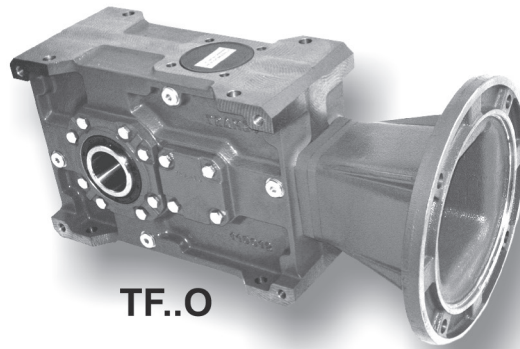
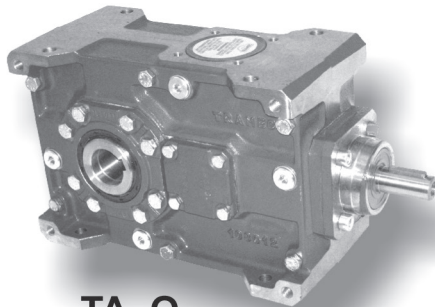


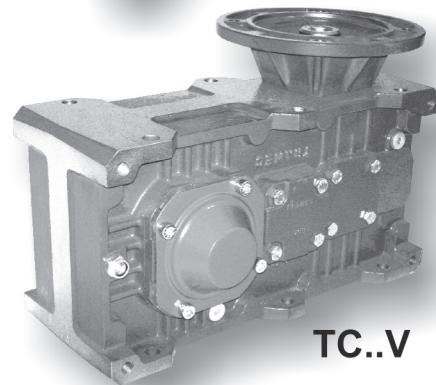
| 2.0 | REDUCTOR DE EJES ORTOGONALES | BEVEL HELICAL GEARBOX | REDUCTEUR A ARBRES ORTHOGONAUX |
|------|---------------------------------|------------------------------------|--------------------------------|
| 2.1 | Características | <i>Characteristics</i> | Caractéristiques 12 |
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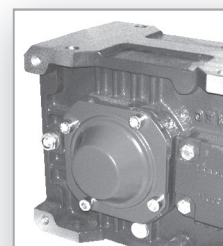
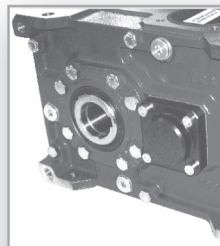
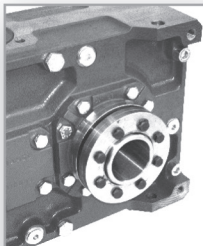
TF..O

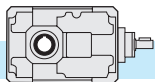


TA..O



TC..V





2.1 Características

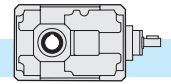
- Construidos en 10 tamaños de 2 reducciones y en 9 tamaños de 3 reducciones.
- Disponibles entres tipos distintos de entrada: con eje de entrada macho, con predisposición para acoplar motor (campana y acoplamiento) y con predisposición COMPACTA para acoplar motor, a excepción de los tamaños 56, 63 y 75. Los tres tipos de entrada pueden ser montados indistintamente en las ejecuciones vertical y/o horizontal.
- Las carcasas de los reductores son EN AL - AISi9Cu - AL - AISi7 UNI EN 1706 (56-63-75), en fundición maleable EN GJL 200 UNI EN 1561 (71-180) o en fundición esferoidal EN GJS 400-15U UNI EN 1563 (200-225), nervada interior y exteriormente con el objetivo de garantizar la rigidez, mecanizados en todas las caras a fin de facilitar el posicionamiento y montaje. La única cámara de lubricación garantiza una mayor disipación térmica y mejor lubricación de todos los componentes.
- Los engranajes están fabricados con acero aleado por cementación y están sometidos al tratamiento de cementación y templado. En particular, la primera reducción está constituida por dos engranajes cónicos con dentado espiroidal GLEASON con perfil cuidadosamente rodado, de acero 16NiCr4 o 18NiCrMo5 cementados y templados. Los engranajes cilíndricos, de dentado helicoidal, están fabricados de acero 16NiCr4, 18NiCrMo5 o 20MnCr5 UNI EN 10084 cementados o templados, rectificadas dentro de la clase de calidad 6 de la DIN 3962.
- La utilización de los cojinetes de rodillos cónicos de calidad en todos los ejes (a excepción del manguito en entrada en la predisposición para acoplar motor compacta, el cual está sostenido por dos cojinetes oblicuos de bola) permite al reductor obtener una mayor duración y soportar cargas radiales y axiales externas muy elevadas.
- El eje lento hueco de serie de acero (disponible bajo pedido con anillo de fijación), da la posibilidad de montar una brida en salida en uno o en ambos lados laterales y la predisposición para el montaje del dispositivo anti-retorno, exaltan la versatilidad de estos reductores facilitando su instalación.
- La carcasa del reductor, las bridas, las campanas y las cubiertas están barnizadas exteriormente de color AZUL RAL 5010, a excepción de los reductores ortogonales de los tamaños 56, 63 y 75, realizados en aluminio.

2.1 Characteristics

- *Built in 10 sizes with 2 reduction stages and in 9 sizes with 3 reduction stages.*
- *Three input types are available : projecting input shaft, pre-engineered motor coupling (bell and joint) and pre-engineered COMPACT motor coupling. (Size 56, 63 and 75 excluded). The 3 input types can be mounted either vertically and/or horizontally.*
- *Gear unit casing in aluminium alloy EN AL - AISi9Cu - AL - AISi7 UNI EN 1706 (56-63-75), in engineering cast iron, EN GJL 200 UNI EN 1561 (71-180) or spheroidal graphite cast iron EN GJS 400-15U UNI EN 1563 (200-225), is ribbed internally and externally to guarantee rigidity. It is machined on all surfaces for easy positioning. The single lubrication chamber guarantees improved heat dissipation and improved lubrication of all the internal components.*
- *The gears are built in casehardened compound steel and have undergone case-hardening and quench-hardening treatments. In particular, the first reduction stage consists of two GLEASON spiral bevel gears with precision ground profile, in 16CrNi4 or 18NiCrMo5 case-hardened and quench-hardened steel. The helical spur gears are built in 16NiCr4, 18NiCrMo5 or 20MnCr5 UNI EN 10084 quench-hardened and case-hardened steel, grinded in quality 6 DIN 3962.*
- *The use of high-quality tapered roller bearings on all shafts (except for the input sleeve on the pre-engineered compact motor coupling, which is supported by angular ball bearings) ensures long life and enables very high external radial and axial loads.*
- *The standard hollow output shaft made of steel (shrink disc available on request), the option of mounting an output flange on one or both sides and the possibility of mounting a backstop device make these gear units extremely versatile and easy to install.*
- *Gearbox housing, flanges, bells and covers are externally painted with BLUE RAL 5010, except for bevel helical gearboxes size 56, 63 and size 75 which are made in aluminium.*

2.1 Caractéristiques

- Fabricados en 10 tallas para dos trains de reducción et en 9 tallas para trois trains de réduction.
- Trois types d'entrées sont prévues : avec arbre d'entrée dépassant, avec predisposition pour accouplement moteur (cloche et joint) et predisposition pour accouplement moteur COMPACT, excepté la taille 56, 63 et 75. Les trois types d'entrée peuvent être montées indifféremment dans la version verticale et/ou horizontale.
- Le corps du réducteur en aluminium EN AL - AISi9Cu - AL - AISi7 UNI EN 1706 (56-63-75), en fonte mécanique EN GJL 200 UNI EN 1561 (71-180) ou en fonte sphéroïdale EN GJS 400-15 U UNI EN 1563 (200-225), équipé de nombreuses nervures à l'intérieur aussi bien qu'à l'extérieur, qui en assurent la rigidité, est usiné sur toutes les faces pour en permettre un positionnement plus aisé ; une seule chambre de graissage assure également une dissipation thermique supérieure ainsi qu'une meilleure lubrification de tous les organes internes.
- Les engrenages sont fabriqués en acier allié de cémentation et soumis au traitement de durcissement par trempage. Notamment le premier train se compose de deux engrenages coniques à denture hélicoïdale GLEASON - avec rodage de précision du profil - en acier 16CrNi4 ou 18NiCrMo5 cimentés et trempés. Les engrenages cylindriques, à denture hélicoïdale, sont construits en acier 16NiCr4, 18NiCrMo5 ou 20MnCr5 UNI EN 10084 cimentés et trempés, rectifiés dans le cadre de la classe de qualité 6 de la norme DIN 3962.
- L'utilisation de roulements à galets coniques haut de gamme sur tous les arbres (à l'exception du manchon en entrée dans la predisposition compacte d'accouplement moteur, lequel est soutenu par les roulements à billes et contact oblique) assure au réducteur une longévité supérieure, même en supportant des charges radiales et axiales extérieures très élevées.
- L'arbre creux de sortie standard en acier (disponible sur demande avec frette de serrage), la possibilité de monter une brida de sortie sur l'un ou les deux cotés et la predisposition pour le montage d'un dispositif anti-dévireur, élèvent la polyvalence de ces réducteurs et en facilitent l'installation.
- Le corps réducteur, les bridas, les cloches et les couvercles sont peints à l'extérieur en BLEU RAL 5010, à l'exception des réducteurs orthogonaux des tallas 56, 63 et 75, réalisés en aluminium.



2.2 Nomenclatura

2.2 Designation

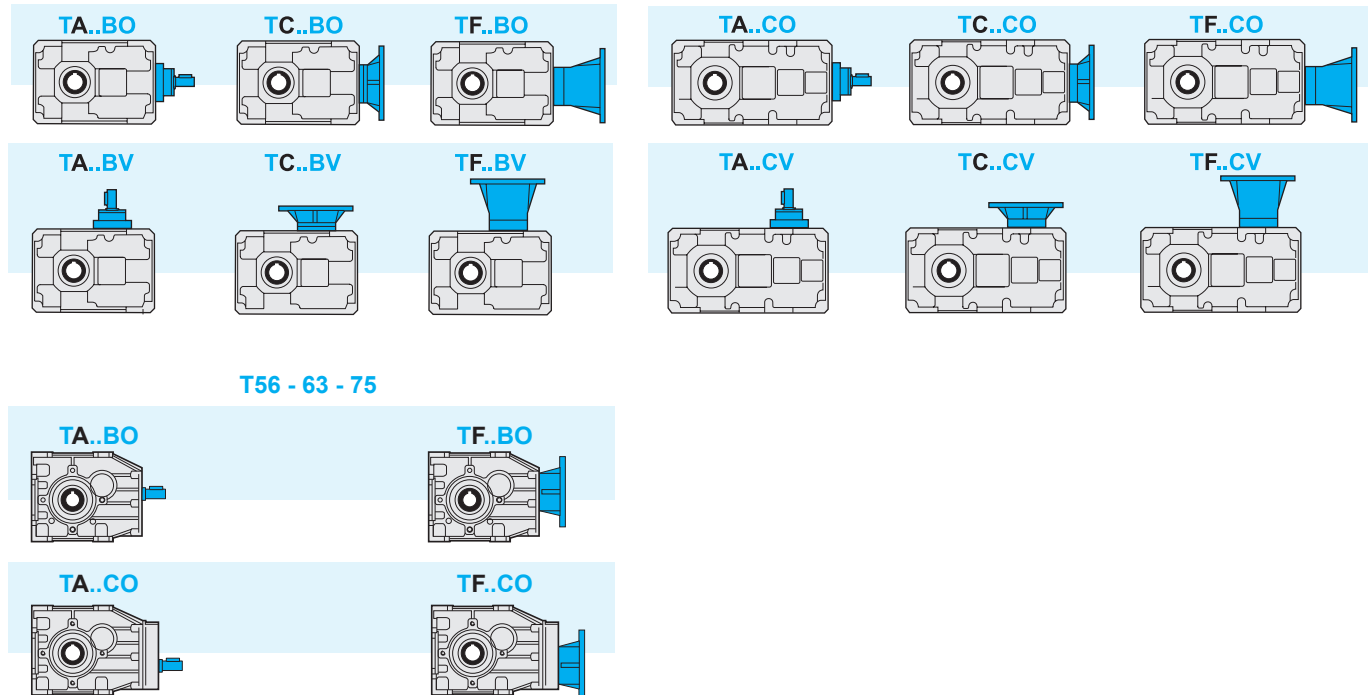
2.2 Désignation

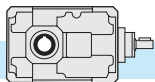
| Reductor Gearbox Réducteur | Tipo de entrada Input type Type d'entrée | Tamaño Size Taille | Rotación Gearing Trains de réduction | Relación de reducción Ratio Rapport de réduction | Predisposición Motor coupling Prédisposition | Eje hueco de salida Hollow output shaft Arbre de sortie creux | Entrada suplementaria Additional input Entrée supplémentaire | Ejecución Execution Exécution | Posición de montaje Mounting position Position de montage | Brida de salida Output flange Bride de sortie | Anti-retorno Back-stop device Anti-dévireur | Anillo de fijación Shrink disk Frette de serrage |
|---|--|---|--|--|--|---|--|-------------------------------------|---|---|---|--|
| T | A | 112 | B | 10 | P.A.M. | - | S.e.A. | O | B3 | FLS | CW | C.S. |
| Reductores con ejes ortogonales Bevel helical gearbox Réducteurs à arbres orthogonaux | A | 56 63 71 75 90 112 140 180 200 225 | B | $i_n =$ 5 ... 630 | 56 ... 225 | (1) | A | O | B3 B6 B7 B8 VA VB | FLS | AW | C.S. |
| | C | 56 63 75 80 100 125 160 180 200 | C | | | | C | V | | FLD | CW | C.D. |
| F | | | | | | | F | | | FL2 | | |

(1) Indique el diámetro del eje hueco **solo** si no es estándar.
Es.: T A 112 B 10 90 O B3 40

(1) Diameter of the hollow output shaft to be specified **only** if it is not standard.
Ex.: T A 112 B 10 90 O B3 40

(1) Spécifiez le diamètre de l'arbre creux **uniquement** s'il n'est pas standard.
Es.: T A 112 B 10 90 O B3 40





2.3 Sentido de rotación de los ejes

En los reductores de ejecución horizontal, para obtener el sentido de rotación contrario al catálogo del eje lento manteniendo si varias el sentido de rotación del eje rápido, bastar con girar el reductor 180° entorno al eje rápido, utilizando en la práctica el plano de fijación opuesto.

En los reductores de ejecución vertical es posible proporcionar el sentido de rotación contrario al catálogo especificándolo en el momento del pedido.

2.3 Direction of shaft rotation

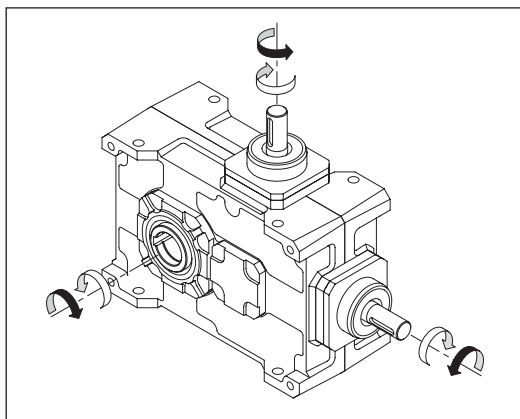
With regard to horizontal mounted gearboxes, in order to get output rotation in a direction opposite to that given in the catalogue, nevertheless keeping input rotation direction unchanged, simply turn the gearbox 180° around the input shaft; in practice, mount the other way up.

Vertical units can be supplied with rotation direction opposite to that given in the catalogue; specify when ordering.

2.3 Sens de rotation des arbres

Dans les réducteurs version horizontale, pour obtenir le sens de rotation de l'arbre de sortie contraire à celui du catalogue tout en gardant le sens de rotation de l'arbre d'entrée inchangé, il suffit de tourner le réducteur de 180° autour de l'arbre d'entrée, en utilisant, dans la pratique, le plan de fixation opposé.

Quant aux réducteurs version verticale, pour obtenir le sens de rotation contraire à celui du catalogue, il faut le préciser lors de la commande.



Sentido de rotación estándar
Standard direction of rotation
Sens de rotation standard

2.4 Entrada suplementaria

El eje de entrada puede ser montado en la posición horizontal (O) o vertical (V), excepto los tamaños 56, 63 y 75. El cambio de versión puede ser fácilmente realizado también tras el primer montaje. Excepto los tamaños 56, 63 y 75, existe la posibilidad de montar una segunda entrada escogiéndola, en base a las necesidades, entre las previstas: TA, TC, TF.

En este caso es necesario definir la versión del reductor con la entrada principal y especificar por tanto la segunda entrada.

2.4 Additional input

The input shaft can be mounted either horizontally (O) or vertically (V) on all sizes except for 56, 63 and 75. The version can be easily changed even after the first assembly.

Except for sizes 56, 63 and 75, there is the possibility of mounting a second input; the available options are TA, TC, TF.

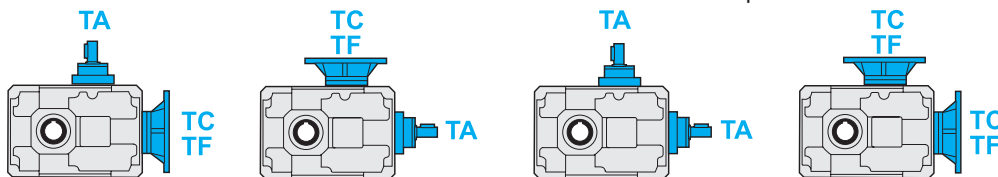
Both the main input and the additional second input shall be specified when ordering.

2.4 Entrée Supplémentaire

L'arbre d'entrée peut être monté dans la position horizontale (O) ou verticale (V), à l'exception des tailles 56, 63 et 75. La modification de la version peut se faire facilement même après le premier assemblage.

Excepté la taille 56, 63 et 75, il y a la possibilité de monter l'entrée supplémentaire et de la sélectionner sur la base des nécessités parmi les suivantes : TA, TC, TF.

Dans ce cas il faut définir la version du réducteur avec l'entrée principale et préciser la deuxième entrée.



2.5 Rendimiento

El valor de rendimiento de los reductores puede ser estimado con suficiente aproximación en base al número de reducciones, ignorando las variaciones no significativas atribuibles a los distintos tamaños y relaciones.

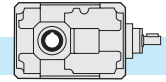
2.5 Efficiency

The efficiency value of the gear units can be estimated sufficiently well on the basis of the number of reduction stages, ignoring non-significant variations which can be attributed to the various sizes and ratios.

2.5 Rendement

La valeur du rendement des réducteurs peut être calculée avec précision si on considère les trains de réduction et les variations non-significatives que l'on peut attribuer aux différentes tailles et rapports.

| | | |
|--------|-------|-------|
| η | T...B | T...C |
| | 0.95 | 0.93 |



2.6 Velocidad de entrada

Todas las prestaciones de los reductores son calculadas en base a una velocidad de entrada de 1400 min⁻¹.

Todos los reductores admiten velocidades hasta 3000 min⁻¹, sin embargo aconsejamos, donde la aplicación lo permita, utilizar frecuencias menores a 1400 min⁻¹.

En la tabla siguiente, se encuentran los coeficientes correctivos de la potencia en entrada P a las varias velocidades referidas a FS = 1

Tab. 1

| n ₁ (rpm) | 3000 | 2800 | 2200 | 1800 | 1400 | 900 | 700 | 500 |
|----------------------|---------|---------|----------|----------|-------|---------|----------|----------|
| P _c (kW) | P x 1.9 | P x 1.8 | P x 1.48 | P x 1.24 | P x 1 | P x 0.7 | P x 0.56 | P x 0.42 |

2.7 Potencia térmica

Los valores de las potencias térmicas P₁₀ (kW) se detallan en la siguiente tabla en función del tamaño, de la relación y de la de la velocidad de rotación de entrada del reductor.

Los valores se calculan considerando el uso de aceite sintético ISO 320.

Véase apartado 1.4 para la elección de los factores de corrección.

2.6 Input speed

All calculations of gear unit performance are based on an input speed of 1400 min⁻¹. All gear units permit speed up to 3000 min⁻¹, nevertheless it is advisable to keep below 1400 min⁻¹, depending on application.

The table below reports input power P corrective coefficients at the various speeds, with F_s = 1.

2.7 Thermal power

The following table shows the values of thermal power P₁₀ (kW) for each gearbox size on the basis of ratio and input speed.

The values have been calculated considering the utilization of synthetic oil ISO 320.

See chapter 1.4 for the corrective coefficients.

2.6 Vitesse d'entrée

Toutes les performances des réducteurs sont calculées sur la base d'une vitesse d'entrée de 1400 min⁻¹.

Tous les réducteurs admettent des vitesses jusqu'à 3000 min⁻¹ même s'il est conseillé d'utiliser des valeurs inférieures à 1400 min⁻¹, pour les applications qui le permettent.

Dans le tableau ci-dessous figurent les coefficients de correction de la puissance en entrée P aux différentes vitesses, se référant à F_s = 1.

2.7 Puissance thermique

La valeur de la puissance thermique P₁₀ (kW), relative à la taille de chaque réducteur orthogonal est indiquée dans le tableau suivant sur la base de la vitesse de rotation à l'entrée du réducteur.

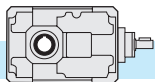
Les valeurs sont calculées en considérant l'utilisation d'huile synthétique ISO 320.

Voir paragraphe 1.4 pour le choix des facteurs correctifs.

| Potencia térmica / Thermal power / Puissance thermique P ₁₀ [kW] | | | | | | | | | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| i _n | T56B | | T63B | | T75B | | T63B | | T90B | | T112B | | T140B | | T180B | | T200B | | T225B | |
| | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 |
| 8 | | | | | | | - | - | - | - | - | - | - | - | - | - | 48.3 | 45.4 | 59 | 48 |
| 10 | 4 | 3.4 | 5.5 | 4.7 | 5.6 | 4.8 | 4 | 6.3 | 10.8 | 17 | 32 | 43.3 | 42 | 55 | 45.8 | | | | | |
| 12.5 | | | | | | | 3.7 | 5.8 | 10 | 15.5 | 28.7 | 39 | 38.5 | 49 | 41.5 | | | | | |
| 16 | | | | | | | 3.3 | 5.2 | 9 | 14 | 25.8 | | | | | 33.8 | | | | 37 |
| 18* | - | - | - | - | - | - | - | - | - | - | 12.9 | 24.6 | | | | | | | | |
| 20 | | | | | | | 2.8 | 4.4 | 7.7 | 11.8 | 23.5 | | | | | 30.8 | | | | 35 |
| 25 | 4 | 3.4 | 5.5 | 4.7 | 5.6 | 4.8 | 2.7 | 4.2 | 7.3 | 11 | 21.6 | | | | | 28.6 | | | | 32.3 |
| 31.5 | | | | | | | 2.5 | 3.9 | 6.8 | 10.4 | 20 | | | | | 25.6 | | | | 27.7 |
| 35* | - | - | - | - | - | - | - | - | - | - | 10 | 19 | | | | | | | | |
| 40 | | | | | | | 2.3 | 3.6 | 6.3 | 9.5 | 18 | | | | | 23.9 | | | | 25.8 |
| 50 | 4 | 3.4 | 5.5 | 4.7 | 5.6 | 4.8 | 1.9 | 3 | 4.7 | 7.6 | 11.3 | | | | | 17.4 | | | | - |
| 63 | | | | | | | 1.8 | 2.8 | 4.4 | 7.3 | 10.7 | | | | | 16.6 | | | | - |
| 70* | - | - | - | - | - | - | - | - | - | - | 7 | 10.3 | | | | | | | | - |
| 80 | | | | | | | 1.7 | 2.6 | 4.2 | 6.8 | 10 | | | | | | | | | - |

| Potencia térmica / Thermal power / Puissance thermique P ₁₀ [kW] | | | | | | | | | | | | | | | | | | | |
|---|------|------|------|------|------|------|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|
| i _n | T56C | | T63C | | T75C | | T80C | | T100C | | T125C | | T160C | | T180C | | T200C | | |
| | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | 1400 | 2800 | |
| 40 | | | | | - | - | - | - | - | - | - | - | - | - | - | - | - | 32 | 34.2 |
| 50 | | | | | | | 3.6 | 5.8 | 9.7 | 16.8 | 18.2 | 21 | 23.3 | 30.7 | 32.6 | | | | |
| 63 | | | | | | | 3.4 | 5.3 | 9 | 15.5 | 17 | 19.5 | 21.6 | 28.5 | 30 | | | | |
| 80 | | | | | | | 3.2 | 5 | 8.6 | 14.6 | 16 | 18.4 | 20.4 | 26.4 | 27.7 | | | | |
| 100 | 3.3 | 2.8 | 4.2 | 3.6 | 4.3 | 3.7 | 2.9 | 4.5 | 7.7 | 13 | 14 | 17 | 18.4 | 24.8 | 27 | | | | |
| 125 | | | | | | | 2.7 | 4.2 | 7.3 | 12.3 | 13.2 | 15.6 | 17 | 23.3 | 25.3 | | | | |
| 160 | | | | | | | 2.6 | 4 | 7 | 11.7 | 12.5 | 14.7 | 16 | 21.8 | 23.5 | | | | |
| 200 | | | | | | | 2.5 | 4 | 6.6 | 11 | 12 | 13.6 | 14.7 | 16 | 17.5 | | | | |
| 225* | - | - | - | - | - | - | - | - | - | 6 | 10.2 | 11 | - | - | - | - | | | |
| 250 | 3.3 | 2.8 | 4.2 | 3.6 | 4.3 | 3.7 | 2.2 | 3.3 | 5.3 | 9.3 | 10 | 12 | 12.8 | 15.3 | 16.7 | | | | |
| 315 | | | | | | | 2 | 3.2 | 5.2 | 9 | 9.7 | 11.4 | 12.3 | 14.6 | 15.8 | | | | |
| 400 | | | | | | | 2 | 3 | 5 | 8.6 | 9.3 | 10.7 | 11.5 | | | | | | |
| 450* | | | | | | | - | - | 4.9 | 8.3 | 9 | | | | | | | | |
| 500 | | | | | | | 2 | 3 | 4.7 | 8 | 8.6 | | | | | | | | |
| 550* | | | | | | | - | - | 4.7 | 7.9 | 8.5 | | | | | | | | |
| 630 | | | | | | | 2 | 3 | 4.6 | 7.8 | 8.4 | | | | | | | | |

* Relaciones especiales / Special ratios / Rapports spéciaux



2.8 Datos técnicos

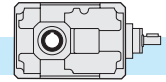
2.8 Technical data

2.8 Données techniques

| T | n ₁ = 1400 | | | TC - TF | | | | TA | |
|------------|-----------------------|--------|-----------------------|----------------------|----------|-----|---------------|-----------------------|---------|
| | in | ir | n ₂ rpm | T ₂ Nm | P1 kW | FS' | IEC | T _{2M} Nm | P kW |
| 56B | 8 | 8.06 | 174 | 94 | 1.8 | 1.2 | 56 | 110 | 2.1 |
| | 10 | 10.17 | 138 | 120 | 1.8 | 1.0 | 63 | 120 | 1.8 |
| | 12.5 | 12.31 | 114 | 120 | 1.5 | 1.1 | (B5) | 130 | 1.6 |
| | 16 | 15.00 | 93 | 107 | 1.1 | 1.3 | 71 | 140 | 1.4 |
| | 20 | 20.33 | 69 | 140 | 1.1 | 1.0 | 80 | 140 | 1.1 |
| | 25 | 24.62 | 57 | 140 | 0.9 | 1.0 | 90 | 140 | 0.90 |
| | 31.5 | 30.00 | 47 | 107 | 0.55 | 1.3 | (B5) (B14) | 140 | 0.70 |
| | 40 | 39.38 | 36 | 140 | 0.55 | 1.0 | TF | 140 | 0.55 |
| | 50 | 48.00 | 29 | 115 | 0.37 | 1.2 | TF | 140 | 0.45 |
| 56C | 40 | 40.28 | 35 | 140 | 0.55 | 1.0 | 56 | 140 | 0.55 |
| | 50 | 50.83 | 28 | 119 | 0.37 | 1.2 | 63 | 140 | 0.45 |
| | 63 | 61.54 | 23 | 140 | 0.37 | 1.0 | (B5) | 140 | 0.37 |
| | 80 | 75.00 | 19 | 119 | 0.25 | 1.2 | 71 | 145 | 0.30 |
| | 100 | 101.67 | 14 | 145 | 0.22 | 1.0 | 80 | 145 | 0.22 |
| | 125 | 123.08 | 11 | 141 | 0.18 | 1.0 | 90 | 145 | 0.19 |
| | 160 | 150.00 | 9 | 124 | 0.13 | 1.2 | (B5) (B14) | 145 | 0.15 |
| | 200 | 196.92 | 7 | 136 | 0.11 | 1.1 | TF | 145 | 0.12 |
| | 250 | 240.00 | 6 | 135 | 0.09 | 1.0 | TF | 135 | 0.09 |
| 63B | 8 | 7.94 | 176 | 93 | 1.8 | 1.7 | 56 | 155 | 3.0 |
| | 10 | 10.18 | 138 | 119 | 1.8 | 1.4 | 63 | 170 | 2.6 |
| | 12.5 | 12.50 | 112 | 146 | 1.8 | 1.3 | (B5) | 185 | 2.3 |
| | 16 | 15.88 | 88 | 185 | 1.8 | 1.0 | 71 | 185 | 1.8 |
| | 20 | 20.36 | 69 | 200 | 1.5 | 1.0 | 80 | 200 | 1.5 |
| | 25 | 25.00 | 56 | 180 | 1.1 | 1.1 | 90 | 200 | 1.2 |
| | 31.5 | 31.00 | 45 | 181 | 0.9 | 1.1 | (B5) (B14) | 200 | 1.0 |
| | 40 | 40.00 | 35 | 194 | 0.75 | 1.0 | TF | 200 | 0.80 |
| | 50 | 49.60 | 28 | 177 | 0.55 | 1.0 | TF | 200 | 0.60 |
| 63 | 60.80 | 23 | 146 | 0.37 | 1.0 | TF | 170 | 0.40 | |
| 63C | 40 | 39.71 | 35 | 194 | 0.75 | 1.0 | 56 | 200 | 0.80 |
| | 50 | 50.89 | 28 | 178 | 0.55 | 1.2 | 63 | 210 | 0.65 |
| | 63 | 62.50 | 22 | 210 | 0.55 | 1.0 | (B5) | 210 | 0.55 |
| | 80 | 79.41 | 18 | 186 | 0.37 | 1.1 | 71 | 210 | 0.42 |
| | 100 | 101.79 | 14 | 161 | 0.25 | 1.3 | 80 | 210 | 0.33 |
| | 125 | 125.00 | 11 | 198 | 0.25 | 1.0 | 90 | 210 | 0.26 |
| | 160 | 155.00 | 9 | 210 | 0.22 | 1.0 | (B5) (B14) | 210 | 0.22 |
| | 200 | 200.00 | 7 | 165 | 0.13 | 1.3 | TF | 210 | 0.17 |
| | 250 | 248.00 | 6 | 200 | 0.13 | 1.0 | TF | 200 | 0.13 |
| 315 | 304.00 | 5 | 180 | 0.09 | 1.0 | TF | 180 | 0.09 | |
| 75B | 8 | 7.87 | 178 | 204 | 4.0 | 1.2 | 71 | 245 | 4.8 |
| | 10 | 9.82 | 143 | 254 | 4.0 | 1.1 | 80 | 279 | 4.4 |
| | 12.5 | 12.67 | 110 | 330 | 4.0 | 1.0 | 90 | 330 | 4.0 |
| | 16 | 15.43 | 91 | 299 | 3.0 | 1.1 | 100 | 329 | 3.3 |
| | 20 | 19.38 | 72 | 277 | 2.2 | 1.3 | 112 | 360 | 2.9 |
| | 25 | 25.00 | 56 | 356 | 2.2 | 1.0 | (B5) (B14) | 356 | 2.2 |
| | 31.5 | 30.45 | 46 | 355 | 1.8 | 1.1 | TF | 391 | 2.0 |
| | 40 | 40.00 | 35 | 285 | 1.1 | 1.3 | TF | 371 | 1.4 |
| | 50 | 48.73 | 29 | 344 | 1.1 | 1.1 | TF | 378 | 1.2 |

| T | n ₁ = 1400 | | | TC - TF | | | | TA | |
|-------------|-----------------------|--------|-----------------------|----------------------|----------|-------|---------------|-----------------------|---------|
| | in | ir | n ₂ rpm | T ₂ Nm | P1 kW | FS' | IEC | T _{2M} Nm | P kW |
| 75C | 50 | 49.08 | 29 | 330 | 1.1 | 1.0 | 63 | 330 | 1.1 |
| | 63 | 63.33 | 22 | 303 | 0.75 | 1.1 | (B5) | 333 | 0.8 |
| | 80 | 77.15 | 18 | 271 | 0.55 | 1.3 | 71 | 352 | 0.70 |
| | 100 | 96.88 | 14 | 350 | 0.55 | 1.0 | 80 | 350 | 0.55 |
| | 125 | 125.00 | 11 | 299 | 0.37 | 1.2 | 90 | 359 | 0.44 |
| | 160 | 152.27 | 9 | 247 | 0.25 | 1.4 | (B5) (B14) | 346 | 0.35 |
| | 200 | 200.00 | 7 | 317 | 0.25 | 1.2 | TF | 380 | 0.30 |
| | 250 | 243.64 | 6 | 370 | 0.25 | 1.0 | TF | 370 | 0.25 |
| | 71B | 10 | 10.25 | 137 | 120 | 1.8 | 1.9 | 63 | 230 |
| 12.5 | | 13.05 | 107 | 152 | 1.8 | 1.6 | 71 | 240 | 2.8 |
| 16 | | 15.63 | 90 | 182 | 1.8 | 1.4 | 80 | 250 | 2.5 |
| 20 | | 19.64 | 71 | 229 | 1.8 | 1.3 | 90 | 290 | 2.3 |
| 25 | | 24.99 | 56 | 243 | 1.5 | 1.2 | (B5) | 280 | 1.7 |
| 31.5 | | 29.95 | 47 | 213 | 1.1 | 1.2 | TC-TF | 260 | 1.3 |
| 40 | | 38.73 | 36 | 226 | 0.9 | 1.1 | 80 | 240 | 1.0 |
| 50 | | 50.18 | 28 | 244 | 0.75 | 1.1 | (B14) | 260 | 0.80 |
| 63 | | 60.13 | 23 | 214 | 0.55 | 1.2 | TC | 260 | 0.70 |
| 80 | 77.76 | 18 | 186 | 0.37 | 1.3 | TC | 240 | 0.50 | |
| 90B | 5* | 4.56 | 307 | 118 | 4 | 1.8 | 71 | 210 | 7.2 |
| | 6.3* | 6.26 | 224 | 162 | 4 | 1.8 | 80 | 290 | 7.2 |
| | 10 | 10.25 | 137 | 266 | 4 | 1.8 | 90 | 480 | 7.2 |
| | 12.5 | 13.05 | 107 | 338 | 4 | 1.6 | 100 | 530 | 6.3 |
| | 16 | 15.63 | 90 | 405 | 4 | 1.4 | 112 | 550 | 5.4 |
| | 20 | 19.64 | 71 | 509 | 4 | 1.2 | (B5) | 620 | 4.9 |
| | 25 | 24.99 | 56 | 630 | 4 | 1.0 | TC-TF | 630 | 4.0 |
| | 31.5 | 29.95 | 47 | 560 | 3 | 1.0 | 90* | 560 | 3.0 |
| | 40 | 38.73 | 36 | 452 | 1.8 | 1.1 | (B14) | 500 | 2.0 |
| 50 | 50.18 | 28 | 488 | 1.5 | 1.1 | TC | 550 | 1.7 | |
| 63 | 60.13 | 23 | 570 | 1.5 | 1.0 | TC | 570 | 1.5 | |
| 80 | 77.76 | 18 | 454 | 0.9 | 1.1 | TC | 505 | 1.0 | |
| 80C | 50 | 52.18 | 27 | 596 | 1.8 | 1.1 | 63 | 660 | 2.0 |
| | 63 | 62.53 | 22 | 595 | 1.5 | 1.1 | 71 | 680 | 1.7 |
| | 80 | 79.58 | 18 | 555 | 1.1 | 1.3 | 80 | 710 | 1.4 |
| | 100 | 99.97 | 14 | 698 | 1.1 | 1.1 | 90 | 740 | 1.2 |
| | 125 | 119.78 | 12 | 684 | 0.9 | 1.1 | (B5) | 740 | 1.0 |
| | 160 | 152.45 | 9 | 532 | 0.55 | 1.3 | TC-TF | 680 | 0.70 |
| | 200 | 182.67 | 8 | 637 | 0.55 | 1.1 | 80 | 700 | 0.60 |
| | 250 | 240.51 | 6 | 565 | 0.37 | 1.3 | (B14) | 750 | 0.49 |
| | 315 | 306.11 | 5 | 719 | 0.37 | 1.0 | TC | 740 | 0.38 |
| 400 | 366.78 | 4 | 582 | 0.25 | 1.2 | TC | 700 | 0.30 | |
| 500 | 474.35 | 3 | 660 | 0.22 | 1.0 | TC | 660 | 0.22 | |
| 630 | 613.46 | 2 | 506 | 0.13 | 1.2 | TC | 620 | 0.16 | |
| 112B | 5* | 4.86 | 288 | 290 | 9.2 | 1.5 | 80 | 430 | 13.9 |
| | 10 | 10.25 | 137 | 611 | 9.2 | 1.5 | 90 | 920 | 13.9 |
| | 12.5 | 13.05 | 107 | 778 | 9.2 | 1.3 | 100 | 1000 | 11.8 |
| | 16 | 15.63 | 90 | 932 | 9.2 | 1.2 | 112 | 1100 | 10.9 |
| | 20 | 19.64 | 71 | 1171 | 9.2 | 1.0 | 132 | 1190 | 9.4 |
| | 25 | 24.99 | 56 | 1215 | 7.5 | 1.1 | (B5) | 1280 | 7.9 |
| | 31.5 | 29.95 | 47 | 1067 | 5.5 | 1.1 | TC-TF | 1220 | 6.3 |
| | 40 | 38.73 | 36 | 1004 | 4 | 1.0 | TC-TF | 1050 | 4.2 |
| | 50 | 50.18 | 28 | 976 | 3 | 1.1 | TC-TF | 1070 | 3.3 |
| 63 | 60.13 | 23 | 857 | 2.2 | 1.3 | TC-TF | 1140 | 2.9 | |
| 80 | 77.76 | 18 | 907 | 1.8 | 1.2 | TC-TF | 1080 | 2.1 | |

- Brida cuadradas / Square flanges / Brides carrées
 - * Relaciones especiales / Special ratios / Rapports spéciaux
- Verificación térmica necesaria / Thermal rating needed /
Contrôle thermique nécessaire



2.8 Datos técnicos

2.8 Technical data

2.8 Données techniques

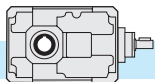
| T | n ₁ = 1400 | | | TC - TF | | | | TA | |
|------|-----------------------|--------|-----------------------|----------------------|----------|------|-------|-----------------------|---------|
| | in | ir | n ₂ rpm | T ₂ Nm | P1 kW | FS' | IEC | T _{2M} Nm | P kW |
| 100C | 50 | 52.18 | 27 | 993 | 3 | 1.3 | | 1300 | 3.9 |
| | 63 | 62.53 | 22 | 1190 | 3 | 1.1 | 71 | 1350 | 3.4 |
| | 80 | 79.58 | 18 | 1111 | 2.2 | 1.3 | 80 | 1410 | 2.8 |
| | 100 | 99.97 | 14 | 1395 | 2.2 | 1.1 | 90 | 1470 | 2.3 |
| | 125 | 119.78 | 12 | 1368 | 1.8 | 1.1 | 100 | 1480 | 1.9 |
| | 160 | 152.45 | 9 | 1064 | 1.1 | 1.3 | 112 | 1360 | 1.4 |
| | 200 | 182.67 | 8 | 1275 | 1.1 | 1.1 | (B5) | 1400 | 1.2 |
| | 250 | 240.51 | 6 | 1330 | 0.90 | 1.1 | | 1500 | 1.0 |
| | 315 | 306.11 | 5 | 1456 | 0.75 | 1.1 | 90• | 1480 | 0.80 |
| | 400 | 366.78 | 4 | 1280 | 0.55 | 1.1 | (B14) | 1400 | 0.60 |
| 500 | 474.35 | 3 | 1113 | 0.37 | 1.3 | | 1360 | 0.50 | |
| 630 | 613.46 | 2 | 973 | 0.25 | 1.2 | TC | 1240 | 0.30 | |
| 140B | 7* | 6.88 | 203 | 983 | 22 | 1.3 | | 1200 | 27.9 |
| | 10 | 10.25 | 137 | 1461 | 22 | 1.3 | | 1850 | 27.9 |
| | 12.5 | 13.05 | 107 | 1860 | 22 | 1.1 | | 2050 | 24.3 |
| | 16 | 15.63 | 90 | 1874 | 18.5 | 1.2 | 80 | 2200 | 21.7 |
| | 18* | 17.43 | 80 | 2098 | 18.5 | 1.1 | 90 | 2300 | 20.3 |
| | 20 | 19.64 | 71 | 2354 | 18.5 | 1.0 | 100 | 2400 | 18.9 |
| | 25 | 24.99 | 56 | 2429 | 15 | 1.0 | 112 | 2540 | 15.7 |
| | 31.5 | 29.95 | 47 | 2135 | 11 | 1.1 | 132 | 2300 | 11.9 |
| | 35* | 33.38 | 42 | 1620 | 7.5 | 1.4 | 160 | 2300 | 10.6 |
| | 40 | 38.73 | 36 | 1882 | 7.5 | 1.2 | 180 | 2210 | 8.8 |
| 50 | 50.18 | 28 | 1789 | 5.5 | 1.2 | (B5) | TC-TF | 2120 | 6.5 |
| 63 | 60.13 | 23 | 2143 | 5.5 | 1.1 | | | 2350 | 6.0 |
| 70* | 67.03 | 21 | 2376 | 5.5 | 1.0 | | | 2400 | 5.5 |
| 80 | 77.76 | 18 | 2016 | 4 | 1.1 | | | 2250 | 4.5 |
| 125C | 50 | 52.18 | 27 | 2483 | 7.5 | 1.1 | | 2650 | 8.0 |
| | 63 | 62.53 | 22 | 2182 | 5.5 | 1.3 | | 2760 | 7.0 |
| | 80 | 79.58 | 18 | 2777 | 5.5 | 1.0 | | 2880 | 5.7 |
| | 100 | 99.97 | 14 | 2537 | 4 | 1.2 | | 3000 | 4.7 |
| | 125 | 119.78 | 12 | 3000 | 4 | 1.0 | 80 | 3000 | 4.0 |
| | 160 | 152.45 | 9 | 2128 | 2.2 | 1.3 | 90 | 2720 | 2.8 |
| | 200 | 182.67 | 8 | 2549 | 2.2 | 1.1 | 100 | 2800 | 2.4 |
| | 225* | 203.63 | 7 | 2284 | 1.8 | 1.1 | 112 | 2580 | 2.0 |
| | 250 | 240.51 | 6 | 2746 | 1.8 | 1.1 | 132 | 3050 | 2.0 |
| | 315 | 306.11 | 5 | 2913 | 1.5 | 1.0 | (B5) | TC-TF | 2960 |
| 400 | 366.78 | 4 | 2560 | 1.1 | 1.1 | | | 2800 | 1.2 |
| 450* | 408.87 | 3 | 2350 | 0.90 | 1.1 | | | 2600 | 1.0 |
| 500 | 474.35 | 3 | 2640 | 0.90 | 1.0 | | | 2640 | 0.90 |
| 550* | 528.78 | 3 | 2562 | 0.75 | 1.1 | | | 2800 | 0.85 |
| 630 | 613.46 | 2 | 2140 | 0.55 | 1.2 | | | 2550 | 0.70 |
| 180B | 10 | 10.25 | 137 | 1993 | 30 | 2.0 | | 3900 | 58.7 |
| | 12.5 | 13.05 | 107 | 2536 | 30 | 1.7 | | 4300 | 50.9 |
| | 16 | 15.63 | 90 | 3039 | 30 | 1.5 | | 4500 | 44.4 |
| | 18* | 17.43 | 80 | 3402 | 30 | 1.4 | 100 | 4800 | 42.5 |
| | 20 | 19.64 | 71 | 3818 | 30 | 1.3 | 112 | 5100 | 40.1 |
| | 25 | 24.99 | 56 | 4859 | 30 | 1.1 | 132 | 5230 | 32.3 |
| | 31.5 | 29.95 | 47 | 4269 | 22 | 1.1 | 160 | 4680 | 24.1 |
| | 35* | 33.38 | 42 | 3996 | 18.5 | 1.2 | 180 | 4650 | 21.5 |
| | 40 | 38.73 | 36 | 3764 | 15 | 1.1 | 200 | 4300 | 17.1 |
| | 50 | 50.18 | 28 | 3577 | 11 | 1.2 | (B5) | TC-TF | 4300 |
| 63 | 60.13 | 23 | 4286 | 11 | 1.1 | | | 4780 | 12.3 |
| 70* | 67.03 | 21 | 3975 | 9.2 | 1.2 | | | 4650 | 10.7 |
| 80 | 77.76 | 18 | 3779 | 7.5 | 1.2 | | | 4380 | 8.7 |

• Brida cuadradas / Square flanges / Brides carrées

* Relaciones especiales / Special ratios / Rapports spéciaux

Verificación térmica necesaria / Thermal rating needed /
Contrôle thermique nécessaire

| T | n ₁ = 1400 | | | TC - TF | | | | TA | | |
|------|-----------------------|--------|-----------------------|----------------------|----------|------|-------|-----------------------|---------|------|
| | in | ir | n ₂ rpm | T ₂ Nm | P1 kW | FS' | IEC | T _{2M} Nm | P kW | |
| 160C | 50 | 52.18 | 27 | 4966 | 15 | 1.0 | | 5130 | 15.5 | |
| | 63 | 62.53 | 22 | 4363 | 11 | 1.2 | | 5350 | 13.5 | |
| | 80 | 79.58 | 18 | 5570 | 11 | 1.0 | | 5570 | 11.0 | |
| | 100 | 99.97 | 14 | 5800 | 9.2 | 1.0 | 80 | 5800 | 9.2 | |
| | 125 | 119.78 | 12 | 5699 | 7.5 | 1.0 | 90 | 5800 | 7.6 | |
| | 160 | 152.45 | 9 | 5319 | 5.5 | 1.0 | 100 | 5470 | 5.7 | |
| | 200 | 182.67 | 8 | 4635 | 4 | 1.2 | 112 | 5560 | 4.8 | |
| | 225* | 203.63 | 7 | 5149 | 4 | 1.1 | 132 | 5600 | 4.5 | |
| | 250 | 240.51 | 6 | 5890 | 4 | 1.0 | 160 | 5890 | 4.0 | |
| | 315 | 306.11 | 5 | 5920 | 3 | 1.0 | 180 | 5826 | 3.0 | |
| 400 | 366.78 | 4 | 5119 | 2.2 | 1.1 | (B5) | TC-TF | 5600 | 2.4 | |
| 450* | 408.87 | 3 | 5747 | 2.2 | 1.0 | | | 5700 | 2.2 | |
| 500 | 474.35 | 3 | 5280 | 1.8 | 1.0 | | | 5280 | 1.8 | |
| 550* | 528.78 | 3 | 5124 | 1.5 | 1.1 | | | 5360 | 1.6 | |
| 630 | 613.46 | 2 | 4281 | 1.1 | 1.2 | | | 4960 | 1.3 | |
| 200B | 8 | 8.14 | 172 | 2370 | 45 | 2.1 | | 5000 | 94.8 | |
| | 10 | 10.43 | 134 | 3050 | 45 | 1.8 | 112 | 5500 | 81.4 | |
| | 12.5 | 12.60 | 111 | 3680 | 45 | 1.6 | 132 | 6000 | 73.5 | |
| | 16 | 15.63 | 90 | 4540 | 45 | 1.4 | 160 | 6500 | 64.2 | |
| | 20 | 17.65 | 79 | 5170 | 45 | 1.3 | 180 | 7100 | 62.1 | |
| | 25 | 24.14 | 58 | 7030 | 45 | 1.0 | 200 | 7150 | 45.7 | |
| | 31.5 | 29.95 | 47 | 7150 | 37 | 1.0 | (B5) | TC-TF | 7250 | 37.4 |
| | 40 | 33.82 | 41 | 6575 | 30 | 1.1 | | | 7300 | 33.3 |
| | 50 | 47.93 | 29 | 6833 | 22 | 1.1 | 225 | 7400 | 23.8 | |
| | 63 | 54.13 | 26 | 6489 | 18.5 | 1.1 | (B5) | TF | 7400 | 21.1 |
| 180C | 50 | 53.11 | 26 | 6234 | 18.5 | 1.1 | | 7240 | 21.0 | |
| | 63 | 63.64 | 22 | 7280 | 18.5 | 1.0 | 80 | 7280 | 18.5 | |
| | 80 | 76.85 | 18 | 7313 | 15 | 1.0 | 90 | 7420 | 15.2 | |
| | 100 | 99.97 | 14 | 6936 | 11 | 1.1 | 100 | 7500 | 11.9 | |
| | 125 | 122.88 | 11 | 7172 | 9.2 | 1.0 | 112 | 7500 | 9.6 | |
| | 160 | 147.23 | 10 | 7005 | 7.5 | 1.1 | 132 | 7550 | 8.1 | |
| | 200 | 190.41 | 7 | 6644 | 5.5 | 1.1 | 160 | 7600 | 6.3 | |
| | 250 | 246.73 | 6 | 6261 | 4 | 1.2 | 180 | 7650 | 4.9 | |
| | 315 | 295.63 | 5 | 7502 | 4 | 1.0 | (B5) | TC-TF | 7700 | 4.1 |
| | 400 | 382.33 | 4 | 7276 | 3 | 1.1 | | | 7950 | 3.3 |
| 225B | 8 | 8.44 | 166 | 2461 | 45 | 3.0 | | 7500 | 137.1 | |
| | 10 | 10.13 | 138 | 2955 | 45 | 2.8 | 132 | 8300 | 126.4 | |
| | 12.5 | 12.45 | 112 | 3630 | 45 | 2.5 | 160 | 9100 | 112.8 | |
| | 16 | 15.93 | 88 | 4644 | 45 | 2.2 | 180 | 10000 | 96.9 | |
| | 20 | 19.13 | 73 | 5577 | 45 | 1.9 | 200 | 10700 | 86.3 | |
| | 25 | 23.49 | 60 | 6850 | 45 | 1.6 | 225 | 11000 | 72.3 | |
| 31.5 | 30.29 | 46 | 8832 | 45 | 1.3 | (B5) | TF | 11000 | 56.6 | |
| 40 | 37.09 | 38 | 10800 | 45 | 1.0 | | | 10800 | 45.0 | |
| 200C | 40 | 42.62 | 33 | 8110 | 30 | 1.3 | | 10900 | 40.3 | |
| | 50 | 51.18 | 27 | 9740 | 30 | 1.1 | 100 | 11000 | 33.9 | |
| | 63 | 62.86 | 22 | 8772 | 22 | 1.3 | 112 | 11350 | 28.5 | |
| | 80 | 76.97 | 18 | 10742 | 22 | 1.0 | 132 | 11050 | 22.6 | |
| | 100 | 98.04 | 14 | 11200 | 18.5 | 1.0 | 160 | 11200 | 18.5 | |
| | 125 | 120.41 | 12 | 11459 | 15 | 1.0 | 180 | 11500 | 15.1 | |
| | 160 | 147.45 | 9 | 10290 | 11 | 1.1 | 200 | 11200 | 12.0 | |
| | 200 | 196.87 | 7 | 11400 | 9.2 | 1.0 | (B5) | TC-TF | 11400 | 9.2 |
| | 250 | 241.79 | 6 | 11504 | 7.5 | 1.0 | | | 11700 | 7.6 |
| | 315 | 296.07 | 5 | 10330 | 5.5 | 1.1 | | | 11850 | 6.3 |



2.9 **Momento de inercia** [Kg·cm²]
(del eje rápido de entrada)

2.9 **Moments of inertia** [Kg·cm²]
(referred to input shaft)

2.9 **Moments d'inertie** [Kg·cm²]
(se rapportant à l'arbre d'entrée)

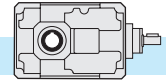
TA..B - TC..B - TF..B

| 56B | i _n | TA | TF | | | | |
|------|----------------|----|--------|------|------|------|------|
| | | | IEC B5 | | | | |
| | | | 56 | 63 | 71 | 80 | 90 |
| 8 | 0.25 | | | 0.32 | 0.40 | 0.60 | 0.77 |
| 10 | 0.22 | | 0.29 | 0.29 | 0.37 | 0.56 | 0.74 |
| 12.5 | 0.20 | | 0.27 | 0.27 | 0.35 | 0.54 | 0.72 |
| 16 | 0.18 | | 0.25 | 0.26 | 0.33 | 0.53 | 0.71 |
| 20 | 0.08 | | 0.15 | 0.15 | 0.22 | 0.42 | 0.60 |
| 25 | 0.07 | | 0.14 | 0.15 | 0.22 | 0.42 | 0.59 |
| 31.5 | 0.07 | | 0.14 | 0.14 | 0.21 | 0.41 | 0.59 |
| 40 | 0.04 | | 0.11 | 0.12 | 0.19 | 0.39 | 0.56 |
| 50 | 0.04 | | 0.11 | 0.11 | 0.19 | 0.39 | 0.56 |

| 63B | i _n | TA | TF | | | | |
|------|----------------|----|--------|------|------|------|------|
| | | | IEC B5 | | | | |
| | | | 56 | 63 | 71 | 80 | 90 |
| 8 | 0.40 | | 0.47 | 0.47 | 0.55 | 0.74 | 0.92 |
| 10 | 0.34 | | 0.41 | 0.42 | 0.49 | 0.69 | 0.87 |
| 12.5 | 0.31 | | 0.38 | 0.38 | 0.45 | 0.65 | 0.83 |
| 16 | 0.16 | | 0.23 | 0.24 | 0.31 | 0.51 | 0.68 |
| 20 | 0.15 | | 0.22 | 0.22 | 0.29 | 0.49 | 0.67 |
| 25 | 0.14 | | 0.21 | 0.21 | 0.29 | 0.48 | 0.66 |
| 31.5 | 0.13 | | 0.20 | 0.21 | 0.28 | 0.48 | 0.65 |
| 40 | 0.07 | | 0.15 | 0.15 | 0.22 | 0.42 | 0.60 |
| 50 | 0.07 | | 0.14 | 0.15 | 0.22 | 0.42 | 0.60 |
| 63 | 0.07 | | 0.14 | 0.15 | 0.22 | 0.42 | 0.59 |

| 75B | i _n | TA | TF | | | |
|------|----------------|----|--------|------|------|---------|
| | | | IEC B5 | | | |
| | | | 71 | 80 | 90 | 100-112 |
| 8 | 1.35 | | 1.70 | 2.10 | 2.01 | 3.05 |
| 10 | 1.21 | | 1.55 | 1.96 | 1.87 | 2.91 |
| 12.5 | 1.05 | | 1.39 | 1.80 | 1.71 | 2.75 |
| 16 | 0.99 | | 1.34 | 1.74 | 1.65 | 2.69 |
| 20 | 0.36 | | 0.71 | 1.11 | 1.02 | 2.06 |
| 25 | 0.32 | | 0.67 | 1.07 | 0.98 | 2.02 |
| 31.5 | 0.30 | | 0.65 | 1.06 | 0.97 | 2.01 |
| 40 | 0.16 | | 0.51 | 0.92 | 0.82 | 1.86 |
| 50 | 0.15 | | 0.50 | 0.91 | 0.82 | 1.86 |

| 71B | i _n | TA | TC | | | | TF | | | |
|------|----------------|----|--------|------|------|------|--------|------|------|------|
| | | | IEC B5 | | | | IEC B5 | | | |
| | | | 63 | 71 | 80 | 90 | 63 | 71 | 80 | 90 |
| 10 | 0.95 | | 1.00 | 1.14 | 1.52 | 1.57 | 1.20 | 1.22 | 1.89 | 2.96 |
| 12.5 | 0.89 | | 0.94 | 1.08 | 1.46 | 1.51 | 1.14 | 1.16 | 1.83 | 2.90 |
| 16 | 0.85 | | 0.91 | 1.05 | 1.43 | 1.47 | 1.11 | 1.12 | 1.80 | 2.87 |
| 20 | 0.38 | | 0.43 | 0.57 | 0.94 | 0.99 | 0.63 | 0.65 | 1.32 | 2.39 |
| 25 | 0.36 | | 0.41 | 0.55 | 0.93 | 0.98 | 0.61 | 0.63 | 1.31 | 2.37 |
| 31.5 | 0.35 | | 0.40 | 0.54 | 0.92 | 0.97 | 0.61 | 0.62 | 1.30 | 2.36 |
| 40 | 0.34 | | 0.39 | 0.53 | 0.91 | 0.96 | 0.60 | 0.61 | 1.29 | 2.35 |
| 50 | 0.19 | | 0.22 | 0.36 | 0.74 | 0.79 | 0.44 | 0.46 | 1.14 | 2.20 |
| 63 | 0.19 | | 0.22 | 0.36 | 0.74 | 0.79 | 0.44 | 0.46 | 1.14 | 2.20 |
| 80 | 0.19 | | 0.22 | 0.36 | 0.74 | 0.79 | 0.44 | 0.46 | 1.13 | 2.20 |









2.9 **Momento de inercia** [Kg·cm²]
(del eje rápido de entrada)




2.9 **Moments of inertia** [Kg·cm²]
(referred to input shaft)

2.9 **Moments d'inertie** [Kg·cm²]
(se rapportant à l'arbre d'entrée)

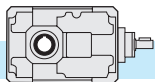
TA..B - TC..B - TF..B

| 90B | i _n | TA  | TC  | | | | TF  | | | |
|------|----------------|--|--|------|------|---------|--|------|------|---------|
| | | | IEC B5 | | | | IEC B5 | | | |
| | | | 71 | 80 | 90 | 110-112 | 71 | 80 | 90 | 110-112 |
| 5* | 4.36 | 4.77 | 4.94 | 5.31 | 6.15 | 5.22 | 5.35 | 6.53 | 8.70 | |
| 6.3* | 3.67 | 4.07 | 4.24 | 4.62 | 5.46 | 4.52 | 4.66 | 5.84 | 8.00 | |
| 10 | 2.77 | 3.18 | 3.35 | 3.73 | 4.57 | 3.63 | 3.77 | 4.94 | 7.11 | |
| 12.5 | 2.60 | 3.01 | 3.18 | 3.56 | 4.40 | 3.46 | 3.60 | 4.77 | 6.94 | |
| 16 | 2.49 | 2.90 | 3.07 | 3.44 | 4.28 | 3.35 | 3.48 | 4.66 | 6.82 | |
| 20 | 1.16 | 1.53 | 1.70 | 2.08 | 2.92 | 2.02 | 2.16 | 3.33 | 5.50 | |
| 25 | 1.12 | 1.49 | 1.66 | 2.04 | 2.88 | 1.98 | 2.11 | 3.29 | 5.45 | |
| 31.5 | 1.09 | 1.46 | 1.63 | 2.00 | 2.84 | 1.94 | 2.08 | 3.25 | 5.42 | |
| 40 | 1.06 | 1.43 | 1.60 | 1.98 | 2.82 | 1.92 | 2.05 | 3.23 | 5.40 | |
| 50 | 0.65 | 0.98 | 1.15 | 1.53 | 2.37 | 1.50 | 1.64 | 2.81 | 4.98 | |
| 63 | 0.64 | 0.97 | 1.14 | 1.52 | 2.36 | 1.50 | 1.63 | 2.81 | 4.97 | |
| 80 | 0.63 | 0.97 | 1.14 | 1.51 | 2.35 | 1.49 | 1.62 | 2.80 | 4.97 | |

| 112B | i _n | TA  | TC  | | | | TF  | | | |
|------|----------------|---|--|-------|---------|-------|--|-------|---------|-----|
| | | | IEC B5 | | | | IEC B5 | | | |
| | | | 80 | 90 | 110-112 | 132 | 80 | 90 | 110-112 | 132 |
| 5* | 12.20 | 13.70 | 13.57 | 14.53 | 17.67 | 14.53 | 14.46 | 16.78 | 30.77 | |
| 10 | 8.51 | 9.44 | 9.31 | 10.26 | 13.40 | 10.84 | 10.77 | 13.09 | 27.08 | |
| 12.5 | 7.67 | 8.60 | 8.47 | 9.42 | 12.56 | 10.00 | 9.93 | 12.25 | 26.24 | |
| 16 | 7.27 | 8.20 | 8.07 | 9.03 | 12.16 | 9.61 | 9.54 | 11.85 | 25.85 | |
| 20 | 3.62 | 4.46 | 4.33 | 5.29 | 8.43 | 5.96 | 5.89 | 8.20 | 22.20 | |
| 25 | 3.39 | 4.23 | 4.10 | 5.06 | 8.20 | 5.73 | 5.66 | 7.97 | 21.97 | |
| 31.5 | 3.29 | 4.13 | 4.00 | 4.95 | 8.09 | 5.62 | 5.55 | 7.87 | 21.86 | |
| 40 | 3.21 | 4.05 | 3.92 | 4.87 | 8.01 | 5.55 | 5.47 | 7.79 | 21.79 | |
| 50 | 1.79 | 2.50 | 2.37 | 3.32 | 6.46 | 4.13 | 4.05 | 6.37 | 20.37 | |
| 63 | 1.77 | 2.47 | 2.35 | 3.30 | 6.44 | 4.10 | 4.03 | 6.34 | 20.34 | |
| 80 | 1.75 | 2.46 | 2.33 | 3.28 | 6.42 | 4.08 | 4.01 | 6.33 | 20.32 | |

| 140B | i _n | TA  | TC  | | | | | | TF  | | | | | |
|------|----------------|--|--|-------|---------|-------|-------|-------|--|-------|---------|-------|-------|-----|
| | | | IEC B5 | | | | | | IEC B5 | | | | | |
| | | | 80 | 90 | 110-112 | 132 | 160 | 180 | 80 | 90 | 110-112 | 132 | 160 | 180 |
| 7* | 29.65 | 30.78 | 30.65 | 30.79 | 33.99 | 38.41 | 41.43 | 31.85 | 34.23 | 34.40 | 49.26 | 51.44 | 96.71 | |
| 10 | 25.04 | 26.17 | 26.04 | 26.18 | 29.38 | 33.80 | 36.82 | 27.23 | 29.62 | 29.79 | 44.65 | 46.83 | 92.10 | |
| 12.5 | 22.28 | 23.41 | 23.28 | 23.42 | 26.62 | 31.05 | 34.06 | 24.48 | 26.86 | 27.04 | 41.90 | 44.08 | 89.34 | |
| 16 | 21.26 | 22.39 | 22.26 | 22.40 | 25.60 | 30.02 | 33.04 | 23.46 | 25.84 | 26.01 | 40.87 | 43.05 | 88.32 | |
| 18* | 20.60 | 21.73 | 21.60 | 21.74 | 24.94 | 29.36 | 32.38 | 22.79 | 25.18 | 25.36 | 40.22 | 42.40 | 87.66 | |
| 20 | 9.17 | 10.13 | 10.00 | 10.14 | 13.34 | 17.76 | 20.78 | 11.37 | 13.75 | 13.92 | 28.78 | 30.97 | 76.23 | |
| 25 | 8.42 | 9.38 | 9.25 | 9.39 | 12.59 | 17.01 | 20.03 | 10.62 | 13.00 | 13.17 | 28.03 | 30.22 | 75.48 | |
| 31.5 | 8.14 | 9.10 | 8.97 | 9.11 | 12.31 | 16.73 | 19.75 | 10.34 | 12.72 | 12.90 | 27.76 | 29.94 | 75.20 | |
| 35* | 7.96 | 8.92 | 8.79 | 8.93 | 12.13 | 16.55 | 19.57 | 10.16 | 12.54 | 12.72 | 24.58 | 29.76 | 75.02 | |
| 40 | 7.92 | 8.87 | 8.74 | 8.88 | 12.08 | 16.51 | 19.52 | 10.11 | 12.49 | 12.67 | 27.53 | 29.71 | 74.98 | |
| 50 | 4.28 | 4.94 | 4.81 | 4.95 | 8.15 | 12.57 | 15.59 | 6.47 | 8.85 | 9.03 | 23.89 | 26.07 | 71.34 | |
| 63 | 4.21 | 4.87 | 4.74 | 4.88 | 8.08 | 12.50 | 15.52 | 6.40 | 8.79 | 8.96 | 23.82 | 26.00 | 71.27 | |
| 70* | 4.17 | 4.82 | 4.69 | 4.83 | 8.03 | 12.45 | 15.47 | 6.36 | 8.74 | 8.92 | 23.78 | 25.96 | 71.22 | |
| 80 | 4.15 | 4.81 | 4.68 | 4.82 | 8.02 | 12.44 | 15.46 | 6.35 | 8.73 | 8.91 | 23.77 | 25.95 | 71.21 | |

* Relaciones especiales / Special ratios / Rapports spéciaux



2.9 **Momento de inercia** [Kg·cm²]
(del eje rápido de entrada)

2.9 **Moments of inertia** [Kg·cm²]
(referred to input shaft)

2.9 **Moments d'inertie** [Kg·cm²]
(se rapportant à l'arbre d'entrée)

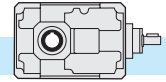
TA..B - TC..B - TF..B

| 180B | i _n | TA | TC | | | | | TF | | | | |
|------|----------------|-------|---------|-------|-------|-------|-------|---------|--------|--------|--------|-----|
| | | | IEC B5 | | | | | IEC B5 | | | | |
| | | | 100-112 | 132 | 160 | 180 | 200 | 100-112 | 132 | 160 | 180 | 200 |
| 10 | 78.24 | 80.83 | 86.51 | 85.51 | 88.42 | 98.81 | 97.86 | 99.23 | 101.41 | 150.52 | 147.05 | |
| 12.5 | 68.84 | 71.43 | 77.11 | 76.11 | 79.02 | 89.41 | 88.46 | 89.82 | 92.01 | 141.12 | 137.65 | |
| 16 | 66.22 | 68.81 | 74.49 | 73.49 | 76.40 | 86.79 | 85.84 | 87.20 | 89.38 | 138.50 | 135.03 | |
| 18* | 64.77 | 67.36 | 73.04 | 72.04 | 74.95 | 85.34 | 84.39 | 85.75 | 87.94 | 137.05 | 133.58 | |
| 20 | 28.52 | 31.29 | 36.97 | 35.97 | 38.88 | 49.27 | 48.14 | 49.50 | 51.68 | 100.80 | 97.33 | |
| 25 | 25.96 | 26.14 | 31.82 | 30.82 | 33.73 | 44.12 | 45.58 | 46.94 | 49.12 | 98.24 | 94.77 | |
| 31.5 | 25.25 | 28.01 | 33.69 | 32.69 | 35.60 | 45.99 | 44.86 | 46.23 | 48.41 | 97.53 | 94.05 | |
| 35* | 24.85 | 27.62 | 33.3 | 32.30 | 35.21 | 45.60 | 44.47 | 45.83 | 48.01 | 97.13 | 93.66 | |
| 40 | 24.43 | 27.19 | 32.88 | 31.88 | 34.79 | 45.17 | 44.04 | 45.41 | 47.59 | 96.71 | 93.23 | |
| 50 | 11.97 | 14.25 | 19.93 | 18.93 | 21.84 | 32.23 | 31.59 | 32.95 | 35.13 | 84.25 | 80.78 | |
| 63 | 11.80 | 14.07 | 19.75 | 18.75 | 21.66 | 32.05 | 31.41 | 32.78 | 34.96 | 84.08 | 80.60 | |
| 70* | 11.70 | 13.97 | 19.66 | 18.66 | 21.57 | 31.95 | 31.31 | 32.68 | 34.86 | 83.98 | 80.50 | |
| 80 | 11.59 | 13.87 | 19.55 | 18.55 | 21.46 | 31.85 | 31.21 | 32.57 | 34.75 | 83.87 | 80.40 | |

| 200B | i _n | TA | TC | | | | | TF | | | | | |
|------|----------------|--------|---------|--------|--------|--------|--------|---------|--------|--------|--------|--------|-----|
| | | | IEC B5 | | | | | IEC B5 | | | | | |
| | | | 110-112 | 132 | 160 | 180 | 200 | 110-112 | 132 | 160 | 180 | 200 | 225 |
| 8 | 109.38 | 110.72 | 116.40 | 115.40 | 118.31 | 128.70 | 129.00 | 130.37 | 132.55 | 181.66 | 178.19 | 181.78 | |
| 10 | 95.71 | 97.05 | 102.73 | 101.73 | 104.64 | 115.03 | 115.33 | 116.69 | 118.87 | 167.99 | 164.52 | 168.11 | |
| 12.5 | 85.34 | 86.68 | 92.36 | 91.36 | 94.27 | 104.66 | 104.96 | 106.32 | 108.51 | 157.62 | 154.15 | 157.74 | |
| 16 | 79.58 | 80.92 | 86.60 | 85.60 | 88.51 | 98.90 | 99.20 | 100.56 | 102.74 | 151.86 | 148.39 | 151.98 | |
| 20 | 75.15 | 76.49 | 82.17 | 81.17 | 84.08 | 94.47 | 94.77 | 96.13 | 98.32 | 147.43 | 143.96 | 147.55 | |
| 25 | 31.37 | 32.88 | 38.56 | 37.56 | 40.47 | 50.86 | 50.98 | 52.35 | 54.53 | 103.65 | 100.17 | 103.76 | |
| 31.5 | 29.80 | 31.31 | 36.99 | 35.99 | 38.90 | 49.29 | 49.41 | 50.78 | 52.96 | 102.08 | 98.60 | 102.20 | |
| 40 | 28.59 | 30.11 | 35.79 | 34.79 | 37.70 | 48.09 | 48.21 | 49.57 | 51.75 | 100.87 | 97.40 | 100.99 | |
| 50 | 20.48 | 21.49 | 27.17 | 26.17 | 29.08 | 39.47 | 40.09 | 41.46 | 43.64 | 92.76 | 89.28 | 92.88 | |
| 63 | 20.01 | 21.02 | 26.70 | 25.70 | 28.61 | 39.00 | 39.62 | 40.99 | 43.17 | 92.29 | 88.81 | 92.40 | |

| 225B | i _n | TA | TF | | | | |
|------|----------------|-------|--------|-------|-------|-------|-----|
| | | | IEC B5 | | | | |
| | | | 132 | 160 | 150 | 200 | 225 |
| 8 | 265.00 | 337.3 | 345.3 | 343.3 | 339.8 | 342.6 | |
| 10 | 249.31 | 321.6 | 329.6 | 327.6 | 324.1 | 326.9 | |
| 12.5 | 234.27 | 306.6 | 314.5 | 312.5 | 309.1 | 311.9 | |
| 16 | 90.92 | 163.2 | 171.2 | 169.2 | 165.7 | 168.5 | |
| 20 | 86.52 | 158.8 | 166.8 | 164.8 | 161.3 | 164.1 | |
| 25 | 82.29 | 154.6 | 162.6 | 160.6 | 157.1 | 159.9 | |
| 31.5 | 68.32 | 140.6 | 148.6 | 146.6 | 143.1 | 145.9 | |
| 40 | 64.25 | 136.5 | 144.5 | 142.5 | 139.0 | 141.9 | |

* Relaciones especiales / Special ratios / Rapports spéciaux







2.9 **Momento de inercia** [Kg·cm²]
(del eje rápido de entrada)



2.9 **Moments of inertia** [Kg·cm²]
(referred to input shaft)

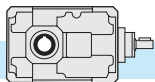
2.9 **Moments d'inertie** [Kg·cm²]
(se rapportant à l'arbre d'entrée)

TA..C - TC..C - TF..C

| 56C | i _n | TA  | TF  | | | | |
|-----|----------------|--|--|-------|-------|-------|----|
| | | | IEC B5 | | | | |
| | | | 56 | 63 | 71 | 80 | 90 |
| 40 | 0.06 | 0.136 | 0.139 | 0.212 | 0.410 | 0.588 | |
| 50 | 0.06 | 0.134 | 0.138 | 0.211 | 0.409 | 0.587 | |
| 63 | 0.06 | 0.134 | 0.137 | 0.210 | 0.408 | 0.586 | |
| 80 | 0.06 | 0.133 | 0.137 | 0.210 | 0.408 | 0.585 | |
| 100 | 0.06 | 0.129 | 0.132 | 0.205 | 0.403 | 0.581 | |
| 125 | 0.06 | 0.129 | 0.132 | 0.205 | 0.403 | 0.581 | |
| 160 | 0.06 | 0.128 | 0.132 | 0.205 | 0.403 | 0.581 | |
| 200 | 0.06 | 0.127 | 0.131 | 0.204 | 0.402 | 0.580 | |
| 250 | 0.06 | 0.127 | 0.131 | 0.204 | 0.402 | 0.580 | |

| 63C | i _n | TA  | TF  | | | | |
|-----|----------------|--|--|-------|-------|-------|----|
| | | | IEC B5 | | | | |
| | | | 56 | 63 | 71 | 80 | 90 |
| 40 | 0.07 | 0.142 | 0.145 | 0.218 | 0.416 | 0.594 | |
| 50 | 0.07 | 0.139 | 0.143 | 0.216 | 0.414 | 0.592 | |
| 63 | 0.07 | 0.138 | 0.142 | 0.215 | 0.413 | 0.590 | |
| 80 | 0.06 | 0.132 | 0.136 | 0.209 | 0.407 | 0.585 | |
| 100 | 0.06 | 0.132 | 0.135 | 0.208 | 0.406 | 0.584 | |
| 125 | 0.06 | 0.131 | 0.135 | 0.208 | 0.406 | 0.584 | |
| 160 | 0.06 | 0.131 | 0.135 | 0.208 | 0.406 | 0.583 | |
| 200 | 0.06 | 0.129 | 0.132 | 0.205 | 0.403 | 0.581 | |
| 250 | 0.06 | 0.129 | 0.132 | 0.205 | 0.403 | 0.581 | |
| 315 | 0.06 | 0.129 | 0.132 | 0.205 | 0.403 | 0.581 | |

| 75C | i _n | TA  | TF  | | | |
|-----|----------------|--|--|-------|-------|----|
| | | | IEC B5 | | | |
| | | | 63 | 71 | 80 | 90 |
| 50 | 0.104 | 0.179 | 0.252 | 0.450 | 0.628 | |
| 63 | 0.098 | 0.173 | 0.246 | 0.444 | 0.622 | |
| 80 | 0.095 | 0.171 | 0.244 | 0.442 | 0.619 | |
| 100 | 0.070 | 0.145 | 0.219 | 0.417 | 0.594 | |
| 125 | 0.069 | 0.144 | 0.217 | 0.415 | 0.593 | |
| 160 | 0.068 | 0.143 | 0.216 | 0.414 | 0.592 | |
| 200 | 0.062 | 0.138 | 0.211 | 0.409 | 0.586 | |
| 250 | 0.062 | 0.137 | 0.210 | 0.408 | 0.586 | |



2.9 **Momento de inercia** [Kg·cm²]
(del eje rápido de entrada)

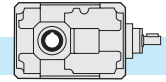
2.9 **Moments of inertia** [Kg·cm²]
(referred to input shaft)

2.9 **Moments d'inertie** [Kg·cm²]
(se rapportant à l'arbre d'entrée)

TA..C - TC..C - TF..C

| 80C | i _n | TA | TC | | | | TF | | | |
|-----|----------------|------|--------|------|------|------|--------|------|------|----|
| | | | IEC B5 | | | | IEC B5 | | | |
| | | | 63 | 71 | 80 | 90 | 63 | 71 | 80 | 90 |
| 50 | 0.90 | 0.95 | 1.09 | 1.47 | 1.52 | 1.15 | 1.17 | 1.84 | 2.91 | |
| 63 | 0.86 | 0.91 | 1.05 | 1.43 | 1.48 | 1.11 | 1.13 | 1.81 | 2.87 | |
| 80 | 0.86 | 0.91 | 1.05 | 1.43 | 1.48 | 1.11 | 1.13 | 1.80 | 2.87 | |
| 100 | 0.36 | 0.41 | 0.55 | 0.93 | 0.98 | 0.62 | 0.63 | 1.31 | 2.38 | |
| 125 | 0.35 | 0.38 | 0.52 | 0.90 | 0.95 | 0.61 | 0.62 | 1.30 | 2.37 | |
| 160 | 0.35 | 0.40 | 0.54 | 0.92 | 0.97 | 0.61 | 0.62 | 1.30 | 2.36 | |
| 200 | 0.35 | 0.40 | 0.54 | 0.92 | 0.97 | 0.61 | 0.62 | 1.30 | 2.36 | |
| 250 | 0.19 | 0.22 | 0.36 | 0.74 | 0.79 | 0.44 | 0.46 | 1.14 | 2.20 | |
| 315 | 0.19 | 0.22 | 0.36 | 0.74 | 0.79 | 0.44 | 0.46 | 1.14 | 2.20 | |
| 400 | 0.19 | 0.22 | 0.36 | 0.74 | 0.79 | 0.44 | 0.46 | 1.14 | 2.20 | |
| 500 | 0.19 | 0.22 | 0.36 | 0.74 | 0.79 | 0.44 | 0.46 | 1.13 | 2.20 | |
| 630 | 0.19 | 0.22 | 0.36 | 0.74 | 0.79 | 0.44 | 0.46 | 1.13 | 2.20 | |

| 100C | i _n | TA | TC | | | | TF | | | |
|------|----------------|------|--------|------|------|---------|--------|------|------|---------|
| | | | IEC B5 | | | | IEC B5 | | | |
| | | | 71 | 80 | 90 | 110-112 | 71 | 80 | 90 | 110-112 |
| 50 | 2.68 | 3.08 | 3.25 | 3.63 | 4.47 | 3.53 | 3.67 | 4.84 | 7.01 | |
| 63 | 2.56 | 2.96 | 3.13 | 3.51 | 4.35 | 3.41 | 3.55 | 4.72 | 6.89 | |
| 80 | 2.53 | 2.94 | 3.11 | 3.49 | 4.33 | 3.39 | 3.52 | 4.70 | 6.87 | |
| 100 | 1.14 | 1.51 | 1.68 | 2.06 | 2.89 | 2.00 | 2.13 | 3.31 | 5.47 | |
| 125 | 1.10 | 1.47 | 1.64 | 2.02 | 2.86 | 1.96 | 2.10 | 3.27 | 5.44 | |
| 160 | 1.10 | 1.47 | 1.64 | 2.02 | 2.86 | 1.96 | 2.09 | 3.27 | 5.44 | |
| 200 | 1.10 | 1.47 | 1.64 | 2.01 | 2.85 | 1.95 | 2.09 | 3.26 | 5.43 | |
| 250 | 0.64 | 0.98 | 1.15 | 1.52 | 2.36 | 1.50 | 1.63 | 2.81 | 4.98 | |
| 315 | 0.64 | 0.97 | 1.14 | 1.52 | 2.36 | 1.50 | 1.63 | 2.81 | 4.98 | |
| 400 | 0.64 | 0.97 | 1.14 | 1.52 | 2.36 | 1.50 | 1.63 | 2.81 | 4.98 | |
| 500 | 0.63 | 0.97 | 1.14 | 1.51 | 2.35 | 1.49 | 1.62 | 2.80 | 4.97 | |
| 630 | 0.63 | 0.97 | 1.14 | 1.51 | 2.35 | 1.49 | 1.62 | 2.80 | 4.97 | |









2.9 **Momento de inercia** [Kg·cm²]
(del eje rápido de entrada)

2.9 **Moments of inertia** [Kg·cm²]
(referred to input shaft)

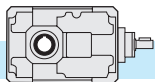
2.9 **Moments d'inertie** [Kg·cm²]
(se rapportant à l'arbre d'entrée)

TA..C - TC..C - TF..C

| 125C | i _n | TA  | TC  | | | | TF  | | | |
|------|----------------|--|--|------|---------|-------|--|-------|---------|-----|
| | | | IEC B5 | | | | IEC B5 | | | |
| | | | 80 | 90 | 110-112 | 132 | 80 | 90 | 110-112 | 132 |
| 50 | 7.82 | 8.75 | 8.62 | 9.57 | 12.71 | 10.16 | 10.08 | 12.40 | 26.40 | |
| 63 | 7.46 | 8.39 | 8.26 | 9.22 | 12.36 | 9.80 | 9.73 | 12.04 | 26.04 | |
| 80 | 7.39 | 8.32 | 8.19 | 9.14 | 12.28 | 9.72 | 9.65 | 11.97 | 25.96 | |
| 100 | 3.44 | 4.28 | 4.15 | 5.10 | 8.24 | 5.77 | 5.70 | 8.02 | 22.01 | |
| 125 | 3.34 | 4.18 | 4.05 | 5.00 | 8.14 | 5.67 | 5.60 | 7.92 | 21.91 | |
| 160 | 3.32 | 4.16 | 4.03 | 4.98 | 8.12 | 5.65 | 5.58 | 7.90 | 21.89 | |
| 200 | 3.31 | 4.15 | 4.02 | 4.97 | 8.11 | 5.65 | 5.57 | 7.89 | 21.89 | |
| 225* | 3.31 | 4.15 | 4.02 | 4.97 | 8.11 | 4.08 | 4.01 | 6.33 | 20.32 | |
| 250 | 1.78 | 2.49 | 2.36 | 3.31 | 6.45 | 4.11 | 4.04 | 6.36 | 20.35 | |
| 315 | 1.77 | 2.48 | 2.35 | 3.31 | 6.45 | 4.11 | 4.04 | 6.35 | 20.35 | |
| 400 | 1.77 | 2.48 | 2.35 | 3.30 | 6.44 | 4.11 | 4.03 | 6.35 | 20.35 | |
| 450* | 1.77 | 2.48 | 2.35 | 3.30 | 6.44 | 4.10 | 4.03 | 6.35 | 20.35 | |
| 500 | 1.75 | 2.46 | 2.33 | 3.28 | 6.42 | 4.08 | 4.01 | 6.33 | 20.32 | |
| 550* | 1.75 | 2.46 | 2.33 | 3.28 | 6.42 | 4.08 | 4.01 | 6.33 | 20.32 | |
| 630 | 1.75 | 2.46 | 2.33 | 3.28 | 6.42 | 4.08 | 4.01 | 6.33 | 20.32 | |

| 160C | i _n | TA  | TC  | | | | | | TF  | | | | | |
|------|----------------|--|--|-------|---------|-------|-------|-------|--|-------|---------|-------|-------|-----|
| | | | IEC B5 | | | | | | IEC B5 | | | | | |
| | | | 80 | 90 | 110-112 | 132 | 160 | 180 | 80 | 90 | 110-112 | 132 | 160 | 180 |
| 50 | 23.13 | 24.26 | 24.13 | 24.27 | 27.47 | 31.89 | 34.91 | 25.33 | 27.71 | 27.88 | 42.74 | 44.92 | 90.19 | |
| 63 | 22.01 | 23.14 | 23.01 | 23.15 | 26.35 | 30.77 | 33.79 | 24.21 | 26.59 | 26.77 | 41.63 | 43.81 | 89.07 | |
| 80 | 21.76 | 22.89 | 22.76 | 22.90 | 26.10 | 30.52 | 33.54 | 23.96 | 26.34 | 26.51 | 41.37 | 43.56 | 88.82 | |
| 100 | 8.65 | 9.61 | 9.48 | 9.62 | 12.82 | 17.24 | 20.26 | 10.85 | 13.23 | 13.40 | 28.26 | 30.45 | 75.71 | |
| 125 | 8.35 | 9.30 | 9.17 | 9.31 | 12.51 | 16.94 | 19.95 | 10.54 | 12.92 | 13.10 | 27.96 | 30.14 | 75.41 | |
| 160 | 8.28 | 9.23 | 9.10 | 9.24 | 12.44 | 16.87 | 19.88 | 10.47 | 12.86 | 13.03 | 27.89 | 30.07 | 75.34 | |
| 200 | 8.26 | 9.21 | 9.09 | 9.22 | 12.42 | 16.85 | 19.87 | 10.46 | 12.84 | 13.01 | 27.87 | 30.05 | 75.32 | |
| 225* | 8.25 | 9.20 | 9.08 | 9.21 | 12.41 | 16.84 | 19.86 | 10.44 | 12.83 | 13.00 | 27.86 | 30.04 | 75.31 | |
| 250 | 4.26 | 4.92 | 4.79 | 4.93 | 8.13 | 12.55 | 15.57 | 6.46 | 8.84 | 9.01 | 23.87 | 26.05 | 71.32 | |
| 315 | 4.24 | 4.90 | 4.77 | 4.91 | 8.11 | 12.53 | 15.55 | 6.44 | 8.82 | 9.00 | 23.86 | 26.04 | 71.30 | |
| 400 | 4.24 | 4.90 | 4.77 | 4.91 | 8.11 | 12.53 | 15.55 | 6.43 | 8.81 | 8.99 | 23.85 | 26.03 | 71.30 | |
| 450* | 4.23 | 4.89 | 4.76 | 4.90 | 8.10 | 12.52 | 15.54 | 6.43 | 8.81 | 8.99 | 23.85 | 26.03 | 71.29 | |
| 500 | 4.17 | 4.83 | 4.70 | 4.84 | 8.03 | 12.46 | 15.48 | 6.36 | 8.74 | 8.92 | 23.78 | 25.96 | 71.23 | |
| 550* | 4.16 | 4.82 | 4.69 | 4.83 | 8.03 | 12.46 | 15.47 | 6.36 | 8.74 | 8.92 | 23.78 | 25.96 | 71.22 | |
| 630 | 4.16 | 4.82 | 4.69 | 4.83 | 8.03 | 12.45 | 15.47 | 6.36 | 8.74 | 8.92 | 23.78 | 25.96 | 71.22 | |

* Relaciones especiales / Special ratios / Rapports spéciaux









2.9 **Momento de inercia** [Kg·cm²]
(del eje rápido de entrada)

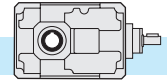
2.9 **Moments of inertia** [Kg·cm²]
(referred to input shaft)

2.9 **Moments d'inertie** [Kg·cm²]
(se rapportant à l'arbre d'entrée)

TA..C - TC..C - TF..C

| 180C | i _n | TA  | TC  | | | | | | TF  | | | | | |
|------|----------------|--|--|-------|---------|-------|-------|-------|--|-------|---------|-------|-------|-------|
| | | | IEC B5 | | | | | | IEC B5 | | | | | |
| | | | 80 | 90 | 110-112 | 132 | 160 | 180 | 80 | 90 | 110-112 | 132 | 160 | 180 |
| | | | 50 | 23.76 | 24.89 | 24.76 | 24.90 | 28.10 | 32.52 | 35.54 | 25.95 | 28.34 | 28.51 | 43.37 |
| 63 | 22.45 | 23.58 | 23.45 | 23.59 | 26.79 | 31.21 | 34.23 | 24.65 | 27.03 | 27.20 | 42.06 | 44.25 | 89.51 | |
| 80 | 22.17 | 23.30 | 23.17 | 23.31 | 26.51 | 30.93 | 33.95 | 24.37 | 26.75 | 26.93 | 41.79 | 43.97 | 89.23 | |
| 100 | 20.94 | 22.07 | 21.94 | 22.07 | 25.27 | 29.70 | 32.72 | 23.13 | 25.51 | 25.69 | 40.55 | 42.73 | 88.00 | |
| 125 | 8.71 | 9.67 | 9.54 | 9.68 | 12.88 | 17.30 | 20.32 | 10.91 | 13.29 | 13.47 | 28.33 | 30.51 | 75.77 | |
| 160 | 8.39 | 9.35 | 9.22 | 9.36 | 12.56 | 16.98 | 20.00 | 10.59 | 12.97 | 13.14 | 28.00 | 30.18 | 75.45 | |
| 200 | 8.05 | 9.01 | 8.88 | 9.02 | 12.22 | 16.64 | 19.66 | 10.25 | 12.63 | 12.81 | 27.67 | 29.85 | 75.11 | |
| 250 | 4.35 | 5.01 | 4.88 | 5.02 | 8.22 | 12.64 | 15.66 | 6.55 | 8.93 | 9.10 | 23.96 | 26.14 | 71.41 | |
| 315 | 4.27 | 4.93 | 4.80 | 4.94 | 8.14 | 12.56 | 15.58 | 6.47 | 8.85 | 9.02 | 23.88 | 26.06 | 71.33 | |
| 400 | 4.18 | 4.84 | 4.72 | 4.85 | 8.05 | 12.48 | 15.50 | 6.38 | 8.76 | 8.94 | 23.80 | 25.98 | 71.25 | |

| 200C | i _n | TA  | TC  | | | | | TF  | | | | |
|------|----------------|--|---|-------|-------|-------|-------|---|-------|--------|--------|-------|
| | | | IEC B5 | | | | | IEC B5 | | | | |
| | | | 110-112 | 132 | 160 | 180 | 200 | 110-112 | 132 | 160 | 180 | 200 |
| | | | 40 | 72.31 | 74.90 | 80.58 | 79.58 | 82.49 | 92.88 | 91.93 | 93.29 | 95.47 |
| 50 | 71.70 | 74.28 | 79.97 | 78.97 | 81.87 | 92.26 | 91.31 | 92.68 | 94.86 | 143.98 | 140.50 | |
| 63 | 71.11 | 73.69 | 79.38 | 78.38 | 81.28 | 91.67 | 90.72 | 92.09 | 94.27 | 143.39 | 139.91 | |
| 80 | 70.63 | 73.22 | 78.90 | 77.90 | 80.81 | 91.20 | 90.24 | 91.61 | 93.79 | 142.91 | 139.43 | |
| 100 | 26.74 | 29.50 | 35.19 | 34.19 | 37.09 | 47.48 | 46.35 | 47.72 | 49.90 | 99.02 | 95.54 | |
| 125 | 26.58 | 29.34 | 35.03 | 34.02 | 36.93 | 47.32 | 46.19 | 47.56 | 49.74 | 98.86 | 95.38 | |
| 160 | 26.45 | 29.21 | 34.90 | 33.89 | 36.80 | 47.19 | 46.06 | 47.43 | 49.61 | 98.73 | 95.25 | |
| 200 | 12.17 | 14.44 | 20.12 | 19.12 | 22.03 | 32.42 | 31.78 | 33.15 | 35.33 | 84.45 | 80.97 | |
| 250 | 12.13 | 14.40 | 20.09 | 19.08 | 21.99 | 32.38 | 31.74 | 33.11 | 35.29 | 84.41 | 80.93 | |
| 315 | 12.09 | 14.37 | 20.05 | 19.05 | 21.96 | 32.35 | 31.71 | 33.07 | 35.25 | 84.37 | 80.90 | |



2.10 Dimensiones

2.10 Dimensions

2.10 Dimensions

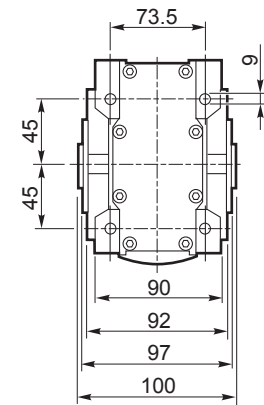
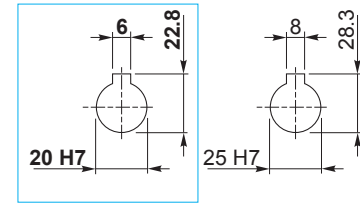
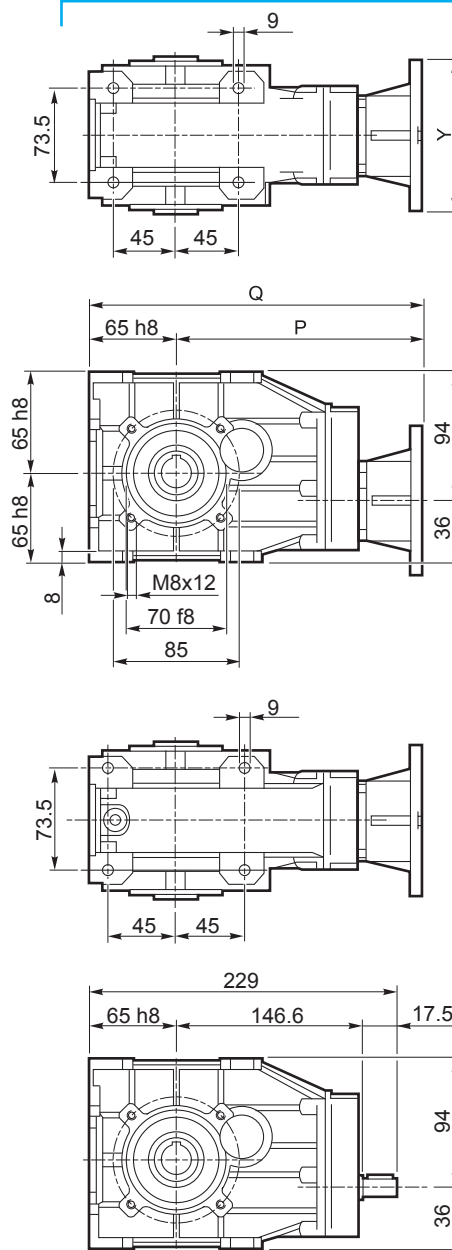
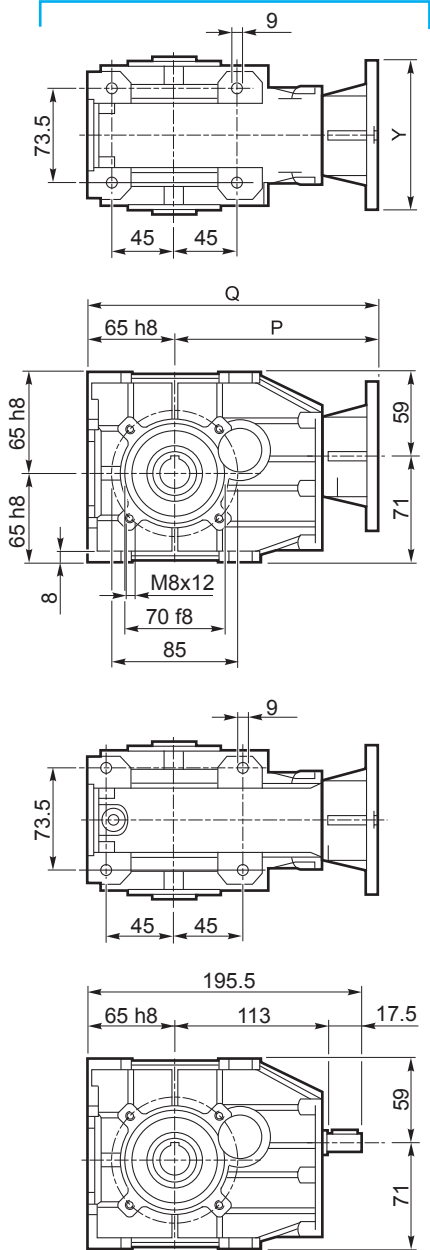
TF56B...






TF56C...

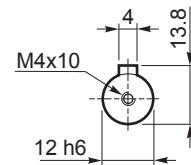
2 Reducciones/Stages/Reduccions

3 Reducciones/Stages/Reduccions

standard

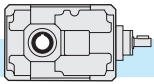


| IEC | |
|---|-----------|
|  | 56 B5 |
|  | 63 B5 |
|  | 71 B5 |
|  | 80 B5/B14 |
|  | 90 B5/B14 |



| B5 | TF... | | | | | | | | | |
|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 56B | | | | | 56C | | | | |
| IEC.. | 56 | 63 | 71 | 80 | 90 | 56 | 63 | 71 | 80 | 90 |
| Y | 120 | 140 | 160 | 200 | 200 | 120 | 140 | 160 | 200 | 200 |
| P | 153 | 156 | 163 | 183 | 183 | 187 | 190 | 197 | 217 | 217 |
| Q | 218 | 221 | 228 | 248 | 248 | 252 | 255 | 262 | 282 | 282 |
| kg | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |

| B14 | TF... | | | | | | | | | |
|-------|-------|----|-----|-----|-----|-----|----|-----|-----|-----|
| | 56B | | | | | 56C | | | | |
| IEC.. | 56 | 63 | 71 | 80 | 90 | 56 | 63 | 71 | 80 | 90 |
| Y | — | — | 105 | 120 | 140 | — | — | 105 | 120 | 140 |
| P | — | — | 163 | 183 | 183 | — | — | 197 | 217 | 217 |
| Q | — | — | 228 | 248 | 248 | — | — | 262 | 282 | 282 |
| kg | — | — | 4.5 | 4.5 | 4.5 | — | — | 5.0 | 5.0 | 5.0 |



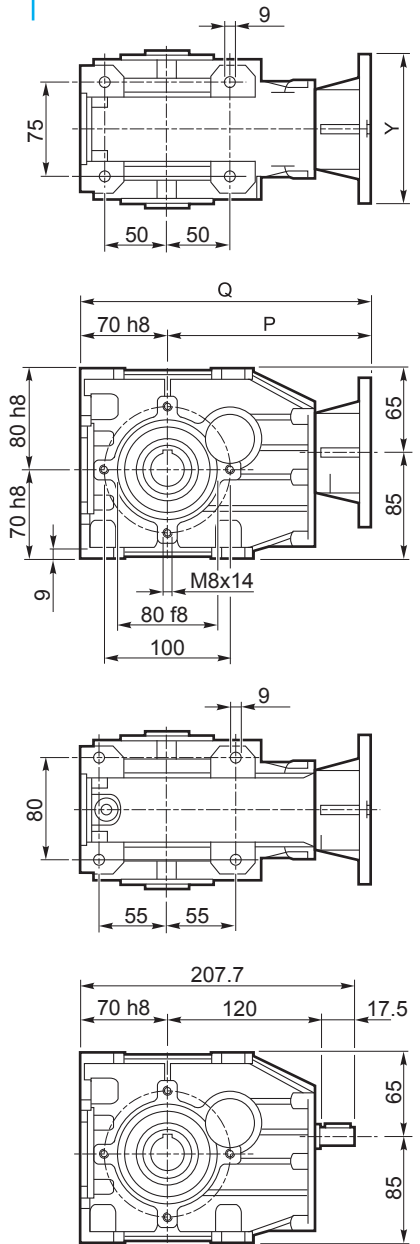
2.10 Dimensiones

2.10 Dimensions

2.10 Dimensions

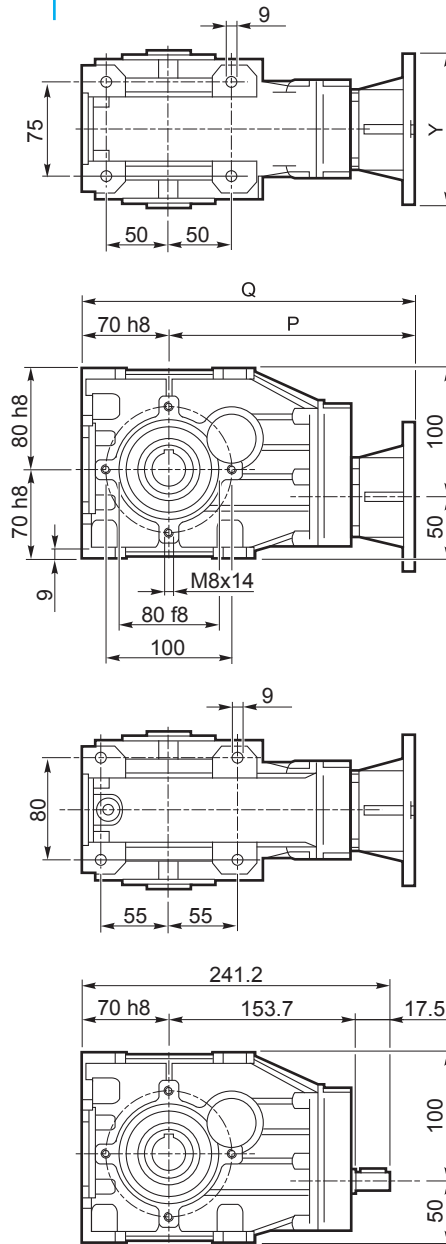
TF63B...

2 Reducciones/Stages/Reduccions

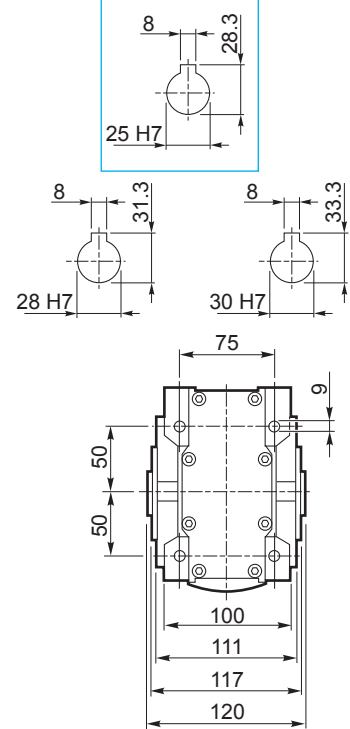


TF63C...

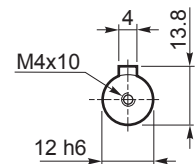
3 Reducciones/Stages/Reduccions



standard

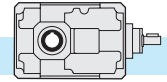


| IEC | |
|-----|-----------|
| | 56 B5 |
| | 63 B5 |
| | 71 B5 |
| | 80 B5/B14 |
| | 90 B5/B14 |



| B5 | TF... | | | | | | | | | |
|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | 63B | | | | | 63C | | | | |
| IEC.. | 56 | 63 | 71 | 80 | 90 | 56 | 63 | 71 | 80 | 90 |
| Y | 120 | 140 | 160 | 200 | 200 | 120 | 140 | 160 | 200 | 200 |
| P | 160 | 163 | 170 | 190 | 190 | 194 | 197 | 204 | 224 | 224 |
| Q | 230 | 233 | 240 | 260 | 260 | 264 | 267 | 274 | 294 | 294 |
| kg | 6.0 | 6.0 | 6.0 | 6.0 | 6.0 | 6.5 | 6.5 | 6.5 | 6.5 | 6.5 |

| B14 | TF... | | | | | | | | | |
|-------|-------|----|-----|-----|-----|-----|----|-----|-----|-----|
| | 63B | | | | | 63C | | | | |
| IEC.. | 56 | 63 | 71 | 80 | 90 | 56 | 63 | 71 | 80 | 90 |
| Y | — | — | 105 | 120 | 140 | — | — | 105 | 120 | 140 |
| P | — | — | 170 | 190 | 190 | — | — | 204 | 224 | 224 |
| Q | — | — | 240 | 260 | 260 | — | — | 274 | 294 | 294 |
| kg | — | — | 6.0 | 6.0 | 6.0 | — | — | 6.5 | 6.5 | 6.5 |



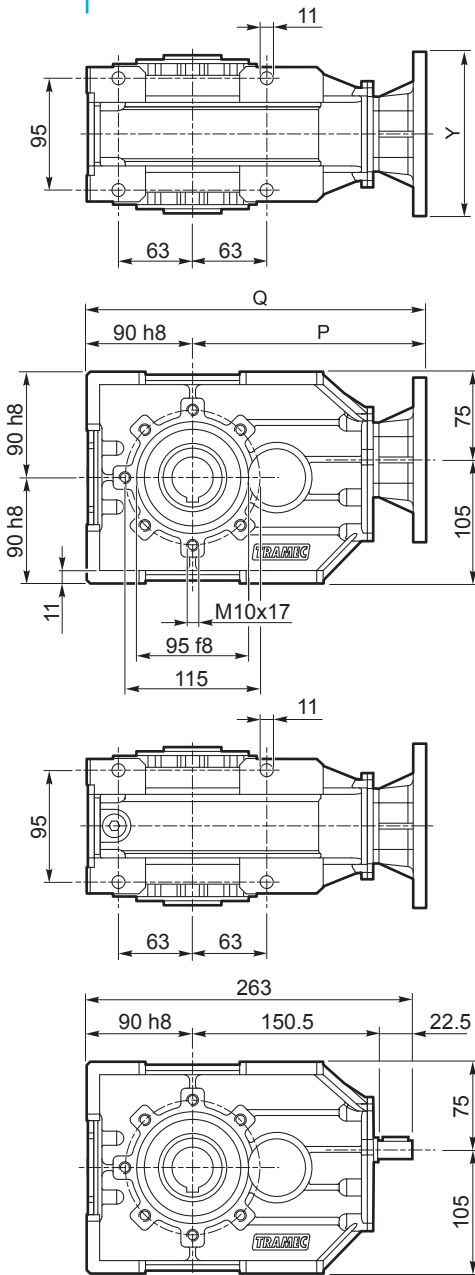
2.10 Dimensiones

2.10 Dimensions

2.10 Dimensions

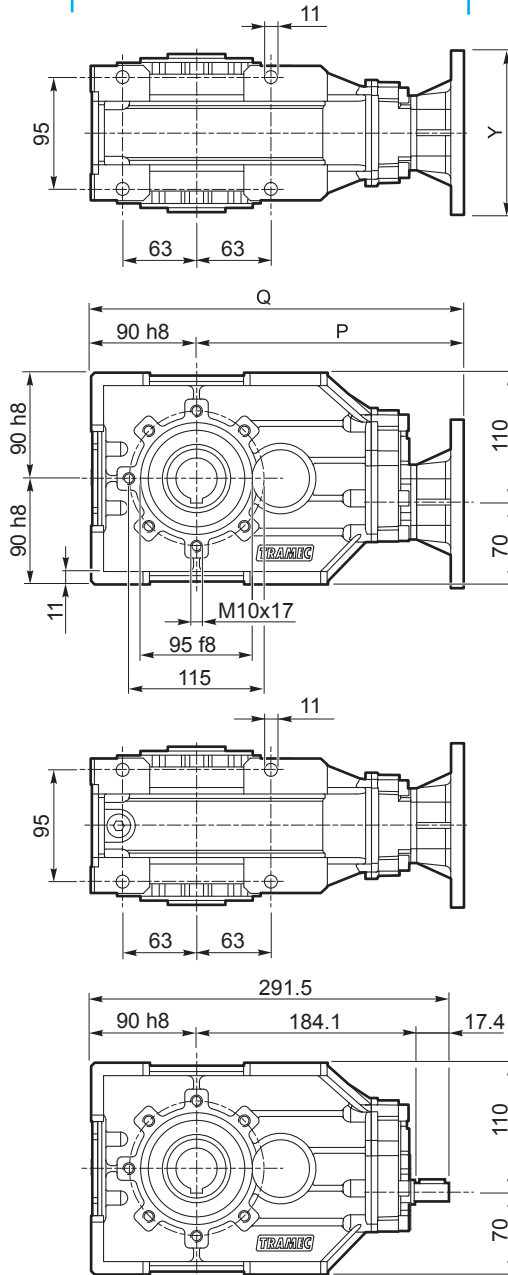
TF75B...

2 Reducciones/Stages/Reduccions

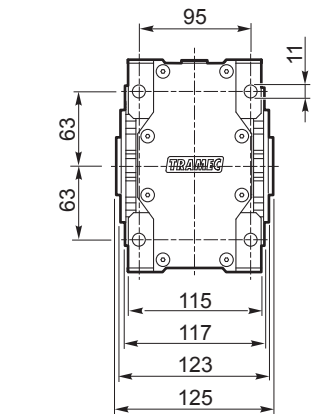
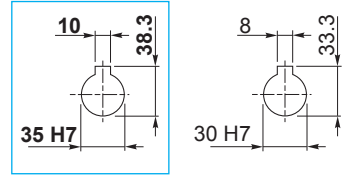


TF75C...

3 Reducciones/Stages/Reduccions

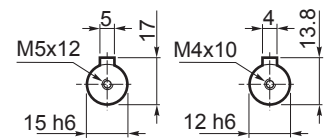


standard



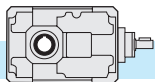
| IEC | |
|--------|------------|
| | 63 B5 |
| 71 B14 | 71 B5 |
| | 80 B5/B14 |
| | 90 B5/B14 |
| | 100 B5/B14 |

TA75B... TA75C...



| B5 | TF... | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|--|
| | 75B | | | | | 75C | | | | |
| IEC.. | 71 | 80 | 90 | 100 | 112 | 63 | 71 | 80 | 90 | |
| Y | 160 | 200 | 200 | 250 | 250 | 140 | 160 | 200 | 200 | |
| P | 205.5 | 225.5 | 225.5 | 235.5 | 235.5 | 227 | 234 | 254 | 254 | |
| Q | 295.5 | 315.5 | 315.5 | 325.5 | 325.5 | 317 | 324 | 344 | 344 | |
| kg | 10 | 10 | 10 | 10 | 10 | 11 | 11 | 11 | 11 | |

| B14 | TF... | | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|--|
| | 75B | | | | | 75C | | | | |
| IEC.. | 71 | 80 | 90 | 100 | 112 | 63 | 71 | 80 | 90 | |
| Y | 105 | 120 | 140 | 160 | 160 | - | 105 | 120 | 140 | |
| P | 205.5 | 225.5 | 225.5 | 235.5 | 235.5 | - | 234 | 254 | 254 | |
| Q | 295.5 | 315.5 | 315.5 | 325.5 | 325.5 | - | 324 | 344 | 344 | |
| kg | 10 | 10 | 10 | 10 | 10 | - | 11 | 11 | 11 | |



2.10 Dimensiones

2.10 Dimensions

2.10 Dimensions

| | TA... - TC... - TF.. | | | | | | | | | | | | | | | | |
|-------|----------------------|----|----|--------|----|----|--------|----|----|--------|----|--------|----|--------|----|--------|----|
| | 71B | | | 90B | | | 112B | | | 140B | | 180B | | 200B | | 225B | |
| A | 142 | | | 180 | | | 224 | | | 280 | | 360 | | 400 | | 450 | |
| a | 102 | | | 134 | | | 166 | | | 209 | | 272.5 | | 305 | | 344 | |
| a1 | — | | | — | | | — | | | — | | — | | — | | — | |
| B | 112 | | | 127 | | | 150 | | | 175 | | 215 | | 255 | | 290 | |
| b | 90 | | | 104 | | | 125 | | | 145 | | 180 | | 210 | | 240 | |
| C2 | 115 | | | 130 | | | 155 | | | 180 | | 220 | | 260 | | 300 | |
| D1 h6 | 14 | | | 19 | | | 24 | | | 28 | | 38 | | 38 | | 48 | |
| D2 H7 | 24 | 28 | 30 | 32 | 30 | 35 | 42 | 40 | 45 | 55 | 50 | 70 | 60 | 90 | 80 | 100 | 90 |
| E | 206 | | | 262 | | | 326 | | | 407 | | 522.5 | | 585 | | 654 | |
| e | 38 | | | 52 | | | 64 | | | 82 | | 110 | | 120 | | 140 | |
| F | 9 | | | 11 | | | 13 | | | 15 | | 17 | | 19 | | 21 | |
| f | M8x13 | | | M10x16 | | | M12x19 | | | M14x22 | | M16x25 | | M18x35 | | M18x30 | |
| G | 122 | | | 155 | | | 194 | | | 244 | | 320 | | 350 | | 400 | |
| g | 61 | | | 77.5 | | | 97 | | | 122 | | 160 | | 175 | | 200 | |
| H | 71 | | | 90 | | | 112 | | | 140 | | 180 | | 200 | | 225 | |
| h | 174 | | | 212 | | | 262 | | | 317 | | 400 | | 422.5 | | 500 | |
| I | 110 | | | 130 | | | 160 | | | 190 | | 237.5 | | 237.5 | | 296 | |
| i | 125 | | | 159.5 | | | 199 | | | 249 | | 322.5 | | 360 | | 404 | |
| L1 | 30 | | | 40 | | | 50 | | | 60 | | 80 | | 80 | | 110 | |
| O | 64 | | | 82 | | | 102 | | | 127 | | 162.5 | | 185 | | 204 | |
| T | 275 | | | 342 | | | 424 | | | 517 | | 660 | | 702.5 | | 835 | |
| t | 211 | | | 260 | | | 322 | | | 390 | | 497.5 | | 517.5 | | 631 | |
| Z | 9 | | | 11 | | | 13 | | | 16 | | 20 | | 22 | | 25 | |

| TA.. | | | | | | | | | | | | | | |
|------|------|--|----|--|----|--|----|--|-----|--|-----|--|-----|--|
| kg | 12.5 | | 20 | | 34 | | 58 | | 116 | | 165 | | 232 | |

| TC... - TF... | | | | | | | | | | | | | | |
|---------------|------|--|----|--|----|--|----|--|-----|--|-----|--|-----|--|
| kg | 15.5 | | 25 | | 44 | | 75 | | 136 | | 185 | | 270 | |

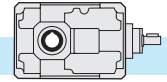
| | TC... | | | | | | | | | | | | |
|-----|-------|-------|----------|--------|-------|----------|-------------|------------|----------|------------|--------|--|--|
| | 71B | | | | 90B | | | | 112B | | | | |
| IEC | 63 B5 | 71 B5 | 80/90 B5 | 80 B14 | 71 B5 | 80/90 B5 | *90 B14 | 100/112 B5 | 80/90 B5 | 100/112 B5 | 132 B5 | | |
| Y | 140 | 160 | 200 | 120 | 160 | 200 | □ 120 / R73 | 250 | 200 | 250 | 300 | | |
| P | 177 | 184 | 204 | 204 | 220 | 240 | 240 | 250 | 286 | 296 | 318 | | |
| p | 113 | 120 | 140 | 140 | 138 | 158 | 158 | 168 | 184 | 194 | 216 | | |
| Q | 248 | 255 | 275 | 275 | 310 | 330 | 330 | 340 | 398 | 408 | 430 | | |
| q | 184 | 191 | 211 | 211 | 228 | 248 | 248 | 258 | 296 | 306 | 328 | | |

| | 140B | | | | 180B | | | | 200B | | | |
|-----|----------|------------|--------|------------|------------------------------------|------------------------------------|------------------------------------|--------|-----------------------------------|-----------------------------------|-----------------------------------|--------|
| | 80/90 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 200 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 200 B5 |
| IEC | 200 | 250 | 300 | 350 | 250 | 300 | 350 | 400 | 250 | 300 | 350 | 400 |
| Y | 331 | 341 | 363 | 393 | 413 / 423 (i=10-40) / (i=50-80) | 433 / 443 (i=10-40) / (i=50-80) | 463 / 473 (i=10-40) / (i=50-80) | | 435 / 445 (i=8-40) / (i=50-63) | 455 / 465 (i=8-40) / (i=50-63) | 485 / 495 (i=8-40) / (i=50-63) | |
| P | 204 | 214 | 236 | 266 | 250 / 260 (i=10-40) / (i=50-80) | 270 / 280 (i=10-40) / (i=50-80) | 300 / 310 (i=10-40) / (i=50-80) | | 250 / 260 (i=8-40) / (i=50-63) | 270 / 280 (i=8-40) / (i=50-63) | 300 / 310 (i=8-40) / (i=50-63) | |
| p | 204 | 214 | 236 | 266 | 593 / 603 (i=10-40) / (i=50-80) | 613 / 623 (i=10-40) / (i=50-80) | 643 / 653 (i=10-40) / (i=50-80) | | 635 / 645 (i=8-40) / (i=50-63) | 655 / 665 (i=8-40) / (i=50-63) | 685 / 695 (i=8-40) / (i=50-63) | |
| Q | 471 | 481 | 503 | 533 | 430 / 440 (i=10-40) / (i=50-80) | 450 / 460 (i=10-40) / (i=50-80) | 480 / 490 (i=10-40) / (i=50-80) | | 450 / 460 (i=8-40) / (i=50-63) | 470 / 480 (i=8-40) / (i=50-63) | 500 / 510 (i=8-40) / (i=50-63) | |
| q | 344 | 354 | 376 | 406 | | | | | | | | |

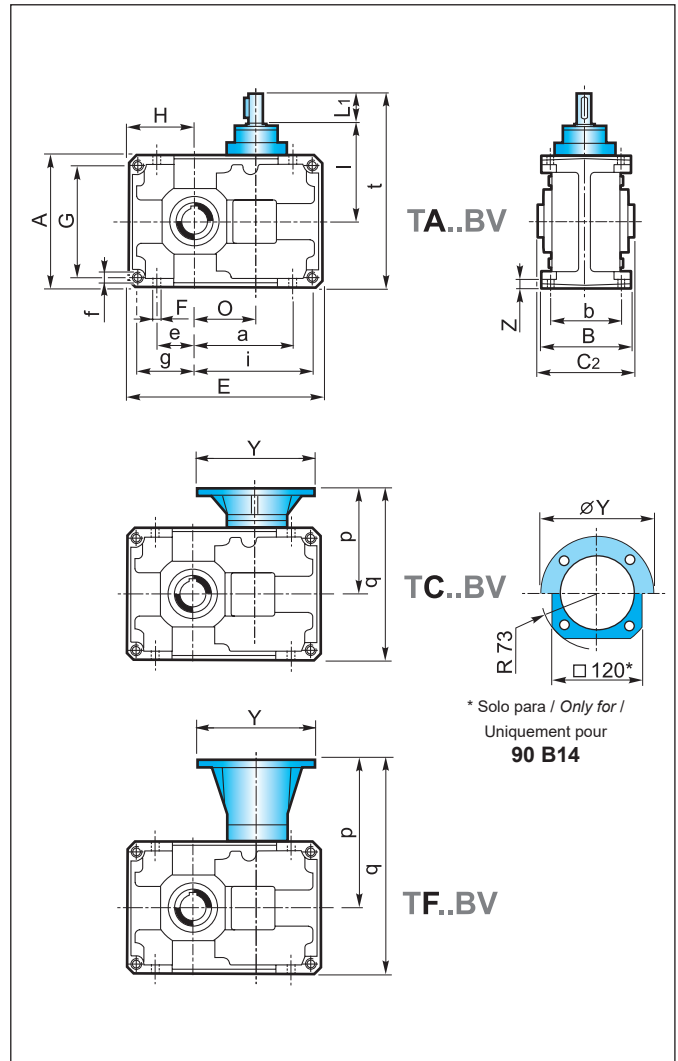
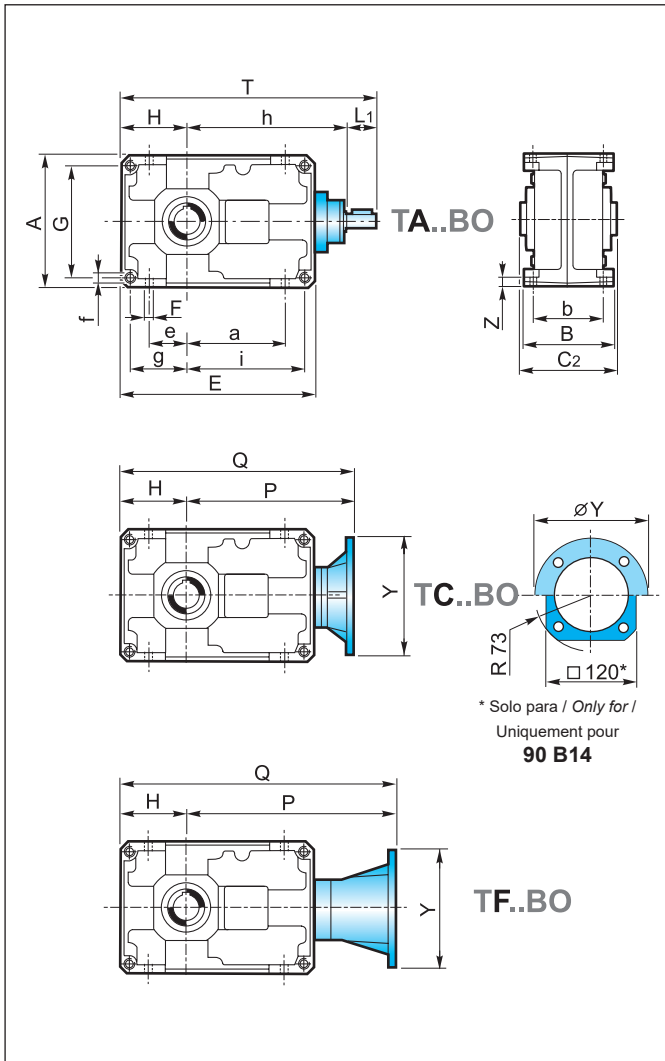
* Brida cuadrada / Square flanges / Brides carrées

| | TF... | | | | | | | | | | | | |
|-----|-------|-------|----------|-------|----------|------------|----------|------------|--------|----------|------------|--------|------------|
| | 71B | | | 90B | | | 112B | | | 140B | | | |
| IEC | 63 B5 | 71 B5 | 80/90 B5 | 71 B5 | 80/90 B5 | 100/112 B5 | 80/90 B5 | 100/112 B5 | 132 B5 | 80/90 B5 | 100/112 B5 | 132 B5 | 160/180 B5 |
| Y | 140 | 160 | 200 | 160 | 200 | 250 | 200 | 250 | 300 | 200 | 250 | 300 | 350 |
| P | 231 | 238 | 259 | 286 | 307 | 317 | 367 | 377 | 398 | 432 | 442 | 463 | 493 |
| p | 167 | 174 | 195 | 204 | 225 | 235 | 265 | 275 | 296 | 305 | 315 | 336 | 366 |
| Q | 302 | 309 | 330 | 376 | 397 | 407 | 479 | 489 | 510 | 572 | 582 | 603 | 633 |
| q | 238 | 245 | 266 | 294 | 315 | 325 | 377 | 387 | 408 | 445 | 455 | 476 | 506 |

| | 180B | | | | 200B | | | | 225B | | | | |
|-----|------------|--------|------------|--------|------------|--------|------------|--------|--------|--------|------------|--------|--------|
| | 100/112 B5 | 132 B5 | 160/180 B5 | 200 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 200 B5 | 225 B5 | 132 B5 | 160/180 B5 | 200 B5 | 225 B5 |
| IEC | 250 | 300 | 350 | 400 | 250 | 300 | 350 | 400 | 450 | 300 | 350 | 400 | 450 |
| Y | 546 | 566 | 596 | 596 | 568.5 | 588.5 | 618.5 | 620.5 | 648.5 | 698 | 728 | 728 | 758 |
| P | 393.5 | 403 | 433 | 433 | 383.5 | 403.5 | 433.5 | 435.5 | 466.5 | 494 | 524 | 524 | 554 |
| p | 736 | 746 | 776 | 776 | 768.5 | 788.5 | 818.5 | 820.5 | 848.5 | 923 | 953 | 953 | 985 |
| Q | 573.5 | 583 | 613 | 613 | 583.5 | 603.5 | 633.5 | 635.5 | 663.5 | 774 | 749 | 749 | 779 |



T..71B - T..225B

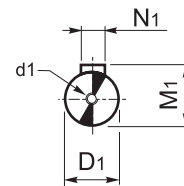
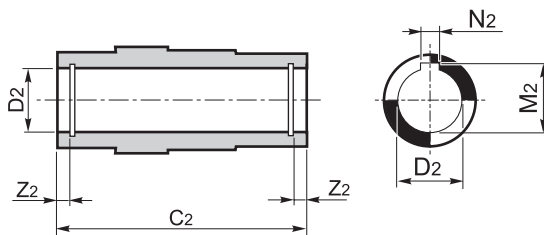


* Solo para / Only for /
Uniquement pour
90 B14

* Solo para / Only for /
Uniquement pour
90 B14

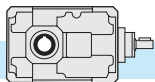
Eje de salida hueco
Hollow output shaft
Arbre creux de sortie

Eje de entrada
Input shaft
Arbre d'entrée



TA... - TC... - TF...

| | 71B | | | | | | | 90B | | | 112B | | | 140B | | 180B | | 200B | | 225B | |
|-------|-----------|------|------|-----------|------|------|-----------|-------|------|-----------|-------|-----------|------|-----------|------|------------|------|--------|--|--------|--|
| D1 h6 | 14 | | | | | | | 19 | | | 24 | | | 28 | | 38 | | 38 | | 48 | |
| d1 | M4x15 | | | | | | | M8x22 | | | M8x22 | | | M8x22 | | M10x28 | | M10x28 | | M12x34 | |
| M1 | 16 | | | | | | | 21.5 | | | 27 | | | 31 | | 41 | | 41 | | 51.5 | |
| N1 | 5 | | | | | | | 6 | | | 8 | | | 8 | | 10 | | 10 | | 14 | |
| C2 | 115 | | | | | | | 130 | | | 155 | | | 180 | | 220 | | 260 | | 300 | |
| D2 H7 | 24 | 28 | 30 | 32 | 30 | 35 | 42 | 40 | 45 | 55 | 50 | 70 | 60 | 90 | 80 | 100 | 90 | | | | |
| M2 | 27.3 | 31.3 | 33.3 | 35.3 | 33.3 | 38.3 | 45.3 | 43.3 | 48.8 | 59.3 | 53.8 | 74.9 | 64.4 | 95.4 | 85.4 | 106.4 | 95.4 | | | | |
| N2 | 8 | 8 | 8 | 10 | 8 | 10 | 12 | 12 | 14 | 16 | 14 | 20 | 18 | 25 | 22 | 28 | 25 | | | | |
| Z2 | — | | | 8.7 | 8.7 | 8.4 | 10.7 | 10.7 | 10.7 | 11.9 | 11.9 | 15.4 | 15.9 | 18.9 | 19.4 | 16.9 | - | | | | |



2.10 Dimensiones

2.10 Dimensions

2.10 Dimensions

| TA... - TC... - TF... | | | | | | | | | | | | | | |
|-----------------------|--------|----|------|--------|----|------|--------|------|--------|------|--------|------|--------|----|
| 80C | | | 100C | | | 125C | | 160C | | 180C | | 200C | | |
| A | 160 | | | 200 | | | 250 | | 320 | | 360 | | 400 | |
| a | 82 | | | 102 | | | 127 | | 162.5 | | 185 | | 204 | |
| a1 | 106 | | | 134 | | | 169 | | 217 | | 207 | | 277.5 | |
| B | 127 | | | 150 | | | 175 | | 215 | | 255 | | 290 | |
| b | 104 | | | 125 | | | 145 | | 180 | | 210 | | 240 | |
| C2 | 130 | | | 155 | | | 180 | | 220 | | 260 | | 300 | |
| D1 h6 | 14 | | | 19 | | | 24 | | 28 | | 28 | | 38 | |
| D2 H7 | 32 | 30 | 35 | 42 | 40 | 45 | 55 | 50 | 70 | 60 | 90 | 80 | 100 | 90 |
| E | 306 | | | 384 | | | 479 | | 609.5 | | 652 | | 766.5 | |
| e | 42 | | | 52 | | | 67 | | 90 | | 100 | | 115 | |
| F | 11 | | | 13 | | | 15 | | 17 | | 19 | | 21 | |
| f | M10x16 | | | M12x19 | | | M14x22 | | M16x25 | | M18x35 | | M18x30 | |
| G | 135 | | | 170 | | | 214 | | 280 | | 310 | | 350 | |
| g | 67.5 | | | 85 | | | 107 | | 140 | | 155 | | 175 | |
| H | 80 | | | 100 | | | 125 | | 160 | | 180 | | 200 | |
| h | 256 | | | 314 | | | 389 | | 479.5 | | 502 | | 604 | |
| I | 110 | | | 130 | | | 160 | | 190 | | 190 | | 237.5 | |
| i | 213.5 | | | 269 | | | 336 | | 429.5 | | 447 | | 541.5 | |
| L1 | 30 | | | 40 | | | 50 | | 60 | | 60 | | 80 | |
| O | 146 | | | 184 | | | 229 | | 289.5 | | 312 | | 366.5 | |
| T | 366 | | | 454 | | | 564 | | 699.5 | | 742 | | 884 | |
| t | 220 | | | 270 | | | 335 | | 410 | | 430 | | 517.5 | |
| Z | 11 | | | 13 | | | 16 | | 20 | | 22 | | 25 | |

| TA.. | | | | | | | | |
|------|----|--|----|--|----|-----|-----|-----|
| kg | 19 | | 36 | | 66 | 120 | 170 | 260 |

| TC... - TF... | | | | | | | | |
|---------------|----|--|----|--|----|-----|-----|-----|
| kg | 22 | | 41 | | 76 | 137 | 190 | 295 |

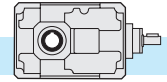
| TC... | | | | | | | | | | | |
|-------|-------|-------|----------|--------|-------|----------|--------------|------------|----------|------------|--------|
| 80C | | | | 100C | | | | 125C | | | |
| IEC | 63 B5 | 71 B5 | 80/90 B5 | 80 B14 | 71 B5 | 80/90 B5 | *90 B14 | 100/112 B5 | 80/90 B5 | 100/112 B5 | 132 B5 |
| Y | 140 | 160 | 200 | 120 | 160 | 200 | □ 120 / R 73 | 250 | 200 | 250 | 300 |
| P | 259 | 266 | 286 | 286 | 322 | 342 | 342 | 352 | 413 | 423 | 445 |
| p | 113 | 120 | 140 | 140 | 138 | 158 | 158 | 168 | 184 | 194 | 216 |
| Q | 339 | 346 | 366 | 366 | 422 | 442 | 442 | 452 | 538 | 548 | 570 |
| q | 193 | 200 | 220 | 220 | 238 | 258 | 258 | 268 | 309 | 319 | 341 |

| 160C | | | | 180C | | | | 200C | | | | |
|------|----------|------------|--------|------------|----------|------------|--------|------------|--|--|--|--------|
| IEC | 80/90 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 80/90 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 200 B5 |
| Y | 200 | 250 | 300 | 350 | 200 | 250 | 300 | 350 | 250 | 300 | 350 | 400 |
| P | 493 | 503 | 525 | 555 | 516 | 526 | 548 | 578 | $\frac{617}{(i=40-160)} / \frac{627}{(i=200-315)}$ | $\frac{637}{(i=40-160)} / \frac{647}{(i=200-315)}$ | $\frac{667}{(i=40-160)} / \frac{677}{(i=200-315)}$ | |
| p | 204 | 214 | 236 | 266 | 204 | 214 | 236 | 266 | $\frac{250}{(i=40-160)} / \frac{260}{(i=200-315)}$ | $\frac{270}{(i=40-160)} / \frac{280}{(i=200-315)}$ | $\frac{300}{(i=40-160)} / \frac{310}{(i=200-315)}$ | |
| Q | 653 | 663 | 686 | 715 | 696 | 706 | 728 | 758 | $\frac{617}{(i=40-160)} / \frac{627}{(i=200-315)}$ | $\frac{837}{(i=40-160)} / \frac{647}{(i=200-315)}$ | $\frac{867}{(i=40-160)} / \frac{877}{(i=200-315)}$ | |
| q | 364 | 374 | 396 | 426 | 384 | 394 | 416 | 446 | $\frac{450}{(i=40-160)} / \frac{460}{(i=200-315)}$ | $\frac{470}{(i=40-160)} / \frac{480}{(i=200-315)}$ | $\frac{500}{(i=40-160)} / \frac{510}{(i=200-315)}$ | |

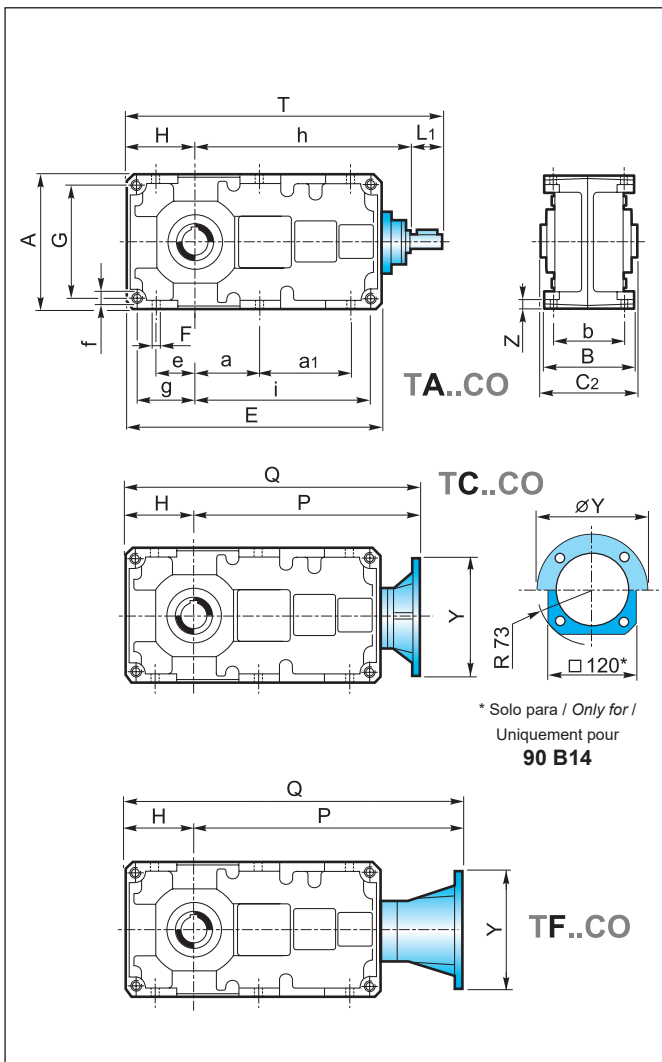
* Brida cuadrada / Square flanges / Brides carrées

| TF... | | | | | | | | | |
|-------|-------|-------|----------|-------|----------|------------|----------|------------|--------|
| 80C | | | 100C | | | 125C | | | |
| IEC | 63 B5 | 71 B5 | 80/90 B5 | 71 B5 | 80/90 B5 | 100/112 B5 | 80/90 B5 | 100/112 B5 | 132 B5 |
| Y | 140 | 160 | 200 | 160 | 200 | 250 | 200 | 250 | 300 |
| P | 313 | 320 | 341 | 388 | 409 | 419 | 494 | 504 | 525 |
| p | 167 | 174 | 195 | 204 | 225 | 235 | 265 | 275 | 296 |
| Q | 393 | 400 | 421 | 488 | 509 | 519 | 619 | 629 | 650 |
| q | 247 | 254 | 275 | 304 | 325 | 335 | 390 | 400 | 421 |

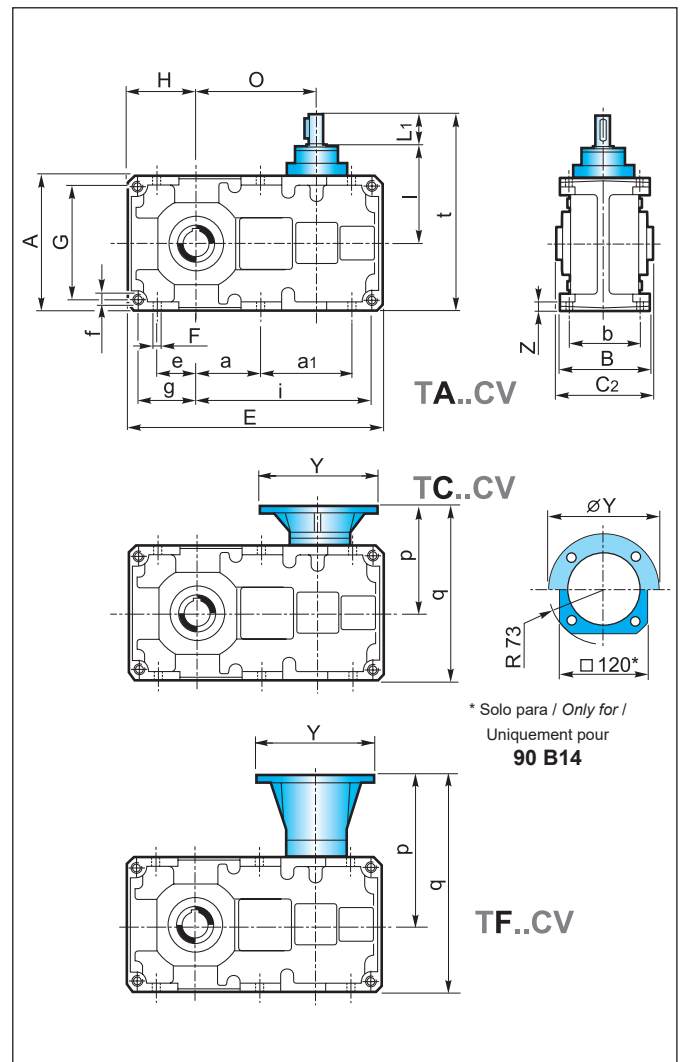
| 160C | | | | 180C | | | | 200C | | | | |
|------|----------|------------|--------|------------|----------|------------|--------|------------|------------|--------|------------|--------|
| IEC | 80/90 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 80/90 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 100/112 B5 | 132 B5 | 160/180 B5 | 200 B5 |
| Y | 200 | 250 | 300 | 350 | 200 | 250 | 300 | 350 | 250 | 300 | 350 | 400 |
| P | 594 | 604 | 625 | 655 | 617 | 627 | 648 | 678 | 750 | 770 | 800 | 802 |
| p | 305 | 315 | 336 | 366 | 305 | 315 | 336 | 366 | 383.5 | 404 | 434 | 436 |
| Q | 754 | 764 | 785 | 815 | 797 | 807 | 828 | 858 | 950 | 970 | 1000 | 1002 |
| q | 465 | 475 | 496 | 526 | 485 | 495 | 516 | 546 | 583.5 | 604 | 634 | 636 |



T..80C - T..200C

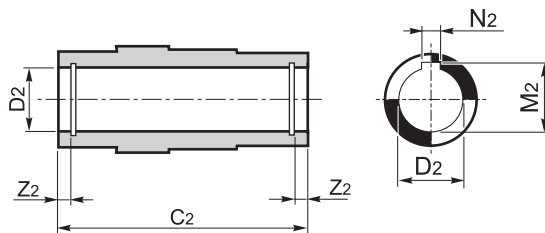


* Solo para / Only for /
Uniquement pour
90 B14

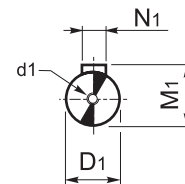


* Solo para / Only for /
Uniquement pour
90 B14

Eje de salida hueco
Hollow output shaft
Arbre creux de sortie

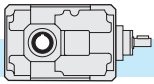


Eje de entrada
Input shaft
Arbre d'entrée



TA... - TC... - TF...

| | 80C | | 100C | | | 125C | | 160C | | 180C | | 200C | | |
|--------------|-----------|------|-------|-----------|------|-------|-----------|-------|-----------|-------|-----------|--------|------------|------|
| D1 h6 | 14 | | 19 | | | 24 | | 28 | | 28 | | 38 | | |
| d1 | M6x16 | | M8x22 | | | M8x22 | | M8x22 | | M8x22 | | M10x28 | | |
| M1 | 16 | | 21.5 | | | 27 | | 31 | | 31 | | 41 | | |
| N1 | 5 | | 6 | | | 8 | | 8 | | 8 | | 10 | | |
| C2 | 130 | | 155 | | | 180 | | 220 | | 260 | | 300 | | |
| D2 H7 | 32 | 30 | 35 | 42 | 40 | 45 | 55 | 50 | 70 | 60 | 90 | 80 | 100 | 90 |
| M2 | 35.3 | 33.3 | 38.3 | 45.3 | 43.3 | 48.8 | 59.3 | 53.8 | 74.9 | 64.4 | 95.4 | 85.4 | 106.4 | 95.4 |
| N2 | 10 | 8 | 10 | 12 | 12 | 14 | 16 | 14 | 20 | 18 | 25 | 22 | 28 | 25 |
| Z2 | 8.7 | | 8.4 | | 10.7 | | 11.9 | | 15.4 | | 18.9 | | 19.4 | |
| | | | | | | | | | | | | | - | |



2.11 Accesorios

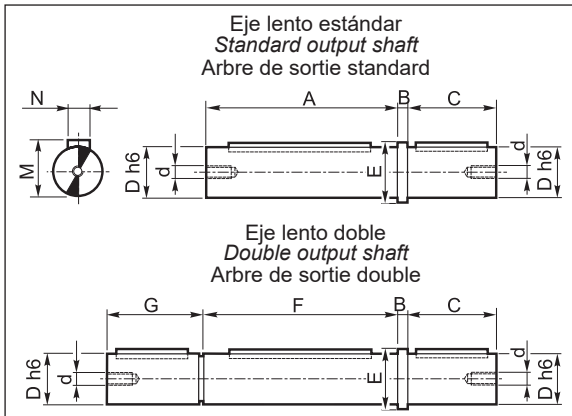
2.11 Accessories

2.11 Accessoires

Eje lento

Output shaft

Arbre de sortie



Material del eje lento: **C45**
Output shaft material: **C45**
Matériel arbre de sortie : **C45**

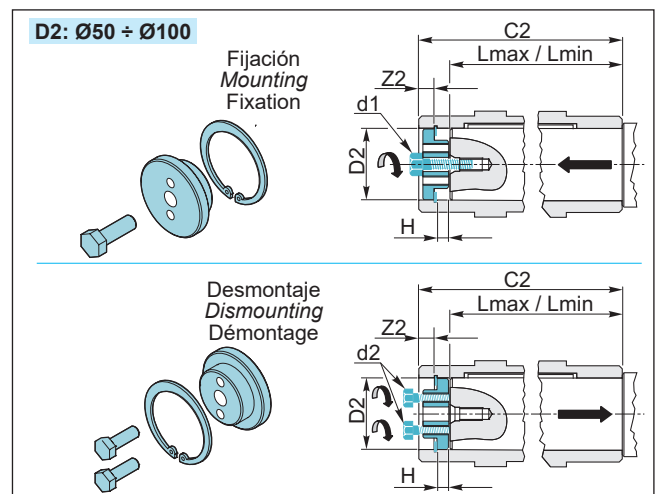
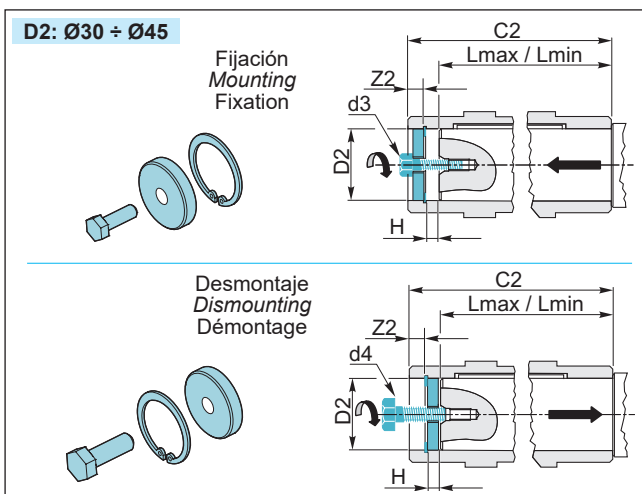
| | T | | | | | | | | | | | |
|-----------------|------------|------------|------------|-----|------------|--------------|--------------|--------------|--------------|--------------|-----|-----|
| | 56B 56C | 63B 63C | 75B 75C | 71B | 90B 80C | 112B 100C | 140B 125C | 180B 160C | 200B 180C | 225B 200C | | |
| A | 100 | 120 | 123 | 114 | 129 | 129 | 154 | 154 | 179 | 219 | 259 | 298 |
| B | 5 | 5 | 6 | 5 | 6 | 6 | 8 | 8 | 10 | 12 | 15 | 15 |
| C | 40 | 45 | 60 | 50 | 60 | 60 | 80 | 80 | 100 | 125 | 140 | 180 |
| D _{h6} | 20 | 25 | 35 | 24 | 32 | 35 | 42 | 45 | 55 | 70 | 90 | 100 |
| d | M8 | M8 | M10 | M8 | M8 | M8 | M10 | M10 | M10 | M12 | M16 | M18 |
| E | 26 | 32 | 43 | 30 | 40 | 43 | 50 | 53 | 65 | 80 | 110 | 118 |
| F | 100 | 120 | 125 | 115 | 130 | — | 155 | — | 180 | 220 | 260 | 300 |
| G | 41 | 46 | 60 | 49 | 59 | — | 79 | — | 99 | 124 | 141 | 178 |
| M | 22.5 | 28 | 38 | 27 | 35 | 38 | 45 | 48.5 | 59 | 74.5 | 95 | 106 |
| N | 6 | 8 | 10 | 8 | 10 | 10 | 12 | 14 | 16 | 20 | 25 | 28 |

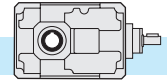
Kit de fijación y desmontaje
reductores con eje lento hueco
(Excepto T 56, 63, 71 y 75)

Kit for the mounting and dismounting
of the gearboxes with hollow output
shaft (except T 56, 63, 71 and 75)

Kit de fixation et de démontage
réducteurs avec arbre lent creux
(à l'exception de T 56, 63, 71 et 75)

| | T | | | | | | | | | | | | |
|------|------------|-----|-----|--------------|-----|----|--------------|-----|--------------|------|--------------|------|--------------|
| | 90B 80C | | | 112B 100C | | | 140B 125C | | 180B 160C | | 200B 180C | | 225B 200C |
| C2 | 130 | | | 155 | | | 180 | | 220 | | 260 | | 300 |
| D2 | 32 | 30 | 35 | 42 | 40 | 45 | 55 | 50 | 70 | 60 | 90 | 80 | 100 |
| H | 8 | 7 | 6.5 | 10 | 8 | | 9 | | 12 | | 16 | 15.5 | 17 |
| d1 | — | | | — | | | M10 | | M12 | | M16 | | M18 |
| d2 | — | | | — | | | M8 | | M10 | | M12 | | M16 |
| d3 | M8 | | | M8 | | | — | | — | | — | | — |
| d4 | M12 | | | M12 | | | — | | — | | — | | — |
| Z2 | 8.7 | | 8.4 | 10.7 | | | 11.9 | | 15.4 | 15.9 | 18.9 | 19.4 | 16.9 |
| Lmax | 111 | 112 | | 131 | 133 | | | 156 | | 189 | | 221 | 262 |
| Lmin | 106 | 107 | | 126 | 128 | | | 149 | | 182 | | 211 | 252 |

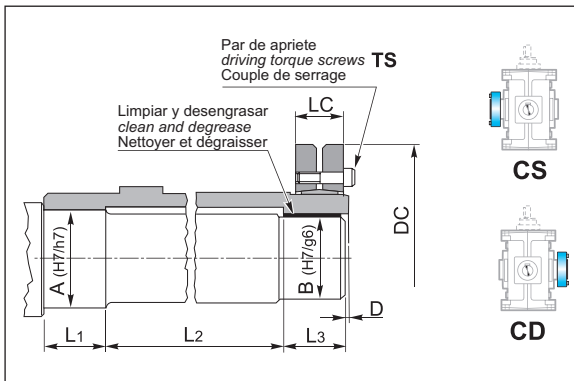




Eje hueco con anillo de fijación

Hollow output shaft with shrink disc

Arbre creux de sortie avec frette de serrage

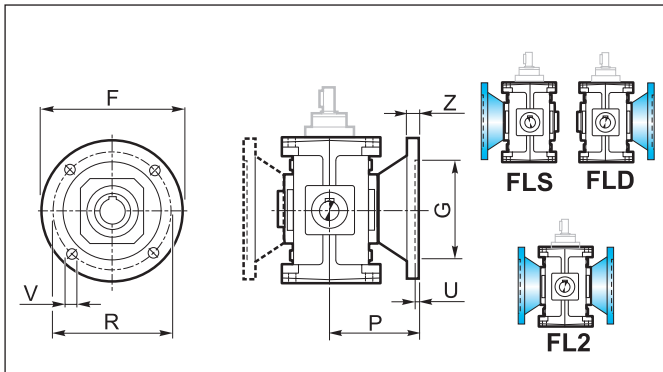


| | T | | | | | | | | | |
|----------------|------------|------------|------------|-----|------------|--------------|--------------|--------------|--------------|--------------|
| | 56B 56C | 63B 63C | 75B 75C | 71B | 90B 80C | 112B 100C | 140B 125C | 180B 160C | 200B 180C | 225B 200C |
| A | 27 | 32 | 37 | 27 | 37 | 47 | 57 | 72 | 92 | 102 |
| B | 25 | 30 | 35 | 25 | 35 | 45 | 55 | 70 | 90 | 100 |
| D | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 |
| DC | 60 | 72 | 80 | 60 | 80 | 100 | 115 | 155 | 188 | 215 |
| LC | 21.5 | 23.5 | 26 | 22 | 26 | 31 | 31 | 39 | 50 | 54 |
| L ₁ | 32 | 36 | 39 | 36 | 39 | 45 | 50 | 60 | 70 | 80 |
| L ₂ | 61 | 75 | 82 | 68 | 82 | 100 | 115 | 143 | 175 | 200 |
| L ₃ | 32 | 36 | 39 | 36 | 39 | 45 | 50 | 60 | 70 | 80 |
| TS(Nm) | 4 | 12 | 12 | 4 | 12 | 12 | 12 | 30 | 59 | 59 |

Brida de salida

Output flange

Bride de sortie

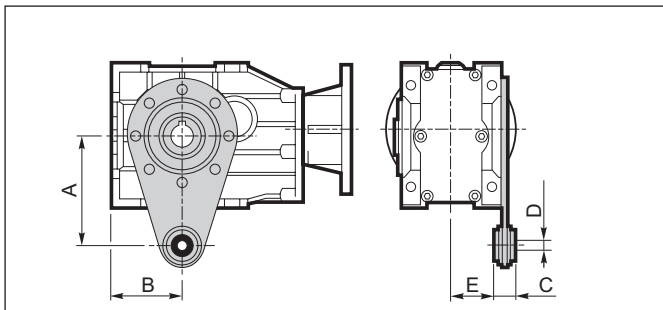


| | T | | | | | | | | |
|-----------------|------------|------------|------------|-----|------------|--------------|--------------|--------------|--------------|
| | 56B 56C | 63B 63C | 75B 75C | 71B | 90B 80C | 112B 100C | 140B 125C | 180B 160C | 200B 180C |
| F | 140 | 160 | 200 | 160 | 200 | 250 | 300 | 350 | 400 |
| G _{F7} | 95 | 110 | 130 | 110 | 130 | 180 | 230 | 250 | 300 |
| R | 115 | 130 | 165 | 130 | 165 | 215 | 265 | 300 | 350 |
| P | 82 | 91.5 | 97.5 | 87 | 100 | 125 | 150 | 180 | 215 |
| U | 5 | 5 | 5 | 4 | 4.5 | 5 | 5 | 6 | 6 |
| V | 9 | 9 | 12 | 12 | 12 | 14 | 16 | 18 | 20 |
| Z | 15 | 10 | 15 | 10 | 12 | 16 | 20 | 25 | 30 |
| kg | 0.5 | 0.5 | 0.9 | 2 | 3.2 | 5 | 8 | 12.5 | 24 |

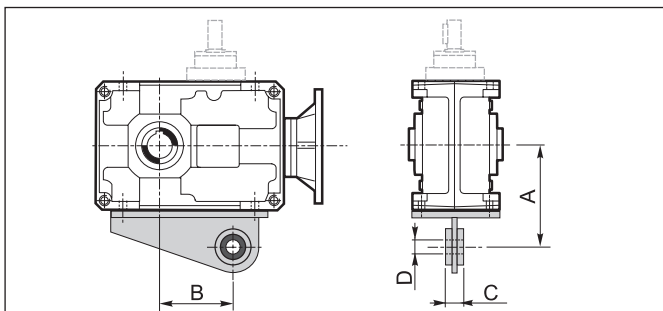
Brazo de reacción

Torque arm

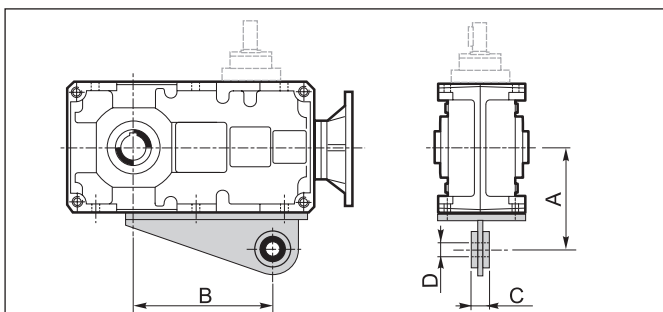
Bras de réaction



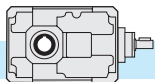
| 56B - 56C - 63B - 63C - 75B - 75C | | | |
|-----------------------------------|------------|------------|------------|
| | T | | |
| | 56B 56C | 63B 63C | 75B 75C |
| A | 100 | 150 | 200 |
| B | 65 | 70 | 90 |
| C | 20 | 20 | 25 |
| D | 10 | 10 | 20 |
| E | 39 | 48.5 | 49 |



| 71B - 225B | | | | | | | |
|------------|-----|-----|------|------|-------|------|------|
| | T | | | | | | |
| | 71B | 90B | 112B | 140B | 180B | 200B | 225B |
| A | 123 | 140 | 172 | 205 | 260 | 300 | 325 |
| B | 84 | 116 | 144 | 189 | 247.5 | 280 | 319 |
| C | 25 | 25 | 30 | 30 | 35 | 45 | 45 |
| D | 20 | 20 | 25 | 25 | 35 | 40 | 40 |



| 80C - 200C | | | | | | |
|------------|-----|------|------|-------|------|-------|
| | T | | | | | |
| | 80C | 100C | 125C | 160C | 180C | 200C |
| A | 130 | 160 | 190 | 240 | 280 | 300 |
| B | 170 | 214 | 276 | 354.5 | 367 | 456.5 |
| C | 25 | 30 | 30 | 35 | 45 | 45 |
| D | 20 | 25 | 25 | 35 | 40 | 40 |



Kit de protección el eje hueco

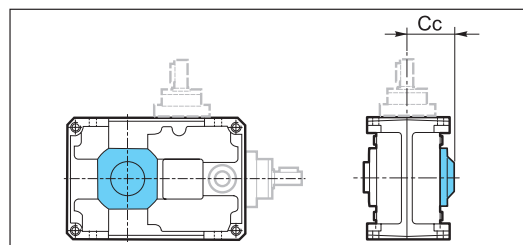
Excluyendo los tamaños 56 y 63, a pedido es posible disponer un reductor con kit de protección para el eje hueco. Tal protección, siendo compuesta de una garnición especial, impide a posibles fluidos y cuerpos extraños presentes en el ambiente de trabajo el contacto con el eje hueco. Las dimensiones del kit se detallan en la siguiente tabla.

Hollow shaft protection kit

On request we can supply a hollow shaft protection kit (except for sizes 56 and 63). The kit features a gasket which prevents any contact between hollow shaft and foreign bodies or fluids existing in the working environment. Over-all dimensions are reported in the following table.

Kit de protection arbre creux

A l'exception des tailles 56 et 63, sur demande, il y a la possibilité de monter un kit de protection pour l'arbre creux. Cette protection étant équipée du joint nécessaire, elle empêche aux fluides (éventuellement présent dans ce milieu de travail) le contact avec l'arbre creux du réducteur ainsi qu'avec des corps étrangers. Les dimensions sont indiquées dans le tableau suivant.



| | T | | | | | | |
|----|------|------------|--------------|--------------|--------------|--------------|--------------|
| | 71B | 90B 80C | 112B 100C | 140B 125C | 180B 160C | 200B 180C | 225B 200C |
| Cc | 79.5 | 87 | 105 | 120.5 | 141.5 | 167.5 | 191.5 |

Dispositivo anti-retorno

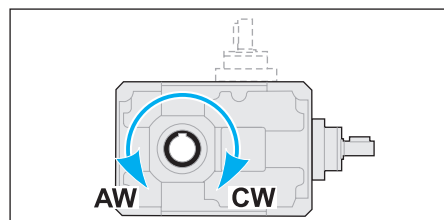
El reductor de ejes ortogonales presenta valores de rendimiento estático (y dinámico) muy elevados: por este motivo no se garantiza espontáneamente la irreversibilidad estática. La irreversibilidad estática se realiza cuando, con el reductor parado, la aplicación de una carga en el eje lento pone en rotación el eje de entrada. Por tanto, para garantizar la irreversibilidad del movimiento, con el reductor parado, es necesario predisponer el reductor mismo con un dispositivo antirretorno, adecuado, que se puede suministrar bajo petición excepto en los tamaños T56 y T63. Tal dispositivo permite la rotación del eje lento solo en el sentido deseado, que se especificará al momento de realizar el pedido.

Backstop device

Bevel helical gearboxes feature quite high values of static (and dynamic) efficiency: for this reason spontaneous static irreversibility is not guaranteed. Static irreversibility, with motionless gearbox, occurs when the application of a load on the output shaft does not cause rotation of the input axis. In order to guarantee motion irreversibility, with motionless gearbox, it is necessary to fit a backstop device, which is available on request, except for sizes 56 and 63. The backstop device enables rotation of the output shaft only in the required direction, which is to be specified when ordering.

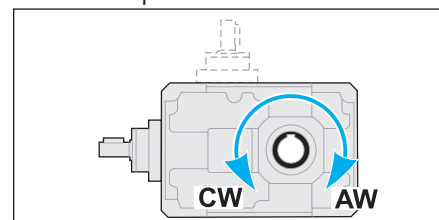
Dispositif anti-dévireur

Le réducteur à arbres orthogonaux présente des valeurs de rendement statique et dynamique très élevées : pour cette raison on ne peut pas garantir l'irréversibilité statique. L'irréversibilité statique se réalise lorsque le réducteur est à l'arrêt et que l'application de la charge sur l'arbre de sortie ne permet aucune rotation de l'arbre d'entrée. Par conséquent pour garantir l'irréversibilité du mouvement avec réducteur arrêté, il faut predisposer le réducteur pour le montage d'un dispositif anti-dévireur, livrable sur demande, excepté la taille T56 et T63. Ce dispositif permet la rotation de l'arbre de sortie seulement dans le sens souhaité et doit être spécifié lors de la commande.



CW Rotación horaria
Clockwise rotation
Rotation horaire

AW Rotación antihoraria
Anti-clockwise rotation
Rotation anti-horaire



En el caso que se utilice el dispositivo anti-retorno es necesario utilizar aceite lubricante sintético, clase de viscosidad ISO150.

En la tabla siguiente (tab. 3) están indicados los valores de los momentos de torsión nominales máximos (T_{2Mmax}), referidos al eje de salida, garantizados por el dispositivo anti-retorno, por cada relación de reducción y cada tamaño de reductor. Si en el eje lento se aplica un par mayor de lo que viene indicado, la irreversibilidad del movimiento no está garantizada.

Estos valores de pares no se deben confundir con aquellos de la tabla que especifica datos técnicos de los reductores. De hecho, se ve en la tabla como se evidencian los valores de par garantizados (de salida), del dispositivo anti-retorno, resultando ser menores de los máximos valores del par motriz transmisible, con un factor de servicio ($FS = 1$), del reductor.

Véase apartado 1.5 para la verificación del dispositivo antirretorno.

The utilization of synthetic oil, viscosity class ISO 150, is necessary for the gearboxes equipped with back stop device.

The following table (tab.3) shows the max. rated torques (T_{2Mmax}) at gearbox output guaranteed by the backstop device, for each ratio and each gearbox size. If a higher torque is applied at gearbox output, motion irreversibility is no longer guaranteed.

These torque values are not to be confused with the values reported in the gearbox specifications tables.

Please note that the torque values guaranteed (at output) by the backstop device are lower than the max. driving torque values transmissible by the gearbox, with service factor $F_s = 1$.

To check the back stop device pls see paragraph 1.5.

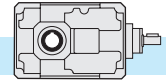
En cas de réducteur avec dispositif anti-dévireur on recommande l'utilisation d'huile synthétique, classe de viscosité ISO 150.

Les valeurs des couples nominales max. (T_{2Mmax}) concernant l'arbre de sortie, garanties par le dispositif anti-dévireur, pour chaque type de rapport de réduction et pour chaque taille sont indiquées au tableau suivant (tab 3). Si on applique un couple plus élevé sur l'arbre de sortie l'irréversibilité n'est pas garantie.

Ces valeurs de couple ne doivent pas se confondre avec les valeurs indiquées au tableau concernant les données techniques des réducteurs.

En effet il faut considérer que les valeurs du couple (à la sortie) mises en évidence sur le tableau et garanties par le dispositif anti-dévireur sont inférieures aux valeurs max. du moment transmissible du réducteur selon facteur de service $FS = 1$.

Voir paragraphe 1.5 pour la vérification du dispositif antiretour.



Par máximo en salida garantizado del dispositivo anti-retorno
Max. output torque guaranteed by the backstop device
Couple max. garanti du dispositif anti-déveur à la sortie

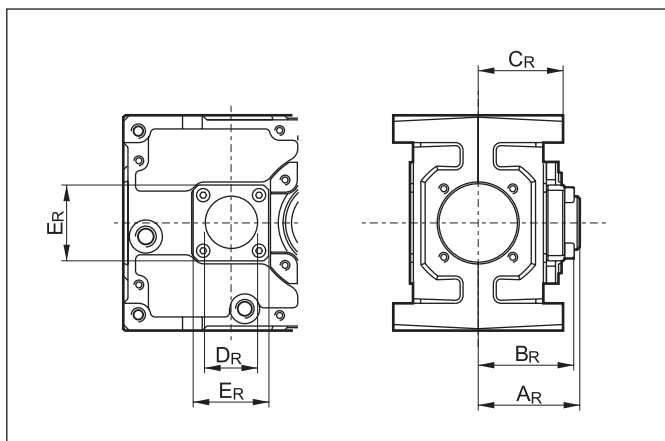
Tab. 3

| T | in | | | | | | | | | | | | | | | | |
|-------------|--------------------------------|------|------|------|-------|-------|-------|------|-------|-------|-------|------|-------|-------|-------|------|------|
| | 5* | 6.3* | 7* | 8 | 10 | 12.5 | 16 | 18* | 20 | 25 | 31.5 | 35* | 40 | 50 | 63 | 70* | 80 |
| | T_{2M} max [Nm] | | | | | | | | | | | | | | | | |
| 71B | — | — | — | — | 213 | 272 | 325 | — | 213 | 271 | 325 | — | 421 | 272 | 325 | — | 421 |
| 90B | 148 | 204 | — | — | 333 | 424 | 508 | — | 333 | 424 | 508 | — | 657 | 424 | 508 | — | 657 |
| 112B | 326 | — | — | — | 733 | 934 | 1118 | — | 733 | 933 | 1119 | — | 1446 | 933 | 1118 | — | 1446 |
| 140B | — | — | 1038 | — | 1547 | 1969 | 2358 | 2630 | 1547 | 1968 | 2359 | 2630 | 3051 | 1968 | 2359 | 2630 | 3050 |
| 180B | — | — | — | — | 3009 | 3831 | 4588 | 5115 | 3009 | 3829 | 4589 | 5115 | 5935 | 3829 | 4589 | 5115 | 5934 |
| 200B | — | — | — | 5937 | 7607 | 9189 | 11399 | — | 12873 | 9190 | 11402 | — | 12875 | 11401 | 12875 | — | — |
| 225B | — | — | — | 9856 | 11829 | 14538 | 9858 | — | 11838 | 14536 | 14537 | — | 17800 | — | — | — | — |

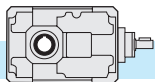
| T | in | | | | | | | | | | | | | | | | |
|-------------|--------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | 40 | 50 | 63 | 80 | 100 | 125 | 160 | 200 | 225* | 250 | 315 | 400 | 450* | 500 | 550* | 630 | |
| | T_{2M} max [Nm] | | | | | | | | | | | | | | | | |
| 80C | — | 1086 | 1301 | 1656 | 1086 | 1301 | 1656 | 1985 | — | 1301 | 1656 | 1985 | — | 2567 | — | 3319 | |
| 100C | — | 1697 | 2033 | 2588 | 1697 | 2033 | 2588 | 3101 | — | 2033 | 2588 | 3101 | — | 4010 | — | 5186 | |
| 125C | — | 3733 | 4474 | 5694 | 3733 | 4473 | 5693 | 6822 | 7605 | 4473 | 5693 | 6822 | 7605 | 8822 | 9836 | 11410 | |
| 160C | — | 7874 | 9435 | 12008 | 7873 | 9435 | 12008 | 14388 | 16042 | 9434 | 12008 | 14388 | 16042 | 18607 | 20747 | 24064 | |
| 180C | — | 7874 | 9435 | 12008 | 7873 | 9435 | 12008 | 14388 | — | 9434 | 12008 | 14388 | — | 18607 | — | 24064 | |
| 200C | 12511 | 15024 | 18453 | 22586 | 15023 | 18450 | 22594 | 15024 | — | 18452 | 22594 | — | — | — | — | — | |

* Relaciones especiales / *Special ratios* / Rapports spéciaux Valores de par *Torque* values Valores de couple
 garantizados inferiores a la T_{2M} *guaranteed lower than T_{2M} value* garanties inférieures à la T_{2M}

Dimensiones de la versión con anti-retorno. *Dimensions of the version with backstop device* Dimensions de la version avec anti-déveur



| | A _R | B _R | C _R | D _R | E _R |
|---------------|----------------|----------------|----------------|----------------|----------------|
| T 71B | 67 | 63 | 56 | 35 | 50 |
| T 80C | 67 | 63 | 63.5 | 45 | 60 |
| T 90B | 73 | 68 | 63.5 | 45 | 60 |
| T 100C | 71.5 | 70 | 75 | 55 | 80 |
| T 112B | 90 | 83 | 75 | 55 | 80 |
| T 125C | 86.5 | 96.5 | 87.5 | 60 | 90 |
| T 140B | 108 | 95 | 87.5 | 70 | 90 |
| T 160C | 106.5 | 101 | 107.5 | 70 | 100 |
| T 180B | 122 | 113 | 107.5 | 80 | 110 |
| T180C | 110.5 | 110 | 127.5 | 70 | 100 |
| T200B | 163 | 137.5 | 127.5 | 90 | 160 |
| T 200C | 125 | 124 | 145 | 90 | 130 |
| T 225B | 169 | 147 | 145 | 110 | 155 |



2.12 Juegos angulares

Bloqueando el eje de entrada, el juego se mide sobre el eje de salida girándolo en las dos direcciones, aplicando el par estrictamente necesario a fin de crear el contacto entre los dientes de los engranajes, hasta un máximo equivalente al 2% del par máximo garantizado por el reductor (T_{2M}).

En la siguiente tabla se describen los valores indicativos al juego angular (en minuto de ángulo) referido al montaje normal. Los valores que se pueden obtener con una regulación más precisa son un poco inferiores de uno o dos iniciales. Esta última ejecución se debe efectuar solo en caso de una real necesidad, dado que podría comportar un ligero aumento del ruido haciendo menos eficaz el accionar del aceite lubricante.

2.12 Angular backlash

After having blocked the input shaft the angular backlash can be measured on the output shaft by rotating it in both directions and applying the torque which is strictly necessary to create a contact between the teeth of the gears. The applied torque should be at most 2% of the max. torque guaranteed by the gearbox. (T_{2M}). The following table reports the approximate values of the angular backlash (in minutes of arc) referred to standard mounting. The values that can be obtained with a more precise recording are slightly lower than one or two primes or two minutes of arc. The latter solution should be adopted only in case of necessity because it may rise the noise level and lessen the action of the lubricant.

2.12 Jeux angulaires

Si l'on bloque l'arbre d'entrée, on peut mesurer le jeu sur l'arbre de sortie tout en tournant l'arbre dans les deux directions et avec le couple strictement nécessaire à créer un contact avec les dents des engrenages, équivalent à 2% du couple max. admissible par le réducteur (T_{2M}). Dans le tableau suivant sont indiquées les valeurs indicatives du jeu angulaire (1') pour ce qui concerne le montage standard. Les valeurs réalisables avec un réglage plus précis sont légèrement inférieures à une ou aux deux premières. Cette dernière solution doit être utilisée seulement en cas de nécessité réelle puisqu'elle peut engendrer une faible augmentation du niveau de bruit et réduire l'efficacité de la lubrification.

| T | Juego angular máximo / Maximum Backlash / Jeu angulaire maximum (1') |
|--|--|
| 56B / 56C / 63B / 63C / 75B / 75C 71B / 90B / 80C / 112B / 100C | 20' |
| 140B / 125C / 180B / 160C / 200B / 180C / 225B / 200C | 15' |

2.13 Lubricación

Los reductores de ejes ortogonales (a exclusión de los tipos TF56, T63 y TF75, con lubricación de por vida) se proporcionan listos para la lubricación con aceite y con los correspondientes tapones de llenado, nivel y descarga del aceite.

Recomendamos indicar la posición de montaje en el pedido.

2.13 Lubrication

Bevel helical gearboxes (except for TF56, T63 and TF75 which are lubricated for life) require oil lubrication and are equipped with filler, level and drain plugs. The mounting position should always be specified when ordering the gearbox.

2.13 Lubrification

Les réducteurs à arbres orthogonaux (à l'exception du type TF56, 63 et TF75 lubrifié à vie) sont adaptés au graissage par huile et équipés de bouchons de remplissage, vidange et jauge de niveau.

Il faudra toujours préciser la position de montage souhaitée en cours de commande.

BOMBA DE LUBRICACIÓN.

Un bomba de lubricación forzada de los rodamientos superiores puede proveerse a pedido en los tamaños 112, 125, 140, 160, 180, 200 y 225 en la posición de montaje VA.

OIL PUMP.

A pump for forced lubrication of the upper bearings is supplied on request for sizes 112, 125, 140, 160, 180, 200 and 225 in the VA mounting position.

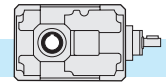
POMPE DE GRAISSAGE

Sur demande on peut fournir une pompe de graissage forcé des roulements supérieurs dans la taille 112, 125, 140, 160, 180, 200 et 225 pour la position de montage VA.

En las posiciones de montaje en que están presentes cojinetes situados por encima del nivel del aceite lubricante está prevista la aplicación de grasa especial en dichos cojinetes para mejorar su lubricación. Es posible dotar a los mismo cojinetes de un anillo metálico (nylos) con la función de contención de la grasa y, consiguientemente, de prolongar el efecto en el tiempo. Esta solución es suministrada bajo petición específica.

Depending on the mounting position, the bearings may be lodged above the lubricant level. In this case it is necessary to apply special grease on the bearings in order to improve their lubrication. A metallic ring (nylos) can be fitted on the bearings it keeps the grease in place thus prolonging the action. It is supplied on specific request.

Sur la base de la position de montage les roulements placés au dessus du niveau de l'huile nécessitent d'une graisse spéciale pour améliorer la lubrification. Il y a la possibilité aussi de monter une bague métallique (nylos) sur ces roulements pour contenir la graisse et par conséquent en prolonger l'efficacité dans le temps. Cette solution est livrable uniquement sur demande.



Posiciones de montaje y cantidad de lubricante (litros)

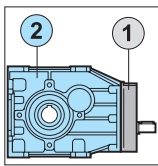
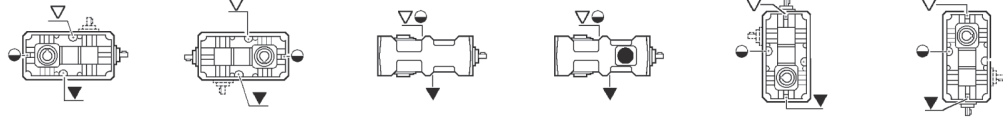
Mounting positions and lubricant quantity (liters)

Position de montage et quantité d'huile (litres)

Las cantidades de aceite indicadas en las distintas tablas, son indicativas y se refieren a las posiciones de trabajo indicadas, considerando las condiciones de funcionamiento a temperatura ambiente y velocidad de entrada de 1400 min⁻¹. Para condiciones de trabajo diversas de las arriba indicadas, contactar a nuestro servicio técnico.

The oil quantities stated in the tables are approximate values and refer to the indicated working positions, considering operating conditions at ambient temperature and an input speed of 1400 min⁻¹. Should the operating conditions be different, please contact the technical service.

Les quantités d'huile indiquées dans le tableau sont indicatives et concernent les positions de montage indiquées et calculées pour fonctionnement à température ambiante et avec une vitesse à l'entrée de 1400 t/min⁻¹. Pour des conditions de travail différentes contacter le service technique.



| | T | B3 | B8 | B6 | B7 | VA | VB |
|---|------|------|------|------|------|------|------|
| ② | 56B | | | 0.30 | | 0.40 | 0.30 |
| ① | 56C | | | | 0.05 | | |
| ② | 56C | | 0.30 | | | 0.40 | 0.30 |
| ② | 63B | | 0.35 | | | 0.45 | 0.35 |
| ① | 63C | | | | 0.05 | | |
| ② | 63C | | 0.35 | | | 0.45 | 0.35 |
| ② | 75B | | | 0.45 | | | |
| ① | 75C | | | 0.08 | | | |
| ② | 75C | | | 0.45 | | | |
| | 71B | 0.6 | | 0.7 | 0.5 | | 0.8 |
| | 80C | 1.1 | | 1.5 | 1.3 | | 1.5 |
| | 90B | 1.0 | | 1.4 | 1.2 | | 1.3 |
| | 100C | 2.0 | | 2.6 | 2.3 | | 2.8 |
| | 112B | 1.8 | | 2.6 | 2.3 | | 2.4 |
| | 125C | 3.8 | | 4.8 | 4.5 | | 5.0 |
| | 140B | 3.6 | | 4.6 | 4.3 | | 4.3 |
| | 160C | 7.0 | | 9.2 | 8.7 | | 10.0 |
| | 180B | 7.5 | | 9.7 | 9.2 | | 8.0 |
| | 180C | 9.5 | | 14.0 | 13.0 | | 15.5 |
| | 200B | 12.5 | | 15.0 | 14.0 | | 17.5 |
| | 200C | 13.5 | | 19.0 | 18.0 | | 19.5 |
| | 225B | 14.5 | | 19.0 | 18.0 | | 18.7 |

* En la posición de montaje B6-B7 está previsto un tapón respiradero con varilla de nivel, excepto T 56, 63 y 75

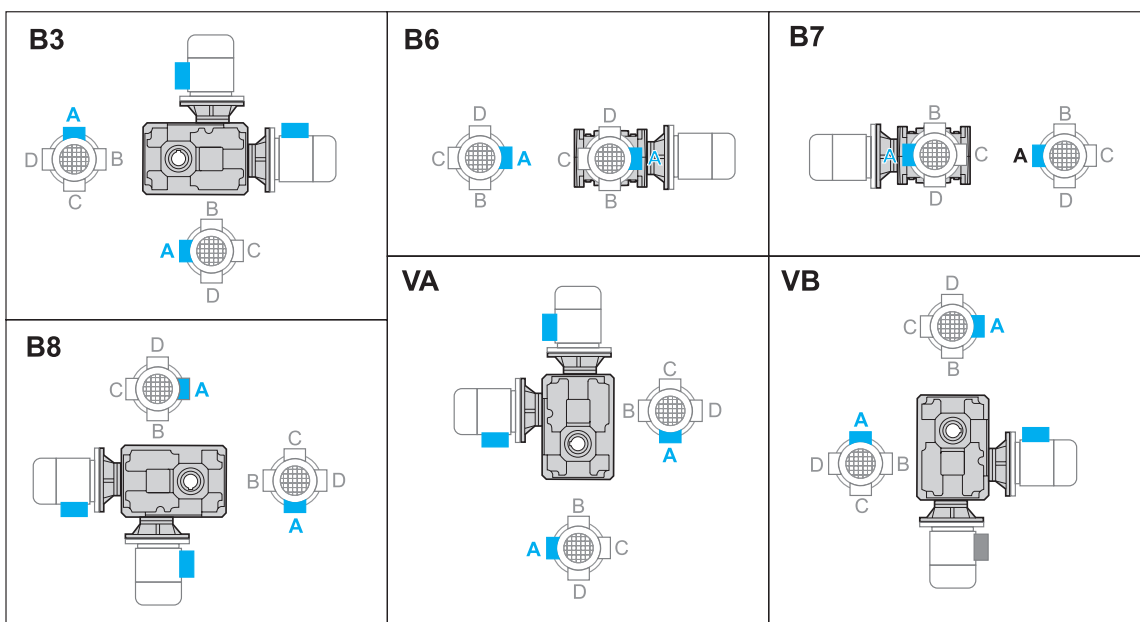
* In mounting position B6-B7 the breather plug is supplied complete with the dipstick, except T 56, 63 and 75.

* Pour la position de montage B6-B7 on prévoit un bouchon d'évent avec jauge de niveau, à l'exception de T 56, 63 et 75

Posición de la caja de bornes

Terminal board position

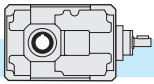
Position de la boîte à bornes



N.B. Si no se ha especificado en contrario, el motor será suministrado con la posición de la caja de bornes en la posición A.

N.B. Unless otherwise agreed, the motor will be supplied with the terminal board in position A.

N.B. Le moteur sera livré avec boîte à bornes en position A.



2.14 Cargas radiales y axiales (N)

Las transmisiones realizadas mediante piñones de cadena, engranajes de modulo o poleas, generan fuerzas radiales (F_R) sobre el eje del reductor. Estas fuerzas pueden calcularse mediante la siguiente fórmula:

2.14 Radial and axial loads (N)

Transmissions implemented by means of chain pinions, wheels or pulleys generate radial forces (F_R) on the gear unit shafts. The entity of these forces may be calculated using the following formula:

2.14 Charges radiales et axiales (N)

Les transmissions obtenues par des pignons à chaîne, roues dentées ou poulies engendrent des forces radiales (F_R) qui agissent sur les arbres des réducteurs. L'intensité de ces efforts peut être calculée selon la formule :

$$F_R = \frac{K_R \cdot T}{d} \text{ [N]}$$

donde:

T = momento de torsión [Nm]
d = diámetro del piñón o de la polea [mm]

K_R = 2000 para piñones de cadena
= 2500 para engranajes de módulo
= 3000 para poleas en V

where:

T = torque [Nm]
d = pinion or pulley diameter [mm]

K_R = 2000 for chain pinion
= 2500 for wheel
= 3000 for V-belt pulley

où :

T = couple [Nm]
d = diamètre pignon ou poulie [mm]

K_R = 2000 pour pignon à chaîne
= 2500 pour roues dentées
= 3000 pour poulies avec courroies trapézoïdales

Los valores de las cargas radiales y axiales generados por la aplicación deben ser siempre menores o iguales a los valores indicados en las tablas.

The values of the radial and axial loads generated by the application must always be lower than or equal to the admissible values reported in the tables.

Les valeurs des charges radiales et axiales engendrées par l'application, doivent être toujours inférieures ou égales à celles admissibles indiquées aux tableaux.

$$F_R \geq Fr_{1-2}$$

Si la carga radial sobre el eje de salida no es aplicada a mitad de la longitud del eje, el valor de la carga admisible debe ser considerado utilizando la fórmula referente a $F_{r_{1-2}}$, siendo los valores de a, b y $F_{r_{1-2}}$ obtenidos en la tabla relativa a las cargas radiales.

En el caso de ejes de salida doble, el valor de la carga aplicable en alguna extremidad es igual a 2/3 del valor de la tabla, con tal que las cargas aplicadas sean igual de intensidad, dirección y reaccionen en el mismo sentido. Caso contrario contactarse con el servicio técnico.

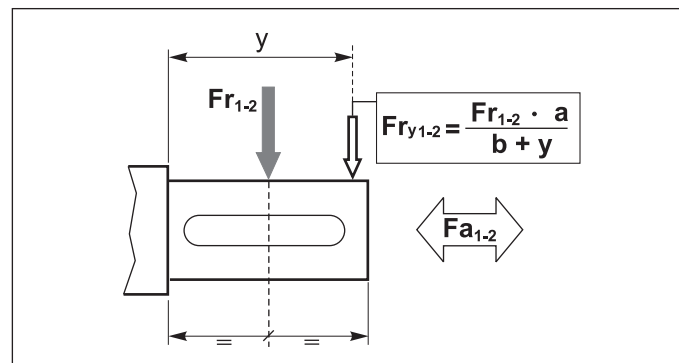
Should the radial load affect the shaft not at the half-way point of its projection but at a different point, the value of the admissible load has to be calculated using the $F_{r_{1-2}}$ formula: a, b and $F_{r_{1-2}}$ values are reported in the radial load tables.

With regard to double-projecting shafts, the load applicable at each end is 2/3 of the value given in the table, on condition that the applied loads feature same intensity and direction and that they act in the same direction.

Otherwise please contact the technical department.

Si la carga radial sobre el eje de salida no es aplicada a mitad de la longitud del eje, el valor de la carga admisible debe ser considerado utilizando la fórmula referente a $F_{r_{1-2}}$, siendo los valores de a, b y $F_{r_{1-2}}$ obtenidos en la tabla relativa a las cargas radiales.

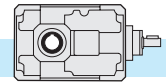
En ce qui concerne les doubles arbres, la charge applicable à chaque fin est 2/3 de la valeur donnée dans la table, à condition que les charges appliquées représentent la même intensité et la direction et qu'ils agissent dans la même direction. En cas contraire veuillez contacter le service technique.



Las cargas radiales indicadas en la tabla, se su ponen aplicándolas en la mitad del eje y se refiere a un reductor que opera con factor de servicio igual a 1.

The radial loads indicated in the chart are considered to be applied at the half-way point of the shaft projection, and refer to gear units operating with service factor 1.

Les charges radiales indiquées aux tableaux s'entendent appliquées à mi-bout d'arbre et se réfèrent à des réducteurs en exercice avec facteur de service 1.



| | | T 56B | | T 63B | | T 75B | | | | T 56C | | T 63C | | T 75C | |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| EJE DE ENTRADA / INPUT SHAFT / ARBRE D'ENTREE (n ₁ = 1400 min ⁻¹) | | | | | | | | | | | | | | | |
| in | a = * | b = * | a = * | b = * | a = * | b = * | in | a = * | b = * | a = * | b = * | a = * | b = * | a = * | b = * |
| | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ |
| Todo All Tous | * | * | * | * | * | * | Todo All Tous | * | * | * | * | * | * | * | * |

* Consultar a nuestro Servicio Técnico.

* Contact Tramec Technical dept..

* Contacter le Service Technique

| | | T 56B | | T 63B | | T 75B | | | | T 56C | | T 63C | | T 75C | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| EJE DE SALIDA / OUTPUT SHAFT / ARBRE DE SORTIE (n ₁ = 1400 min ⁻¹) | | | | | | | | | | | | | | | |
| | a = 106 | b = 81 | a = 121 | b = 93.5 | a = 106 | b = 81 | in | a = 106 | b = 81 | a = 121 | b = 93.5 | a = 121 | b = 93.5 | | |
| | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ |
| 8 | 1300 | 260 | 1500 | 300 | 2500 | 500 | 40 | 2300 | 460 | 2500 | 500 | — | — | | |
| 10 | 1300 | 260 | 1500 | 300 | 2500 | 500 | 50 | 2300 | 460 | 2500 | 500 | 3500 | 700 | | |
| 12.5 | 1300 | 260 | 1500 | 300 | 2500 | 500 | 63 | 2300 | 460 | 2500 | 500 | 3500 | 700 | | |
| 16 | 1800 | 360 | 2000 | 400 | 2500 | 500 | 80 | 2800 | 560 | 3000 | 600 | 3500 | 700 | | |
| 20 | 1800 | 360 | 2000 | 400 | 3000 | 600 | 100 | 2800 | 560 | 3000 | 600 | 4000 | 800 | | |
| 25 | 1800 | 360 | 2000 | 400 | 3000 | 600 | 125 | 2800 | 560 | 3000 | 600 | 4000 | 800 | | |
| 31.5 | 1800 | 360 | 2000 | 400 | 3000 | 600 | 160 | 2800 | 560 | 3000 | 600 | 4000 | 800 | | |
| 40 | 2300 | 460 | 2500 | 500 | 3500 | 700 | 200 | 3000 | 600 | 3500 | 700 | 4500 | 900 | | |
| 50 | 2300 | 460 | 2500 | 500 | 3500 | 700 | 250 | 3000 | 600 | 3500 | 700 | 4500 | 900 | | |
| 63 | — | — | 2500 | 500 | — | — | 315 | — | — | 3500 | 700 | — | — | | |

| | | T 71B | | T 90B | | T 112B | | T 140B | | T 180B | | T200B | | T 225B | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| EJE DE ENTRADA / INPUT SHAFT / ARBRE D'ENTREE (n ₁ = 1400 min ⁻¹) | | | | | | | | | | | | | | | |
| in | a = 66.75 | b = 51.75 | a = 77 | b = 57 | a = 90 | b = 70 | a = 113 | b = 83 | a = 141.5 | b = 101.5 | a = 138.5 | b = 98.5 | a = 201 | b = 146 | |
| | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | |
| 8-40 | 400 | 80 | 630 | 125 | 1000 | 200 | 1600 | 320 | 2500 | 500 | 2500 | 500 | 3150 | 630 | |
| 50÷ 80 | | | | | | | | | 2000 | 400 | 2000 | 400 | | | |
| EJE DE SALIDA / OUTPUT SHAFT / ARBRE DE SORTIE (n ₁ = 1400 min ⁻¹) | | | | | | | | | | | | | | | |
| in | a = 114.5 | b = 84.5 | a = 131 | b = 95 | a = 161.5 | b = 113.5 | a = 192 | b = 132 | a = 236.5 | b = 162 | a = 276 | b = 191 | a = 325 | b = 220 | |
| | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | |
| ≤ 8 | — | — | 4300 | 860 | 7000 | 1400 | 11000 | 2200 | — | — | 25000 | 5000 | 36000 | 7200 | |
| 10 | 3000 | 600 | 4750 | 950 | 7500 | 1500 | 11800 | 2360 | 19000 | 3800 | 26800 | 5360 | 38000 | 7600 | |
| 12.5 | 3150 | 630 | 5000 | 1000 | 8000 | 1600 | 12500 | 2500 | 20000 | 4000 | 28800 | 5760 | 40000 | 8000 | |
| 16 | 3350 | 670 | 5300 | 1060 | 8500 | 1700 | 13200 | 2640 | 21200 | 4240 | 30400 | 6080 | 42400 | 8480 | |
| 18* | — | — | — | — | — | — | 13600 | 2720 | 21800 | 4360 | — | — | — | — | |
| 20 | 3550 | 710 | 5600 | 1120 | 9000 | 1800 | 14000 | 2800 | 22400 | 4480 | 32200 | 6440 | 44800 | 8960 | |
| 25 | 3750 | 750 | 6000 | 1200 | 9500 | 1900 | 15000 | 3000 | 23600 | 4720 | 34000 | 6800 | 47200 | 9440 | |
| 31.5 | 4000 | 800 | 6300 | 1260 | 10000 | 2000 | 16000 | 3200 | 25000 | 5000 | 35800 | 7160 | 50000 | 10000 | |
| 35* | — | — | — | — | — | — | 16500 | 3300 | 25700 | 5140 | — | — | — | — | |
| 40 | 4250 | 850 | 6700 | 1340 | 10600 | 2120 | 17000 | 3400 | 26500 | 5300 | 37600 | 7520 | 53000 | 10600 | |
| 50÷ 80 | 4500 | 900 | 7100 | 1420 | 11200 | 2240 | 18000 | 3600 | 28000 | 5600 | 38000 | 7600 | — | — | |

| | | T 80C | | T 100C | | T 125C | | T 160C | | T180C | | T 200C | |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|--|
| EJE DE ENTRADA / INPUT SHAFT / ARBRE D'ENTREE (n ₁ = 1400 min ⁻¹) | | | | | | | | | | | | | |
| in | a = 66.75 | b = 51.75 | a = 77 | b = 57 | a = 90 | b = 70 | a = 113 | b = 83 | a = 113 | b = 83 | a = 141.5 | b = 101.5 | |
| | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | Fr ₁ | Fa ₁ | |
| Todo All Tous | 400 | 80 | 630 | 125 | 1000 | 200 | 1600 | 320 | 2000 | 400 | 2500 | 500 | |
| EJE DE SALIDA / OUTPUT SHAFT / ARBRE DE SORTIE (n ₁ = 1400 min ⁻¹) | | | | | | | | | | | | | |
| in | a = 131 | b = 95 | a = 161.5 | b = 113.5 | a = 192 | b = 132 | a = 236.5 | b = 162 | a = 276 | b = 191 | a = 325 | b = 220 | |
| | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | Fr ₂ | Fa ₂ | |
| Todo All Tous | 8000 | 1600 | 12500 | 2500 | 20000 | 4000 | 32000 | 6400 | 43000 | 8600 | 53000 | 10600 | |

* Relaciones especiales / Special ratios / Rapports spéciaux