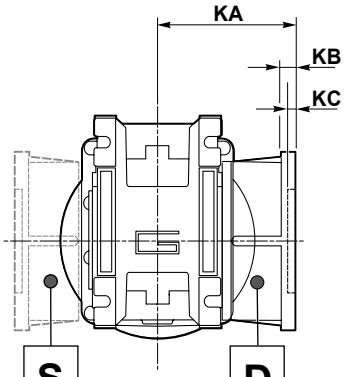
CMBIS 502 F..



Bridas Motor
Flange do motor
Input flange



Kg
4.8 kg



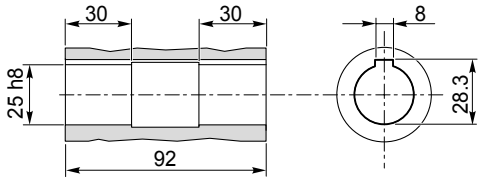
S
Bajo pedido
A petición
On request

D
Estándar
Standard
Standard

Versión F / *Versão F* / F Version										
CMB CMBIS	a_1	KA	KB	KC	KM	KN H8	KO	KP	KQ	Brida / *Flange* / Flange Tipo / *Tipo* / Type
502	45°	90	9	5	90-110	70	11	125	110	F
	45°	120	9	5	90-110	70	11	125	110	FL
	45°	89	9	5	130-145	110	9.5	160	132	FB

CMB 502.. D.. - CMBIS 502.. D..

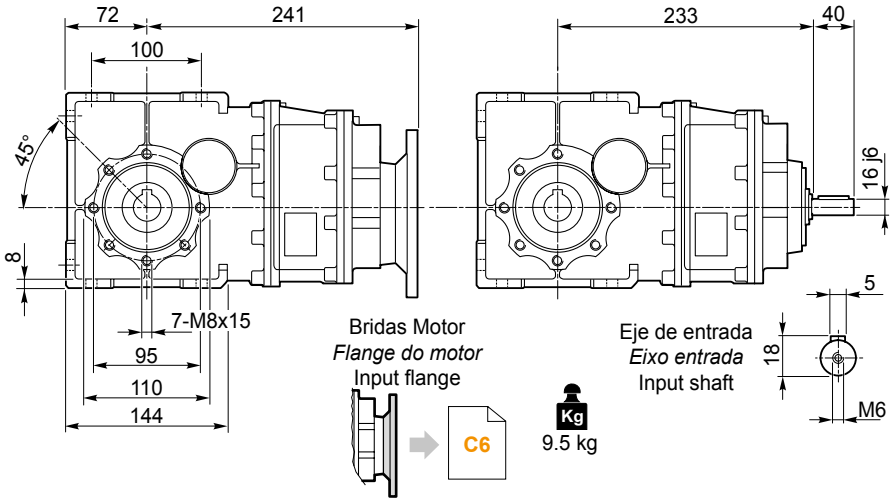
Eje de salida hueco
Eixo saída vazado
Hollow output shaft



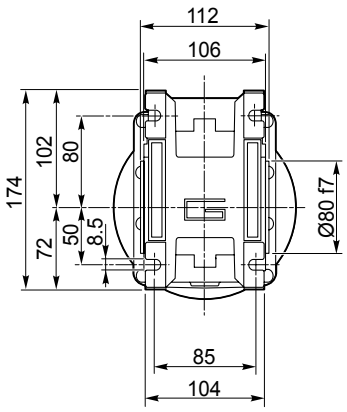
Dimensiones | *Dimensões* | Dimensions

CMB 633.. - CMBIS 633..

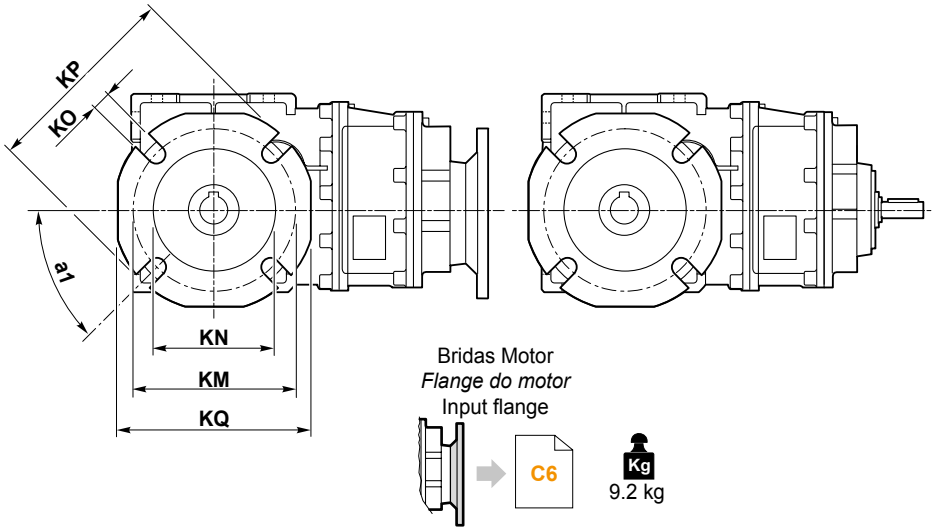
CMB 633 U..



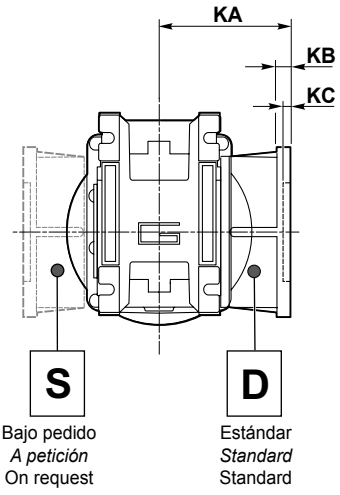
CMBIS 633 U..



CMB 633 F..



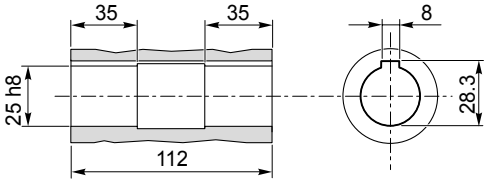
CMBIS 633 F..

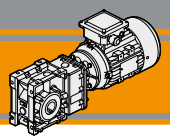


Versión F / *Versão F* / F Version										
CMB CMBIS	a_1	KA	KB	KC	KM	KN H8	KO	KP	KQ	Brida / *Flange* / Flange Tipo / *Tipo* / Type
633	45°	82	10	6	150-160	115	11	180	142	F
	45°	112	10	8	150-160	115	11	180	142	FL
	45°	98	11	5	165	130	11	200	160	FB

CMB 633.. D.. - CMBIS 633.. D..

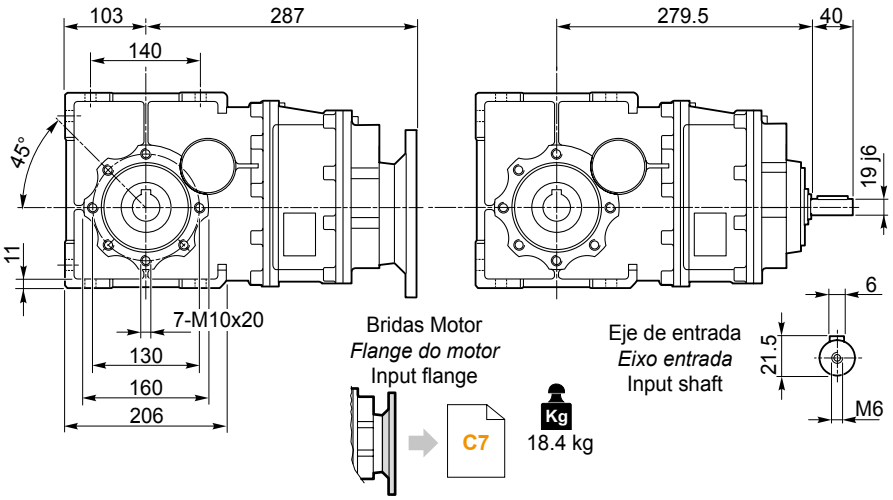
Eje de salida hueco
Eixo saída vazado
Hollow output shaft





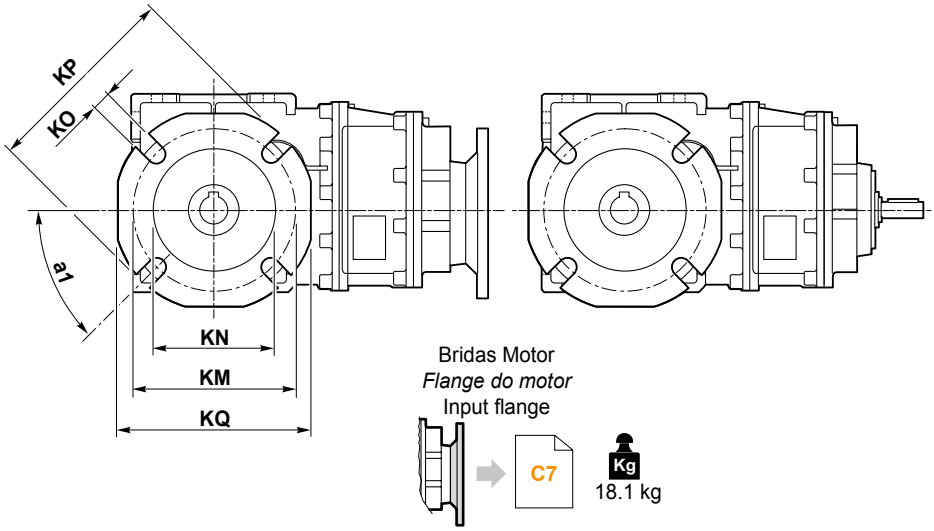
CMB 903.. - CMBIS 903..

CMB 903 U..

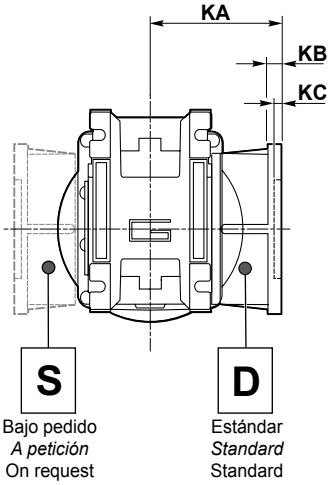


CMBIS 903 U..

CMB 903 F..

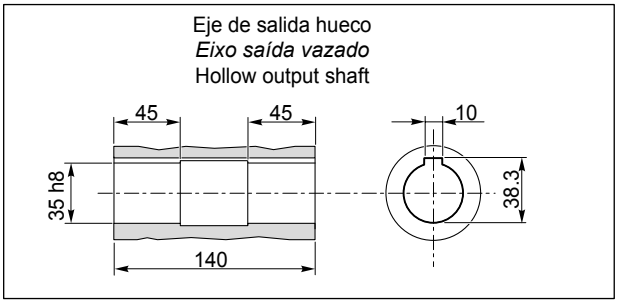


CMBIS 903 F..



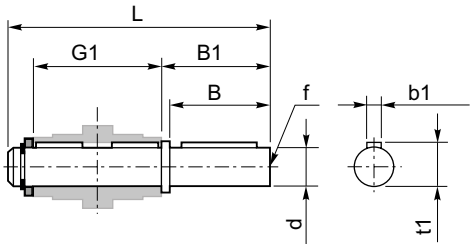
Versión F / *Versão F* / F Version										
CMB CMBIS	a_1	KA	KB	KC	KM	KN H8	KO	KP	KQ	Brida / *Flange* / Flange Tipo / *Tipo* / Type
903	45°	111	13	6	175-188	152	14	210	200	**F**

CMB 903.. D.. - CMBIS 903.. D..

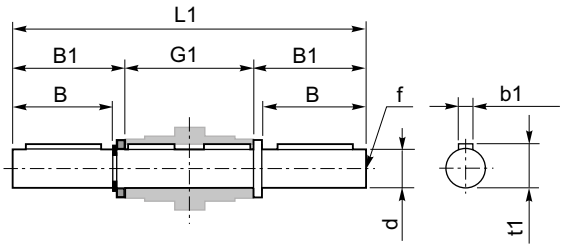


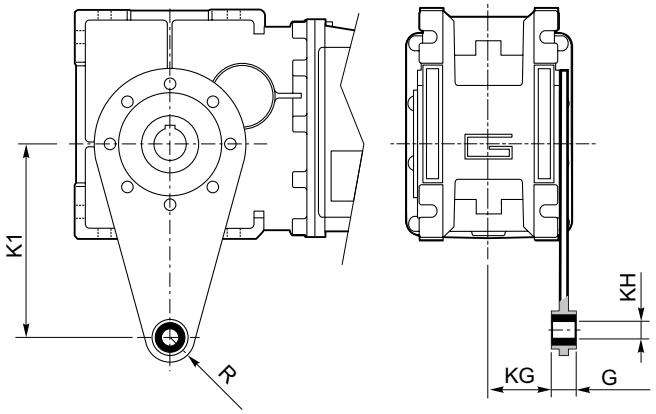
Accesorios — *Acessórios* — Accessories

SZ



DZ





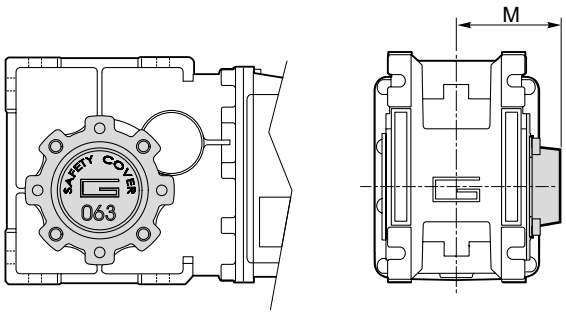
Eje de salida / *Eixo saída* / Output shaft

CMB CMBIS	d h7	B	B1	G1	L	L1	f	b1	t1
402	18	40	43	78	128	164	M6	6	20.5
502	25	50	53.5	92	153	199	M10	8	28
633	25	50	53.5	112	173	219	M10	8	28
903	35	80	84.5	140	234	309	M12	10	38

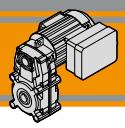
Brazo de reacción / *Braço de reação* / Torque arm

CMB CMBIS	K1	G	KG	KH	R
402	100	14	31	10	18
502	100	14	38	10	18
633	150	14	47.5	10	18
903	200	25	56.5	20	30

SC - Cubierta de seguridad / *Tampa de proteção* / Safety cover



CMB CMBIS	M
402	54.5
502	62.5
633	73
903	94



ENERGY SAVING

Características técnicas

La gama de motorreductores pendulares KFT105 tiene las siguientes características principales:

- Diseño compacto
- Motores monofásicos y trifásicos AC disponibles
- Carcasa de aluminio fundido
- Engranajes helicoidales
- Lubricación con aceite sintético de larga vida
- Disponible con 3 y 4 etapas de reducción

Características técnicas

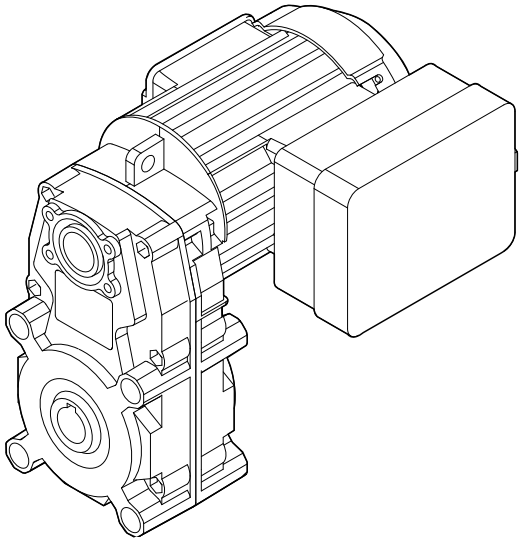
Os Motoredutores de eixos paralelos KFT105 possuem como principais características principais:

- *Design compacto*
- *Motorização monofásica AC Motor e trifásica*
- *Carcaça de alumínio fundido sob pressão*
- *Engrenagens com dentes helicoidais*
- *lubrificação permanente com óleo sintético*
- *Disponível com 3 ou 4 estágios de redução*

Technical features

KFT105 helical parallel gearmotors range has the following main features:

- Compact design
- AC single phase and three phase motors available
- Die-cast aluminum housings
- Helical gears
- Permanent synthetic oil long-life lubrication
- Available with 3 and 4 reduction stages



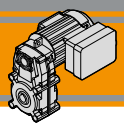
Clasificación / *Designação* / Classification

REDUCTOR / *REDUTOR* / GEARBOX

KFT	105/3	U	88.87	O20
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	Eje de salida hueco *Eixo saída vazado* Hollow output shaft
KFT	**105/3** **105/4**	**U...** **F...**	Véase tablas *Veja tabelas* see tables	Véase tablas *Veja tabelas* see tables

MOTOR / *MOTOR* / MOTOR

40W	4p	3ph	230/400V	50Hz	T1	TEFC
Potencia *Potência* Power	Polos *Pólos* Poles	Fases *Fases* Phases	Tensión *Tensão* Voltage	Frecuencia *Frequência* Frequency	Posición caja de bornes *Pos. Conexão* Terminal box pos.	Ventilación de enfriamiento *Ventilação* Fan cooling
Véase tablas *Veja tabelas* see tables	**2p** **4p** **6p**	**1ph** **3ph**	**230V** **...** **230/400V** **...**	**60Hz**	**T4** (Std) **T2**	**TEFC** **TENV**



Nomenclatura — *Simbologia* — Legend

n_1	[rpm]	Velocidad de entrada / *Velocidade na entrada* / Input speed
n_2	[rpm]	Velocidad de salida / *Velocidade na saída* / Output speed
i		Relación de reducción / *Relação de redução* / Ratio
P_1	[kW]	Potencia en la entrada / *Potência da entrada* / Input power
M_2	[Nm]	Par en la salida en función de P_1 / *Torque na saída em função de P_1* / Output torque referred to P_1
Pn_1	[kW]	Potencia nominal en la entrada / *Potência nominal na entrada* / Nominal input power
Mn_2	[Nm]	Par nominal en la salida en función de Pn_1 / *Torque nominal na saída em função de Pn_1* / Nominal output torque referred to Pn_1
sf		Factor de servicio / *Fator de serviço* / Service factor
R_2	[N]	Carga radial admisible en la salida / *Carga radial admissível na saída* / Maximum output radial load
A_2	[N]	Carga axial admisible en la salida / *Carga axial admissível na saída* / Maximum output axial load
V	[N]	Tensión / *Tensão* / Voltage
F	[Hz]	Frecuencia / *Frequência* / Frequency
I_n	[A]	Corriente nominal / *Torque nominal* / Nominal current
I_s	[A]	Corriente de arranque / *Torque de pico* / Start current
cosØ		Factor de potencia / *Fator de potência* / Power factor
C	[µ]	Condensador / *Capacidade do condensador* / Capacitor

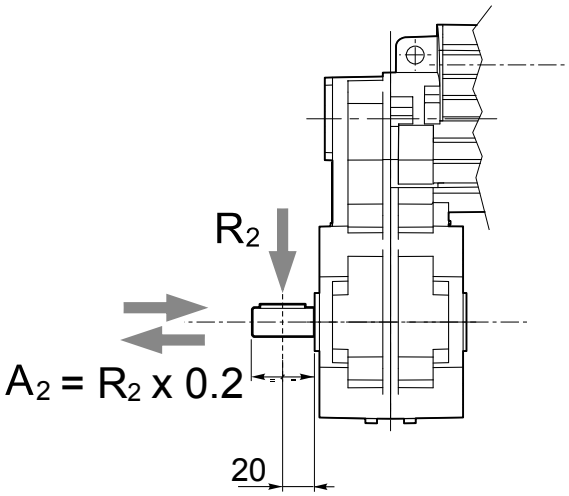
Lubricación — *Lubrificação* — Lubrication

Todos los motoreductores pendulares son previamente lubricados con aceite sintético con grado de viscosidad 320, por lo tanto, pueden ser instalados en cualquier posición de montaje y no requieren mantenimiento.

Todos os motoredutores são fornecidos completos de lubrificante sintético de viscosidade 320, portanto, podem ser instalados em qualquer posição de montagem e não necessitam de manutenção.

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.

Cargas radiales — *Cargas radiais* — Radial loads

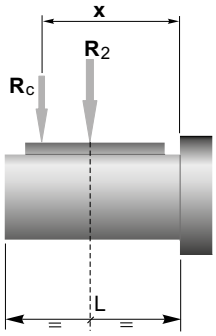


n_2 [min^{-1}]	R_2 [N]
	KFT105
70	1500
40	1700
30	1850
20	2000
10	2000
5	2000

Cuando la carga radial no se aplica en el punto medio del eje, es necesario calcular la carga efectiva a través la siguiente fórmula:

Quando a carga radial resultante não é aplicada na linha mediana da eixo, é preciso calcular aquela efetiva com a seguinte fórmula:

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
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 = valores dados en la tabla
a, b = valores referidos na tabela
a, b = values given in the table

Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]

25

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	M_n [Nm]	i	
	85	2.6	15.2	40	20.57	**KFT105/3**
	53	4.3	11.7	50	33.32	
	39	5.7	11.4	65	44.36	
	32	7.0	9.2	65	54.87	
	24	9.2	7.1	65	71.84	
	23	10	6.6	65	77.07	
	20	11	5.7	65	88.87	
	14	16	4.1	65	124.81	
	9.6	23	2.8	65	181.35	
	7.8	29	2.3	65	224.32	
	5.6	40	1.6	65	315.05	
	3.8	59	1.1	65	368.19	**KFT105/4**
	2.6	86	0.8	65	534.98	
	2.1	106	0.6	65	661.76	
	1.5	110	0.6	65	929.40	

40

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	M_n [Nm]	i	
	85	4.2	9.5	40	20.57	**KFT105/3**
	53	6.8	7.3	50	33.32	
	39	9.1	7.1	65	44.36	
	32	11	5.8	65	54.87	
	24	15	4.4	65	71.84	
	23	16	4.1	65	77.07	
	20	18	3.6	65	88.87	
	14	26	2.5	65	124.81	
	9.6	37	1.7	65	181.35	
	7.8	46	1.4	65	224.32	
	5.6	65	1.0	65	315.05	
	3.8	94	0.7	65	368.19	**KFT105/4**
	2.6	110	0.6	65	534.98	
	2.1	110	0.6	65	661.76	
	1.5	110	0.6	65	929.40	

60

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	M_n [Nm]	i	
	85	6.3	6.3	40	20.57	**KFT105/3**
	53	10	4.9	50	33.32	
	39	14	4.8	65	44.36	
	32	17	3.8	65	54.87	
	24	22	2.9	65	71.84	
	23	24	2.7	65	77.07	
	20	27	2.4	65	88.87	
	14	38	1.7	65	124.81	
	9.6	56	1.2	65	181.35	
	7.8	69	0.9	65	224.32	
	5.6	97	0.7	65	315.05	
	3.8	110	0.6	65	368.19	**KFT105/4**
	2.6	110	0.6	65	534.98	
	2.1	110	0.6	65	661.76	
	1.5	110	0.6	65	929.40	

90

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	M_n [Nm]	i	
	85	9	4.2	40	20.57	**KFT105/3**
	53	15	3.3	50	33.32	
	39	20	3.2	65	44.36	
	32	25	2.6	65	54.87	
	24	33	2.0	65	71.84	
	23	36	1.8	65	77.07	
	20	41	1.6	65	88.87	
	14	58	1.1	65	124.81	
	9.6	84	0.8	65	181.35	
	7.8	100	0.7	65	224.32	
	5.6	100	0.7	65	315.05	
	3.8	110	0.6	65	368.19	**KFT105/4**
	2.6	110	0.6	65	534.98	
	2.1	110	0.6	65	661.76	
	1.5	110	0.6	65	929.40	

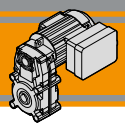
120

P_1 [W]	n_2 [min^{-1}]	M_2 [Nm]	sf	M_n [Nm]	i	
	85	13	3.2	40	20.57	**KFT105/3**
	53	21	2.4	50	33.32	
	39	27	2.4	65	44.36	
	32	34	1.9	65	54.87	
	24	44	1.5	65	71.84	
	23	47	1.4	65	77.07	
	20	55	1.2	65	88.87	
	14	77	0.8	65	124.81	
	9.6	100	0.7	65	181.35	
	7.8	100	0.7	65	224.32	
	5.6	100	0.7	65	315.05	
	3.8	110	0.6	65	368.19	**KFT105/4**
	2.6	110	0.6	65	534.98	
	2.1	110	0.6	65	661.76	
	1.5	110	0.6	65	929.40	

N.B.
Por favor, compruebe que el par de salida M2 no exceda el valor en las áreas grises

N. B.
Sempre verifique que o torque (M2) não exceda o valor indicado nas tabelas cinzas

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



Datos técnicos | ***Dados técnicos*** | **Electrical technical data**

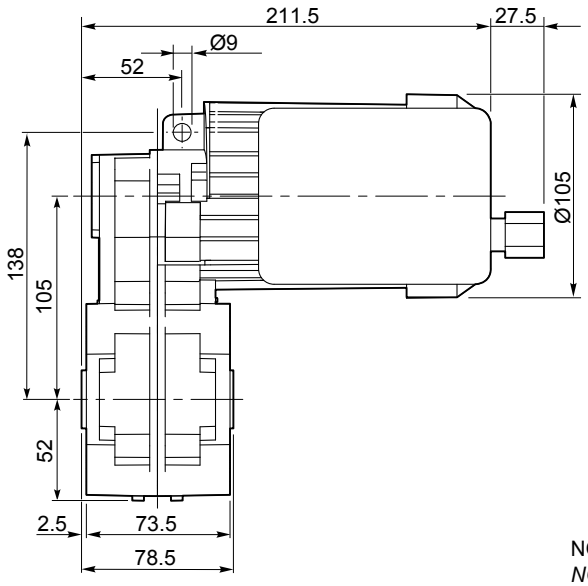
	P_n [W]	V [V]	F [Hz]	I_n [A]	I_s [A]	cosØ	C [µF]
1 Ph	25	230	50	0.40	0.58	0.98	8.0
	40			0.60	1.00	0.70	8.0
	60			0.65	1.71	0.84	8.0
	90			0.85	1.75	0.93	12.5
	120			1.10	3.00	0.97	14.0

	P_n [W]	V [V]	F [Hz]	I_n [A]	I_s [A]	cosØ
3 Ph	25	230	50	0.43	0.69	0.55
		400		0.25	0.40	0.55
	40	230	50	0.52	0.95	0.55
		400		0.30	0.55	0.55
	60	230	50	0.61	1.21	0.64
		400		0.35	0.70	0.64
	90	230	50	0.69	1.56	0.70
		400		0.40	0.90	0.70
	120	230	50	0.80	2.40	0.72
		400		0.46	1.35	0.72

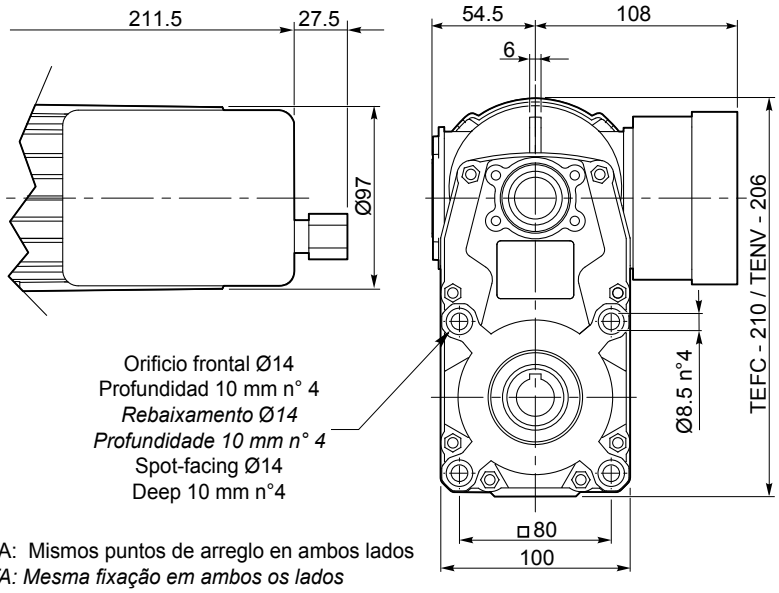
Dimensiones | ***Dimensões*** | **Dimensions**

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

KFT 105...1 Ph...TEFC



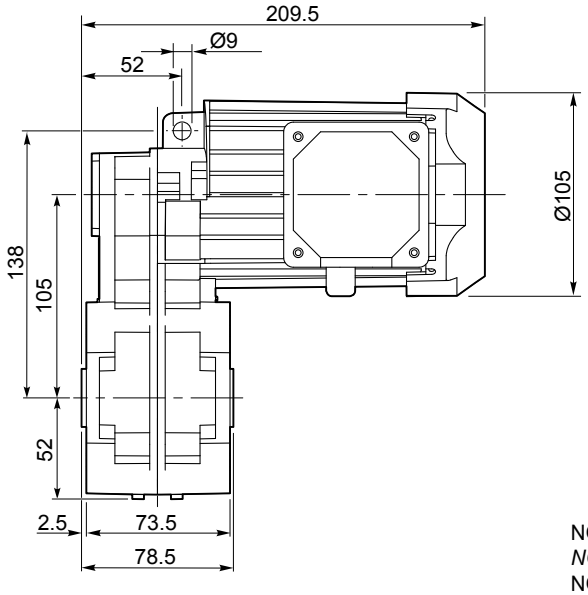
KFT 105...1 Ph...TENV



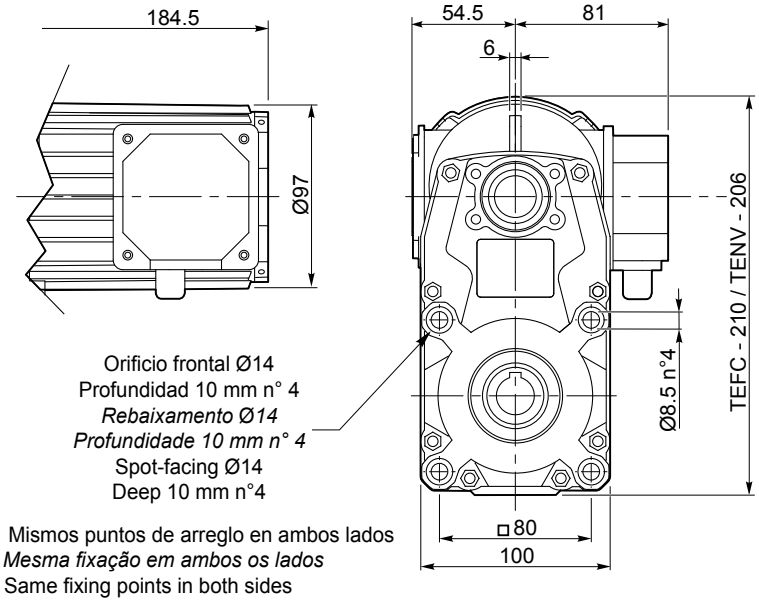
Orificio frontal Ø14
Profundidad 10 mm n° 4
Rebaixamento Ø14
Profundidade 10 mm n° 4
Spot-facing Ø14
Deep 10 mm n°4

NOTA: Mismos puntos de arreglo en ambos lados
NOTA: Mesma fixação em ambos os lados
NOTE: Same fixing points in both sides

KFT 105...3 Ph... TEFC



KFT 105...3 Ph... TENV

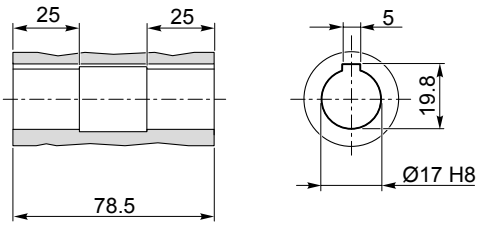


Orificio frontal Ø14
Profundidad 10 mm n° 4
Rebaixamento Ø14
Profundidade 10 mm n° 4
Spot-facing Ø14
Deep 10 mm n°4

NOTA: Mismos puntos de arreglo en ambos lados
NOTA: Mesma fixação em ambos os lados
NOTE: Same fixing points in both sides

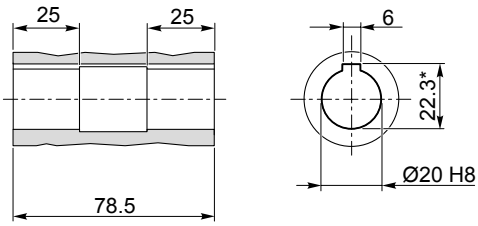
O17

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft

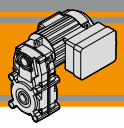


O20

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft



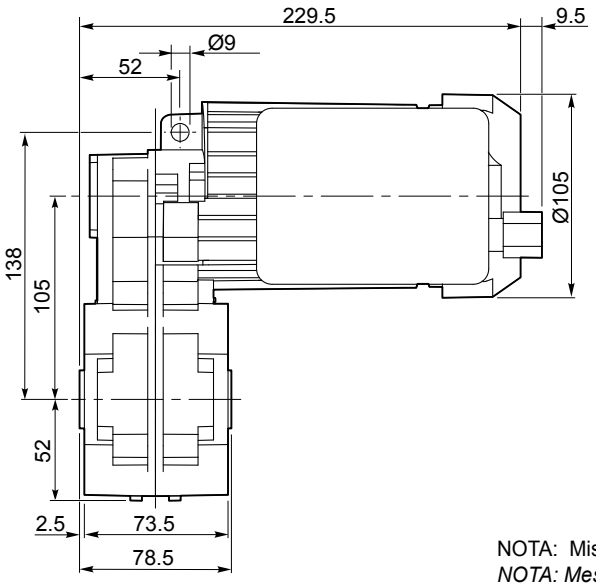
*Ranura especial / *Encaixe da chaveta rebaixada* / Special Keyway



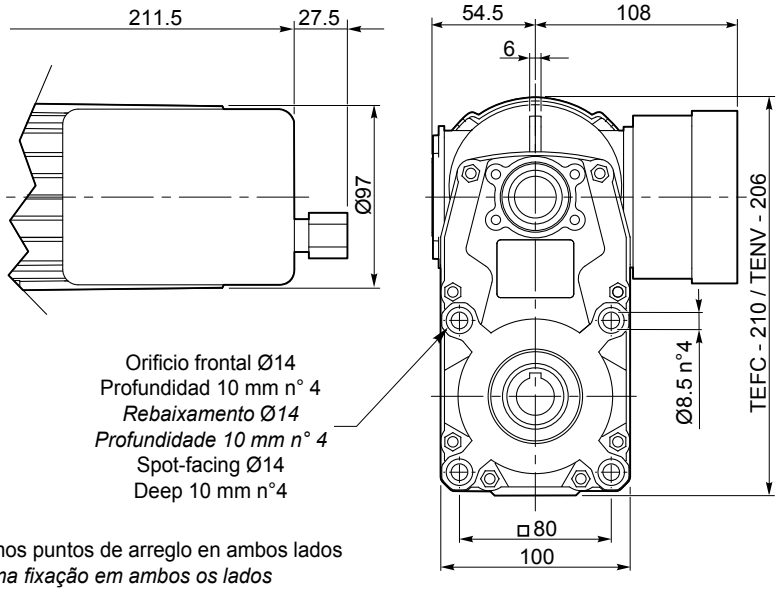
Dimensiones | ***Dimensões*** | **Dimensions**

KFT 105... 120W

KFT 105...1 Ph... TEFC



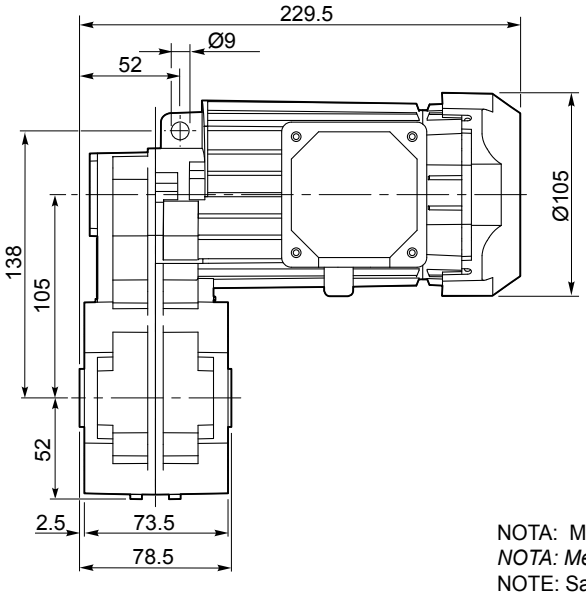
KFT 105...1 Ph...TENV



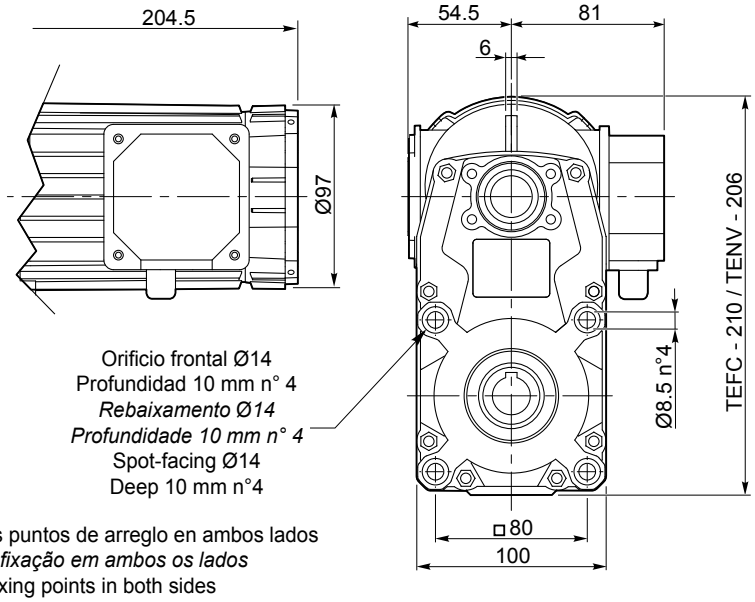
Orificio frontal Ø14
Profundidad 10 mm n° 4
Rebaixamento Ø14
Profundidade 10 mm n° 4
Spot-facing Ø14
Deep 10 mm n°4

NOTA: Mismos puntos de arreglo en ambos lados
NOTA: Mesma fixação em ambos os lados
NOTE: Same fixing points in both sides

KFT 105...3 Ph... TEFC



KFT 105...3 Ph... TENV

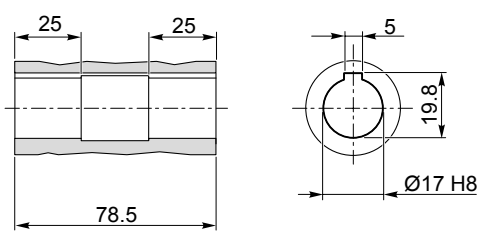


Orificio frontal Ø14
Profundidad 10 mm n° 4
Rebaixamento Ø14
Profundidade 10 mm n° 4
Spot-facing Ø14
Deep 10 mm n°4

NOTA: Mismos puntos de arreglo en ambos lados
NOTA: Mesma fixação em ambos os lados
NOTE: Same fixing points in both sides

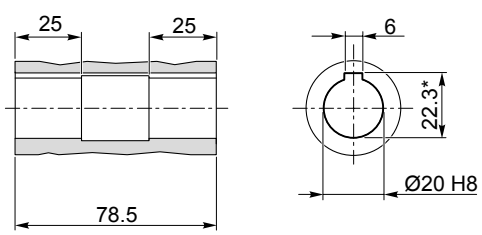
Ø17

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft

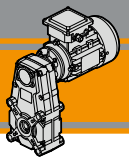


Ø20

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft



*Ranura especial / *Encaixe da chaveta rebaixada* / Special Keyway



ENERGY SAVING

Características técnicas

La gama de motorreductores pendulares FT tiene las siguientes características principales:

- Carcasas de aluminio fundido a presión
- Aceite de lubricación sintética de larga duración
- Engranajes helicoidales.

Características técnicas

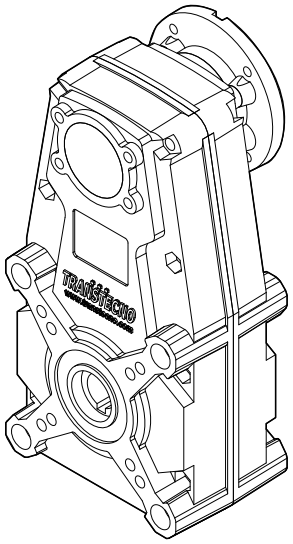
Os Motoredutores de eixos paralelos FT possuem as seguintes características principais:

- *Caixa de alumínio fundido sob pressão*
- *Lubrificação permanente com óleo sintético*
- *Engrenagens cilíndricas com dentes helicoidais.*

Technical features

FT helical parallel gearmotors range has the following main features:

- Die-cast aluminum housings
- Permanent synthetic oil long-life lubrication.
- helical gears.



Clasificación / *Designação* / Classification

REDUCTOR / *REDUTOR* / GEARBOX

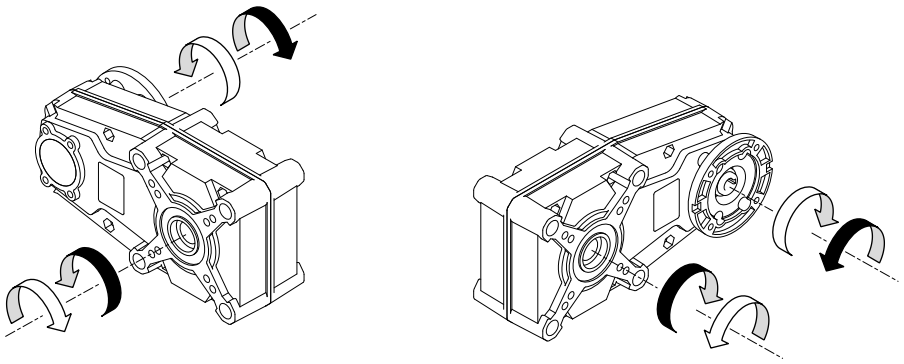
FT	146	U	60.63	O20	56	B5
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	Eje de salida hueco *Eixo saída vazado* Hollow output shaft	IEC	Forma constructiva *Forma construtiva* Version
FT	**105/3** **105/4** **146** **196**	**U...**	Véase tablas *Veja tabelas* see tables	Véase tablas *Veja tabelas* see tables	**56** **63** **71** **80** **90**	**B5** **B14**

MOTOR / *MOTOR* / MOTOR

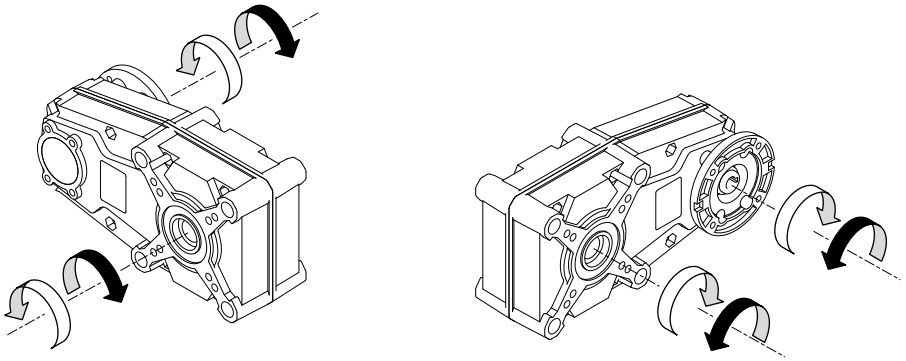
0.09kW	4p	3ph	230/400V	60Hz	T1
Potencia *Potência* Power	Polos *Pólos* Poles	Fases *Fases* Phases	Tensión *Tensão* Voltage	Frecuencia *Frequência* Frequency	Posición caja de bornes *Pos. Conexão* Terminal box pos.
Veja tabelas *Véase tablas* see tables	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**230V** **230/400V**	**60Hz**	**T1** (Std) **T4** **T2** **T3**

Sentidos de rotación — *Sentidos de rotação* — Direction of rotation

FT105/3
FT146
FT196



FT105/4



Nomenclatura — *Simbologia* — Legend

n_1	[rpm]	Velocidad de entrada / *Velocidade na entrada* / Input speed
n_2	[rpm]	Velocidad de salida / *Velocidade na saída* / Output speed
i		Relación de reducción / *Relação de redução* / Ratio
P_1	[kW]	Potencia en la entrada / *Potência da entrada* / Input power
M_2	[Nm]	Par en la salida en función de P_1 / *Torque na saída em função de* P_1 / Output torque referred to P_1
Pn_1	[kW]	Potencia nominal en la entrada / *Potência nominal na entrada* / Nominal input power
Mn_2	[Nm]	Par nominal en la salida en función de Pn_1 / *Torque nominal na saída em função de* Pn_1 / Nominal output torque referred to Pn_1
sf		Factor de servicio / *Fator de serviço* / Service factor
R_2	[N]	Carga radial admisible en la salida / *Carga radial admissível na saída* / Maximum output radial load
A_2	[N]	Carga axial admisible en la salida / *Carga axial admissível na saída* / Maximum output axial load

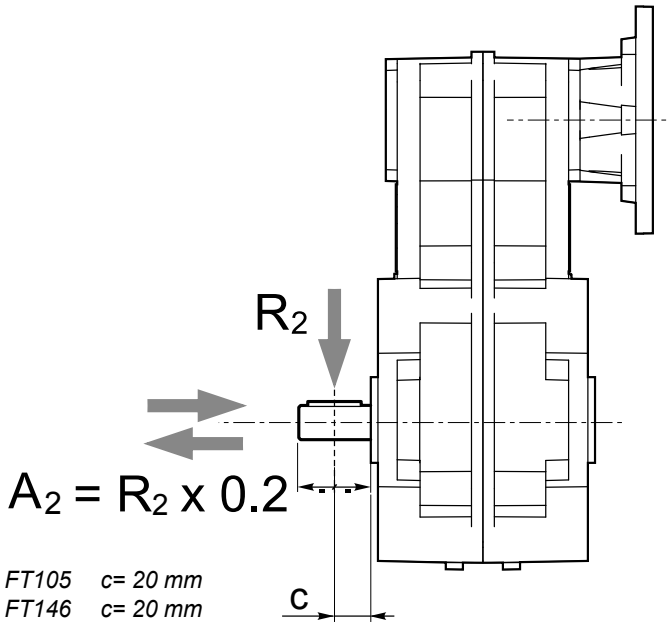
Lubricación — *Lubrificação* — Lubrication

Todos los motoreductores pendulares son previamente lubricados con aceite sintético con grado de viscosidad 320, por lo tanto, pueden ser instalados en cualquier posición de montaje y no requieren mantenimiento.

Todos os motoredutores são fornecidos completos de lubrificante sintético de viscosidade 320, portanto, podem ser instalados em qualquer posição de montagem e não necessitam de manutenção.

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.

Cargas radiales | *Cargas radiais* | Radial loads



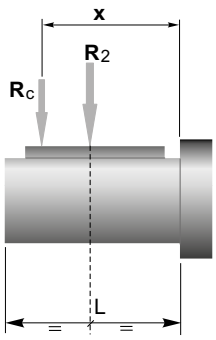
FT105 c= 20 mm
FT146 c= 20 mm
FT196 c= 30 mm

n_2 [min^{-1}]	R_2 [N]		
	FT105	FT146	FT196
70	1500	2500	3500
40	1700	2700	4000
30	1850	2850	4600
20	2000	3000	5500
10	2000	3000	7000
5	2000	3000	7000

Cuando la carga radial no se aplica en el punto medio del eje, es necesario calcular la carga efectiva a través la siguiente fórmula:

Quando a carga radial resultante não é aplicada na linha mediana da eixo, é preciso calcular aquela efetiva com a seguinte fórmula:

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:

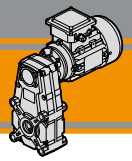


	FT105	FT146	FT196
a	82	82,5	132
b	62	62,5	102
R_{2MAX}	2000	3000	7000

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

$$R \leq R_c$$

a, b = valores dados en la tabla
a, b = valores referidos na tabela
a, b = values given in the table



Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters
FT105					**56B14**
FT105/3	**85**	40	0.38	20.57	
	53	50	0.29	33.32	
	39	65	0.29	44.36	
	32	65	0.23	54.87	
	24	65	0.18	71.84	
	23	65	0.16	77.07	
	20	65	0.14	88.87	
	14	65	0.10	124.81	
	9.6	65	0.07	181.35	
	7.8	65	0.06	224.32	
	5.6	65	0.04	315.05	
FT105/4	**4.8**	65	0.03	368.19	
	3.3	65	0.02	534.98	
	2.6	65	0.02	661.76	
	1.9	65	0.01	929.40	

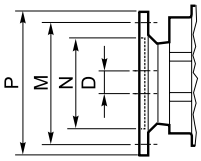
FT146					**56 B5/B14**	**63 B5/B14**	**71 B5/B14**
	93	80	0.81	18.75			
	67		0.58	26.17			
	62		0.54	28.26			
	50	100	0.54	35.07			
	44		0.47	40.23			
	38		0.41	46.44			
	33		0.36	52.86			
	31		0.34	56.15			
	29	110	0.35	60.63			
	25		0.30	70.00			
	23		0.28	75.24			*
	21		0.25	84.63			*
	18		0.22	95.61			*
	18		0.21	99.64			*
	15		0.19	113.40			*
	13		0.16	133.45			*
	12		0.14	150.18			*
	11	120	0.14	160.43			*
	9.8		0.13	178.83			*
	7.8		0.10	223.92			*
	7.4		0.10	236.83			*
	5.8		0.08	300.07			*
	4.4		0.06	397.38			*

FT196					**71 B5/B14**	**80 B5/B14**	**90 B5/B14**
	86	350	3.3	20.41			
	50	400	2.2	34.81			
	41	450	2.0	42.61			
	29	500	1.6	59.36			
	24	550	1.4	72.68			
	19		1.1	92.82			*
	14		0.85	123.95			*
	11		0.66	158.02			
	8.7		0.52	201.80		*	
	6.5		0.39	269.47		*	

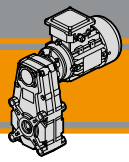
NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.
⚠ * = El Factor de servicio (sf) se deberá seleccionar con respecto a la aplicación: Favor de contactar con nuestro Servicio Técnico
Antes de seleccionar cualquier reductor, favor de revisar los valores dedesempeño en las páginas E6-E7.

N.B.
As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.
⚠ * = *O fator de serviço (sf) deve ser escolhido em função da aplicação: entre em contato com o nosso Serviço Técnico.*
Antes de executar a escolha do motoredutor analisar o desempenho listado nas tabelas das páginas E6-E7.

N.B.
Highlighted areas indicate motor inputs available on each size of unit.
⚠ * = The service factor (sf) has to be selected depending on application: please contact our Technical Department.
Before selecting any gearbox, please read the performance values shown in the tables on page E6-E7



IEC Dimension / *IEC Dimensões* / IEC Dimensions										
	56 B5	**56 B14**	**63 B5**	**63 B14**	**71 B5**	**71 B14**	**80 B5**	**80 B14**	**90 B5**	**90 B14**
N	80	50	95	60	110	70	130	80	130	95
M	100	65	115	75	130	85	165	100	165	115
P	120	80	140	90	160	105	200	120	200	140
	9		11		14		19		24	



Datos técnicos — *Dados técnicos* — Technical data

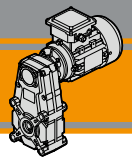
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.09						
(0.12 hp)	**85**	9	4.2	20.57	**FT105/3**	**B14**
	53	15	3.3	33.32		**B14**
56B4	**39**	20	3.2	44.36		**B14**
(1750 min^{-1})	**32**	25	2.6	54.87		**B14**
	24	33	2.0	71.84		**B14**
	23	36	1.8	77.07		**B14**
	20	41	1.6	88.87		**B14**
	14	58	1.1	124.81		**B14**
	9.6	84	0.8	181.35		**B14**
	7.8	100	0.7	224.32		**B14**
	5.6	100	0.7	315.05		**B14**
	3.8	110	0.6	368.19	**FT105/4**	**B14**
	2.6	110	0.6	534.98		**B14**
	2.1	110	0.6	661.76		**B14**
	1.5	110	0.6	929.40		**B14**
	93.3	9	9.2	18.75	**FT146**	**B5/B14**
	66.9	12	6.6	26.17		**B5/B14**
	61.9	13	6.1	28.26		**B5/B14**
	49.9	16	6.2	35.07		**B5/B14**
	43.5	19	5.4	40.23		**B5/B14**
	37.7	21	4.7	46.44		**B5/B14**
	33.1	24	4.1	52.86		**B5/B14**
	31.2	26	3.9	56.15		**B5/B14**
	28.9	28	3.9	60.63		**B5/B14**
	25.0	32	3.4	70.00		**B5/B14**
	23.3	35	3.2	75.24		**B5/B14**
	20.7	39	2.8	84.63		**B5/B14**
	18.3	44	2.5	95.61		**B5/B14**
	17.6	46	2.4	99.64		**B5/B14**
	15.4	52	2.1	113.40		**B5/B14**
	13.1	62	1.8	133.45		**B5/B14**
	11.7	69	1.6	150.18		**B5/B14**
	10.9	74	1.6	160.43		**B5/B14**
	9.8	83	1.5	178.83		**B5/B14**
	7.8	103	1.2	223.92		**B5/B14**
	7.4	109	1.1	236.83		**B5/B14**
	5.8	139	0.9	300.07		**B5/B14**
	4.4	150	0.8	397.38		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
(0.16 hp)	**93**	12	6.9	18.75	**FT146**	**B5/B14**
	67	16	5.0	26.17		**B5/B14**
63A4	**62**	17	4.6	28.26		**B5/B14**
(1750 min^{-1})	**50**	22	4.6	35.07		**B5/B14**
	44	25	4.0	40.23		**B5/B14**
	38	29	3.5	46.44		**B5/B14**
	33	33	3.1	52.86		**B5/B14**
	31	35	2.9	56.15		**B5/B14**
	29	37	2.9	60.63		**B5/B14**
	25	43	2.6	70.00		**B5/B14**
	23	46	2.4	75.24		**B5/B14**
	21	52	2.1	84.63		**B5/B14**
	18	59	1.9	95.61		**B5/B14**
	18	61	1.8	99.64		**B5/B14**
	15	70	1.6	113.40		**B5/B14**
	13	82	1.3	133.45		**B5/B14**
	12	92	1.2	150.18		**B5/B14**
	11	99	1.2	160.43		**B5/B14**
	9.8	110	1.1	178.83		**B5/B14**
	7.8	138	0.9	223.92		**B5/B14**
	7.4	146	0.8	236.83		**B5/B14**
	5.8	150	0.8	300.07		**B5/B14**
	4.4	150	0.8	397.38		**B5/B14**
0.18						
(0.25 hp)	**93**	17	4.6	18.75	**FT146**	**B5/B14**
	67	24	3.3	26.17		**B5/B14**
63B4	**62**	26	3.1	28.26		**B5/B14**
(1750 min^{-1})	**50**	32	3.1	35.07		**B5/B14**
	44	37	2.7	40.23		**B5/B14**
	38	43	2.3	46.44		**B5/B14**
	33	49	2.0	52.86		**B5/B14**
	31	52	1.9	56.15		**B5/B14**
	29	56	2.0	60.63		**B5/B14**
	25	65	1.7	70.00		**B5/B14**
	23	69	1.6	75.24		**B5/B14**
	21	78	1.4	84.63		**B5/B14**
	18	88	1.2	95.61		**B5/B14**
	18	92	1.2	99.64		**B5/B14**
	15	105	1.1	113.40		**B5/B14**
	13	123	0.9	133.45		**B5/B14**
	12	139	0.8	150.18		**B5/B14**
	11	148	0.8	160.43		**B5/B14**
0.25						
(0.33 hp)	**93**	24	3.3	18.75	**FT146**	**B5/B14**
	67	34	2.4	26.17		**B5/B14**
63C4	**62**	36	2.2	28.26		**B5/B14**
(1750 min^{-1})	**50**	45	2.2	35.07		**B5/B14**
	44	52	1.9	40.23		**B5/B14**
	38	60	1.7	46.44		**B5/B14**
	33	68	1.5	52.86		**B5/B14**
	31	72	1.4	56.15		**B5/B14**
	29	78	1.4	60.63		**B5/B14**
	25	90	1.2	70.00		**B5/B14**
	23	96	1.1	75.24		**B5/B14**
	21	109	1.0	84.63		**B5/B14**
	18	123	0.9	95.61		**B5/B14**
	18	128	0.9	99.64		**B5/B14**

Nota:
Por favor, compruebe que el par de salida M2 no exceda el valor en las áreas grises

N. B.
Sempre verifique que o torque (M2) não exceda o valor indicado nas tabelas cinzas

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



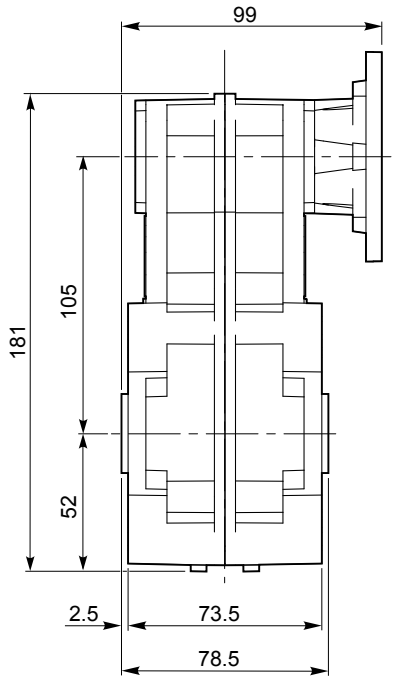
Datos técnicos | *Dados técnicos* | Technical data

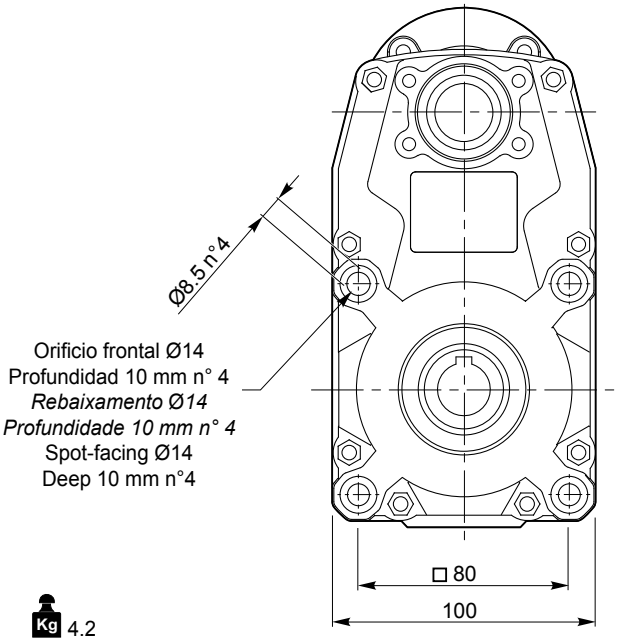
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.37						
(0.50 hp)	**93**	36	2.2	18.75	**FT146**	**B5/B14**
	67	50	1.6	26.17		**B5/B14**
71A4	**62**	54	1.5	28.26		**B5/B14**
(1750 min^{-1})	**50**	67	1.5	35.07		**B5/B14**
	44	76	1.3	40.23		**B5/B14**
	38	88	1.1	46.44		**B5/B14**
	33	100	1.0	52.86		**B5/B14**
	31	107	0.9	56.15		**B5/B14**
	29	115	1.0	60.63		**B5/B14**
	25	133	0.8	70.00		**B5/B14**
	86	39	9.0	20.41	**FT196**	**B5/B14**
	50	66	6.1	34.81		**B5/B14**
	41	81	5.6	42.61		**B5/B14**
	29	113	4.4	59.36		**B5/B14**
	24	138	4.0	72.68		**B5/B14**
	19	176	3.1	92.82		**B5/B14**
	14	235	2.3	123.95		**B5/B14**
	11	300	1.8	158.02		**B5/B14**
	8.7	383	1.4	201.80		**B5/B14**
	6.5	511	1.1	269.47		**B5/B14**
0.55						
(0.75 hp)	**93**	53	1.5	18.75	**FT146**	**B5/B14**
	67	74	1.1	26.17		**B5/B14**
71B4	**62**	80	1.0	28.26		**B5/B14**
(1750 min^{-1})	**50**	99	1.0	35.07		**B5/B14**
	44	113	0.9	40.23		**B5/B14**
	86	58	6.1	20.41	**FT196**	**B5/B14**
	50	98	4.1	34.81		**B5/B14**
	41	120	3.7	42.61		**B5/B14**
	29	167	3.0	59.36		**B5/B14**
	24	205	2.7	72.68		**B5/B14**
	19	262	2.1	92.82		**B5/B14**
	14	350	1.6	123.95		**B5/B14**
	11	446	1.2	158.02		**B5/B14**
	8.7	569	1.0	201.80		**B5/B14**
0.75						
(1.0 hp)	**86**	79	4.5	20.41	**FT196**	**B5/B14**
	50	134	3.0	34.81		**B5/B14**
80A4	**41**	164	2.7	42.61		**B5/B14**
(1750 min^{-1})	**29**	228	2.2	59.36		**B5/B14**
	24	280	2.0	72.68		**B5/B14**
	19	357	1.5	92.82		**B5/B14**
	14	477	1.2	123.95		**B5/B14**
	11	608	0.9	158.02		**B5/B14**
1.1						
(1.5 hp)	**86**	115	3.0	20.41	**FT196**	**B5/B14**
	50	196	2.0	34.81		**B5/B14**
80B4	**41**	240	1.9	42.61		**B5/B14**
(1750 min^{-1})	**29**	335	1.5	59.36		**B5/B14**
	24	410	1.3	72.68		**B5/B14**
	19	524	1.1	92.82		**B5/B14**
1.5						
(2.0 hp)	**86**	157	2.2	20.41	**FT196**	**B5/B14**
	50	268	1.5	34.81		**B5/B14**
90S4	**41**	328	1.4	42.61		**B5/B14**
(1750 min^{-1})	**29**	457	1.1	59.36		**B5/B14**
	24	559	1.0	72.68		**B5/B14**
2.2						
(3.0 hp)	**86**	230	1.5	20.41	**FT196**	**B5/B14**
	50	393	1.0	34.81		**B5/B14**
90L4	**41**	481	0.9	42.61		**B5/B14**
(1750 min^{-1})						

Dimensiones | ***Dimensões*** | **Dimensions**

FT 105

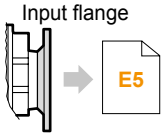
FT 105...U





Kg 4.2

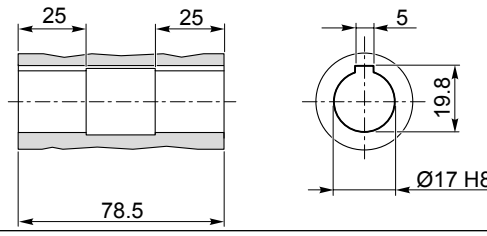
Bridas Motor
Flange do motor
Input flange



NOTA: Mismos puntos de arreglo en ambos lados
NOTA: Mesma fixação em ambos os lados
NOTE: Same fixing points in both sides

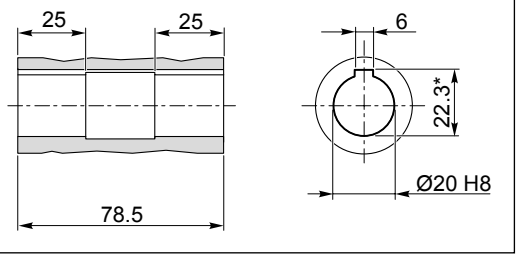
O17

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft

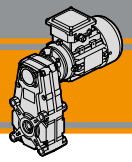


O20

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft

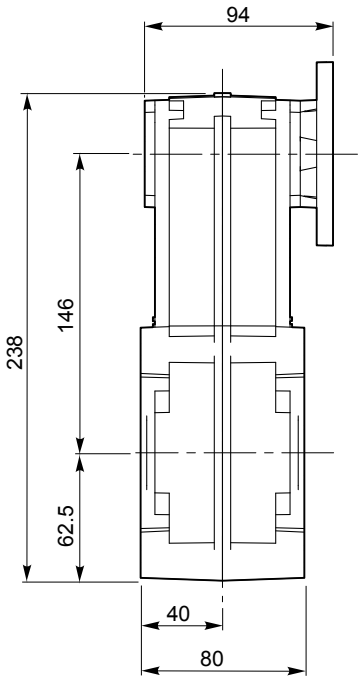


*Ranura especial / *Encaixe da chaveta rebaixada* / Special Keyway

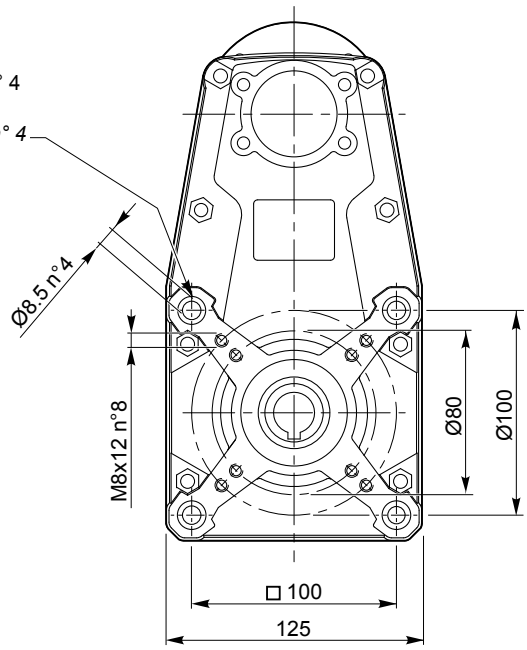


FT 146

FT 146 U



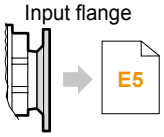
Orificio frontal Ø14
Profundidad 9.5 mm n° 4
Rebaixamento Ø14
Profundidade 9.5 mm n° 4
Spot-facing Ø14
Deep 9.5 mm n°4



Kg 4.7

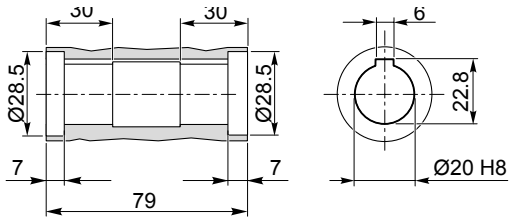
NOTA: Mismos puntos de arreglo en ambos lados
NOTA: Mesma fixação em ambos os lados
NOTE: Same fixing points in both sides

Bridas Motor
Flange do motor
Input flange



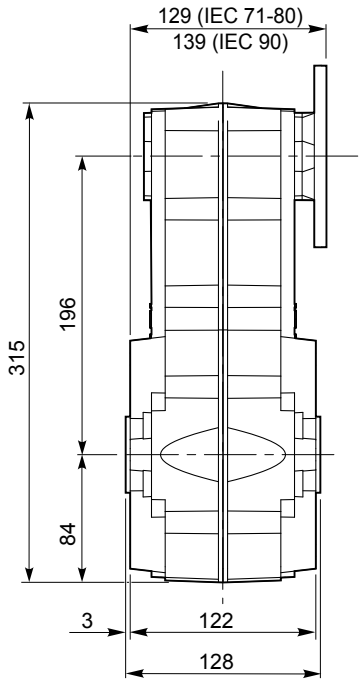
O20

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft

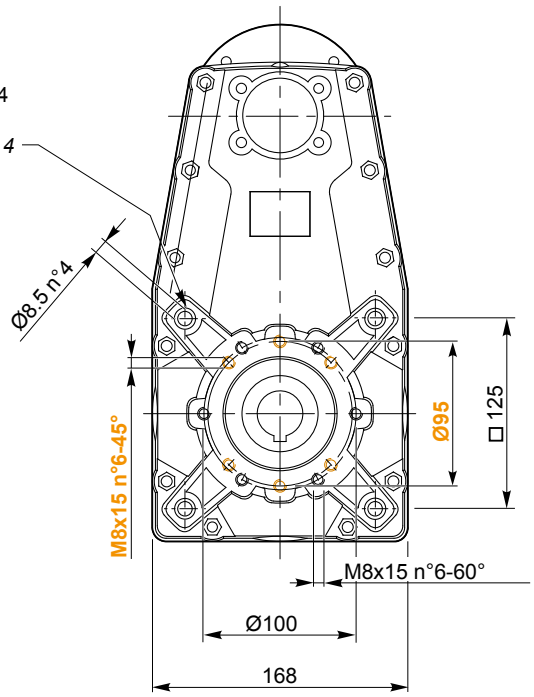


FT 196

FT 196 U

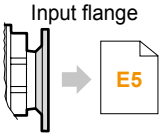


Orificio frontal Ø14
Profundidad 11 mm n° 4
Rebaixamento Ø14
Profundidade 11 mm n° 4
Spot-facing Ø14
Deep 11 mm n°4



Kg 12.1

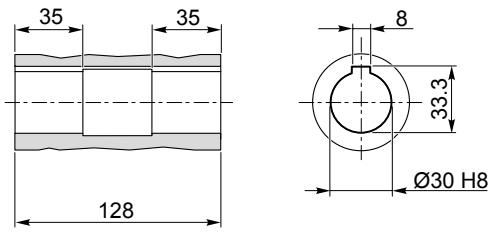
Bridas Motor
Flange do motor
Input flange



NOTA: Mismos puntos de arreglo en ambos lados
NOTA: Mesma fixação em ambos os lados
NOTE: Same fixing points in both sides

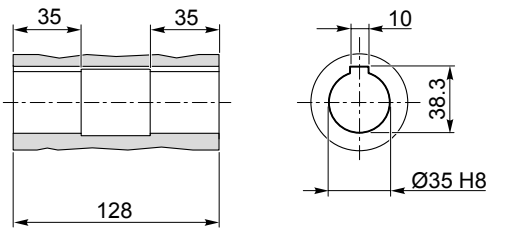
Ø30

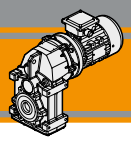
Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft



Ø35

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft





ENERGY SAVING

Características técnicas

El alto grado de modularidad es una característica del diseño de la linea ATS motoreductores pendulares. Es posible configurar la versión requerida usando los kits de entrada y salida.

Las principales características de gama ATS son:

- Carcasas y bridas de entrada de aluminio fundido a presión
- Aceite de lubricación sintética de larga duración.
- Bridas de salida de hierro fundido.

Características técnicas

Os motoredutores da série ATS são caracterizados por um elevado grau de modularidade: a partir de um corpo base, é possível configurar de acordo com os requisitos de diferentes kits de entrada e de saída.

Características comuns a toda a série:

- *Carcaça e Flange de alumínio fundido*
- *Lubrificação permanente com óleo sintético.*
- *Flanges de saída de ferro fundido.*

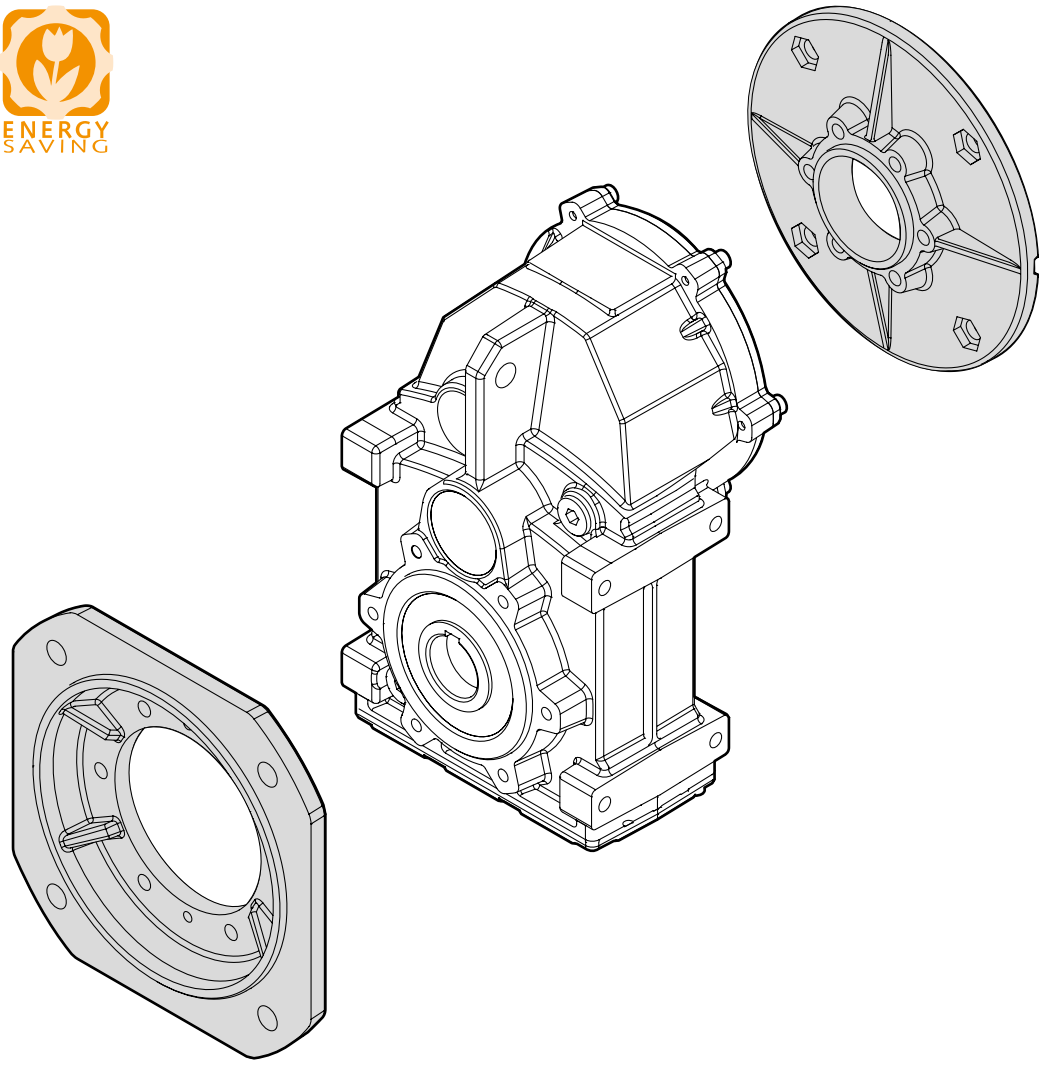
Technical features

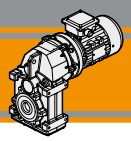
The high degree of modularity is a design feature of ATS helical parallel range. It is possible to set up the version required by using input and output kits.

The main features of ATS range are:

- Die-cast aluminum housings and input flanges
- Permanent synthetic oil long-life lubrication.
- Cast iron output flanges.

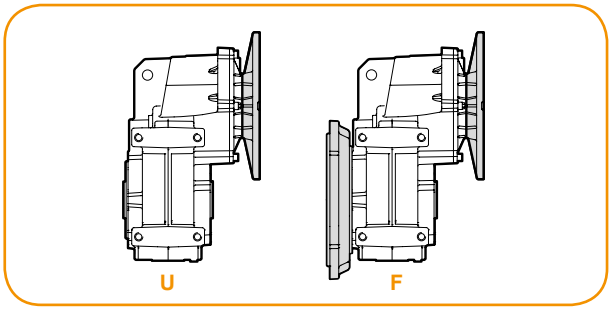
ENERGY SAVING



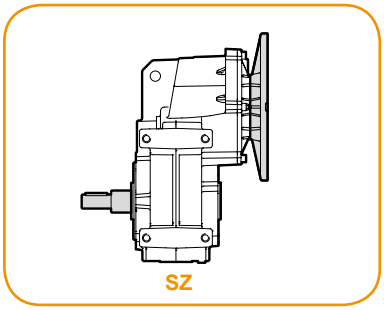


Clasificación — *Designação* — Classification

Relación de reducción
Versão Redutor
Gearbox Version

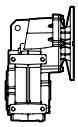


Eje de salida
Eixo de saída
Output shaft

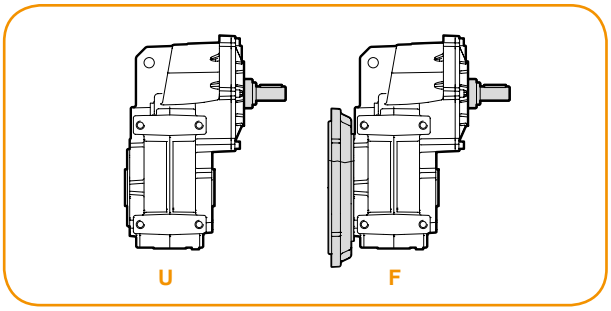


REDUCTOR / *REDUTOR* / GEARBOX

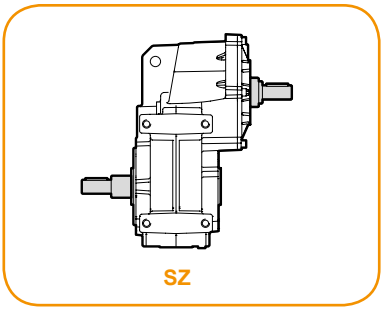
ATS	90	2	U	29.65	D35	90	B5	SZ
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Etapas *Estágios* Stages	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	Eje de salida hueco *Eixo saída vazado* Hollow output shaft	IEC	Forma constructiva *Forma construtiva* Version	Eje de salida Eixo de saída Output shaft
ATS	**90** **91**	**2** **3**	**U...** **F...**	Véase tablas *Veja tabelas* see tables	Véase tablas *Veja tabelas* see tables	**63..** **—** **112..**	**B5** **B14**	**SZ**



Relación de reducción
Versão Redutor
Gearbox Version

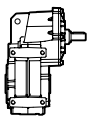


Eje de salida
Eixo de saída
Output shaft



REDUCTOR / *REDUTOR* / GEARBOX

ATSIS	90	2	U	29.65	D35	SZ
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Etapas *Estágios* Stages	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	Eje de salida hueco *Eixo saída vazado* Hollow output shaft	Eje de salida Eixo de saída Output shaft
ATSIS	**90** **91**	**2** **3**	**U...** **F...**	Véase tablas *Veja tabelas* see tables	Véase tablas *Veja tabelas* see tables	**SZ**

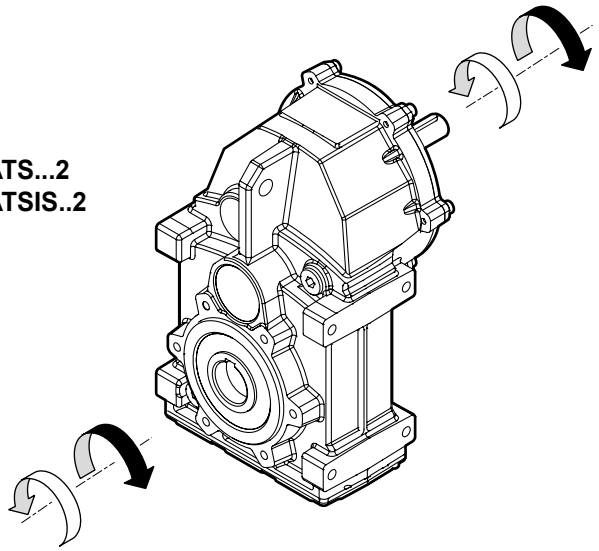


MOTOR / *MOTOR* / MOTOR

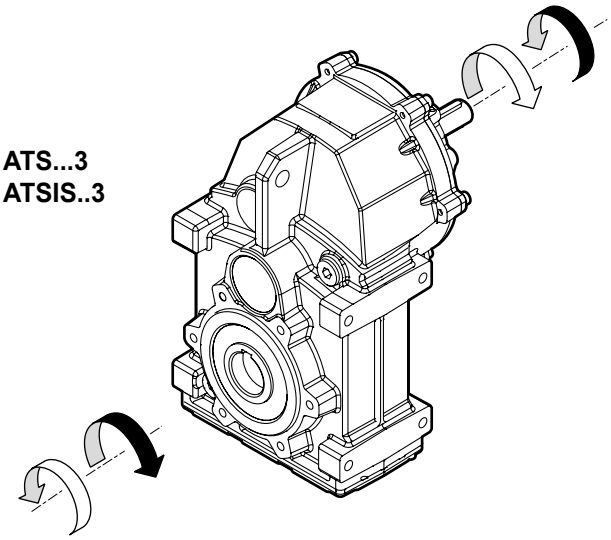
0.75kW	4p	3ph	230/400V	60Hz	T1
Potencia *Potência* Power	Polos *Pólos* Poles	Fases *Fases* Phases	Tensión *Tensão* Voltage	Frecuencia *Frequência* Frequency	Posición caja de bornes *Pos. Conexão* Terminal box pos.
Veja tabelas *Véase tablas* *see tables*	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**230V** **230/400V**	**60Hz**	**T1** (Std) **T4** **T2** **T3**

Sentidos de rotación | *Sentidos de rotação* | Direction of rotation

ATS...2
ATSIS..2



ATS...3
ATSIS..3



Nomenclatura | *Simbologia* | Legend

n_1	[rpm]	Velocidad de entrada / *Velocidade na entrada* / Input speed
n_2	[rpm]	Velocidad de salida / *Velocidade na saída* / Output speed
i		Relación de reducción / *Relação de redução* / Ratio
P_1	[kW]	Potencia en la entrada / *Potência da entrada* / Input power
M_2	[Nm]	Par en la salida en función de P_1 / *Torque na saída em função de* P_1 / Output torque referred to P_1
Pn_1	[kW]	Potencia nominal en la entrada / *Potência nominal na entrada* / Nominal input power
Mn_2	[Nm]	Par nominal en la salida en función de Pn_1 / *Torque nominal na saída em função de* Pn_1 / Nominal output torque referred to Pn_1
sf		Factor de servicio / *Fator de serviço* / Service factor
R_2	[N]	Carga radial admisible en la salida / *Carga radial admissível na saída* / Maximum output radial load
A_2	[N]	Carga axial admisible en la salida / *Carga axial admissível na saída* / Maximum output axial load

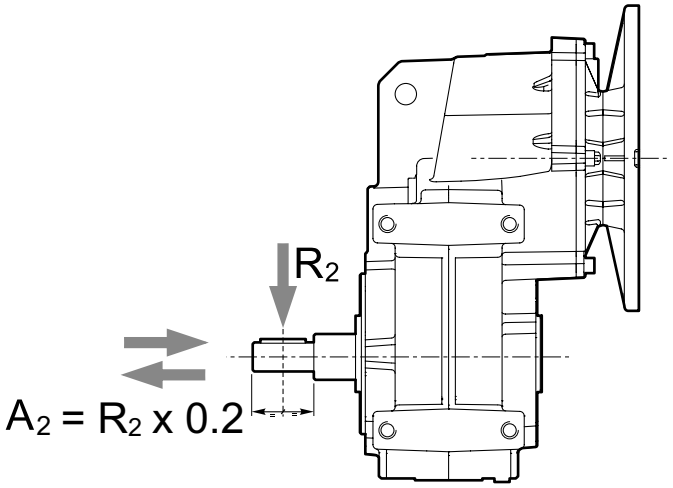
Lubricación | *Lubrificação* | Lubrication

Todos los motoreductores pendulares son previamente lubricados con aceite sintético con grado de viscosidad 320, por lo tanto, pueden ser instalados en cualquier posición de montaje y no requieren mantenimiento.

Todos os motoredutores são fornecidos completos de lubrificante sintético de viscosidade 320, portanto, podem ser instalados em qualquer posição de montagem e não necessitam de manutenção.

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.

Cargas radiales — *Cargas radiais* — Radial loads

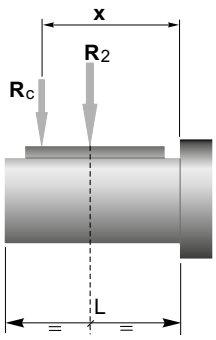


n_2 [min^{-1}]	R_2 [N]	
	ATS 902 ATS 903	ATS 912 ATS 913
240	2400	3600
180	2400	4200
150	2400	4200
120	2500	4600
100	2800	4800
85	3090	5100
70	3150	5250
55	3630	6000
40	4440	6900
30	5100	7800
20	6000	9500
15	6000	10000
10	6000	10000
5	6000	10000

Cuando la carga radial no se aplica en el punto medio del eje, es necesario calcular la carga efectiva a través la siguiente fórmula:

Quando a carga radial resultante não é aplicada na linha mediana da eixo, é preciso calcular aquela efetiva com a seguinte fórmula:

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:



	ATS 902 ATS 903	ATS 912 ATS 913
a	152	174.5
b	97	114.5
R_{2MAX}	6000	10000

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

$$R \leq R_c$$

a, b = valores dados en la tabla
a, b = valores referidos na tabela
a, b = values given in the table

Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motori applicabili / *IEC Motor adapters*				
ATSIS 902					**71 B5**	**80 B5/B14**	**90 B5/B14**	**100 B5/B14**	**112 B5/B14**
	298	200	6.51	5.87	B				
	222	250	6.06	7.87	B				
	185	300	6.05	9.47	B				
	152	350	5.79	11.53	B				
	132	350	5.04	13.26	B				
	112	350	4.26	15.68	B				
	105	350	4.01	16.68	B				
	92	400	4.00	19.09	B				
	80	400	3.48	21.96	B				*
	66	400	2.88	26.50	B				*
	63	400	2.77	27.61	B				*
	59	400	2.58	29.65	B				*
	52	400	2.28	33.49	B			*	*
	49	400	2.13	35.87	B			*	*
	46	400	2.04	38.29	B			*	*
	40	400	1.78	43.88	B			*	*
	36	400	1.59	49.09	B			*	*
	33	400	1.48	52.71	B			*	*
	32	400	1.41	55.45	B			*	*
	28	400	1.23	63.41	B		*	*	*
	24	400	1.06	73.64	B		*	*	*
	20	400	0.89	87.27	B		*	*	*

ATSIS 903					**63 B5**	**71 B5/B14**	**80 B5/B14**	**90 B5/B14**
	17	400	0.78	100.33				*
	14	400	0.62	125.89			*	*
	13	400	0.59	131.65			*	*
	13	400	0.56	139.88			*	*
	12	400	0.52	151.07			*	*
	11	400	0.47	166.13			*	*
	10	400	0.45	172.40			*	*
	8.4	400	0.37	208.45			*	*
	7.8	400	0.35	223.41			*	*
	7.0	400	0.31	250.14		*	*	*
	5.4	400	0.24	323.65		*	*	*
	5.1	400	0.23	345.59		*	*	*
	4.7	400	0.21	376.15		*	*	*
	4.1	400	0.18	424.21		*	*	*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

* = El Factor de servicio (sf) se deberá seleccionar con respecto a la aplicación: Favor de contactar con nuestro Servicio Técnico

Antes de seleccionar cualquier reductor, favor de revisar los valores dedesempeño en las páginas F8 a la F11.

N.B.
As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.

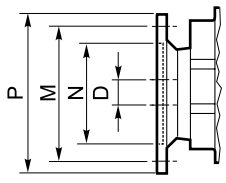
* = *O fator de serviço (sf) deve ser escolhido em função da aplicação: entre em contato com o nosso Serviço Técnico.*

Antes de executar a escolha do motoredutor analisar o desempenho listado nas tabelas das páginas F8 a pag. F11.

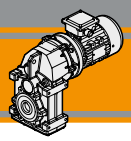
N.B.
Highlighted areas indicate motor inputs available on each size of unit.

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

Before selecting any gearbox, please read the performance values shown in the tables on page *on page F8 to F11*.



Dimensioni IEC / *IEC Dimensions*									
	63 B5	**71 B5**	**71 B14**	**80 B5**	**80 B14**	**90 B5**	**90 B14**	**100/112 B5**	**100/112 B14**
N	95	110	70	130	80	130	95	180	110
M	115	130	85	165	100	165	115	215	130
P	140	160	105	200	120	200	140	250	160
D	11	14		19		24		28	



Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i	IEC Motores aplicables / *IEC Motores aplicáveis* / IEC Motor adapters: 71 B5	80 B5/B14	90 B5/B14	100 B5/B14	112 B5/B14
ATSIS 912									
	306	350	11.69	5.71	B				
	228	350	8.72	7.66	B				
	198	400	8.63	8.85	B				
	190	400	8.28	9.22	B				
	156	400	6.80	11.23	B				
	147	400	6.43	11.87	B				
	135	500	7.39	12.92	B				
	122	500	6.68	14.29	B				
	108	500	5.88	16.24	B				
	101	500	5.49	17.39	B				
	87	600	5.72	20.01	B				
	83	600	5.43	21.10	B				
	70	600	4.55	25.16	B				
	68	600	4.44	25.81	B				
	61	600	4.05	28.88	B				
	54	600	3.58	32.69	B				*
	47	600	3.14	37.30	B				*
	44	600	2.93	39.98	B				*
	39	600	2.62	44.73	B				*
	35	600	2.31	50.53	B			*	*
	30	600	2.02	57.77	B			*	*
	26	600	1.74	67.09	B			*	*
	22	600	1.47	79.52	B			*	*

					63 B5	71 B5/B14	80 B5/B14	90 B5/B14
ATSIS913								
	21	600	1.42	82.28				
	19	600	1.24	93.96				*
	17	600	1.15	101.41				*
	14	600	0.95	122.61				*
	13	600	0.89	131.41				*
	12	600	0.79	147.13				*
	11	600	0.74	157.08				*
	9.2	600	0.62	189.92			*	*
	8.6	600	0.57	203.55			*	*
	7.7	600	0.51	227.91			*	*
	5.9	600	0.40	294.88			*	*
	5.6	600	0.37	314.87			*	*
	5.1	600	0.34	342.72			*	*
	4.5	600	0.30	386.51			*	*

NOTA
Las áreas resaltadas indican el tamaño de carcasa del motor correspondiente.

⚠ * = El Factor de servicio (sf) se deberá seleccionar con respecto a la aplicación: Favor de contactar con nuestro Servicio Técnico

Antes de seleccionar cualquier reductor, favor de revisar los valores dedesempeño en las páginas F8 a la F11.

N.B.
As áreas destacadas indicam a aplicabilidade correspondente ao tamanho do motor.

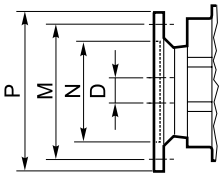
⚠ * = *O fator de serviço (sf) deve ser escolhido em função da aplicação: entre em contato com o nosso Serviço Técnico.*

Antes de executar a escolha do motoredutor analisar o desempenho listado nas tabelas das páginas F8 a pag. F11.

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

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

Before selecting any gearbox, please read the performance values shown in the tables on page *on page F8 to F11*.

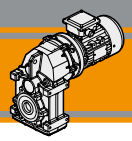


Dimensioni IEC / *IEC Dimensions*	63 B5	71 B5	71 B14	80 B5	80 B14	90 B5	90 B14	100/112 B5	100/112 B14
N	95	110	70	130	80	130	95	180	110
M	115	130	85	165	100	165	115	215	130
P	140	160	105	200	120	200	140	250	160
D	11	14		19		24		28	

Datos técnicos | *Dados técnicos* | Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
(0.16 hp)	**17**	62	6.5	100.33	**ATS903**	**B5**
	14	77	5.2	125.89		**B5**
63A4	**13**	81	4.9	131.65		**B5**
(1750 min^{-1})	**13**	86	4.6	139.88		**B5**
	12	93	4.3	151.07		**B5**
	11	102	3.9	166.13		**B5**
	10	106	3.8	172.40		**B5**
	8.4	128	3.1	208.45		**B5**
	7.8	138	2.9	223.41		**B5**
	7.0	154	2.6	250.14		**B5**
	5.4	199	2.0	323.65		**B5**
	5.1	213	1.9	345.59		**B5**
	4.7	232	1.7	376.15		**B5**
	4.1	261	1.5	424.21		**B5**
	7.7	140	4.3	227.91	**ATS913**	**B5**
	5.9	182	3.3	294.88		**B5**
	5.6	194	3.1	314.87		**B5**
	5.1	211	2.8	342.72		**B5**
	4.5	238	2.5	386.51		**B5**
0.18						
(0.25 hp)	**17**	93	4.3	100.33	**ATS903**	**B5**
	14	116	3.4	125.89		**B5**
63B4	**13**	122	3.3	131.65		**B5**
(1750 min^{-1})	**13**	129	3.1	139.88		**B5**
	12	139	2.9	151.07		**B5**
	11	153	2.6	166.13		**B5**
	10	159	2.5	172.40		**B5**
	8.4	192	2.1	208.45		**B5**
	7.8	206	1.9	223.41		**B5**
	7.0	231	1.7	250.14		**B5**
	5.4	299	1.3	323.65		**B5**
	5.1	319	1.3	345.59		**B5**
	4.7	347	1.2	376.15		**B5**
	4.1	392	1.0	424.21		**B5**
	9.2	175	3.4	189.92	**ATS913**	**B5**
	8.6	188	3.2	203.55		**B5**
	7.7	210	2.9	227.91		**B5**
	5.9	272	2.2	294.88		**B5**
	5.6	291	2.1	314.87		**B5**
	5.1	316	1.9	342.72		**B5**
	4.5	357	1.7	386.51		**B5**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.25						
(0.33 hp)	**17**	129	3.1	100.33	**ATS903**	**B5**
	14	161	2.5	125.89		**B5**
63C4	**13**	169	2.4	131.65		**B5**
(1750 min^{-1})	**13**	179	2.2	139.88		**B5**
	12	194	2.1	151.07		**B5**
	11	213	1.9	166.13		**B5**
	10	221	1.8	172.40		**B5**
	8.4	267	1.5	208.45		**B5**
	7.8	287	1.4	223.41		**B5**
	7.0	321	1.2	250.14		**B5**
	5.4	415	1.0	323.65		**B5**
	5.1	443	0.9	345.59		**B5**
	11	201	3.0	157.08	**ATS913**	**B5/B14**
	9.2	244	2.5	189.92		**B5/B14**
	8.6	261	2.3	203.55		**B5/B14**
	7.7	292	2.1	227.91		**B5/B14**
	5.9	378	1.6	294.88		**B5/B14**
	5.6	404	1.5	314.87		**B5/B14**
	5.1	440	1.4	342.72		**B5/B14**
	4.5	496	1.2	386.51		**B5/B14**
0.37						
(0.50 hp)	**298**	11	17.6	5.87	**ATS902**	**B5**
	222	15	16.4	7.87		**B5**
71A4	**185**	18	16.3	9.47		**B5**
(1750 min^{-1})	**152**	22	15.7	11.53		**B5**
	132	26	13.6	13.26		**B5**
	112	30	11.5	15.68		**B5**
	105	32	10.8	16.68		**B5**
	92	37	10.8	19.09		**B5**
	80	43	9.4	21.96		**B5**
	66	51	7.8	26.50		**B5**
	63	54	7.5	27.61		**B5**
	59	57	7.0	29.65		**B5**
	52	65	6.2	33.49		**B5**
	49	70	5.8	35.87		**B5**
	46	73	5.5	38.29		**B5**
	40	83	4.8	43.88		**B5**
	36	93	4.3	49.09		**B5**
	33	100	4.0	52.71		**B5**
	32	105	3.8	55.45		**B5**
	28	120	3.3	63.41		**B5**
	24	140	2.9	73.64		**B5**
	20	166	2.4	87.27		**B5**



Datos técnicos / *Dados técnicos* / Technical data

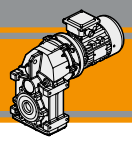
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.37						
(0.50 hp)	**17**	190	2.1	100.33	**ATS903**	**B5/B14**
	14	239	1.7	125.89		**B5/B14**
71A4	**13**	250	1.6	131.65		**B5/B14**
(1750 min^{-1})	**13**	265	1.5	139.88		**B5/B14**
	12	287	1.4	151.07		**B5/B14**
	11	315	1.3	166.13		**B5/B14**
	10	327	1.2	172.40		**B5/B14**
	8.4	396	1.0	208.45		**B5/B14**
	7.8	424	0.9	223.41		**B5/B14**
	21	156	3.8	82.28	**ATS913**	**B5/B14**
	19	178	3.4	93.96		**B5/B14**
	17	192	3.1	101.41		**B5/B14**
	14	233	2.6	122.61		**B5/B14**
	13	249	2.4	131.41		**B5/B14**
	12	279	2.1	147.13		**B5/B14**
	11	298	2.0	157.08		**B5/B14**
	9.2	360	1.7	189.92		**B5/B14**
	8.6	386	1.6	203.55		**B5/B14**
	7.7	433	1.4	227.91		**B5/B14**
	5.9	560	1.1	294.88		**B5/B14**
	5.6	598	1.0	314.87		**B5/B14**
	5.1	650	0.9	342.72		**B5/B14**
0.55						
(0.75 hp)	**298**	17	11.8	5.87	**ATS902**	**B5**
	222	23	11.0	7.87		**B5**
71B4	**185**	27	11.0	9.47		**B5**
(1750 min^{-1})	**152**	33	10.5	11.53		**B5**
	132	38	9.2	13.26		**B5**
	112	45	7.7	15.68		**B5**
	105	48	7.3	16.68		**B5**
	92	55	7.3	19.09		**B5**
	80	63	6.3	21.96		**B5**
	66	76	5.2	26.50		**B5**
	63	80	5.0	27.61		**B5**
	59	85	4.7	29.65		**B5**
	52	96	4.1	33.49		**B5**
	49	103	3.9	35.87		**B5**
	46	108	3.7	38.29		**B5**
	40	124	3.2	43.88		**B5**
	36	139	2.9	49.09		**B5**
	33	149	2.7	52.71		**B5**
	32	156	2.6	55.45		**B5**
	28	179	2.2	63.41		**B5**
	24	208	1.9	73.64		**B5**
	20	246	1.6	87.27		**B5**
	17	283	1.4	100.33	**ATS903**	**B5/B14**
	14	355	1.1	125.89		**B5/B14**
	13	371	1.1	131.65		**B5/B14**
	13	395	1.0	139.88		**B5/B14**
	12	426	0.9	151.07		**B5/B14**
	11	469	0.9	166.13		**B5/B14**
	35	143	4.2	50.53	**ATS912**	**B5**
	30	163	3.7	57.77		**B5**
	26	189	3.2	67.09		**B5**
	22	224	2.7	79.52		**B5**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.55						
(0.75 hp)	**21**	232	2.6	82.28	**ATS913**	**B5/B14**
	19	265	2.3	93.96		**B5/B14**
71B4	**17**	286	2.1	101.41		**B5/B14**
(1750 min^{-1})	**14**	346	1.7	122.61		**B5/B14**
	13	371	1.6	131.41		**B5/B14**
	12	415	1.4	147.13		**B5/B14**
	11	443	1.4	157.08		**B5/B14**
	9.2	536	1.1	189.92		**B5/B14**
	8.6	574	1.0	203.55		**B5/B14**
	7.7	643	0.9	227.91		**B5/B14**
0.75						
(1.0 hp)	**298**	23	8.7	5.87	**ATS902**	**B5/B14**
	222	31	8.1	7.87		**B5/B14**
80A4	**185**	37	8.1	9.47		**B5/B14**
(1750 min^{-1})	**152**	45	7.7	11.53		**B5/B14**
	132	52	6.7	13.26		**B5/B14**
	112	62	5.7	15.68		**B5/B14**
	105	66	5.3	16.68		**B5/B14**
	92	75	5.3	19.09		**B5/B14**
	80	86	4.6	21.96		**B5/B14**
	66	104	3.8	26.50		**B5/B14**
	63	108	3.7	27.61		**B5/B14**
	59	116	3.4	29.65		**B5/B14**
	52	132	3.0	33.49		**B5/B14**
	49	141	2.8	35.87		**B5/B14**
	46	147	2.7	38.29		**B5/B14**
	40	169	2.4	43.88		**B5/B14**
	36	189	2.1	49.09		**B5/B14**
	33	203	2.0	52.71		**B5/B14**
	32	213	1.9	55.45		**B5/B14**
	28	244	1.6	63.41		**B5/B14**
	24	283	1.4	73.64		**B5/B14**
	20	336	1.2	87.27		**B5/B14**
	17	386	1.0	100.33	**ATS903**	**B5/B14**
	47	143	4.2	37.30	**ATS912**	**B5/B14**
	44	154	3.9	39.98		**B5/B14**
	39	172	3.5	44.73		**B5/B14**
	35	194	3.1	50.53		**B5/B14**
	30	222	2.7	57.77		**B5/B14**
	26	258	2.3	67.09		**B5/B14**
	22	306	2.0	79.52		**B5/B14**
	21	317	1.9	82.28	**ATS913**	**B5/B14**
	19	361	1.7	93.96		**B5/B14**
	17	390	1.5	101.41		**B5/B14**
	14	472	1.3	122.61		**B5/B14**
	13	506	1.2	131.41		**B5/B14**
	12	566	1.1	147.13		**B5/B14**
	11	604	1.0	157.08		**B5/B14**

Datos técnicos / *Dados técnicos* / Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
1.1						
(1.5 hp)	**298**	34	5.9	5.87	**ATS902**	**B5/B14**
	222	45	5.5	7.87		**B5/B14**
80B4	**185**	55	5.5	9.47		**B5/B14**
(1750 min^{-1})	**152**	66	5.3	11.53		**B5/B14**
	132	76	4.6	13.26		**B5/B14**
	112	90	3.9	15.68		**B5/B14**
	105	96	3.6	16.68		**B5/B14**
	92	110	3.6	19.09		**B5/B14**
	80	127	3.2	21.96		**B5/B14**
	66	153	2.6	26.50		**B5/B14**
	63	159	2.5	27.61		**B5/B14**
	59	171	2.3	29.65		**B5/B14**
	52	193	2.1	33.49		**B5/B14**
	49	207	1.9	35.87		**B5/B14**
	46	216	1.9	38.29		**B5/B14**
	40	248	1.6	43.88		**B5/B14**
	36	277	1.4	49.09		**B5/B14**
	33	297	1.3	52.71		**B5/B14**
	32	313	1.3	55.45		**B5/B14**
	28	358	1.1	63.41		**B5/B14**
	24	416	1.0	73.64		**B5/B14**
	61	163	3.7	28.88	**ATS912**	**B5/B14**
	54	184	3.3	32.69		**B5/B14**
	47	210	2.9	37.30		**B5/B14**
	44	226	2.7	39.98		**B5/B14**
	39	252	2.4	44.73		**B5/B14**
	35	285	2.1	50.53		**B5/B14**
	30	326	1.8	57.77		**B5/B14**
	26	379	1.6	67.09		**B5/B14**
	22	449	1.3	79.52		**B5/B14**
	21	464	1.3	82.28	**ATS913**	**B5/B14**
	19	530	1.1	93.96		**B5/B14**
	17	572	1.0	101.41		**B5/B14**
	14	692	0.9	122.61		**B5/B14**
1.5						
(2.0 hp)	**298**	46	4.3	5.87	**ATS902**	**B5/B14**
	222	62	4.0	7.87		**B5/B14**
90S4	**185**	74	4.0	9.47		**B5/B14**
(1750 min^{-1})	**152**	91	3.9	11.53		**B5/B14**
	132	104	3.4	13.26		**B5/B14**
	112	123	2.8	15.68		**B5/B14**
	105	131	2.7	16.68		**B5/B14**
	92	150	2.7	19.09		**B5/B14**
	80	173	2.3	21.96		**B5/B14**
	66	208	1.9	26.50		**B5/B14**
	63	217	1.8	27.61		**B5/B14**
	59	233	1.7	29.65		**B5/B14**
	52	263	1.5	33.49		**B5/B14**
	49	282	1.4	35.87		**B5/B14**
	46	295	1.4	38.29		**B5/B14**
	40	338	1.2	43.88		**B5/B14**
	36	378	1.1	49.09		**B5/B14**
	33	406	1.0	52.71		**B5/B14**
	32	427	0.9	55.45		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
1.5						
(2.0 hp)	**101**	137	3.7	17.39	**ATS912**	**B5/B14**
	87	157	3.8	20.01		**B5/B14**
90S4	**83**	166	3.6	21.10		**B5/B14**
(1750 min^{-1})	**70**	198	3.0	25.16		**B5/B14**
	68	203	3.0	25.81		**B5/B14**
	61	222	2.7	28.88		**B5/B14**
	54	251	2.4	32.69		**B5/B14**
	47	287	2.1	37.30		**B5/B14**
	44	308	2.0	39.98		**B5/B14**
	39	344	1.7	44.73		**B5/B14**
	35	389	1.5	50.53		**B5/B14**
	30	445	1.3	57.77		**B5/B14**
	26	516	1.2	67.09		**B5/B14**
	22	612	1.0	79.52		**B5/B14**
	21	633	0.9	82.28	**ATS913**	**B5/B14**
2.2						
(3.0 hp)	**298**	68	3.0	5.87	**ATS902**	**B5/B14**
	222	91	2.8	7.87		**B5/B14**
90L4	**185**	109	2.7	9.47		**B5/B14**
(1750 min^{-1})	**152**	133	2.6	11.53		**B5/B14**
	132	153	2.3	13.26		**B5/B14**
	112	181	1.9	15.68		**B5/B14**
	105	192	1.8	16.68		**B5/B14**
	92	220	1.8	19.09		**B5/B14**
	80	253	1.6	21.96		**B5/B14**
	66	305	1.3	26.50		**B5/B14**
	63	318	1.3	27.61		**B5/B14**
	59	342	1.2	29.65		**B5/B14**
	52	386	1.0	33.49		**B5/B14**
	49	413	1.0	35.87		**B5/B14**
	46	432	0.9	38.29		**B5/B14**
	306	66	5.3	5.71	**ATS912**	**B5/B14**
	228	88	4.0	7.66		**B5/B14**
	198	102	3.9	8.85		**B5/B14**
	190	106	3.8	9.22		**B5/B14**
	156	129	3.1	11.23		**B5/B14**
	147	137	2.9	11.87		**B5/B14**
	135	149	3.4	12.92		**B5/B14**
	122	165	3.0	14.29		**B5/B14**
	108	187	2.7	16.24		**B5/B14**
	101	200	2.5	17.39		**B5/B14**
	87	231	2.6	20.01		**B5/B14**
	83	243	2.5	21.10		**B5/B14**
	70	290	2.1	25.16		**B5/B14**
	68	298	2.0	25.81		**B5/B14**
	61	326	1.8	28.88		**B5/B14**
	54	369	1.6	32.69		**B5/B14**
	47	421	1.4	37.30		**B5/B14**
	44	451	1.3	39.98		**B5/B14**
	39	505	1.2	44.73		**B5/B14**
	35	570	1.1	50.53		**B5/B14**
	30	652	0.9	57.77		**B5/B14**



Datos técnicos — *Dados técnicos* — Technical data

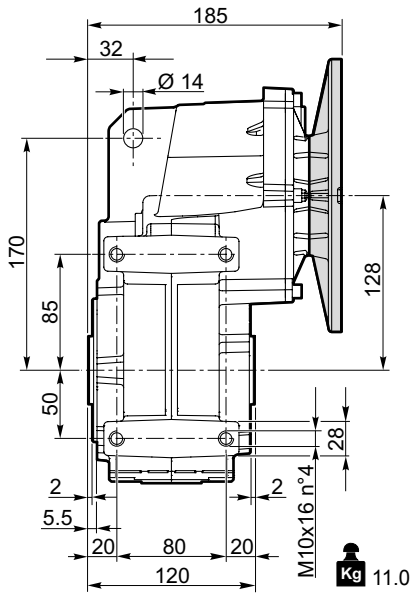
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
3.0						
(4.0 hp)	**298**	92	2.2	5.87	**ATS902**	**B5/B14**
	222	124	2.0	7.87		**B5/B14**
100LA4	**185**	149	2.0	9.47		**B5/B14**
(1750 min^{-1})	**152**	181	1.9	11.53		**B5/B14**
	132	208	1.7	13.26		**B5/B14**
	112	246	1.4	15.68		**B5/B14**
	105	262	1.3	16.68		**B5/B14**
	92	300	1.3	19.09		**B5/B14**
	80	345	1.2	21.96		**B5/B14**
	66	417	1.0	26.50		**B5/B14**
	63	434	0.9	27.61		**B5/B14**
	59	466	0.9	29.65		**B5/B14**
	306	90	3.9	5.71	**ATS912**	**B5/B14**
	228	120	2.9	7.66		**B5/B14**
	198	139	2.9	8.85		**B5/B14**
	190	145	2.8	9.22		**B5/B14**
	156	176	2.3	11.23		**B5/B14**
	147	187	2.1	11.87		**B5/B14**
	135	203	2.5	12.92		**B5/B14**
	122	225	2.2	14.29		**B5/B14**
	108	255	2.0	16.24		**B5/B14**
	101	273	1.8	17.39		**B5/B14**
	87	314	1.9	20.01		**B5/B14**
	83	332	1.8	21.10		**B5/B14**
	70	395	1.5	25.16		**B5/B14**
	68	406	1.5	25.81		**B5/B14**
	61	444	1.4	28.88		**B5/B14**
	54	503	1.2	32.69		**B5/B14**
	47	574	1.0	37.30		**B5/B14**
	44	615	1.0	39.98		**B5/B14**
	39	688	0.9	44.73		**B5/B14**
3.7						
(5.0 hp)	**298**	114	1.8	5.87	**ATS902**	**B5/B14**
	222	153	1.6	7.87		**B5/B14**
100LB4	**185**	184	1.6	9.47		**B5/B14**
(1750 min^{-1})	**152**	223	1.6	11.53		**B5/B14**
	132	257	1.4	13.26		**B5/B14**
	112	304	1.2	15.68		**B5/B14**
	105	323	1.1	16.68		**B5/B14**
	92	370	1.1	19.09		**B5/B14**
	80	426	0.9	21.96		**B5/B14**
	306	111	3.2	5.71	**ATS912**	**B5/B14**
	228	149	2.4	7.66		**B5/B14**
	198	172	2.3	8.85		**B5/B14**
	190	179	2.2	9.22		**B5/B14**
	156	218	1.8	11.23		**B5/B14**
	147	230	1.7	11.87		**B5/B14**
	135	250	2.0	12.92		**B5/B14**
	122	277	1.8	14.29		**B5/B14**
	108	315	1.6	16.24		**B5/B14**
	101	337	1.5	17.39		**B5/B14**
	87	388	1.5	20.01		**B5/B14**
	83	409	1.5	21.10		**B5/B14**
	70	488	1.2	25.16		**B5/B14**
	68	500	1.2	25.81		**B5/B14**
	61	548	1.1	28.88		**B5/B14**
	54	620	1.0	32.69		**B5/B14**
	47	708	0.8	37.30		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
4.5						
(6.0 hp)	**298**	138	1.4	5.87	**ATS902**	**B5/B14**
	222	186	1.3	7.87		**B5/B14**
112MA4	**185**	223	1.3	9.47		**B5/B14**
(1750 min^{-1})	**152**	272	1.3	11.53		**B5/B14**
	132	313	1.1	13.26		**B5/B14**
	112	370	0.9	15.68		**B5/B14**
	105	393	0.9	16.68		**B5/B14**
	92	450	0.9	19.09		**B5/B14**
	306	135	2.6	5.71	**ATS912**	**B5/B14**
	228	181	1.9	7.66		**B5/B14**
	198	209	1.9	8.85		**B5/B14**
	190	217	1.8	9.22		**B5/B14**
	156	265	1.5	11.23		**B5/B14**
	147	280	1.4	11.87		**B5/B14**
	135	305	1.6	12.92		**B5/B14**
	122	337	1.5	14.29		**B5/B14**
	108	383	1.3	16.24		**B5/B14**
	101	410	1.2	17.39		**B5/B14**
	87	472	1.3	20.01		**B5/B14**
	83	497	1.2	21.10		**B5/B14**
	70	593	1.0	25.16		**B5/B14**
	68	609	1.0	25.81		**B5/B14**
	61	667	0.9	28.88		**B5/B14**
5.5						
(7.5 hp)	**298**	169	1.2	5.87	**ATS902**	**B5/B14**
	222	227	1.1	7.87		**B5/B14**
112MB4	**185**	273	1.1	9.47		**B5/B14**
(1750 min^{-1})	**152**	332	1.1	11.53		**B5/B14**
	132	382	0.9	13.26		**B5/B14**
	306	165	2.1	5.71	**ATS912**	**B5/B14**
	228	221	1.6	7.66		**B5/B14**
	198	255	1.6	8.85		**B5/B14**
	190	266	1.5	9.22		**B5/B14**
	156	324	1.2	11.23		**B5/B14**
	147	342	1.2	11.87		**B5/B14**
	135	372	1.3	12.92		**B5/B14**
	122	412	1.2	14.29		**B5/B14**
	108	468	1.1	16.24		**B5/B14**
	101	501	1.0	17.39		**B5/B14**
	87	577	1.0	20.01		**B5/B14**
	83	608	1.0	21.10		**B5/B14**

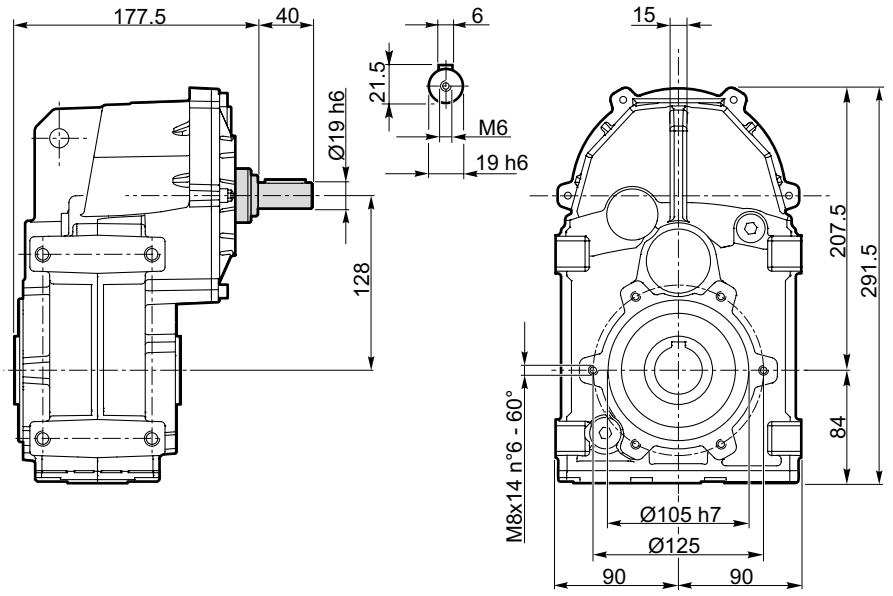
Dimensiones | *Dimensões* | Dimensions

ATS 902

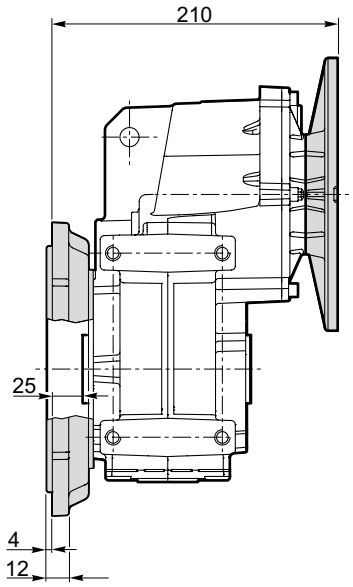
ATS 902 U..



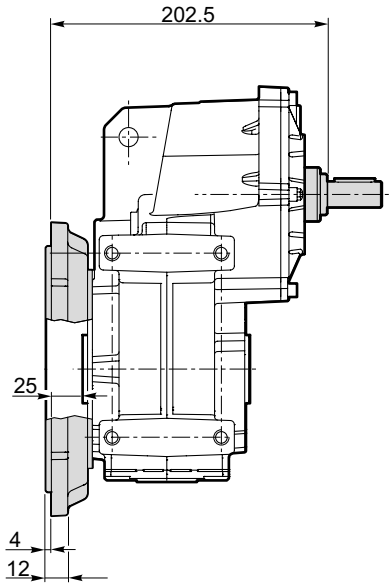
ATSIS 902 U..

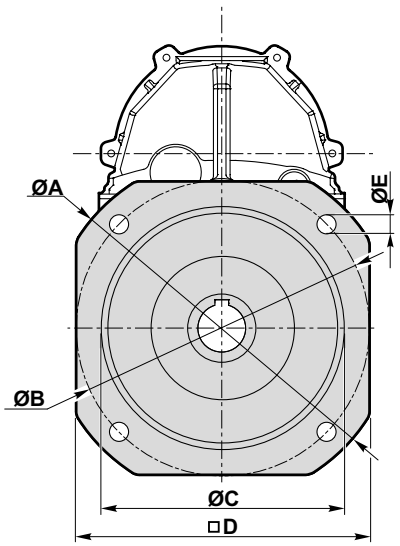


ATS 902 F..



ATSIS 902 F..

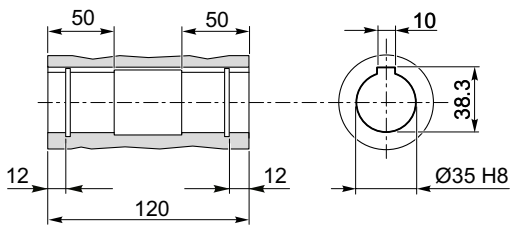




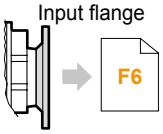
Versión F / *Versão F* / F Version							
ATS ATSIS	ØA	ØB	ØC f7	□D	ØE	Brida / *Flange* / Flange	
						Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
902	200	165	130	165	11	**F200**	2
	250	215	180	215	14	**F250**	3.2

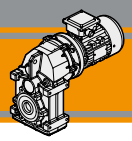
ATS 902.. D35 - ATSIS 902.. D35

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft



Bridas Motor
Flange do motor
Input flange

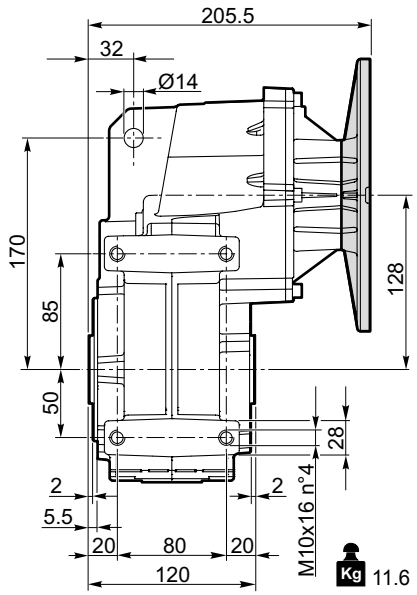




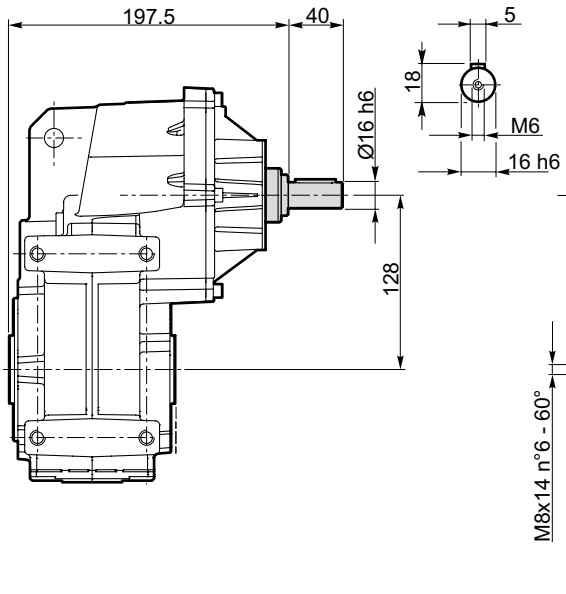
Dimensiones | *Dimensões* | Dimensions

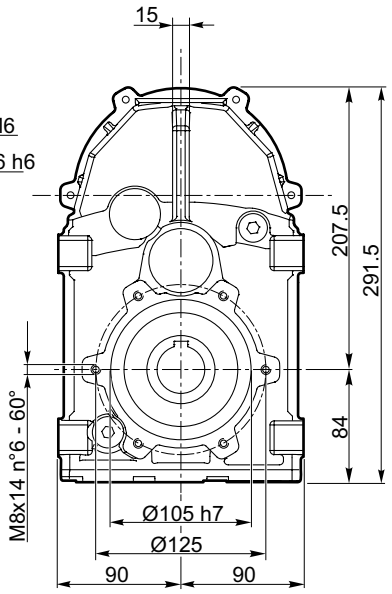
ATS 903

ATS 903 U..

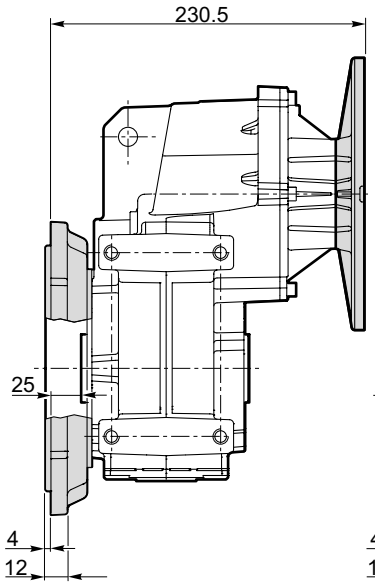


ATSIS 903 U..

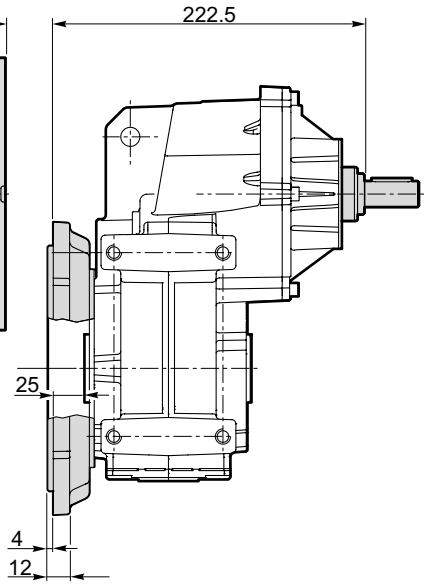


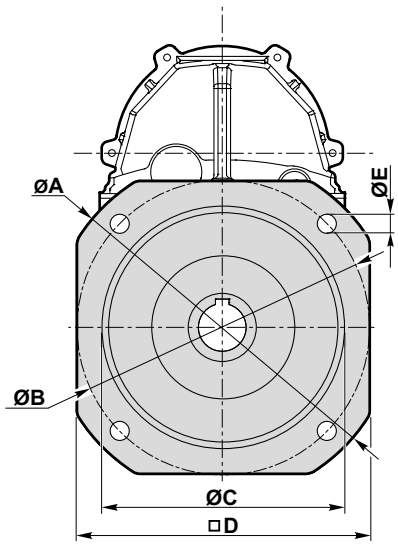


ATS 903 F..



ATSIS 903 F..

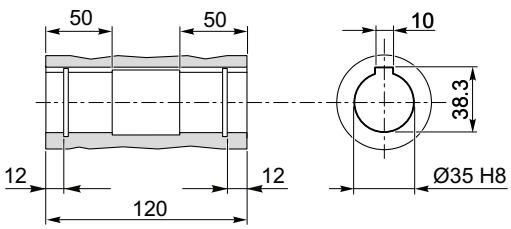




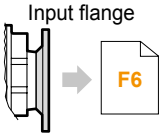
Versión F / *Versão F* / F Version							
ATS ATSIS	ØA	ØB	ØC f7	□D	ØE	Brida / *Flange* / Flange	
						Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
903	200	165	130	165	11	**F200**	2
	250	215	180	215	14	**F250**	3.2

ATS 903.. D35 - ATSIS 903.. D35

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft



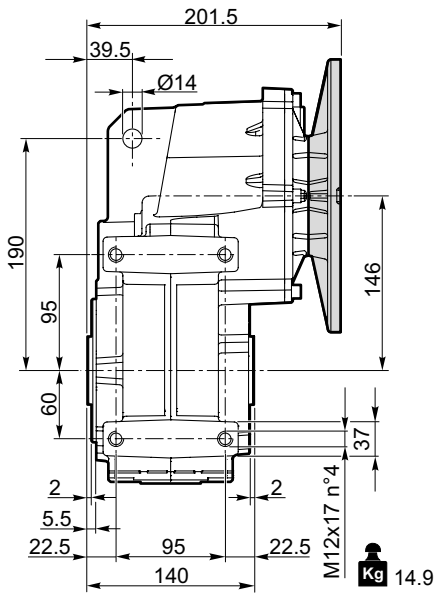
Bridas Motor
Flange do motor
Input flange



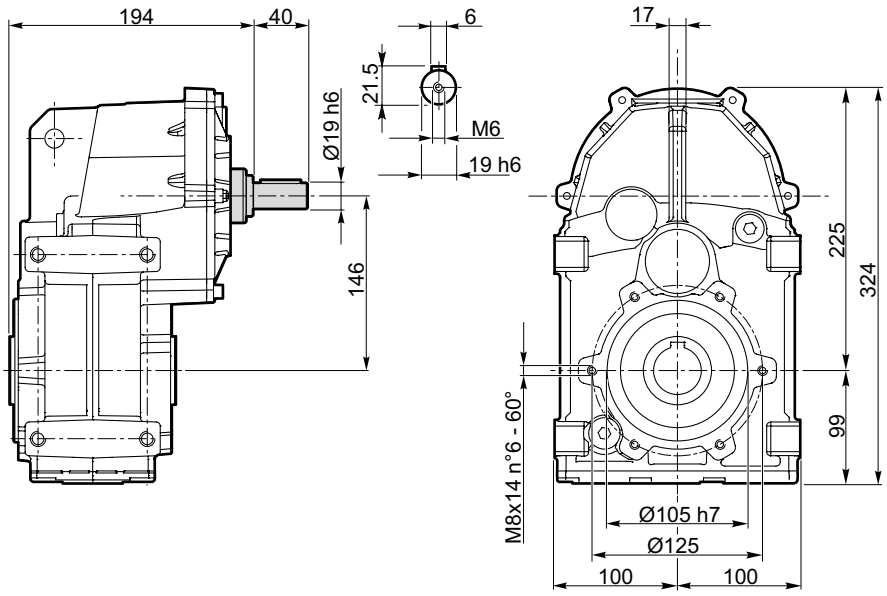
Dimensiones | *Dimensões* | Dimensions

ATS 912

ATS 912 U..



ATSIS 912 U..



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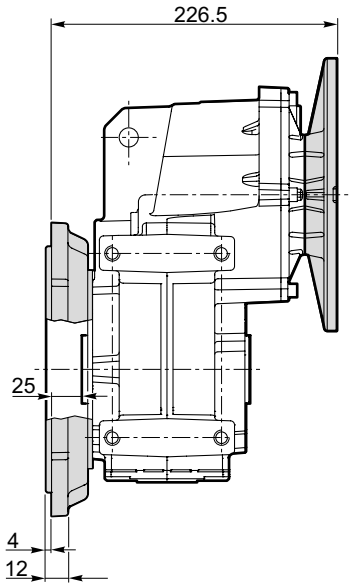

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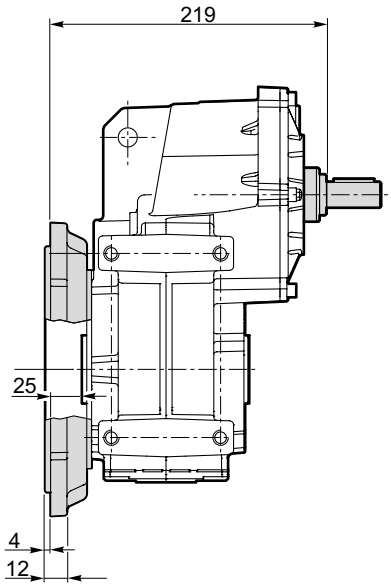
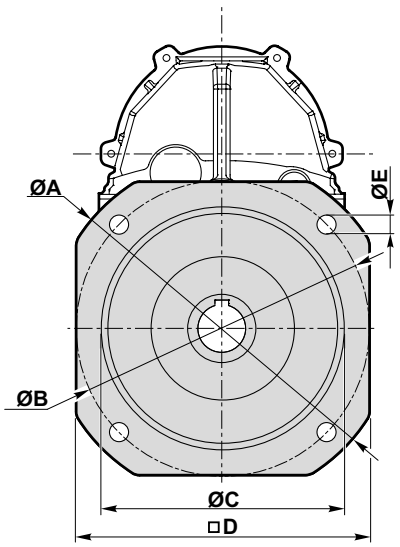
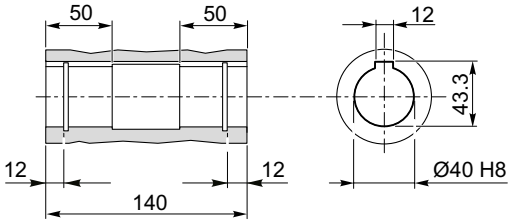




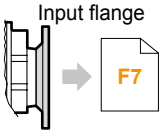
Versión F / *Versão F* / F Version							
ATS ATSIS	ØA	ØB	ØC f7	□D	ØE	Brida / *Flange* / Flange	
						Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
912	200	165	130	165	11	**F200**	2
	250	215	180	215	14	**F250**	3.2

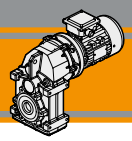
ATS 912.. D40 - ATSIS 912.. D40

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft



Bridas Motor
Flange do motor
Input flange

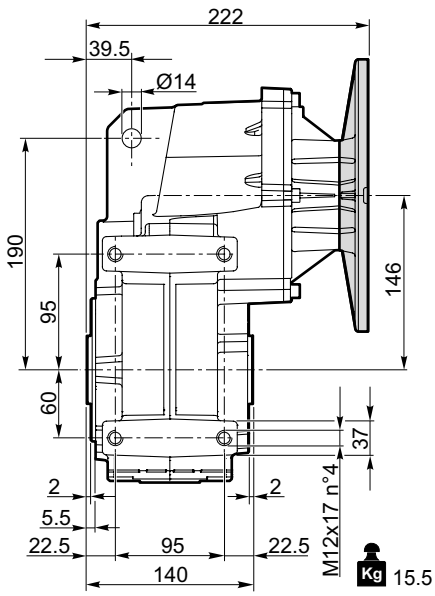




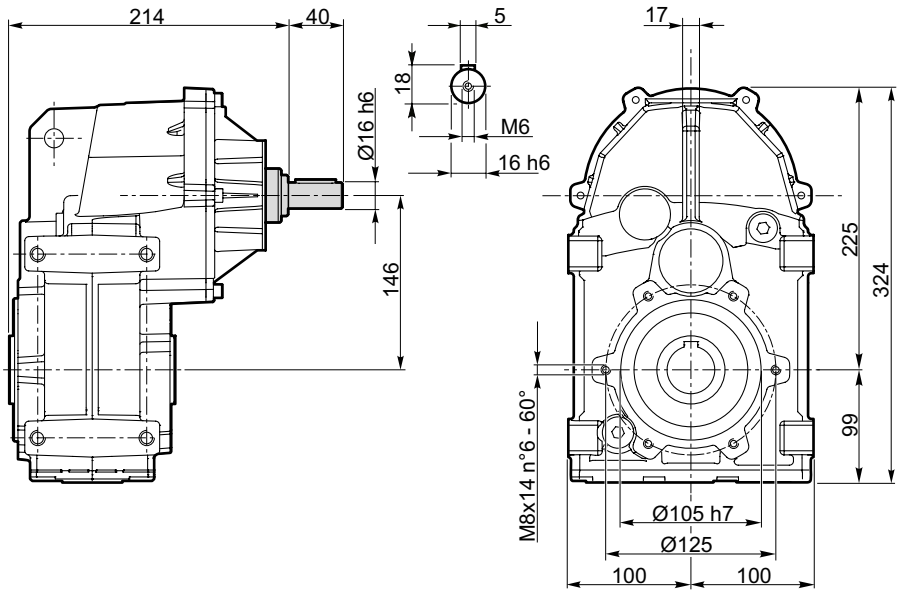
Dimensiones | ***Dimensões*** | **Dimensions**

ATS 913

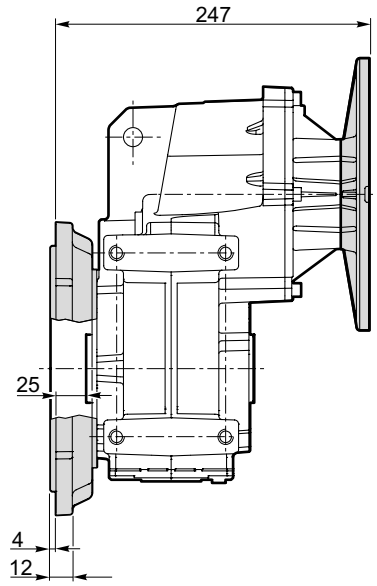
ATS 913 U..



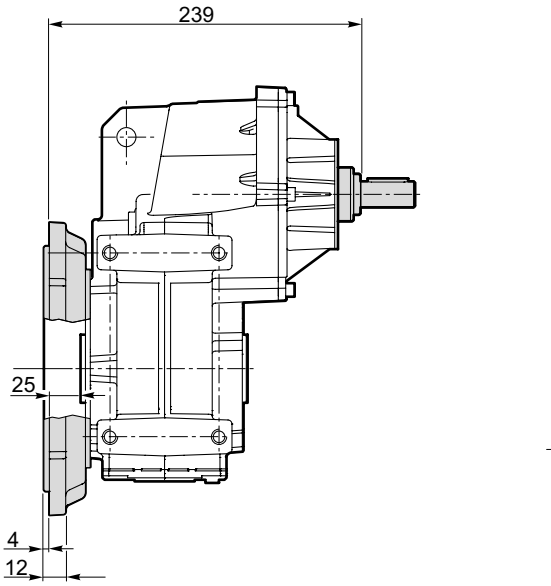
ATSIS 913 U..

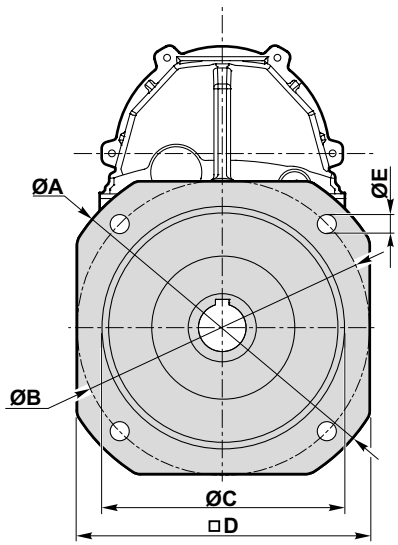


ATS 913 F..



ATSIS 913 F..

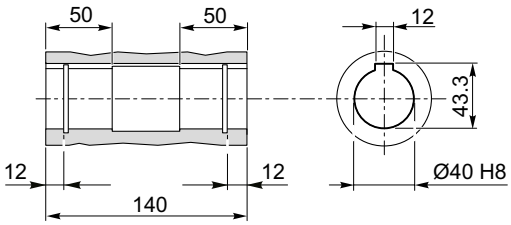




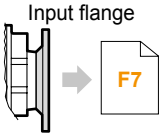
Versión F / *Versão F* / F Version							
ATS ATSIS	**ØA**	**ØB**	**ØC f7**	**□D**	**ØE**	**Brida / *Flange* / Flange**	
						Tipo / *Tipo* / Type	Peso / *Peso* / Weight [kg]
913	200	165	130	165	11	**F200**	2
	250	215	180	215	14	**F250**	3.2

ATS 913.. D40 - ATSIS 913.. D40

Eje de salida hueco / *Eixo saída vazado* / Hollow output shaft



Bridas Motor
Flange do motor
Input flange

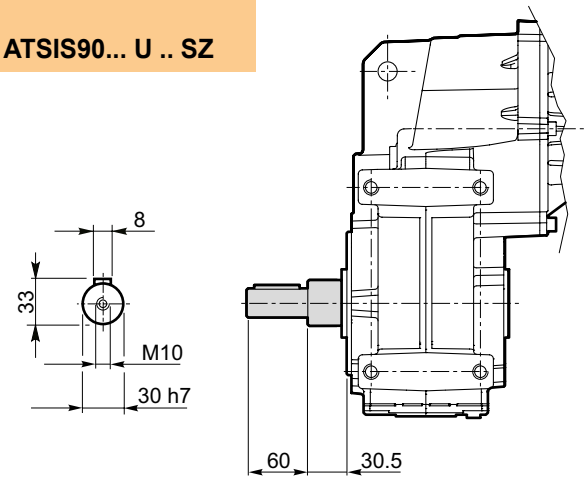


Accesorios — *Acessórios* — Accessories

Eje de salida — *Eixo de saída* — Single output shaft

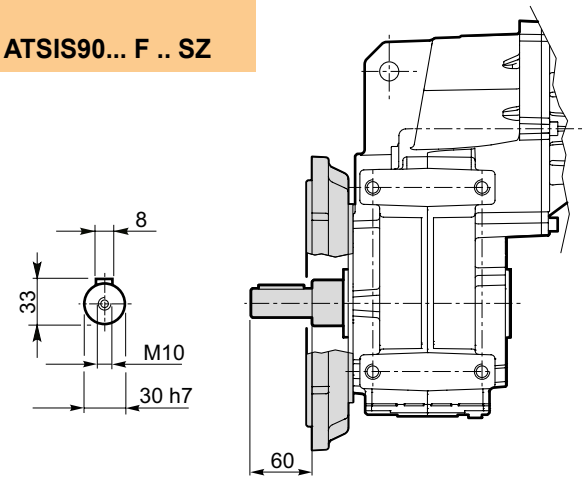
ATS90... U .. SZ

ATSIS90... U .. SZ



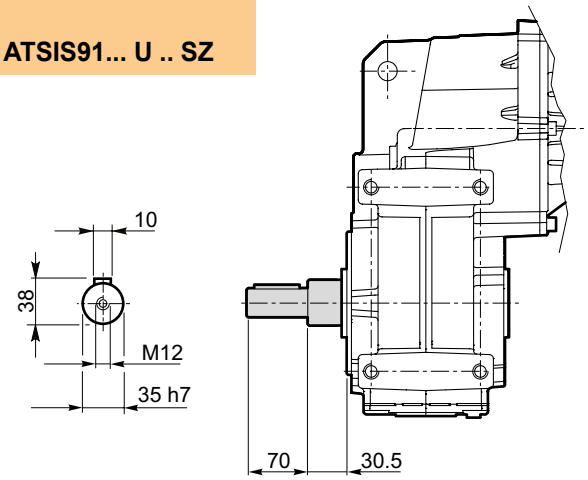
ATS90... F .. SZ

ATSIS90... F .. SZ



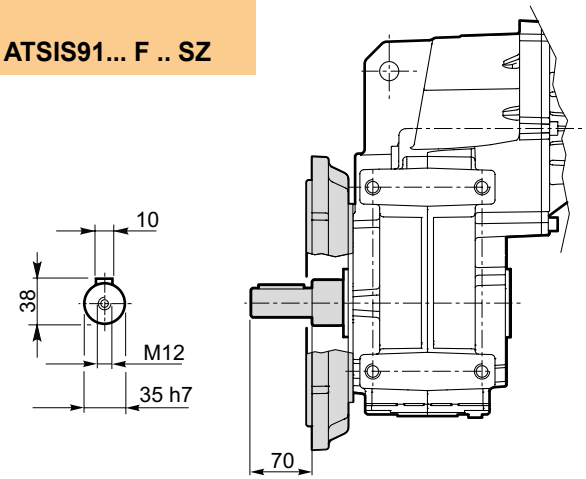
ATS91... U .. SZ

ATSIS91... U .. SZ



ATS91... F .. SZ

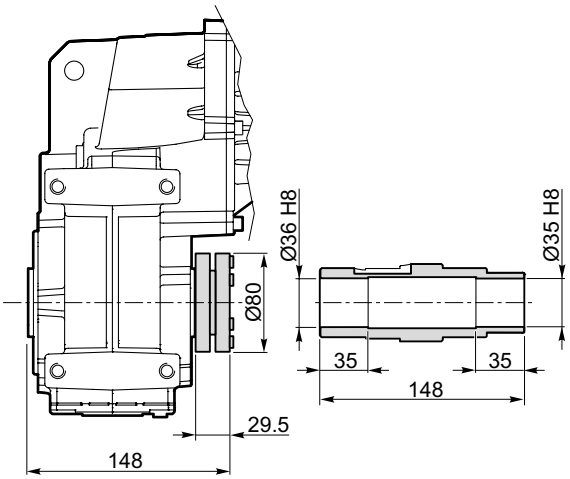
ATSIS91... F .. SZ



Eje de salida con anillo de contracción — *Eixo de saída com disco de contração* — Output shaft with shrink disk

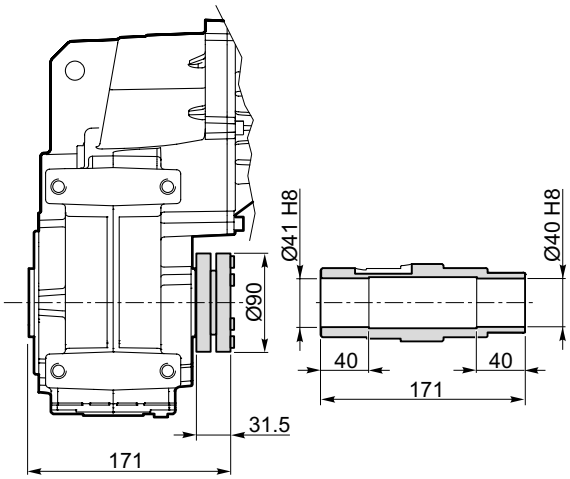
ATS90... U .. G35

ATSIS90... U .. G35



ATS91... U .. G40

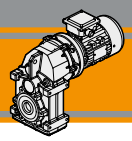
ATSIS91... U .. G40



Kit de eje de salida con anillo de contracción disponible bajo pedido: para obtener instrucciones de montaje favor de ponerse en contacto con nuestro Servicio Técnico

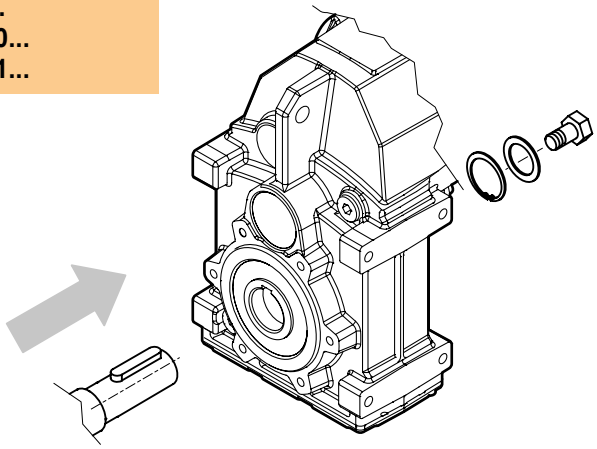
O kit eixo de saída com disco de contração é disponível sob encomenda: para instruções de montagem consultar ao nosso Serviço Técnico

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



Accesorios	*Acessórios*	Accessories
Kit de montaje de eje de salida	***Kit de montagem eixo de saída***	**Output shaft assembly kit**

ATS90...
ATS91...
ATSIS90...
ATSIS91...



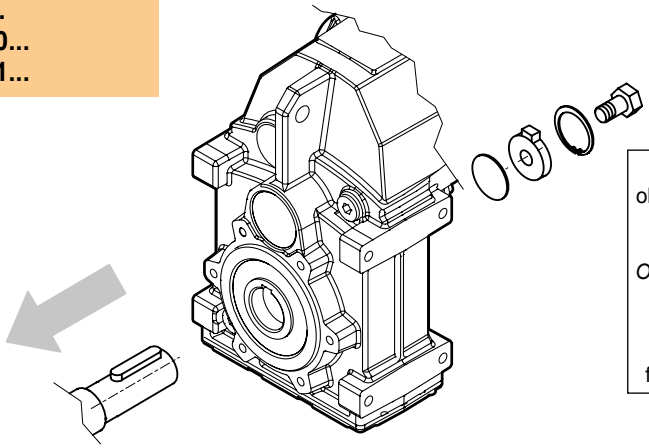
Kit de montaje del eje de salida disponible bajo pedido: para obtener instrucciones de montaje favor de ponerse en contacto con nuestro Servicio Técnico

kit de montagem do eixo de saída disponível sob encomenda: para instruções de montagem consultar ao nosso Serviço Técnico

Output shaft assembly kit available upon request:
for assembly instructions please contact our Technical Assistance

Kit de desmontaje del eje de salida	*Kit para remoção do eixo de saída*	Output shaft disassembly kit

ATS90...
ATS91...
ATSIS90...
ATSIS91...



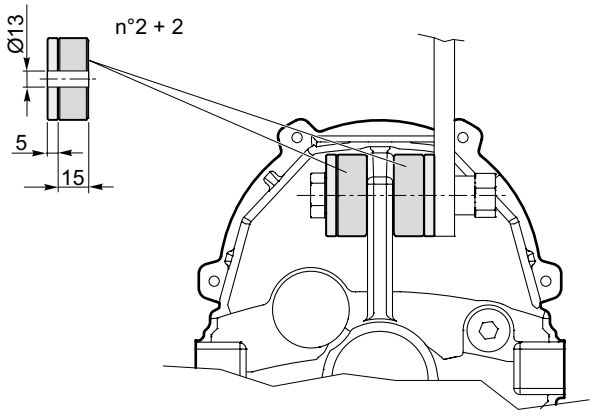
Kit de desmontaje del eje de salida disponible bajo pedido: para obtener instrucciones de montaje favor de ponerse en contacto con nuestro Servicio Técnico

O kit de remoção do eixo de saída disponível sob encomenda: para instruções de montagem consultar ao nosso Serviço Técnico

Output shaft disassembly kit available upon request:
for assembly instructions please contact our Technical Assistance

Kit del brazo de reacción	*Kit braço de torção*	Torque arm kit

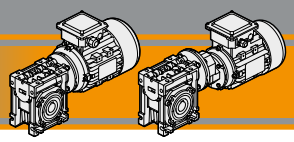
ATS90...U
ATS91...U
ATSIS90...U
ATSIS91...U



Kit del brazo de reacción disponible bajo pedido: para obtener instrucciones de montaje favor de ponerse en contacto con nuestro Servicio Técnico

O kit braço de torção está disponível sob encomenda: para instruções de montagem consultar ao nosso Serviço Técnico

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



Características técnicas

El elevado nivel de modularidad caracteriza los motorreductores sinfín corona de la serie CM y CMP; los diversos kit de entrada y salida permiten una versatilidad extrema del motorreductor.Los motorreductores de la serie CM y CMP poseen las caracteristicas siguientes:

- Los tamaños 026, 030, 040, 050, 063, 075, 090 y 110 están construidos con carcasa de aluminio. Los tamaños 130 y 150 en hierro fundido;
- Los tamaños 090, 110, 130 y 150 se suministran con rodamientos de rodillos conicos en el sinfin;
- El pre-reductor se fabrica con carcasa de aluminio;

Características técnicas

A elevada modularidade contradistingue os redutores de rosca sem fim da série CM e CMP: os vários kits de entrada e saída os tornam extremamente versáteis.
As principais características das séries CM e CMP são:

- *Carcaça em alumínio nas grandezas 026, 030, 040, 050, 063, 075, 090 e 110. As grandezas 130 e 150 são construídas com carcaça em ferro fundido;*
- *Os tamanhos 090,110,130 e 150 são fornecidos com rolamentos cônicos*
- *Os pré estágios são construidos com carcaça em alumínio*

Technical features

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

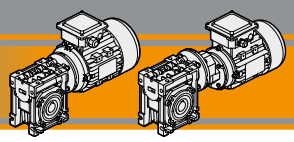
- Die-cast aluminum housing on sizes 026, 030, 040, 050, 063, 070, 075, 090 and 110. Cast iron housing on size 130 and 150;
- Double taper roller bearing on sizes 090, 110, 130 and 150;
- Die-cast aluminum housing on pre-stage units;

Clasificación / *Designação* / Classification

REDUCTORES DE SINFÍN CORONA
REDUTORES DE ROSCA SEM FIM
WORMGEARBOXES

REDUCTOR / *REDUTOR* / GEARBOX

CM	050	U	10	71	B5	SZDX	BRSX	90	M1	VS
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	IEC	Forma constructiva *Forma construtiva* Version	ø Eje de salida *ø Eixo saída* ø Output shaft	Brazo de reacción *Braço de reação* Torque arm	Ángulo *Ângulo* Angle	Posición de montaje *Pos. de montagem* Mounting position	Opción *Opções* Options
CM  **CMIS** 	**026** **030** **040** **050** **063** **070** **075** **090** **110** **130** **150**	**U** **FD** **FS** **FLD** **FLS** **FBD** **FBS**	Véase tablas *Veja tabelas* see tables	**56..** **—** **132..**	**B5** **B14**	**SZDX** **SZSX** **DZ**	**BRDX** **BRSX**	**0°** **90°** **180°** **270°**	**M1** (B3) **M2** (V6) **M3** (B8) **M4** (V5) **M6** (B6) **M5** (B7)	**VS**

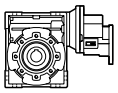


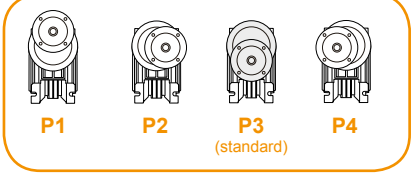
Clasificación | ***Designação*** | **Classification**

PREDUCTORES SINFÍN CORONA CON PRE-REDUCTOR
REDUTORES DE ROSCA SEM FIM COM PRÉ-ESTÁGIO
PRE-STAGE WORMGEARBOXES

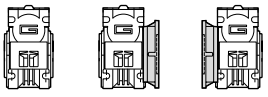
REDUCTOR / *REDUTOR* / GEARBOX

CMP	063/050	U	90	63	B14	SZDX	BRSX	90	P4	M1	VS
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	IEC	Forma constructiva *Forma construtiva* Version	ø Eje de salida *ø Eixo saída* ø Output shaft	Brazo de reacción *Braço de reação* Torque arm	Ángulo *Ângulo* Angle	Posición de montaje *Pos. de montagem* Mounting position	Opciones *Opções* Options	Opciones *Opções* Options
CMP	**056/030** **056/040** **063/040** **063/050** **063/063** **071/050** **071/063** **071/070** **071/075** **071/090** **080/063** **080/070** **080/075** **080/090** **080/110** **080/130** **090/070** **090/075** **090/090** **090/110** **090/130**	**U** **FD** **FS** **FLD** **FLS** **FBD** **FBS**	Véase tablas *Veja tabelas* see tables	**56..** **—** **80..**	**B5** **B14**	**SZDX** **SZSX** **DZ**	**BRDX** **BRSX**	**0°** **90°** **180°** **270°**	**P1** **P2** **P3** (standard) **P4**	**M1** (B3) **M2** (V6) **M3** (B8) **M4** (V5) **M6** (B6) **M5** (B7)	**VS**

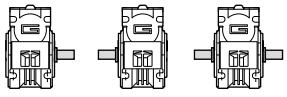




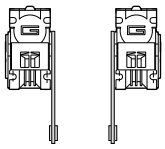
Relación de reducción
Versão Redutor
Gearbox Version



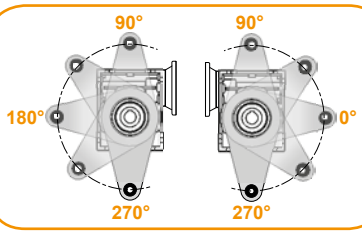
Eje de salida
Eixo de saída
Output shaft



Brazo de reacción
Braço de reação
Torque arm



Ángulo
Ângulo
Angle

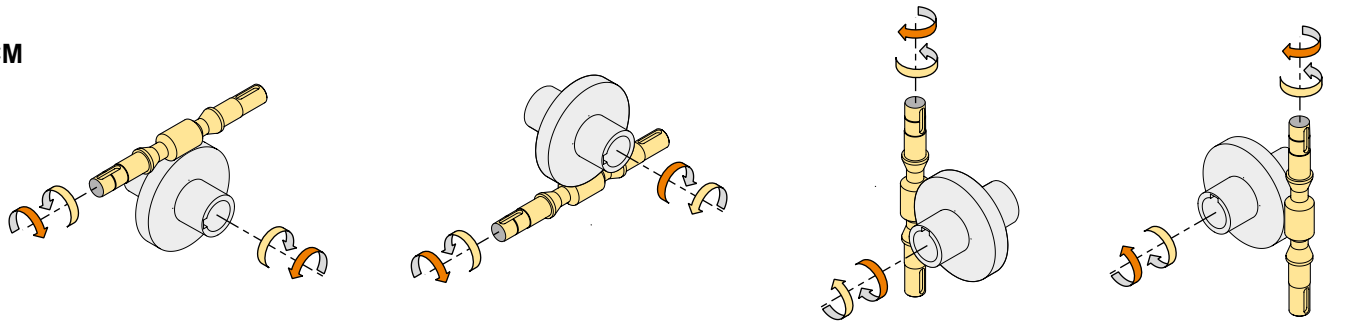


MOTOR / *MOTOR* / MOTOR

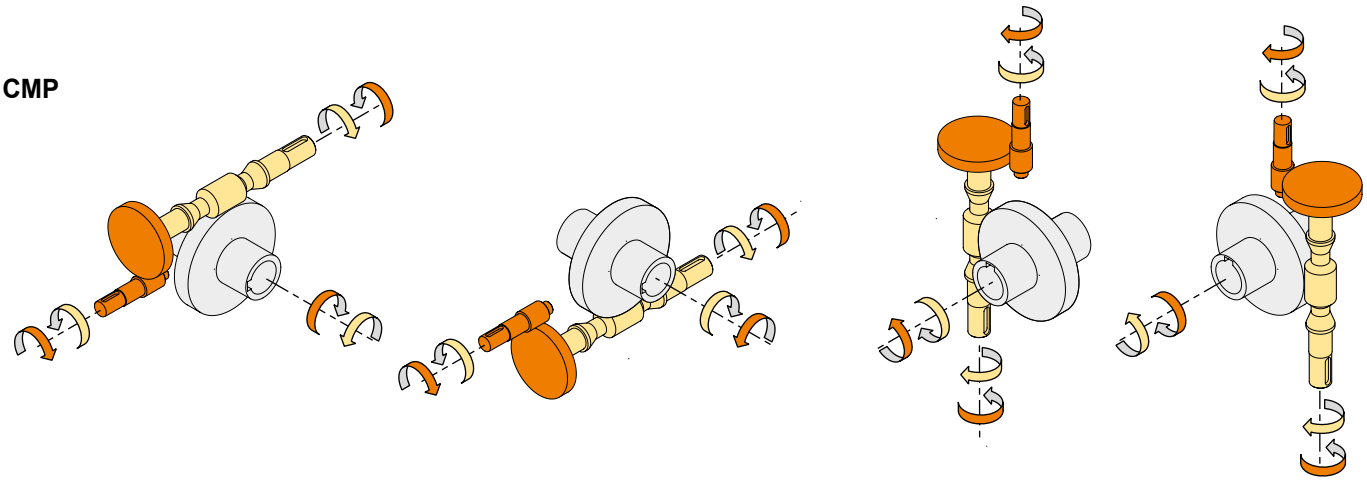
0.75kW	4p	3ph	230/400V	60Hz	T1
Potencia *Potência* Power	Polos *Pólos* Poles	Fases *Fases* Phases	Tensión *Tensão* Voltage	Frecuencia *Frequência* Frequency	Posición caja de bornes *Pos. Conexão* Terminal box pos.
Veja tabelas *Véase tablas* see tables	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**230/400V** **220/380V** **...** **230V** **...**	**60Hz**	**T1** (Std) **T4** **T2** **T3**

Sentidos de rotación *Sentidos de rotação* Direction of rotation

CM

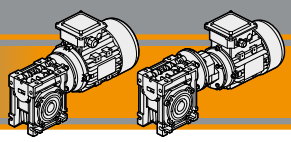


CMP



Nomenclatura *Simbologia* Legend

n_1	[rpm]	Velocidad de entrada / *Velocidade na entrada* / Input speed
n_2	[rpm]	Velocidad de salida / *Velocidade na saída* / Output speed
i		Relación de reducción / *Relação de redução* / Ratio
P_1	[kW]	Potencia en la entrada / *Potência da entrada* / Input power
M_2	[Nm]	Par en la salida en función de P_1 / *Torque na saída em função de P_1* / Output torque referred to P_1
Pn_1	[kW]	Potencia nominal en la entrada / *Potência nominal na entrada* / Nominal input power
Mn_2	[Nm]	Par nominal en la salida en función de Pn_1 / *Torque nominal na saída em função de Pn_1* / Nominal output torque referred to Pn_1
sf		Factor de servicio / *Fator de serviço* / Service factor
Rd	%	Rendimiento estático / *Rendimento estático* / Dynamic efficiency
Rs	%	Rendimiento stático / *Rendimento statico* / Static efficiency
R_2	[N]	Carga radial admisible en la salida / *Carga radial admissível na saída* / Maximum output radial load
A_2	[N]	Carga axial admisible en la salida / *Carga axial admissível na saída* / Maximum output axial load
Z		Número de entradas del tornillo / *Número de princípios dos parafusos* / Worm starts
β		Ángulo de hélic / *Ângulo de hélice* / Helix angle

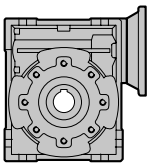


Lubricación — *Lubrificação* — Lubrication

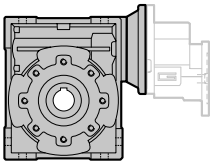
Todos los motorreductores sinfín corona son previamente lubricados con aceite sintético con grado de viscosidad 320, por lo tanto, pueden ser instalados en cualquier posición de montaje y no requieren mantenimiento.

Todos os motoredutores são fornecidos completos de lubrificante sintético de viscosidade 320, portanto, podem ser instalados em qualquer posição de montagem e não necessitam de manutenção.

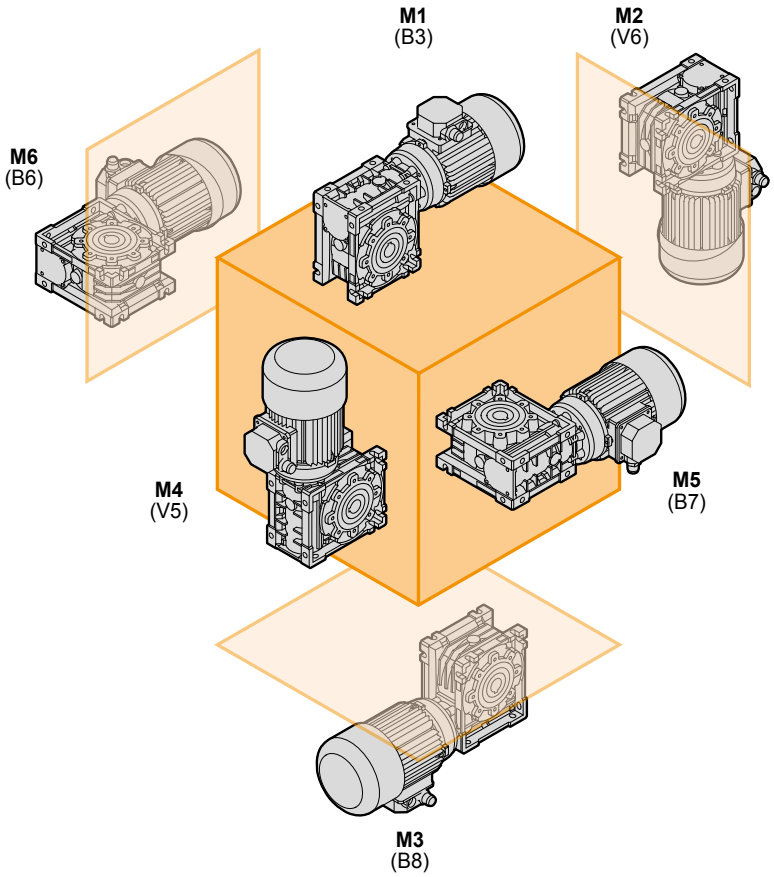
Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance.



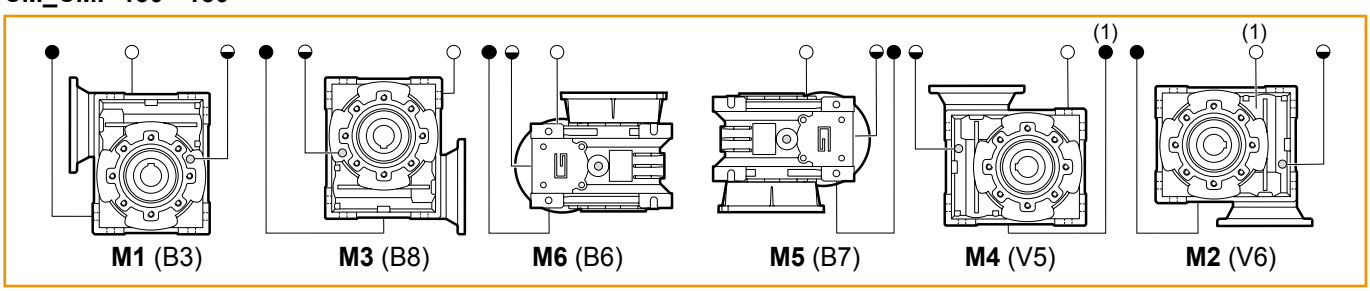
CM	**Cantidad de aceite** (litros) / ***Quantidade de óleo*** *(litros)* / **Oil quantity** (litres)					
	M1 (B3)	**M3** (B8)	**M6** (B6)	**M5** (B7)	**M4** (V5)	**M2** (V6)
130	4.5	3.3	3.5	3.5	4.5	3.3
150	7	5.1	5.4	5.4	7	5.1



CMP	**Cantidad de aceite** (litros) / ***Quantidade de óleo*** *(litros)* / **Oil quantity** (litres)					
	M1 (B3)	**M3** (B8)	**M6** (B6)	**M5** (B7)	**M4** (V5)	**M2** (V6)
080/130 - 090/130	4.5	3.3	3.5	3.5	4.5	3.3



CM_CMP 130 - 150

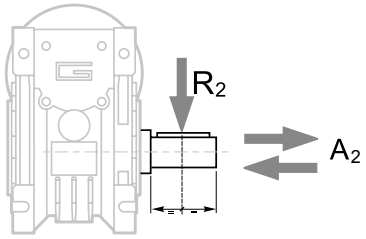


(standard)

(1): Tapón en posición trasera
Válvula na posição posterior
Plug in backside position

◯ Tapón de purga y tapón de llenado del aceite
Válvula de Respiro e tampa de preenchimento / Breather and filling plug
◒ Nivel del aceite / *Nível de óleo* / Oil level plug
● Tapon de drenado del aceite / *Oil drain plug*

Cargas radiales — *Cargas radiais* — Radial loads



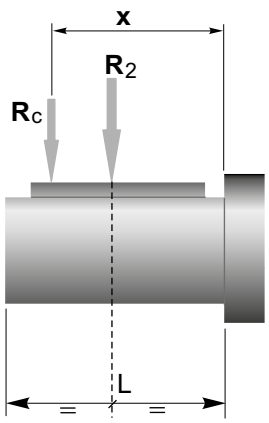
$A_2 = R_2 \times 0.2$

n_2 [min^{-1}]	R_2 [N]										
	CM026	CM030	CM040	CM050	CM063	CM070	CM075	CM090	CM110	CM130	CM150
187	400	674	1264	1770	2445	2613	2824	3161	5058	5732	6962
140	490	743	1392	1949	2692	2878	3110	3481	5570	6313	7663
93	580	851	1596	2234	3085	3298	3564	3990	6384	7235	8771
70	610	936	1754	2456	3392	3626	3918	4386	7018	7953	9654
56	610	1008	1890	2646	3654	3906	4221	4725	7560	8567	10400
47	610	1069	2004	2805	3874	4141	4475	5009	8014	9083	11051
35	610	1179	2210	3095	4273	4568	4937	5526	8842	10021	12163
28	610	1270	2381	3334	4603	4921	5318	5953	9524	10794	13103
23	610	1356	2542	3559	4915	5254	5678	6356	10170	11526	13924
18	610	1471	2759	3862	5334	5702	6162	6897	11036	12507	15182
14	610	1600	3000	4200	5800	6200	6700	7500	12000	13600	16500
		CMP... /030	CMP... /040	CMP... /050	CMP... /063	CMP... /070	CMP... /075	CMP... /090	CMP... /110	CMP... /130	

Cuando la carga radial no se aplica en el punto medio del eje, es necesario calcular la carga efectiva a través la siguiente fórmula:

Quando a carga radial resultante não é aplicada na linha mediana da eixo, é preciso calcular aquela efetiva com a seguinte fórmula:

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:

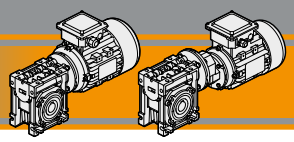


	CM	CM / CMP								
	026	030	040	050	063	075	090	110	130	150
a	56	65	84	101	120	131	182	176	188	215
b	43	50	64	76	95	101	122	136	148	174
R_{2MAX}	610	1600	3000	4200	5800	6700	7500	12000	13600	16500

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

$$R \leq R_c$$

a, b = valores dados en la tabla
a, b = valores referidos na tabela
a, b = values given in the table



Datos de dentado — *Dados de dentadura* — Toothing data

	Datos del engranaje sinfín corona *Dados do binário de parafusos coroa* *Worm wheel data*	Relación de reducción / *Relação* / *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'
CM050	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	33° 37'	23° 54'	18° 23'	12° 29'	10° 6'	8° 28'	6° 19'	5° 5'	4° 15'	3° 39'	2°51'	2° 20'
CM063	Z	6	4	3	2	2	2	1	1	1	1	1	1
	β	34° 23'	24° 31'	18° 53'	12° 50'	10° 24'	8° 44'	6° 30'	5° 14'	4° 23'	3° 47'	2° 57'	2° 25'
CM075	Z		4	3	2	2	2	1	1	1	1	1	1
	β		26° 17'	20° 20'	13° 52'	11° 18'	9° 32'	7° 2'	5° 42'	4° 48'	4° 8'	3° 14'	2° 40'
CM090	Z		4	3	2	2	2	1	1	1	1	1	1
	β		29° 11'	22° 43'	15° 36'	12° 50'	10° 53'	7° 56'	6° 30'	5° 29'	4° 45'	3° 45'	3° 6'
CM110	Z		4	3	2	2	2	1	1	1	1	1	1
	β		28° 14'	21° 56'	15° 1'	14° 41'	12° 34'	7° 38'	7° 28'	6° 21'	5° 32'	4° 24'	3° 39'
CM130	Z		4	3	2	2	2	1	1	1	1	1	1
	β		28°43'	22°20'	15°19'	13°47'	11°54'	7°48'	7°00'	6°01'	5°16'	4°08'	3°27'
CM150	Z		6	4	3	2	2	2	1	1	1	1	1
	β		32° 09'	24° 35'	17° 27'	12° 53'	11° 19'	9° 50'	6° 32'	5° 43'	4° 57'	3° 55'	3° 14'

Rendimiento — *Rendimento* — Efficiency

	n_1 [min^{-1}]	Rendimiento *Rendimento* Efficiency	Relación de reducción / *Relação* / *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
CM050	2800	Rd	91	90	88	86	84	82	78	74	71	68	62	58
	1400		89	87	85	82	79	76	72	67	63	60	54	49
	900		87	85	84	79	75	72	68	62	59	55	48	43
		Rs	73	70	66	59	55	51	44	39	35	32	27	23
CM063	2800	Rd	91	90	88	86	84	83	79	76	73	70	65	60
	1400		90	88	86	84	81	78	75	70	66	63	57	52
	900		89	86	84	81	78	75	70	65	61	58	52	47
		Rs	73	71	67	60	55	51	45	40	36	33	28	24
CM070	2800	Rd		90	89	87	85	84	80	77	74	72	67	62
	1400			89	87	84	82	80	76	72	68	65	60	53
	900			87	85	82	79	77	72	67	63	60	54	49
		Rs		72	69	62	60	55	48	43	38	36	31	26
CM075	2800	Rd		90	89	87	85	84	81	78	75	72	68	63
	1400			89	87	84	83	80	77	73	69	66	60	56
	900			87	85	83	80	77	73	68	64	61	55	50
		Rs		73	69	62	59	55	48	43	39	36	31	27
CM090	2800	Rd		91	90	88	86	85	83	80	78	75	71	67
	1400			90	88	86	84	83	79	76	72	69	64	60
	900			88	87	84	82	80	76	72	68	65	60	55
		Rs		74	71	65	61	59	51	46	42	39	34	30
CM110	2800	Rd		90	89	88	87	86	82	81	79	77	73	70
	1400			89	88	86	85	84	80	79	76	73	68	64
	900			88	87	84	83	82	78	75	71	68	63	59
		Rs		74	71	64	64	60	50	49	46	42	37	33
CM130	2800	Rd		90	89	88	87	86	82	80	79	77	72	70
	1400			89	88	86	84	83	79	76	75	73	69	64
	900			88	87	84	82	81	77	74	73	70	64	59
		Rs		74	71	64	64	60	50	49	46	42	37	33
CM150	2800	Rd		92	91	90	89	87	86	83	80	78	73	72
	1400			91	90	88	86	84	83	78	76	73	68	64
	900			90	89	87	84	83	81	75	74	71	64	60
		Rs		73	71	66	60	57	54	45	42	39	33	29

Rendimiento teórico del reductor después del rodaje
Rendimento teórico do redutor após a rodagem
Theoretical efficiency of the gearbox after the first running period

Datos técnicos — *Dados técnicos* — Technical data

n_1 1750 [min^{-1}]

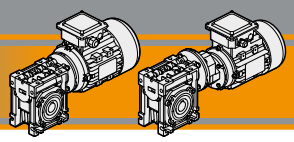
	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i
CMIS026				
	350	13	0.55	5
	233	14	0.41	7.5
	175	14	0.31	10
	117	14	0.22	15
	88	14	0.17	20
	58	15	0.14	30
	44	14	0.11	40
	35	13	0.08	50
	29	12	0.07	60
CMIS030				
	350	18	0.77	5
	233	20	0.57	7.5
	175	21	0.46	10
	117	21	0.32	15
	88	19	0.23	20
	70	20	0.20	25
	58	22	0.20	30
	44	20	0.15	40
	35	19	0.12	50
	29	17	0.09	60
	22	15	0.07	80
	18	14	0.06	100
CMIS040				
	350	41	1.7	5
	233	44	1.3	7.5
	175	45	0.98	10
	117	45	0.68	15
	88	40	0.47	20
	70	38	0.38	25
	58	48	0.42	30
	44	42	0.30	40
	35	39	0.24	50
	29	36	0.19	60
	22	33	0.15	80
	18	31	0.12	100
CMIS050				
	350	75	3.1	5
	233	79	2.2	7.5
	175	82	1.8	10
	117	82	1.2	15
	88	72	0.84	20
	70	70	0.68	25
	58	88	0.75	30
	44	76	0.52	40
	35	72	0.42	50
	29	69	0.35	60
	22	60	0.25	80
	18	56	0.21	100
CMIS063				
	350	134	5.5	5
	233	144	4.0	7.5
	175	148	3.2	10
	117	154	2.2	15
	88	136	1.5	20
	70	135	1.3	25
	58	166	1.4	30
	44	142	0.93	40
	35	136	0.76	50
	29	126	0.61	60
	22	118	0.47	80
	18	116	0.41	100

	n_2 [min^{-1}]	Mn_2 [Nm]	Pn_1 [kW]	i
CMIS070				
	233	200	5.5	7.5
	175	218	4.6	10
	117	221	3.2	15
	88	202	2.3	20
	70	180	1.6	25
	58	241	1.9	30
	44	210	1.3	40
	35	190	1.0	50
	29	181	0.85	60
	22	159	0.61	80
	18	154	0.53	100
CMIS075				
	233	238	6.5	7.5
	175	257	5.4	10
	117	266	3.9	15
	88	242	2.7	20
	70	225	2.1	25
	58	289	2.3	30
	44	251	1.6	40
	35	227	1.2	50
	29	218	1.0	60
	22	193	0.74	80
	18	183	0.61	100
CMIS090				
	233	342	9.3	7.5
	175	380	7.8	10
	117	433	6.2	15
	88	414	4.5	20
	70	369	3.3	25
	58	493	3.8	30
	44	434	2.6	40
	35	385	1.9	50
	29	352	1.5	60
	22	324	1.2	80
	18	299	0.91	100
CMIS110				
	233	605	16.4	7.5
	175	669	13.8	10
	117	730	10.3	15
	88	740	8.0	20
	70	670	5.8	25
	58	815	6.1	30
	44	768	4.5	40
	35	699	3.4	50
	29	626	2.6	60
	22	562	1.9	80
	18	523	1.5	100
CMIS130				
	233	750	20.6	7.5
	175	820	17.1	10
	117	910	12.9	15
	88	910	9.9	20
	70	920	8.1	25
	58	1050	8.1	30
	44	1050	6.3	40
	35	970	4.7	50
	29	890	3.7	60
	22	830	2.8	80
	18	735	2.1	100
CMIS150				
	233	1080	29.0	7.5
	175	1116	22.7	10
	117	1125	15.6	15
	88	1170	12.5	20
	70	1080	9.4	25
	58	1080	7.9	30
	44	1395	8.2	40
	35	1260	6.1	50
	29	1134	4.7	60
	22	1035	3.5	80
	18	900	2.6	100

Nota: Pn1 es la potencia mecánica de entrada que será reducida por el factor de calentamiento con el fin de obtener el correspondiente. Para más información, favor de ponerse en contacto con nuestro servicio técnico.

Nota:Pn_1 é a potência mecânica. A potência aplicável é reduzida do fator térmico.Para maiores detalhes. consulte nosso Serviço Técnico.

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.



Datos técnicos — *Dados técnicos* — Technical data

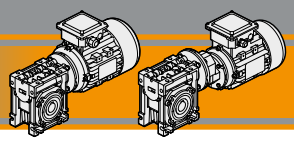
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
0.09							
(0.12 hp)	**350**	2	6.1	5	**CM026**		**B14**
	233	3	4.5	7.5	**CM026**		**B14**
56B4	**175**	4	3.4	10	**CM026**		**B14**
(1750 min^{-1})	**117**	6	2.4	15	**CM026**		**B14**
	88	7	1.9	20	**CM026**		**B14**
	58	10	1.5	30	**CM026**		**B14**
	44	12	1.2	40	**CM026**		**B14**
	35	14	0.9	50	**CM026**		**B14**
	29	16	0.8	60	**CM026**		**B14**
	88	7	2.6	20	**CM030**		**B5/B14**
	70	9	2.3	25	**CM030**		**B5/B14**
	58	10	2.2	30	**CM030**		**B5/B14**
	44	12	1.6	40	**CM030**		**B5/B14**
	35	14	1.3	50	**CM030**		**B5/B14**
	29	16	1.0	60	**CM030**		**B5/B14**
	29	19	1.3	60		**CMP056/030**	**B14**
	23	23	1.2	75		**CMP056/030**	**B14**
	22	19	0.8	80	**CM030**		**B5/B14**
	19	26	1.3	90		**CMP056/030**	**B14**
	18	21	0.7	100	**CM030**		**B5/B14**
	15	31	1.0	120		**CMP056/030**	**B14**
	44	13	3.3	40	**CM040**		**B5/B14**
	35	15	2.6	50	**CM040**		**B5/B14**
	29	17	2.1	60	**CM040**		**B5/B14**
	29	20	2.9	60		**CMP056/040**	**B14**
	23	24	2.1	75		**CMP056/040**	**B14**
	22	20	1.6	80	**CM040**		**B5/B14**
	19	27	2.6	90		**CMP056/040**	**B14**
	18	23	1.4	100	**CM040**		**B5/B14**
	15	33	1.9	120		**CMP056/040**	**B14**
	12	38	1.5	150		**CMP056/040**	**B14**
	10	42	1.3	180		**CMP056/040**	**B14**
	7.3	50	0.9	240		**CMP056/040**	**B14**
0.12							
(0.16 hp)	**350**	3	6.4	5	**CM030**		**B5/B14**
	233	4	4.8	7.5	**CM030**		**B5/B14**
63A4	**175**	6	3.8	10	**CM030**		**B5/B14**
(1750 min^{-1})	**117**	8	2.7	15	**CM030**		**B5/B14**
	88	10	1.9	20	**CM030**		**B5/B14**
	70	12	1.7	25	**CM030**		**B5/B14**
	58	13	1.7	30	**CM030**		**B5/B14**
	44	16	1.2	40	**CM030**		**B5/B14**
	35	19	1.0	50	**CM030**		**B5/B14**
	88	10	3.9	20	**CM040**		**B5/B14**
	70	12	3.1	25	**CM040**		**B5/B14**
	58	14	3.5	30	**CM040**		**B5/B14**
	44	17	2.5	40	**CM040**		**B5/B14**
	35	20	2.0	50	**CM040**		**B5/B14**
	29	23	1.6	60	**CM040**		**B5/B14**
	29	27	2.2	60		**CMP063/040**	**B14**
	23	32	1.6	75		**CMP063/040**	**B14**
	22	27	1.2	80	**CM040**		**B5/B14**
	19	36	2.0	90		**CMP063/040**	**B14**
	18	30	1.0	100	**CM040**		**B5/B14**
	15	45	1.4	120		**CMP063/040**	**B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
0.12							
(0.16 hp)	**35**	21	3.5	50	**CM050**		**B5/B14**
	29	24	2.9	60	**CM050**		**B5/B14**
63A4	**29**	27	3.8	60		**CMP063/050**	**B14**
(1750 min^{-1})	**23**	32	2.9	75		**CMP063/050**	**B14**
	22	28	2.1	80	**CM050**		**B5/B14**
	19	38	3.4	90		**CMP063/050**	**B14**
	18	32	1.7	100	**CM050**		**B5/B14**
	15	45	2.4	120		**CMP063/050**	**B14**
	12	53	2.0	150		**CMP063/050**	**B14**
	10	59	1.6	180		**CMP063/050**	**B14**
	7.3	68	1.3	240		**CMP063/050**	**B14**
	22	30	4.0	80	**CM063**		**B5**
	19	37	6.4	90		**CMP063/063**	**B14**
	18	34	3.4	100	**CM063**		**B5**
	15	46	4.5	120		**CMP063/063**	**B14**
	12	55	3.5	150		**CMP063/063**	**B14**
	10	61	2.9	180		**CMP063/063**	**B14**
	7.3	72	2.1	240		**CMP063/063**	**B14**
	5.8	81	1.7	300		**CMP063/063**	**B14**
0.18							
(0.25 hp)	**350**	4	4.3	5	**CM030**		**B5/B14**
	233	6	3.2	7.5	**CM030**		**B5/B14**
63B4	**175**	8	2.5	10	**CM030**		**B5/B14**
(1750 min^{-1})	**117**	12	1.8	15	**CM030**		**B5/B14**
	88	15	1.3	20	**CM030**		**B5/B14**
	70	18	1.1	25	**CM030**		**B5/B14**
	58	20	1.1	30	**CM030**		**B5/B14**
	44	24	0.8	40	**CM030**		**B5/B14**
	117	12	3.8	15	**CM040**		**B5/B14**
	88	15	2.6	20	**CM040**		**B5/B14**
	70	18	2.1	25	**CM040**		**B5/B14**
	58	21	2.3	30	**CM040**		**B5/B14**
	44	26	1.6	40	**CM040**		**B5/B14**
	35	29	1.3	50	**CM040**		**B5/B14**
	29	34	1.1	60	**CM040**		**B5/B14**
	29	40	1.4	60		**CMP063/040**	**B14**
	23	48	1.1	75		**CMP063/040**	**B14**
	19	55	1.3	90		**CMP063/040**	**B14**
	15	67	0.9	120		**CMP063/040**	**B14**
	44	26	2.9	40	**CM050**		**B5/B14**
	35	31	2.3	50	**CM050**		**B5/B14**
	29	35	2.0	60	**CM050**		**B5/B14**
	29	41	2.5	60		**CMP063/050**	**B14**
	23	48	1.9	75		**CMP063/050**	**B14**
	22	42	1.4	80	**CM050**		**B5/B14**
	19	56	2.2	90		**CMP063/050**	**B14**
	18	48	1.2	100	**CM050**		**B5/B14**
	15	68	1.6	120		**CMP063/050**	**B14**
	12	79	1.3	150		**CMP063/050**	**B14**
	10	88	1.1	180		**CMP063/050**	**B14**

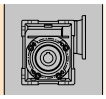
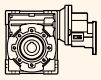
Datos técnicos / *Dados técnicos* / Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
0.18							
(0.25 hp)	**29**	37	3.4	60	**CM063**		**B5**
	29	42	4.5	60		**CMP063/063**	**B14**
63B4	**23**	51	3.4	75		**CMP063/063**	**B14**
(1750 min^{-1})	**22**	45	2.6	80	**CM063**		**B5**
	19	55	4.2	90		**CMP063/063**	**B14**
	18	51	2.3	100	**CM063**		**B5**
	15	69	3.0	120		**CMP063/063**	**B14**
	12	82	2.3	150		**CMP063/063**	**B14**
	10	92	1.9	180		**CMP063/063**	**B14**
	7	109	1.4	240		**CMP063/063**	**B14**
	6	121	1.2	300		**CMP063/063**	**B14**
0.25							
(0.33 hp)	**350**	6	3.1	5	**CM030**		**B5/B14**
	233	9	2.3	7.5	**CM030**		**B5/B14**
63C4	**175**	11	1.8	10	**CM030**		**B5/B14**
(1750 min^{-1})	**117**	16	1.3	15	**CM030**		**B5/B14**
	88	20	0.9	20	**CM030**		**B5/B14**
	175	11	3.9	10	**CM040**		**B5/B14**
	117	17	2.7	15	**CM040**		**B5/B14**
	88	21	1.9	20	**CM040**		**B5/B14**
	70	25	1.5	25	**CM040**		**B5/B14**
	58	29	1.7	30	**CM040**		**B5/B14**
	44	35	1.2	40	**CM040**		**B5/B14**
	35	41	1.0	50	**CM040**		**B5/B14**
	29	56	1.0	60		**CMP063/040**	**B14**
	23	66	0.8	75		**CMP063/040**	**B14**
	19	76	0.9	90		**CMP063/040**	**B14**
	88	22	3.3	20	**CM050**		**B5/B14**
	70	26	2.7	25	**CM050**		**B5/B14**
	58	29	3.0	30	**CM050**		**B5/B14**
	44	37	2.1	40	**CM050**		**B5/B14**
	35	43	1.7	50	**CM050**		**B5/B14**
	29	49	1.4	60	**CM050**		**B5/B14**
	29	57	1.8	60		**CMP063/050**	**B14**
	23	67	1.4	75		**CMP063/050**	**B14**
	22	59	1.0	80	**CM050**		**B5/B14**
	19	78	1.6	90		**CMP063/050**	**B14**
	15	95	1.2	120		**CMP063/050**	**B14**
	12	110	0.9	150		**CMP063/050**	**B14**
	44	38	3.7	40	**CM063**		**B5**
	35	45	3.0	50	**CM063**		**B5**
	29	52	2.4	60	**CM063**		**B5**
	29	59	3.2	60		**CMP063/063**	**B14**
	23	70	2.5	75		**CMP063/063**	**B14**
	22	62	1.9	80	**CM063**		**B5**
	19	77	3.1	90		**CMP063/063**	**B14**
	18	71	1.6	100	**CM063**		**B5**
	15	96	2.1	120		**CMP063/063**	**B14**
	12	114	1.7	150		**CMP063/063**	**B14**
	10	128	1.4	180		**CMP063/063**	**B14**
	7	151	1.0	240		**CMP063/063**	**B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
0.37							
(0.50 hp)	**350**	9	4.6	5	**CM040**		**B5/B14**
	233	13	3.4	7.5	**CM040**		**B5/B14**
71A4	**175**	17	2.7	10	**CM040**		**B5/B14**
(1750 min^{-1})	**117**	25	1.8	15	**CM040**		**B5/B14**
	88	31	1.3	20	**CM040**		**B5/B14**
	70	37	1.0	25	**CM040**		**B5/B14**
	58	42	1.1	30	**CM040**		**B5/B14**
	44	52	0.8	40	**CM040**		**B5/B14**
	117	25	3.3	15	**CM050**		**B5/B14**
	88	32	2.3	20	**CM050**		**B5/B14**
	70	38	1.8	25	**CM050**		**B5/B14**
	58	44	2.0	30	**CM050**		**B5/B14**
	44	54	1.4	40	**CM050**		**B5/B14**
	35	64	1.1	50	**CM050**		**B5/B14**
	29	73	0.9	60	**CM050**		**B5/B14**
	29	84	1.2	60		**CMP071/050**	**B14**
	23	99	0.9	75		**CMP071/050**	**B14**
	19	116	1.1	90		**CMP071/050**	**B14**
	70	39	3.4	25	**CM063**		**B5/B14**
	58	45	3.7	30	**CM063**		**B5/B14**
	44	57	2.5	40	**CM063**		**B5/B14**
	35	67	2.0	50	**CM063**		**B5/B14**
	29	76	1.7	60	**CM063**		**B5/B14**
	29	87	2.2	60		**CMP071/063**	**B14**
	23	104	1.7	75		**CMP071/063**	**B14**
	22	92	1.3	80	**CM063**		**B5/B14**
	19	114	2.1	90		**CMP071/063**	**B14**
	18	105	1.1	100	**CM063**		**B5/B14**
	15	142	1.4	120		**CMP071/063**	**B14**
	12	169	1.1	150		**CMP071/063**	**B14**
	10	189	0.9	180		**CMP071/063**	**B14**
	35	69	2.8	50	**CM070**		**B5**
	29	79	2.3	60	**CM070**		**B5**
	29	88	3.2	60		**CMP071/070**	**B14**
	23	105	2.4	75		**CMP071/070**	**B14**
	22	97	1.6	80	**CM070**		**B5**
	19	118	2.9	90		**CMP071/070**	**B14**
	18	107	1.4	100	**CM070**		**B5**
	15	145	2.1	120		**CMP071/070**	**B14**
	12	169	1.6	150		**CMP071/070**	**B14**
	10	189	1.4	180		**CMP071/070**	**B14**
	7	223	1.0	240		**CMP071/070**	**B14**
	22	97	2.0	80	**CM075**		**B5**
	19	119	3.4	90		**CMP071/075**	**B14**
	18	111	1.6	100	**CM075**		**B5**
	15	147	2.5	120		**CMP071/075**	**B14**
	12	172	1.9	150		**CMP071/075**	**B14**
	10	192	1.6	180		**CMP071/075**	**B14**
	7	228	1.2	240		**CMP071/075**	**B14**
	6	255	0.9	300		**CMP071/075**	**B14**



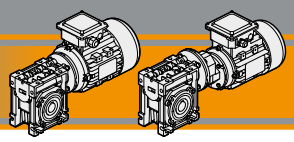
Datos técnicos — *Dados técnicos* — Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
0.37							
(0.50 hp)	**22**	103	3.1	80	**CM090**		**B5**
	19	125	5.5	90		**CMP071/090**	**B14**
71A4	**18**	121	2.5	100	**CM090**		**B5**
(1750 min^{-1})	**15**	154	4.0	120		**CMP071/090**	**B14**
	12	181	3.1	150		**CMP071/090**	**B14**
	10	210	2.4	180		**CMP071/090**	**B14**
	7	247	1.8	240		**CMP071/090**	**B14**
	6	279	1.5	300		**CMP071/090**	**B14**
0.55							
(0.75 hp)	**1750**	350	13	3.1	**5**	**CM040**	**B5/B14**
	1750	233	19	2.3	**7.5**	**CM040**	**B5/B14**
71B4	**1750**	175	25	1.8	**10**	**CM040**	**B5/B14**
(1750 min^{-1})	**1750**	117	36	1.2	**15**	**CM040**	**B5/B14**
	1750	88	47	0.9	**20**	**CM040**	**B5/B14**
	350	13	5.6	5	**CM050**		**B5/B14**
	233	20	4.0	7.5	**CM050**		**B5/B14**
	175	26	3.2	10	**CM050**		**B5/B14**
	117	37	2.2	15	**CM050**		**B5/B14**
	88	47	1.5	20	**CM050**		**B5/B14**
	70	57	1.2	25	**CM050**		**B5/B14**
	58	65	1.4	30	**CM050**		**B5/B14**
	44	80	0.9	40	**CM050**		**B5/B14**
	117	38	4.1	15	**CM063**		**B5/B14**
	88	49	2.8	20	**CM063**		**B5/B14**
	70	59	2.3	25	**CM063**		**B5/B14**
	58	68	2.5	30	**CM063**		**B5/B14**
	44	84	1.7	40	**CM063**		**B5/B14**
	35	99	1.4	50	**CM063**		**B5/B14**
	29	113	1.1	60	**CM063**		**B5/B14**
	29	129	1.5	60		**CMP071/063**	**B14**
	23	154	1.1	75		**CMP071/063**	**B14**
	22	137	0.9	80	**CM063**		**B5/B14**
	19	169	1.4	90		**CMP071/063**	**B14**
	15	212	1.0	120		**CMP071/063**	**B14**
	35	102	1.9	50	**CM070**		**B5**
	29	117	1.5	60	**CM070**		**B5**
	29	131	2.2	60		**CMP071/070**	**B14**
	23	157	1.6	75		**CMP071/070**	**B14**
	22	144	1.1	80	**CM070**		**B5**
	19	175	2.0	90		**CMP071/070**	**B14**
	18	159	1.0	100	**CM070**		**B5**
	15	215	1.4	120		**CMP071/070**	**B14**
	12	251	1.1	150		**CMP071/070**	**B14**
	10	281	0.9	180		**CMP071/070**	**B14**
	29	132	2.5	60		**CMP071/075**	**B14**
	23	159	1.9	75		**CMP071/075**	**B14**
	22	144	1.3	80	**CM075**		**B5**
	19	177	2.3	90		**CMP071/075**	**B14**
	18	165	1.1	100	**CM075**		**B5**
	15	219	1.7	120		**CMP071/075**	**B14**
	12	256	1.3	150		**CMP071/075**	**B14**
	10	286	1.1	180		**CMP071/075**	**B14**
0.55							
(0.75 hp)	**23**	165	3.1	75		**CMP071/090**	**B14**
	22	154	2.1	80	**CM090**		**B5**
71B4	**19**	185	3.7	90		**CMP071/090**	**B14**
(1750 min^{-1})	**18**	180	1.7	100	**CM090**		**B5**
	15	229	2.7	120		**CMP071/090**	**B14**
	12	269	2.1	150		**CMP071/090**	**B14**
	10	312	1.6	180		**CMP071/090**	**B14**
	7	367	1.2	240		**CMP071/090**	**B14**
	6	415	1.0	300		**CMP071/090**	**B14**
0.75							
(1.0 hp)	**350**	18	4.1	5	**CM050**		**B5/B14**
	233	27	3.0	7.5	**CM050**		**B5/B14**
80A4	**175**	35	2.4	10	**CM050**		**B5/B14**
(1750 min^{-1})	**117**	50	1.6	15	**CM050**		**B5/B14**
	88	65	1.1	20	**CM050**		**B5/B14**
	70	78	0.9	25	**CM050**		**B5/B14**
	58	88	1.0	30	**CM050**		**B5/B14**
	117	52	3.0	15	**CM063**		**B5/B14**
	88	66	2.1	20	**CM063**		**B5/B14**
	70	80	1.7	25	**CM063**		**B5/B14**
	58	92	1.8	30	**CM063**		**B5/B14**
	44	115	1.2	40	**CM063**		**B5/B14**
	35	135	1.0	50	**CM063**		**B5/B14**
	29	155	0.8	60	**CM063**		**B5/B14**
	29	176	1.1	60		**CMP080/063**	**B14**
	19	231	1.0	90		**CMP080/063**	**B14**
	88	67	3.0	20	**CM070**		**B5/B14**
	70	82	2.2	25	**CM070**		**B5/B14**
	58	93	2.6	30	**CM070**		**B5/B14**
	44	118	1.8	40	**CM070**		**B5/B14**
	35	139	1.4	50	**CM070**		**B5/B14**
	29	160	1.1	60	**CM070**		**B5/B14**
	29	178	1.6	60		**CMP080/070**	**B14**
	23	214	1.2	75		**CMP080/070**	**B14**
	19	238	1.4	90		**CMP080/070**	**B14**
	15	294	1.0	120		**CMP080/070**	**B14**
	44	118	2.1	40	**CM075**		**B5/B14**
	35	141	1.6	50	**CM075**		**B5/B14**
	29	160	1.4	60	**CM075**		**B5/B14**
	29	180	1.9	60		**CMP080/075**	**B14**
	23	217	1.4	75		**CMP080/075**	**B14**
	22	196	1.0	80	**CM075**		**B5/B14**
	19	242	1.7	90		**CMP080/075**	**B14**
	15	298	1.2	120		**CMP080/075**	**B14**
	12	349	0.9	150		**CMP080/075**	**B14**
	35	149	2.6	50	**CM090**		**B5/B14**
	29	172	2.0	60	**CM090**		**B5/B14**
	29	188	3.1	60		**CMP080/090**	**B14**
	23	226	2.3	75		**CMP080/090**	**B14**
	22	210	1.5	80	**CM090**		**B5/B14**
	19	253	2.7	90		**CMP080/090**	**B14**
	18	246	1.2	100	**CM090**		**B5/B14**
	15	313	2.0	120		**CMP080/090**	**B14**
	12	367	1.5	150		**CMP080/090**	**B14**
	10	426	1.2	180		**CMP080/090**	**B14**

Datos técnicos / *Dados técnicos* / Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
0.75							
(1.0 hp)	29	179	3.5	60	CM110		B5
	29	193	5.0	60		CMP080/110	B14
80A4	23	235	3.9	75		CMP080/110	B14
(1750 min^{-1})	22	223	2.5	80	CM110		B5
	19	260	4.4	90		CMP080/110	B14
	18	262	2.0	100	CM110		B5
	15	332	3.3	120		CMP080/110	B14
	12	391	2.5	150		CMP080/110	B14
	10	448	2.0	180		CMP080/110	B14
	7	549	1.4	240		CMP080/110	B14
	6	626	1.1	300		CMP080/110	B14
	22	226	3.7	80	CM130		B5
	19	260	5.4	90		CMP080/130	B14
	18	262	2.8	100	CM130		B5
	15	327	3.8	120		CMP080/130	B14
	12	403	3.1	150		CMP080/130	B14
	10	462	2.3	180		CMP080/130	B14
	7	558	1.8	240		CMP080/130	B14
	6	638	1.3	300		CMP080/130	B14
1.1							
(1.5 hp)	350	27	2.8	5	CM050		B5/B14
	233	39	2.0	7.5	CM050		B5/B14
80B4	175	51	1.6	10	CM050		B5/B14
(1750 min^{-1})	117	74	1.1	15	CM050		B5/B14
	350	27	5.0	5	CM063		B5/B14
	233	40	3.6	7.5	CM063		B5/B14
	175	52	2.9	10	CM063		B5/B14
	117	76	2.0	15	CM063		B5/B14
	88	97	1.4	20	CM063		B5/B14
	70	117	1.2	25	CM063		B5/B14
	58	135	1.2	30	CM063		B5/B14
	117	76	2.9	15	CM070		B5/B14
	88	98	2.1	20	CM070		B5/B14
	70	120	1.5	25	CM070		B5/B14
	58	137	1.8	30	CM070		B5/B14
	44	173	1.2	40	CM070		B5/B14
	35	204	0.9	50	CM070		B5/B14
	29	261	1.1	60		CMP080/070	B14
	23	313	0.8	75		CMP080/070	B14
	19	349	1.0	90		CMP080/070	B14
	88	100	2.4	20	CM075		B5/B14
	70	120	1.9	25	CM075		B5/B14
	58	139	2.1	30	CM075		B5/B14
	44	173	1.5	40	CM075		B5/B14
	35	207	1.1	50	CM075		B5/B14
	29	234	0.9	60	CM075		B5/B14
	29	265	1.3	60		CMP080/075	B14
	23	318	0.9	75		CMP080/075	B14
	19	355	1.1	90		CMP080/075	B14

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
1.1							
(1.5 hp)	70	125	3.0	25	CM090		B5/B14
	58	144	3.4	30	CM090		B5/B14
80B4	44	182	2.4	40	CM090		B5/B14
(1750 min^{-1})	35	219	1.8	50	CM090		B5/B14
	29	252	1.4	60	CM090		B5/B14
	29	275	2.1	60		CMP080/090	B14
	23	331	1.5	75		CMP080/090	B14
	22	307	1.1	80	CM090		B5/B14
	19	371	1.9	90		CMP080/090	B14
	15	459	1.4	120		CMP080/090	B14
	12	538	1.0	150		CMP080/090	B14
	35	228	3.1	50	CM110		B5
	29	263	2.4	60	CM110		B5
	29	282	3.4	60		CMP080/110	B14
	23	344	2.6	75		CMP080/110	B14
	22	327	1.7	80	CM110		B5
	19	381	3.0	90		CMP080/110	B14
	18	384	1.4	100	CM110		B5
	15	487	2.2	120		CMP080/110	B14
	12	574	1.7	150		CMP080/110	B14
	10	657	1.3	180		CMP080/110	B14
	7	805	1.0	240		CMP080/110	B14
	29	263	3.4	60	CM130		B5
	29	279	4.5	60		CMP080/130	B14
	23	340	3.5	75		CMP080/130	B14
	22	331	2.5	80	CM130		B5
	19	381	3.7	90		CMP080/130	B14
	18	384	1.9	100	CM130		B5
	15	480	2.6	120		CMP080/130	B14
	12	591	2.1	150		CMP080/130	B14
	10	678	1.6	180		CMP080/130	B14
	7	819	1.2	240		CMP080/130	B14
	6	935	0.9	300		CMP080/130	B14
1.5							
(2.0 hp)	350	37	3.6	5	CM063		B5/B14
	233	54	2.7	7.5	CM063		B5/B14
90S4	175	70	2.1	10	CM063		B5/B14
(1750 min^{-1})	117	103	1.5	15	CM063		B5/B14
	88	133	1.0	20	CM063		B5/B14
	70	160	0.8	25	CM063		B5/B14
	58	184	0.9	30	CM063		B5/B14
	233	55	3.7	7.5	CM070		B5/B14
	175	71	3.1	10	CM070		B5/B14
	117	103	2.1	15	CM070		B5/B14
	88	134	1.5	20	CM070		B5/B14
	70	164	1.1	25	CM070		B5/B14
	58	187	1.3	30	CM070		B5/B14
	44	236	0.9	40	CM070		B5/B14
	117	103	2.6	15	CM075		B5/B14
	88	136	1.8	20	CM075		B5/B14
	70	164	1.4	25	CM075		B5/B14
	58	189	1.5	30	CM075		B5/B14
	44	236	1.1	40	CM075		B5/B14
	29	361	0.9	60		CMP090/075	B5/B14



Datos técnicos — *Dados técnicos* — Technical data

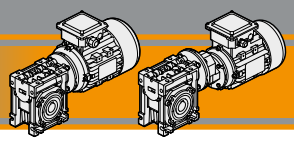
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
1.5							
(2.0 hp)	**88**	138	3.0	20	**CM090**		**B5/B14**
	70	170	2.2	25	**CM090**		**B5/B14**
90S4	**58**	196	2.5	30	**CM090**		**B5/B14**
(1750 min^{-1})	**44**	249	1.7	40	**CM090**		**B5/B14**
	35	299	1.3	50	**CM090**		**B5/B14**
	29	344	1.0	60	**CM090**		**B5/B14**
	29	375	1.5	60		**CMP090/090**	**B5/B14**
	23	451	1.1	75		**CMP090/090**	**B5/B14**
	19	505	1.4	90		**CMP090/090**	**B5/B14**
	15	626	1.0	120		**CMP090/090**	**B5/B14**
	44	259	3.0	40	**CM110**		**B5/B14**
	35	311	2.2	50	**CM110**		**B5/B14**
	29	359	1.7	60	**CM110**		**B5/B14**
	29	385	2.5	60		**CMP090/110**	**B5/B14**
	23	469	1.9	75		**CMP090/110**	**B5/B14**
	22	445	1.3	80	**CM110**		**B5/B14**
	19	520	2.2	90		**CMP090/110**	**B5/B14**
	18	524	1.0	100	**CM110**		**B5/B14**
	15	664	1.6	120		**CMP090/110**	**B5/B14**
	12	782	1.3	150		**CMP090/110**	**B5/B14**
	10	895	1.0	180		**CMP090/110**	**B5/B14**
	35	307	3.2	50	**CM130**		**B5**
	29	359	2.5	60	**CM130**		**B5**
	29	380	3.3	60		**CMP090/130**	**B5/B14**
	23	463	2.6	75		**CMP090/130**	**B5/B14**
	22	452	1.8	80	**CM130**		**B5**
	19	520	2.7	90		**CMP090/130**	**B5/B14**
	18	524	1.4	100	**CM130**		**B5**
	15	655	1.9	120		**CMP090/130**	**B5/B14**
	12	806	1.5	150		**CMP090/130**	**B5/B14**
	10	924	1.2	180		**CMP090/130**	**B5/B14**
	7	1117	0.9	240		**CMP090/130**	**B5/B14**
2.2							
(3.0 hp)	**350**	54	2.5	5	**CM063**		**B5/B14**
	233	79	1.8	7.5	**CM063**		**B5/B14**
90L4	**175**	103	1.4	10	**CM063**		**B5/B14**
(1750 min^{-1})	**117**	151	1.0	15	**CM063**		**B5/B14**
	233	80	2.5	7.5	**CM070**		**B5/B14**
	175	104	2.1	10	**CM070**		**B5/B14**
	117	151	1.5	15	**CM070**		**B5/B14**
	88	197	1.0	20	**CM070**		**B5/B14**
	58	274	0.9	30	**CM070**		**B5/B14**
	233	80	3.0	7.5	**CM075**		**B5/B14**
	175	104	2.5	10	**CM075**		**B5/B14**
	117	151	1.8	15	**CM075**		**B5/B14**
	88	199	1.2	20	**CM075**		**B5/B14**
	70	240	0.9	25	**CM075**		**B5/B14**
	58	277	1.0	30	**CM075**		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
2.2							
(3.0 hp)	**117**	155	2.8	15	**CM090**		**B5/B14**
	88	202	2.1	20	**CM090**		**B5/B14**
90L4	**70**	249	1.5	25	**CM090**		**B5/B14**
(1750 min^{-1})	**58**	288	1.7	30	**CM090**		**B5/B14**
	44	365	1.2	40	**CM090**		**B5/B14**
	35	438	0.9	50	**CM090**		**B5/B14**
	29	551	1.0	60		**CMP090/090**	**B5/B14**
	88	204	3.6	20	**CM110**		**B5/B14**
	70	252	2.7	25	**CM110**		**B5/B14**
	58	292	2.8	30	**CM110**		**B5/B14**
	44	379	2.0	40	**CM110**		**B5/B14**
	35	456	1.5	50	**CM110**		**B5/B14**
	29	526	1.2	60	**CM110**		**B5/B14**
	29	565	1.7	60		**CMP090/110**	**B5/B14**
	23	688	1.3	75		**CMP090/110**	**B5/B14**
	22	653	0.9	80	**CM110**		**B5/B14**
	19	762	1.5	90		**CMP090/110**	**B5/B14**
	15	974	1.1	120		**CMP090/110**	**B5/B14**
	12	1147	0.9	150		**CMP090/110**	**B5/B14**
	44	365	2.9	40	**CM130**		**B5**
	35	450	2.2	50	**CM130**		**B5**
	29	526	1.7	60	**CM130**		**B5**
	29	558	2.2	60		**CMP090/130**	**B5/B14**
	23	679	1.8	75		**CMP090/130**	**B5/B14**
	22	663	1.3	80	**CM130**		**B5**
	19	762	1.8	90		**CMP090/130**	**B5/B14**
	18	768	1.0	100	**CM130**		**B5**
	15	960	1.3	120		**CMP090/130**	**B5/B14**
	12	1182	1.0	150		**CMP090/130**	**B5/B14**
3.0							
(4.0 hp)	**233**	109	1.8	7.5	**CM070**		**B5/B14**
	175	142	1.5	10	**CM070**		**B5/B14**
100LA4	**117**	206	1.1	15	**CM070**		**B5/B14**
(1750 min^{-1})							
	233	109	2.2	7.5	**CM075**		**B5/B14**
	175	142	1.8	10	**CM075**		**B5/B14**
	117	206	1.3	15	**CM075**		**B5/B14**
	88	272	0.9	20	**CM075**		**B5/B14**
	233	111	3.1	7.5	**CM090**		**B5/B14**
	175	146	2.6	10	**CM090**		**B5/B14**
	117	211	2.1	15	**CM090**		**B5/B14**
	88	275	1.5	20	**CM090**		**B5/B14**
	70	340	1.1	25	**CM090**		**B5/B14**
	58	393	1.3	30	**CM090**		**B5/B14**
	44	498	0.9	40	**CM090**		**B5/B14**
	117	214	3.4	15	**CM110**		**B5/B14**
	88	278	2.7	20	**CM110**		**B5/B14**
	70	344	1.9	25	**CM110**		**B5/B14**

Datos técnicos / *Dados técnicos* / Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
3.0							
(4.0 hp)	**58**	398	2.0	30	**CM110**		**B5/B14**
	44	517	1.5	40	**CM110**		**B5/B14**
100LA4	**35**	622	1.1	50	**CM110**		**B5/B14**
(1750 min^{-1})	**29**	717	0.9	60	**CM110**		**B5/B14**
	70	340	2.7	25	**CM130**		**B5**
	58	388	2.7	30	**CM130**		**B5**
	44	498	2.1	40	**CM130**		**B5**
	35	614	1.6	50	**CM130**		**B5**
	29	717	1.2	60	**CM130**		**B5**
	22	904	0.9	80	**CM130**		**B5**
	44	511	2.7	40	**CM150**		**B5**
	35	622	2.0	50	**CM150**		**B5**
	29	717	1.6	60	**CM150**		**B5**
	22	891	1.2	80	**CM150**		**B5**
	18	1048	0.9	100	**CM150**		**B5**
3.7							
(5.0 hp)	**233**	135	1.5	7.5	**CM070**		**B5/B14**
	175	176	1.2	10	**CM070**		**B5/B14**
100LB4							
(1750 min^{-1})	**233**	135	1.8	7.5	**CM075**		**B5/B14**
	175	176	1.5	10	**CM075**		**B5/B14**
	117	254	1.0	15	**CM075**		**B5/B14**
	233	136	2.5	7.5	**CM090**		**B5/B14**
	175	180	2.1	10	**CM090**		**B5/B14**
	117	260	1.7	15	**CM090**		**B5/B14**
	88	339	1.2	20	**CM090**		**B5/B14**
	70	419	0.9	25	**CM090**		**B5/B14**
	58	485	1.0	30	**CM090**		**B5/B14**
	233	136	4.4	7.5	**CM110**		**B5/B14**
	175	180	3.7	10	**CM110**		**B5/B14**
	117	263	2.8	15	**CM110**		**B5/B14**
	88	343	2.2	20	**CM110**		**B5/B14**
	70	424	1.6	25	**CM110**		**B5/B14**
	58	491	1.7	30	**CM110**		**B5/B14**
	44	638	1.2	40	**CM110**		**B5/B14**
	35	767	0.9	50	**CM110**		**B5/B14**
	88	339	2.7	20	**CM130**		**B5**
	70	419	2.2	25	**CM130**		**B5**
	58	479	2.2	30	**CM130**		**B5**
	44	614	1.7	40	**CM130**		**B5**
	35	757	1.3	50	**CM130**		**B5**
	29	884	1.0	60	**CM130**		**B5**
	70	424	2.5	25	**CM150**		**B5**
	58	503	2.1	30	**CM150**		**B5**
	44	630	2.2	40	**CM150**		**B5**
	35	767	1.6	50	**CM150**		**B5**
	29	884	1.3	60	**CM150**		**B5**
	22	1098	0.9	80	**CM150**		**B5**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
4.5							
(6.0 hp)	**233**	164	1.2	7.5	**CM070**		**B5/B14**
	175	214	1.0	10	**CM070**		**B5/B14**
112MA4							
(1750 min^{-1})	**233**	164	1.5	7.5	**CM075**		**B5/B14**
	175	214	1.2	10	**CM075**		**B5/B14**
	117	309	0.9	15	**CM075**		**B5/B14**
	233	166	2.1	7.5	**CM090**		**B5/B14**
	175	219	1.7	10	**CM090**		**B5/B14**
	117	317	1.4	15	**CM090**		**B5/B14**
	88	413	1.0	20	**CM090**		**B5/B14**
	233	166	3.6	7.5	**CM110**		**B5/B14**
	175	219	3.1	10	**CM110**		**B5/B14**
	117	320	2.3	15	**CM110**		**B5/B14**
	88	417	1.8	20	**CM110**		**B5/B14**
	70	516	1.3	25	**CM110**		**B5/B14**
	58	597	1.4	30	**CM110**		**B5/B14**
	44	776	1.0	40	**CM110**		**B5/B14**
	233	164	4.6	7.5	**CM130**		**B5**
	175	216	3.8	10	**CM130**		**B5**
	117	317	2.9	15	**CM130**		**B5**
	88	413	2.2	20	**CM130**		**B5**
	70	510	1.8	25	**CM130**		**B5**
	58	582	1.8	30	**CM130**		**B5**
	44	747	1.4	40	**CM130**		**B5**
	35	921	1.1	50	**CM130**		**B5**
	88	422	2.8	20	**CM150**		**B5**
	70	516	2.1	25	**CM150**		**B5**
	58	611	1.8	30	**CM150**		**B5**
	44	766	1.8	40	**CM150**		**B5**
	35	933	1.4	50	**CM150**		**B5**
	29	1076	1.1	60	**CM150**		**B5**
5.5							
(7.5 hp)	**233**	200	1.0	7.5	**CM070**		**B5/B14**
112MB4	**233**	200	1.2	7.5	**CM075**		**B5/B14**
(1750 min^{-1})	**175**	261	1.0	10	**CM075**		**B5/B14**
	233	203	1.7	7.5	**CM090**		**B5/B14**
	175	267	1.4	10	**CM090**		**B5/B14**
	117	387	1.1	15	**CM090**		**B5/B14**
	233	203	3.0	7.5	**CM110**		**B5/B14**
	175	267	2.5	10	**CM110**		**B5/B14**
	117	392	1.9	15	**CM110**		**B5/B14**
	88	510	1.5	20	**CM110**		**B5/B14**
	70	630	1.1	25	**CM110**		**B5/B14**
	58	729	1.1	30	**CM110**		**B5/B14**



Datos técnicos — *Dados técnicos* — Technical data

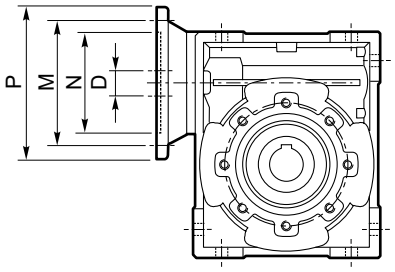
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
5.5							
(7.5 hp)	**233**	200	3.7	7.5	**CM130**		**B5**
	175	264	3.1	10	**CM130**		**B5**
112MB4	**117**	387	2.4	15	**CM130**		**B5**
(1750 min^{-1})	**88**	504	1.8	20	**CM130**		**B5**
	70	623	1.5	25	**CM130**		**B5**
	58	711	1.5	30	**CM130**		**B5**
	44	912	1.2	40	**CM130**		**B5**
	35	1126	0.9	50	**CM130**		**B5**
	117	396	2.8	15	**CM150**		**B5**
	88	516	2.3	20	**CM150**		**B5**
	70	630	1.7	25	**CM150**		**B5**
	58	747	1.4	30	**CM150**		**B5**
	44	936	1.5	40	**CM150**		**B5**
	35	1141	1.1	50	**CM150**		**B5**
	29	1315	0.9	60	**CM150**		**B5**
7.5							
(10.0 hp)	**233**	276	2.2	7.5	**CM110**		**B5/B14**
	175	364	1.8	10	**CM110**		**B5/B14**
132MA4	**117**	534	1.4	15	**CM110**		**B5/B14**
(1750 min^{-1})	**88**	696	1.1	20	**CM110**		**B5/B14**
	233	273	2.7	7.5	**CM130**		**B5/B14**
	175	360	2.3	10	**CM130**		**B5/B14**
	117	528	1.7	15	**CM130**		**B5/B14**
	88	688	1.3	20	**CM130**		**B5/B14**
	70	849	1.1	25	**CM130**		**B5/B14**
	58	970	1.1	30	**CM130**		**B5/B14**
	233	279	3.9	7.5	**CM150**		**B5**
	175	368	3.0	10	**CM150**		**B5**
	117	540	2.1	15	**CM150**		**B5**
	88	704	1.7	20	**CM150**		**B5**
	70	860	1.3	25	**CM150**		**B5**
	58	1019	1.1	30	**CM150**		**B5**
	44	1277	1.1	40	**CM150**		**B5**
9.2							
(12.5 hp)	**233**	339	1.8	7.5	**CM110**		**B5/B14**
	175	447	1.5	10	**CM110**		**B5/B14**
132MB4	**117**	655	1.1	15	**CM110**		**B5/B14**
(1750 min^{-1})	**88**	853	0.9	20	**CM110**		**B5/B14**
	233	335	2.2	7.5	**CM130**		**B5/B14**
	175	442	1.9	10	**CM130**		**B5/B14**
	117	648	1.4	15	**CM130**		**B5/B14**
	88	843	1.1	20	**CM130**		**B5/B14**
	70	1042	0.9	25	**CM130**		**B5/B14**
	58	1190	0.9	30	**CM130**		**B5/B14**
	233	343	3.2	7.5	**CM150**		**B5**
	175	452	2.5	10	**CM150**		**B5**
	117	663	1.7	15	**CM150**		**B5**
	88	864	1.4	20	**CM150**		**B5**
	70	1054	1.0	25	**CM150**		**B5**
	58	1250	0.9	30	**CM150**		**B5**
	44	1566	0.9	40	**CM150**		**B5**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i			IEC
11							
(15.0 hp)	**233**	405	1.5	7.5	**CM110**		**B5/B14**
	175	534	1.3	10	**CM110**		**B5/B14**
132L4	**117**	783	0.9	15	**CM110**		**B5/B14**
(1750 min^{-1})							
	233	401	1.9	7.5	**CM130**		**B5/B14**
	175	528	1.6	10	**CM130**		**B5/B14**
	117	774	1.2	15	**CM130**		**B5/B14**
	88	1008	0.9	20	**CM130**		**B5/B14**
	233	410	2.6	7.5	**CM150**		**B5**
	175	540	2.1	10	**CM150**		**B5**
	117	792	1.4	15	**CM150**		**B5**
	88	1032	1.1	20	**CM150**		**B5**
	70	1261	0.9	25	**CM150**		**B5**
15							
(20.0 hp)	**233**	559	1.9	7.5	**CM150**		**B5**
	175	737	1.5	10	**CM150**		**B5**
160M4	**117**	1081	1.0	15	**CM150**		**B5**
(1750 min^{-1})	**88**	1408	0.8	20	**CM150**		**B5**
18.5							
(25.0 hp)	**233**	689	1.6	7.5	**CM150**		**B5**
	175	909	1.2	10	**CM150**		**B5**
160L4	**117**	1333	0.8	15	**CM150**		**B5**
(1750 min^{-1})							

Motores aplicables — *Motores aplicáveis* — IEC Motor adapters

	IEC	N	M	P	D	i											
						5	7.5	10	15	20	25	30	40	50	60	80	100
CM026	**56B14**	50	65	80	9												
CM030	**63B5**	95	115	140	11												
	63B14	60	75	90													
	56B5	80	100	120	9	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**			
	56B14	50	65	80													
CM040	**71B5**	110	130	160	14												
	71B14	70	85	105													
	63B5	95	115	140	11	**B**	**B**	**B**	**B**	**B**	**B**	**B**	**B**				
	63B14	60	75	90													
	56B5	80	100	120	9	**BS**	**BS**	**BS**	**BS**	**BS**	**BS**	**BS**	**BS**	**B**	**B**	**B**	**B**
	56B14	50	65	80													
CM050	**80B5**	130	165	200	19												
	80B14	80	100	120													
	71B5	110	130	160	14	**B**	**B**	**B**	**B**	**B**	**B**	**B**					
	71B14	70	85	105													
	63B5	95	115	140	11	**BS**	**BS**	**BS**	**BS**	**BS**	**BS**	**BS**	**B**	**B**	**B**	**B**	**B**
	63B14	60	75	90													
CM063	**90B5**	130	165	200	24												
	90B14	95	115	140													
	80B5	130	165	200	19	**B**	**B**	**B**	**B**	**B**	**B**	**B**					
	80B14	80	100	120													
	71B5	110	130	160	14	**BS**	**BS**	**BS**	**BS**	**BS**	**BS**	**BS**	**B**	**B**	**B**		
	71B14	70	85	105													
	63B5	95	115	140	11								**BS**	**BS**	**BS**	**B**	**B**
CM070	**100/112B5**	180	215	250	28												
	100/112B14	110	130	160													
	90B5	130	165	200	24		**B**	**B**	**B**	**B**							
	90B14	95	115	140													
	80B5	130	165	200	19		**BS**	**BS**	**BS**	**BS**	**B**	**B**	**B**				
	80B14	80	100	120													
	71B5	110	130	160	14						**BS**	**BS**	**BS**	**B**	**B**	**B**	**B**
CM075	**100/112B5**	180	215	250	28												
	100/112B14	110	130	160													
	90B5	130	165	200	24		**B**	**B**	**B**	**B**	**B**	**B**					
	90B14	95	115	140													
	80B5	130	165	200	19		**BS**	**BS**	**BS**	**BS**	**BS**	**BS**	**B**	**B**			
	80B14	80	100	120													
	71B5	110	130	160	14								**BS**	**BS**	**B**	**B**	**B**

Note: Brida Nema disponible según la demanda
Nota: *flange Nema disponível sob encomenda*
Note: Nema flange available on demand

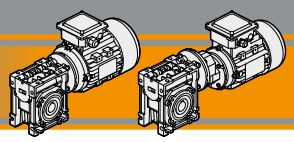


N.B. Las áreas grises indican los tamaño de los motores aplicables.

N.B. *As áreas cinzas indicam o tamanho dos motores aplicados.*

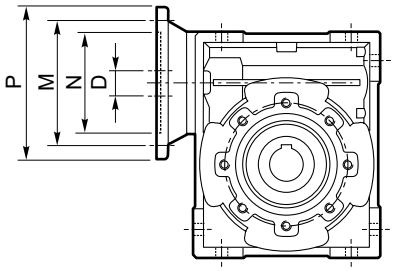
N.B. Grey areas indicate motor inputs available on each size of unit.

B/BS = Casquillo de reducción en acero
B/BS = *Bucha de redução em aço*
B/BS = Metal shaft sleeve



Motores aplicables — *Motores aplicáveis* — IEC Motor adapters

	IEC	N	M	P	D	i										
						5	7.5	10	15	20	25	30	40	50	60	80	100
CM090	**100/112B5**	180	215	250	28												
	100/112B14	110	130	160													
	90B5	130	165	200	24		B	B	B	B	B	B	B				
	90B14	95	115	140													
	80B5	130	165	200	19		BS	BS	BS	BS	BS	BS	BS	B	B	B	
	80B14	80	100	120													
	71B5	110	130	160	14									BS	BS	BS	B
CM110	**132B5**	230	265	300	38												
	132B14	130	165	200													
	100/112B5	180	215	250	28		B	B	B	B	B	B					
	100/112B14	110	130	160													
	90B5	130	165	200	24		BS	BS	BS	BS	BS	BS	B	B	B		
	90B14	95	115	140													
	80B5	130	165	200	19								BS	BS	BS	B	B
CM130	**132B5**	230	265	300	38												
	132B14	130	165	200													
	100/112B5	180	215	250	28		B	B	B	B	B	B	B				
	90B5	130	165	200	24		BS	BS	BS	BS	BS	BS	BS	B	B	B	B
	80B5	130	165	200	19									BS	BS	BS	BS
CM150	**160B5**	250	300	350	42												
	132B5	230	265	300	38		B	B	B	B	B						
	100/112B5	180	215	250	28		BS	BS	BS	BS	BS	B	B	B	B		



N.B. Las áreas grises indican los tamaño de los motores aplicables.

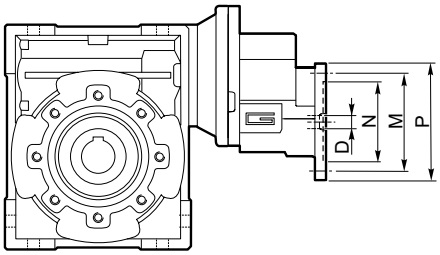
N.B. *As áreas cinzas indicam o tamanho dos motores aplicados.*

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

B/BS = Casquillo de reducción en acero
B/BS = *Bucha de redução em aço*
B/BS = Metal shaft sleeve

Note: Brida Nema disponible según la demanda
Nota: *flange Nema disponível sob encomenda*
Note: Nema flange available on demand

CMP	IEC	N	M	P	D	i (i_1 x i_2)							
						60 (3x20)	75 (3x25)	90 (3x30)	120 (3x40)	150 (3x50)	180 (3x60)	240 (3x80)	300 (3x100)
056/030	56 B14	50	65	80	9								
056/040						B	B	B	B				
063/040	63 B14	60	75	90	11								
063/050						B	B	B					
063/063						BS	BS	BS	B	B	B		
071/050	71 B14	70	85	105	14								
071/063						B	B	B					
071/070						B	B	B	B				
071/075						B	B	B	B				
071/090						BS	BS	BS	B	B	B		
080/063	80 B14	80	100	120	19								
080/070													
080/075													
080/090						B	B	B					
080/110						BS	BS	B	B	B	B		
080/130						BS	BS	BS	BS	B	B	B	B
090/070	90 B14 90 B5	95 130	115 165	140 200	24								
090/075													
090/090						B	B	B					
090/110						BS	BS	B	B	B	B		
090/130						BS	BS	BS	BS	B	B	B	B



N.B. Las áreas grises indican los tamaño de los motores aplicables

N.B. *As áreas cinzas indicam o tamanho dos motores aplicados*

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

B/BS = Casquillo de reducción en acero
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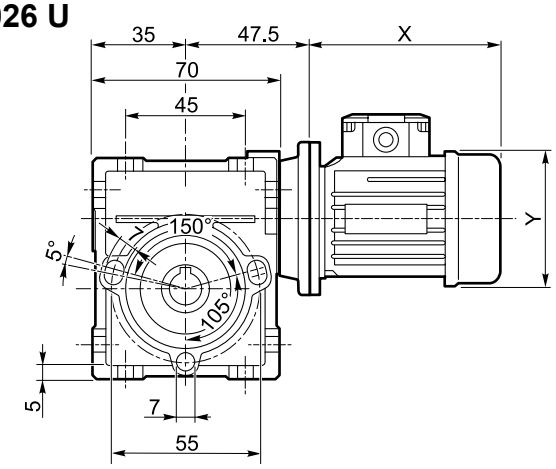
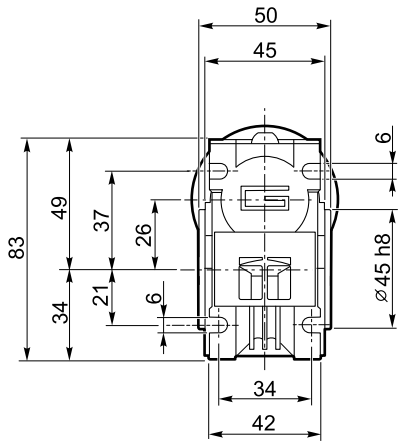
B/BS = Metal shaft sleeve

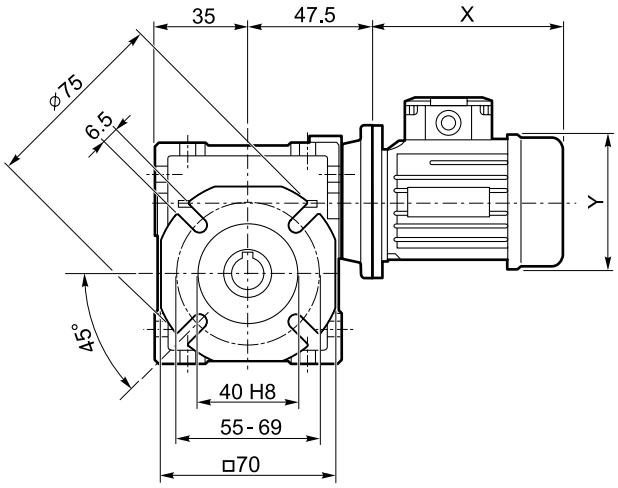
Dimensiones | ***Dimensões*** | **Dimensions**

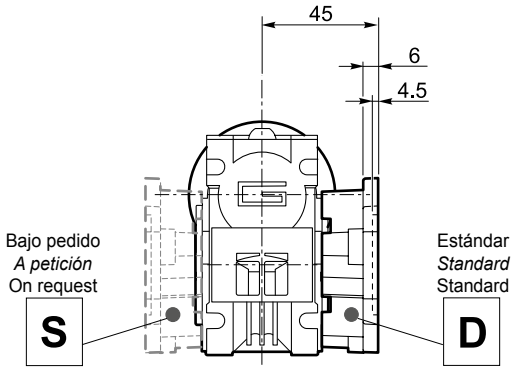
CM 026 U





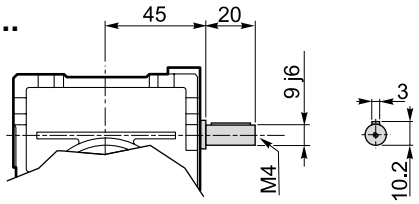
CM 026 F

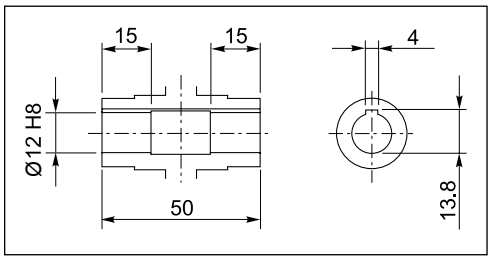




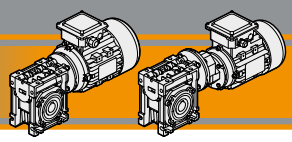
Kg
0.8

CMIS 026 ..



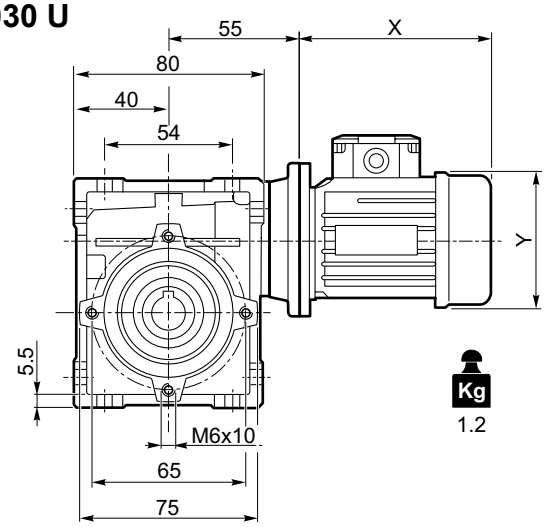


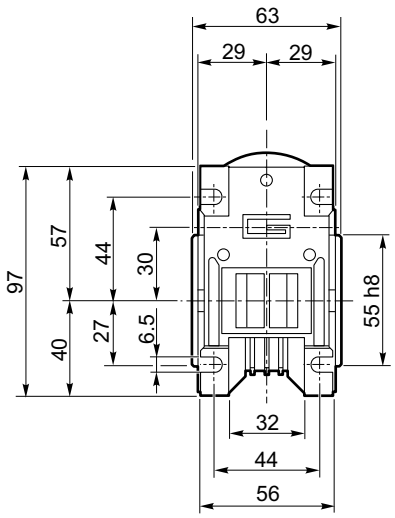
Eje de salida hueco
Eixo saída vazado
Hollow output shaft



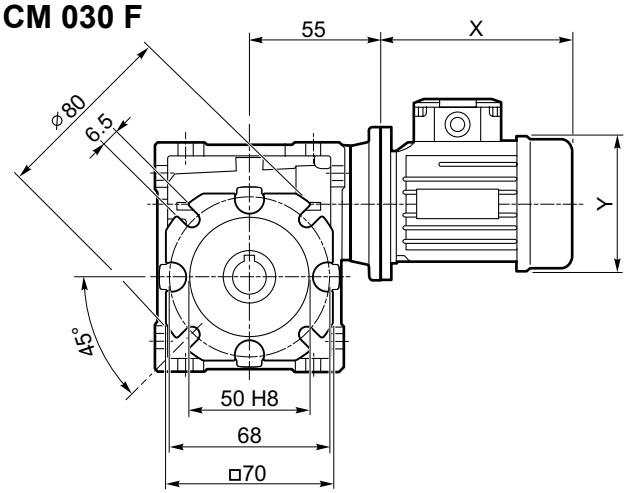
Dimensiones | ***Dimensões*** | **Dimensions**

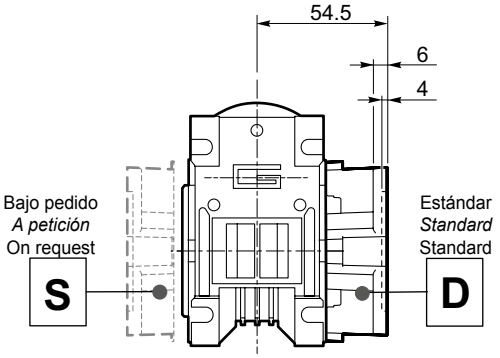
CM 030 U



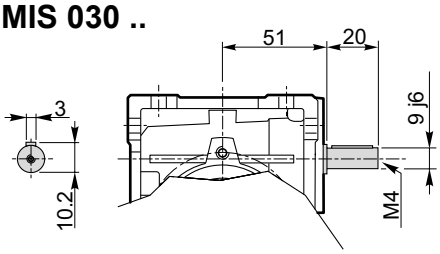


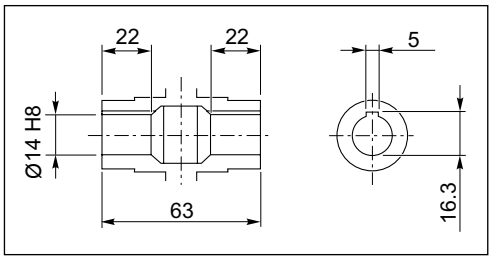
CM 030 F





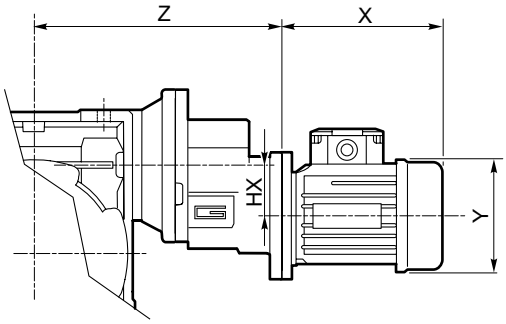
CMIS 030 ..





Eje de salida hueco
Eixo saída vazado
Hollow output shaft

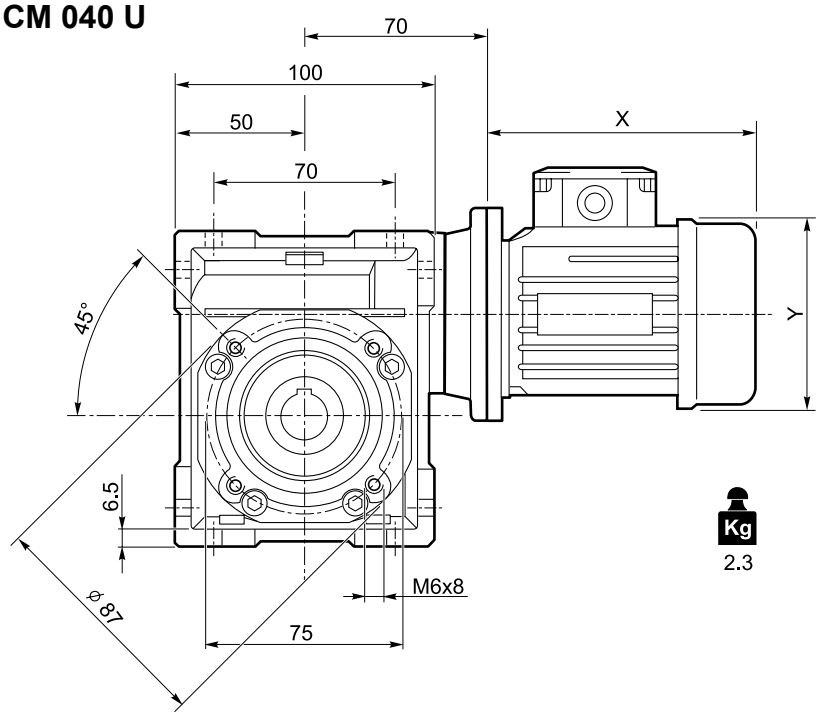
CMP ..

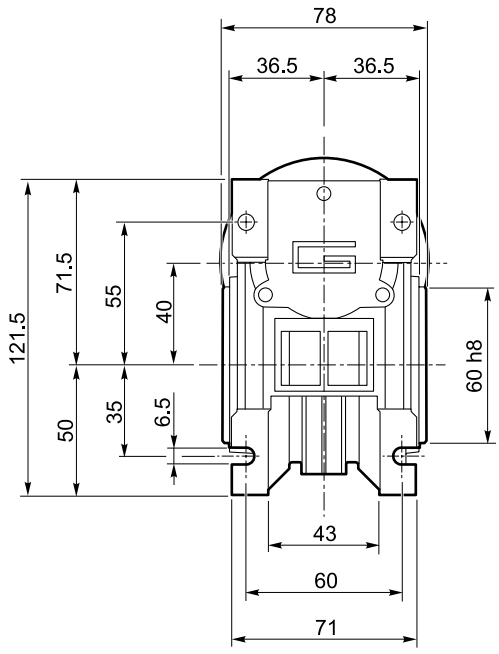


	HX	Z	Kg
056/030	30.5	124	2.1

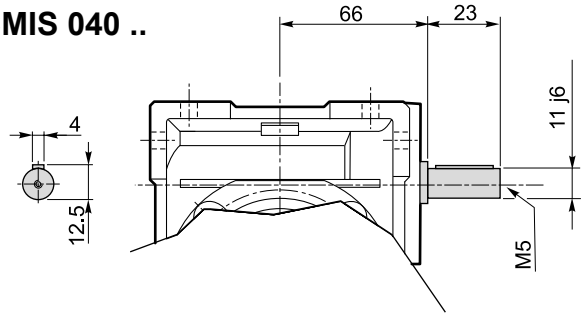
Dimensiones | ***Dimensões*** | **Dimensions**

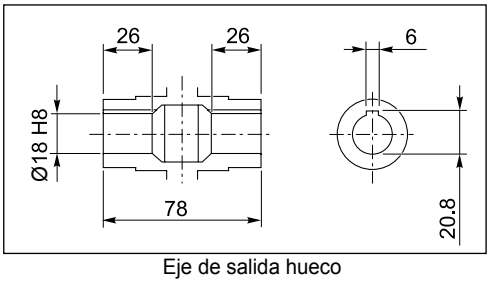
CM 040 U





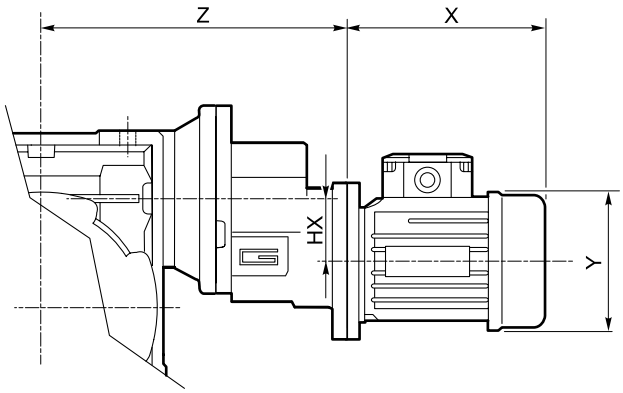
CMIS 040 ..



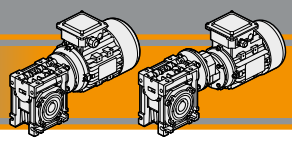


Eje de salida hueco
Eixo saída vazado
Hollow output shaft

CMP ..

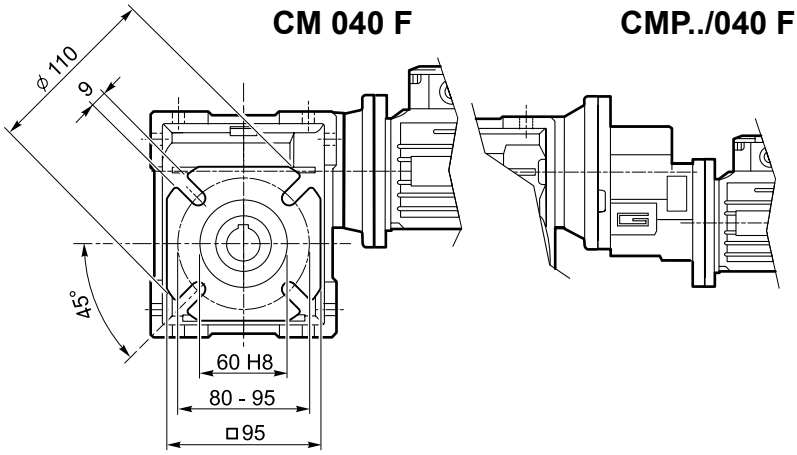


	HX	Z	Kg
056/040	30.5	139	3.2
063/040	30.5	142	3.3

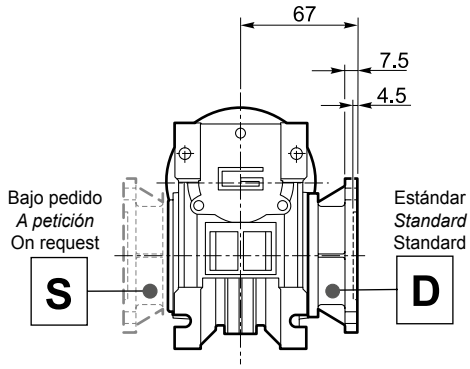


Dimensiones | ***Dimensões*** | **Dimensions**

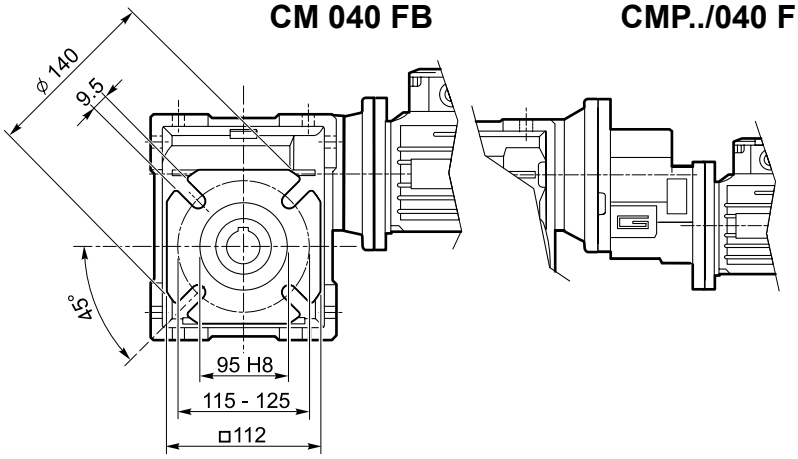
CM 040 F



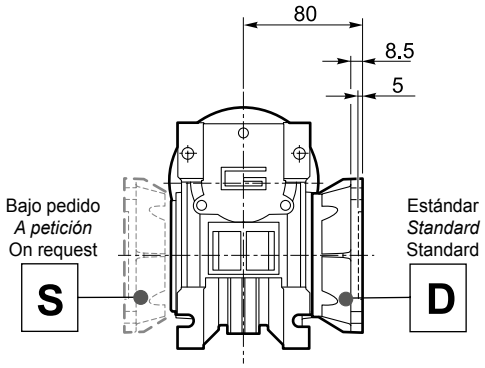
CMP../040 F



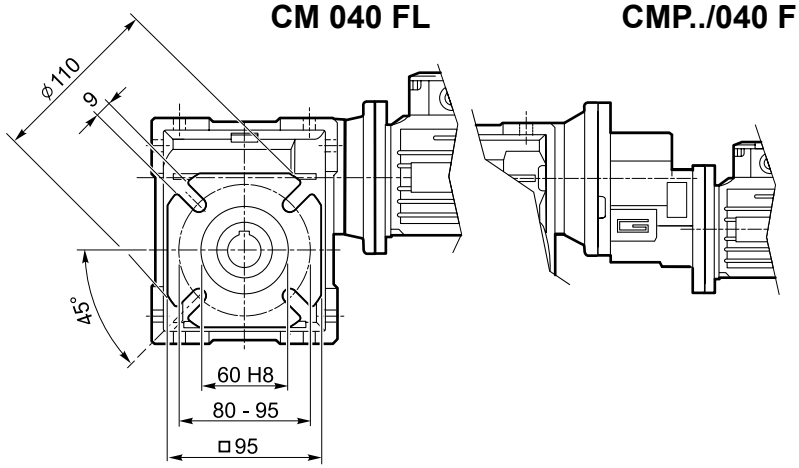
CM 040 FB



CMP../040 FB



CM 040 FL



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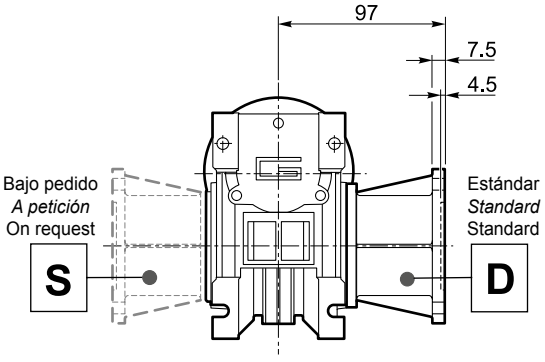
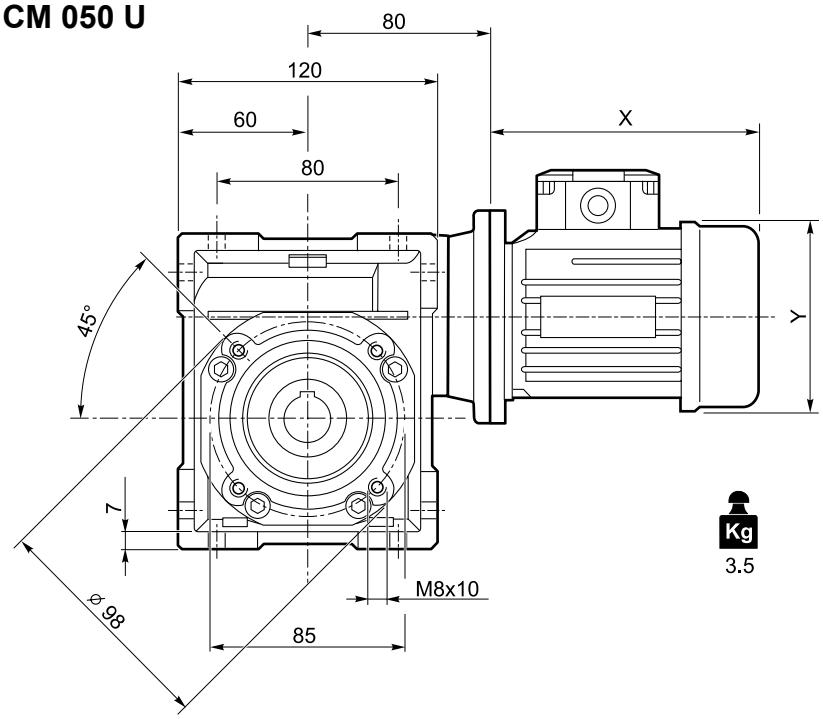
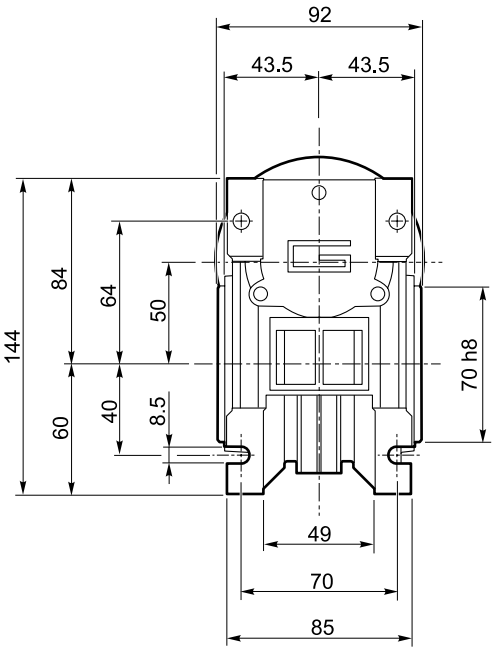


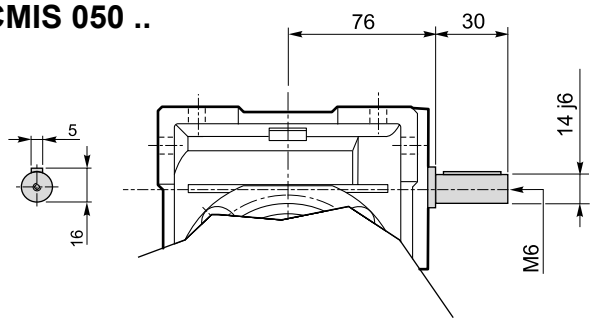
Dimensiones | ***Dimensões*** | **Dimensions**

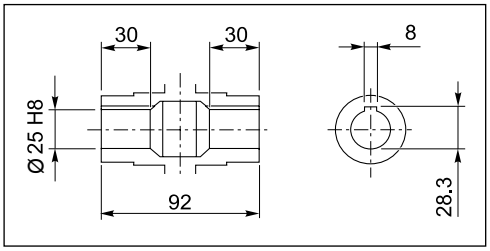
CM 050 U





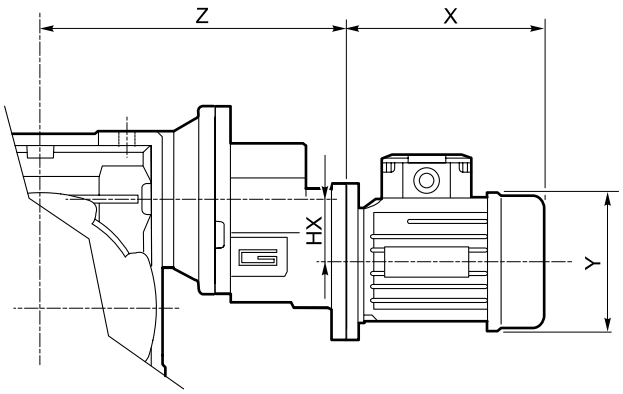
CMIS 050 ..



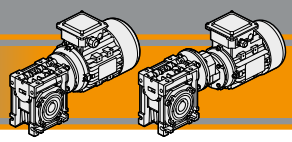


Eje de salida hueco
Eixo saída vazado
Hollow output shaft

CMP ..

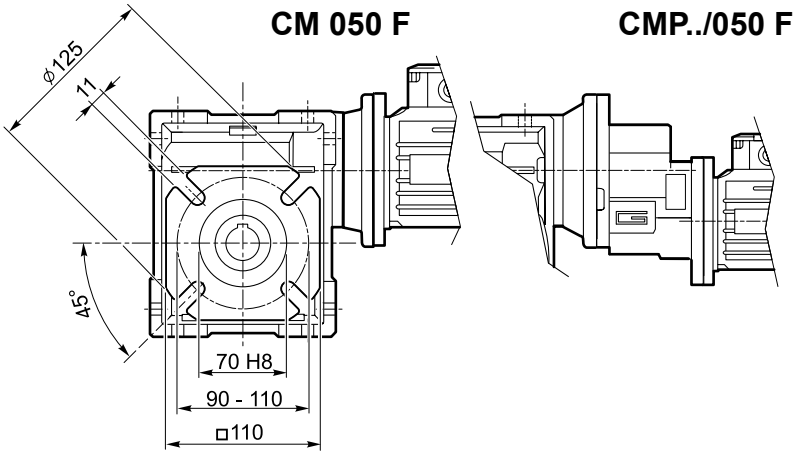


	HX	Z	Kg
063/050	30.5	152	4.5
071/050	41	169	5.5

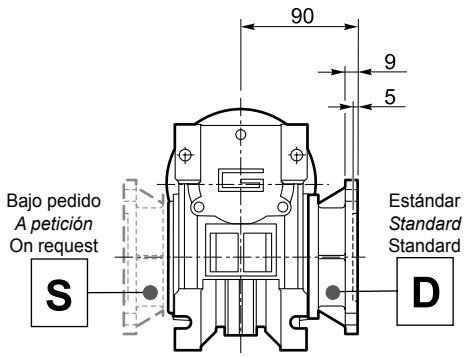


Dimensiones | ***Dimensões*** | **Dimensions**

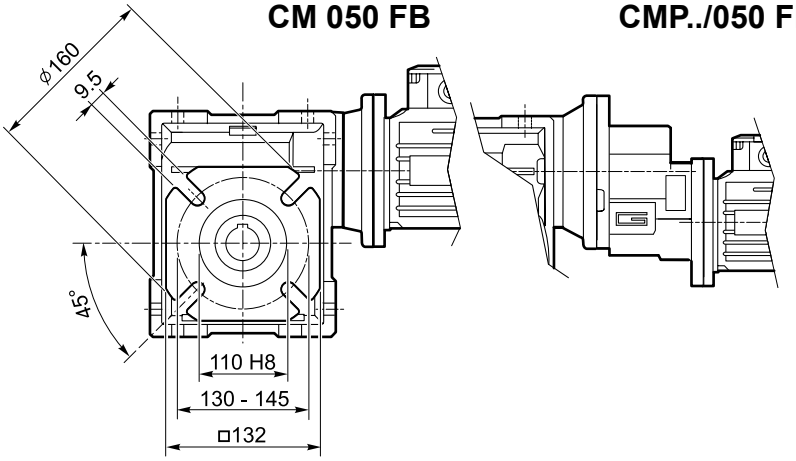
CM 050 F



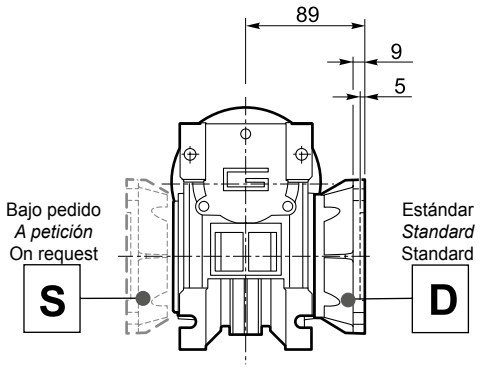
CMP../050 F



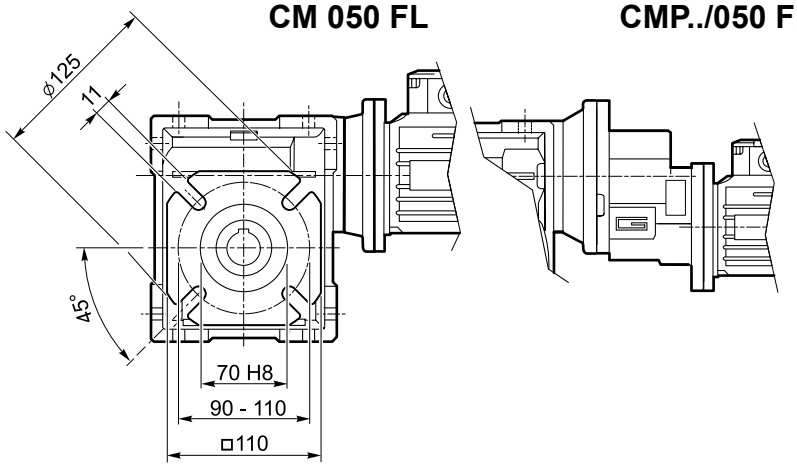
CM 050 FB



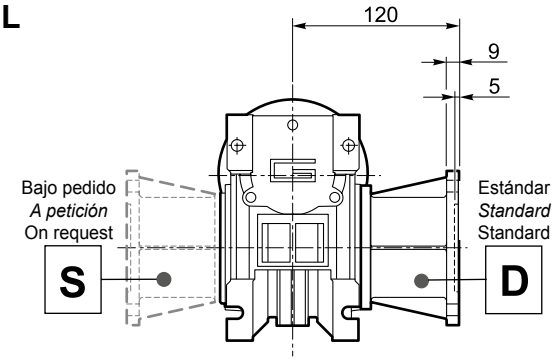
CMP../050 FB



CM 050 FL

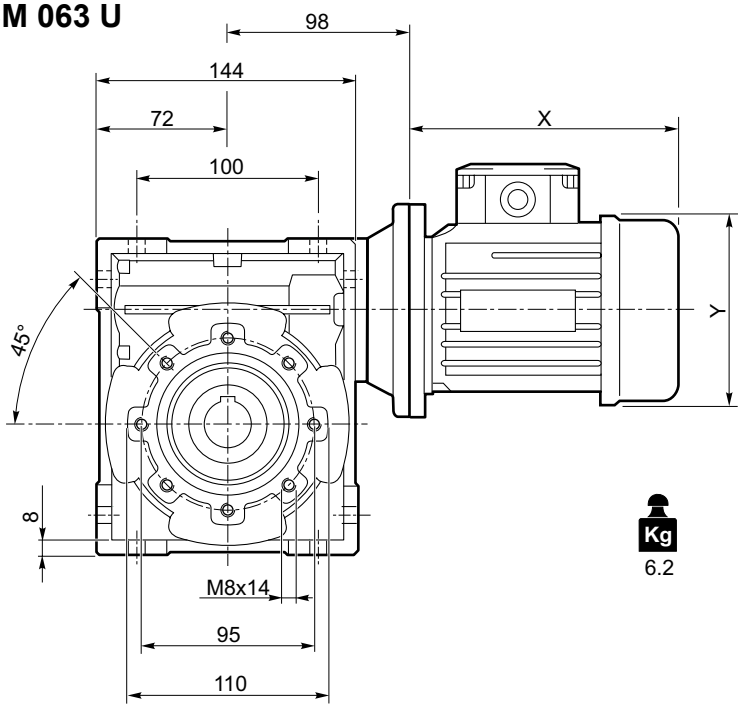


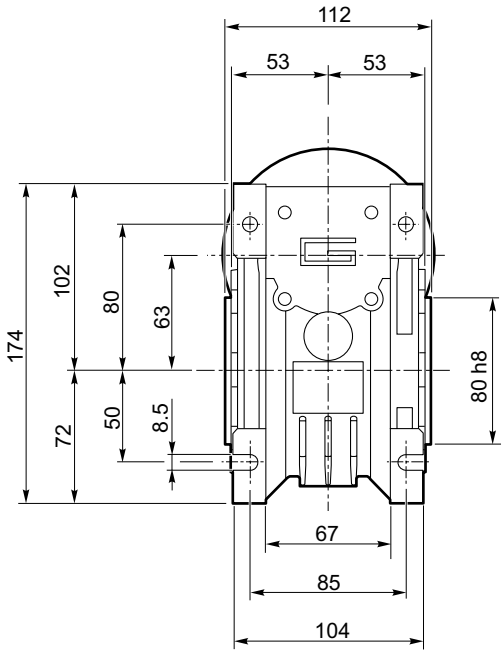
CMP../050 FL



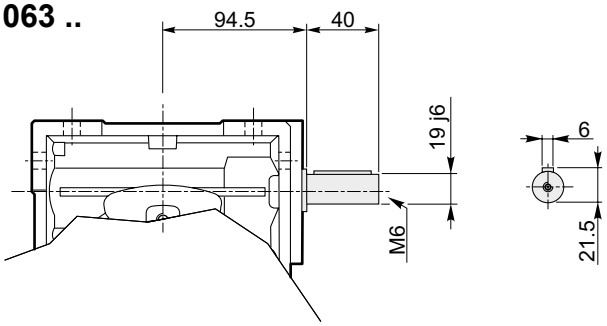
Dimensiones | ***Dimensões*** | **Dimensions**

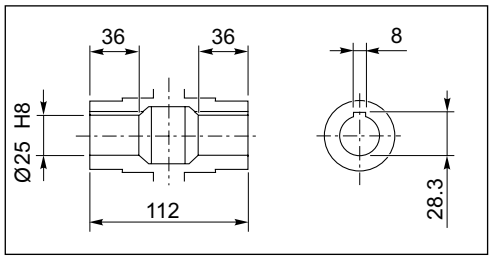
CM 063 U





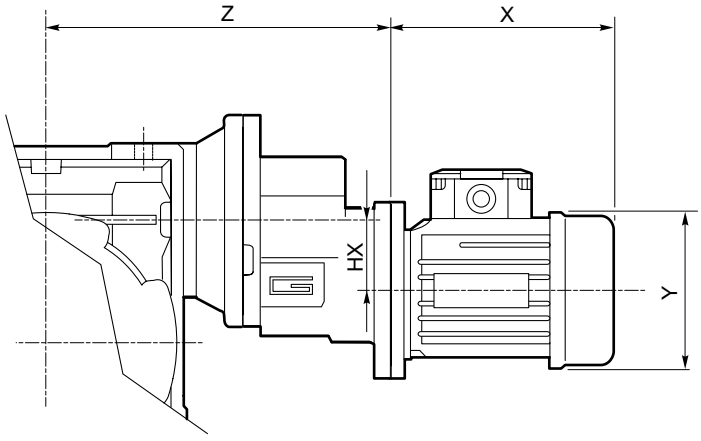
CMIS 063 ..



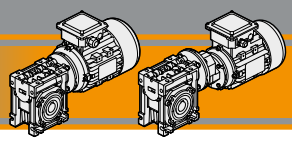


Eje de salida hueco
Eixo saída vazado
Hollow output shaft

CMP ..

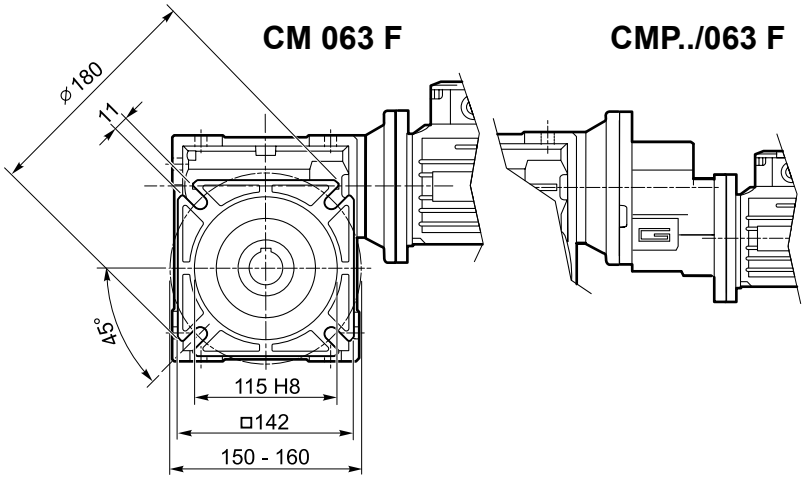


	HX	Z	Kg
063/063	30.5	170	7.2
071/063	41	187	8.2
080/063	41	198	9.0

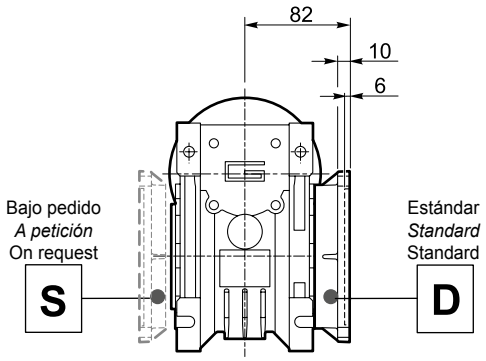


Dimensiones | ***Dimensões*** | **Dimensions**

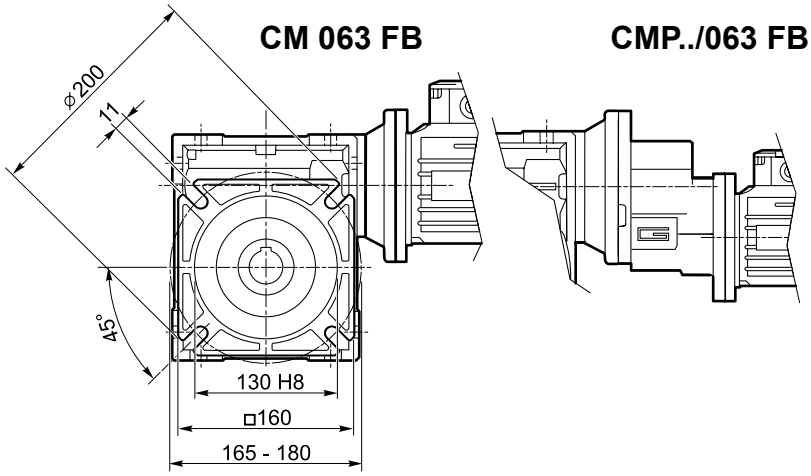
CM 063 F



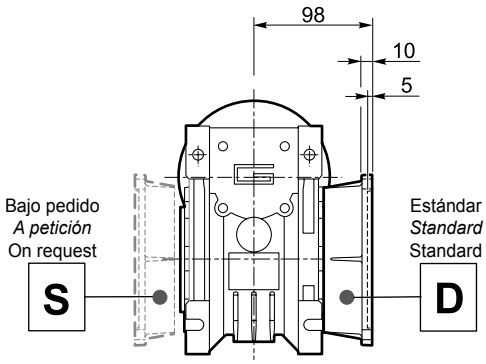
CMP../063 F



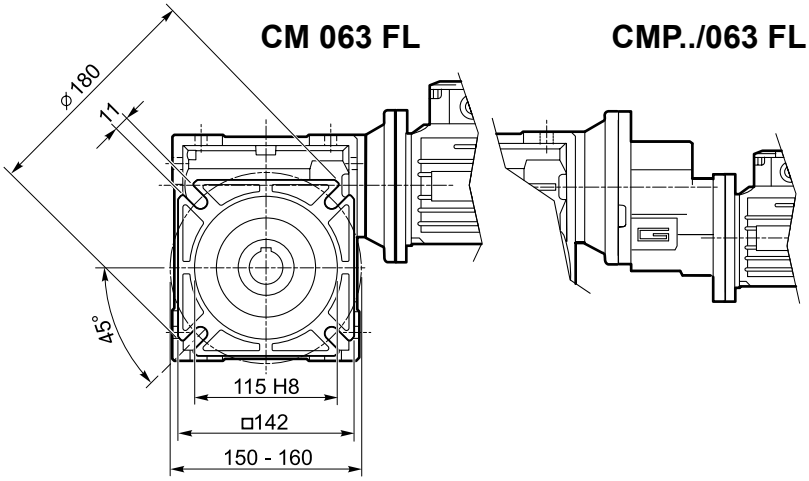
CM 063 FB



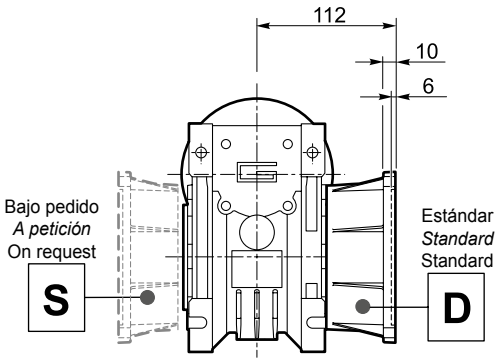
CMP../063 FB



CM 063 FL

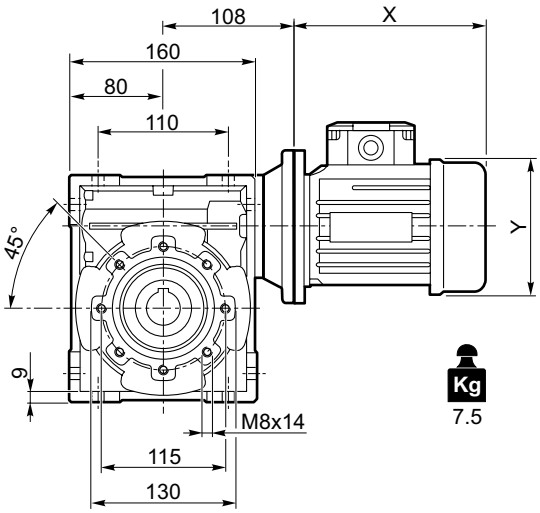


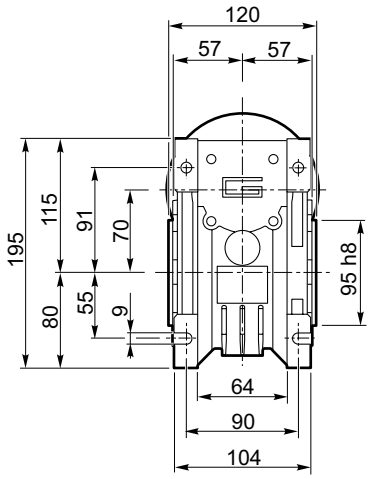
CMP../063 FL



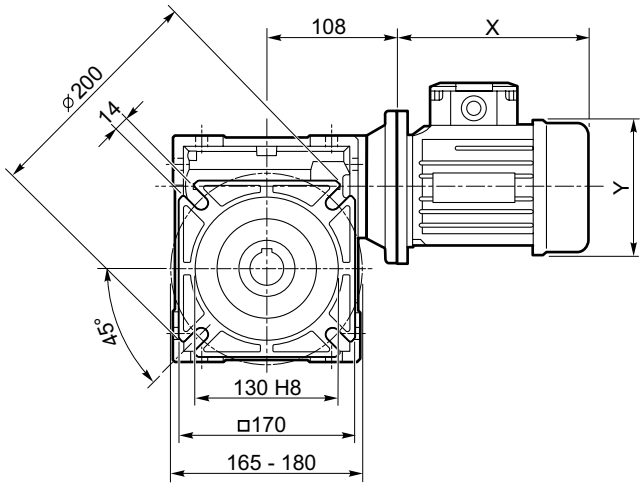
Dimensiones | ***Dimensões*** | **Dimensions**

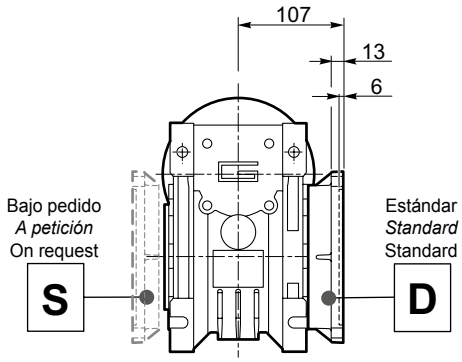
CM 070 U



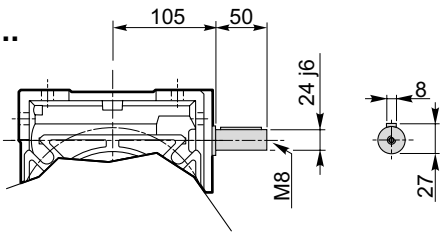


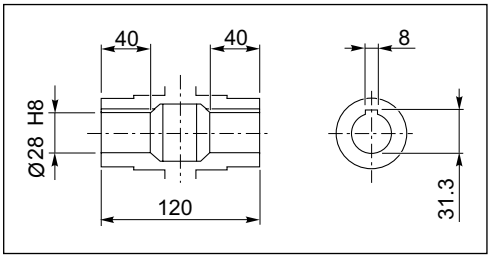
CM 070 F





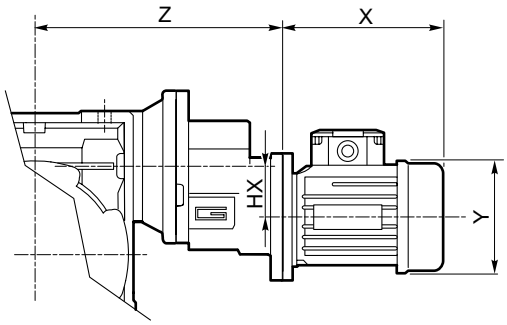
CMIS 070 ..



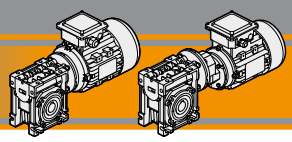


Eje de salida hueco
Eixo saída vazado
Hollow output shaft

CMP ..

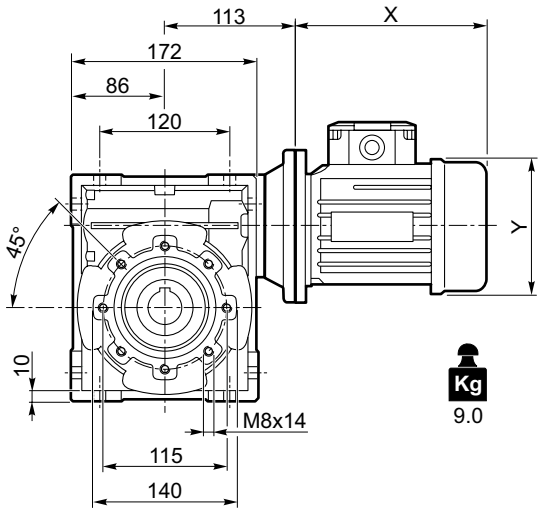


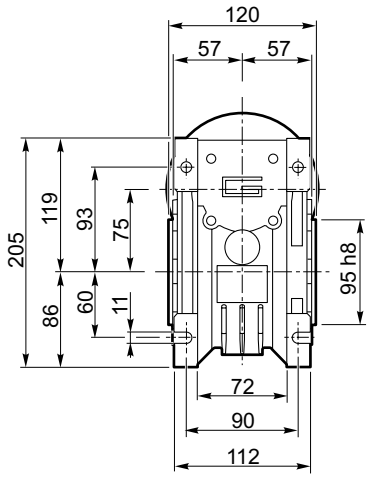
	HX	Z	Kg
071/070	41	197	9
080/070	41	208	9.8
090/070	36.5	262	10.5



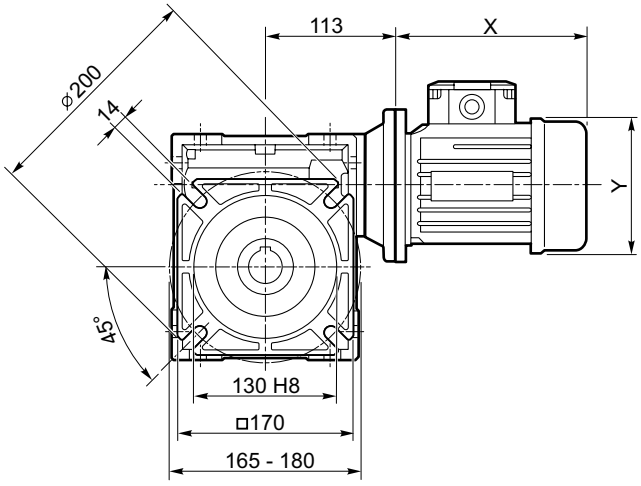
Dimensiones | ***Dimensões*** | **Dimensions**

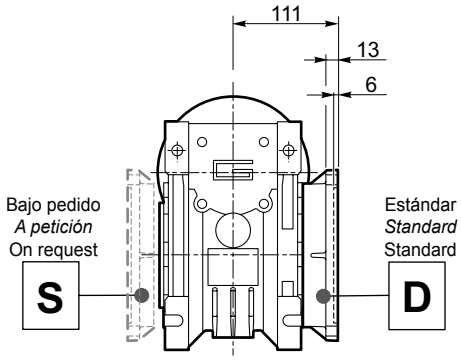
CM 075 U



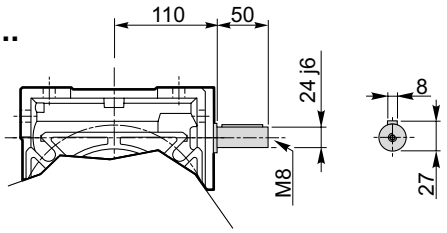


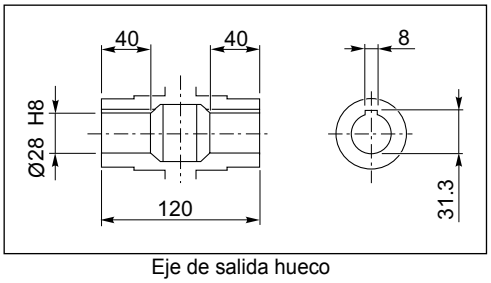
CM 075 F





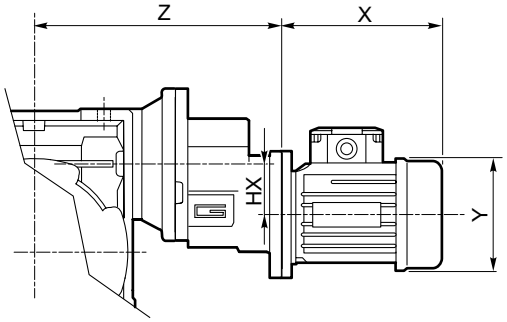
CMIS 075 ..





Eje de salida hueco
Eixo saída vazado
Hollow output shaft

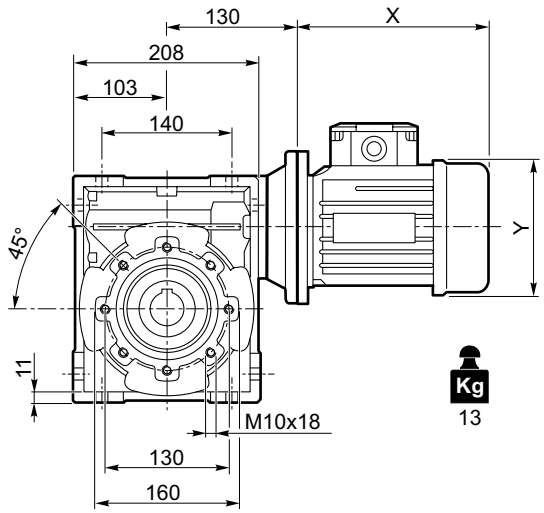
CMP ..

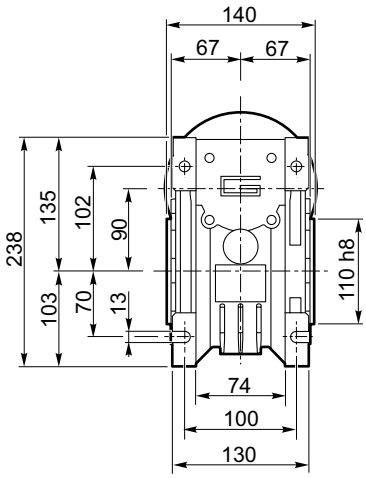


	HX	Z	Kg
071/075	41	202	11.0
080/075	41	213	11.8
090/075	36.5	267	12.5

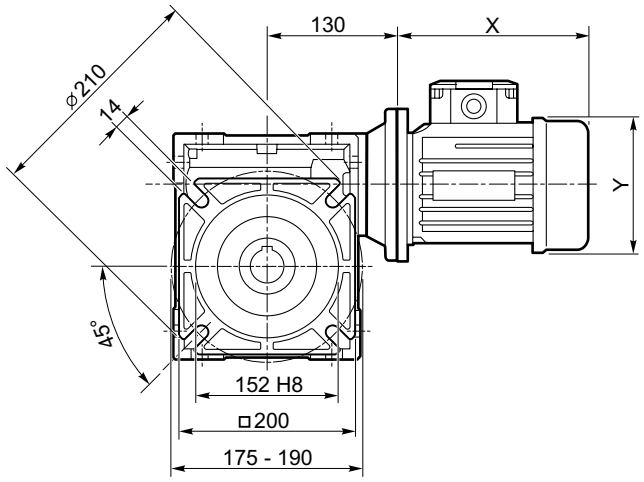
Dimensiones | ***Dimensões*** | **Dimensions**

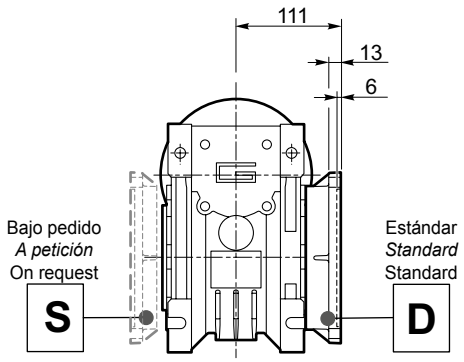
CM 090 U



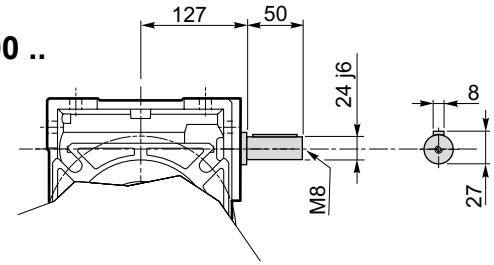


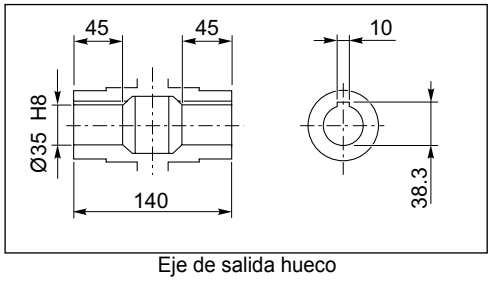
CM 090 F





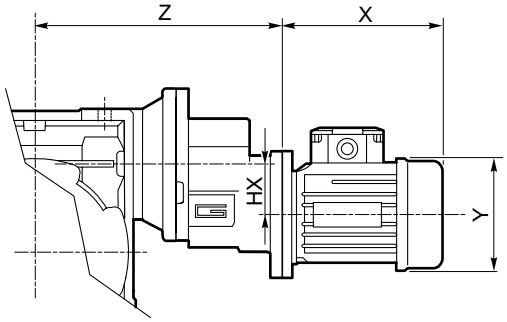
CMIS 090 ..



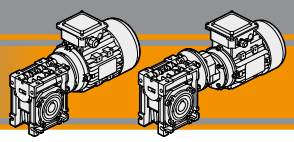


Eje de salida hueco
Eixo saída vazado
Hollow output shaft

CMP ..

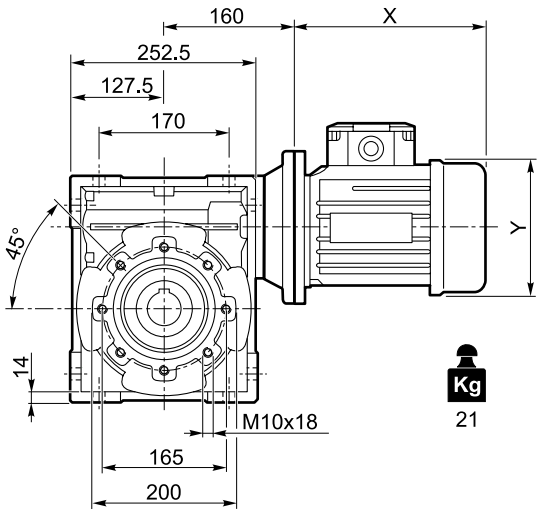


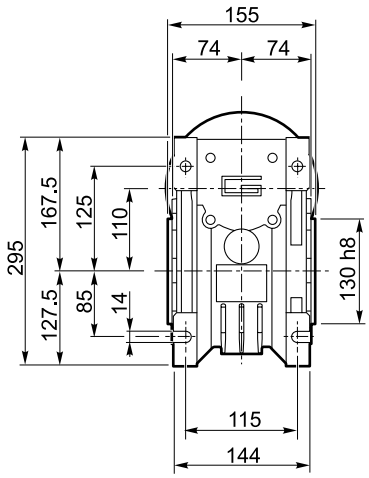
	HX	Z	Kg
071/090	41	219	15.0
080/090	41	230	15.8
090/090	36.5	284	16.5



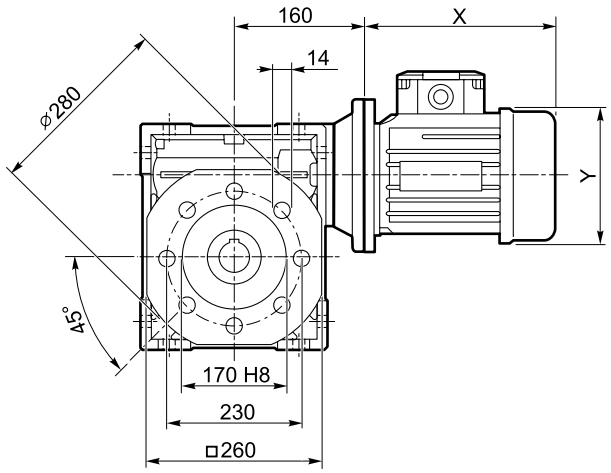
Dimensiones | ***Dimensões*** | **Dimensions**

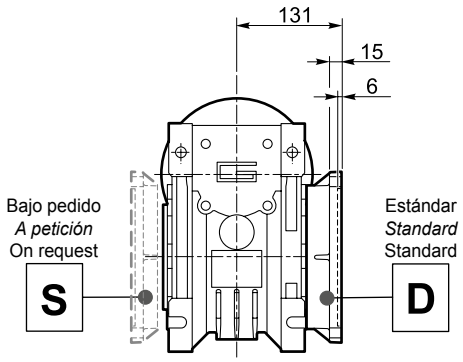
CM 110 U



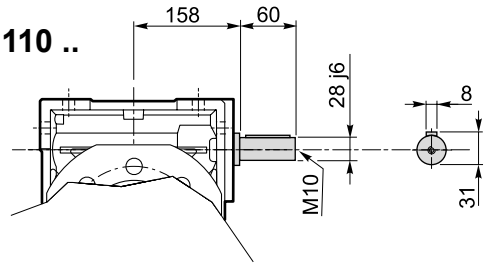


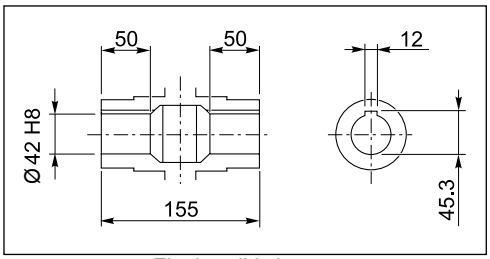
CM 110 F





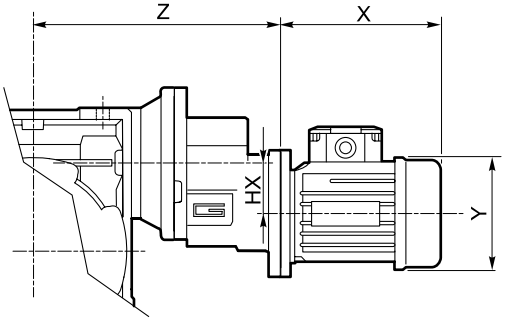
CMIS 110 ..





Eje de salida hueco
Eixo saída vazado
Hollow output shaft

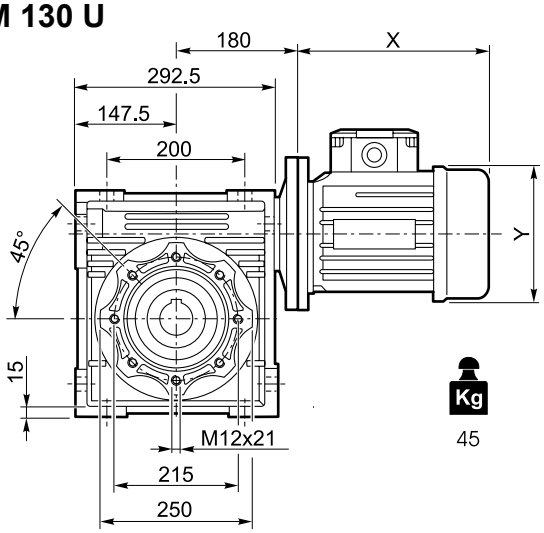
CMP ..

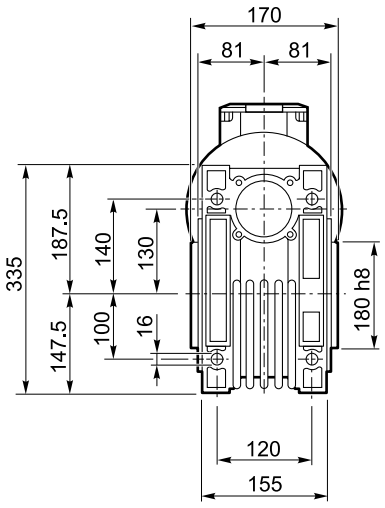


	HX	Z	Kg
080/110	41	260	23.8
090/110	36.5	314	24.5

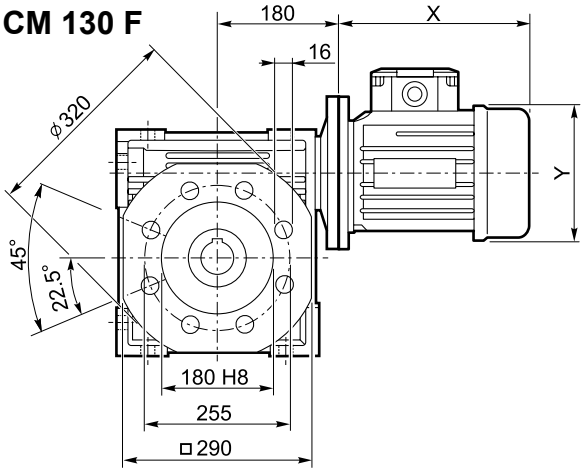
Dimensiones | ***Dimensões*** | **Dimensions**

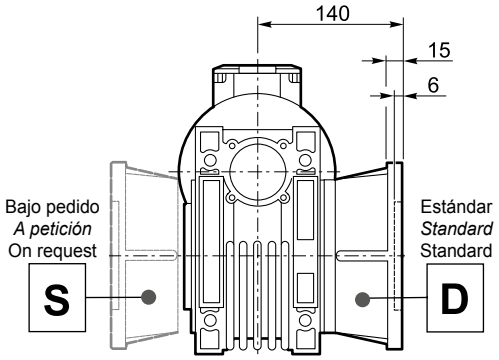
CM 130 U

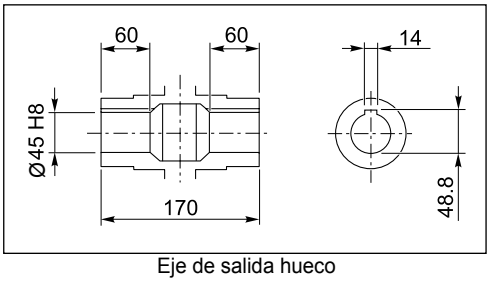




CM 130 F

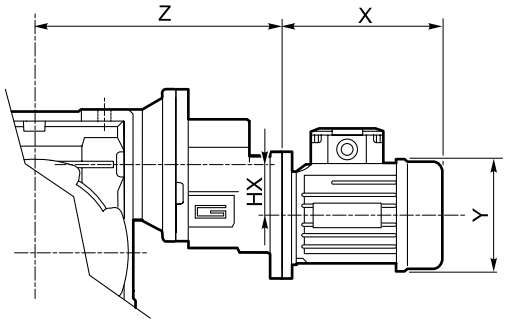




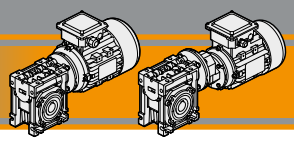


Eje de salida hueco
Eixo saída vazado
Hollow output shaft

CMP ..

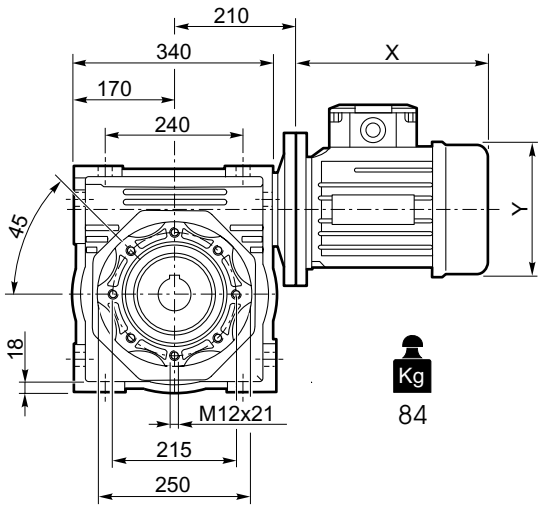


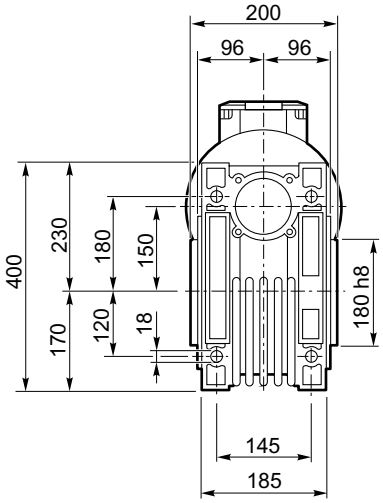
	HX	Z	Kg
080/130	41	280	47.8
090/130	36.5	334	48.5



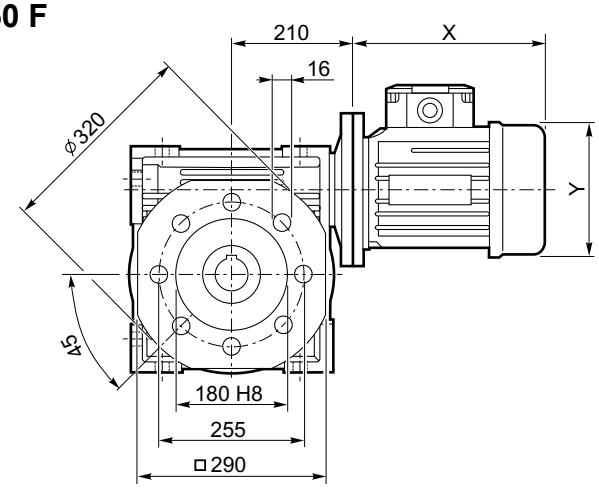
Dimensiones | ***Dimensões*** | **Dimensions**

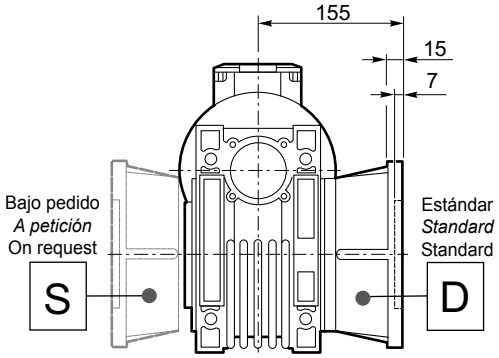
CM 150 U



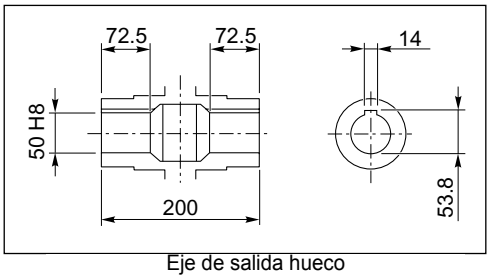


CM 150 F





Note: Pedido especial
Nota: *Item sob pedido especial*
Note: Special order item

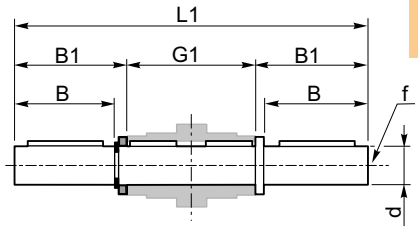


Eje de salida hueco
Eixo saída vazado
Hollow output shaft

Accesorios — *Acessórios* — Accessories

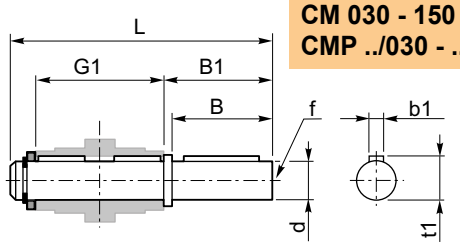
Eje de salida simple y doble — *Eixo lenta simples e dupla* — Single and double output shaft

DZ



CM 030 - 150
CMP ../030 - ../130

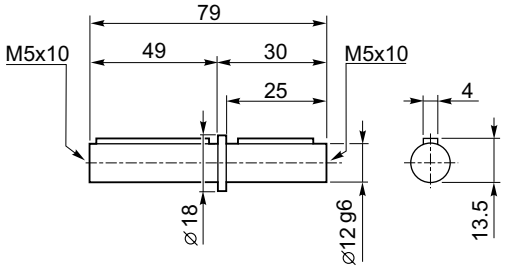
SZ



CM 030 - 150
CMP ../030 - ../130

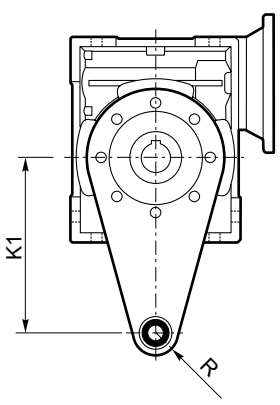
CM	CMP	d h7	B	B1	G1	L	L1	f	b1	t1
030	056/030	14	30	32.5	63	102	128	M6	5	16
040	056/040 063/040	18	40	43	78	128	164	M6	6	20.5
050	063/050 071/050	25	50	53.5	92	153	199	M10	8	28
063	063/063 071/063 080/063	25	50	53.5	112	173	219	M10	8	28
075	071/075 080/075 090/075	28	60	63.5	120	192	247	M10	8	31
090	071/090 080/090 090/090	35	80	84.5	140	234	309	M12	10	38
110	080/110 090/110	42	80	84.5	155	249	324	M16	12	45
130	080/130 090/130	45	80	85	170	265	340	M16	14	48.5
150	—	50	82	87	200	297	374	M16	14	53.5

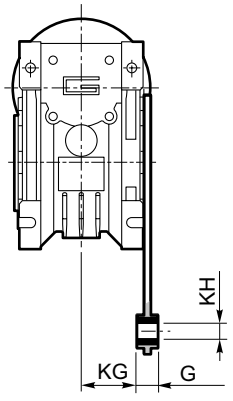
CM 026

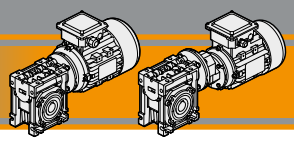


Brazo de reacción — *Braço de reação* — Torque arm

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
050	063/050 071/050	100	14	38	10	18
063	063/063 071/063 080/063	150	14	47.5	10	18
075	071/075 080/075 090/075	200	25	46.5	20	30
090	071/090 080/090 090/090	200	25	56.5	20	30
110	080/110 090/110	250	30	62	25	35
130	080/130 090/130	250	30	69	25	35
150	—	250	30	84	25	35

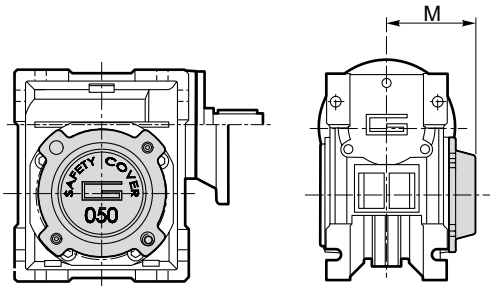






SC - Cubierta de seguridad / Tampa de proteção / Safety cover

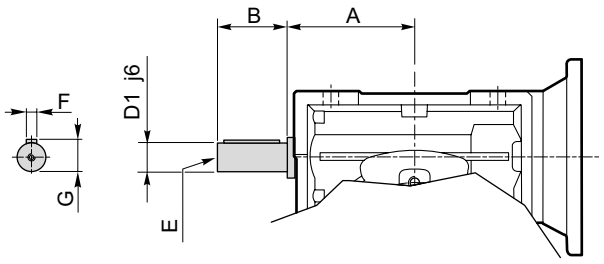
CM	CMP	M
030	056/030	47
040	056/040 063/040	54.5
050	063/050 071/050	62.5
063	063/063 071/063 080/063	73
075	071/075 080/075 090/075	79
090	071/090 080/090 090/090	94
110	080/110 090/110	102
130	080/130 090/130	117
150	—	113



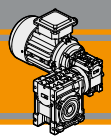
Opciones | ***Opções*** | **Options**

VS - Tornillo sinfín sobresaliente / *Parafuso saliente* / 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
050	063/050 071/050	64	30	14	M6	5	16
063	063/063 071/063 080/063	75	40	19	M6	6	21.5
070	071/070 080/070 090/070	84	40	19	M6	6	21.5
075	071/075 080/075 090/075	90	50	24	M8	8	27
090	071/090 080/090 090/090	108	50	24	M8	8	27
110	080/110 090/110	135	60	28	M10	8	31
130	080/130 090/130	—	—	—	—	—	—
150	—	—	—	—	—	—	—



Construido bajo pedido / *Fabricado sob encomenda* / Built on request



Características técnicas

El rango de combinación de los motorreductores sinfín corona CMM tienen las siguientes características principales:

- Caja de aluminio para tamaños 026, 030, 040, 050, 063, 075, 090 y 110. El tamaño 130 tiene carcasa de hierro fundido;
- Doble rodamiento de rodillos cónicos en tamaños 090, 110 y 130;
- Lubricación permanente con aceite sintético.

Características técnicas

CMM Motoredutores de rosca sem fim combinados as seguintes características:

- *Carcaça de alumínio em tamanhos 026, 030, 040, 050, 063, 070, 075, 090, 110. Tamanho 130 em carcaça de ferro fundido.*
- *Rolamentos cônicos nos seguites tamanhos 090, 110 and 130;*
- *Lubrificação permanente com óleo sintético*

Technical features

CMM double reduction worm gearmotors range have the following main features:

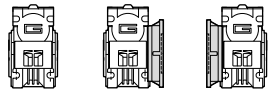
- Die-cast aluminum housing on sizes 026, 030, 040, 050, 063, 070, 075, 090 and 110. Cast iron housing on size 130;
- Double taper roller bearing on sizes 090, 110 and 130;
- Permanent synthetic oil long-life lubrication.

Clasificación — *Designação* — Classification

REDUCTOR / *REDUTOR* / GEARBOX

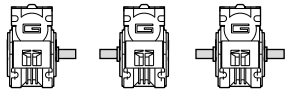
CMM	030/063	FD	20	71	B5	SZDX	BRSX	90	M1	US1	VS
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	IEC	Forma constructiva *Forma construtiva* Version	ø Eje de salida *ø Eixo saída* ø Output shaft	Brazo de reacción *Braço de reação* Torque arm	Ángulo *Ângulo* Angle	Posición de montaje *Pos. de montagem* Mounting position	*Ejecución de montaje* *Tipos de montagem* Mounting execution	Opción *Opções* Options
CMM **CMMIS**	**026/026** **026/030** **026/040** **026/050** **030/040** **030/050** **030/063** **040/063** **040/070** **040/075** **040/090** **050/110** **063/130**	**U** **FD** **FS** **FBD** **FBS** **FLD** **FLS**	Véase tablas *Veja tabelas* see tables	**56..** **—** **90..**	**B5** **B14**	**SZDX** **SZSX** **DZ**	**BRDX** **BRSX**	**0°** **90°** **180°** **270°**	**M1** (B3) **M2** (V6) **M3** (B8) **M4** (V5) **M6** (B6) **M5** (B7)	**UB1** **UB2** **US1** **US2** **UV1** **UV2** **UC1** **UC2**	**VS1** **VS2**

Relación de reducción
Versão Redutor
Gearbox Version



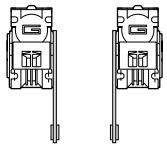
U — **FD** **FLD** **FBD** — **FS** **FLS** **FBS**

Eje de salida
Eixo de saída
Output shaft



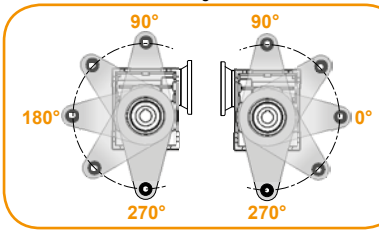
SZDX — **SZSX** — **DZ**

Brazo de reacción
Braço de reação
Torque arm



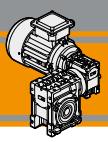
BRDX — **BRSX**

Ángulo
Ângulo
Angle

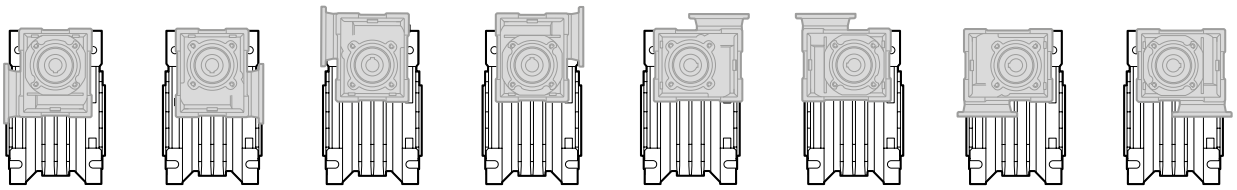


MOTOR / *MOTOR* / MOTOR

0.25kW	4p	3ph	230/400V	50Hz	T1
Potencia *Potência* Power	Polos *Pólos* Poles	Fases *Fases* Phases	Tensión *Tensão* Voltage	Frecuencia *Frequência* Frequency	Posición caja de bornes *Pos. Conexão* Terminal box pos.
Véase tablas *Veja tabelas* see tables	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**230V** **230/400V**	**60Hz**	**T1** (Std) **T4** **T2** **T3**



Ejecución de montaje — *Tipos de montagem* — Mounting executions



UB1 UB2 US1 US2 UV1 UV2 UC1 UC2

Nomenclatura — *Simbologia* — Legend

n_1	[rpm]	Velocidad de entrada / *Velocidade na entrada* / Input speed
n_2	[rpm]	Velocidad de salida / *Velocidade na saída* / Output speed
i		Relación de reducción / *Relação de redução* / Ratio
P_1	[kW]	Potencia en la entrada / *Potência da entrada* / Input power
M_2	[Nm]	Par en la salida en función de P_1 / *Torque na saída em função de* P_1 / Output torque referred to P_1
sf		Factor de servicio / *Fator de serviço* / Service factor
R_2	[N]	Carga radial admisible en la salida / *Carga radial admissível na saída* / Maximum output radial load
A_2	[N]	Carga axial admisible en la salida / *Carga axial admissível na saída* / Maximum output axial load

Relaciones combinadas — *Combinações de reduções* — Combination ratio

CMM 026/026 - CMM 026/030 - CMM 026/040 - CMM 026/050												
	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 - CMM 030/050 - CMM 030/063 - CMM 040/063 - CMM 040/070 - CMM 040/075 - CMM 040/090 - CMM 050/110 - CMM 063/130															
	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

Lubricación

La lubricación permanente con aceite sintético de larga vida (grado de viscosidad 320) hace que sea posible el uso de los reductores tamaños 40, 50, 63, 75, 90 y 110 en todas las posiciones de montaje. Solo para el tamaño 130 la lubricación depende de la posición de montaje.

Lubrificação

Lubrificação permanente longa vida óleo sintético (Grau de viscosidade 320) faz com que seja possível usar os tamanhos de motoredutores 26, 30, 40, 50, 63, 70, 75, 90, 110 em todas as posições de montagem; Por essa razão eles podem ser instalados em qualquer posição de montagem e não requerem manutenção.
Apenas para o tamanho 130, a lubrificação depende de posição de montagem.

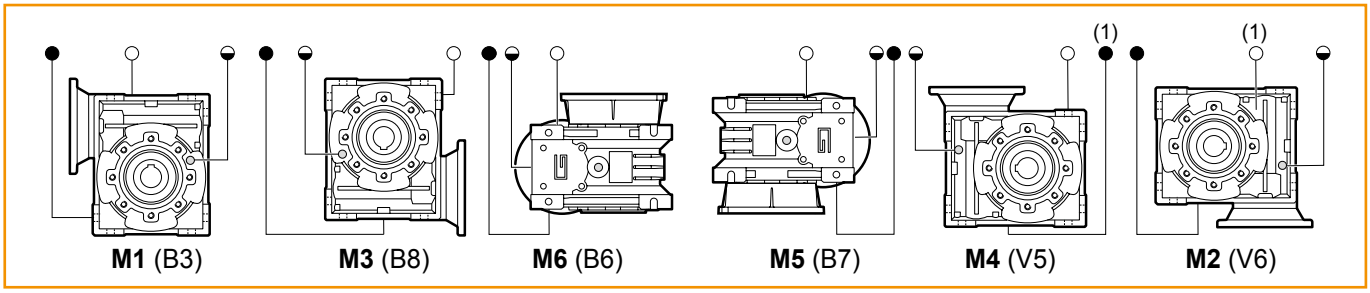
Lubrication

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use the gearmotors size 26, 30, 40, 50, 63, 70, 75, 90, 110 in all mounting positions; for this reason they can be installed in any assembly position and do not require maintenance. Only for size 130, the lubrication depended of mounting positions.

	Cantidad de aceite (litros) / ***Quantidade de óleo*** *(litros)* / **Oil quantity** (litres)					
	M1 (B3)	**M3** (B8)	**M6** (B6)	**M5** (B7)	**M4** (V5)	**M2** (V6)
CM130	4.5	3.3	3.5	3.5	4.5	3.3

Lubricaciòn permanente
Lubrificação permanente
Life lubrication

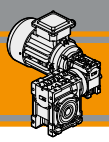
Posición de montaje / *Pos. de montagem* / Mounting positions



(standard)

(1): Tapón en posición trasera
Válvula na posição posterior
Plug in backside position

◯ Tapón de purga y tapón de llenado del aceite
Válvula de Respiro e tampa de preenchimento / Breather and filling plug
◒ Nivel del aceite / *Nível de óleo* / Oil level plug
● Tapon de drenado del aceite / *Oil drain plug*



Datos técnicos — *Dados técnicos* — Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.09						
(0.12 hp)	**12**	33	0.8	150	**CMM**	**B14**
	7.8	33	0.8	225	**026/026**	**B14**
56B4	**5.8**	34	0.8	300		**B14**
(1750 min^{-1})	**3.9**	34	0.8	450		**B14**
	2.9	34	0.8	600		**B14**
	1.9	34	0.8	900		**B14**
	1.5	34	0.8	1200		**B14**
	1.2	34	0.8	1500		**B14**
	0.97	34	0.8	1800		**B14**
	0.73	28	0.8	2400		**B14**
	0.58	25	0.8	3000		**B14**
	0.49	23	0.8	3600		**B14**
	12	41	1.0	150	**CMM**	**B14**
	7.8	49	0.8	225	**026/030**	**B14**
	5.8	50	0.8	300		**B14**
	3.9	50	0.8	450		**B14**
	2.9	50	0.8	600		**B14**
	1.9	50	0.8	900		**B14**
	1.5	50	0.8	1200		**B14**
	1.2	50	0.8	1500		**B14**
	0.97	50	0.8	1800		**B14**
	0.73	43	0.8	2400		**B14**
	0.58	38	0.8	3000		**B14**
	0.49	34	0.8	3600		**B14**
	12	42	2.1	150	**CMM**	**B14**
	7.8	59	1.5	225	**026/040**	**B14**
	5.8	70	1.3	300		**B14**
	3.9	98	0.9	450		**B14**
	2.9	113	0.8	600		**B14**
	1.9	113	0.8	900		**B14**
	1.5	113	0.8	1200		**B14**
	1.2	113	0.8	1500		**B14**
	0.97	113	0.8	1800		**B14**
	0.73	93	0.8	2400		**B14**
	0.58	85	0.8	3000		**B14**
	0.49	78	0.8	3600		**B14**
	12	44	3.7	150	**CMM**	**B14**
	7.8	62	2.6	225	**026/050**	**B14**
	5.8	71	2.3	300		**B14**
	3.9	100	1.6	450		**B14**
	2.9	126	1.3	600		**B14**
	1.9	169	1.0	900		**B14**
	1.5	203	0.8	1200		**B14**
	1.2	203	0.8	1500		**B14**
	0.97	203	0.8	1800		**B14**
	0.73	169	0.8	2400		**B14**
	0.58	156	0.8	3000		**B14**
	0.49	141	0.8	3600		**B14**
	23	23	3.6	75	**CMM**	**B5/B14**
	18	31	2.7	100	**030/040**	**B5/B14**
	12	43	2.0	150		**B5/B14**
	8.8	55	1.3	200		**B5/B14**
	7.0	66	1.0	250		**B5/B14**
	5.8	71	1.3	300		**B5/B14**
	4.4	86	0.9	400		**B5/B14**
	3.5	85	0.8	500		**B5/B14**
	2.9	113	0.8	600		**B5/B14**
	2.3	113	0.8	750		**B5/B14**
	1.9	113	0.8	900		**B5/B14**
	1.5	113	0.8	1200		**B5/B14**
	1.2	113	0.8	1500		**B5/B14**
	0.97	113	0.8	1800		**B5/B14**
	0.73	93	0.8	2400		**B5/B14**
	0.58	85	0.8	3000		**B5/B14**

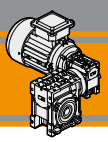
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.09						
(0.12 hp)	**12**	45	3.6	150	**CMM**	**B5/B14**
	8.8	56	2.4	200	**030/050**	**B5/B14**
56B4	**7.0**	66	1.9	250		**B5/B14**
(1750 min^{-1})	**5.8**	72	2.3	300		**B5/B14**
	4.4	87	1.5	400		**B5/B14**
	3.5	99	1.3	500		**B5/B14**
	2.9	128	1.3	600		**B5/B14**
	2.3	154	1.1	750		**B5/B14**
	1.9	172	0.9	900		**B5/B14**
	1.5	203	0.8	1200		**B5/B14**
	1.2	203	0.8	1500		**B5/B14**
	0.97	203	0.8	1800		**B5/B14**
	0.73	169	0.8	2400		**B5/B14**
	0.58	156	0.8	3000		**B5/B14**
	5.8	74	4.2	300	**CMM**	**B5/B14**
	4.4	89	2.9	400	**030/063**	**B5/B14**
	3.5	103	2.2	500		**B5/B14**
	2.9	138	2.2	600		**B5/B14**
	2.3	164	1.9	750		**B5/B14**
	1.9	186	1.7	900		**B5/B14**
	1.5	230	1.3	1200		**B5/B14**
	1.2	265	1.2	1500		**B5/B14**
	0.97	308	1.0	1800		**B5/B14**
	0.73	325	0.8	2400		**B5/B14**
	0.58	290	0.8	3000		**B5/B14**
	5.8	74	4.2	300	**CMM**	**B5/B14**
	4.4	89	2.9	400	**040/063**	**B5/B14**
	3.5	103	2.2	500		**B5/B14**
	2.9	138	2.2	600		**B5/B14**
	2.3	164	1.9	750		**B5/B14**
	1.9	186	1.7	900		**B5/B14**
	1.5	230	1.3	1200		**B5/B14**
	1.2	265	1.2	1500		**B5/B14**
	0.97	308	1.0	1800		**B5/B14**
	0.73	325	0.8	2400		**B5/B14**
	0.58	290	0.8	3000		**B5/B14**
	2.9	138	3.3	600	**CMM**	**B5/B14**
	2.3	164	2.8	750	**040/070**	**B5/B14**
	1.9	186	2.4	900		**B5/B14**
	1.5	207	2.2	1200		**B5/B14**
	1.2	265	1.7	1500		**B5/B14**
	0.97	308	1.5	1800		**B5/B14**
	0.73	369	1.0	2400		**B5/B14**
	0.58	420	0.8	3000		**B5/B14**
	1.5	230	2.4	1200	**CMM**	**B5/B14**
	1.2	265	2.1	1500	**040/075**	**B5/B14**
	0.97	308	1.8	1800		**B5/B14**
	0.73	376	1.2	2400		**B5/B14**
	0.58	427	0.9	3000		**B5/B14**
	1.2	278	3.4	1500	**CMM**	**B5/B14**
	0.97	323	2.9	1800	**040/090**	**B5/B14**
	0.73	397	2.1	2400		**B5/B14**
	0.58	461	1.5	3000		**B5/B14**

Nota:
Por favor, compruebe que el par de salida M2 no exceda el valor en las áreas grises
N. B.
Sempre verifique que o torque (M2) não exceda o valor indicado nas tabelas cinzas
N.B.
Please check that the output torque M2 does not exceed the value in the grey areas

Datos técnicos / *Dados técnicos* / Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
(0.16 hp)	**23**	31	2.7	75	**CMM**	**B5/B14**
	18	41	2.0	100	**030/040**	**B5/B14**
63A4	**12**	57	1.5	150		**B5/B14**
(1750 min^{-1})	**8.8**	74	1.0	200		**B5/B14**
	5.8	94	1.0	300		
	23	32	4.9	75	**CMM**	**B5/B14**
	18	42	3.7	100	**030/050**	**B5/B14**
	12	59	2.7	150		**B5/B14**
	8.8	75	1.8	200		**B5/B14**
	7.0	88	1.4	250		**B5/B14**
	5.8	96	1.7	300		**B5/B14**
	4.4	117	1.2	400		**B5/B14**
	3.5	132	0.9	500		**B5/B14**
	2.9	171	0.9	600		**B5/B14**
	8.8	74	3.5	200	**CMM**	**B5/B14**
	7.0	87	2.6	250	**030/063**	**B5/B14**
	5.8	99	3.1	300		**B5/B14**
	4.4	119	2.2	400		**B5/B14**
	3.5	138	1.7	500		**B5/B14**
	2.9	177	1.8	600		**B5/B14**
	2.3	212	1.5	750		**B5/B14**
	1.9	237	1.3	900		**B5/B14**
	1.5	292	1.1	1200		**B5/B14**
	1.2	342	0.9	1500		**B5/B14**
	4.4	119	2.2	400	**CMM**	**B5/B14**
	3.5	138	1.7	500	**040/063**	**B5/B14**
	2.9	184	1.7	600		**B5/B14**
	2.3	218	1.4	750		**B5/B14**
	1.9	248	1.3	900		**B5/B14**
	1.5	306	1.0	1200		**B5/B14**
	1.2	354	0.9	1500		**B5/B14**
	3.5	138	2.4	500	**CMM**	**B5/B14**
	2.9	184	2.5	600	**040/070**	**B5/B14**
	2.3	218	2.1	750		**B5/B14**
	1.9	248	1.8	900		**B5/B14**
	1.5	276	1.6	1200		**B5/B14**
	1.2	354	1.3	1500		**B5/B14**
	0.97	410	1.1	1800		**B5/B14**
	2.3	218	2.5	750	**CMM**	**B5/B14**
	1.9	248	2.2	900	**040/075**	**B5/B14**
	1.5	306	1.8	1200		**B5/B14**
	1.2	354	1.5	1500		**B5/B14**
	0.97	410	1.3	1800		**B5/B14**
	0.73	501	0.9	2400		**B5/B14**
	1.5	322	2.9	1200	**CMM**	**B5/B14**
	1.2	371	2.5	1500	**040/090**	**B5/B14**
	0.97	431	2.2	1800		**B5/B14**
	0.73	529	1.5	2400		**B5/B14**
	0.58	615	1.1	3000		**B5/B14**
	0.97	453	3.5	1800	**CMM**	**B5/B14**
	0.73	575	2.5	2400	**050/110**	**B5/B14**
	0.58	684	1.9	3000		**B5/B14**
	0.73	624	2.9	2400	**CMM**	**B5**
	0.58	755	2.1	3000	**063/130**	**B5**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.18						
(0.25 hp)	**23**	47	1.8	75	**CMM**	**B5/B14**
	18	62	1.4	100	**030/040**	**B5/B14**
63B4	**12**	85	1.0	150		**B5/B14**
(1750 min^{-1})						
	23	48	3.3	75	**CMM**	**B5/B14**
	18	63	2.5	100	**030/050**	**B5/B14**
	12	89	1.8	150		**B5/B14**
	8.8	112	1.2	200		**B5/B14**
	7.0	132	0.9	250		**B5/B14**
	5.8	144	1.1	300		**B5/B14**
	12	88	3.4	150	**CMM**	**B5/B14**
	8.8	111	2.4	200	**030/063**	**B5/B14**
	7.0	130	1.8	250		**B5/B14**
	5.8	149	2.1	300		**B5/B14**
	4.4	178	1.5	400		**B5/B14**
	3.5	206	1.1	500		**B5/B14**
	2.9	265	1.2	600		**B5/B14**
	2.3	318	1.0	750		**B5/B14**
	1.9	355	0.9	900		**B5/B14**
	8.8	111	2.4	200	**CMM**	**B5/B14**
	7.0	130	1.8	250	**040/063**	**B5/B14**
	5.8	149	2.1	300		**B5/B14**
	4.4	178	1.5	400		**B5/B14**
	3.5	206	1.1	500		**B5/B14**
	2.9	276	1.1	600		**B5/B14**
	2.3	327	0.9	750		**B5/B14**
	1.9	371	0.8	900		**B5/B14**
	8.8	112	3.5	200	**CMM**	**B5/B14**
	7.0	134	2.5	250	**040/070**	**B5/B14**
	5.8	149	3.1	300		**B5/B14**
	4.4	178	2.1	400		**B5/B14**
	3.5	206	1.6	500		**B5/B14**
	2.9	276	1.6	600		**B5/B14**
	2.3	327	1.4	750		**B5/B14**
	1.9	371	1.2	900		**B5/B14**
	1.5	414	1.1	1200		**B5/B14**
	1.2	530	0.9	1500		**B5/B14**
	4.4	182	2.6	400	**CMM**	**B5/B14**
	3.5	206	2.0	500	**040/075**	**B5/B14**
	2.9	276	2.0	600		**B5/B14**
	2.3	327	1.7	750		**B5/B14**
	1.9	371	1.5	900		**B5/B14**
	1.5	460	1.2	1200		**B5/B14**
	1.2	530	1.0	1500		**B5/B14**
	0.97	615	0.9	1800		**B5/B14**
	3.5	223	3.1	500	**CMM**	**B5/B14**
	2.9	290	3.3	600	**040/090**	**B5/B14**
	2.3	343	2.7	750		**B5/B14**
	1.9	390	2.4	900		**B5/B14**
	1.5	483	2.0	1200		**B5/B14**
	1.2	557	1.7	1500		**B5/B14**
	0.97	646	1.5	1800		**B5/B14**
	0.73	793	1.0	2400		**B5/B14**
	1.5	505	3.2	1200	**CMM**	**B5/B14**
	1.2	594	2.7	1500	**050/110**	**B5/B14**
	0.97	679	2.3	1800		**B5/B14**
	0.73	863	1.7	2400		**B5/B14**
	0.58	1026	1.2	3000		**B5/B14**
	0.97	735	2.8	1800	**CMM**	**B5**
	0.73	936	1.9	2400	**063/130**	**B5**
	0.58	1132	1.4	3000		**B5**



Datos técnicos — *Dados técnicos* — Technical data

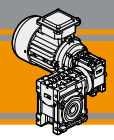
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.25						
(0.33 hp)	**23**	65	1.3	75	**CMM**	**B5/B14**
	18	86	1.0	100	**030/040**	**B5/B14**
63C4						
(1750 min^{-1})	**23**	66	2.3	75	**CMM**	**B5/B14**
	18	87	1.8	100	**030/050**	**B5/B14**
	12	124	1.3	150		**B5/B14**
	8.8	156	0.9	200		**B5/B14**
	23	67	4.3	75	**CMM**	**B5/B14**
	18	88	3.3	100	**030/063**	**B5/B14**
	12	122	2.5	150		**B5/B14**
	8.8	154	1.7	200		**B5/B14**
	7.0	180	1.3	250		**B5/B14**
	5.8	206	1.5	300		**B5/B14**
	4.4	248	1.1	400		**B5/B14**
	12	122	2.5	150	**CMM**	**B5/B14**
	8.8	154	1.7	200	**040/063**	**B5/B14**
	7.0	180	1.3	250		**B5/B14**
	5.8	206	1.5	300		**B5/B14**
	4.4	248	1.1	400		**B5/B14**
	8.8	156	2.5	200	**CMM**	**B5/B14**
	7.0	186	1.8	250	**040/070**	**B5/B14**
	5.8	206	2.2	300		**B5/B14**
	4.4	248	1.5	400		**B5/B14**
	3.5	287	1.2	500		**B5/B14**
	2.9	383	1.2	600		**B5/B14**
	2.3	454	1.0	750		**B5/B14**
	1.9	516	0.9	900		**B5/B14**
	7.0	186	2.2	250	**CMM**	**B5/B14**
	5.8	206	2.7	300	**040/075**	**B5/B14**
	4.4	252	1.9	400		**B5/B14**
	3.5	287	1.4	500		**B5/B14**
	2.9	383	1.4	600		**B5/B14**
	2.3	454	1.2	750		**B5/B14**
	1.9	516	1.1	900		**B5/B14**
	1.5	638	0.9	1200		**B5/B14**
	4.4	266	3.1	400	**CMM**	**B5/B14**
	3.5	309	2.2	500	**040/090**	**B5/B14**
	2.9	402	2.3	600		**B5/B14**
	2.3	477	2.0	750		**B5/B14**
	1.9	541	1.7	900		**B5/B14**
	1.5	670	1.4	1200		**B5/B14**
	1.2	774	1.2	1500		**B5/B14**
	0.97	897	1.1	1800		**B5/B14**
	3.5	336	3.8	500	**CMM**	**B5/B14**
	2.9	414	3.9	600	**050/110**	**B5/B14**
	2.3	498	3.2	750		**B5/B14**
	1.9	566	2.8	900		**B5/B14**
	1.5	702	2.3	1200		**B5/B14**
	1.2	825	1.9	1500		**B5/B14**
	0.97	943	1.7	1800		**B5/B14**
	0.73	1198	1.2	2400		**B5/B14**
	0.58	1424	0.9	3000		**B5/B14**
	1.5	756	2.7	1200	**CMM**	**B5**
	1.2	891	2.3	1500	**063/130**	**B5**
	0.97	1021	2.0	1800		**B5**
	0.73	1300	1.4	2400		**B5**
	0.58	1573	1.0	3000		**B5**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.37						
(0.50 hp)	**23**	100	2.9	75	**CMM**	**B5/B14**
	18	131	2.2	100	**040/063**	**B5/B14**
71A4	**12**	181	1.7	150		**B5/B14**
(1750 min^{-1})	**8.8**	227	1.1	200		**B5/B14**
	7.0	267	0.9	250		**B5/B14**
	5.8	305	1.0	300		**B5/B14**
	23	102	4.1	75	**CMM**	**B5/B14**
	18	132	3.2	100	**040/070**	**B5/B14**
	12	183	2.4	150		**B5/B14**
	8.8	231	1.7	200		**B5/B14**
	7.0	276	1.2	250		**B5/B14**
	5.8	305	1.5	300		**B5/B14**
	4.4	366	1.0	400		**B5/B14**
	8.8	234	2.0	200	**CMM**	**B5/B14**
	7.0	276	1.5	250	**040/075**	**B5/B14**
	5.8	305	1.8	300		**B5/B14**
	4.4	373	1.3	400		**B5/B14**
	3.5	424	1.0	500		**B5/B14**
	2.9	567	1.0	600		**B5/B14**
	8.8	244	3.3	200	**CMM**	**B5/B14**
	7.0	293	2.4	250	**040/090**	**B5/B14**
	5.8	321	2.9	300		**B5/B14**
	4.4	393	2.1	400		**B5/B14**
	3.5	458	1.5	500		**B5/B14**
	2.9	595	1.6	600		**B5/B14**
	2.3	706	1.3	750		**B5/B14**
	1.9	801	1.2	900		**B5/B14**
	1.5	992	1.0	1200		**B5/B14**
	4.4	419	3.4	400	**CMM**	**B5/B14**
	3.5	498	2.6	500	**050/110**	**B5/B14**
	2.9	613	2.6	600		**B5/B14**
	2.3	737	2.2	750		**B5/B14**
	1.9	837	1.9	900		**B5/B14**
	1.5	1039	1.5	1200		**B5/B14**
	1.2	1221	1.3	1500		**B5/B14**
	0.97	1396	1.1	1800		**B5/B14**
	2.3	780	2.6	750	**CMM**	**B5/B14**
	1.9	900	2.3	900	**063/130**	**B5/B14**
	1.5	1119	1.8	1200		**B5/B14**
	1.2	1319	1.6	1500		**B5/B14**
	0.97	1511	1.4	1800		**B5/B14**
	0.73	1923	0.9	2400		**B5/B14**

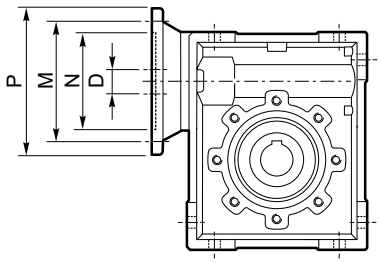
Datos técnicos | *Dados técnicos* | Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.55						
(0.75 hp)	**23**	149	1.9	75	**CMM**	**B5/B14**
	18	194	1.5	100	**040/063**	**B5/B14**
71B4	**12**	269	1.1	150		**B5/B14**
(1750 min^{-1})						
	23	151	2.8	75	**CMM**	**B5/B14**
	18	197	2.1	100	**040/070**	**B5/B14**
	12	272	1.6	150		**B5/B14**
	8.8	343	1.1	200		**B5/B14**
	23	151	3.3	75	**CMM**	**B5/B14**
	18	197	2.6	100	**040/075**	**B5/B14**
	12	276	1.9	150		**B5/B14**
	8.8	348	1.3	200		**B5/B14**
	7.0	410	1.0	250		**B5/B14**
	5.8	454	1.2	300		**B5/B14**
	4.4	555	0.8	400		**B5/B14**
	12	284	3.1	150	**CMM**	**B5/B14**
	8.8	363	2.2	200	**040/090**	**B5/B14**
	7.0	435	1.6	250		**B5/B14**
	5.8	477	2.0	300		**B5/B14**
	4.4	585	1.4	400		**B5/B14**
	3.5	681	1.0	500		**B5/B14**
	2.9	885	1.1	600		**B5/B14**
	2.3	1049	0.9	750		**B5/B14**
	7.0	459	2.8	250	**CMM**	**B5/B14**
	5.8	490	3.3	300	**050/110**	**B5/B14**
	4.4	622	2.3	400		**B5/B14**
	3.5	740	1.7	500		**B5/B14**
	2.9	911	1.8	600		**B5/B14**
	2.3	1095	1.5	750		**B5/B14**
	1.9	1245	1.3	900		**B5/B14**
	1.5	1544	1.0	1200		**B5/B14**
	1.2	1815	0.9	1500		**B5/B14**
	3.5	787	2.0	500	**CMM**	**B5/B14**
	2.9	963	2.1	600	**063/130**	**B5/B14**
	2.3	1159	1.8	750		**B5/B14**
	1.9	1337	1.5	900		**B5/B14**
	1.5	1664	1.2	1200		**B5/B14**
	1.2	1961	1.1	1500		**B5/B14**
	0.97	2246	0.9	1800		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.75						
(1.0 hp)	**23**	216	6.2	75	**CMM**	**B5/B14**
	18	282	4.7	100	**050/110**	**B5/B14**
80A4	**12**	397	3.7	150		**B5/B14**
(1750 min^{-1})	**8.8**	515	2.7	200		**B5/B14**
	7.0	626	2.1	250		**B5/B14**
	5.8	668	2.4	300		**B5/B14**
	4.4	849	1.7	400		**B5/B14**
	3.5	1009	1.3	500		**B5/B14**
	2.9	1242	1.3	600		**B5/B14**
	2.3	1493	1.1	750		**B5/B14**
	1.9	1697	0.9	900		**B5/B14**
	7.0	642	2.5	250	**CMM**	**B5/B14**
	5.8	697	3.0	300	**063/130**	**B5/B14**
	4.4	887	2.0	400		**B5/B14**
	3.5	1074	1.5	500		**B5/B14**
	2.9	1313	1.6	600		**B5/B14**
	2.3	1580	1.3	750		**B5/B14**
	1.9	1823	1.1	900		**B5/B14**
	1.5	2269	0.9	1200		**B5/B14**
1.1						
(1.5 hp)	**23**	317	4.2	75	**CMM**	**B5/B14**
	18	413	3.2	100	**050/110**	**B5/B14**
80B4	**12**	582	2.6	150		**B5/B14**
(1750 min^{-1})	**8.8**	755	1.8	200		**B5/B14**
	7.0	918	1.4	250		**B5/B14**
	5.8	980	1.6	300		**B5/B14**
	4.4	1245	1.2	400		**B5/B14**
	3.5	1480	0.9	500		**B5/B14**
	2.9	1821	0.9	600		**B5/B14**
	12	596	3.2	150	**CMM**	**B5/B14**
	8.8	774	2.3	200	**063/130**	**B5/B14**
	7.0	942	1.7	250		**B5/B14**
	5.8	1022	2.0	300		**B5/B14**
	4.4	1301	1.4	400		**B5/B14**
	3.5	1575	1.0	500		**B5/B14**
	2.9	1925	1.1	600		**B5/B14**
	2.3	2318	0.9	750		**B5/B14**
1.5						
(2.0 hp)	**23**	443	3.8	75	**CMM**	**B5/B14**
	18	577	2.9	100	**063/130**	**B5/B14**
90L4	**12**	813	2.3	150		**B5/B14**
(1750 min^{-1})	**8.8**	1056	1.7	200		**B5/B14**
	7.0	1285	1.3	250		**B5/B14**
	5.8	1394	1.5	300		**B5/B14**
	4.4	1774	1.0	400		**B5/B14**
2.2						
(3.0 hp)	**23**	650	2.6	75	**CMM**	**B5/B14**
	18	847	2.0	100	**063/130**	**B5/B14**
90L4	**12**	1193	1.6	150		**B5/B14**
(1750 min^{-1})	**8.8**	1549	1.2	200		**B5/B14**
	7.0	1884	0.9	250		**B5/B14**
	5.8	2044	1.0	300		**B5/B14**



Motores Aplicables IEC | ***Motores aplicáveis*** | **IEC Motor adapters**



N.B. Las áreas grises indican los tamaño de los motores aplicables

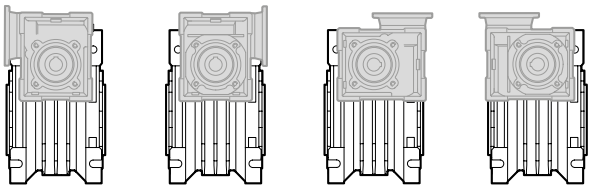
N.B. *As áreas evidenciadas em cinza indicam a aplicabilidade da correspondente grandeza do motor.*

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

B/BS = *Casquillo de reducción en acero*

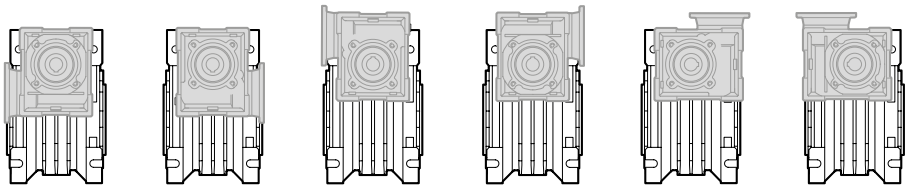
B/BS = *Bucha de redução em aço*

B/BS = Metal shaft sleeve



US1 **US2** **UV1** **UV2**

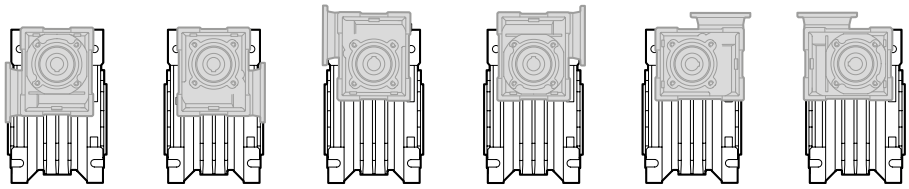
CMM	IEC	N	M	P	D	i_1						
						10	15	20	30	40	50	60
026/026	**56B14**	50	65	80	9							



UB1 **UB2** **US1** **US2** **UV1** **UV2**

CMM	IEC	N	M	P	D	i_1						
						10	15	20	30	40	50	60
026/030 **026/040** **026/050**	**56B14**	50	65	80	9							

Motores Aplicables IEC — *Motores aplicáveis* — IEC Motor adapters



UB1 UB2 US1 US2 UV1 UV2

CMM	IEC	N	M	P	D	i_1								
						7.5	10	15	20	25	30	40	50	60
030/040 030/050 030/063	63B5	95	115	140	11									
	63B14	60	75	90										
	56B5	80	100	120	9	B	B	B	B	B	B	B	B	
	56B14	50	65	80										
040/063 040/070 040/075 040/090	71B5	110	130	160	14									
	71B14	70	85	105										
	63B5	95	115	140	11	B	B	B	B	B	B	B		
	63B14	60	75	90										
	56B5	80	100	120	9	BS	BS	BS	BS	BS	BS	BS	B	B
	56B14	50	65	80										
050/110	80B5	130	165	200	19									
	80B14	80	100	120										
	71B5	110	130	160	14	B	B	B	B	B	B			
	71B14	70	85	105										
	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	B	B	B
	63B14	60	75	90										
063/130	90B5	130	165	200	24									
	90B14	95	115	140										
	80B5	130	165	200	19	B	B	B	B	B	B			
	80B14	80	100	120										
	71B5	110	130	160	14	BS	BS	BS	BS	BS	BS	B	B	B
	71B14	70	85	105										
	63B5	95	115	140	11							BS	BS	BS

N.B. Las áreas grises indican los tamaño de los motores aplicables

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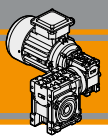
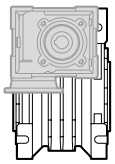
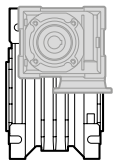




UC1



UC2

CMM	IEC	N	M	P	D	i_1								
						7.5	10	15	20	25	30	40	50	60
030/040 030/050	63B14	60	75	90	11									
	56B5	80	100	120	9	B	B	B	B	B	B	B	B	
	56B14	50	65	80										
030/063	63B5	95	115	140	11									
	63B14	60	75	90										
	56B5	80	100	120	9	B	B	B	B	B	B	B		
	56B14	50	65	80										
040/063 040/070 040/075 040/090	71B5	110	130	160	14									
	71B14	70	85	105										
	63B5	95	115	140	11	B	B	B	B	B	B	B		
	63B14	60	75	90										
	56B5	80	100	120	9	BS	BS	BS	BS	BS	BS	BS	B	B
	56B14	50	65	80										
050/110	80B14	80	100	120	19									
	71B5	110	130	160	14	B	B	B	B	B	B			
	71B14	70	85	105										
	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	B	B	B
	63B14	60	75	90										
063/130	90B14	95	115	140	24									
	80B14	80	100	120	19	B	B	B	B	B	B			
	71B5	110	130	160	14	BS	BS	BS	BS	BS	BS	B	B	B
	71B14	70	85	105										
	63B5	95	115	140	11							BS	BS	BS

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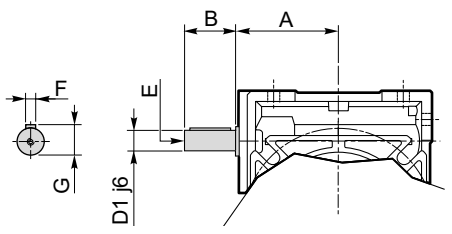
Dimensiones — *Dimensões* — Dimensions

	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
026/026	45	70	12	83	22	47.5	50	35	34	26	26	34	42	55	45	22.5	21
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
026/050	80	120	25	144	49	47.5	92	60	34	50	26	70	85	85	70	43.5	21

	CMM..U - CMM..F - CMM..FB - CMM..FL													
	O	P	Q	R	R1	S	T	V	Z	KE	a	b	t	Kg
026/026	6	—	37	49	49	5	15	21	76	7	—	4	13.8	1.6
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
026/050	8.5	98	64	84	49	7	30	40	100.5	M8x10(n.4)	45°	8	28.3	5.0

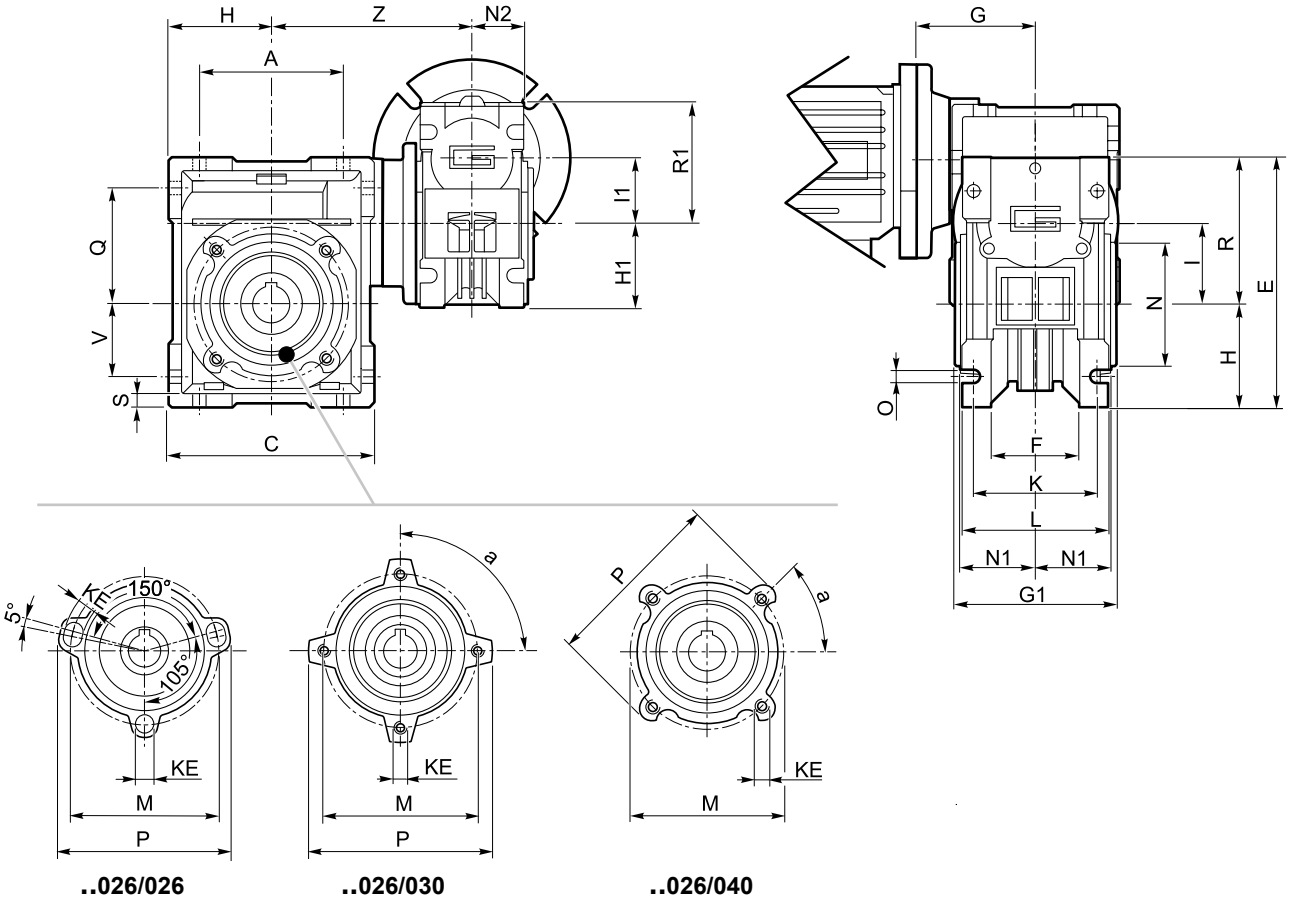
		CMM..F								CMM..FB								CMM..FL							
	a1	KA	KB	KC	KM	KN H8	KO	KP	KQ	KA	KB	KC	KM	KN H8	KO	KP	KQ	KA	KB	KC	KM	KN H8	KO	KP	KQ
026/026	45°	45	6	4.5	55-69	40	6.5(n.4)	75	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
026/030	45°	54.5	6	4	68	50	6.5(n.4)	80	70								—								
026/040	45°	67	7.5	4.5	80-95	60	9(n.4)	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
026/050	45°	90	9	5	90-110	70	11(n.4)	125	110	89	9	5	130-145	110	9.5(n.4)	160	132	120	9	5	90-110	70	11(n.4)	125	110

	CMMIS					
	A	B	D1 j6	E	F	M
026/026 026/030 026/040 026/050	45	20	9	M4	3	10.2

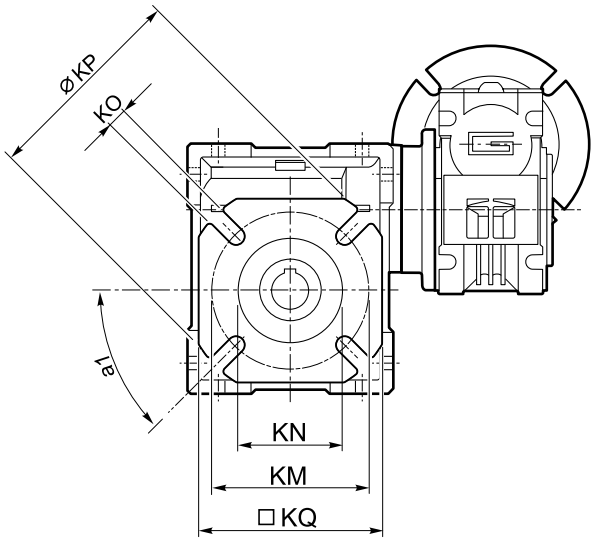


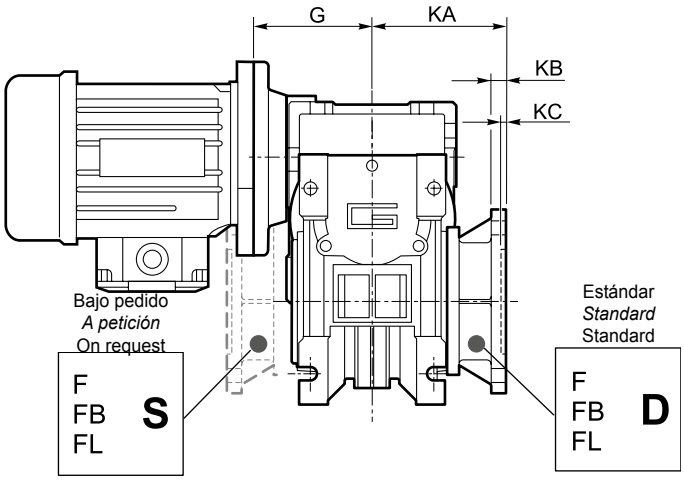
Dimensiones | ***Dimensões*** | **Dimensions**

CMM026/..U

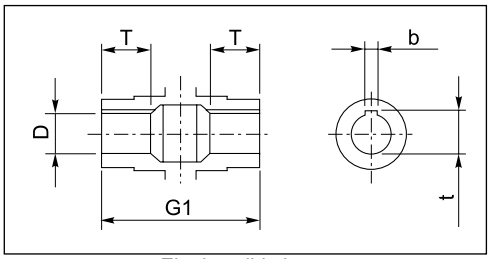


..026/026 **..026/030** **..026/040**
..026/050





CMM026/..F
CMM026/..FB
CMM026/..FL



Eje de salida hueco
Eixo saída vazado
Hollow output shaft

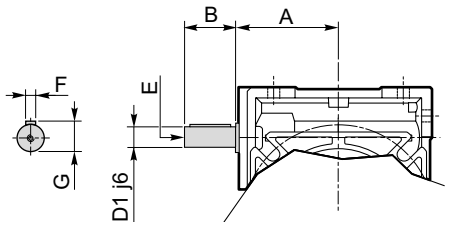
Dimensiones — *Dimensões* — Dimensions

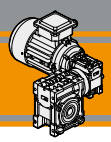
	CMM.. - CMM..F - CMM..FB - CMM..FL																
	A	C	D H8	E	F	G	G1	H	H1	I	I1	K	L	M	N h8	N1	N2
030/040	70	100	18	121.5	43	55	78	50	40	40	30	60	71	75	60	36.5	29
030/050	80	120	25	144	49	55	92	60	40	50	30	70	85	85	70	43.5	29
030/063	100	144	25	174	67	55	112	72	40	63	30	85	104	95	80	53	29
040/063	100	144	25	174	67	55	112	72	50	63	40	85	104	95	80	53	36.5
040/070	110	160	28	195	64	70	120	80	50	70	40	90	104	115	95	57	36.5
040/075	120	172	28	205	72	70	120	86	50	75	40	90	112	115	95	57	36.5
040/090	140	208	35	238	74	70	140	103	50	90	40	100	130	130	110	67	36.5
050/110	170	252.5	42	295	—	80	155	127.5	60	110	50	115	144	165	130	74	43.5
063/130	200	292.5	45	335	—	95	170	147.5	72	130	63	120	155	215	180	81	53

	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
030/050	8.5	98	64	84	57	7	30	40	132	M8x14(n.4)	45°	8	28.3 (27.3)	5.0
030/063	8.5	110	80	102	57	8	36	50	145	M8x10(n.8)	45°	8	28.3	7.5
040/063	8.5	110	80	102	71.5	8	36	50	155.5	M8x10(n.8)	45°	8	28.3	9.2
040/070	9	130	91	115	71.5	9	40	55	160	M8x14(n.8)	45°	8	31.3	10.5
040/075	11	140	93	119	71.5	10	40	60	165	M8x14(n.8)	45°	8	31.3	12.0
040/090	13	160	102	135	71.5	11	45	70	182	M10x18(n.8)	45°	10	38.3	15.6
050/110	14	200	125	167.5	84	14	50	85	225	M10x18(n.8)	45°	12	45.3	30.2
063/130	16	250	140	187.5	102	15	60	100	245	M12x21(n.8)	45°	14	48.8	55.0

		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
030/050	45°	90	9	5	90-110	70	11(n.4)	125	110	89	9	5	130-145	110	9.5(n.4)	160	132	120	9	5	90-110	70	11(n.4)	125	110
030/063	45°	82	10	6	150-160	115	11(n.4)	180	142	98	10	5	165-180	130	11(n.4)	200	160	112	10	6	150-160	115	11(n.4)	180	142
040/063	45°	82	10	6	150-160	115	11(n.4)	180	142	98	10	5	165-180	130	11(n.4)	200	160	112	10	6	150-160	115	11(n.4)	180	142
040/070	45°	107	13	6	165-180	130	14(n.4)	200	170	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
040/075	45°	111	13	6	165-180	130	14(n.4)	200	170	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
040/090	45°	111	13	6	175-190	152	14(n.4)	210	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
050/110	45°	131	15	6	230	170	14(n.8)	280	260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
063/130	22.5°	140	15	6	255	180	16(n.8)	320	290	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

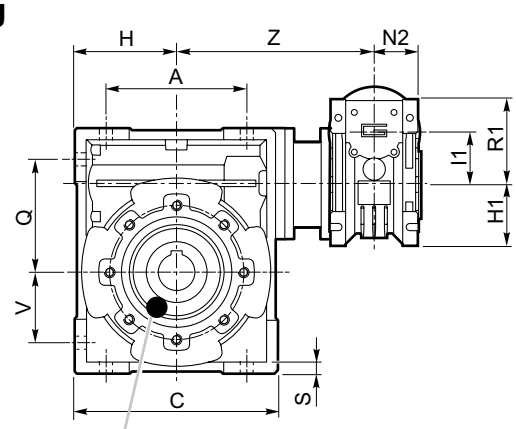
	CMMIS					
	A	B	D1 j6	E	F	M
030/040 030/050 030/063	51	20	9	M4	3	10.2
040/063 040/070 040/075 040/090	66	23	11	M5	4	12.5
050/110	76	30	14	M6	5	16
063/130	94.5	40	19	M6	6	21.5

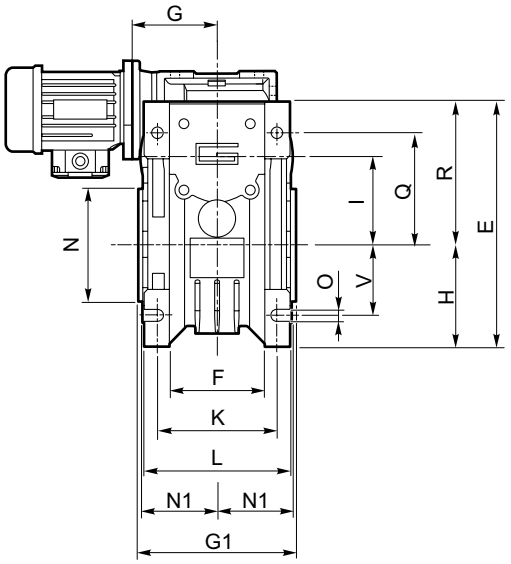


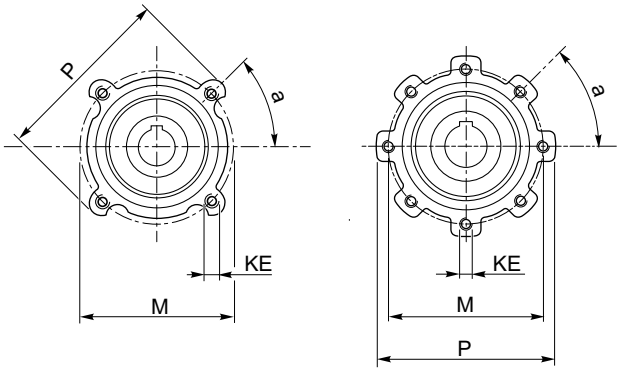


Dimensiones | ***Dimensões*** | **Dimensions**

CMM..U

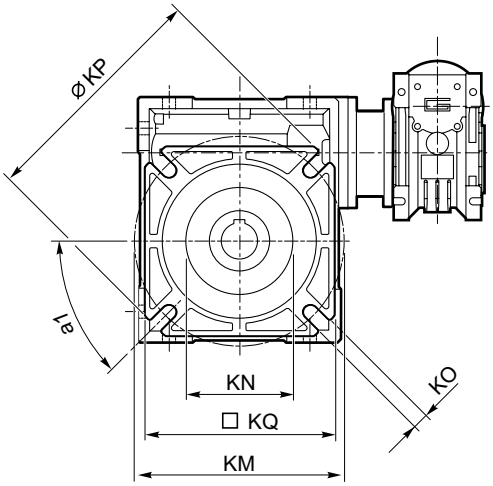


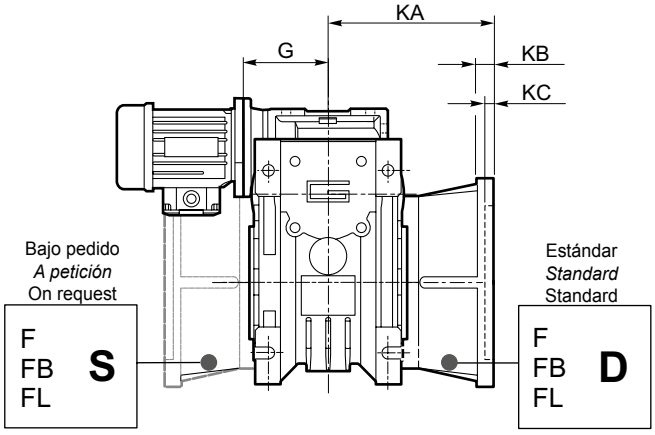




..030/040
..030/050

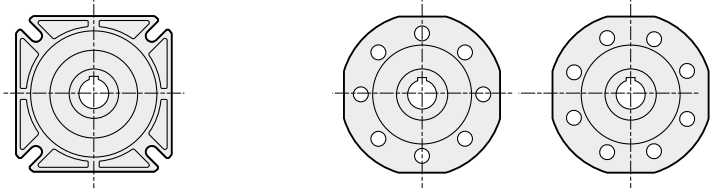
..030/063 ..040/063
..040/070 ..040/075
..040/090 ..050/110
..063/130

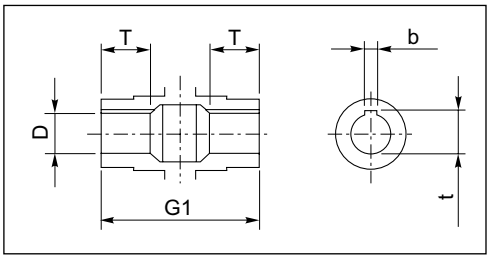




CMM..F (../030 - ../090)
CMM..FB (../040 - ../063)
CMM..FL (../040 - ../063)

CMM..F
(../110 ../130)





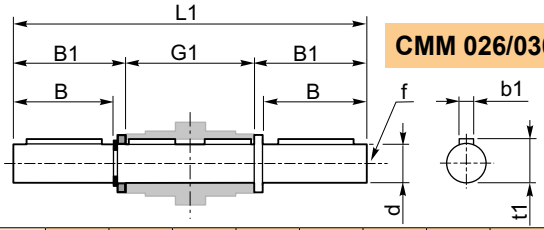
Eje de salida hueco
Eixo saída vazado
Hollow output shaft

Accesorios — *Acessórios* — Accessories

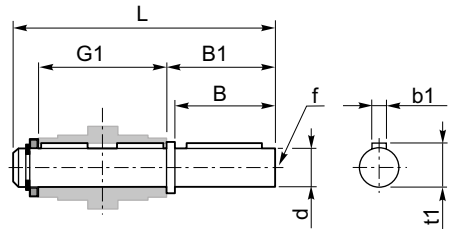
Eje de salida simple y doble — *Eixo lenta simples e dupla* — Single and double output shaft

CMM 026/030 - CMM 063/130

DZ

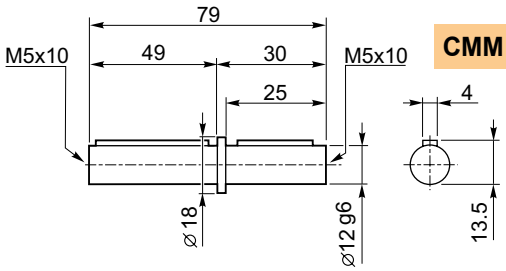


SZ



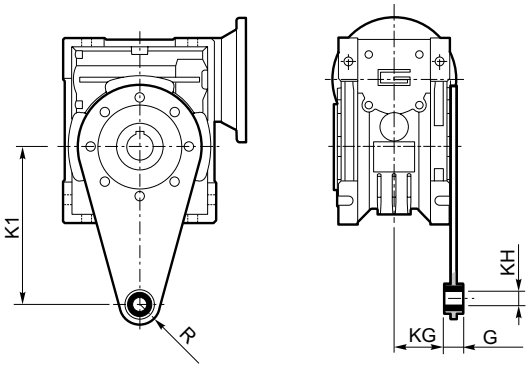
CMM	d h7	B	B1	G1	L	L1	f	b1	t1
026/030	14	30	32.5	63	102	128	M6	5	16
026/040 030/040	18	40	43	78	128	164	M6	6	20.5
026/050 030/050	25	50	53.5	92	153	199	M10	8	28
030/063 040/063	25	50	53.5	112	173	219	M10	8	28
040/070	28	60	63.5	120	192	247	M10	8	31
040/075	28	60	63.5	120	192	247	M10	8	31
040/090	35	80	84.5	140	234	309	M12	10	38
050/110	42	80	84.5	155	249	324	M16	12	45
063/130	45	80	85	170	265	340	M16	14	48.5

CMM 026/026



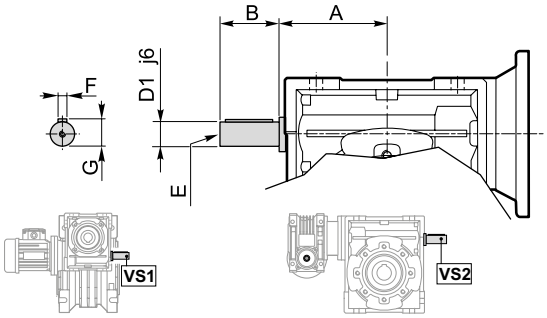
Brazo de reacción — *Braço de reação* — Torque arm

CMM	K1	G	KG	KH	R
026/030	85	14	23	8	15
026/040 030/040	100	14	31	10	18
026/050 030/050	100	14	38	10	18
030/063 040/063	150	14	47.5	10	18
040/070	200	25	46.5	20	30
040/075	200	25	46.5	20	30
040/090	200	25	56.5	20	30
050/110	250	30	62	25	35
063/130	250	30	69	25	35



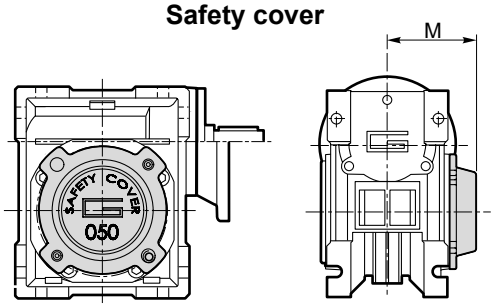
Opciones — *Opções* — Options

VS1 - VS2 - Tornillo sinfín sobresaliente / *Parafuso saliente* / Extended input shaft



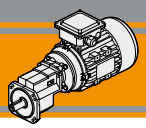
CMM	VS1						VS2					
	A	B	D_1 j6	E	F	G	A	B	D_1 j6	E	F	G
026/030	—	—	—	—	—	—	45	20	9	M4	3	10.2
026/040	—	—	—	—	—	—	53	23	11	M5	4	12.5
026/050	—	—	—	—	—	—	64	30	14	M6	5	16
030/040	45	20	9	M4	3	10.2	53	23	11	M5	4	12.5
030/050	45	20	9	M4	3	10.2	64	30	14	M6	5	16
030/063	45	20	9	M4	3	10.2	75	40	19	M6	6	21.5
040/063	53	23	11	M5	4	12.5	75	40	19	M6	6	21.5
040/070	53	23	11	M5	4	12.5	84	40	19	M6	6	21.5
040/075	53	23	11	M5	4	12.5	90	50	24	M8	8	27
040/090	53	23	11	M5	4	12.5	108	50	24	M8	8	27
050/110	64	30	14	M6	5	16	135	60	28	M10	8	31
063/130	75	40	19	M6	6	21.5	—	—	—	—	—	—

SC - Cubierta de seguridad / Tampa de proteção / Safety cover



	CM								
	30	40	50	63	70	75	90	110	130
M	47	54.5	62.5	73	75	79	94	102	117

Construido bajo pedido
Fabricado sob encomenda
Built on *request*



ENERGY SAVING

Características técnicas

El reductor helicoidal de etapa única PU tiene las siguientes características principales:

- Carcasas y bridas de entrada y salida de aluminio fundido a presión;
- Engranajes helicoidales rectificados
- Aceite de lubricación sintética de larga duración.

Características técnicas

Os motoredutores mono estágio de engrenagens helicoidais da série PU têm como principais características:

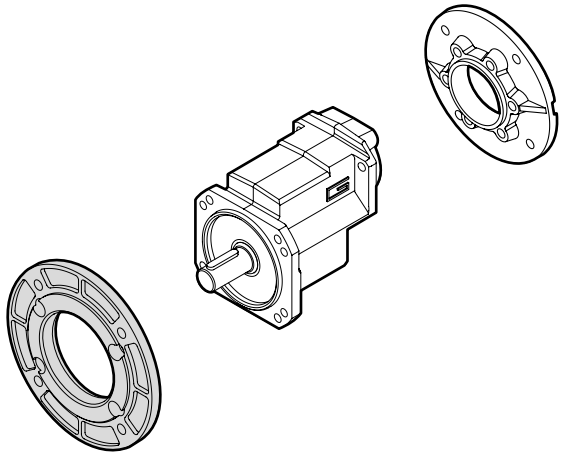
- *Caixa de entrada de flange e flange de saída fundidos sob pressão;*
- *Engrenagens retificadas*
- *Lubrificação permanente com óleo sintético.*

Technical features

PU single stage helical gearmotor range has the following main features:

- Die-cast aluminum housings, input and output flanges;
- Ground-hardened helical gears;
- Permanent synthetic oil long-life lubrication.

ENERGY SAVING



Clasificación

Designação

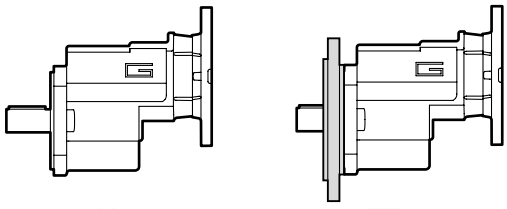
Classification

REDUCTOR / *REDUTOR* / GEARBOX

PU	01	FT1	5.70	71	B5	O3
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	IEC	Forma constructiva *Forma construtiva* Version	ø Eje de salida *ø Eixo saída* ø Output shaft
PU	**01**	**U** **FT1** **FT2** **FT3**	**5.70** **8.57**	**63** **71** **80**	**B5** **B14**	

MOTOR / *MOTOR* / MOTOR

0.25kW	4p	3ph	230/400V	50Hz	T1
Potencia *Potência* Power	Polos *Pólos* Poles	Fases *Fases* Phases	Tensión *Tensão* Voltage	Frecuencia *Frequência* Frequency	Posición caja de bornes *Pos. Conexão* Terminal box pos.
Veja tabelas *Véase tablas* see tables	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**230V** **230/400V**	**50Hz** **60Hz**	**T1** (Std) **T4** **T2** **T3**

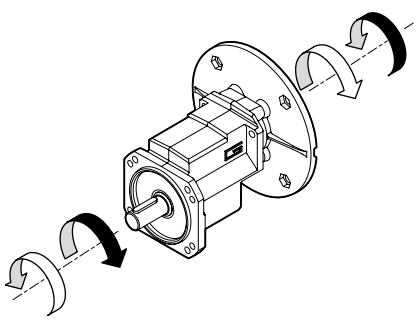


U **FT..**

Sentidos de rotación

Sentidos de rotação

Direction of rotation



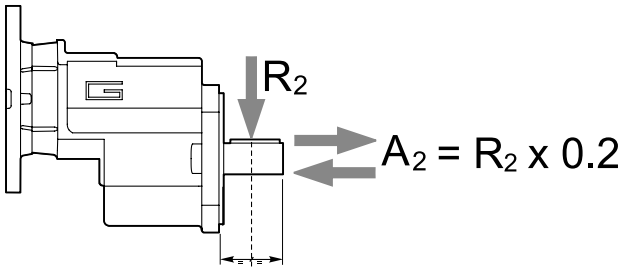
Lubricación — *Lubrificação* — Lubrication

Todos los motoreductores PU son previamente lubricados con aceite sintético con grado de viscosidad 320, por lo tanto, pueden ser instalados en cualquier posición de montaje y no requieren mantenimiento.

Todos os motoredutores são fornecidos completos de lubrificante sintético de viscosidade 320, portanto, podem ser instalados em qualquer posição de montagem e não necessitam de manutenção.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use PU range in all mounting positions and do not require maintenance.

Cargas radiales — *Cargas radiais* — Radial loads



n_2 [min^{-1}]	R_2 [N]
	PU 01
500	643
400	693
300	763
250	810
200	873
150	961
100	1100

Nomenclatura — *Simbologia* — Legend

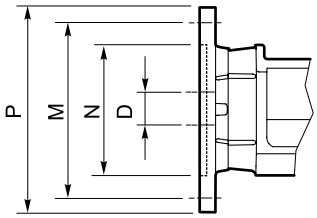
n_1	[rpm]	Velocidad de entrada / *Velocidade na entrada* / Input speed
n_2	[rpm]	Velocidad de salida / *Velocidade na saída* / Output speed
i		Relación de reducción / *Relação de redução* / Ratio
P_1	[kW]	Potencia en la entrada / *Potência da entrada* / Input power
M_2	[Nm]	Par en la salida en función de P_1 / *Torque na saída em função de P_1* / Output torque referred to P_1
sf		Factor de servicio / *Fator de serviço* / Service factor
R_2	[N]	Carga radial admisible en la salida / *Carga radial admissível na saída* / Maximum output radial load
A_2	[N]	Carga axial admisible en la salida / *Carga axial admissível na saída* / Maximum output axial load

Datos técnicos — *Dados técnicos* — Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
(0.16 hp)	**307**	3.6	12.8	5.70	**PU01**	**B5/B14**
	204	5.4	6.8	8.57	**PU01**	**B5/B14**
63A4 (1750 min^{-1})						
0.18						
(0.25 hp)	**307**	5.4	8.6	5.70	**PU01**	**B5/B14**
	204	8.2	4.6	8.57	**PU01**	**B5/B14**
63B4 (1750 min^{-1})						
0.25						
(0.33 hp)	**307**	8	6.2	5.70	**PU01**	**B5/B14**
	204	11	3.3	8.57	**PU01**	**B5/B14**
63C4 (1750 min^{-1})						
0.37						
(0.50 hp)	**307**	11	4.2	5.70	**PU01**	**B5/B14**
	204	17	2.2	8.57	**PU01**	**B5/B14**
71A4 (1750 min^{-1})						

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.55						
(0.75 hp)	**307**	17	2.8	5.70	**PU01**	**B5/B14**
	204	25	1.5	8.57	**PU01**	**B5/B14**
71B4 (1750 min^{-1})						
0.75						
(1.0 hp)	**307**	23	2.1	5.70	**PU01**	**B5/B14**
	204	34	1.1	8.57	**PU01**	**B5/B14**
80A4 (1750 min^{-1})						
1.1						
(1.5 hp)	**307**	33	1.4	5.70	**PU01**	**B5/B14**
80B4 (1750 min^{-1})						
1.5						
(2.0 hp)	**307**	45	1.0	5.70	**PU01**	**B5/B14**
90A4 (1750 min^{-1})						

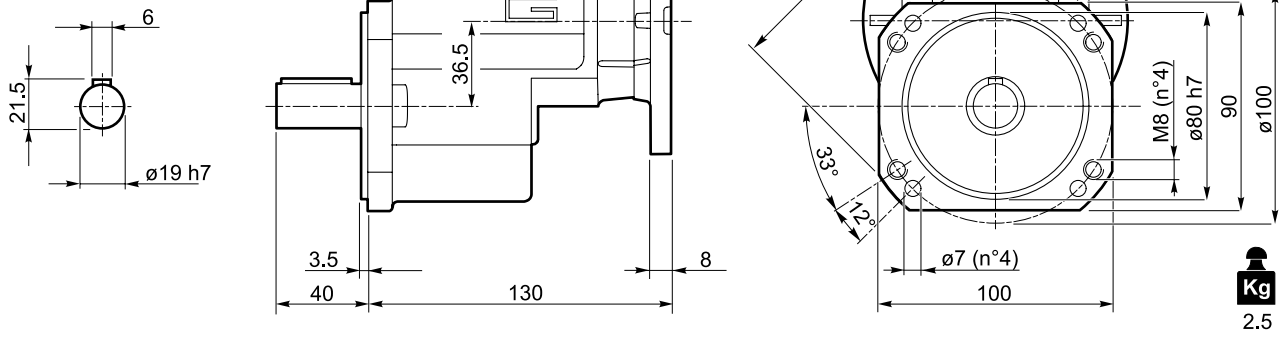
Motores aplicables — *Motores aplicáveis* — IEC Motor adapters



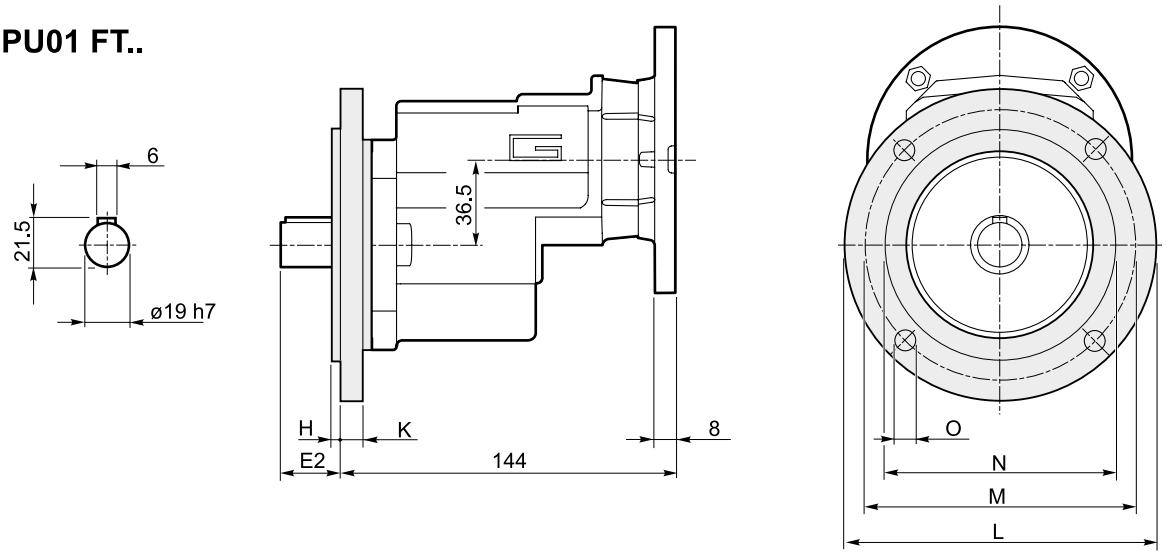
	IEC	N	M	P	D	i (Relación de reducción / *Rapporto* / Ratio)	
						5.70	8.57
PU01	80 B5	130	165	200	19		
	80 B14	80	100	120			
	71 B5	110	130	160	14	B	
	71 B14	70	85	105			
	63 B5	95	115	140	11	BS	
	63 B14	60	75	90			

Dimensiones — *Dimensões* — Dimensions

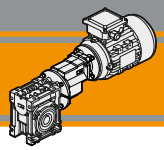
PU01 U



PU01 FT..



		Versione / *Version* / Version							
		E_2	H	K	L	M	N f7	O	Peso / *Peso* / Weight [kg]
PU01	FT1	26	3	10	140	115	95	M8	0.3
	FT2	26	3.5	10	160	130	110	9	0.4
	FT3	26	3.5	10	200	165	130	11	0.5



Características técnicas

El alto grado de modularidad es una característica de diseño del motorreductor sinfín corona con pre-reductor CMPU las cuales varían con una amplia selección de kits de entrada y salida. Las principales características de gama CMPU son:

- Carcasa de aluminio fundido a presión;
- Doble rodamiento de rodillos cónicos en el tamaño 090;
- Aceite de lubricación sintética larga vida.

Características técnicas

A alta modularidade distingue os motoredutores rosca sem-fim da série CMPU: os diferentes kits de entrada e saída tornam-os extremamente versátil. As principais características da série CMPU são:

- *Caixa de alumínio fundido sob pressão;*
- *O tamanho 090 é fornecido com rolamentos de rolos cônicos junto a rosca-sem fim;*
- *Lubrificação permanente com óleo sintético.*

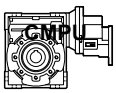
Technical features

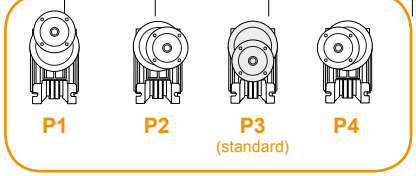
The high degree of modularity is a design feature of CMPU wormgearmotors range thanks to a wide selection of input and output kits. Main features of CMPU range are:

- Die cast aluminium housing;
- Double taper roller bearing on size 090;
- Permanent synthetic oil long life lubrication.

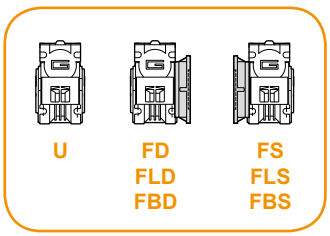
Clasificación — *Designação* — Classification

REDUCTOR / *REDUTOR* / GEARBOX

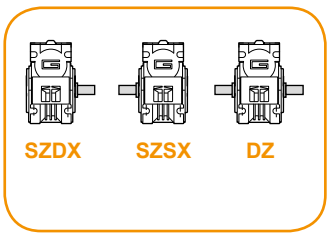
CMPU	01/050	U	57	71	B14	SZDX	BRSX	90	P4	M1	VS
Tipo *Tipo* Type	Tamaño *Tamanho* Size	Versión *Versão* Version	Relación de reducción *Rapporto* Ratio	IEC	Forma constructiva *Forma construtiva* Version	ø Eje de salida *ø Eixo saída* ø Output shaft	Brazo de reacción *Braço de reação* Torque arm	Ángulo *Ângulo* Angle	Pos. de montaje del pre-reductor *Posição de montagem do pré-estágio* Pre stage mounting position	Posición de montaje *Pos. de montagem* Mounting position	Opción *Opções* Options
	**01/050** **01/063** **01/070** **01/075** **01/090**	**U** **FD** **FS** **FLD** **FLS** **FBD** **FBS**	Vedere tabella *See tables*	**63** **71** **80**	**B5** **B14**	**SZDX** **SZSX** **DZ**	**BRDX** **BRSX**	**0°** **90°** **180°** **270°**	**P1** **P2** **P3** (standard) **P4**	**M1** (B3) **M2** (V6) **M3** (B8) **M4** (V5) **M6** (B6) **M5** (B7)	**VS**



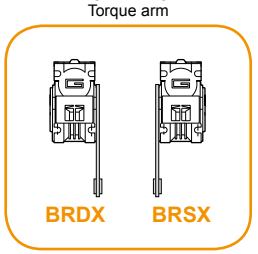
Versione
Version
Version



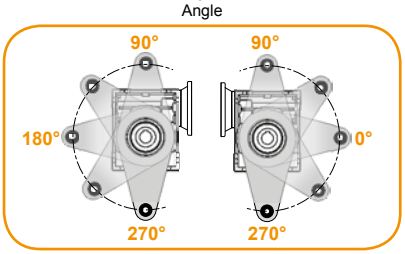
ø Eje de salida
ø Eixo saída
ø Output shaft

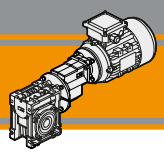


Brazo de reacción
Braço de reação
Torque arm



Ángulo
Ângulo
Angle





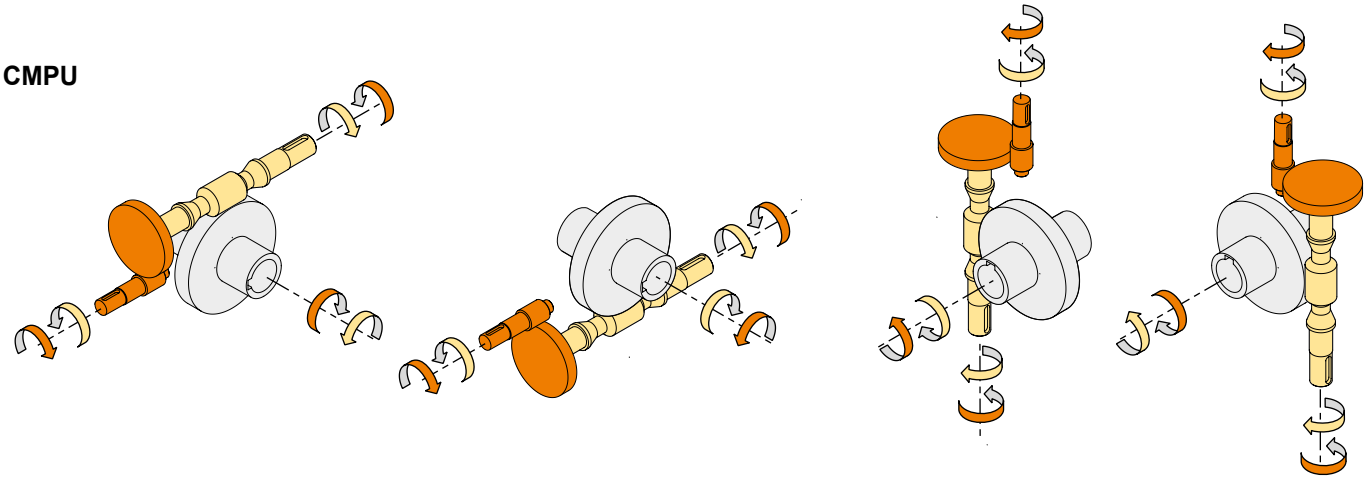
Clasificación — *Designação* — Classification

MOTOR / *MOTOR* / MOTOR

0.75kW	4p	3ph	230/400V	50Hz	T1
Potencia *Potência* Power	Polos *Pólos* Poles	Fases *Fases* Phases	Tensión *Tensão* Voltage	Frecuencia *Frequência* Frequency	Posición caja de bornes *Pos. Conexão* Terminal box pos.
Veja tabelas *Véase tablas* see tables	**2p** **4p** **6p** **8p**	**1ph** **3ph**	**230V** **230/400V**	**50Hz** **60Hz**	**T1** (Std) **T4** **T2** **T3**

Sentidos de rotación — *Sentidos de rotação* — Direction of rotation

CMPU



Nomenclatura — *Simbologia* — Legend

n_1	[rpm]	Velocidad de entrada / *Velocidade na entrada* / Input speed
n_2	[rpm]	Velocidad de salida / *Velocidade na saída* / Output speed
i		Relación de reducción / *Relação de redução* / Ratio
P_1	[kW]	Potencia en la entrada / *Potência da entrada* / Input power
M_2	[Nm]	Par en la salida en función de P_1 / *Torque na saída em função de P_1* / Output torque referred to P_1
sf		Factor de servicio / *Fator de serviço* / Service factor
R_2	[N]	Carga radial admisible en la salida / *Carga radial admissível na saída* / Maximum output radial load
A_2	[N]	Carga axial admisible en la salida / *Carga axial admissível na saída* / Maximum output axial load

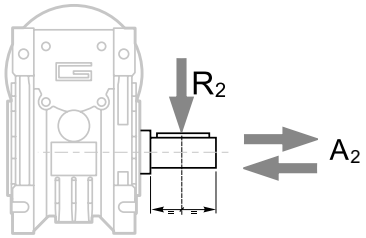
Lubricación — *Lubrificação* — Lubrication

Todos los motoreductores son previamente lubricados con aceite sintético con grado de viscosidad 320, por lo tanto, pueden ser instalados en cualquier posición de montaje y no requieren mantenimiento.

Todos os motoredutores são fornecidos completos de lubrificante sintético de viscosidade 320, portanto, podem ser instalados em qualquer posição de montagem e não necessitam de manutenção.

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.

Cargas radiales — *Cargas radiais* — Radial loads



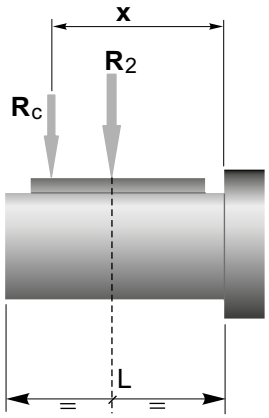
$A_2 = R_2 \times 0.2$

n_2 [min^{-1}]	R_2 [N]				
	CMPU 01/050	CMPU 01/063	CMPU 01/070	CMPU 01/075	CMPU 01/090
47	2805	3874	4141	4475	5009
35	3095	4273	4568	4937	5526
28	3334	4603	4921	5318	5953
23	3559	4915	5254	5678	6356
18	3862	5334	5702	6162	6897
14	4200	5800	6200	6700	7500

Cuando la carga radial no se aplica en el punto medio del eje, es necesario calcular la carga efectiva a través la siguiente fórmula:

Quando a carga radial resultante não é aplicada na linha mediana da eixo, é preciso calcular aquela efetiva com a seguinte fórmula:

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:

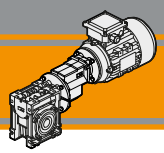


	CMPU				
	01/050	01/063	01/070	01/075	01/090
a	101	120	122	131	182
b	76	95	92	101	122
R_{2MAX}	4200	5800	6200	6700	7500

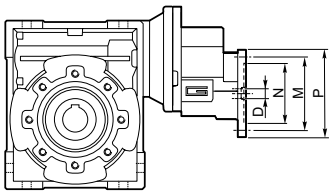
$$R_c = \frac{R_2 \cdot a}{(b+x)} \leq R_{2MAX}$$

$$R \leq R_c$$

a, b = valores dados en la tabla
a, b = valores referidos na tabela
a, b = values given in the table



Motores Aplicables IEC | ***Motores aplicáveis*** | **IEC Motor adapters**



CMPU	IEC	N	M	P	D	i (i_1 x i_2)										
						28.5 (5,7x5)	**42.75** (5,7x7,5)	**57** (5,7x10)	**64.28** (8,57x7,5)	**85.5** (5,7x15)	**85.7** (8,57x10)	**114** (5,7x20)	**128.55** (8,57x15)	**142.5** (5,7x25)	**171** (5,7x30)	**214.25** (8,57x25)
01/050	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS
	63B14	60	75	90												
	71B5	110	130	160	14	B	B	B	B	B	B	B	B	B	B	B
	71B14	70	85	105												
	80B5	130	165	200	19											
	80B14	80	100	120												
01/063	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS
	63B14	60	75	90												
	71B5	110	130	160	14	B	B	B	B	B	B	B	B	B	B	B
	71B14	70	85	105												
	80B5	130	165	200	19											
	80B14	80	100	120												
01/070	63B5	95	115	140	11	-	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS
	63B14	60	75	90												
	71B5	110	130	160	14	-	B	B	B	B	B	B	B	B	B	B
	71B14	70	85	105												
	80B5	130	165	200	19	-										
	80B14	80	100	120												
01/075	63B5	95	115	140	11	-	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS
	63B14	60	75	90												
	71B5	110	130	160	14	-	B	B	B	B	B	B	B	B	B	B
	71B14	70	85	105												
	80B5	130	165	200	19	-										
	80B14	80	100	120												
01/090	63B5	95	115	140	11	-	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS
	63B14	60	75	90												
	71B5	110	130	160	14	-	B	B	B	B	B	B	B	B	B	B
	71B14	70	85	105												
	80B5	130	165	200	19	-										
	80B14	80	100	120												

CMPU	IEC	N	M	P	D	i (i_1 x i_2)									
						228 (5,7x40)	**257.1** (8,57x30)	**285** (5,7x50)	**342.8** (8,57x40)	**428.5** (8,57x50)	**456** (5,7x80)	**514.2** (8,57x60)	**570** (5,7x100)	**685.6** (8,57x80)	**857** (8,57x100)
01/050	63B5	95	115	140	11		BS								
	63B14	60	75	90											
	71B5	110	130	160	14		B								
	71B14	70	85	105											
	80B5	130	165	200	19										
	80B14	80	100	120											
01/063	63B5	95	115	140	11	BS	BS	BS	BS	BS		BS			
	63B14	60	75	90											
	71B5	110	130	160	14	B	B	B	B	B		B			
	71B14	70	85	105											
	80B5	130	165	200	19										
	80B14	80	100	120											
01/070	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS
	63B14	60	75	90											
	71B5	110	130	160	14	B	B	B	B	B	B	B	B	B	B
	71B14	70	85	105											
	80B5	130	165	200	19										
	80B14	80	100	120											
01/075	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS
	63B14	60	75	90											
	71B5	110	130	160	14	B	B	B	B	B	B	B	B	B	B
	71B14	70	85	105											
	80B5	130	165	200	19										
	80B14	80	100	120											
01/090	63B5	95	115	140	11	BS	BS	BS	BS	BS	BS	BS	BS	BS	BS
	63B14	60	75	90											
	71B5	110	130	160	14	B	B	B	B	B	B	B	B	B	B
	71B14	70	85	105											
	80B5	130	165	200	19										
	80B14	80	100	120											

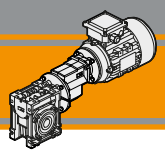
N.B. Las áreas grises indican los tamaño de los motores aplicables
N.B. *As áreas evidenciadas em cinza indicam a aplicabilidade da correspondente grandeza do motor.*
N.B. Grey areas indicate motor inputs available on each size of unit.

B/BS = Casquillo de reducción en acero
B/BS = *Bucha de redução em aço*
B/BS = Metal shaft sleeve

Datos técnicos / *Dados técnicos* / Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
(0.16 hp)	**61**	15	10.6	28.50	**CMPU01/050**	**B5/B14**
	41	22	7.2	42.75		**B5/B14**
63A4	**31**	28	5.6	57.00		**B5/B14**
(1750 min^{-1})	**27**	33	4.8	64.28		**B5/B14**
	20	40	4.1	85.50		**B5/B14**
	20	42	3.7	85.70		**B5/B14**
	15	50	2.8	114.00		**B5/B14**
	14	59	2.7	128.55		**B5/B14**
	12	59	2.1	142.50		**B5/B14**
	10	64	2.5	171.00		**B5/B14**
	8.2	88	1.4	214.25		**B5/B14**
	6.8	96	1.7	257.10		**B5/B14**
	14	59	5.2	128.55	**CMPU01/063**	**B5/B14**
	12	58	4.0	142.50		**B5/B14**
	10	66	4.7	171.00		**B5/B14**
	8.2	87	2.6	214.25		**B5/B14**
	7.7	79	3.3	228.00		**B5/B14**
	6.8	99	3.1	257.10		**B5/B14**
	6.1	91	2.5	285.00		**B5/B14**
	5.1	119	2.2	342.80		**B5/B14**
	4.1	137	1.7	428.50		**B5/B14**
	3.4	152	1.4	514.20		**B5/B14**
	6.1	91	3.7	285.00	**CMPU01/070**	**B5/B14**
	5.1	119	3.2	342.80		**B5/B14**
	4.1	137	2.4	428.50		**B5/B14**
	3.8	117	2.3	456.00		**B5/B14**
	3.4	152	2.1	514.20		**B5/B14**
	3.1	132	1.8	570.00		**B5/B14**
	2.6	176	1.6	685.60		**B5/B14**
	2.0	198	1.2	857.00		**B5/B14**
	3.8	117	2.8	456.00	**CMPU01/075**	**B5/B14**
	3.4	155	2.4	514.20		**B5/B14**
	3.1	132	2.2	570.00		**B5/B14**
	2.6	176	1.9	685.60		**B5/B14**
	2.0	198	1.5	857.00		**B5/B14**
	3.4	168	3.7	514.20	**CMPU01/090**	**B5/B14**
	3.1	143	3.4	570.00		**B5/B14**
	2.6	194	2.8	685.60		**B5/B14**
	2.0	214	2.2	857.00		**B5/B14**
0.18						
(0.25 hp)	**61**	22	7.1	28.50	**CMPU01/050**	**B5/B14**
	41	33	4.8	42.75		**B5/B14**
63B4	**31**	42	3.7	57.00		**B5/B14**
(1750 min^{-1})	**27**	49	3.2	64.28		**B5/B14**
	20	59	2.7	85.50		**B5/B14**
	20	63	2.5	85.70		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.18						
(0.25 hp)	**15**	75	1.8	114.00		**B5/B14**
	14	89	1.8	128.55		**B5/B14**
63B4	**12**	88	1.4	142.50		**B5/B14**
(1750 min^{-1})	**10**	95	1.7	171.00		**B5/B14**
	8.2	132	0.9	214.25		**B5/B14**
	6.8	144	1.1	257.10		**B5/B14**
	15	74	3.5	114.00	**CMPU01/063**	**B5/B14**
	14	88	3.4	128.55		**B5/B14**
	12	86	2.6	142.50		**B5/B14**
	10	99	3.1	171.00		**B5/B14**
	8.2	130	1.8	214.25		**B5/B14**
	7.7	119	2.2	228.00		**B5/B14**
	6.8	148	2.1	257.10		**B5/B14**
	6.1	137	1.7	285.00		**B5/B14**
	5.1	178	1.5	342.80		**B5/B14**
	4.1	206	1.1	428.50		**B5/B14**
	3.4	228	0.9	514.20		**B5/B14**
	8.2	134	2.5	214.25	**CMPU01/070**	**B5/B14**
	7.7	119	3.2	228.00		**B5/B14**
	6.8	148	3.1	257.10		**B5/B14**
	6.1	137	2.4	285.00		**B5/B14**
	5.1	178	2.1	342.80		**B5/B14**
	4.1	206	1.6	428.50		**B5/B14**
	3.8	176	1.6	456.00		**B5/B14**
	3.4	228	1.4	514.20		**B5/B14**
	3.1	198	1.2	570.00		**B5/B14**
	2.6	264	1.0	685.60		**B5/B14**
	5.1	181	2.6	342.80	**CMPU01/075**	**B5/B14**
	4.1	206	2.0	428.50		**B5/B14**
	3.8	176	1.9	456.00		**B5/B14**
	3.4	233	1.6	514.20		**B5/B14**
	3.1	198	1.5	570.00		**B5/B14**
	2.6	264	1.2	685.60		**B5/B14**
	2.0	297	1.0	857.00		**B5/B14**
	4.1	223	3.1	428.50	**CMPU01/090**	**B5/B14**
	3.8	193	2.8	456.00		**B5/B14**
	3.4	252	2.5	514.20		**B5/B14**
	3.1	214	2.2	570.00		**B5/B14**
	2.6	290	1.8	685.60		**B5/B14**
	2.0	322	1.5	857.00		**B5/B14**



Datos técnicos / *Dados técnicos* / Technical data

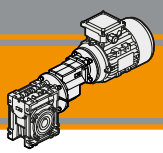
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.25						
(0.33 hp)	**61**	30	5.1	28.50	**CMPU01/050**	**B5/B14**
	41	45	3.5	42.75		**B5/B14**
63C4	**31**	58	2.7	57.00		**B5/B14**
(1750 min^{-1})	**27**	68	2.3	64.28		**B5/B14**
	20	82	2.0	85.50		**B5/B14**
	20	87	1.8	85.70		**B5/B14**
	15	104	1.3	114.00		**B5/B14**
	14	124	1.3	128.55		**B5/B14**
	12	122	1.0	142.50		**B5/B14**
	10	133	1.2	171.00		**B5/B14**
	27	69	4.2	64.28	**CMPU01/063**	**B5/B14**
	20	81	3.7	85.50		**B5/B14**
	20	88	3.3	85.70		**B5/B14**
	15	102	2.5	114.00		**B5/B14**
	14	122	2.5	128.55		**B5/B14**
	12	120	1.9	142.50		**B5/B14**
	10	137	2.3	171.00		**B5/B14**
	8.2	180	1.3	214.25		**B5/B14**
	7.7	165	1.6	228.00		**B5/B14**
	6.8	206	1.5	257.10		**B5/B14**
	6.1	191	1.2	285.00		**B5/B14**
	5.1	247	1.1	342.80		**B5/B14**
	12	124	2.8	142.50	**CMPU01/070**	**B5/B14**
	10	137	3.3	171.00		**B5/B14**
	8.2	186	1.8	214.25		**B5/B14**
	7.7	165	2.3	228.00		**B5/B14**
	6.8	206	2.2	257.10		**B5/B14**
	6.1	191	1.8	285.00		**B5/B14**
	5.1	247	1.5	342.80		**B5/B14**
	4.1	286	1.2	428.50		**B5/B14**
	3.8	244	1.1	456.00		**B5/B14**
	3.4	316	1.0	514.20		**B5/B14**
	8.2	186	2.2	214.25	**CMPU01/075**	**B5/B14**
	7.7	168	2.8	228.00		**B5/B14**
	6.8	206	2.7	257.10		**B5/B14**
	6.1	191	2.1	285.00		**B5/B14**
	5.1	252	1.9	342.80		**B5/B14**
	4.1	286	1.4	428.50		**B5/B14**
	3.8	244	1.3	456.00		**B5/B14**
	3.4	323	1.2	514.20		**B5/B14**
	3.1	274	1.1	570.00		**B5/B14**
	2.6	367	0.9	685.60		**B5/B14**
	6.1	206	3.3	285.00	**CMPU01/090**	**B5/B14**
	5.1	266	3.1	342.80		**B5/B14**
	4.1	309	2.2	428.50		**B5/B14**
	3.8	268	2.0	456.00		**B5/B14**
	3.4	351	1.8	514.20		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.25						
(0.33 hp)	**3.1**	297	1.6	570.00	**CMPU01/090**	**B5/B14**
	2.6	403	1.3	685.60		**B5/B14**
63C4	**2.0**	447	1.1	857.00		**B5/B14**
(1750 min^{-1})						
0.37						
71A4	**61**	45	3.4	28.50	**CMPU01/050**	**B5/B14**
(1750 min^{-1})	**41**	67	2.3	42.75		**B5/B14**
	31	86	1.8	57.00		**B5/B14**
	27	100	1.6	64.28		**B5/B14**
	20	122	1.3	85.50		**B5/B14**
	20	129	1.2	85.70		**B5/B14**
	15	153	0.9	114.00		**B5/B14**
	14	183	0.9	128.55		**B5/B14**
	61	46	6.3	28.50	**CMPU01/063**	**B5/B14**
	41	68	4.3	42.75		**B5/B14**
	31	87	3.3	57.00		**B5/B14**
	27	102	2.9	64.28		**B5/B14**
	20	120	2.5	85.50		**B5/B14**
	20	131	2.2	85.70		**B5/B14**
	15	151	1.7	114.00		**B5/B14**
	14	181	1.7	128.55		**B5/B14**
	12	178	1.3	142.50		**B5/B14**
	10	203	1.5	171.00		**B5/B14**
	8.2	267	0.9	214.25		**B5/B14**
	7.7	244	1.1	228.00		**B5/B14**
	6.8	305	1.0	257.10		**B5/B14**
	20	122	3.6	85.50	**CMPU01/070**	**B5/B14**
	20	132	3.2	85.70		**B5/B14**
	15	153	2.5	114.00		**B5/B14**
	14	183	2.4	128.55		**B5/B14**
	12	183	1.9	142.50		**B5/B14**
	10	203	2.2	171.00		**B5/B14**
	8.2	276	1.2	214.25		**B5/B14**
	7.7	244	1.6	228.00		**B5/B14**
	6.8	305	1.5	257.10		**B5/B14**
	6.1	282	1.2	285.00		**B5/B14**
	5.1	366	1.0	342.80		**B5/B14**
	12	183	2.2	142.50	**CMPU01/075**	**B5/B14**
	10	203	2.7	171.00		**B5/B14**
	8.2	276	1.5	214.25		**B5/B14**
	7.7	248	1.9	228.00		**B5/B14**
	6.8	305	1.8	257.10		**B5/B14**
	6.1	282	1.4	285.00		**B5/B14**
	5.1	373	1.3	342.80		**B5/B14**
	4.1	424	1.0	428.50		**B5/B14**
	3.8	361	0.9	456.00		**B5/B14**

Datos técnicos | *Dados técnicos* | Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.37						
(0.50 hp)	**8.2**	293	2.4	214.25	**CMPU01/090**	**B5/B14**
	7.7	262	3.1	228.00		**B5/B14**
71A4	**6.8**	321	2.9	257.10		**B5/B14**
(1750 min^{-1})	**6.1**	305	2.3	285.00		**B5/B14**
	5.1	393	2.1	342.80		**B5/B14**
	4.1	458	1.5	428.50		**B5/B14**
	3.8	397	1.3	456.00		**B5/B14**
	3.4	519	1.2	514.20		**B5/B14**
	3.1	440	1.1	570.00		**B5/B14**
	2.6	597	0.9	685.60		**B5/B14**
0.55						
(0.75 hp)	**61**	67	2.3	28.50	**CMPU01/050**	**B5/B14**
	41	99	1.6	42.75		**B5/B14**
71B4	**31**	127	1.2	57.00		**B5/B14**
(1750 min^{-1})	**27**	149	1.0	64.28		**B5/B14**
	20	181	0.9	85.50		**B5/B14**
	61	68	4.3	28.50	**CMPU01/063**	**B5/B14**
	41	101	2.9	42.75		**B5/B14**
	31	129	2.2	57.00		**B5/B14**
	27	151	1.9	64.28		**B5/B14**
	20	179	1.7	85.50		**B5/B14**
	20	194	1.5	85.70		**B5/B14**
	15	225	1.2	114.00		**B5/B14**
	14	268	1.1	128.55		**B5/B14**
	12	264	0.9	142.50		**B5/B14**
	10	302	1.0	171.00		**B5/B14**
	20	181	2.4	85.50	**CMPU01/070**	**B5/B14**
	20	197	2.1	85.70		**B5/B14**
	15	228	1.7	114.00		**B5/B14**
	14	272	1.6	128.55		**B5/B14**
	12	272	1.3	142.50		**B5/B14**
	10	302	1.5	171.00		**B5/B14**
	7.7	362	1.0	228.00		**B5/B14**
	6.8	454	1.0	257.10		**B5/B14**
	20	197	2.6	85.70	**CMPU01/075**	**B5/B14**
	15	231	2.0	114.00		**B5/B14**
	14	276	1.9	128.55		**B5/B14**
	12	272	1.5	142.50		**B5/B14**
	10	302	1.8	171.00		**B5/B14**
	8.2	410	1.0	214.25		**B5/B14**
	7.7	369	1.3	228.00		**B5/B14**
	6.8	454	1.2	257.10		**B5/B14**
	6.1	419	1.0	285.00		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.55						
(0.75 hp)	**14**	284	3.1	128.55	**CMPU01/090**	**B5/B14**
	12	289	2.5	142.50		**B5/B14**
71B4	**10**	317	3.0	171.00		**B5/B14**
(1750 min^{-1})	**8.2**	435	1.6	214.25		**B5/B14**
	7.7	389	2.1	228.00		**B5/B14**
	6.8	476	2.0	257.10		**B5/B14**
	6.1	453	1.5	285.00		**B5/B14**
	5.1	585	1.4	342.80		**B5/B14**
	4.1	681	1.0	428.50		**B5/B14**
	3.8	590	0.9	456.00		**B5/B14**
0.75						
(1.0 hp)	**61**	91	1.7	28.50	**CMPU01/050**	**B5/B14**
	41	135	1.2	42.75		**B5/B14**
80A4	**31**	174	0.9	57.00		**B5/B14**
(1750 min^{-1})						
	61	93	3.1	28.50	**CMPU01/063**	**B5/B14**
	41	137	2.1	42.75		**B5/B14**
	31	176	1.6	57.00		**B5/B14**
	27	206	1.4	64.28		**B5/B14**
	20	243	1.2	85.50		**B5/B14**
	20	265	1.1	85.70		**B5/B14**
	41	139	2.9	42.75	**CMPU01/070**	**B5/B14**
	31	178	2.3	57.00		**B5/B14**
	27	209	1.9	64.28		**B5/B14**
	20	247	1.8	85.50		**B5/B14**
	20	268	1.6	85.70		**B5/B14**
	15	311	1.3	114.00		**B5/B14**
	14	371	1.2	128.55		**B5/B14**
	12	372	0.9	142.50		**B5/B14**
	10	412	1.1	171.00		**B5/B14**
	27	209	2.3	64.28	**CMPU01/075**	**B5/B14**
	20	250	2.1	85.50		**B5/B14**
	20	268	1.9	85.70		**B5/B14**
	15	316	1.5	114.00		**B5/B14**
	14	376	1.4	128.55		**B5/B14**
	12	372	1.1	142.50		**B5/B14**
	10	412	1.3	171.00		**B5/B14**
	7.7	503	0.9	228.00		**B5/B14**
	6.8	619	0.9	257.10		**B5/B14**



Datos técnicos / *Dados técnicos* / Technical data

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.75						
(1.0 hp)	**20**	257	3.4	85.50	**CMPU01/090**	**B5/B14**
	20	278	2.7	85.70		**B5/B14**
80A4	**15**	329	2.5	114.00		**B5/B14**
(1750 min^{-1})	**14**	387	2.3	128.55		**B5/B14**
	12	394	1.8	142.50		**B5/B14**
	10	432	2.2	171.00		**B5/B14**
	8.2	593	1.2	214.25		**B5/B14**
	7.7	530	1.5	228.00		**B5/B14**
	6.8	650	1.5	257.10		**B5/B14**
	6.1	617	1.1	285.00		**B5/B14**
	5.1	797	1.0	342.80		**B5/B14**
1.1						
(1.5 hp)	**61**	134	1.2	28.50	**CMPU01/050**	**B5/B14**
80B4	**61**	136	2.1	28.50	**CMPU01/063**	**B5/B14**
(1750 min^{-1})	**41**	201	1.5	42.75		**B5/B14**
	31	258	1.1	57.00		**B5/B14**
	27	302	1.0	64.28		**B5/B14**
	41	204	2.0	42.75	**CMPU01/070**	**B5/B14**
	31	262	1.6	57.00		**B5/B14**
	27	306	1.3	64.28		**B5/B14**
	20	362	1.2	85.50		**B5/B14**
	20	393	1.1	85.70		**B5/B14**
	15	456	0.9	114.00		**B5/B14**
	41	204	2.4	42.75	**CMPU01/075**	**B5/B14**
	31	262	1.9	57.00		**B5/B14**
	27	306	1.6	64.28		**B5/B14**
	20	367	1.4	85.50		**B5/B14**
	20	393	1.3	85.70		**B5/B14**
	15	463	1.0	114.00		**B5/B14**
	14	552	1.0	128.55		**B5/B14**
	10	604	0.9	171.00		**B5/B14**

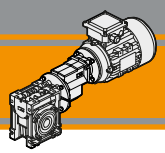
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
1.1						
(1.5 hp)	**41**	209	3.4	42.75	**CMPU01/090**	**B5/B14**
	31	272	2.8	57.00		**B5/B14**
80B4	**27**	314	2.3	64.28		**B5/B14**
(1750 min^{-1})	**20**	377	2.3	85.50		**B5/B14**
	20	408	1.8	85.70		**B5/B14**
	15	483	1.7	114.00		**B5/B14**
	14	567	1.5	128.55		**B5/B14**
	12	578	1.2	142.50		**B5/B14**
	10	634	1.5	171.00		**B5/B14**
	7.7	778	1.0	228.00		**B5/B14**
	6.8	953	1.0	257.10		**B5/B14**

Dimensiones ***Dimensões*** **Dimensions**

	CMPU.. - CMPU..F - CMPU..FB - CMPU..FL													
	A	C	D H8	E	F	G1	H	HX	I	K	L	M	N h8	N1
01/050	80	120	25	144	49	92	60	36.5	50	70	85	85	70	43.5
01/063	100	144	25	174	67	112	72	36.5	63	85	104	95	80	53
01/070	110	160	28	195	64	120	80	36.5	70	90	104	115	95	57
01/075	120	172	28	205	72	120	86	36.5	75	90	112	115	95	57
01/090	140	208	35	238	74	140	103	36.5	90	100	130	130	110	67

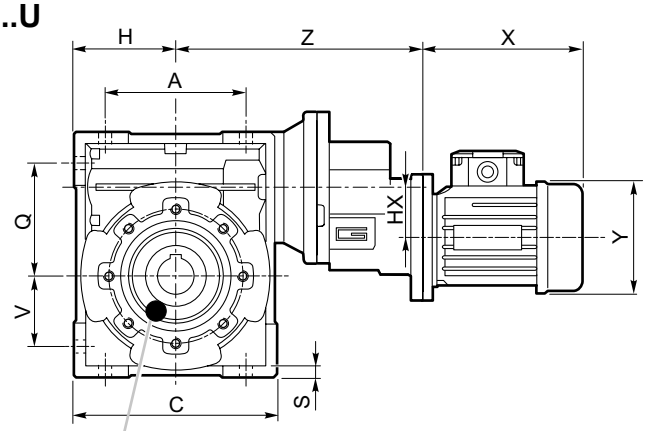
	CMPU.. - CMPU..F - CMPU..FB - CMPU..FL												
	O	P	Q	R	S	T	V	Z	KE	a	b	t	Kg
01/050	8.5	98	64	84	7	30	40	210	M8x10(n.4)	45°	8	28.3 (27.3)	6.0
01/063	8.5	110	80	102	8	36	50	228	M8x14(n.8)	45°	8	28.3	8.7
01/070	9	130	91	115	9	40	55	238	M8x14(n.8)	45°	8	31.3	10.0
01/075	11	140	93	119	10	40	60	243	M8x14(n.8)	45°	8	31.3	11.5
01/090	13	160	102	135	11	45	70	260	M10x18(n.8)	45°	10	38.3	15.5

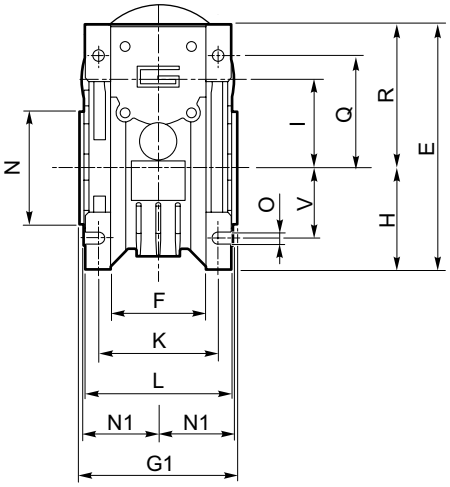
		CMPU..F								CMPU..FB							CMPU..FL							
	a1	KA	KB	KC	KM	KN H8	KO	KP	KQ	KA	KB	KC	KM	KN H8	KO	KP	KA	KB	KC	KM	KN H8	KO	KP	KQ
01/050	45°	90	9	5	90-110	70	11(n.4)	125	110	89	9	5	130-145	110	9.5(n.4)	160	120	9	5	90-110	70	11(n.4)	125	110
01/063	45°	82	10	6	150-160	115	11(n.4)	180	142	98	10	5	165-180	130	11(n.4)	200	112	10	6	150-160	115	11(n.4)	180	142
01/070	45°	107	13	6	165-180	130	14(n.4)	200	170	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
01/075	45°	111	13	6	165-180	130	14(n.4)	200	170	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
01/090	45°	111	13	6	175-190	152	14(n.4)	210	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

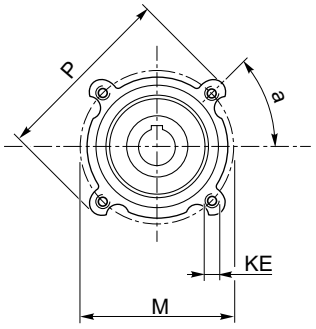


Dimensiones | ***Dimensões*** | **Dimensions**

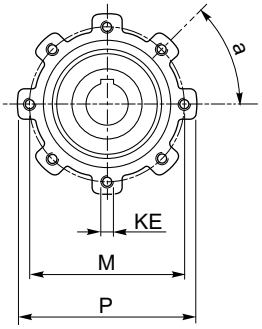
CMPU..U



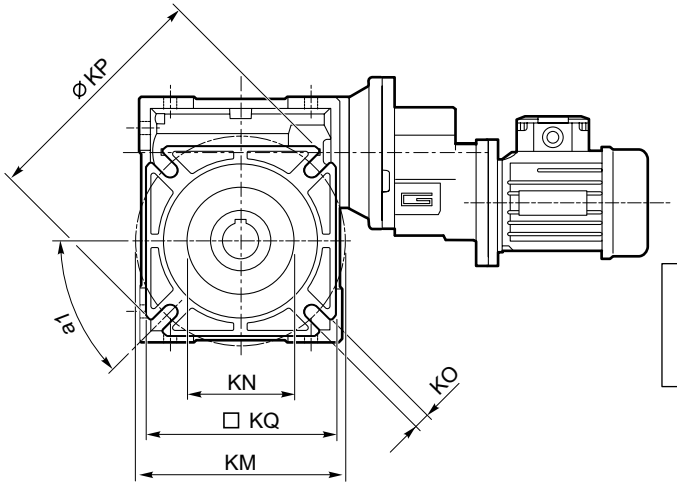


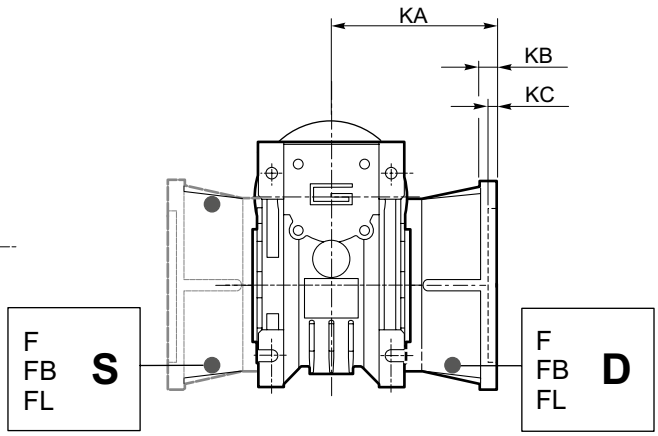


..01/050

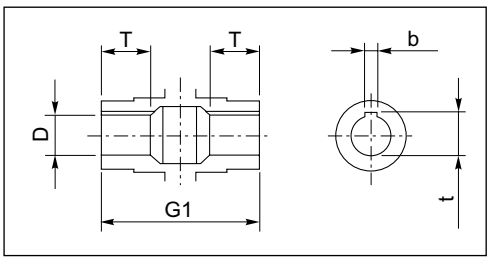


..01/063
..01/070
..01/075
..01/090





CMPU..F **(..01/050 - .. 01/090)**
CMPU..FB **(.. 01/050 - .. 01/063)**
CMPU..FL **(.. 01/050 - .. 01/063)**

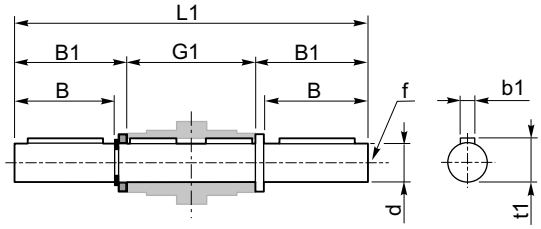


Eje de salida hueco
Eixo saída vazado
Hollow output shaft

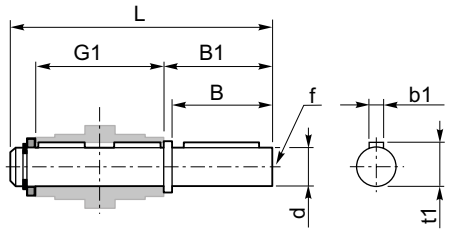
Accesorios — *Acessórios* — Accessories

Eje de salida simple y doble — *Eixo lenta simples e dupla* — Single and double output shaft

DZ



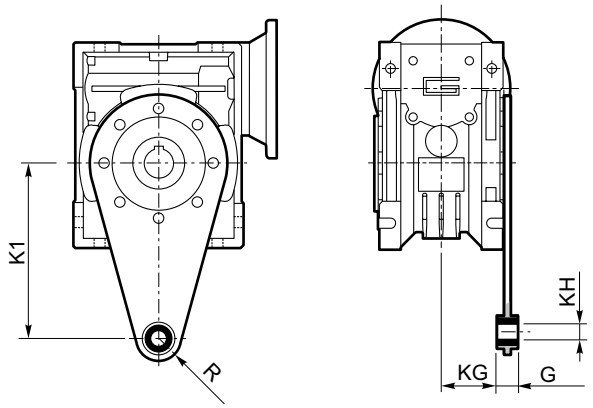
SZ



CMPU	d h7	B	B1	G1	L	L1	f	b1	t1
01/050	25	50	53.5	92	153	199	M10	8	28
01/063	25	50	53.5	112	173	219	M10	8	28
01/070	28	60	63.5	120	192	247	M10	8	31
01/075	28	60	63.5	120	192	247	M10	8	31
01/090	35	80	84.5	140	234	309	M12	10	38

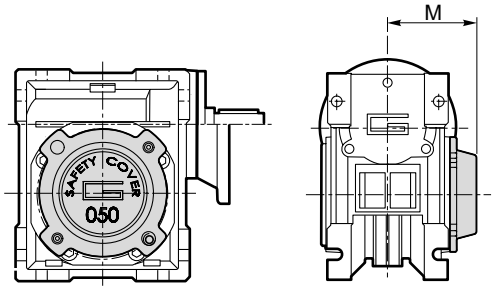
Brazo de reacción — *Braço de reação* — Torque arm

CMPU	K1	G	KG	KH	R
01/050	100	14	38	10	18
01/063	150	14	47.5	10	18
01/070	200	25	46.5	20	30
01/075	200	25	46.5	20	30
01/090	200	25	56.5	20	30



SC - Cubierta de seguridad / Tampa de proteção / Safety cover

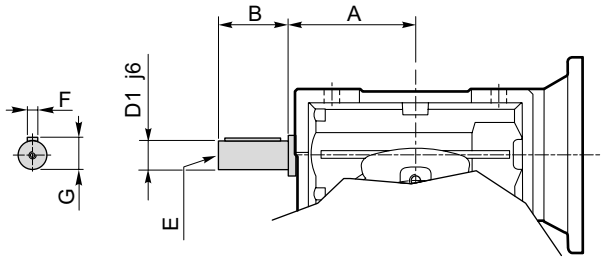
CMPU	M
01/050	62.5
01/063	73
01/070	75
01/075	79
01/090	94



Opciones — *Opções* — Options

VS - Tornillo sinfín sobresaliente / *Parafuso saliente* / Extended input shaft

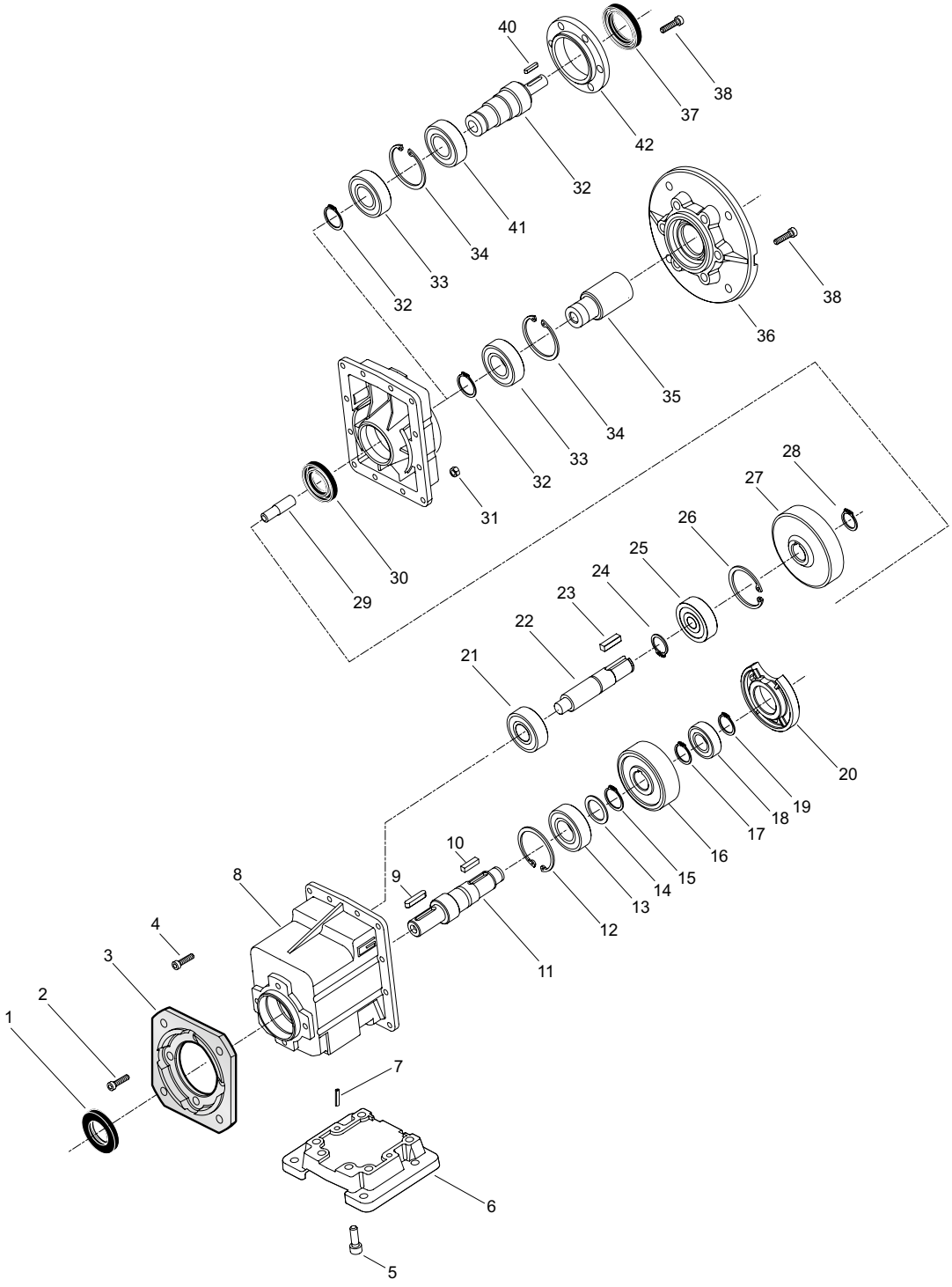
CMPU	A	B	D_1 j6	E	F	G
01/050	64	30	14	M6	5	16
01/063	75	40	19	M6	6	21.5
01/070	84	40	19	M6	6	21.5
01/075	90	50	24	M8	8	27
01/090	108	50	24	M8	8	27



Construido bajo pedido / *Fabricado sob encomenda* / Built on *request*

Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

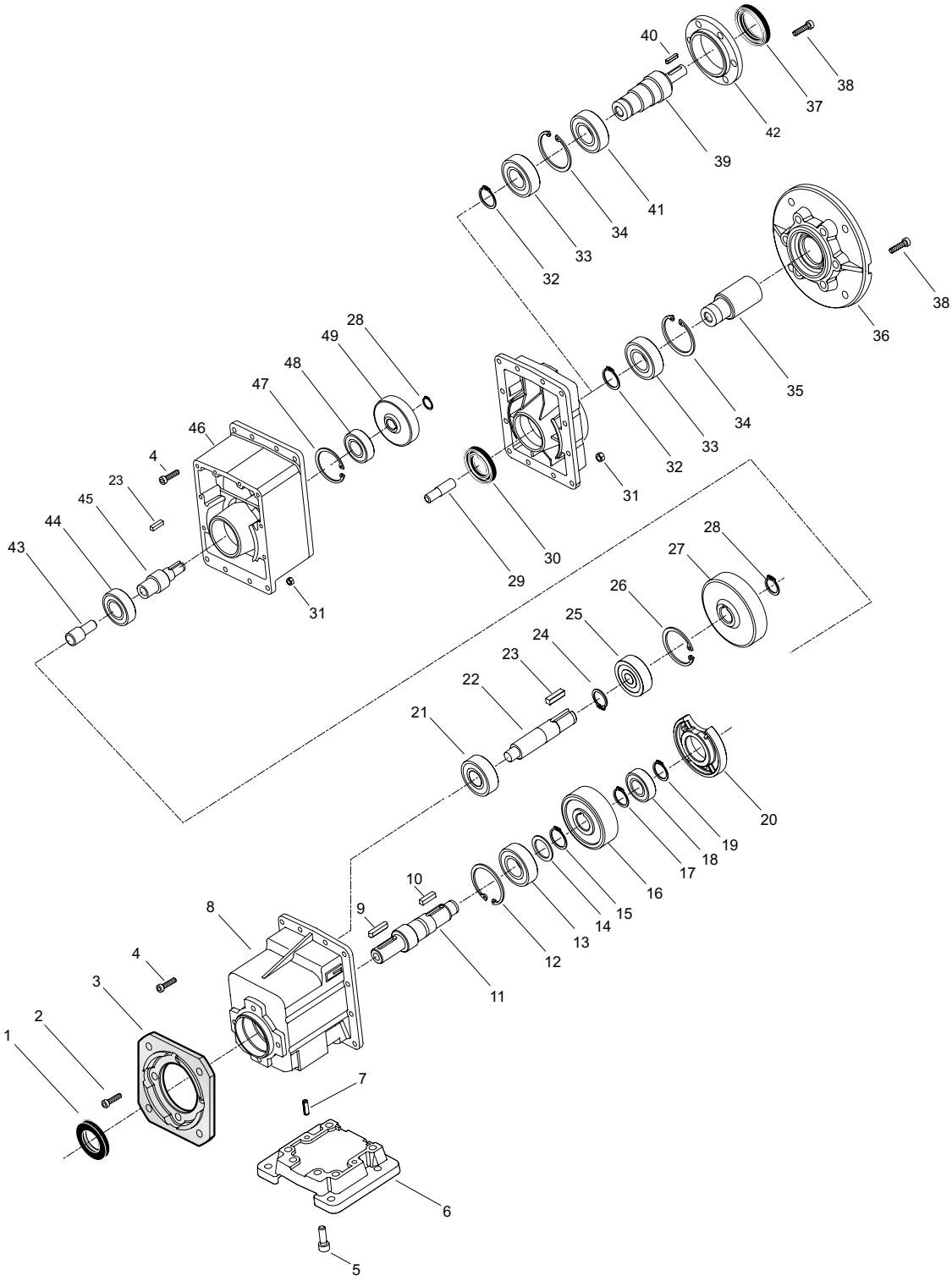
CMG..2



CMG	Sellos de aceite / *Anéis* / Oil seals		
	1	**30**	**37**
002	22/40/7	20/37/7	—
012	30/52/7	25/47/7	35/52/7
022	35/52/7	25/47/7	35/52/7
032	40/72/7	30/52/7	40/60/7
042	45/72/7	30/52/7	40/60/7

Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

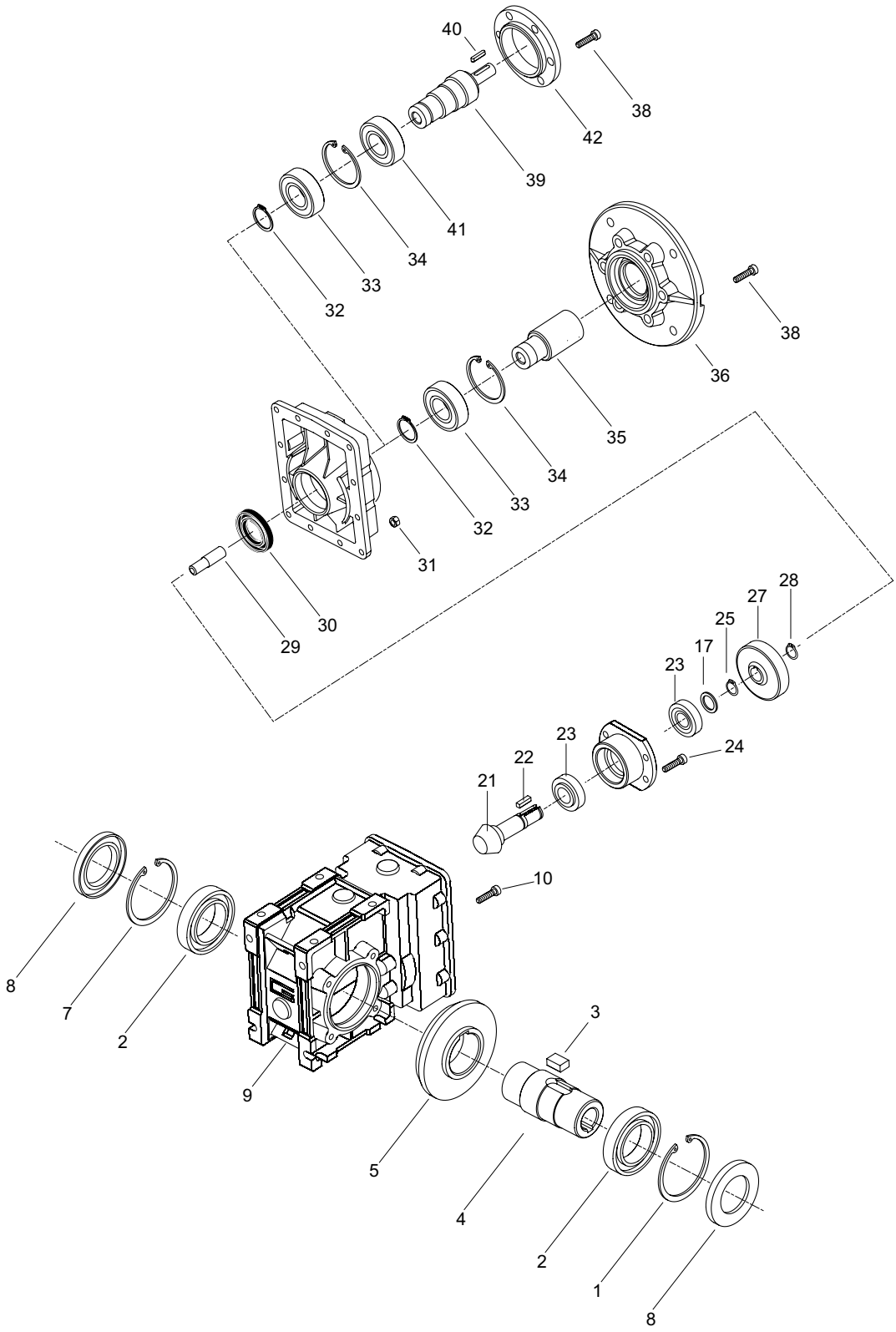
CMG..3



CMG	Sellos de aceite / *Anéis* / Oil seals		
	1	**30**	**37**
013	30/52/7	25/47/7	35/52/7
023	35/52/7	25/47/7	35/52/7
033	40/72/7	30/52/7	40/60/7
043	45/72/7	30/52/7	40/60/7

Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

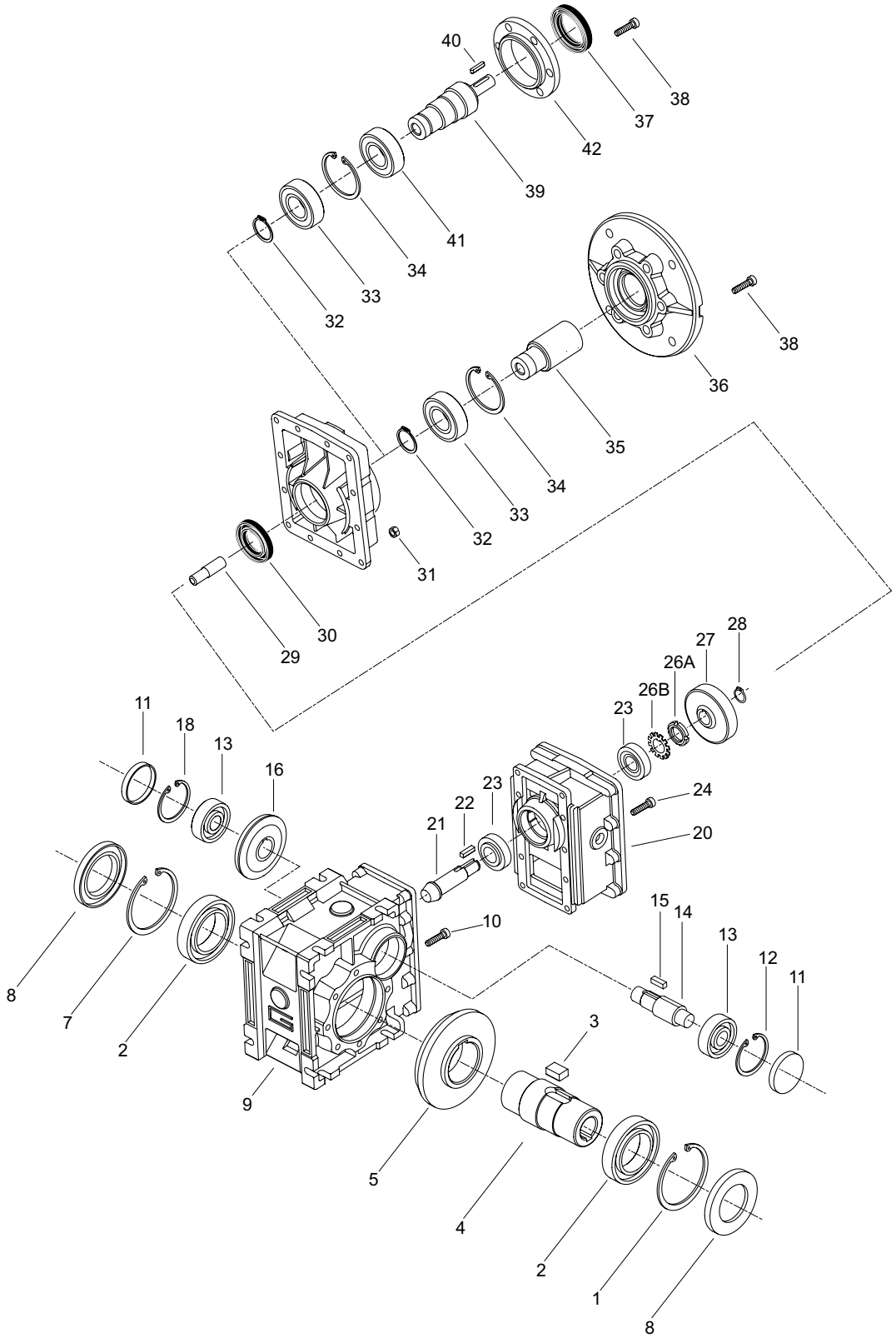
CMB ..2



CMB	Sellos de aceite / *Anéis* / Oil seals	
	8	**30**
402	30/55/7	20/37/7
502	40/62/7	20/37/7

Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

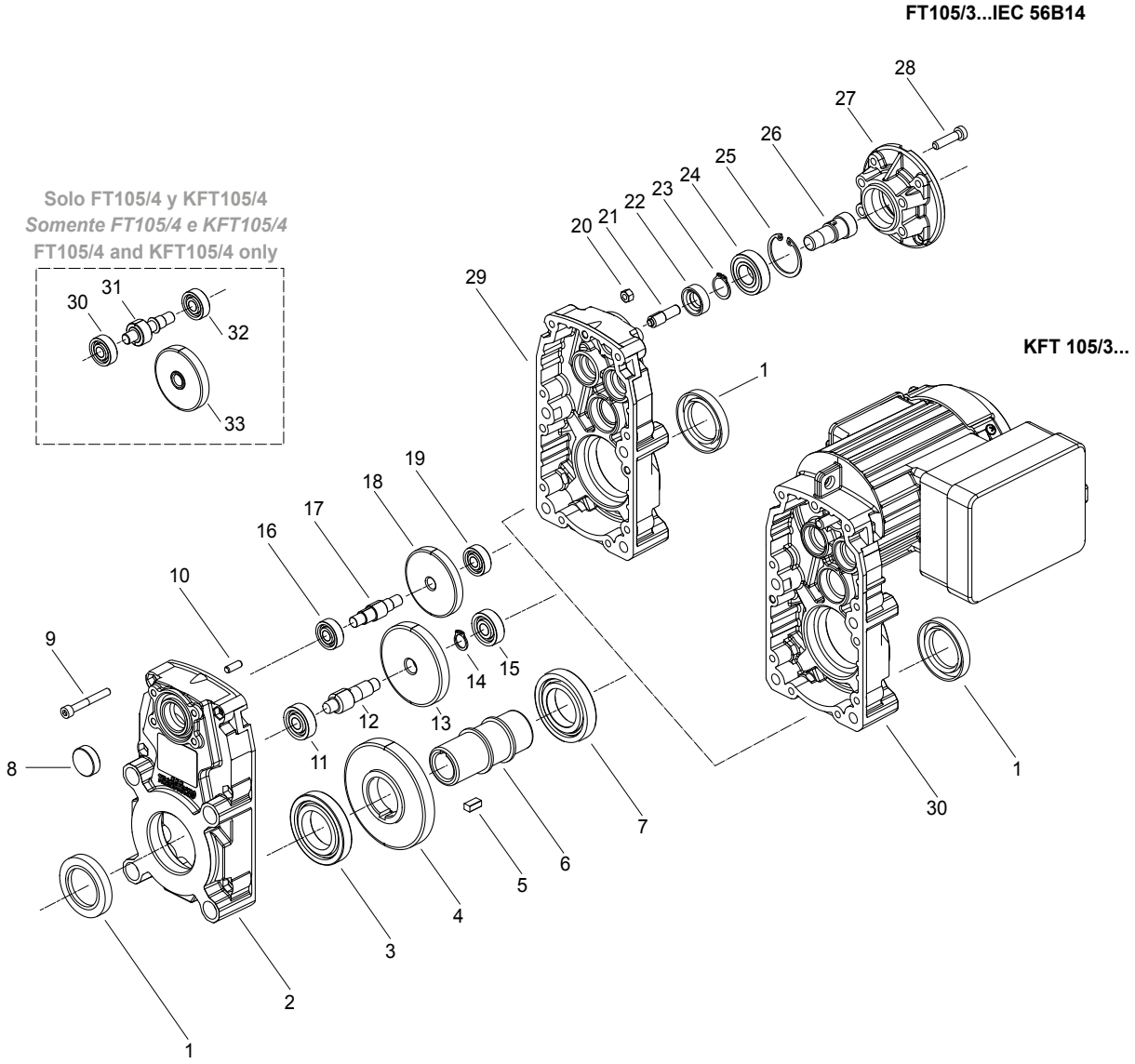
CMB ..3



CMB	Sellos de aceite / *Anéis* / Oil seals			RCA
	8	**30**	**37**	**11**
633	45/75/8	25/47/7	35/52/7	47/7
903	55/90/10	30/52/7	40/60/7	52/7

Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

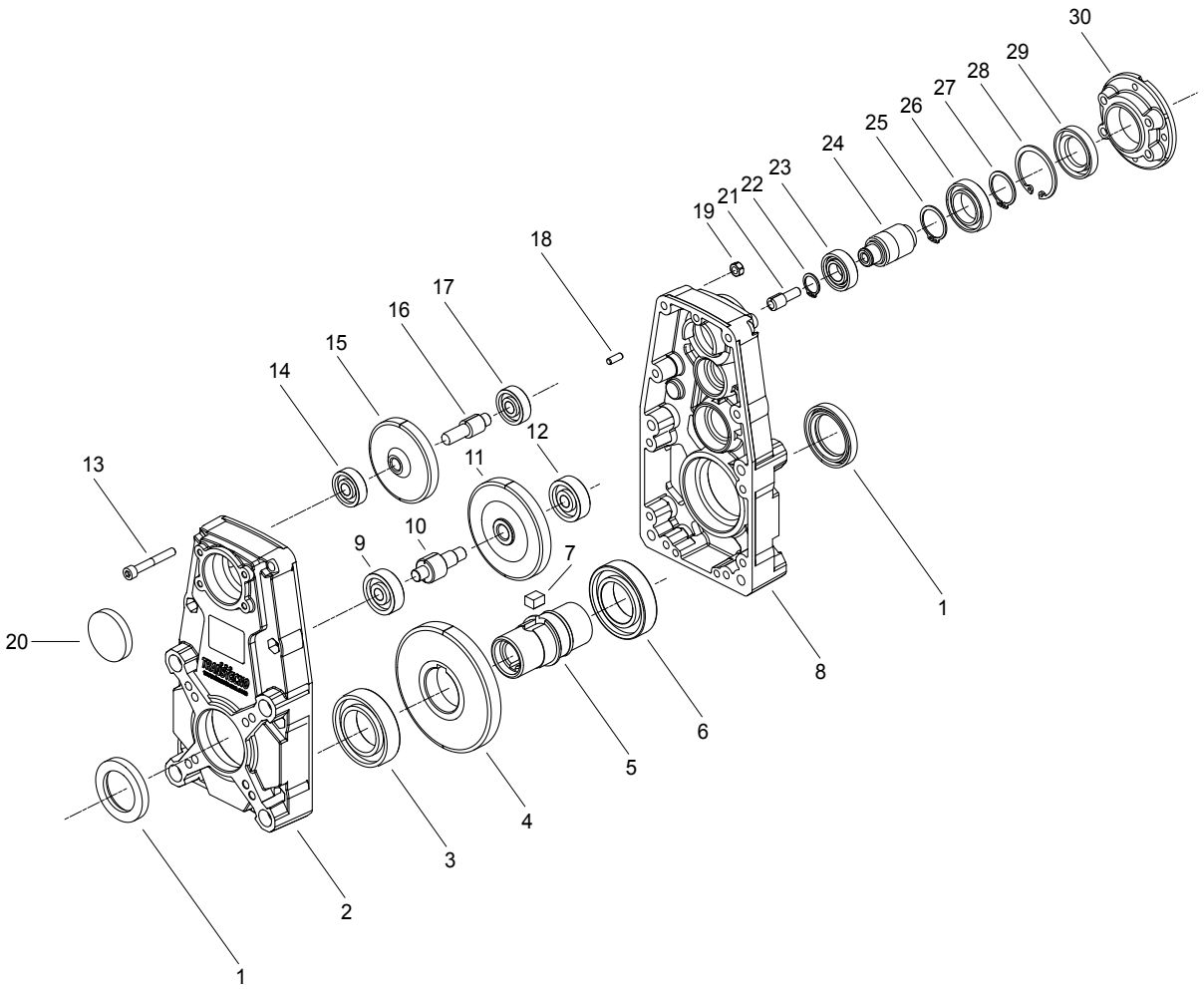
KFT105 - FT105



	Sellos de aceite / *Anéis* / Oil seals		RCA
	1	**8**	**22**
FT105	30/47/07	12/22/07	22x7
KFT105			

Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

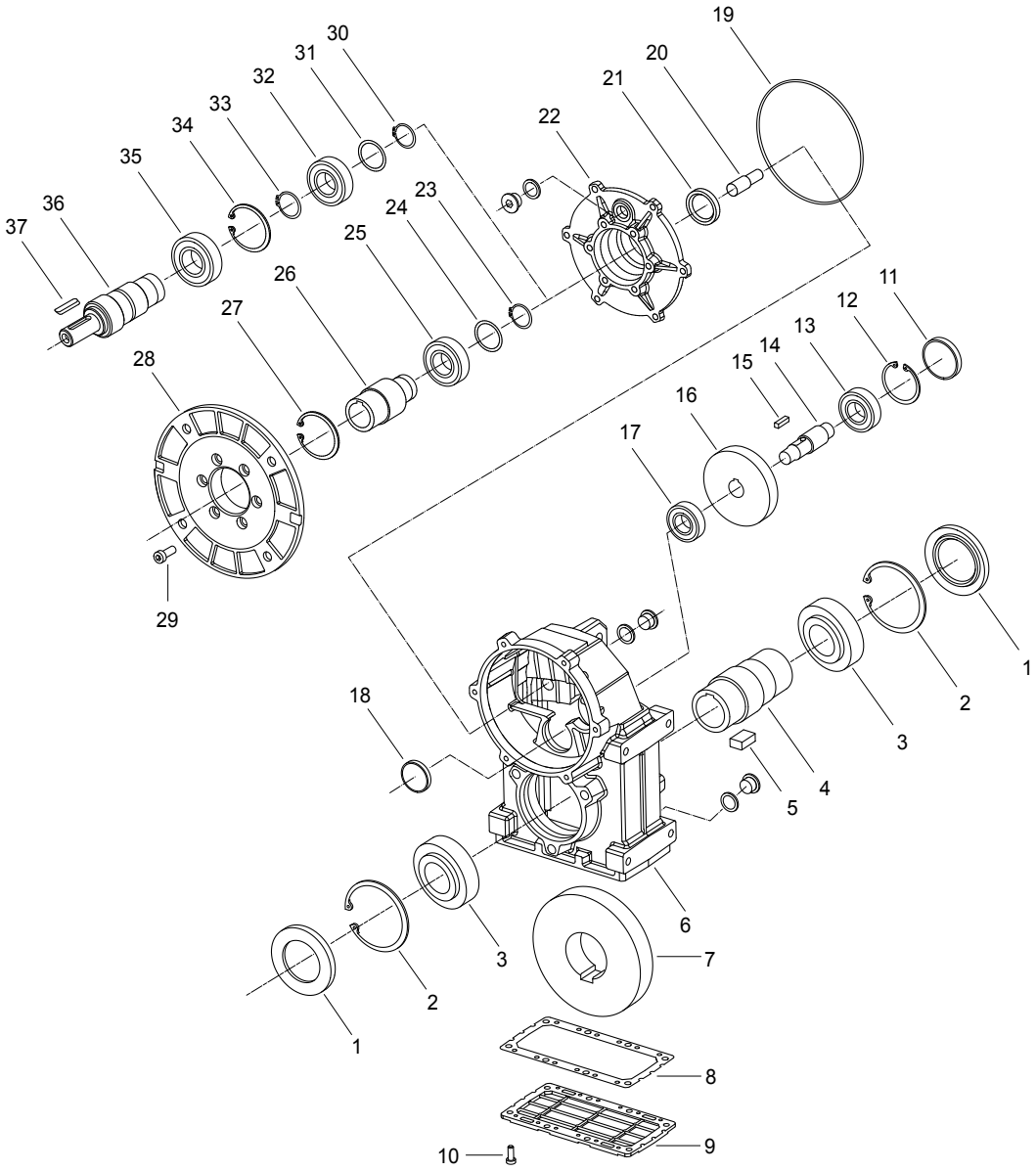
FT146 - FT196



FT	Sellos de aceite / *Anéis* / Oil seals		RCA
	1	**20**	**29**
146	35/52/07	25/42/07	42x7
196	50/72/08	30/47/08	47x7

Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

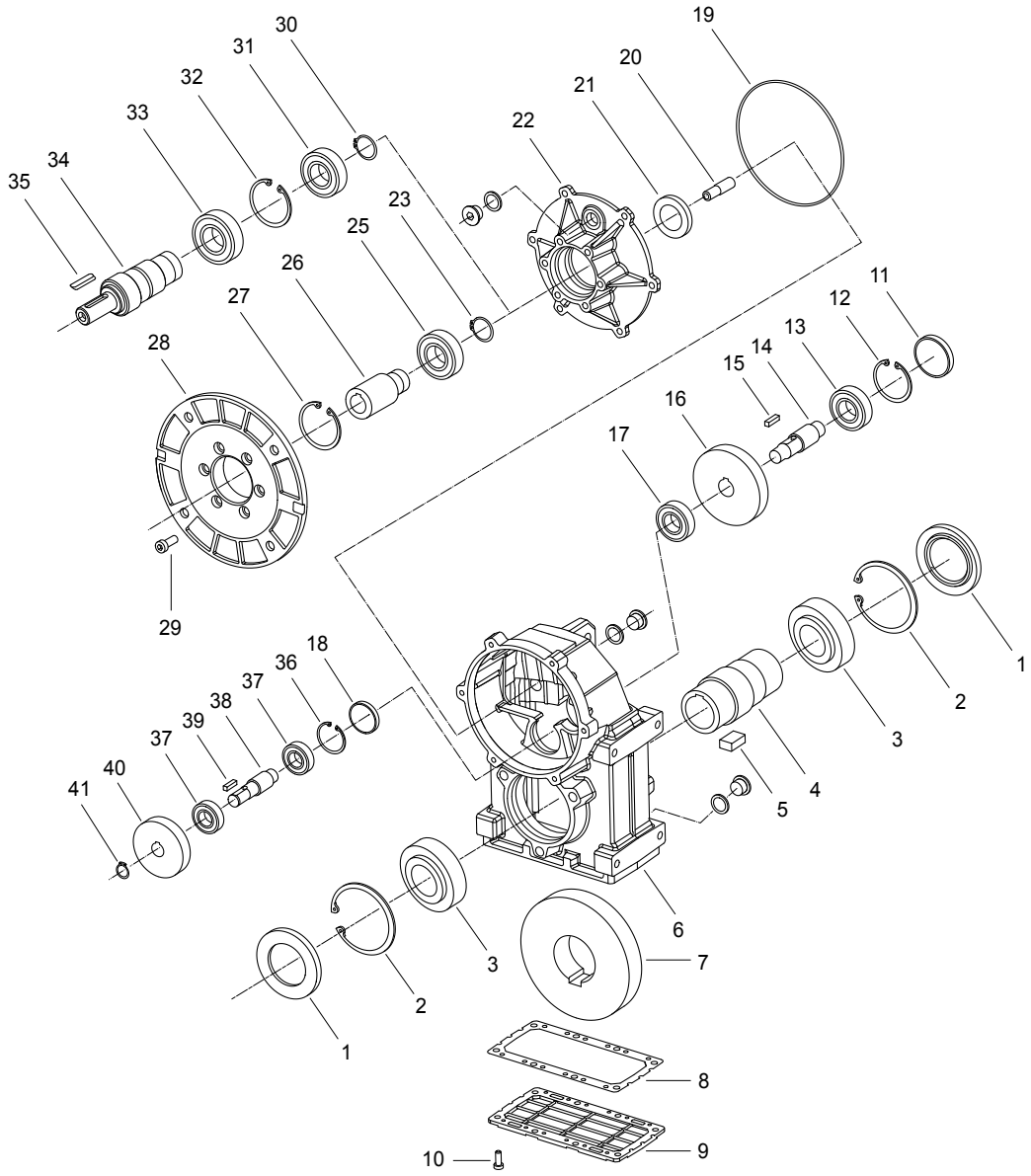
ATS ..2



ATS	Sellos de aceite / *Anéis* / Oil seals		RCA
	1	**21**	**11**
902	50/80/8	30/42/7	47x7
912	60/95/8	30/42/7	47x7

Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

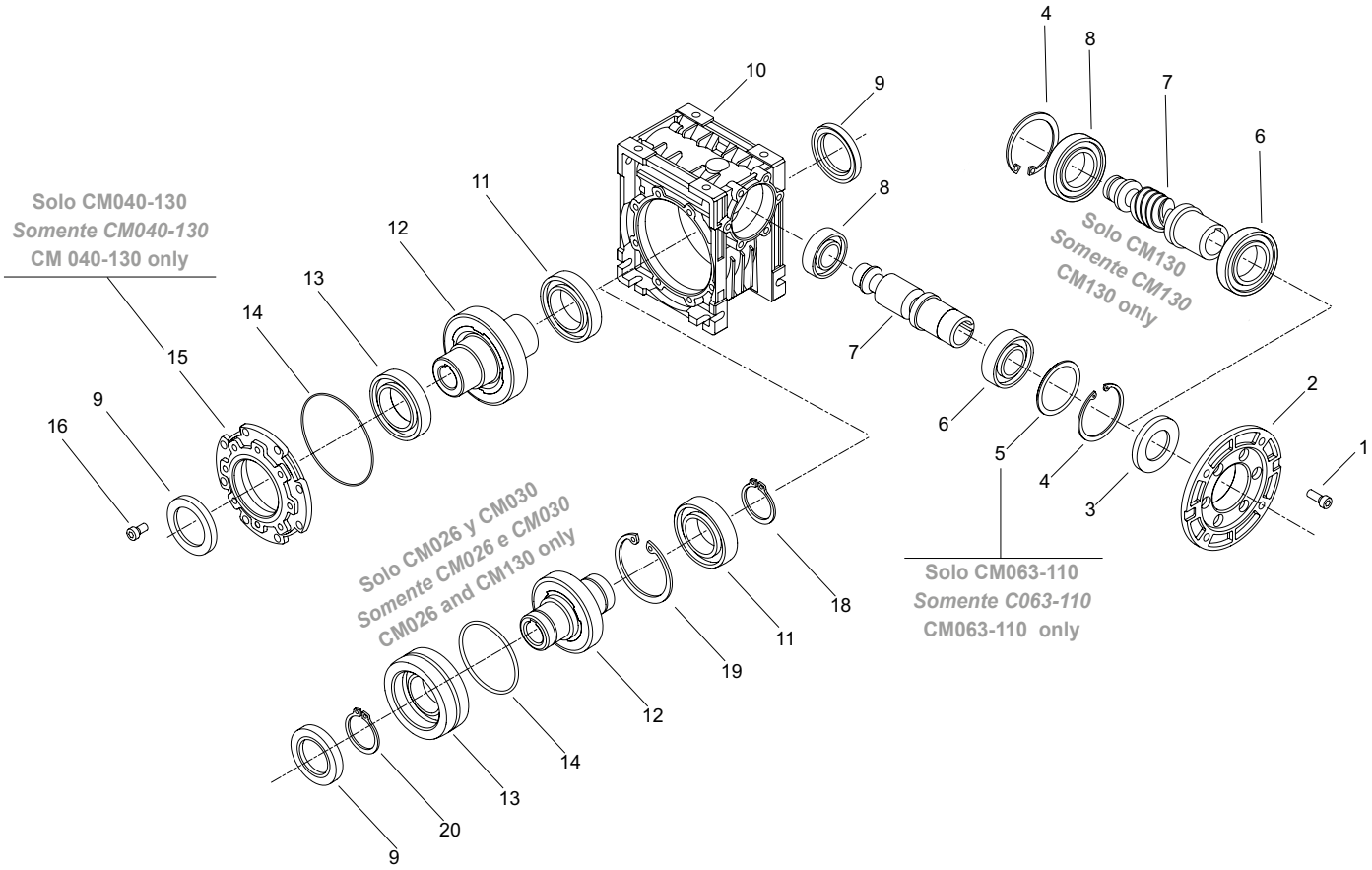
ATS ..3



ATS	Sellos de aceite / *Anéis* / Oil seals		RCA
	1	**21**	**11**
903	50/80/8	25/47/7	47x7
913	60/95/8	25/47/7	47x7

Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

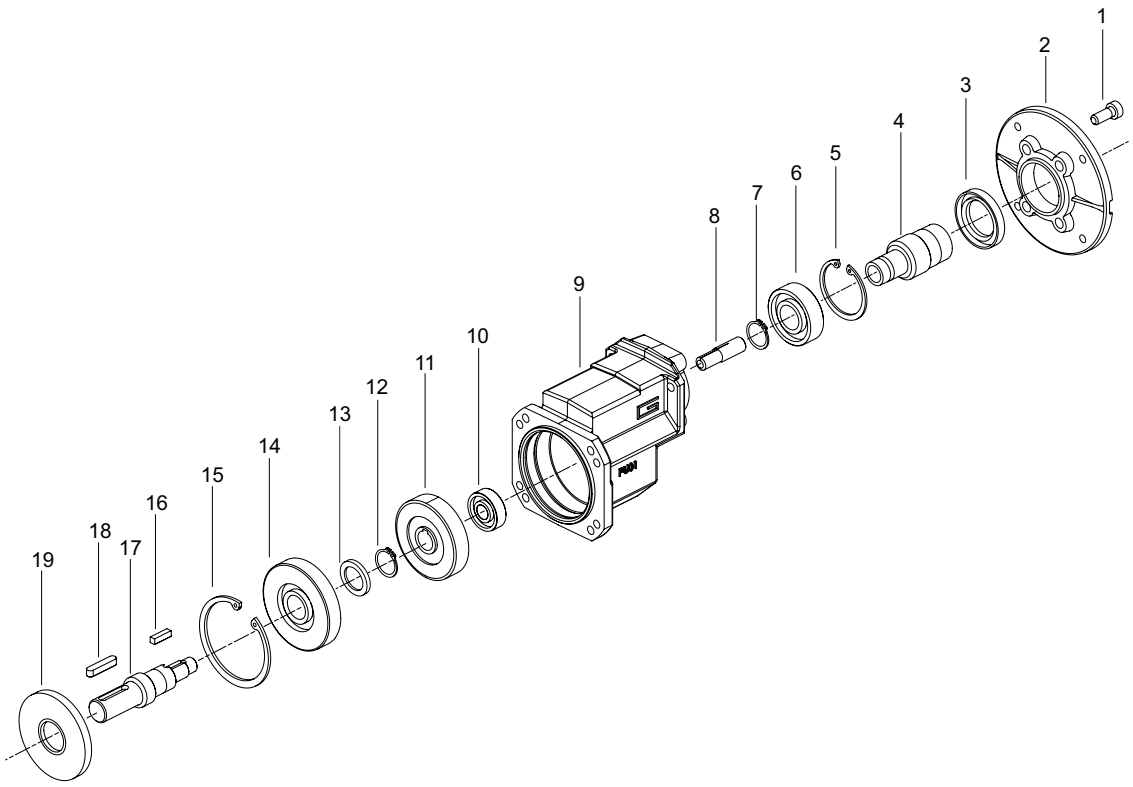
CM026..CM130



CM	Sellos de aceite / *Anéis* / Oil seals	
	3	**9**
026	15/28/7	20/32/5
030	20/37/7	25/40/7
040	25/42/7	30/47/7
050	30/47/7	40/55/7
063	35/62/7	45/65/8
070	40/68/8	45/65/8
075	40/68/7	50/72/8
090	40/68/7	60/85/8
110	50/80/8	65/85/10
130	50/65/8	70/90/10

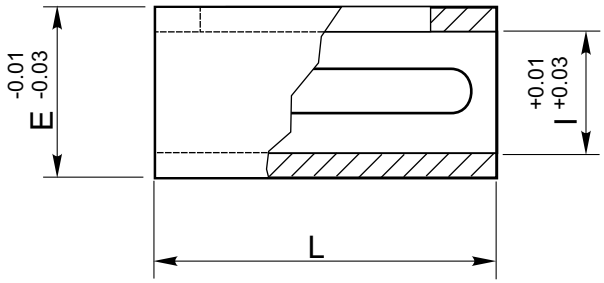
Listado de refacciones | ***Listas peças de troca*** | **Spare parts list**

PU



PU	Sellos de aceite / *Anéis* / Oil seals	
	3	**19**
01	30/47/7	25/72/7

Casquillos de reducción en acero — *Bucha de redução em aço* — Metal shaft sleeves



Tipo / *Tipo* / *Type*	Dimensiones mm. / *Dimensões mm.* / Dimensions mm.		
	E	**I**	**L**
B 0911	11	9	22
B 1114	14	11	28
B 1419	19	14	40
B 1924	24	19	50
B 2428	28	24	60
B 2838	38	28	70
BS 0914	14	9	26
BS 1119	19	11	35
BS 1424	24	14	40
BS 1928	28	19	40
BS 2438	38	24	70

Notas : los casquillos en acero se suministran con llave.
Nota: As buchas em aço são fornecidas completas com chavetas.
Note: The metal shaft sleeves are supplied complete with keys.