

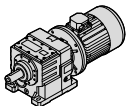
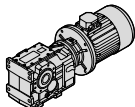
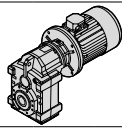
TRANSTECNO[®]
the modular gearmotor

AC
Iron

60Hz

Nema



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Esta sección substituye y anula las ediciones y revisiones previas. Si usted obtiene este catálogo a través de canales de distribución no autorizados o fuera de nuestro control, la versión en vigor no estará garantizada. **En todo caso, la versión más actualizada está disponible en nuestra página de internet www.transtecno.com**

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Información general

General information

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

Information in this manual is provided with symbols in order to understand the subject matter and data. These symbols are intended to aid the user in selecting the right gearmotors.

Velocidad de entrada

n_1 [rpm]

Input speed

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

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

Cuando se requieran otras velocidades, contactar con nuestro servicio técnico.

When different speeds are required, contact our Technical Service.

Relación de reducción

i

Gear ratio

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

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

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

From the data given in the catalogue, the value can be calculated using the following formula:

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

Velocidad de salida

n_2 [rpm]

Output speed

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

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

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

En los motovariadores esto es el resultado de cálculos más complejos, para esto en el catálogo encontrara todos los valores de n_2 en función de la velocidad en entrada y del campo de variación mínimo y máximo.

In mechanical variators this value is more complicated to calculate. In fact the application data need to be known in order to calculate this value. All the n_2 values are given in this catalogue according to the input speed and allowable range.

Par requerido

Mr_2 [lb-inch]

Requested torque

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

This is the torque needed for the application and must be known when selecting a drive system. It can either be provided by the user or calculated according to the application data (if provided).

Par nominal**Mn₂** [lb-inch]**Nominal torque**

Es el par transmisible a la salida del reductor, en base a la velocidad en entrada n₁ y a la relación de reducción i.

Se calcula considerando un servicio con una carga continua constante, que corresponde a un factor de servicio igual a 1. Este valor no aparece en el catálogo, pero se puede calcular aproximadamente mediante la relación siguiente entre M₂ (par de salida) y sf (factor de servicio):

This is the output torque that can be transmitted by the gearbox according to input speed n₁ and gear ratio i. It is calculated based on service with a continuous steady load corresponding to a service factor equal to 1. This value is not given in the catalogue but can be calculated approximately with the following formula between M₂ (output torque) and sf (service factor):

$$Mn_2 = M_2 \cdot sf$$

Par transmitido**M₂** [lb-inch]**Output torque**

Es el par transmitido en la salida del reductor.

Depende de la potencia P₁ del motor instalado, de las revoluciones de salida n₂ y del rendimiento dinámico Rd.

Se puede calcular mediante la relación:

This is the gearbox's output torque. It is strictly related to power P₁ of the motor installed, output rpm n₂ and dynamic efficiency Rd. It can be calculated with the following formula:

$$M_2 = \frac{63025 \cdot P_1 \cdot Rd}{n_2}$$

o:
or:

$$M_2 = \frac{63025 \cdot P_2}{n_2}$$

dónde:
where:

$$P_2 = P_1 \cdot R$$

Rendimiento**Rd****Efficiency**

Los cálculos de rendimiento se basan en el rendimiento dinámico Rd de los reductores.

Efficiency is calculated based on dynamic efficiency Rd of the gearboxes.

En los reductores de engranajes el rendimiento medio es 94%.

On helical gearboxes the average efficiency is 94%.

Potencia de entrada**P₁** [hp]**Input power**

Es la potencia del motor aplicada en la entrada al reductor y se refiere a la velocidad n₁.

Se puede calcular de la siguiente manera:

This is the power applied by the motor at the gearbox input in reference to speed n₁.

It can be calculated with the following formula:

$$P_1 = \frac{M_2 \cdot n_2}{63025 \cdot Rd}$$

Factor de servicio

sf

Service factor

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

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

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

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

	A - Carga uniforme	$fa \leq 0.3$
Tipo de carga	B - Carga con choques moderados	$fa \leq 3$
	C - Carga con choques fuertes	$fa \leq 10$

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

- Je (kgm²) momento de inercia de las masas externas, referido al eje del motor.
- Jm (kgm²) momento de inercia del motor.

Para valores > 10 se recomienda contactar con el Servicio Técnico.

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

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

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

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

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

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

If $fa > 10$ call our Technical Service.

A		Clase de carga / Load class Carga uniforme / Uniform load								
sf										
h/d	n. arranques/hora / n. start-up/hour									
	2	4	8	16	32	63	125	250	500	
4	0.8	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.2	
8	1.0	1.0	1.1	1.1	1.3	1.3	1.3	1.3	1.3	
16	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5	
24	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8	

B		Clase de carga / Load class Carga con choques moderados / Moderate shock load								
sf										
h/d	n. arranques/hora / n. start-up/hour									
	2	4	8	16	32	63	125	250	500	
4	1.0	1.0	1.0	1.0	1.3	1.3	1.3	1.3	1.3	
8	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5	
16	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8	
24	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.2	2.2	

C		Clase de carga / Load class Carga con choques fuertes / Heavy shock load								
sf										
h/d	n. arranques/hora / n. start-up/hour									
	2	4	8	16	32	63	125	250	500	
4	1.3	1.3	1.3	1.3	1.5	1.5	1.5	1.5	1.5	
8	1.5	1.5	1.5	1.5	1.8	1.8	1.8	1.8	1.8	
16	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.2	2.2	
24	2.2	2.2	2.2	2.2	2.5	2.5	2.5	2.5	2.5	

Ejemplo de aplicación:

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

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

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

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

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

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

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

Application example:

Conveyor belt assigned to load class B (**moderate shock load**), to be run 16 hours a day (h/d) with 8 start-ups/hour.

The following value is obtained from the table **sf = 1.5**

Factor de servicio clase AGMA

AGMA

Service class AGMA

Los números de clases AGMA tienen la misma función del factor de servicio.

Las clases de aplicación son I, II y III siendo la clase III la mas obligada para servicios críticos.

La relación entre el factor de servicio y las clases de aplicación pueden ser resumidas como sigue:

AGMA class numbers have the same function as the service factor. The application classes are I, II, III with class III being the most severe service duty.

The relationship between the service factor and classes of application can be summarized as below:

Aplicación clases AGMA <i>Application class AGMA</i>	Factor de servicio <i>Service factor</i>
I	0.8 - 1.39
II	1.4 - 1.99
III	≥ 2.00

APLICACIÓN	APPLICATION	OPERACIÓN TOTAL/LOAD DURATION		
		0/3 h	3/10 h	10/24 h
AGITADORES O MEZCLADORAS	AGITATORS (mixers)			
Líquidos Puros	Pure Liquids	I	I	II
Líquidos y Sólidos	Liquids and Solids	I	II	II
Líquidos de densidad variable	Liquids - Variable Density	I	II	II
SOPLADORES	BLOWERS			
Centrífugos	Centrifugal	I	I	II
Lóbulo	Lobe	I	II	II
De Aspas	Vane	I	II	II
FABRICACIÓN DE CERVEZA Y DESTILACIÓN	BREWING AND DISTILLING			
Maquinaria para Embotellado	Bottling Machinery	I	I	II
Ollas de Hervor - Servicio Continuo	Brew Kettles - Continuous Duty	II	II	II
Cocinas - Servicio Continuo	Cookers - Continuous Duty	II	II	II
Cubos de Maceración - Servicio Continuo	Mash Tubs - Continuous Duty	II	II	II
Tolva Dosificadora - Arranques Frecuentes	Scale Hopper - Frequent Starts	II	II	II
ENLATADORAS	CAN FILLING MACHINES	I	I	II
VUELCA VAGONES	CAR DUMPERS	II	III	III
REMOLCADOR DE VAGONES	CAR PULLERS	I	II	II
CLARIFICADORES	CLARIFIERS	I	I	II
CLASIFICADORES	CLASSIFIERS	I	II	II
MAQUINARIA PARA TRABAJAR ARCILLA	CLAY WORKING MACHINERY			
Prensa para ladrillo	Brick Press	II	III	III
Máquina de briquetas	Briquette Machine	II	III	III
Amasadora	Pug Mill	I	II	II
COMPACTADORES	COMPACTORS	III	III	III
COMPRESORES	COMPRESSORS			
Centrífugos	Centrifugal	I	I	II
De Lóbulos	Lobe	I	II	II
Alternativos Multicilíndricos	Reciprocating, Multi-Cylinder	II	III	III
Alternativos de Cilindro Único	Reciprocating, Single-Cylinder	III	III	III

Factor de servicio clase AGMA

AGMA

Service class AGMA

APLICACIÓN	APPLICATION	OPERACIÓN TOTAL/LOAD DURATION		
		0/3 h	3/10 h	10/24 h
TRANSPORTADORAS - PROPÓSITO GENERAL	CONVEYORS - GENERAL PURPOSE			
Uniformemente cargado o alimentado	Uniformly loaded	I	I	II
Servicio pesado	Heavy Duty	I	II	II
Servicio severo	Severe Duty	II	III	III
GRÚAS	CRANES			
Montacargas principal - Servicio medio	Main Hoist - Medium Duty	II	II	II
Montacargas principal - Servicio pesado	Main Hoist - Heavy Duty	III	III	III
Reversa	Reversing	II	II	II
Polipasto	Skip Hoist	II	II	II
Recorrido del Carro	Trolley Drive	II	II	II
Recorrido del Puente	Bridge Drive	II	II	II
TRITURADORAS	CRUSHER			
Piedra o mineral	Stone or Ore	III	III	III
DRAGAS	DREDGES			
Bobinas de cable	Cable Reels	II	II	II
Transportadoras	Conveyors	II	II	II
Unidades de Accionamiento de Cabezal Cortante	Cutter Head Drives	III	III	III
Bombas	Pumps	III	III	III
Cedazos	Screen Drives	III	III	III
Apiladores	Stackers	II	II	II
Cabrestantes Utilitarios (Malacates)	Winches	II	II	II
ELEVADORES	ELEVATORS			
De Cangilones	Bucket	I	II	II
Descarga Centrífuga	Centrifugal Discharge	I	I	II
Escaleras mecánicas	Escalators	I	I	II
Flete	Freight	I	II	II
Descarga por gravedad	Gravity Discharge	I	I	II
EXTRUSORAS	EXTRUDERS			
Generales	General	II	II	II
Plásticos - Variador de velocidad	Plastics - Variable Speed Drive	III	III	III
Plásticos - Accionador de velocidad fija	Plastics - Fixed Speed Drive	III	III	III
Caucho/Hule - Operación de tornillo continuo	Rubber - Continuous Screw Operation	III	III	III
Rubber - Operación de tornillo intermitente	Rubber - Intermittent Screw Operation	III	III	III

Factor de servicio clase AGMA

AGMA

Service class AGMAA

APLICACIÓN	APPLICATION	OPERACIÓN TOTAL/LOAD DURATION		
		0/3 h	3/10 h	10/24 h
VENTILADORES	FANS			
Centrífugos	Centrifugal	I	I	II
Torres de enfriamiento	Cooling Towers	III	III	III
Tiro forzado	Forced Draft	II	II	II
Tiro inducido	Induced Draft	II	II	II
Industrial y minería	Industrial and Mine	II	II	II
ALIMENTADORES	FEEDERS			
Salpicaderos (tipo Mandil)	Apron	I	II	II
Correas	Belt	I	II	II
Disco	Disc	I	I	II
Reciprocante	Reciprocating	II	III	III
Tornillo	Screw	I	II	II
INDUSTRIA ALIMENTICIA	FOOD INDUSTRY			
Cocina de Cereales	Cereal Cooker	I	I	II
Mezclador de pasta	Dough Mixer	II	II	II
Picadoras de carne	Meat Grinders	II	II	II
Rebanadoras	Slicers	I	II	II
GENERADORES Y EXCITADORES	GENERATORS AND EXCITERS	II	II	II
MOLINOS DE MARTILLO	HAMMER MILLS	III	III	III
MONTACARGAS	HOISTS			
Alta Resistencia	Heavy Duty	III	III	III
Resistencia Media	Medium Duty	II	II	II
Contenedor	Skip Hoist	II	II	II
LAVADORAS	LAUNDRY			
Tinas	Tumblers	II	II	II
Máquinas de lavado	Washers	II	II	III
INDUSTRIA DE LA MADERA	LUMBER INDUSTRY			
Descortezador - Automático	Barkers - Spindle Feed	II	II	II
Descortezador - Principal	Barkers - Main Drive	III	III	III
Transportador - Quemador	Conveyors - Burner	II	II	II
Transportadoras - Principal o Servicio pesado	Conveyors - Main or Heavy Duty	II	II	II
Transportadora Principal de Troncos	Conveyors - Main log	III	III	III
Conveyors - Sierra de cadena, sierra de troceado	Conveyors - Re-saw, Merry-Go-Round	II	II	II
Transportador - Losas	Conveyors - Siab	III	III	III
Transportador - Carrusel	Conveyors - Transfer	II	II	II
Transferencia por cadena	Chains - Floor	II	II	II
Transferencia de Vía de Grúa	Chains - Green	II	II	III

Factor de servicio clase AGMA

AGMA

Service class AGMA

APLICACIÓN	APPLICATION	OPERACIÓN TOTAL/LOAD DURATION		
		0/3 h	3/10 h	10/24 h
Sierras cortadoras - Cadena	Cut-Off Saws - Chain	II	II	III
Sierras cortadoras - Arrastre	Cut-Off Saws - Drag	II	II	III
Tambores de descortezado	Debarking Drums	III	III	III
Alimentadores - De Canteadora	Feeds - Edger	II	II	II
Alimentadores - Multiple	Feeds - Gang	II	III	III
Alimentadores - de Desbastadora	Feeds - Trimmer	II	II	II
Plataforma de registro	Log Deck	III	III	III
Disparos de registro - tipo inclinado- tipo circular	Log Hauls - Incline - Well Type	III	III	III
Conexión de dispositivos giratorios	Log Turning Devices	III	III	III
Alimentación de la aplanadora	Planer Feed	II	II	II
Aplanadora en inclinación de elevadores	Planer Tilting Hoists	II	II	II
Rodillo - de extracción -activos - de Cajas	Rolls - live-off brg. - Roll Cases	III	III	III
Mesa de Clasificación	Sorting Table	II	II	II
Elevador con caja de volteo	Tipple Hoist	II	II	II
Transportador - De Cadenas	Transfers - Chain	II	II	III
Transportador -Tipo Grúa	Transfers - Craneway	II	II	III
Unidades de batea	Tray Drives	II	II	II
Sepilladora para chapas	Veneer Lathe Drives	II	II	II
LAMINADORAS DE METAL	METAL MILLS			
Accionamiento Principal y Carro de Banco de Estirado	Draw Bench Carriage and Main Drive	II	II	II
Mesa de salida - Controlador Grupal no reversible	Runout Table - Non reversing Group Drives	II	II	II
Mesa de salida - Controlador individual no reversible	Runout Table - Non reversing Individual Drives	III	III	III
Mesas Transportadoras Reversibles	Runout Table - Reversing	III	III	III
Impulsadores de Placa	Slab Pushers	II	II	II
Cizallas	Shears	III	III	III
Trefilado	Wire drawing	II	II	II
Máquina de bobinado de alambre	Wire Winding Machine	II	II	II
BANDAS DE METAL -MAQUINARIA DE PROCESAMIENTO-	METAL STRIP PROCESSING MACHINERY			
Bridas	Bridles	II	II	II
Bobinadoras y Desbobinadoras	Coilers and Uncoilers	I	I	II
Arista - Condensador de ajuste	Edge Trimmers	I	II	II
Laminadora de Rodillos	Flatteners	II	II	II
Acumuladores	Loopers (Accumulators)	I	I	I
Rodillos de arrastre	Pinch Rolls	II	II	I
Cuchillas de corte	Scrap Choppers	II	II	II
Cizalla	Shears	III	III	III
Cortadoras	Slitters	I	II	II

Factor de servicio clase AGMA

AGMA

Service class AGMA

APLICACIÓN	APPLICATION	OPERACIÓN TOTAL/LOAD DURATION		
		0/3 h	3/10 h	10/24 h
MOLINOS TIPO ROTATORIO	MILLS, ROTARY TYPE			
Bola y varilla - Engranaje tipo espolón	Ball and Rod - Spur Ring Gear	III	III	III
Bola y varilla - Engranaje anular helicoidal	Ball and Rod - Helical Ring Gear	II	II	II
Bola y varilla - Conexión directa	Ball and Rod - Direct Connected	III	III	III
Bola y varilla - Hornos de cemento	Ball and Rod - Cement Kilns	II	II	II
Bola y varilla - Secadores y enfriadores	Ball and Rod - Dryers and Coolers	II	II	II
FABRICACIÓN DE PAPEL 1)	PAPER MILLS 1)			
Agitador / Mezclador	Agitator (Mixer)	II	II	II
Agitador para líquidos puros	Agitator for Pure liquors	II	II	II
Descortezadora Híráulica	Barking Drums	III	III	III
Descortezadora - Mecánica	Barkers - Mechanical	III	III	III
Blanqueador	Beater	II	II	II
Batidora Desfibradora	Breaker Stack	II	II	II
Calandrador 2)	Calender 2)	II	II	II
Máquina Convertidora	Chipper	III	III	III
Alimentador de viruta	Chip Feeder	II	II	II
Rodillos de recubrimiento	Coating Rolls	II	II	II
Transportadoras - Viruta, corteza, químicos	Conveyors - Chip, Bark, Chemical	II	II	II
Transportadora - Troncos -incluye placa-	Conveyors - Log (including Slab)	III	III	III
Enrolladores	Couch Rolls	II	II	II
Cortadora	Cutter	III	III	III
Moldes cilíndricos	Cylinder Molds	III	III	III
Secadoras 2)	Dryers 2)			
Máquina de papel	Paper Machine	II	II	II
Transportadoras	Conveyor Type	II	II	II
Prensa de Impresión	Embosser	II	II	II
Extrusora	Extruder	II	II	II
Rodillos Fourdrinier	Fourdrinier Rolls	II	II	II
Refinadores cónicos Jordán	Jordan Pulverizer	II	II	II
Lavadoras y Espesadoras	Kiln Drive	II	II	II
Enrolladora de Papel	Paper Rolls	II	II	II
Tina de Mezcla	Platter	II	II	II
Prensadora -Fielto y succión-	Presses - Felt & Suction	II	II	II
Despulpadora	Pulper	III	III	III
Bombas de vacío	Pumps - Vacuum	II	II	II
Carretes (tipo superficial)	Reel (Surface Type)	II	II	II
Mallas - Viruta	Screens - Chip	II	II	II

Factor de servicio clase AGMA

AGMA

Service class AGMA

APLICACIÓN	APPLICATION	OPERACIÓN TOTAL/LOAD DURATION		
		0/3 h	3/10 h	10/24 h
Mallas - Rotatoria	Screens - Rotary	II	II	II
Mallas - Vibratoria	Screens - Vibrating	III	III	III
Prensa Encoladora	Size Press	II	II	II
Súper calandradora 3)	Supercalendar3)	II	II	II
Espesador (Motor AC)	Thickener (AC Motor)	II	II	II
Espesador (Motor DC)	Thickener (DC Motor)	II	II	II
Lavadora (Motor AC)	Washer (AC Motor)	II	II	II
Lavadora (Motor DC)	Washer (DC Motor)	II	II	II
Soporte de rollos	Wind and Unwind Stand	I	I	I
Enrolladoras (tipo superficial)	Winders (Surface Type)	II	II	II
Secadoras Yankee 2)	Yankee Dryers 2)	II	II	II
INDUSTRIAS DE PLÁSTICOS - PROCESOS PRIMARIOS	PLASTICS INDUSTRY - PRIMARY PROCESSING			
Mezcladores internos intensivos - por lotes	Intensive Internal Mixers - Batch Mixers	III	III	III
Mezcladores internos intensivos - continuos	Intensive Internal Mixers - Continuous Mixers	II	II	II
Molino de caída por lotes -2 rollos lisos-	Batch Drop Mill - 2 smooth rolls	II	II	II
Alimentación continua, mantenimiento y molino de mezcla	Continuous Feed, Holding & Blend Mill Calendars	II	II	II
INDUSTRIAS DE PLÁSTICOS - PROCESOS SECUNDARIOS	PLASTICS INDUSTRY - SECONDARY PROCESSING			
Moldeadores de Soplado	Blow Molders	II	II	II
De revestimiento	Coating	II	II	II
De Película	Film	II	II	II
De Tubo	Pipe	II	II	II
Pre plastificantes	Pre-Plasticizers	II	II	II
De Barras	Rods	II	II	II
De Lámina	Sheet	II	II	II
De Tubería	Tubing	II	II	II
EXTRACTORES -REMOLQUE DE BARCAZAS	PULLERS - BARGE HAUL	II	II	II
BOMBAS	PUMPS			
Centrifugas	Centrifugal	I	I	II
Dosificadoras	Proportioning	II	II	II
Reciprocante - Actuación simple, 3 o mas cilindros	Reciprocating - Single Acting, 3 or more cylinders	II	II	II
Reciprocante - Actuación doble, 2 o mas cilindros	Reciprocating - Double Acting, 2 or more cylinders	II	II	II
De engrane giratorio	Rotary - Gear Type	I	I	II
Rotatoria -Lóbulo	Rotary - Lobe	I	I	II
Rotatoria -Paletas	Rotary - Vane	I	I	II

Factor de servicio clase AGMA

AGMA

Service class AGMA

APLICACIÓN	APPLICATION	OPERACIÓN TOTAL/LOAD DURATION		
		0/3 h	3/10 h	10/24 h
INDUSTRIA DEL CAUCHO	RUBBER INDUSTRY			
Mezcladores internos intensivos - Mezcladoras por lotes	<i>Intensive Internal - Batch Mixers</i>	III	III	III
Mezcladores internos intensivos -Mezcladores continuos	<i>Intensive Internal - Continuous Mixers</i>	II	II	II
Molinos Mezcladores -2 rodillos lisos	<i>Mixing Mill - 2 smooth rolls</i>	II	II	II
Molinos Mezcladores -2 rollo, 1 rodillo corrugado-	<i>Mixing Mill - 1 or 2 corrugated rolls</i>	III	III	III
Molino de Lote Descendente – 2 rodillos lisos	<i>Batch Drop Mill - 2 smooth rolls</i>	II	II	II
Quebradora en Caliente – 2 rodilloso, 1 rodillo corrugado	<i>Cracker Warmer - 2 roll, 1 corrugated roll</i>	III	III	III
Quebradora -2 rodillos corrugados	<i>Cracker - 2 corrugated rolls</i>	III	III	III
Ligas, Alimentación & molinos mezcladores - 2 rodillos	<i>Holding, Feed & Blend Mill - 2 rolls</i>	II	II	II
Refinadores -2 rodillos	<i>Refiner - 2 rolls</i>	II	II	II
Calandrias para Caucho	<i>Calenders</i>	II	II	II
MEZCLADOR DE ARENA	SAND MULLER	II	II	II
EQUIPOS DE TRATAMIENTO DE AGUAS RESIDUALES	SEWAGE DISPOSAL EQUIPMENT			
Cribas de barra	<i>Bar Screens</i>	II	II	II
Alimentadores químicos	<i>Chemical Feeders</i>	II	II	II
Cribas de desagüe	<i>Dewatering Screens</i>	II	II	II
Rompedores de espuma	<i>Scum Breakers</i>	II	II	II
Mezcladores lentos o rápidos	<i>Slow or Rapid Mixers</i>	II	II	II
Colector de Sedimentos	<i>Sludge Collectors</i>	II	II	II
Espesadores	<i>Thickener</i>	II	II	II
Filtros de vacío	<i>Vacuum Filters</i>	II	II	II
CRIBAS	SCREENS			
Para limpieza de Aire	<i>Air Washing</i>	I	I	II
Giratorias de Piedra o Grava	<i>Rotary - Stone or Gravel</i>	II	II	II
Toma de Agua Movil	<i>Traveling Water Intake</i>	I	I	I
TRANSPORTADORES HELICOIDALES	SCREW CONVEYORS			
Uniformemente cargado o alimentado	<i>Uniformly loaded or Fed</i>	I	I	II
Servicio pesado	<i>Heavy Duty</i>	I	II	II
INDUSTRIA AZUCARERA	SUGAR INDUSTRY			
Cortadora de remolacha	<i>Beet Slicer</i>	III	III	III
Cortadoras de Caña	<i>Cane Knives</i>	II	II	II
Trituradoras	<i>Crushers</i>	II	II	II
Molinos (terminal de baja velocidad)	<i>Mills (low speed end)</i>	III	III	III

Factor de servicio clase AGMA

AGMA

Service class AGMA

APLICACIÓN	APPLICATION	OPERACIÓN TOTAL/LOAD DURATION		
		0/3 h	3/10 h	10/24 h
INDUSTRIA TEXTIL	TEXTILE INDUSTRY			
Enrolladoras	Batchers	II	II	II
Calandrias	Calendars	II	II	II
Cardas	Cards	II	II	II
Tambores de Secado	Dry Cans	II	II	II
Secadores	Dyeing Machinery	II	II	II
Telares	Looms	II	II	II
Planchadoras	Mangles	II	II	II
Perchadoras	Nappers	II	II	II
Rellenadoras	Pads	II	II	II
Encoladoras	Slashers	II	II	II
Enjabonadoras	Soapers	II	II	II
Hilanderas	Spinners	II	II	II
Bastidores Tensores	Tenter Frames	II	II	II
Lavadoras	Washers	II	II	II
Enrolladoras	Winders	II	II	II

Notas sobre la tabla de FACTOR DE SERVICIO PARA REDUCTORES:

1) La clasificación de los números listados para la aplicación de la industria del papel son consistentes con los mostrados en la información técnica de la TAPPI (Asociación Técnica de la industria del papel y la pulpa), hoja 0406- 18 1967: factores de servicio para engranajes en servicios pesados en la industria del papel y la pulpa.

2) Solo para transporte anti fricción.

3) Un factor de servicio de 1.00 puede ser aplicado a la velocidad base de una súper calandradora que opera sobre caballos de fuerza con un rango de velocidad constante y en el rango de la constante del torque donde la velocidad de la potencia sea mayor que 1.5 a 1. Un número de clase II es aplicable a súper calandradoras que operan en todo el rango de velocidad con par constante o cuando la gama de velocidades de los caballos de fuerza constante es menor de 1.5 a 1.

Notes to GEARMOTOR SERVICE FACTOR table:

1) The class numbers listed for paper mill applications are consistent with those shown in TAPPI (Technical Association of Pulp and Paper Industry) Technical Information Sheet 0406-18 1967, Service Factors for Gears on major Equipment in the Paper and Pulp Industry.

2) Anti-friction bearings only.

3) A Class Number of I may be applied at base speed of a supercalendar operating over a speed range of part-range constant horsepower and part-range constant torque where the constant horsepower speed range is greater than 1.5 to 1. A Class Number of II is applicable to supercalendars operating over the entire speed range at constant torque or where the constant horsepower speed range is less than 1.5 to 1.

Carga radial**R; R₂ [lb]****Radial load**

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

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

Pinions, pulleys, etc applied on the output shaft of the gearboxes create radial forces that must be taken into consideration to avoid excessive stress risking damage to the gearbox itself.

External radial load R that acts on the gearbox shaft can be calculated as follows:

$$R = \frac{2 \cdot M_2 \cdot kr}{d} \leq R_2$$

donde:

d [inch] diámetro primitivo del piñón o polea
kr coeficiente con relación al tipo de transmisión:
kr = 1.4 transmisión por cadena
kr = 1.1 transmisión por cadena
kr = 1.5 - 2.5 polea para correa trapecial

where:

d [inch] diameter of the pinion or pulley
kr coefficient in relation to type of transmission:
kr = 1.4 sprocket wheel
kr = 1.1 gear
kr = 1.5 - 2.5 pulley for V belts

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

Keep in mind that values R₂ refer to loads that act on the center-line of the output shaft (considering the shaft protrudes). As a result, the value should be compared under the same conditions.

Carga axial**A; A₂ [lb]****Axial load**

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

At times, along with the radial load, force A may be present that acts axially on the output shaft. In this case, keep in mind allowable axial load A₂ that can be applied on the shaft is:

$$A_2 = R_2 \cdot 0.2$$

Si el valor de la carga axial A en el eje resulta superior a A₂, consultar con nuestro servicio técnico.

If axial load A that acts on the shaft is greater than A₂, contact our Technical Service.

Seleccionando el motorreductor**Selecting the gearmotors**

Para seleccionar el motorreductor requerido realizar el siguiente procedimiento:

1. Determinar el factor de servicio *f_s* para la aplicación deseada haciendo referencia a los gráficos dados en la página A6. Esto está hecho considerando la clase de carga, la operación horas/días y el número de puesta en marcha/hora.
2. Si la potencia de salida del motor requerido P (Hp) es conocida, ir al punto 3); si el torque de salida requerido M es conocido, determine la salida de del motor P usando las siguientes fórmulas:

To select the required gearmotor, perform the procedure below:

1. Determine the service factor *s_f* for the desired application by referring to the charts given on page A6. This is to be done by considering the class of load, the operational hours/day and the number of start-ups/ hour.
2. If the required motor power output P (Hp) is known, go to item 3); if the required output torque M is known, determine motor output P by using the following formulas:

$$P = \frac{M \cdot n_2}{63025 \cdot Rd}$$

Motor reductor
Gearmotor

donde Rd es para la eficiencia dinámica (indicada en la página D6) y n₂ indica la salida requerida rpm del motorreductor.

where Rd stands for the dynamic efficiency (indicated on page D6) and n₂ indicates the required output rpm of the gearmotor.

Seleccionando el motorreductor

3. Use la gráfica de especificación para buscar la unidad de potencia donde P_1 es mayor que o igual a P con una velocidad n_2/n_{2max} que se aproxima al valor deseado. Elija una unidad de potencia donde el factor de servicio indicado sf es igual o mayor que la unidad calculada en el punto 1).

Selecting the gearmotors

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

P_1 [hp]	n_2 [rpm]	M_2 [lb·in]	sf	AGMA	i			R_2 [lb]
7.5 hp								
5.5 kW (1750 rpm)	28	15418	2,0	III	61,74	ITH143	210TC	5058
	26	16666	1,9	III	66,73		210TC	5058
	22	19835	1,6	III	79,43		210TC	5058
	20	21437	1,4	III	85,85		210TC	5058

Esempio / Example:

Applicazione / Application:

Nastro trasportatore / Conveyor belt

P : 7.5 hp

sf : 1.6

n_2 : 22 rpm

Motorizzazione scelta / Power unit selected:

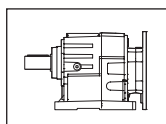
ITH143 $i = 61.74$, $P_1 = 7.5$ hp, $sf = 1.6$

Lubricación

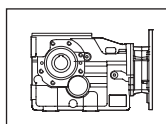
Los reductores de las serie ITH, ITB, y ITS se suministran con lubricante sintético viscosidad 320 de larga duración.

Lubrication

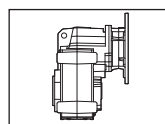
All unit sizes of ITH, ITB, and ITS series are complete with a long life synthetic lubricant, viscosity 320.



ITH



ITB



ITS

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

Las tablas indican la cantidad aproximada de lubricante contenido y/o que se debe verter.

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

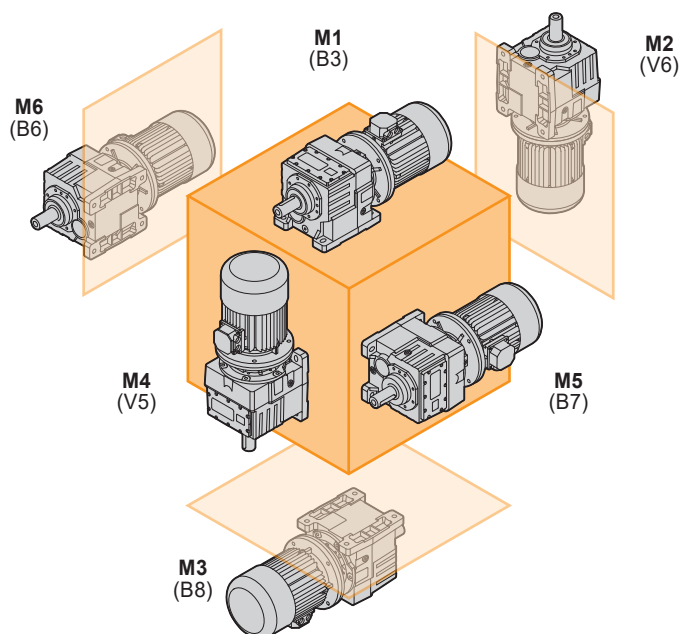
Especifique siempre la posición de montaje deseada al momento de hacer el pedido.

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

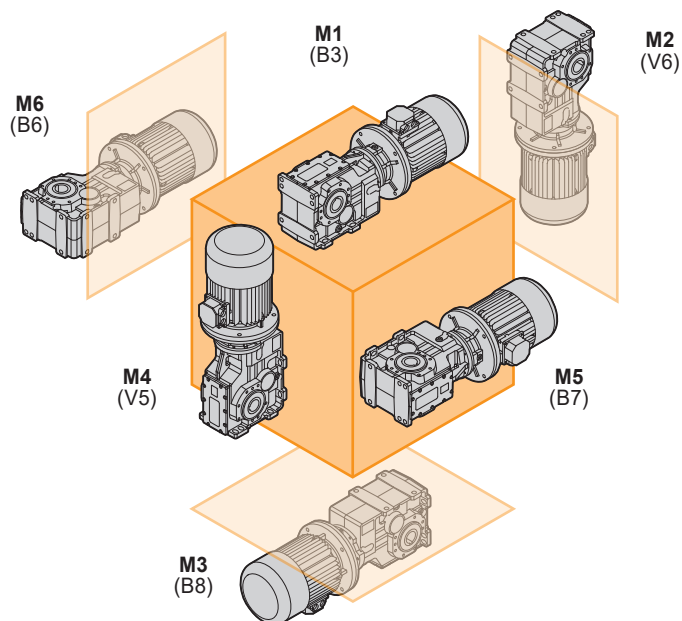
Posición de Montaje

Mounting positions

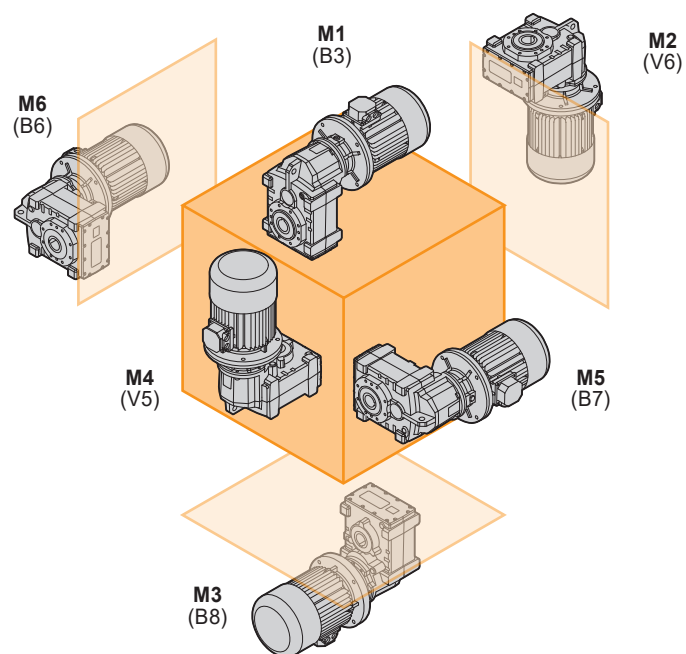
ITH



ITB

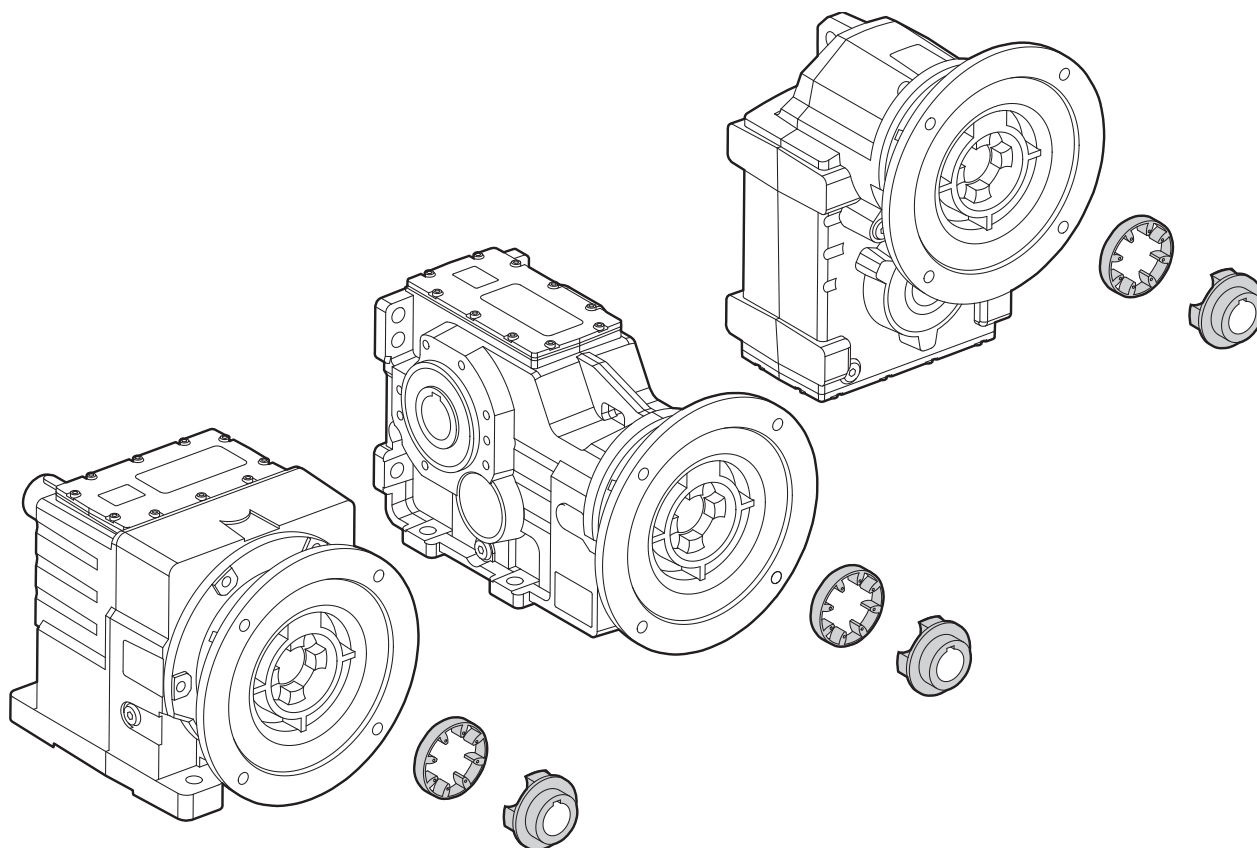


ITS



Acoplamiento flexible

Flexible coupling



La conexión al motor por medio de cople flexible permite los siguientes beneficios:

- Incremento en la rigidez torsional;
- Reducción de vibraciones;
- Amortigua el pico de inercia al arranque del motor;
- Elimina el fenómeno de oxidación entre flecha del motor y cople metálico;
- Reduce la temperatura de operación;
- Fácil desensamble del motor después de largos períodos de operación.

Motor connection by flexible coupling allows the following benefits:

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

Temperatura de servicio

Operating temperature

La temperatura ambiente afecta las especificaciones de los reductores.

The environmental temperature affects specifications of gearboxes.

Gama de temperatura estándar / Standard temperature range

ITH	-15°C / +50°C	+5°F / +122°F
ITB	-15°C / +50°C	+5°F / +122°F
ITS	-15°C / +50°C	+5°F / +122°F

Gammas de temperaturas especiales / Special temperature range

	<-15°C / <+5°F	>+50°C / >+122°F
ITH	reducir la carga radial en la salida al 50% <i>halve the output radial loads</i>	Usar sello de Viton (FPM) <i>use Viton (FPM) oil seals</i> Usar lubricante para alta temperatura <i>use high temperature lubricant</i>
ITB	reducir la carga radial en la salida al 50% <i>halve the output radial loads</i>	
ITS	reducir la carga radial en la salida al 50% <i>halve the output radial loads</i>	

Si la temperatura es <0°C/F:

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

For temperature <0°C/F refer to the following notes:

- check if the motor is suitable for low temperature;
- due to the high viscosity of the lubricant, check if the motor can supply high starting torque;
- let the group run for a few minutes without load to guarantee good lubrication;

Instalación y controles

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

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

Installation and inspection

While installing the gearbox, always make sure that:

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

Aplicaciones críticas

En estos casos consultar con nuestro Servicio Técnico

- uso como multiplicador;
- uso como montacargas;
- uso en posiciones no contempladas en el catálogo;
- uso en ambientes con presión diferente de la atmosférica;
- uso en ambiente con temperaturas <-25°C/-13°F or >+50°C/+122°F

Critical applications

In these cases please contact the Technical Service

- *used to increase speed;*
- *used as a hoist;*
- *used in mounting positions not shown in the catalogue;*
- *use in environment pressure other than atmospheric pressure;*
- *use in places with temperature <-25°C/-13°F or > +50°C / +122°F*

TRANSTECNO®
the modular gearmotor

ITH

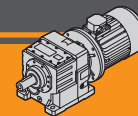


60Hz

Motorreductores a engranajes cilíndricos
Helical in-line gearmotors

Nema



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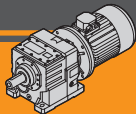
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**ITH****Motorreductores a engranajes cilíndricos**
Helical in-line gearmotors**Nema 60 Hz****Características técnicas**

El motorreductor ITH está diseñado para aplicaciones de uso rudo. Su carcasa fundida en una sola pieza y su diseño modular con distintos accesorios en la entrada y en la salida, incrementan su flexibilidad de uso en múltiples aplicaciones.

Características principales de la serie ITH:

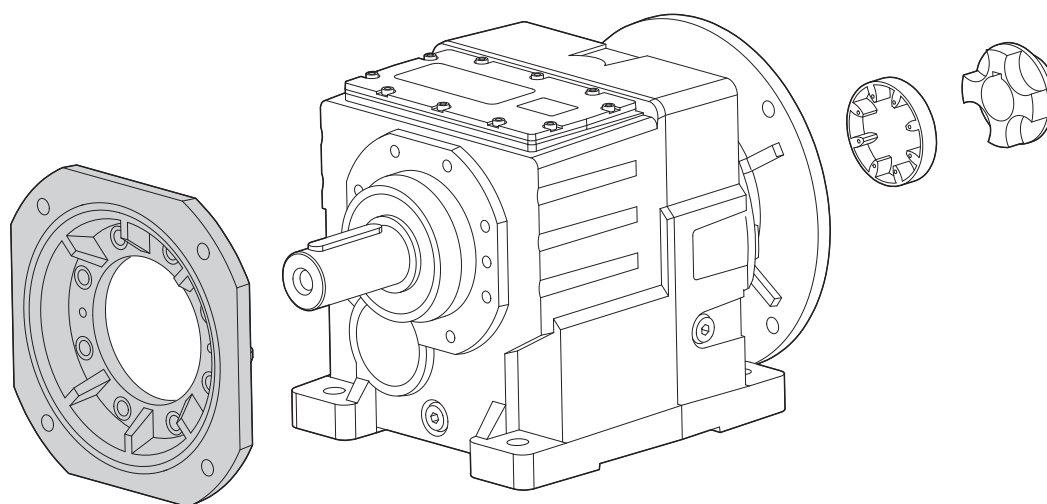
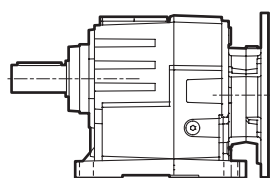
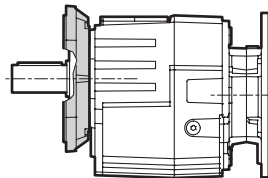
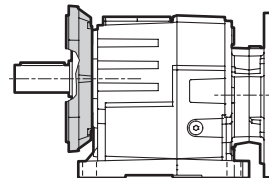
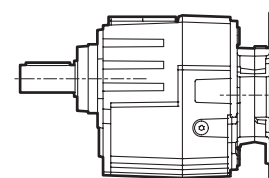
- Carcasa en hierro fundido;
- Elevada modularidad;
- Lubricación con aceite sintético;
- Acoplamiento a motor con cople flexible;
- Acabado en pintura epóxica RAL 7016.

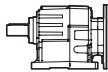
Technical features

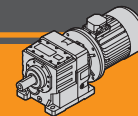
The ITH gearmotors are intended for heavy duty applications. The robust one pieces casing of the main housing and the modular design of input and output sets increase application flexibility.

The main features of ITH range are:

- Robust cast iron housings;
- High degree of modularity;
- Lubrication with synthetic oil;
- Coupled to motor with flexible coupling.
- Epoxy powder coating RAL 7016.

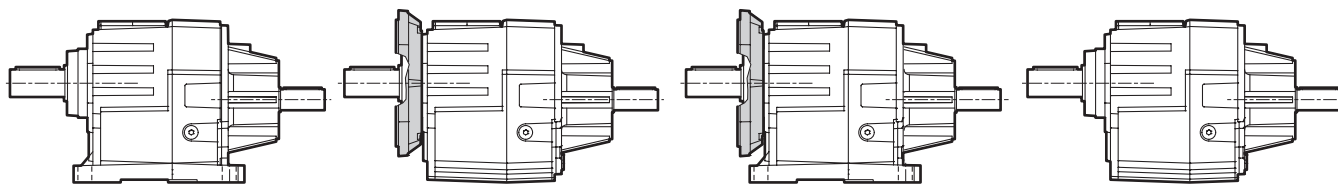
**Clasificación****Classification****U****F...****U/F...****G**

REDUCTOR / GEARBOX								
ITH	12	2	H	26.28	D1.625	56C	M1	CW
Tipo Type	Tamaño Size	Etapas Stages	Versión Version	Relación de reducción Ratio	Eje de salida Output shaft		Posición de Montaje Mounting position	Dispositivo anti retroceso Backstop device
ITH 	11 12 13 14	2 3	U F... U/F... G	ver tablas see tables	ver tablas see tables	56C 140TC 180TC 210TC 250TC 280TC	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)	CW CCW



Clasificación

Classification



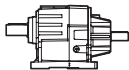
U

F...

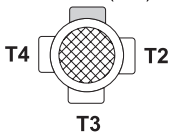
U/F...

G

REDUCTOR / GEARBOX

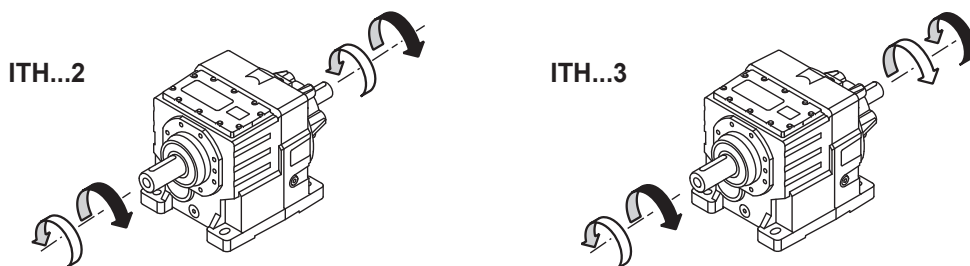
ITHIS	12	2	H	26.28	D1.625	M1
Tipo Type	Tamaño Size	Etapas Stages	Versión Version	Relación de reducción Ratio	Eje de salida Output shaft	Posición de Montaje Mounting position
ITHIS 	11 12 13 14	2 3	U F... U/F... G	ver tablas see tables	ver tablas see tables	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)

MOTOR / MOTOR

7.5hp / 5.5kW	4p	3ph	230/400V	60Hz	T1
Potencia Power	Polos Poles	Fases Phases	Tensión Voltage	Frecuencia Frequency	Posición caja de bornes Terminal box pos.
ver tablas see tables	2p 4p 6p 8p	1ph 3ph	230V 230/400V	50Hz 60Hz	T1 (Std) 

Sentidos de rotación

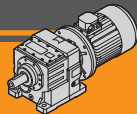
Direction of rotation



Nomenclatura

Symbols

n_1	[rpm]	Velocidad de entrada / Input speed
n_2	[rpm]	Velocidad de salida / Output speed
i		Relación de reducción / Ratio
P_1	[hp]	Potencia en la entrada / Input power
M_2	[lb·in]	Par en la salida en función de P_1 / Output torque referred to P_1
Pn_1	[hp]	Potencia nominal en la entrada / Nominal input power
Mn_2	[lb·in]	Par nominal en la salida en función de Pn_1 / Nominal output torque referred to Pn_1
sf		Rendimiento dinámico / Service factor
R_1	[lb]	Carga radial permitida a la entrada / Permitted input radial load
A_1	[lb]	Carga axial permitida a la entrada / Permitted input axial load
R_2	[lb]	Carga radial admisible en la salida / Maximum output radial load
A_2	[lb]	Carga axial admisible en la salida / Maximum output axial load



ITH

Motorreductores a engranajes cilíndricos
Helical in-line gearmotors

Nema 60 Hz

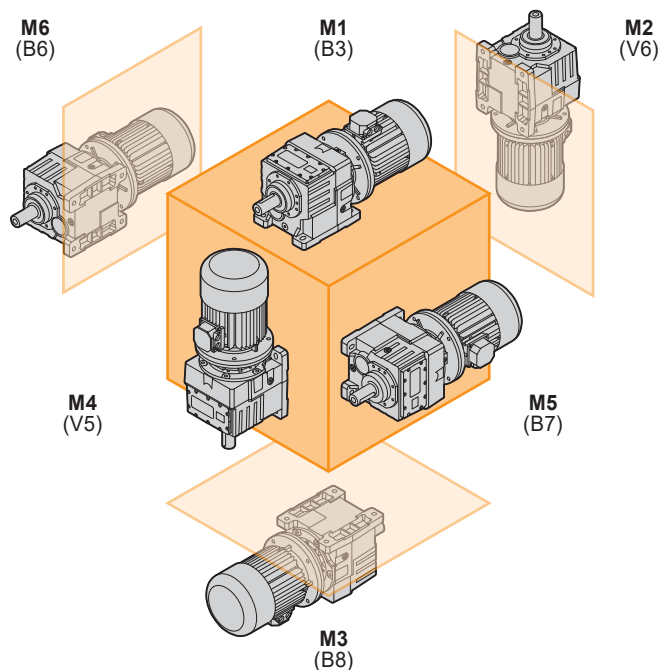
Lubricación

Los moto reductores de la serie ITH - ITHIS se suministran con lubricante sintético viscosidad 320. La cantidad de lubricante dependerá de la posición de montaje requerida.

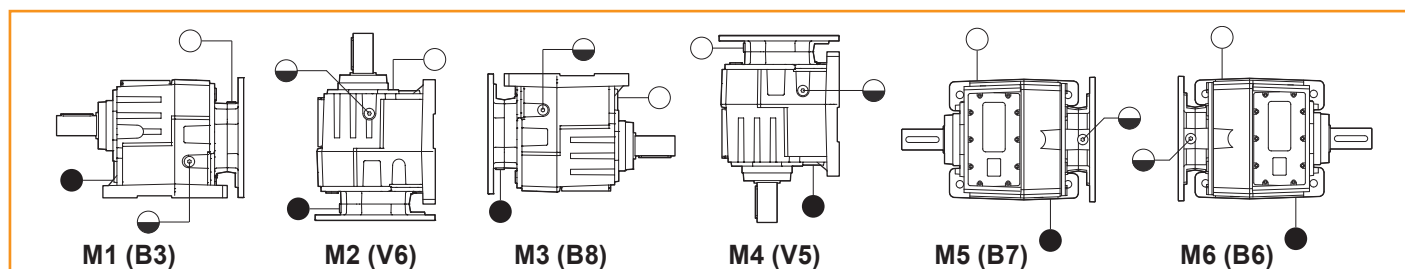
Lubrication

ITH - ITHIS series gearmotors come complete with synthetic lubricant 320 viscosity. The lubricant quantity depends on mounting position.

ITH..

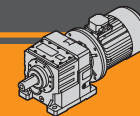


ITH	Cantidad de aceite (US gal) / Oil quantity (US gal)					
	M1 (B3)	M2 (V6)	M3 (B8)	M4 (V5)	M5 (B7)	M6 (B6)
112 113	0.29	1.03	0.97	0.89	0.63	0.63
122 123	0.45	1.32	1.13	1.13	0.81	0.76
132 133	1.18	2.5	2.19	2.27	1.55	1.50
142 143	2.13	3.83	3.03	3.8	2.48	2.37



(Estándar)
(standard)

- Respiradero y tapón de llenado / Breather and filling plug
- Tapón de nivel de aceite / Oil level plug
- Tapón de drenado de aceite / Oil drain plug

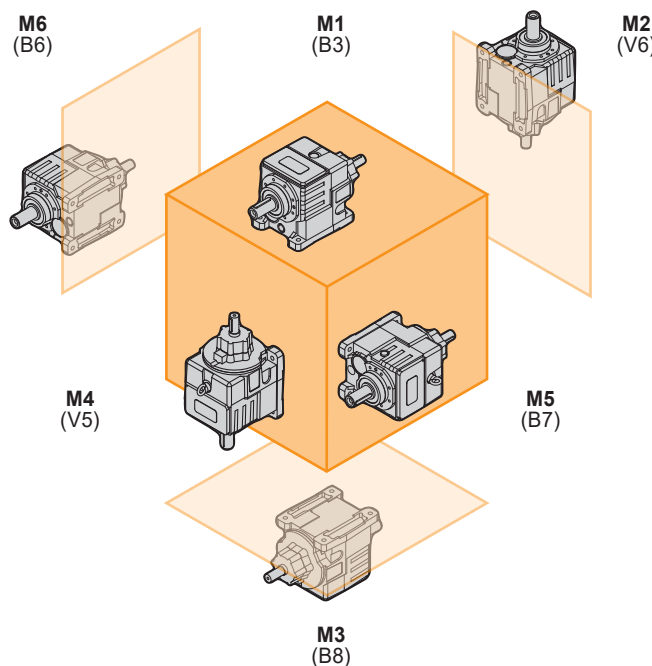


Lubricación

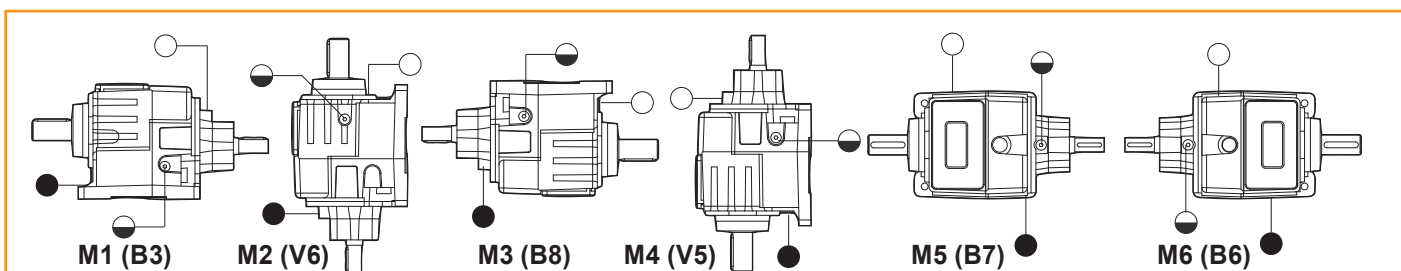
Lubrication

ITHIS..

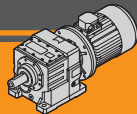
ITH



ITHIS	Cantidad de aceite (US gal) / Oil quantity (US gal)					
	M1 (B3)	M2 (V6)	M3 (B8)	M4 (V5)	M5 (B7)	M6 (B6)
112 113	0.34	1.13	1.03	0.89	0.68	0.68
122 123	0.50	1.42	1.18	1.13	0.87	0.81
132	0.97	2.69	2.29	2.27	1.66	1.61
133	0.92	2.61	2.24		1.61	1.55
142	1.92	4.01	3.14	3.8	2.58	2.48
143	1.87	3.93	3.09		2.53	2.43

(Estándar)
(standard)

- Respiradero y tapón de llenado / Breather and filling plug
- Tapón de nivel de aceite / Oil level plug
- Tapón de drenado de aceite / Oil drain plug

**ITH****Motorreductores a engranajes cilíndricos**
Helical in-line gearmotors**Nema 60 Hz****Carga radial en la entrada****Input Radial loads**

ITH 113	n ₁ [rpm]	Potencia motor / Motor Power [hp]	
		1.5	2
R ₁ [lb]	1750	281	
	1150	337	
	850	393	-

ITH 112 ITH 122 - 123 ITH 133 - 143	n ₁ [rpm]	Potencia motor / Motor Power [hp]		
		3	5	7.5
R ₁ [lb]	1750	404		
	1150	472	269	-
	850	562	-	-

ITH 132 ITH 142	n ₁ [rpm]	Potencia motor / Motor Power [hp]				
		7.5	10	15	20	25
R ₁ [lb]	1750	831			629	269
	1150	1101		741	146	-
	850	1180	876	-	-	-

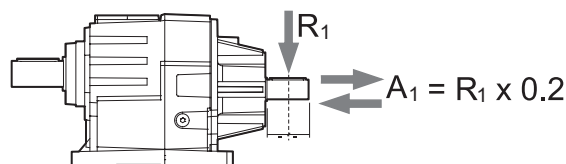
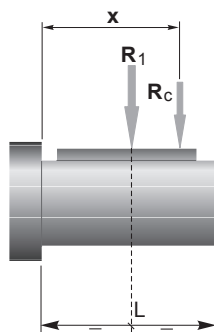
Carga radial en la entrada**Input Radial loads**

Las cargas radiales máximas aplicables en la entrada están indicadas en las tablas.

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

The radial loads maximum input applicable are indicated in the previous tables.

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:



	ITH 112	ITH 113	ITH 122	ITH 123	ITH 132	ITH 133	ITH 142	ITH 143
a	5.472	5.275	5.472		6.181	5.472	6.181	5.472
b	4.33	4.33	4.33		4.645	4.33	4.645	4.33

$$R_c = \frac{R_1 \cdot a}{(b+x)} \leq R_1$$

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

$$R \leq R_c$$

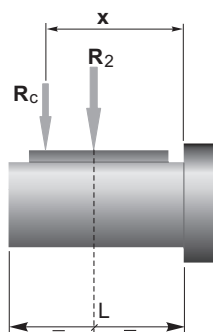
Carga radial en la salida**Output Radial loads**

Las cargas radiales máximas aplicables en la salida están indicadas en la siguiente tabla.

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

The radial loads maximum output applicable are indicated in the technical data table.

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:

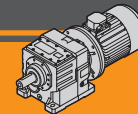


	ITH 112	ITH 113	ITH 122	ITH 123	ITH 132	ITH 133	ITH 142	ITH 143
a	7.244		8.188		9.724		11.259	
b	5.866		6.614		7.755		8.897	
R _{2MAX}	1.843		2.810		4.158		5.058	

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

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

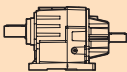
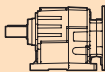
$$R \leq R_c$$



Datos técnicos

n₁ 1750 rpm

Technical data

	n_2 [rpm]	Mn_2 [lb·in]	Pn_1 [hp]	i	R_2 [lb]		NEMA Motores aplicables NEMA Motor adapters
ITHIS 112						ITH 112	
	326	3098	16.67	5.38	773	56C	140TC
	271	3098	13.85	6.47	861		180TC
	222	3540	13.00	7.88	924		210TC
	205	3540	11.99	8.54	969		
	193	3717	11.87	9.06	985		
	170	3717	10.46	10.28	1060		
	154	4248	10.78	11.39	1064		
	140	4248	9.81	12.52	1124		
	118	4425	8.65	14.80	1216		
	97	4691	7.50	18.10	1327		
	86	4691	6.70	20.25	1417		
	74	5310	6.53	23.52	1436		
	61	5753	5.78	28.77	1527		
	54	6019	5.41	32.18	1574		
	48	6019	4.78	36.35	1690		
	42	6019	4.19	41.57	1828		
	36	4602	3.19	48.27	1843		

ITHIS 113					
	39	6196	3.83	44.99	1843
	32	6196	3.32	55.27	1843
	26	6196	2.71	67.61	1843
	23	6196	2.44	74.96	1843
	19	6196	2.00	91.70	1843
	16	6196	1.68	108.91	1843
	13	6196	1.34	136.65	1843
	11	6196	1.12	163.98	1843
	10	6196	1.06	173.44	1843
	9.4	6196	0.98	185.20	1843
	8.7	6196	0.91	201.58	1843
	8.2	6196	0.86	212.17	1843
	7.7	6196	0.81	226.55	1843
	7.1	6196	0.74	246.59	1843

ITH 113	
56C	140TC
	*
	*
	*

NOTA

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



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

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas B11 a la B20.

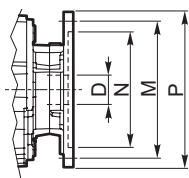
NOTE

Highlighted áreas indicate the motor input flange available on each gearbox size.



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

Before selecting any gearbox, please read the performance values shown in the tables on page B11 to B20.



Dimensiones NEMA/ NEMA Dimensions				
	56C	140TC	180TC	210TC
N	4.5		8.5	
M	5.88		7.25	
P	6.5		9	
D	0.625	0.875	1.125	1.375



Technical data

[illegible][illegible]

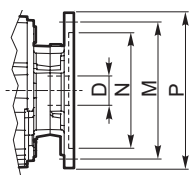
NOTA

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



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NOTE

Highlighted áreas indicate the motor input flange available on each gearbox size.

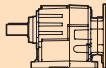


* = The service factor (sf) has to be selected depending on application: please contact our Technical Department.

Before selecting any gearbox, please read the performance values shown in the tables on page B11 to B20.

Dimensiones NEMA/ NEMA Dimensions				
	56C	140TC	180TC	210TC
N	4.5		8.5	
M	5.88		7.25	
P	6.5		9	
D	0.625	0.875	1.125	1.375

Technical data

	n₂ [rpm]	Mn₂ [lb·in]	Pn₁ [hp]	i	R₂ [lb]		NEMA Motores aplicables NEMA Motor adapters
ITHIS 132						ITH 132	
	348	7523	43.22	5,03	2320	56C	140TC
	287	7523	35.71	6,09	2593		180TC
	253	7966	33.35	6,91	2730		210TC
	233	7966	30.69	7,51	2866		250TC
	209	7966	27.55	8,36	3051		280TC
	194	7966	25.51	9,03	3191		
	170	8408	23.59	10,30	3370		
	159	8408	22.09	11,01	3503		
	141	10621	24.78	12,39	3330		
	118	10621	20.76	14,80	3693		*
	116	11506	22.04	15,11	3547		*
	94	13276	20.54	18,69	3586		*
	86	14161	20.17	20,31	3537		*
	68	14161	15.96	25,65	4054		
	64	15046	15.84	27,48	3950		
	57	15046	14.27	30,46	4159		
	51	16816	14.06	34,61	3902		*
	46	16816	12.90	37,71	4102		
	42	16816	11.64	41,80	4159		
	38	16816	10.67	45,60	4159		
	35	16816	9.75	49,88	4159		

ITHIS 133					
	29	16816	8.15	60,92	4159
	27	16816	7.66	64,74	4159
	25	16816	7.01	70,88	4159
	22	16816	6.33	78,38	4159
	20	16816	5.70	87,14	4159
	18	16816	5.19	95,67	4159
	16	16816	4.51	109,93	4159
	15	16816	4.12	120,36	4159
	13	16816	3.69	134,66	4159
	12	16816	3.35	147,98	4159
	11	16816	3.07	162,45	4159
	9,1	16816	2.58	191,39	4159
	8,4	16816	2.38	209,48	4159
	7,6	16816	2.16	230,85	4159

ITH 133			
56C	140TC	180TC	210TC
			*
			*
			*
			*
			*
			*
			*
		*	
		*	

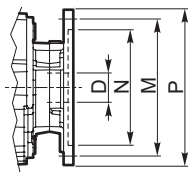
NOTA

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



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

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas B11 a la B20.



NOTE

Highlighted áreas indicate the motor input flange available on each gearbox size.



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

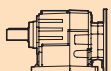
Before selecting any gearbox, please read the performance values shown in the tables on page B11 to B20.

Dimensiones NEMA/ NEMA Dimensions						
	56C	140TC	180TC	210TC	250TC	280TC
N	4.5		8.5			10.5
M	5.88		7.25			9
P	6.5		9		10	11.525
D	0.625	0.875	1.125	1.375	1.625	1.875

Datos técnicos

n_1 1750 rpm

Technical data

	n₂ [rpm]	Mn₂ [lb·in]	Pn₁ [hp]	i	R₂ [lb]		NEMA Motores aplicables <i>NEMA Motor adapters</i>				
ITHIS 142						ITH 142					
						140TC	180TC	210TC	250TC	280TC	
285	15931	74.90	6,15	3362							
238	15931	62.69	7,35	3708							
197	17702	57.63	8,88	3878							
180	17702	52.54	9,75	4080							
169	18587	51.94	10,35	4087							
150	18587	46.17	11,65	4362							
137	19472	44.09	12,78	4444							
124	20357	41.82	14,08	4535							
107	20357	35.90	16,40	4931							
99	24782	40.42	17,73	4277							
87	24782	35.43	20,24	4600							
67	28322	31.50	25,99	4418							
62	28322	29.16	28,10	4612							
54	28322	25.32	32,35	4984							
47	28322	22.09	37,09	5058							
40	28322	18.82	43,57	5058						*	
37	28322	17.32	47,35	5058							
34	28322	15.82	51,76	5058							

ITHIS 143					
	28	30978	14.80	61,74	5058
	26	30978	13.70	66,73	5058
	22	30978	11.50	79,43	5058
	20	30978	10.67	85,85	5058
	16	30978	8.21	111,40	5058
	15	30978	7.58	120,42	5058
	13	30978	6.95	131,84	5058
	12	30978	6.22	147,51	5058
	11	30978	5.65	162,10	5058
	9,8	30978	5.12	177,95	5058
	9,0	30978	4.71	193,96	5058
	8,3	30978	4.34	209,65	5058
	7,6	30978	3.97	229,46	5058
	6,9	30978	3.61	252,87	5058

ITH 143				
56C	140TC	180TC	210TC	250TC
				*
				*
				*
				*
			*	
			*	
			*	

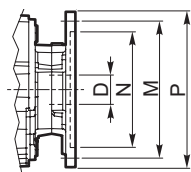
NOTA

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



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

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas B11 a la B20.



NOTE

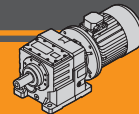
Highlighted áreas indicate the motor input flange available on each gearbox size.



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

Before selecting any gearbox, please read the performance values shown in the tables on page B11 to B20.

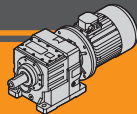
Dimensiones NEMA/ NEMA Dimensions						
	56C	140TC	180TC	210TC	250TC	280TC
N	4.5		8.5			10.5
M	5.88		7.25			9
P	6.5		9		10	11.525
D	0.625	0.875	1.125	1.375	1.625	1.875



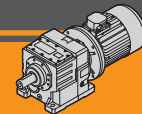
Datos técnicos

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]
0.33 hp									0.75 hp								
0.22 kW (1750 rpm)	48	425	14.3	III	36.35	ITH112	56C	1843	0.55 kW (1750 rpm)	326	133	22.6	III	5.38	ITH112	56C	992
	42	478	12.5	III	41.57		56C	1843		271	168	18.8	III	6.47		56C	1102
	36	558	8.2	III	48.27		56C	1843		222	204	17.6	III	7.88		56C	1232
						ITH113	56C	1843		205	221	16.3	III	8.54	ITH113	56C	1290
	39	513	12.1	III	44.99		56C	1843		193	230	16.1	III	9.06		56C	1333
	32	628	9.9	III	55.27		56C	1843		170	266	14.2	III	10.28		56C	1430
	26	770	8.1	III	67.61		56C	1843		154	292	14.6	III	11.39		56C	1515
	23	850	7.3	III	74.96		56C	1843		140	319	13.3	III	12.52		56C	1596
	19	1044	6.0	III	91.70		56C	1843		118	381	11.7	III	14.80		56C	1750
	16	1239	5.0	III	108.91		56C	1843		97	460	10.2	III	18.10		56C	1843
	13	1549	4.0	III	136.65		56C	1843		86	513	9.1	III	20.25		56C	1843
	11	1859	3.3	III	163.98		56C	1843		74	602	8.9	III	23.52		56C	1843
	10	1965	3.1	III	173.44		56C	1843		61	735	7.8	III	28.77		56C	1843
	9.4	2106	2.9	III	185.20		56C	1843		54	823	7.3	III	32.18		56C	1843
	8.7	2292	2.7	III	201.58		56C	1843		48	929	6.5	III	36.35		56C	1843
	8.2	2407	2.6	III	212.17		56C	1843		42	1062	5.7	III	41.57		56C	1843
	7.7	2576	2.4	III	226.55		56C	1843		36	1230	3.7	III	48.27		56C	1843
	7.1	2797	2.2	III	246.59		56C	1843									
	9.8	2018	4.3	III	178.10	ITH123	56C	2810		39	1124	5.5	III	44.99	ITH113	56C	1843
	8.6	2310	3.8	III	203.65		56C	2810		32	1381	4.5	III	55.27		56C	1843
	8.1	2452	3.5	III	216.00		56C	2810		26	1690	3.6	III	67.61		56C	1843
	7.4	2682	3.2	III	236.49		56C	2810		23	1868	3.3	III	74.96		56C	1843
	6.8	2903	3.0	III	256.00		56C	2810		19	2292	2.7	III	91.70		56C	1843
	6.2	3177	2.7	III	280.29		56C	2810		16	2717	2.3	III	108.91		56C	1843
										13	3416	1.8	II	136.65		56C	1843
						ITH113				11	4098	1.5	II	163.98	ITH122	56C	1843
										10	4328	1.4	II	173.44		56C	1843
										9.4	4629	1.3	I	185.20		56C	1843
										8.7	5036	1.2	I	201.58		56C	1843
										8.2	5302	1.2	I	212.17		56C	1843
										7.7	5656	1.1	I	226.55		56C	1843
										7.1	6160	1.0	I	246.59		56C	1843
										67	673	12.9	III	26.28		56C	2810
										60	752	11.6	III	29.40		56C	2810
										54	823	10.5	III	32.31		56C	2810
										49	903	9.6	III	35.47		56C	2810
										42	1062	8.1	III	41.78		56C	2810
						ITH123				38	1168	7.4	III	45.73	ITH123	56C	2810
										35	1283	6.7	III	50.40		56C	2810
										31	1398	6.2	III	56.00		56C	2810
										29	1531	5.7	III	61.31		56C	2810
										25	1761	4.9	III	70.53		56C	2810
										22	2027	4.3	III	81.00		56C	2810
										20	2213	3.9	III	88.68		56C	2810
										17	2629	3.3	III	105.23		56C	2810
										15	2876	3.0	III	115.21		56C	2810
										14	3213	2.7	III	128.73		56C	2810
										12	3593	2.4	III	144.00		56C	2810
										11	3939	2.2	III	157.66		56C	2810
										9.8	4443	2.0	II	178.10		56C	2810
										8.6	5089	1.7	II	203.65		56C	2810

**ITH****Motorreductores a engranajes cilíndricos**
Helical in-line gearmotors**Nema 60 Hz****Datos técnicos****Technical data**

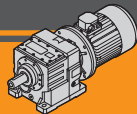
P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]
0.75 hp									1.0 hp								
0.55 kW (1750 rpm)	8.1	5390	1.6	II	216.00	ITH123	56C	2810	0.75 kW (1750 rpm)	39	1531	4.0	III	44.99	ITH113	56C-140TC	1843
	7.4	5903	1.5	II	236.49			2810		32	1885	3,3	III	55,27			1843
	6.8	6390	1.4	II	256.00			2810		26	2301	2,8	III	67,61			1843
	6.2	7001	1.2	I	280.29			2810		23	2549	2,4	III	74,96			1843
						ITH133	56C			19	3124	2,0	II	91,70	ITH122	56C-140TC	1843
	29	1522	11,1	III	60,92			4159		16	3708	1,7	II	108,91			1843
	27	1620	10,4	III	64,74			4159		13	4655	1,3	I	136,65			1843
	25	1770	9,5	III	70,88			4159		11	5585	1,1	I	163,98			1843
	22	1956	8,6	III	78,38			4159		10	5903	1,0	I	173,44			1843
	20	2177	7,7	III	87,14			4159		9,4	6311	1,0	I	185,20			1843
	18	2390	7,0	III	95,67			4159		8,7	6868	0,9	I	201,58			1843
	16	2744	6,1	III	109,93			4159									
	15	3009	5,6	III	120,36			4159		102	593	12,6	III	17,11		56C-140TC	2674
	13	3363	5,0	III	134,66			4159		90	682	11,1	III	19,50			2810
	12	3700	4,6	III	147,98			4159		82	743	10,7	III	21,43			2810
	11	4054	4,1	III	162,45			4159		73	832	10,4	III	24,00			2810
	9,1	4779	3,5	III	191,39			4159		67	912	9,5	III	26,28	ITH123	56C-140TC	2810
	8,4	5231	3,2	III	209,48	ITH143	56C	4159		60	1027	8,5	III	29,40			2810
	7,6	5762	2,9	III	230,85			4159		54	1124	7,7	III	32,31			2810
										49	1230	7,0	III	35,47			2810
	16	2779	11,1	III	111,40			5058		42	1452	6,0	III	41,78			2810
	15	3009	10,3	III	120,42			5058		38	1593	5,5	III	45,73			2810
	13	3292	9,4	III	131,84			5058		35	1752	4,9	III	50,40			2810
	12	3682	8,4	III	147,51			5058									
	11	4045	7,7	III	162,10			5058		31	1903	4,5	III	56,00		56C-140TC	2810
	9,8	4443	7,0	III	177,95			5058		29	2089	4,2	III	61,31			2810
	9,0	4841	6,4	III	193,96			5058		25	2399	3,6	III	70,53			2810
	8,3	5231	5,9	III	209,65			5058		22	2761	3,1	III	81,00			2810
	7,6	5726	5,4	III	229,46			5058		20	3018	2,9	III	88,68	ITH132	56C-140TC	2810
	6,9	6311	4,9	III	252,87			5058		17	3585	2,4	III	105,23			2810
										15	3921	2,2	III	115,21			2810
										14	4381	2,0	II	128,73			2810
										12	4903	1,8	II	144,00			2810
										11	5372	1,6	II	157,66			2810
										9,8	6063	1,4	II	178,10			2810
										8,6	6930	1,3	I	203,65			2810
										8,1	7355	1,2	I	216,00			2810
										7,4	8054	1,1	I	236,49			2810
										6,8	8718	1,0	I	256,00			2810
										6,2	9541	0,9	I	280,29			2810
										46	1310	12,8	III	37,71		56C-140TC	4159
										42	1452	11,6	III	41,80			4159
										38	1584	10,6	III	45,60			4159
										35	1735	9,7	III	49,88			4159



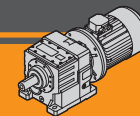
Datos técnicos

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	
1.0 hp									1.5 hp									
0.75 kW (1750 rpm)	29	2071	8,1	III	60,92	ITH133	56C-140TC	4159	1.1 kW (1750 rpm)	39	2248	2,8	III	44,99	ITH113	56C-140TC	1843	
	27	2204	7,6	III	64,74		56C-140TC	4159	32	2761	2,3	III	55,27	56C-140TC		1843		
	25	2416	7,0	III	70,88		56C-140TC	4159	26	3372	1,9	II	67,61	56C-140TC		1843		
	22	2673	6,3	III	78,38		56C-140TC	4159	23	3744	1,7	II	74,96	56C-140TC		1843		
	20	2965	5,7	III	87,14		56C-140TC	4159	19	4576	1,4	II	91,70	56C-140TC		1843		
	18	3257	5,2	III	95,67		56C-140TC	4159	16	5443	1,1	I	108,91	56C-140TC		1843		
	16	3744	4,5	III	109,93		56C-140TC	4159	13	6824	0,9	I	136,65	56C-140TC		1843		
	15	4098	4,1	III	120,36		56C-140TC	4159	198	451	12,8	III	8,82	ITH122	56C-140TC	1833		
	13	4585	3,7	III	134,66		56C-140TC	4159		513	12,9	III	10,08		56C-140TC	1973		
	12	5036	3,3	III	147,98		56C-140TC	4159		174	513	12,9	III		10,08	56C-140TC	1973	
	11	5532	3,0	III	162,45		56C-140TC	4159		154	575	11,5	III		11,35	56C-140TC	2107	
	9,1	6514	2,6	III	191,39		56C-140TC	4159		132	682	11,1	III		13,30	56C-140TC	2297	
	8,4	7134	2,4	III	209,48		56C-140TC	4159		110	814	9,3	III		15,92	56C-140TC	2531	
	7,6	7859	2,1	III	230,85		56C-140TC	4159		102	876	8,6	III		17,11	56C-140TC	2630	
	22	2708	11,5	III	79,43	ITH143	56C-140TC	5058		90	991	7,6	III		19,50	56C-140TC	2810	
		20	2921	10,6	III		85,85	56C-140TC		5058	82	1089	7,3		III	21,43	56C-140TC	2810
		16	3797	8,2	III		111,40	56C-140TC	5058	73	1221	7,1	III	24,00	56C-140TC	2810		
		15	4098	7,6	III		120,42	56C-140TC	5058	67	1336	6,5	III	26,28	56C-140TC	2810		
		13	4487	6,9	III		131,84	56C-140TC	5058	60	1496	5,8	III	29,40	56C-140TC	2810		
		12	5027	6,2	III		147,51	56C-140TC	5058	54	1646	5,3	III	32,31	56C-140TC	2810		
		11	5523	5,6	III		162,10	56C-140TC	5058	49	1806	4,8	III	35,47	56C-140TC	2810		
		9,8	6063	5,1	III		177,95	56C-140TC	5058	42	2133	4,1	III	41,78	56C-140TC	2810		
		9,0	6603	4,7	III		193,96	56C-140TC	5058	38	2337	3,7	III	45,73	56C-140TC	2810		
		8,3	7143	4,3	III		209,65	56C-140TC	5058	35	2567	3,4	III	50,40	56C-140TC	2810		
		7,6	7815	4,0	III		229,46	56C-140TC	5058	31	2797	3,1	III	56,00	ITH123	56C-140TC	2810	
		6,9	8612	3,6	III		252,87	56C-140TC	5058		29	3062	2,8	III		61,31	56C-140TC	2810
									25		3523	2,5	III	70,53		56C-140TC	2810	
									22		4045	2,1	III	81,00		56C-140TC	2810	
									20		4425	2,0	II	88,68		56C-140TC	2810	
1.5 hp	326	274	11,3	III	5,38	ITH112	56C-140TC	979	17	5257	1,7	II	105,23	ITH132	56C-140TC	4159		
	271	327	9,4	III	6,47		56C-140TC	1085	15	5753	1,5	II	115,21		56C-140TC	2810		
	222	398	8,8	III	7,88		56C-140TC	1208	14	6426	1,3	I	128,73		56C-140TC	2810		
	205	434	8,1	III	8,54		56C-140TC	1263	12	7196	1,2	I	144,00		56C-140TC	2810		
	193	460	8,0	III	9,06		56C-140TC	1303	11	7877	1,1	I	157,66		56C-140TC	2810		
	170	522	7,1	III	10,28		56C-140TC	1395	9,8	8895	1,0	I	178,10		56C-140TC	2810		
	154	584	7,3	III	11,39		56C-140TC	1473	8,6	10170	0,9	I	203,65		56C-140TC	2810		
	140	637	6,7	III	12,52		56C-140TC	1547	68	1310	10,8	III	25,65		ITH132	56C-140TC	4159	
	118	752	5,9	III	14,80		56C-140TC	1686		64	1398	10,7	III			27,48	56C-140TC	4159
	97	920	5,1	III	18,10		56C-140TC	1843		57	1558	9,7	III			30,46	56C-140TC	4159
	86	1036	4,5	III	20,25		56C-140TC	1843		51	1761	9,5	III			34,61	56C-140TC	4159
	74	1204	4,4	III	23,52		56C-140TC	1843		46	1921	8,7	III			37,71	56C-140TC	4159
	61	1469	3,9	III	28,77		56C-140TC	1843		42	2133	7,9	III			41,80	56C-140TC	4159
	54	1637	3,7	III	32,18		56C-140TC	1843		38	2328	7,2	III			45,60	56C-140TC	4159
	48	1850	3,2	III	36,35		56C-140TC	1843		35	2540	6,6	III			49,88	56C-140TC	4159
	42	2124	2,8	III	41,57		56C-140TC	1843										
	36	2461	1,9	II	48,27		56C-140TC	1843										

**ITH****Motorreductores a engranajes cilíndricos**
Helical in-line gearmotors**Nema 60 Hz****Datos técnicos****Technical data**

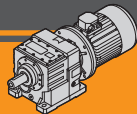
P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]
1.5 hp									2.0 hp								
1.1 kW (1750 rpm)	29	3045	5,5	III	60,92	ITH133	56C-140TC	4159	1.5 kW (1750 rpm)	39	3062	2,0	II	44,99	ITH113	56C-140TC	1843
	27	3231	5,2	III	64,74			4159		32	3762	1,6	II	55,27			1843
	25	3540	4,8	III	70,88			4159		26	4602	1,4	II	67,61			1843
	22	3912	4,3	III	78,38			4159		23	5107	1,2	I	74,96			1843
	20	4355	3,9	III	87,14			4159		19	6249	1,0	I	91,70			1843
	18	4779	3,5	III	95,67			4159									
	16	5487	3,1	III	109,93			4159		339	363	13,5	III	5,17	ITH122	56C-140TC	1349
	15	6010	2,8	III	120,36			4159		262	469	10,5	III	6,69			1558
	13	6727	2,5	III	134,66			4159		225	540	9,8	III	7,79			1695
	12	7390	2,3	III	147,98			4159		198	611	9,4	III	8,82			1815
	11	8116	2,1	III	162,45			4159		174	699	9,5	III	10,08			1952
	9,1	9559	1,8	II	191,39			4159		154	788	8,4	III	11,35			2080
	8,4	10462	1,6	II	209,48			4159		132	929	8,1	III	13,30			2263
	7,6	11533	1,5	II	230,85			4159		110	1106	6,8	III	15,92			2485
										102	1186	6,3	III	17,11			2579
	28	3080	10,0	III	61,74	ITH143	56C-140TC	5058		90	1354	5,5	III	19,50			2755
	26	3337	9,3	III	66,73			5058		82	1487	5,3	III	21,43			2810
	22	3965	7,8	III	79,43			5058		73	1673	5,2	III	24,00			2810
	20	4284	7,2	III	85,85			5058		67	1823	4,7	III	26,28			2810
	16	5567	5,6	III	111,40			5058		60	2045	4,2	III	29,40			2810
	15	6010	5,2	III	120,42			5058		54	2248	3,9	III	32,31			2810
	13	6585	4,7	III	131,84			5058		49	2469	3,5	III	35,47			2810
	12	7364	4,2	III	147,51			5058		42	2903	3,0	III	41,78			2810
	11	8098	3,8	III	162,10			5058		38	3177	2,7	III	45,73			2810
	9,8	8886	3,5	III	177,95			5058		35	3505	2,5	III	50,40			2810
	9,0	9683	3,2	III	193,96			5058							ITH123	56C-140TC	2810
	8,3	10470	3,0	III	209,65			5058		31	3815	2,3	III	56,00			2810
	7,6	11462	2,7	III	229,46			5058		29	4178	2,1	III	61,31			2810
	6,9	12630	2,5	III	252,87			5058		25	4806	1,8	II	70,53			2810
										22	5514	1,6	II	81,00			2810
										20	6036	1,4	II	88,68			2810
										17	7169	1,2	I	105,23			2810
										15	7851	1,1	I	115,21			2810
										14	8771	1,0	I	128,73			2810
										12	9807	0,9	I	144,00			2810
															ITH132	56C-140TC	4159
										194	628	12,7	III	9,03			4159
										170	717	11,7	III	10,30			4159
										159	770	11,0	III	11,01			4159
										141	859	12,3	III	12,39			4159
										118	1027	10,3	III	14,80			4159
										116	1053	11,0	III	15,11			4159
										94	1301	10,2	III	18,69			4159
										86	1416	10,0	III	20,31			4159
										68	1788	7,9	III	25,65			4159
										64	1912	7,9	III	27,48			4159
										57	2115	7,1	III	30,46			4159
										51	2407	7,0	III	34,61			4159
										46	2620	6,4	III	37,71			4159
										42	2903	5,8	III	41,80			4159
										38	3169	5,3	III	45,60			4159
										35	3469	4,8	III	49,88			4159



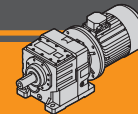
Datos técnicos

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
2.0 hp									3.0 hp																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1.5 kW (1750 rpm)	29	4151	4,1	III	60,92	ITH133	56C-140TC	4159	2.2 kW (1750 rpm)	339	531	9,2	III	5,17	ITH122	140C-180TC	1336																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	27	4408	3,8	III	64,74		56C-140TC	4159		262	682	7,1	III	6,69		140C-180TC	1538																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	25	4824	3,5	III	70,88		56C-140TC	4159		225	797	6,7	III	7,79		140C-180TC	1670																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	22	5337	3,2	III	78,38		56C-140TC	4159		198	903	6,4	III	8,82		140C-180TC	1784																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	20	5939	2,8	III	87,14		56C-140TC	4159		174	1027	6,5	III	10,08		140C-180TC	1913																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	18	6514	2,6	III	95,67		56C-140TC	4159		154	1159	5,7	III	11,35		140C-180TC	2034																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	16	7488	2,2	III	109,93		56C-140TC	4159		132	1354	5,5	III	13,30		140C-180TC	2204																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	15	8196	2,1	III	120,36		56C-140TC	4159		110	1620	4,6	III	15,92		140C-180TC	2406																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	13	9169	1,8	II	134,66		56C-140TC	4159		102	1744	4,3	III	17,11		140C-180TC	2491																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	12	10081	1,7	II	147,98		56C-140TC	4159		90	1991	3,8	III	19,50		140C-180TC	2646																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	11	11063	1,5	II	162,45		56C-140TC	4159		82	2186	3,6	III	21,43		140C-180TC	2760																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	9,1	13037	1,3	I	191,39		56C-140TC	4159		73	2452	3,5	III	24,00		140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	8,4	14267	1,2	I	209,48	56C-140TC	4159	67		2682	3,2	III	26,28	140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	7,6	15719	1,1	I	230,85	56C-140TC	4159	60		3000	2,9	III	29,40	140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	28	4204	7,4	III	61,74	ITH143	56C-140TC	5058		54	3292	2,6	III	32,31	140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	26	4540	6,8	III	66,73		56C-140TC	5058		49	3620	2,4	III	35,47	140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	22	5408	5,7	III	79,43		56C-140TC	5058		42	4266	2,0	II	41,78	140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	20	5850	5,3	III	85,85		56C-140TC	5058		38	4664	1,9	II	45,73	140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	16	7585	4,1	III	111,40		56C-140TC	5058		35	5142	1,7	II	50,40	140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	15	8205	3,8	III	120,42		56C-140TC	5058		31	5594	1,6	II	56,00	ITH123	140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	13	8975	3,5	III	131,84		56C-140TC	5058		29	6125	1,4	II	61,31		140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	12	10046	3,1	III	147,51		56C-140TC	5058		25	7045	1,2	I	70,53		140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	11	11037	2,8	III	162,10		56C-140TC	5058		22	8090	1,1	I	81,00		140C-180TC	2810																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	9,8	12117	2,6	III	177,95		56C-140TC	5058		194	920	8,6	III	9,03	ITH132	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	9,0	13205	2,3	III	193,96		56C-140TC	5058		170	1053	8,0	III	10,30		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	8,3	14276	2,2	III	209,65		56C-140TC	5058		159	1124	7,5	III	11,01		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	7,6	15630	2,0	II	229,46		56C-140TC	5058		141	1266	8,4	III	12,39		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	6,9	17224	1,8	II	252,87		56C-140TC	5058		118	1513	7,0	III	14,80		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
326	549	5,6	III	5,38	ITH112		140C-180TC	953	94	1903	7,0	III	18,69	140C-180TC		4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
271	664	4,7	III	6,47			140C-180TC	1050	86	2071	6,8	III	20,31	140C-180TC		4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
222	805	4,4	III	7,88		140C-180TC	1161	68	2620	5,4	III	25,65	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
205	867	4,1	III	8,54		140C-180TC	1209	64	2806	5,4	III	27,48	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
193	920	4,0	III	9,06		140C-180TC	1245	57	3107	4,8	III	30,46	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
170	1044	3,5	III	10,28		140C-180TC	1323	51	3531	4,8	III	34,61	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
154	1159	3,7	III	11,39		140C-180TC	1388	46	3850	4,4	III	37,71	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
140	1275	3,3	III	12,52		140C-180TC	1449	42	4266	3,9	III	41,80	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
118	1513	2,9	III	14,80		140C-180TC	1559	38	4655	3,6	III	45,60	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
97	1850	2,5	III	18,10		140C-180TC	1689	35	5089	3,3	III	49,88	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
86	2062	2,3	III	20,25		140C-180TC	1759	29	6080	2,8	III	60,92	ITH133	140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
74	2399	2,2	III	23,52		140C-180TC	1843	27	6470	2,6	III	64,74		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
61	2938	2,0	II	28,77		140C-180TC	1843	25	7081	2,4	III	70,88		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
54	3284	1,8	II	32,18		140C-180TC	1843	22	7824	2,1	III	78,38		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
48	3708	1,6	II	36,35		140C-180TC	1843	20	8700	1,9	II	87,14		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
42	4240	1,4	II	41,57		140C-180TC	1843	18	9559	1,8	II	95,67		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
39	4496	1,4	I	44,99	ITH113	140TC	1843	16	10984	1,5	II	109,93		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
32	5523	1,1	I	55,27		140TC	1843	15	12019	1,4	II	120,36		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
26	6753	0,9	I	67,61		140TC	1843	13	13453	1,3	I	134,66		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
								12	14781	1,1	I	147,98		140C-180TC	4159																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

**ITH****Motorreductores a engranajes cilíndricos**
Helical in-line gearmotors**Nema 60 Hz****Datos técnicos****Technical data**

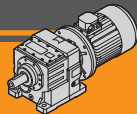
P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	
3.0 hp									5.0 hp									
2.2 kW (1750 rpm)	107	1673	12,2	III	16,40	ITH142	140C-180TC	5058	3.7 kW (1750 rpm)	60	5045	1,7	II	29,40	ITH122	180TC	2604	
	87	2062	12,0	III	20,24		140C-180TC	5058		54	5541	1,6	II	32,31		180TC	2626	
	67	2655	10,7	III	25,99		140C-180TC	5058		49	6080	1,4	I	35,47		180TC	2630	
	54	3301	8,6	III	32,35		140C-180TC	5058		42	7169	1,2	I	41,78		180TC	2579	
	40	4443	6,4	III	43,57		140C-180TC	5058		38	7842	1,1	I	45,73		180TC	2810	
	37	4833	5,9	III	47,35		140C-180TC	5058		35	8647	1,0	III	50,40		180TC	2810	
	34	5284	5,4	III	51,76		140C-180TC	5058		194	1549	5,1	III	9,03		ITH132	180TC	4126
	28	6169	5,0	III	61,74	ITH143	140C-180TC	5058			170	1770	4,8	III	10,30		180TC	4159
	26	6665	4,6	III	66,73		140C-180TC	5058			159	1885	4,5	III	11,01		180TC	4159
	22	7930	3,9	III	79,43		140C-180TC	5058			141	2124	5,0	III	12,39		180TC	4159
	20	8576	3,6	III	85,85		140C-180TC	5058			118	2540	4,2	III	14,80		180TC	4159
	16	11125	2,8	III	111,40		140C-180TC	5058			116	2593	4,4	III	15,11		180TC	4159
	15	12028	2,6	III	120,42		140C-180TC	5058			94	3204	4,1	III	18,69		180TC	4159
	13	13170	2,4	III	131,84		140C-180TC	5058		86	3487	4,1	III	20,31	180TC	4159		
	12	14736	2,1	III	147,51		140C-180TC	5058		68	4399	3,2	III	25,65	180TC	4159		
	11	16188	1,9	II	162,10		140C-180TC	5058		64	4717	3,2	III	27,48	180TC	4159		
	9,8	17772	1,7	II	177,95		140C-180TC	5058		57	5222	2,9	III	30,46	180TC	4159		
	9,0	19374	1,6	II	193,96		140C-180TC	5058		51	5939	2,8	III	34,61	180TC	4159		
	8,3	20941	1,5	II	209,65	140C-180TC	5058	46		6470	2,6	III	37,71	180TC	4159			
	7,6	22923	1,4	II	229,46	140C-180TC	5058	42		7169	2,3	III	41,80	180TC	4159			
	6,9	25260	1,2	I	252,87	140C-180TC	5058	38		7824	2,1	III	45,60	180TC	4159			
								35		8559	2,0	II	49,88	180TC	4159			
	5.0 hp	326	920	3,4	III	5,38	ITH112	180TC		911	29	10231	1,6	II	60,92	ITH133	180TC	4159
		271	1106	2,8	III	6,47		180TC		994	27	10878	1,5	II	64,74		180TC	4159
		222	1354	2,6	III	7,88		180TC		1084	25	11904	1,4	II	70,88		180TC	4159
		205	1469	2,4	III	8,54		180TC		1122	22	13170	1,3	I	78,38		180TC	4159
		193	1558	2,4	III	9,06		180TC		1149	20	14639	1,1	I	87,14		180TC	4159
		170	1761	2,1	III	10,28		180TC		1206	18	16073	1,0	I	95,67		180TC	4159
154		1956	2,2	III	11,39	180TC		1251	137	2195	8,9	III	12,78	ITH142	180TC		5058	
140		2151	2,0	II	12,52	180TC	1289	124		2416	8,4	III	14,08		180TC	5058		
118		2540	1,7	II	14,80	180TC	1350	107		2815	7,2	III	16,40		180TC	5058		
97		3107	1,5	II	18,10	180TC	1402	87		3469	7,1	III	20,24		180TC	5058		
86		3478	1,4	II	20,25	180TC	1416	67		4461	6,4	III	25,99		180TC	5058		
74		4036	1,3	I	23,52	180TC	1411	54		5549	5,1	III	32,35		180TC	5058		
61		4939	1,2	I	28,77	180TC	1843	40		7479	3,8	III	43,57		180TC	5058		
54		5523	1,1	I	32,18	180TC	1843	37	8125	3,5	III	47,35	180TC	5058				
								34	8877	3,2	III	51,76	180TC	5058				
339		885	5,5	III	5,17	ITH122	180TC	1303	28	10373	3,0	III	61,74	ITH143	180TC	5058		
262		1151	4,2	III	6,69		180TC	1486	26	11214	2,8	III	66,73		180TC	5058		
225		1336	4,0	III	7,79		180TC	1604	22	13347	2,3	III	79,43		180TC	5058		
198		1513	3,8	III	8,82		180TC	1704	20	14418	2,1	III	85,85		180TC	5058		
174		1726	3,8	III	10,08		180TC	1815	16	18710	1,7	II	111,40		180TC	5058		
154		1947	3,4	III	11,35		180TC	1915	15	20224	1,5	II	120,42		180TC	5058		
132		2283	3,3	III	13,30		180TC	2051	13	22145	1,4	II	131,84		180TC	5058		
110		2735	2,8	III	15,92	180TC	2203	12	24782	1,3	II	147,51	180TC	5058				
102		2938	2,6	III	17,11	180TC	2263	11	27234	1,1	I	162,10	180TC	5058				
90		3346	2,2	III	19,50	180TC	2366	9,8	29889	1,0	I	177,95	180TC	5058				
82		3673	2,2	III	21,43	180TC	2434	9,0	32580	1,0	I	193,96	180TC	5058				
73		4116	2,1	III	24,00													
67		4505	1,9	II	26,28													



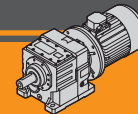
Datos técnicos

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]		
7.5 hp									7.5 hp										
5.5 kW (1750 rpm)	326	1372	2,3	III	5,38	ITH112	210TC	876	5.5 kW (1750 rpm)	285	1567	10,2	III	6,15	ITH142	210TC	4903		
	271	1646	1,9	II	6,47		210TC	947	238	1876	8,5	III	7,35	210TC		5058			
	222	2009	1,8	II	7,88		210TC	1020	197	2266	7,8	III	8,88	210TC		5058			
	205	2177	1,6	II	8,54		210TC	1049	180	2487	7,1	III	9,75	210TC		5058			
	193	2310	1,6	II	9,06		210TC	1069	169	2638	7,0	III	10,35	210TC		5058			
	170	2620	1,4	II	10,28		210TC	1108	150	2974	6,3	III	11,65	210TC		5058			
	154	2903	1,5	II	11,39		210TC	1136	137	3257	6,0	III	12,78	210TC		5058			
	140	3195	1,3	I	12,52		210TC	1156	124	3593	5,7	III	14,08	210TC		5058			
	97	4620	1,0	I	18,10		210TC	1402	107	4178	4,9	III	16,40	210TC		5058			
									99	4523	5,5	III	17,73	210TC		5058			
	339	1319	3,7	III	5,17	ITH122	210TC	1275	87	5160	4,8	III	20,24	ITH143	210TC	5058			
	262	1708	2,9	III	6,69		210TC	1443	67	6629	4,3	III	25,99		210TC	5058			
	225	1983	2,7	III	7,79		210TC	1550	62	7169	4,0	III	28,10		210TC	5058			
	198	2248	2,6	III	8,82		210TC	1638	54	8249	3,4	III	32,35		210TC	5058			
	174	2567	2,6	III	10,08		210TC	1732	47	9461	3,0	III	37,09		210TC	5058			
	154	2894	2,3	III	11,35		210TC	1816	40	11108	2,5	III	43,57		210TC	5058			
	132	3390	2,2	III	13,30		210TC	1923	37	12072	2,3	III	47,35		210TC	5058			
	110	4062	1,9	II	15,92		210TC	2034	34	13196	2,1	III	51,76		210TC	5058			
	102	4363	1,7	II	17,11		210TC	2073											
	90	4974	1,5	II	19,50		210TC	2132	28	15418	2,0	II	61,74		210TC	5058			
	82	5461	1,5	II	21,43	ITH132	210TC	2163	26	16666	1,9	II	66,73	ITH122	210TC	5058			
	73	6125	1,4	II	24,00		210TC	2183	22	19835	1,6	II	79,43		210TC	5058			
	67	6700	1,3	I	26,28		210TC	2183	20	21437	1,4	II	85,85		210TC	5058			
	60	7497	1,2	I	29,40		210TC	2157	16	27818	1,1	I	111,40		210TC	5058			
	54	8240	1,1	I	32,31		210TC	2626	15	30066	1,0	I	120,42		210TC	5058			
	49	9045	1,0	I	35,47		210TC	2630	13	32925	0,9	I	131,84		210TC	5058			
	348	1283	5,9	III	5,03		ITH132	210TC	2994	10.0 hp									
	287	1558	4,8	III	6,09			210TC	3299	7.5 kW (1750 rpm)	326	1868	1,7		II	5,38	ITH112	210TC	830
	253	1761	4,5	III	6,91			210TC	3514	271	2248	1,4	II		6,47	210TC		885	
233	1912	4,2	III	7,51	210TC	3662		222	2735	1,3	I	7,88	210TC	935					
209	2133	3,7	III	8,36	210TC	3858		205	2974	1,2	I	8,54	210TC	952					
194	2301	3,5	III	9,03	210TC	4001		193	3151	1,1	I	9,06	210TC	963					
170	2629	3,2	III	10,30	210TC	4159		170	3576	1,0	I	10,28	210TC	1108					
159	2806	3,0	III	11,01	210TC	4159		154	3965	1,1	I	11,39	210TC	1136					
141	3160	3,4	III	12,39	210TC	4159		140	4355	1,0	I	12,52	210TC	1156					
118	3770	2,8	III	14,80	210TC	4159			339	1797	2,7	III	5,17	ITH122	210TC	1238			
116	3850	3,0	III	15,11	210TC	4159	262		2328	2,1	III	6,69	210TC		1386				
	94	4771	2,8	III	18,69	ITH133	210TC		4159			225	2708		2,0	II	7,79	210TC	1477
	86	5178	2,7	III	20,31		210TC		4159			198	3071		1,9	II	8,82	210TC	1549
	68	6541	2,2	III	25,65		210TC		4159			174	3505		1,9	II	10,08	210TC	1623
	64	7010	2,1	III	27,48		210TC		4159			154	3947		1,7	II	11,35	210TC	1684
	57	7771	1,9	II	30,46		210TC		4159			132	4629		1,6	II	13,30	210TC	1754
	51	8824	1,9	II	34,61		210TC		4159			110	5532		1,4	II	15,92	210TC	1808
	46	9612	1,7	II	37,71		210TC		4159			102	5948		1,3	I	17,11	210TC	1820
	42	10656	1,6	II	41,80		210TC		4159			90	6780		1,1	I	19,50	210TC	2132
	38	11630	1,4	II	45,60		210TC		4159			82	7452		1,1	I	21,43	210TC	2163
	35	12719	1,3	I	49,88		210TC		4159			73	8346		1,0	I	24,00	210TC	2183
	29	15214	1,1	I	60,92	ITH133	210TC		4159		67	9134	0,9		I	26,28	210TC	2183	
	27	16161	1,0	I	64,74		210TC	4159											
	25	17702	1,0	I	70,88		210TC	4159											

**ITH**
Motorreductores a engranajes cilíndricos
Helical in-line gearmotors
Nema 60 Hz**Datos técnicos****Technical data**

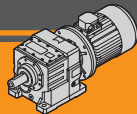
P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	
10.0 hp									15.0 hp									
7.5 kW (1750 rpm)	348	1752	4,3	III	5,03	ITH132	210TC	2929	11.0 kW (1750 rpm)	348	2567	2,9	III	5,03	ITH132	250TC	2816	
	287	2115	3,6	III	6,09		210TC	3209		287	3107	2,4	III	6,09		250TC	3053	
	253	2399	3,3	III	6,91		210TC	3405		253	3523	2,3	III	6,91		250TC	3215	
	233	2611	3,1	III	7,51		210TC	3538		233	3832	2,1	III	7,51		250TC	3320	
	209	2903	2,7	III	8,36		210TC	3710		209	4266	1,9	II	8,36		250TC	3452	
	194	3142	2,5	III	9,03		210TC	3834		194	4602	1,7	II	9,03		250TC	3543	
	170	3585	2,3	III	10,30		210TC	4046		170	5257	1,6	II	10,30		250TC	3686	
	159	3832	2,2	III	11,01		210TC	4150		159	5611	1,5	II	11,01		250TC	3751	
	141	4310	2,5	III	12,39		210TC	4159		141	6319	1,7	II	12,39		250TC	3851	
	118	5142	2,1	III	14,80		210TC	4159		118	7550	1,4	II	14,80		250TC	3945	
	116	5248	2,2	III	15,11		210TC	4159		116	7700	1,5	II	15,11		250TC	3950	
	94	6496	2,0	II	18,69		210TC	4159		94	9532	1,4	II	18,69		250TC	3916	
	86	7063	2,0	II	20,31		210TC	4159		86	10355	1,4	II	20,31		250TC	3847	
	68	8922	1,6	II	25,65		210TC	4159		68	13081	1,1	I	25,65		250TC	4159	
	64	9559	1,6	II	27,48		210TC	4159		51	17648	1,0	I	34,61		250TC	4159	
	57	10594	1,4	II	30,46		210TC	4159		ITH142	285	3133	5,1	III		6,15	250TC	4692
	51	12037	1,4	II	34,61		210TC	4159			238	3753	4,2	III		7,35	250TC	5058
	46	13117	1,3	I	37,71		210TC	4159			197	4532	3,9	III		8,88	250TC	5058
	42	14533	1,2	I	41,80		210TC	4159			180	4974	3,6	III		9,75	250TC	5058
	38	15861	1,1	I	45,60		210TC	4159			169	5275	3,5	III		10,35	250TC	5058
	35	17347	1,0	I	49,88		210TC	4159			150	5939	3,1	III		11,65	250TC	5058
	285	2142	7,4	III	6,15	ITH142	210TC	4826			137	6514	3,0	III	12,78	250TC	5058	
	238	2558	6,2	III	7,35		210TC	5058			124	7178	2,8	III	14,08	250TC	5058	
	197	3089	5,7	III	8,88		210TC	5058			107	8364	2,4	III	16,40	250TC	5058	
	180	3390	5,2	III	9,75		210TC	5058			99	9045	2,7	III	17,73	250TC	5058	
	169	3602	5,2	III	10,35		210TC	5058			87	10320	2,4	III	20,24	250TC	5058	
	150	4054	4,6	III	11,65		210TC	5058			67	13258	2,1	III	25,99	250TC	5058	
	137	4443	4,4	III	12,78		210TC	5058			62	14329	2,0	II	28,10	250TC	5058	
	124	4894	4,2	III	14,08		210TC	5058			54	16498	1,7	II	32,35	250TC	5058	
	107	5700	3,6	III	16,40		210TC	5058			47	18914	1,5	II	37,09	250TC	5058	
	99	6169	4,0	III	17,73		210TC	5058			40	22224	1,3	I	43,57	250TC	5058	
	87	7036	3,5	III	20,24	210TC	5058	ITH143		28	30836	1,0	I	61,74	250TC	5058		
	67	9037	3,1	III	25,99	210TC	5058			26	33323	0,9	I	66,73	250TC	5058		
	62	9771	2,9	III	28,10	210TC	5058											
54	11249	2,5	III	32,35	210TC	5058												
47	12896	2,2	III	37,09	210TC	5058												
40	15152	1,9	II	43,57	210TC	5058												
37	16462	1,7	II	47,35	210TC	5058												
34	18002	1,6	II	51,76	210TC	5058												
28	21021	1,5	II	61,74	ITH143	210TC	5058											
26	22720	1,4	II	66,73		210TC	5058											
22	27048	1,1	I	79,43		210TC	5058											
20	29234	1,1	I	85,85		210TC	5058											



Datos técnicos

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	
20.0 hp									25.0 hp									
15.0 kW (1750 rpm)	348	3505	2,1	III	5,03	ITH132		2686	18.5 kW (1750 rpm)	348	4319	1,7	II	5,03	ITH132		2573	
	287	4240	1,8	II	6,09			2874	287	5222	1,4	II	6,09	2718				
	253	4806	1,7	II	6,91			2996	253	5930	1,3	I	6,91	2806				
	233	5222	1,5	II	7,51			3071	233	6443	1,2	I	7,51	280TC			2853	
	209	5815	1,4	II	8,36			3157	209	7169	1,1	I	8,36	280TC			3157	
	194	6284	1,3	I	9,03			3209	194	7744	1,0	I	9,03	280TC			3209	
	170	7169	1,2	I	10,30			3686	170	8842	1,0	I	10,30	280TC			3686	
	159	7656	1,1	I	11,01			3751	159	9444	0,9	I	11,01	280TC			3751	
	141	8621	1,2	I	12,39			3851	141	10630	1,0	I	12,39	280TC			3851	
	118	10293	1,0	I	14,80			3945	ITH142		285	5275	3,0	III	6,15	4404		
	116	10506	1,1	I	15,11			3950			238	6302	2,5	III	7,35	4685		
	94	13002	1,0	I	18,69			3916			197	7620	2,3	III	8,88	4978		
	86	14126	1,0	I	20,31			3847			180	8364	2,1	III	9,75	5058		
	285	4275	3,7	III	6,15	4538	169	8877			2,1	III	10,35	5058				
	238	5116	3,1	III	7,35	4866	150	9992			1,9	II	11,65	5058				
	197	6178	2,9	III	8,88	5058	137	10957			1,8	II	12,78	5058				
	180	6780	2,6	III	9,75	5058	124	12072			1,7	II	14,08	5058				
	169	7196	2,6	III	10,35	5058	107	14064			1,4	II	16,40	5058				
	150	8098	2,3	III	11,65	5058	99	15214			1,6	II	17,73	5058				
	137	8886	2,2	III	12,78	5058	87	17365			1,4	II	20,24	5058				
	124	9789	2,1	III	14,08	5058	67	22295			1,3	I	25,99	4528				
	107	11400	1,8	II	16,40	5058	62	24101			1,2	I	28,10	5058				
	99	12338	2,0	II	17,73	5058	54	27747			1,0	I	32,35	5038				
	87	14082	1,8	II	20,24	5058	47	31810			0,9	I	37,09	5058				
	67	18082	1,6	II	25,99	5058												
	62	19542	1,4	II	28,10	5058												
	54	22499	1,3	I	32,35	5038												
	47	25791	1,1	I	37,09	5058												
	40	30305	0,9	I	43,57	5058												
										30.0 hp								
										22.3 kW (1750 rpm)	348	5204	1,4	II	5,03	ITH132		2460
											287	6302	1,2	I	6,09			2561
											253	7143	1,1	I	6,91			2806
									233		7762	1,0	I	7,51	2853			
									209		8647	0,9	I	8,36	3157			
									285		6364	2,5	III	6,15	ITH142		4270	
									238		7603	2,1	III	7,35			4504	
									197		9187	1,9	II	8,88			4736	
									180		10081	1,8	II	9,75			4828	
									169		10701	1,7	II	10,35			4877	
									150		12037	1,5	II	11,65			4946	
									137		13205	1,5	II	12,78			4968	
									124		14559	1,4	II	14,08			4952	
									107		16949	1,2	I	16,40			4828	
									99		18339	1,4	II	17,73			4705	
									87		20932	1,2	I	20,24			4382	
									67		26880	1,1	I	25,99			4528	
									62		29048	1,0	I	28,10			5058	



ITH

Motorreductores a engranajes cilíndricos
Helical in-line gearmotors

Nema 60 Hz

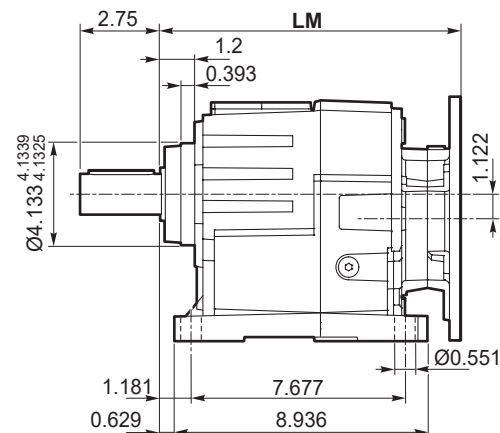
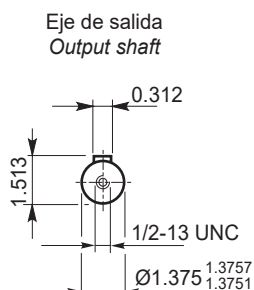
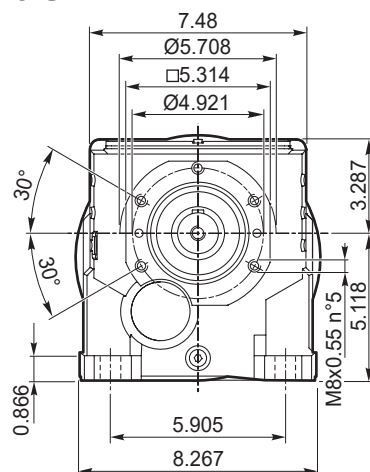
Dimensiones

Dimensions

ITH 112 - ITH 113

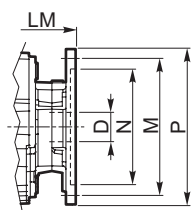
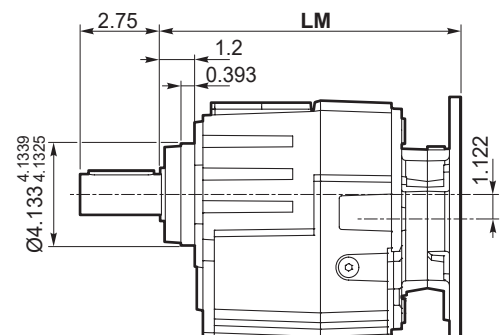
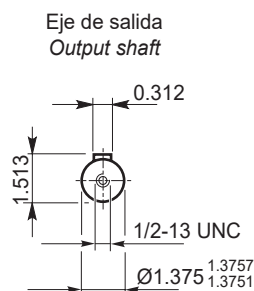
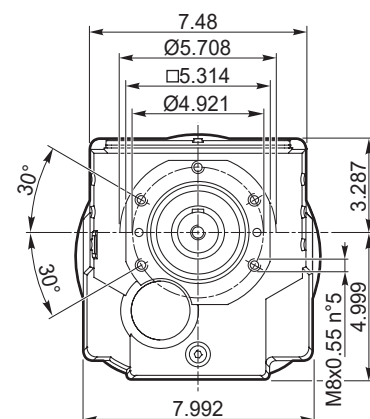
ITH 112 U

ITH 113 U



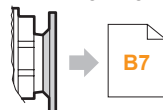
ITH 112 G

ITH 113 G

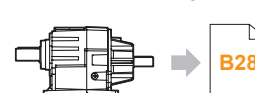


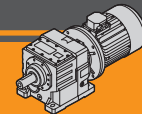
Dimensiones NEMA/ NEMA Dimensions				
	56C	140TC	180TC	210TC
LM	12.125		13.149	
N	4.5		8.5	
M	5.875		7.25	
P	6.5		9	
D	0.625	0.875	1.125	1.375

Bridas Motor
NEMA C-FACE



ITHIS 112...
ITHIS 113...





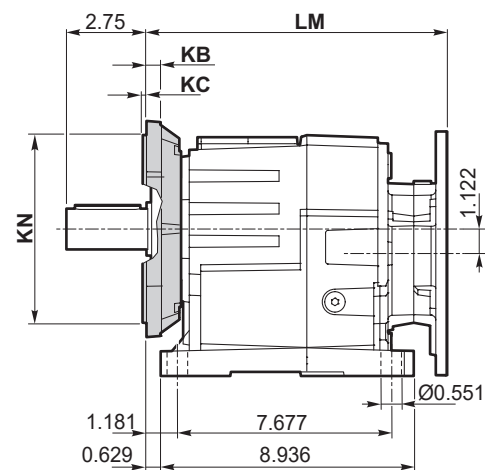
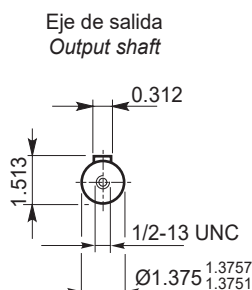
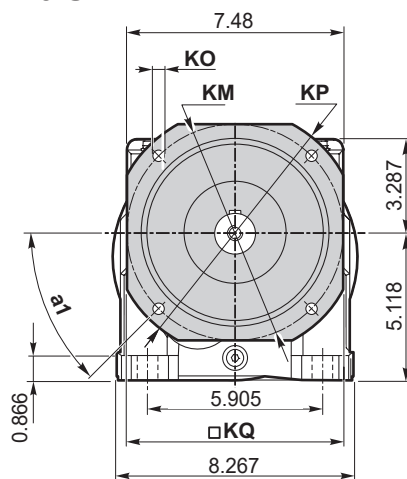
Dimensiones

Dimensions

ITH 112 - ITH 113

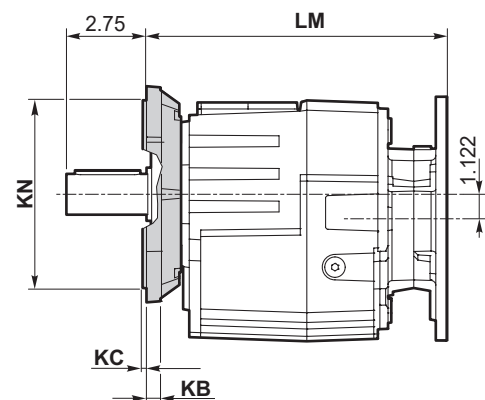
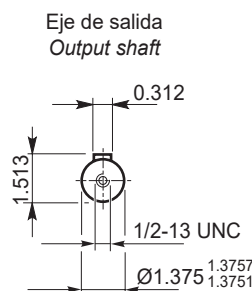
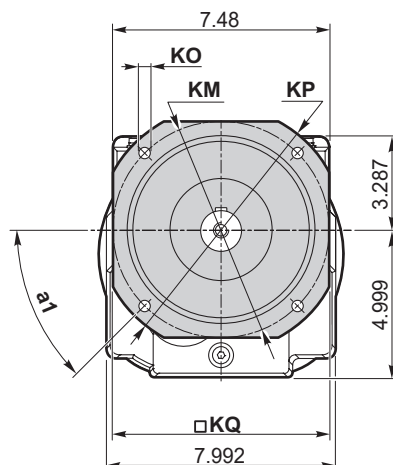
ITH 112 U/F...

ITH 113 U/F...



ITH 112 F...

ITH 113 F...



Versión F / F Version

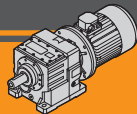
ITH	a ₁	KB	KC	KM	KN	KO	KP	KQ	Brida / Flange	
									Tipo / Type	Peso / Weight [lb]
112 113	45°	0.472	0.157	6.496	5.118 5.1164 5.1148	0.433	7.874	6.496	F200	4.6
	45°	0.472	0.157	8.465	7.086 7.0849 7.0833	0.551	9.843	8.465	F250	7.0

Peso / Weight [lb]

ITH	56C	140TC	180TC	210TC
112 U		59.02		66.60
112 G		55.71		63.29
113 U		60.12	-	-
113 G		56.81	-	-

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)

Note: weight of the gearbox filled with oil for M1 (B3) assembly position



ITH

Motorreductores a engranajes cilíndricos
Helical in-line gearmotors

Nema 60 Hz

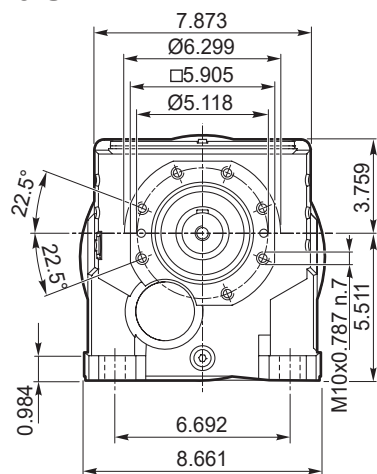
Dimensiones

Dimensions

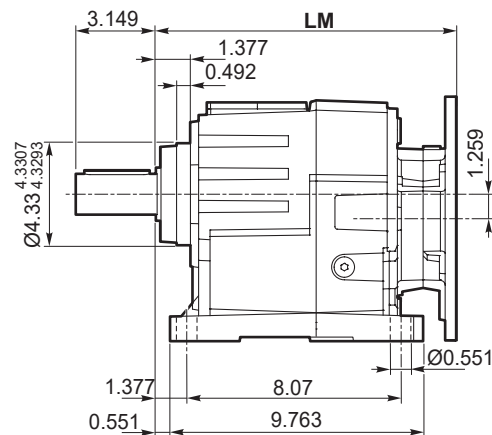
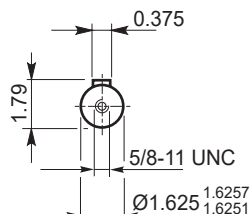
ITH 122 - ITH 123

ITH 122 U

ITH 123 U

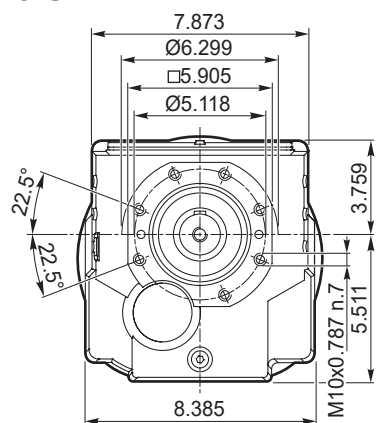


Eje de salida
Output shaft

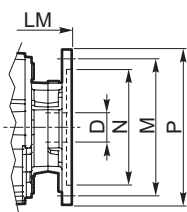
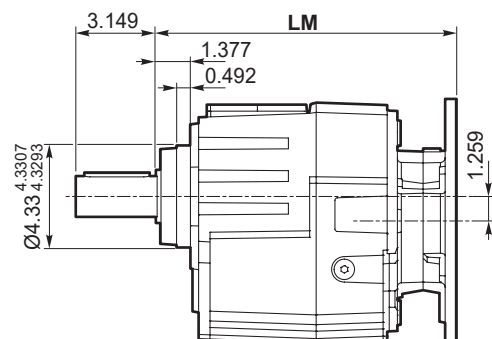
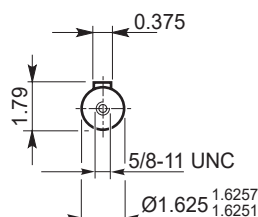


ITH 122 G

ITH 123 G

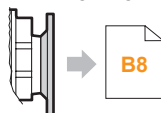


Eje de salida
Output shaft

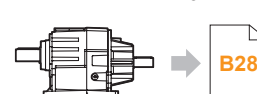


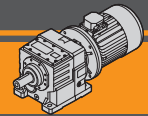
Dimensiones NEMA/ NEMA Dimensions				
	56C	140TC	180TC	210TC
LM	12.933		13.956	
N	4.5		8.5	
M	5.875		7.25	
P	6.5		9	
D	0.625	0.875	1.125	1.375

Bridas Motor
NEMA C-FACE



ITHIS 122...
ITHIS 123...





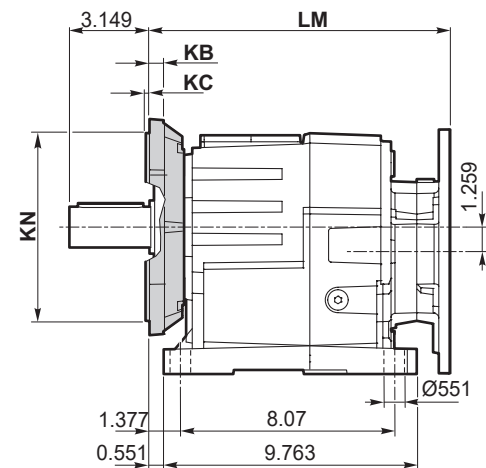
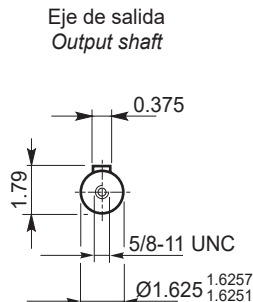
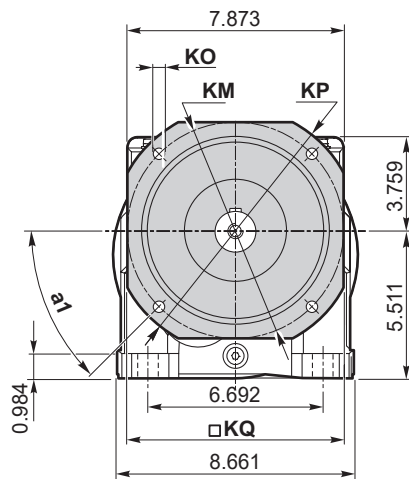
Dimensiones

Dimensions

ITH 122- ITH 123

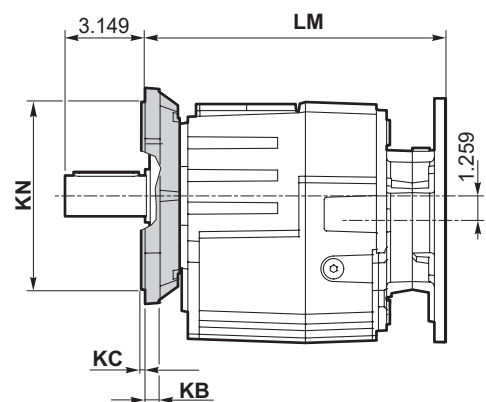
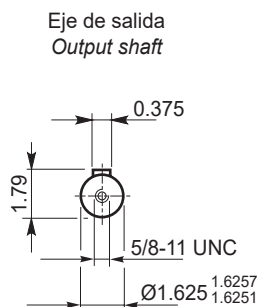
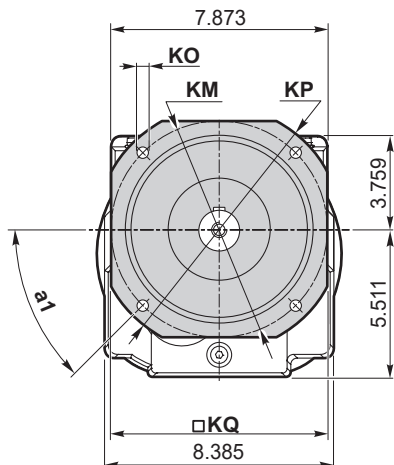
ITH 122 U/F...

ITH 123 U/F...



ITH 122 F...

ITH 123 F...



Versione F / F Version

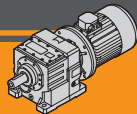
ITH	a ₁	KB	KC	KM	KN f7	KO	KP	KQ	Brida / Flange	
									Tipo / Type	Peso / Weight [lb]
122 123	45°	0.512	0.157	6.496	5.118 ^{5.1164} / _{5.1148}	0.433	7.874	6.772	F200	5.7
	45°	0.512	0.157	8.465	7.086 ^{7.0849} / _{7.0833}	0.551	9.843	8.465	F250	8.3
	45°	0.512	0.157	10.433	9.055 ^{9.0534} / _{9.0519}	0.551	11.811	10.433	F300	12.3

Peso / Weight [lb]

ITH	56C	140TC	180TC	210TC
122 U		74.45		82.03
122 G		70.04		77.62
123 U		76.65	94.23	-
123 G		72.25	79.82	-

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)

Note: weight of the gearbox filled with oil for M1 (B3) assembly position



ITH

Motorreductores a engranajes cilíndricos
Helical in-line gearmotors

Nema 60 Hz

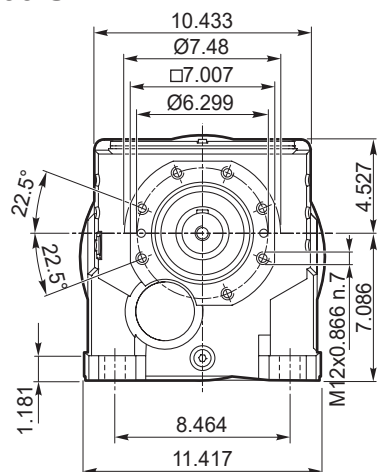
Dimensiones

Dimensions

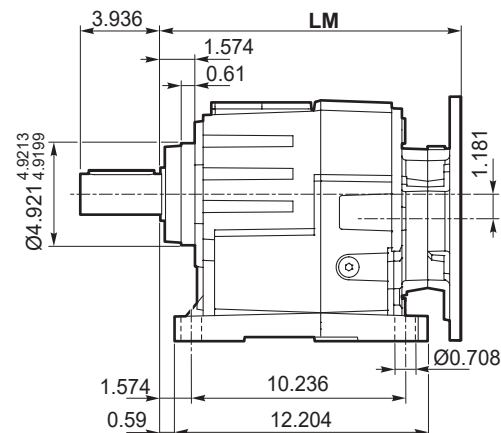
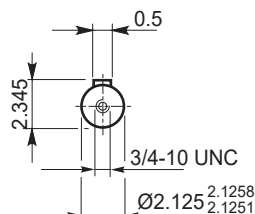
ITH 132 - ITH 133

ITH 132 U

ITH 133 U

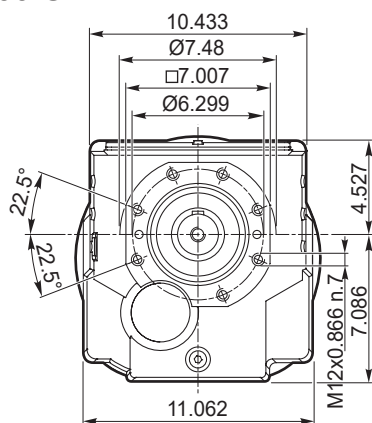


Eje de salida
Output shaft

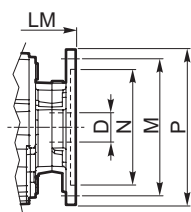
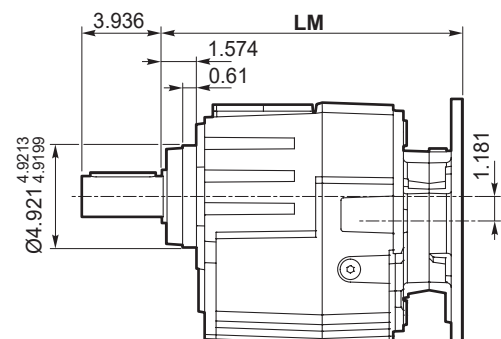
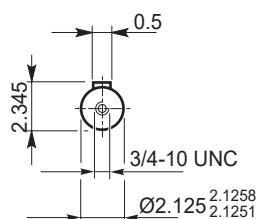


ITH 132 G

ITH 133 G

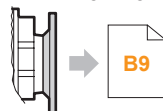


Eje de salida
Output shaft

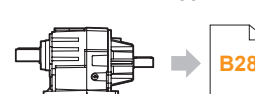


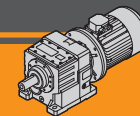
Dimensiones NEMA/ NEMA Dimensions						
	56C	140TC	180TC	210TC	250TC	280TC
LM	14.153		15.177		17.125	17.519
N	4.5		8.5			10.5
M	5.875		7.25			9
P	6.5		9		10	11.525
D	0.625	0.875	1.125	1.375	1.625	1.875

Bridas Motor
NEMA C-FACE



ITHIS 132...
ITHIS 133...





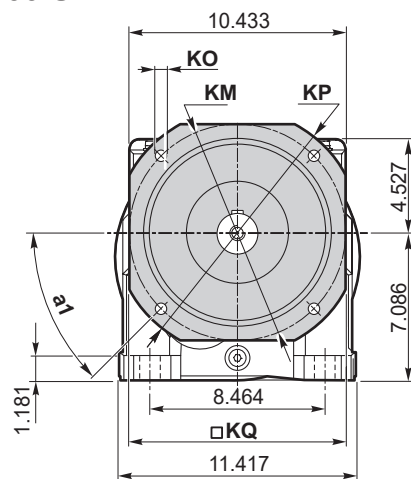
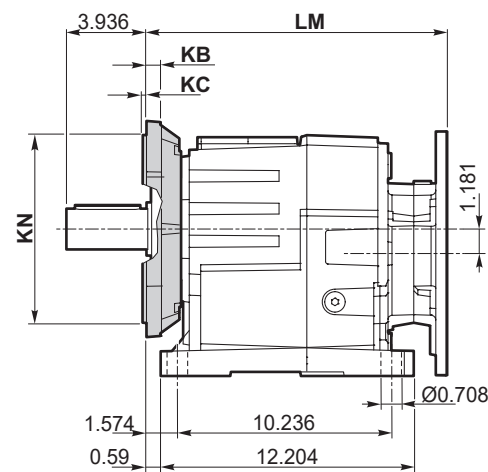
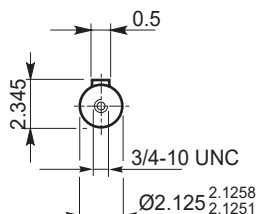
Dimensiones

Dimensions

ITH 132- ITH 133

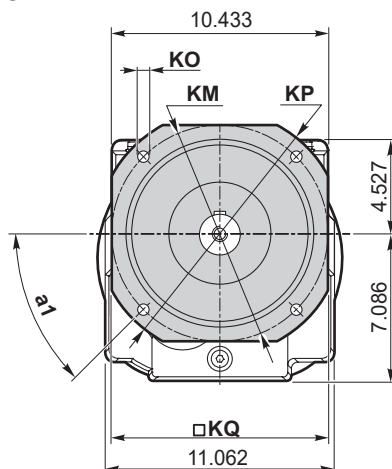
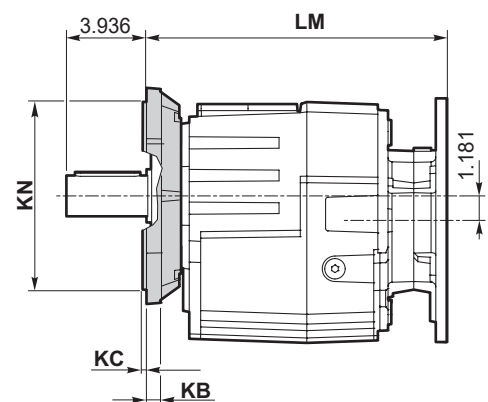
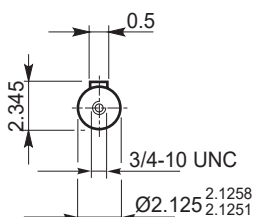
ITH 132 U/F...

ITH 133 U/F...

Eje de salida
Output shaft

ITH 132 F...

ITH 133 F...

Eje de salida
Output shaft

Versione F / F Version

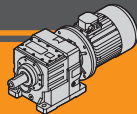
ITH	a ₁	KB	KC	KM	KN f7	KO	KP	KQ	Brida / Flange	
									Tipo / Type	Peso / Weight [lb]
132 133	45°	0.630	0.157	8.465	7.086 7.0849 7.0833	0.551	9.843	8.465	F250	8.3
	45°	0.630	0.157	10.433	9.055 9.0534 9.0519	0.551	11.811	10.236	F300	12.3
	45°	0.630	0.157	11.811	9.842 9.8408 9.8393	0.709	13.780	11.811	F350	20.0

Peso / Weight [lb]

ITH	56C	140TC	180TC	210TC	250TC	280TC
132 U		135.08		142.66	155.80	158.58
132 G		126.26		133.84	146.98	149.76
133 U		139.49		147.07	-	-
133 G		130.67		138.25	-	-

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)

Note: weight of the gearbox filled with oil for M1 (B3) assembly position



ITH

Motorreductores a engranajes cilíndricos
Helical in-line gearmotors

Nema 60 Hz

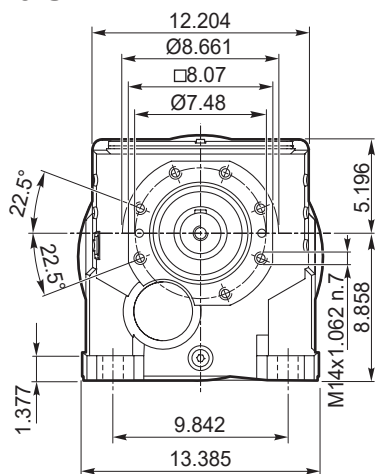
Dimensiones

Dimensions

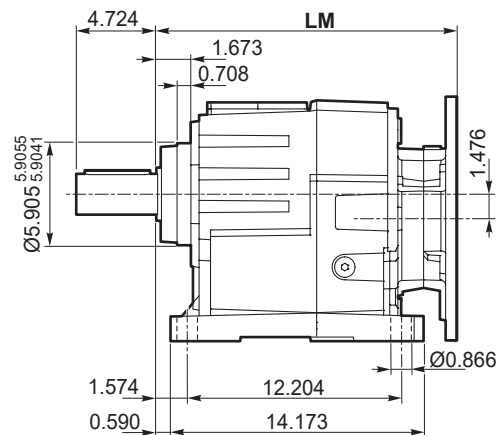
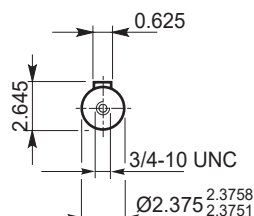
ITH 142 - ITH 143

ITH 142 U

ITH 143 U

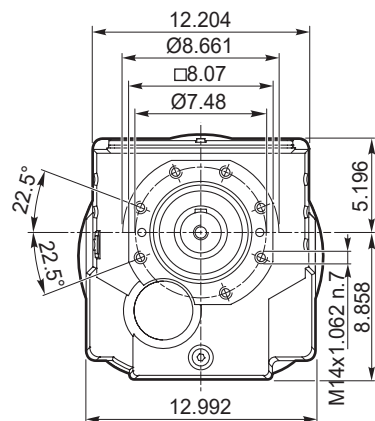


Eje de salida
Output shaft

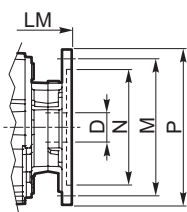
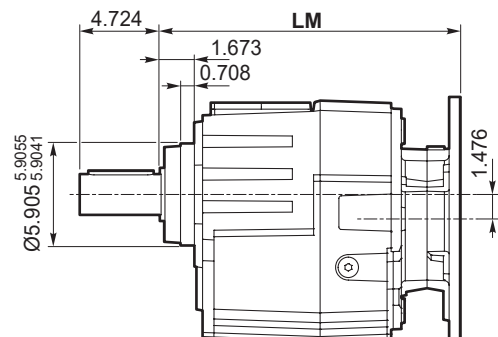
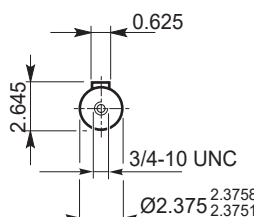


ITH 142 G

ITH 143 G

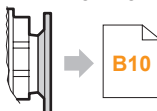


Eje de salida
Output shaft

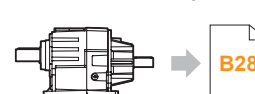


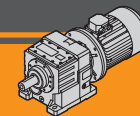
Dimensiones NEMA/ NEMA Dimensions						
	56C	140TC	180TC	210TC	250TC	280TC
LM	15.452		16.476		18.425	18.818
N	4.5		8.5		10.5	
M	5.875		7.25		9	
P	6.5		9		10	11.252
D	0.625	0.875	1.125	1.375	1.625	1.875

Bridas Motor
NEMA C-FACE



ITHIS 142...
ITHIS 143...





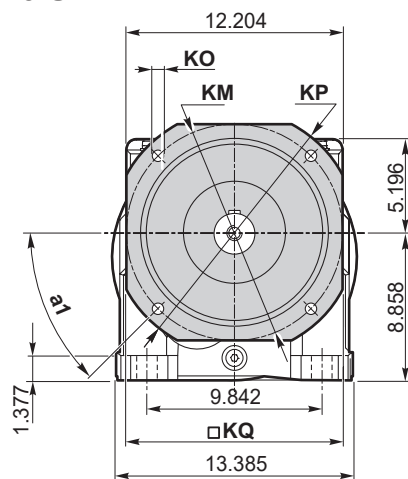
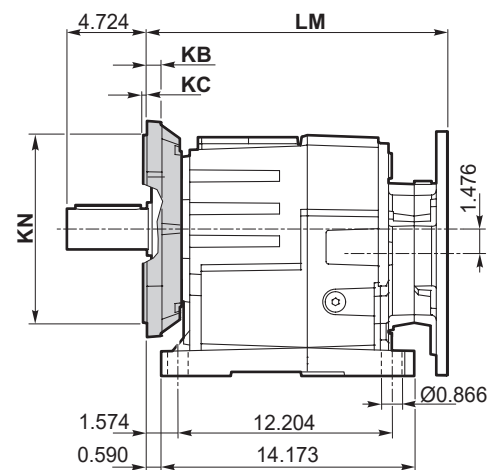
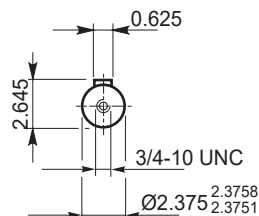
Dimensiones

Dimensions

ITH 142- ITH 143

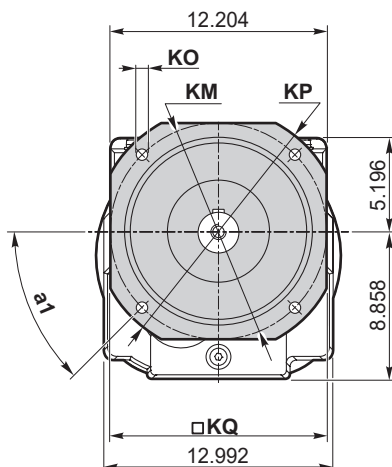
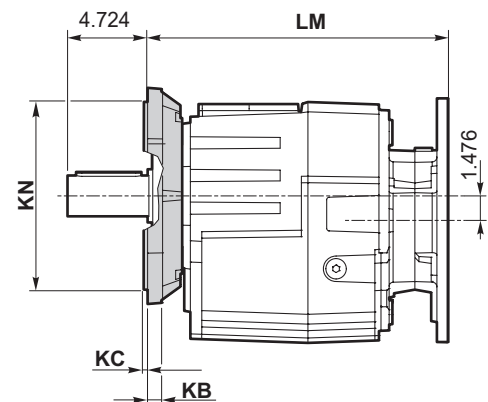
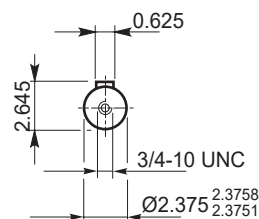
ITH 142 U/F...

ITH 143 U/F...

Eje de salida
Output shaft

ITH 142 F...

ITH 143 F...

Eje de salida
Output shaft

Versione F / F Version

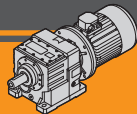
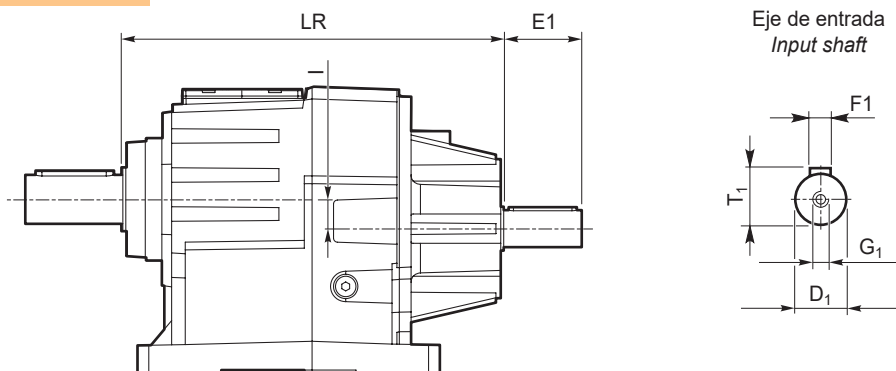
ITH	a ₁	KB	KC	KM	KN f7	KO	KP	KQ	Brida / Flange	
									Tipo / Type	Peso / Weight [lb]
142 143	45°	0.709	0.157	10.433	9.055 ^{9.0534} / _{9.0519}	0.551	11.811	10.433	F300	16.3
	45°	0.709	0.197	11.811	9.842 ^{9.8408} / _{9.8393}	0.709	13.780	11.811	F350	22.4
	45°	0.709	0.197	15.748	13.748 ^{13.7778} / _{13.7763}	0.709	17.717	15.748	F450	37.2

Peso / Weight [lb]

ITH	56C	140TC	180TC	210TC	250TC	280TC
142 U		207.83		215.41	228.55	231.33
142 G		194.60		202.19	215.33	218.10
143 U		214.44		222.03	235.17	-
143 G		201.22		208.80	221.94	-

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)

Note: weight of the gearbox filled with oil for M1 (B3) assembly position

**ITH****Motorreductores a engranajes cilíndricos**
Helical in-line gearmotors**Nema 60 Hz****Dimensiones****Dimensions****ITHIS...**

ITHIS	Versión Version	LR	D1	E1	I	T1	F1	G1
112	U G U/F... F...	12.657	0.875 ^{0.8742} _{0.8734}	1.969	1.134	0.958	0.188	1/4-20
113		13.465			1.26			
122			15.374	1.181	1.791	0.375	5/8-11	
123		16.673		1.476				
132			1.625 ^{1.6254} _{1.6248}	3.15	1.181	1.791	0.375	5/8-11
133								
142								
143								

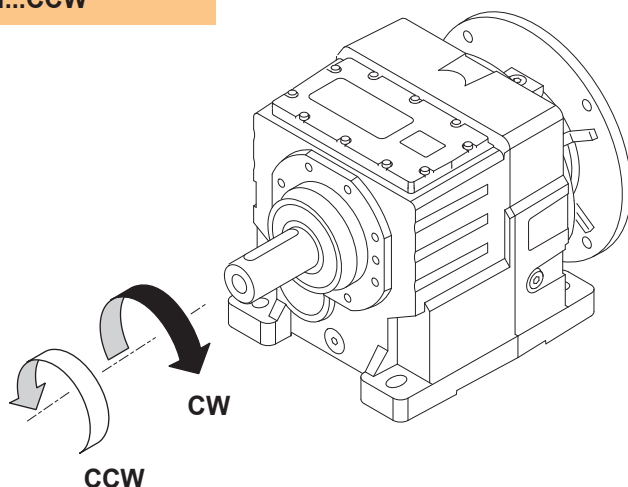
ITHIS	Peso / Weight [lb]
112 U	8.18
112 G	7.79
113 U	8.29
113 G	7.89
122 U	10.19
122 G	9.66
123 U	10.46
123 G	9.93
132 U	19.78
132 G	18.72
133 U	18.83
133 G	17.77
142 U	29.587
142 G	28.00
143 U	28.79
143 G	27.20

Nota: ITHIS133 relación 191,39 – 209,48 – 230,85 / ITHIS143 relación 193,96 – 209,65 – 229,46 – 252,87 pedido bajo demanda.

Favor de contactar al servicio técnico TRANSTECNO.

Note: ITHIS133 ratios 191,39 – 209,48 – 230,85 and ITHIS143 ratios 193,96 – 209,65 – 229,46 – 252,87 available upon request.

Please contact TRANSTECNO technical service.

Accesorios**Accessories****Dispositivo anti-retorno / Backstop device****ITH...CW**
ITH...CCW

El dispositivo anti-retorno permite que la flecha de salida gire en un solo sentido.

Antes de utilizarlo, especifique la rotación deseada como se muestra en la figura.

The backstop device allows the output shaft to rotate in just one direction. Before using it, please specify output shaft rotation direction as shown in the figure.

TRANSTECNO[®]
the modular gearmotor

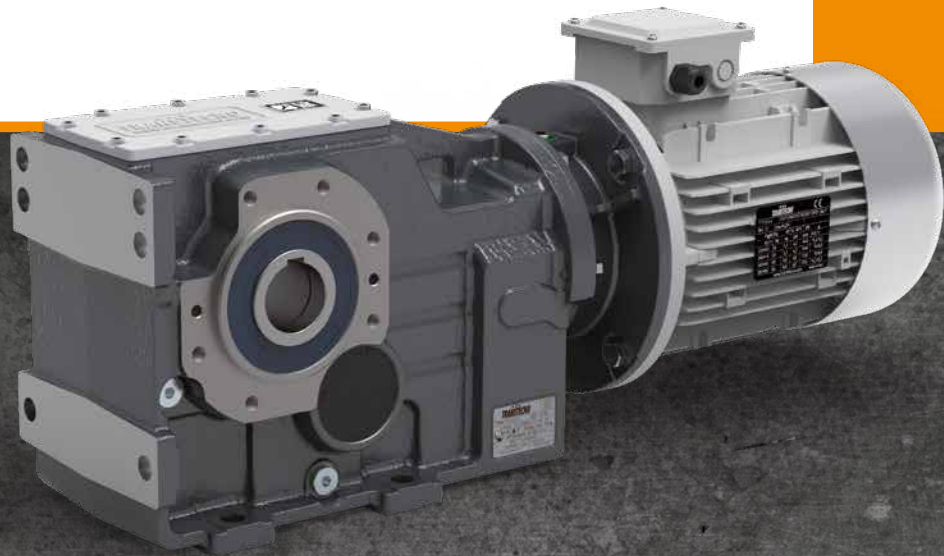
ITB

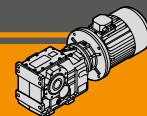


60Hz

Motoreductores de ejes ortogonales
Helical bevel gearmotors

Nema



**Índice**

Características técnicas
Clasificación
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Nomenclatura
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Carga radial en la salida
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Classification
Direction of rotation
Symbols
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Input radial loads
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Technical data
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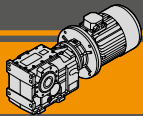
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ITB

Esta sección substituye y anula las ediciones y revisiones previas. Si usted obtiene este catálogo a través de canales de distribución no autorizados o fuera de nuestro control, la versión en vigor no estará garantizada. **En todo caso, la versión más actualizada está disponible en nuestra página de internet www.transtecno.com**

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Características técnicas

El motorreductor ITB está diseñado para aplicaciones de uso rudo. Su carcasa fundida en una sola pieza y su diseño modular con distintos accesorios en la entrada y en la salida, incrementan su flexibilidad de uso en múltiples aplicaciones.

Características principales de la serie ITB:

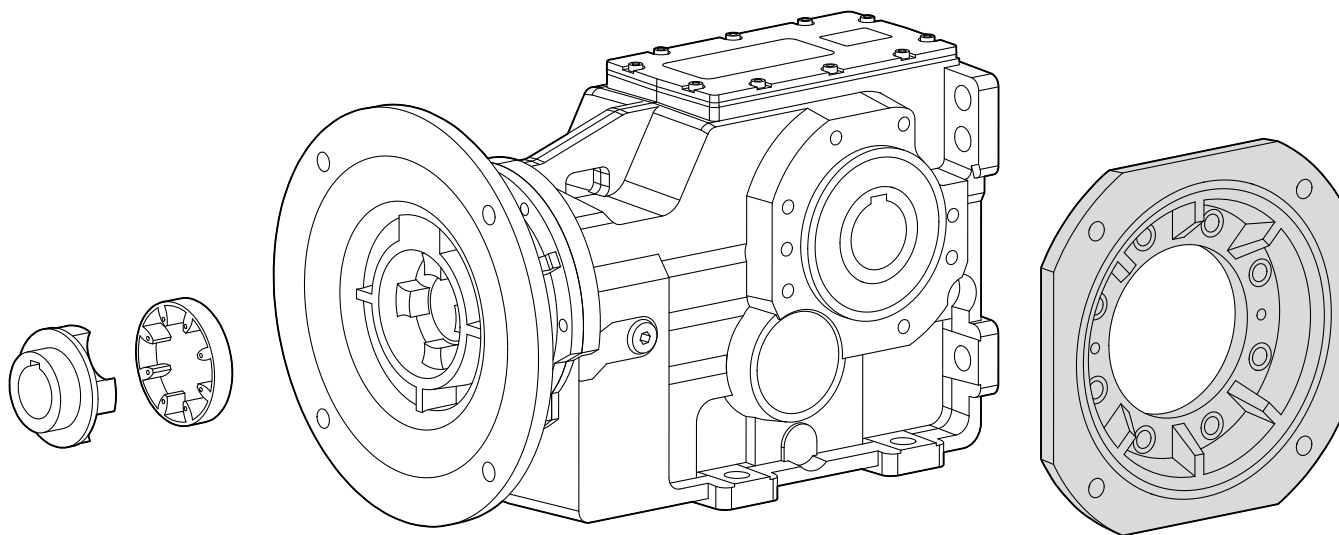
- Carcasa en hierro fundido;
- Elevada modularidad;
- Lubricación con aceite sintético;
- Acoplamiento a motor con cople flexible;
- Acabado en pintura epóxica RAL 7016.

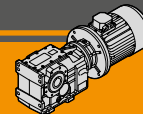
Technical features

The ITB gearmotors are intended for heavy duty applications. The robust one pieces casing of the main housing and the modular design of input and output sets increase application flexibility.

The main features of ITB range are:

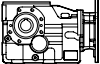
- *Robust cast iron housings;*
- *High degree of modularity;*
- *Lubrication with synthetic oil;*
- *Coupled to motor with flexible coupling;*
- *Epoxy powder coating RAL 7016.*

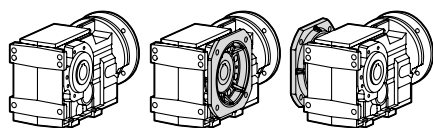




Clasificación

Classification

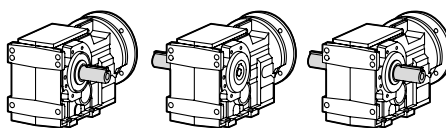
REDUCTOR / GEARBOX										
ITB	42	3	U	20.12	D1.5	56C	SZDX	BRSX	M1	CW
Tipo Type	Tamaño Size	Etapas Stages	Versión Version	Relación de reducción Ratio	Eje de salida Output shaft		Eje de salida Output shaft	Brazo de reacción Torque arm	Posición de Montaje Mounting position	Dispositivo anti retroceso Backstop device
	42 43 44	3	U F...D F...S	véase tablas see tables	véase tablas see tables	56C 140TC 180TC 250TC 280TC	SZDX SZSX DZ	TADX TASX BRDX 90°...270° BRSX 0°...270°	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)	CW CCW

Relación de reducción
Gearbox VersionEje de salida
Output shaft

U

FD

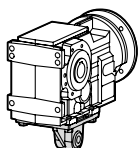
FS

F...D = Lado derecho / Right side
F...S = Lado izquierdo / Left side

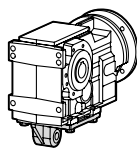
SZDX

SZSX

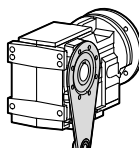
DZ

SZDX = Flecha sencilla lado derecho
Single shaft right side
DZ = Flecha doble / Double shaft
SZSX = Flecha sencilla lado izquierdo / Single shaft left sideBrazo de reacción
Torque armBrazo de reacción
Torque arm *

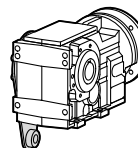
TADX



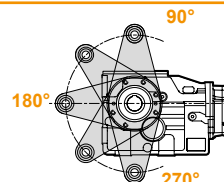
TASX

TADX = Lado derecho / Right side
TASX = Lado izquierdo / Left side

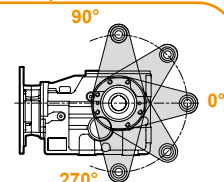
BRDX



BRSX

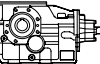
BRDX = Lado derecho / Right side
BRSX = Lado izquierdo / Left side

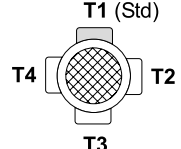
BRDX

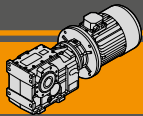


BRSX

* NOTA: El brazo de reacción se suministra desmontado.
NOTE: the torque arm will be supplied not assembled.

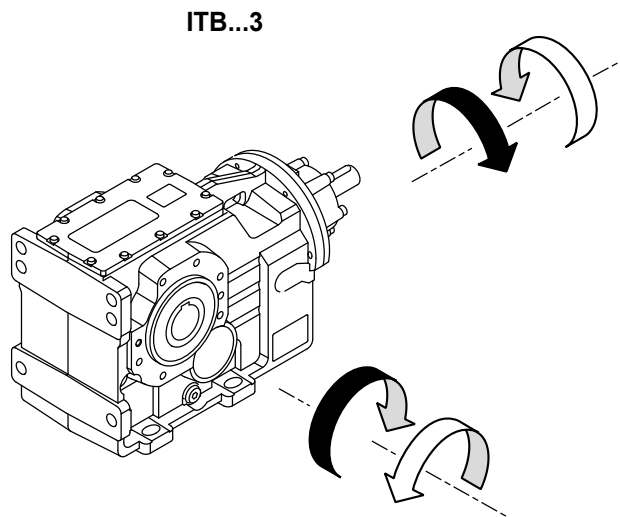
REDUCTOR / GEARBOX								
ITBIS	42	3	U	20.12	D1.5	SZDX	BRSX	M1
Tipo Type	Tamaño Size	Etapas Stages	Versión Version	Relación de reducción Ratio	Eje de salida Output shaft	Eje de salida Output shaft	Brazo de reacción Torque arm	Posición de Montaje Mounting position
	42 43 44	3	U F...D F...S	véase tablas see tables	véase tablas see tables	SZDX SZSX DZ	BRDX BRSX	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)

MOTOR / MOTOR						
7.5hp / 5.5kW	4p	3ph	230/400V	60Hz	T1	
Potencia Power	Polos Poles	Fases Phases	Tensión Voltage	Frecuencia Frequency	Posición caja de bornes Terminal box pos.	
véase tablas see tables	2p 4p 6p 8p	1ph 3ph	230V 230/400V	50Hz 60Hz		



Sentidos de rotación

Direction of rotation

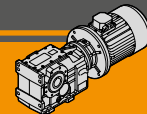


Rotación Inversa bajo solicitud.
Inverse rotation on request

Nomenclatura

Symbols

n_1	[rpm]	Velocidad de entrada / <i>Input speed</i>
n_2	[rpm]	Velocidad de salida / <i>Output speed</i>
i		Relación de reducción / <i>Ratio</i>
P_1	[hp]	Potencia en la entrada / <i>Input power</i>
M_2	[lb·in]	Par en la salida en función de P_1 / <i>Output torque referred to P_1</i>
P_{n1}	[hp]	Potencia nominal en la entrada / <i>Nominal input power</i>
M_{n2}	[lb·in]	Par nominal en la salida en función de P_{n1} / <i>Nominal output torque referred to P_{n1}</i>
sf		Rendimiento dinámico / <i>Service factor</i>
R_1	[lb]	Carga radial permitida a la entrada / <i>Permitted input radial load</i>
A_1	[lb]	Carga axial permitida a la entrada / <i>Permitted input axial load</i>
R_2	[lb]	Carga radial admisible en la salida / <i>Maximum output radial load</i>
A_2	[lb]	Carga axial admisible en la salida / <i>Maximum output axial load</i>

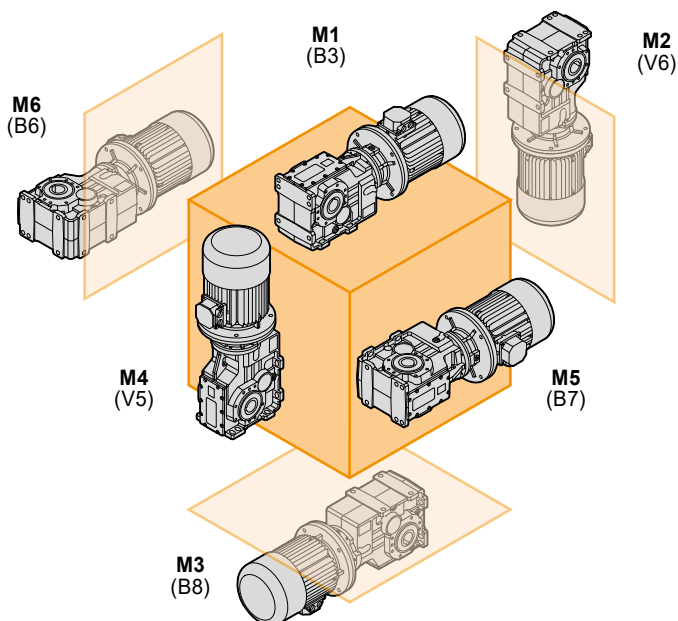
**Lubricación**

Los moto reductores de la serie ITB se suministran con lubricante sintético viscosidad 320. La cantidad de lubricante dependerá de la posición de montaje requerida.

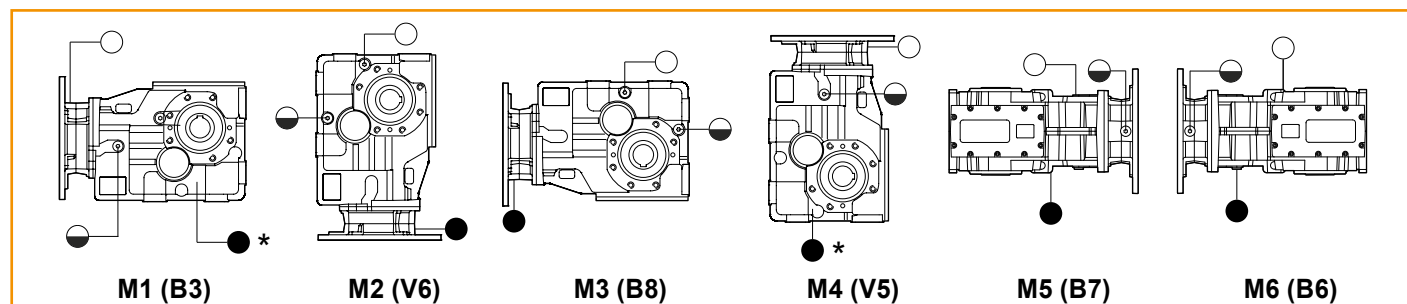
Lubrication

ITB series gearmotors come complete with synthetic lubricant 320 viscosity. The lubricant quantity depends on assembly position.

ITB..



ITB	Cantidad de aceite (US gal) / Oil quantity (US gal)					
	M1 (B3)	M2 (V6)	M3 (B8)	M4 (V5)	M5 (B7)	M6 (B6)
423	0.55	0.81	0.79	1.03	0.84	0.6
433	1.13	1.34	1.29	1.9	1.4	1.05
443	1.71	2.35	2.37	3.22	2.32	1.76



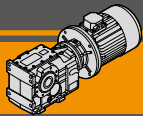
* Tapón de drenado en posición posterior

* Oil draing plug in backside position.

○ Respiradero y tapón de llenado / Breather and filling plug

● Tapón de nivel de aceite / Oil level plug

● Tapón de dren de aceite / Oil drain plug



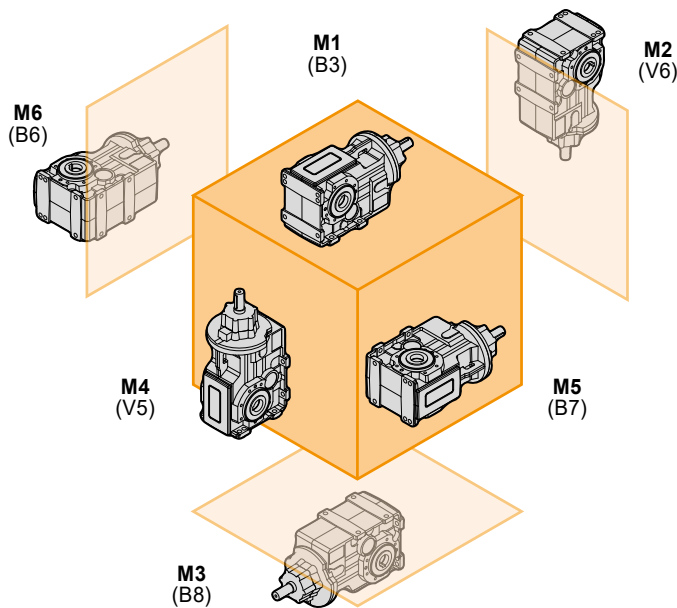
Lubricación

Los reductores de la serie ITBIS se suministran con lubricante sintético viscosidad 320. La cantidad de lubricante dependerá de la posición de montaje requerida.

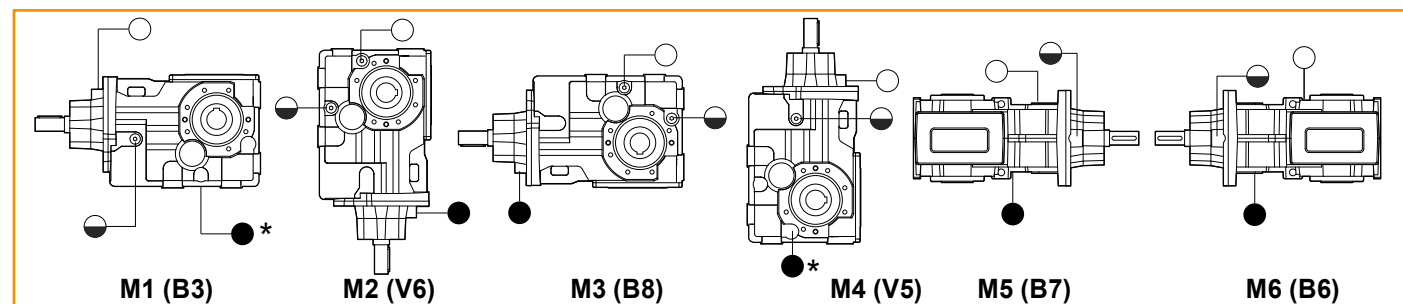
Lubrication

ITBIS series gearboxes come complete with synthetic lubricant 320 viscosity. The lubricant quantity depends on assembly position.

ITBIS..



ITBIS	Cantidad de aceite (US gal) / Oil quantity (US gal)					
	M1 (B3)	M2 (V6)	M3 (B8)	M4 (V5)	M5 (B7)	M6 (B6)
423	0.6	0.92	0.84	1.03	0.86	0.66
433	1.18	1.45	1.34	1.9	1.45	1.1
443	1.82	2.53	2.48	3.22	2.43	1.87



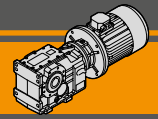
* Tapón de drenado en posición posterior

* Oil draining plug in backside position.

○ Respiradero y tapón de llenado / Breather and filling plug

◐ Tapón de nivel de aceite / Oil level plug

● Tapón de dren de aceite / Oil drain plug



Carga radial a la entrada

Input radial loads

ITB423 ITB433	n ₁ [rpm]	Potencia motor / Motor Power [hp]		
		3	5	7.5
R ₁ [lb]	1750	404		168
	1150	472	269	-
	850	562	-	-

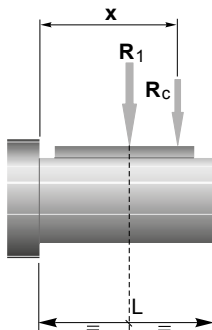
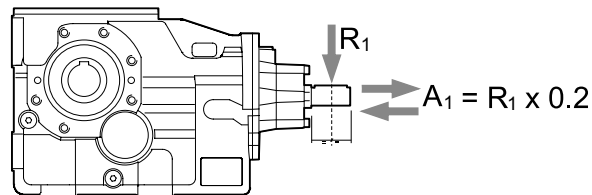
ITB443	n ₁ [rpm]	Potencia motor / Motor Power [hp]				
		7.5	10	15	20	25
R ₁ [lb]	1750	831			629	269
	1150	1101		741	146	-
	850	1180	876	-	-	-

Las cargas radiales máximas aplicables están indicadas en las tablas previas.

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

The radial loads maximum input applicable are indicated in the previous tables.

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:



	ITB 423	ITB 433	ITB 443
a	5.472		6.181
b	4.330		4.645

$$R_c = \frac{R_1 \cdot a}{(b + x)} \leq R_1$$

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

$$R \leq R_c$$

Carga radial en la salida

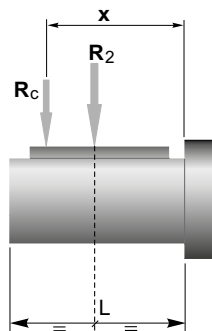
Output radial loads

Las cargas radiales máximas aplicables en la salida están indicadas en la siguiente tabla

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

The radial loads maximum output applicable are indicated in the technical data table.

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:



	ITB 423	ITB 433	ITB 443
a	7.165	8.582	9.921
b	5.590	6.614	7.559
R _{2MAX}	4.158	5.170	6.969

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

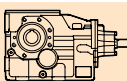
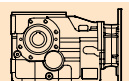
a, b = valores dados en la tabla
a, b = values given in the table

$$R \leq R_c$$

Datos técnicos

n₁ 1750 rpm

Technical data

	n₂ [rpm]	Mn₂ [lb-in]	Pn₁ [hp]	i	R₂ [lb]		NEMA Motores aplicables NEMA Motor adapters			
ITBIS 423						ITB 423				
						56C	140TC	180TC	210TC	
	238	4425	17.80	7.34	2160					
	191	4425	14.26	9.16	2439					
	148	5310	13.24	11.85	2725					
	112	5310	10.03	15.64	3174					
	96	6196	9.99	18.32	3354					
	87	6196	9.10	20.12	3531					
	77	7081	9.15	22.85	3665					
	62	7081	7.41	28.22	4115					
	59	7523	7.52	29.57	4159					
	57	7523	7.19	30.90	4159					
	51	7523	6.42	34.57	4159					
	46	7523	5.85	37.99	4159				*	
	45	7966	6.04	39.01	4159				*	
	42	7966	5.65	41.70	4159				*	
	36	7966	4.79	49.13	4159					
	35	7966	4.69	50.19	4159					
	33	7966	4.37	53.77	4159					
	30	7966	3.97	59.26	4159					
	25	7966	3.35	70.40	4159			*	*	
	23	8408	3.22	77.08	4159			*	*	
	20	8408	2.88	86.24	4159			*	*	
	19	8408	2.63	94.77	4159			*	*	
	17	8408	2.38	104.04	4159			*	*	
	14	8408	2.03	122.57	4159			*	*	
	13	8408	1.84	134.15	4159			*	*	
	12	8408	1.67	147.84	4159			*	*	

NOTA

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



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

NOTE

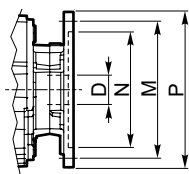
Highlighted áreas indicate the motor input flange available on each gearbox size.



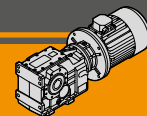
* = The service factor (sf) has to be selected depending on application: please contact our Technical Department.

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas C11 a la C15.

Before selecting any gearbox, please read the performance values shown in the tables on page C11 to C15.



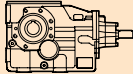
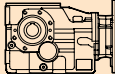
Dimensiones NEMA/ <i>NEMA Dimensions</i>				
	56C	140TC	180TC	210TC
N	4.5		8.5	
M	5.875		7.25	
P	6.5		9	
D	0.625	0.875	1.125	1.375



Datos técnicos

n₁ 1750 rpm

Technical data

	n₂ [rpm]	Mn₂ [lb·in]	Pn₁ [hp]	i	R₂ [lb]		NEMA Motores aplicables NEMA Motor adapters				
ITBIS 433						ITB 433					
	213	8851	31.83	8.21	2774	56C	140TC	180TC	210TC	250TC	
	171	8851	25.52	10.25	3133						
	132	11506	25.63	13.25	3405						
	100	12391	20.93	17.49	3886						
	86	14161	20.46	20.44	4060						
	78	15046	19.76	22.50	4189						
	69	15046	17.45	25.49	4487						
	56	15046	14.09	31.56	5047						
	53	15046	13.48	32.98	5171						
	51	15046	12.85	34.55	5171						
	45	15046	11.50	38.66	5171						
	41	15046	10.46	42.48	5171						
	40	15931	10.81	43.51	5171					*	
	38	15931	10.08	46.64	5171						
	31	15931	8.42	55.98	5171					*	
	29	14161	6.96	60.14	5171						
	26	14161	6.31	66.27	5171						
	22	15931	6.00	78.52	5171				*	*	
	20	15931	5.49	85.97	5171				*		
	18	15931	4.89	96.19	5171				*		
	17	15931	4.46	105.70	5171				*		
	15	15931	4.06	116.04	5171				*		
	13	15931	3.44	136.71	5171			*			
	12	15931	3.15	149.63	5171			*			
	11	15931	2.85	164.89	5171			*			

NOTA

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



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

N.B.

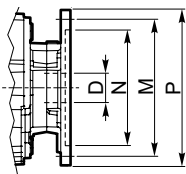
Highlighted areas indicate motor inputs available on each size of unit.



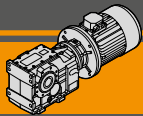
* = The service factor (sf) has to be selected depending on application: please contact our Technical Department.

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas C11 a la C15.

Before selecting any gearbox, please read the performance values shown in the tables on page C11 to C15.



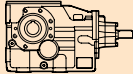
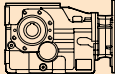
Dimensiones NEMA/ NEMA Dimensions					
	56C	140TC	180TC	210TC	250TC
N	4.5		8.5		
M	5.875		7.25		
P	6.5		9		10
D	0.625	0.875	1.125	1.375	1.625



Datos técnicos

n₁ 1750 rpm

Technical data

	n₂ [rpm]	Mn₂ [lb·in]	Pn₁ [hp]	i	R₂ [lb]		NEMA Motores aplicables <i>NEMA Motor adapters</i>					
ITBIS 443						ITB 443						
						56C	140TC	180TC	210TC	250TC	280TC	
	222	15046	56.40	7.88	3891							
	184	15046	46.62	9.53	4321							
	149	15931	40.04	11.75	4794							
	124	17702	36.99	14.13	5188							
	102	20357	34.91	17.23	5586							
	76	24782	31.62	23.16	6185							
	71	26552	31.59	24.82	6263							
	58	26552	26.13	30.03	6969							
	47	26552	21.20	37.01	6969							
	44	24782	18.53	39.46	6969						*	
	39	28322	18.79	44.51	6969						*	
	37	24782	15.35	47.67	6969							
	32	28322	15.44	54.26	6969						*	
	24	30978	12.55	72.94	6969					*	*	
	19	30978	9.93	92.14	6969					*	*	
	14	30978	7.37	124.32	6969					*	*	
	13	30978	6.74	135.45	6969							
	12	30978	6.12	150.15	6969				*			
	11	30978	5.59	163.80	6969				*			
	9.8	30978	5.12	179.16	6969				*			

NOTA

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



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

N.B.

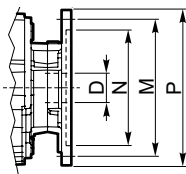
Highlighted areas indicate motor inputs available on each size of unit.



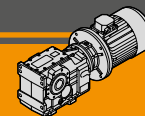
* = The service factor (sf) has to be selected depending on application: please contact our Technical Department.

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas C11 a la C15.

Before selecting any gearbox, please read the performance values shown in the tables on page C11 to C15.



Dimensiones NEMA/ NEMA Dimensions						
	56C	140TC	180TC	210TC	250TC	280TC
N	4.5		8.5			10.5
M	5.875		7.25			9
P	6.5		9		10	11.252
D	0.625	0.875	1.125	1.375	1.625	1.875



Datos técnicos

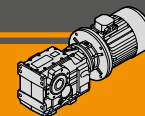
Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	
0.75 hp									1.00 hp									
0.55 kW (1750 rpm)	238	186	24.1	III	7.34	ITB423	56C	2473	0.75 kW (1750 rpm)	238	248	17.7	III	7.34	ITB423	56C-140TC	2467	
	191	230	19.3	III	9.16		56C	2788		191	310	14.2	III	9.16		56C-140TC	2780	
	148	292	17.9	III	11.85		56C	3205		148	407	13.2	III	11.85		56C-140TC	3192	
	112	389	13.6	III	15.64		56C	3719		112	531	10.0	III	15.64		56C-140TC	3699	
	96	460	13.5	III	18.32		56C	4048		96	620	9.9	III	18.32		56C-140TC	4022	
	87	504	12.3	III	20.12		56C	4159		87	682	9.0	III	20.12		56C-140TC	4159	
	77	566	12.4	III	22.85		56C	4159		77	779	9.1	III	22.85		56C-140TC	4159	
	62	708	10.0	III	28.22		56C	4159		62	965	7.4	III	28.22		56C-140TC	4159	
	59	735	10.2	III	29.57		56C	4159		59	1009	7.5	III	29.57		56C-140TC	4159	
	57	770	9.8	III	30.90		56C	4159		57	1053	7.2	III	30.90		56C-140TC	4159	
	51	867	8.7	III	34.57		56C	4159		51	1177	6.4	III	34.57		56C-140TC	4159	
	46	947	7.9	III	37.99		56C	4159		46	1292	5.8	III	37.99		56C-140TC	4159	
	45	974	8.2	III	39.01		56C	4159		45	1328	6.0	III	39.01		56C-140TC	4159	
	42	1044	7.6	III	41.70		56C	4159		42	1416	5.6	III	41.70		56C-140TC	4159	
	36	1230	6.5	III	49.13		56C	4159		36	1673	4.8	III	49.13		56C-140TC	4159	
	35	1257	6.4	III	50.19		56C	4159		35	1708	4.7	III	50.19		56C-140TC	4159	
	33	1345	5.9	III	53.77		56C	4159		33	1832	4.4	III	53.77		56C-140TC	4159	
	30	1478	5.4	III	59.26		56C	4159		30	2018	3.9	III	59.26		56C-140TC	4159	
	25	1761	4.5	III	70.40		56C	4159		25	2399	3.3	III	70.40		56C-140TC	4159	
	23	1921	4.4	III	77.08		56C	4159		23	2629	3.2	III	77.08		56C-140TC	4159	
	20	2151	3.9	III	86.24	56C	4159	20		2938	2.9	III	86.24	56C-140TC	4159			
	19	2363	3.6	III	94.77	56C	4159	19		3231	2.6	III	94.77	56C-140TC	4159			
	17	2602	3.2	III	104.04	56C	4159	17		3540	2.4	III	104.04	56C-140TC	4159			
	14	3062	2.7	III	122.57	56C	4159	14		4178	2.0	II	122.57	56C-140TC	4159			
	13	3346	2.5	III	134.15	56C	4159	13		4567	1.8	II	134.15	56C-140TC	4159			
	12	3691	2.3	III	147.84	56C	4159	12		5036	1.7	II	147.84	56C-140TC	4159			
		31	1398	11.4	III	55.98	ITB433	56C		5171	51	1177	12.8	III	34.55	ITB433	56C-140TC	5171
		29	1505	9.4	III	60.14		56C		5171	45	1319	11.4	III	38.66		56C-140TC	5171
		26	1655	8.6	III	66.27		56C		5171	41	1443	10.4	III	42.48		56C-140TC	5171
		22	1965	8.1	III	78.52		56C		5171	40	1478	10.8	III	43.51		56C-140TC	5171
		20	2151	7.4	III	85.97		56C		5171	38	1584	10.0	III	46.64		56C-140TC	5171
		18	2399	6.6	III	96.19		56C		5171	31	1903	8.4	III	55.98		56C-140TC	5171
		17	2638	6.0	III	105.70		56C		5171	29	2045	6.9	III	60.14		56C-140TC	5171
		15	2894	5.5	III	116.04		56C		5171	26	2257	6.3	III	66.27		56C-140TC	5171
		13	3416	4.7	III	136.71		56C		5171	22	2673	6.0	III	78.52		56C-140TC	5171
		12	3735	4.3	III	149.63		56C		5171	20	2930	5.4	III	85.97		56C-140TC	5171
		11	4116	3.9	III	164.89	56C	5171		18	3275	4.9	III	96.19	56C-140TC	5171		
		14	3107	10.0	III	124.32	ITB443	56C		6969	17	3602	4.4	III	105.70	ITB443	56C-140TC	5171
		13	3381	9.2	III	135.45		56C		6969	15	3947	4.0	III	116.04		56C-140TC	5171
		12	3753	8.3	III	150.15		56C		6969	13	4655	3.4	III	136.71		56C-140TC	5171
	11	4089	7.6	III	163.80	56C		6969	12	5098	3.1	III	149.63	56C-140TC	5171			
	9.8	4470	6.9	III	179.16	56C		6969	11	5611	2.8	III	164.89	56C-140TC	5171			
									24	2487	12.5	III	72.94		56C-140TC	6969		
									19	3133	9.9	III	92.14		56C-140TC	6969		
									14	4231	7.3	III	124.32		56C-140TC	6969		
									13	4611	6.7	III	135.45		56C-140TC	6969		
									12	5116	6.1	III	150.15		56C-140TC	6969		
									11	5576	5.6	III	163.80		56C-140TC	6969		
									9.8	6098	5.1	III	179.16		56C-140TC	6969		



Technical data

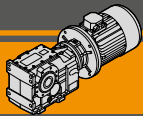
P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]
1.50 hp									1.50 hp								
1.1 kW (1750 rpm)	238	363	12.1	III	7.34	ITB423	56C-140TC	2456	1.1 kW	44	1974	12.6	III	39.46	ITB443	56C-140TC	6969
	191	460	9.7	III	9.16		56C-140TC	2764	(1750 rpm)	39	2222	12.7	III	44.51		56C-140TC	6969
	148	593	9.0	III	11.85		56C-140TC	3169	37	2381	10.4	III	47.67	56C-140TC		6969	
	112	779	6.8	III	15.64		56C-140TC	3664	32	2708	10.5	III	54.26	56C-140TC		6969	
	96	912	6.8	III	18.32		56C-140TC	3977	24	3647	8.5	III	72.94	56C-140TC		6969	
	87	1009	6.2	III	20.12		56C-140TC	4159	19	4602	6.7	III	92.14	56C-140TC		6969	
	77	1142	6.2	III	22.85		56C-140TC	4159	14	6204	5.0	III	124.32	56C-140TC		6969	
	62	1407	5.0	III	28.22		56C-140TC	4159	13	6762	4.6	III	135.45	56C-140TC		6969	
	59	1478	5.1	III	29.57		56C-140TC	4159	12	7497	4.1	III	150.15	56C-140TC		6969	
	57	1540	4.9	III	30.90		56C-140TC	4159	11	8178	3.8	III	163.80	56C-140TC		6969	
	51	1726	4.4	III	34.57		56C-140TC	4159	9.8	8948	3.5	III	179.16	56C-140TC		6969	
	46	1894	4.0	III	37.99		56C-140TC	4159									
	45	1947	4.1	III	39.01		56C-140TC	4159									
	42	2080	3.8	III	41.70		56C-140TC	4159									
	36	2452	3.2	III	49.13		56C-140TC	4159									
	35	2505	3.2	III	50.19		56C-140TC	4159									
	33	2682	3.0	III	53.77		56C-140TC	4159									
	30	2956	2.7	III	59.26		56C-140TC	4159									
	25	3514	2.3	III	70.40		56C-140TC	4159									
	23	3850	2.2	III	77.08		56C-140TC	4159									
20	4310	2.0	II	86.24	56C-140TC	4159											
19	4735	1.8	II	94.77	56C-140TC	4159											
17	5195	1.6	II	104.04	56C-140TC	4159											
14	6125	1.4	II	122.57	56C-140TC	4159											
13	6700	1.3	I	134.15	56C-140TC	4159											
12	7382	1.1	I	147.84	56C-140TC	4159											
69	1275	11.8	III	25.49	ITB433	56C-140TC	5171	1.5 kW	238	504	8.8	III	7.34	ITB423	56C-140TC	2444	
56	1575	9.5	III	31.56		56C-140TC	5171	(1750 rpm)	191	620	7.1	III	9.16		56C-140TC	2747	
53	1646	9.1	III	32.98		56C-140TC	5171	148	805	6.6	III	11.85	56C-140TC		3143		
51	1726	8.7	III	34.55		56C-140TC	5171	112	1062	5.0	III	15.64	56C-140TC		3624		
45	1929	7.8	III	38.66		56C-140TC	5171	96	1248	5.0	III	18.32	56C-140TC		3926		
41	2124	7.1	III	42.48		56C-140TC	5171	87	1372	4.5	III	20.12	56C-140TC		4114		
40	2177	7.3	III	43.51		56C-140TC	5171	77	1558	4.5	III	22.85	56C-140TC		4159		
38	2328	6.8	III	46.64		56C-140TC	5171	62	1921	3.7	III	28.22	56C-140TC		4159		
31	2797	5.7	III	55.98		56C-140TC	5171	59	2018	3.7	III	29.57	56C-140TC		4159		
29	3000	4.7	III	60.14		56C-140TC	5171	57	2106	3.6	III	30.90	56C-140TC		4159		
26	3310	4.3	III	66.27		56C-140TC	5171	51	2354	3.2	III	34.57	56C-140TC		4159		
22	3921	4.1	III	78.52		56C-140TC	5171	46	2584	2.9	III	37.99	56C-140TC		4159		
20	4293	3.7	III	85.97		56C-140TC	5171	45	2655	3.0	III	39.01	56C-140TC		4159		
18	4806	3.3	III	96.19		56C-140TC	5171	42	2841	2.8	III	41.70	56C-140TC		4159		
17	5275	3.0	III	105.70		56C-140TC	5171	36	3346	2.4	III	49.13	56C-140TC		4159		
15	5797	2.7	III	116.04		56C-140TC	5171	35	3416	2.3	III	50.19	56C-140TC		4159		
13	6824	2.3	III	136.71		56C-140TC	5171	33	3664	2.2	III	53.77	56C-140TC		4159		
12	7470	2.1	III	149.63		56C-140TC	5171	30	4036	2.0	II	59.26	56C-140TC		4159		
11	8231	1.9	II	164.89		56C-140TC	5171	25	4797	1.7	II	70.40	56C-140TC		4159		
								23	5248	1.6	II	77.08	56C-140TC		4159		
							20	5877	1.4	II	86.24	56C-140TC	4159				
							19	6452	1.3	I	94.77	56C-140TC	4159				
							17	7089	1.2	I	104.04	56C-140TC	4159				
							14	8346	1.0	I	122.57	56C-140TC	4159				
							13	9134	0.9	I	134.15	56C-140TC	4159				
							132	903	12.7	III	13.25	ITB433	56C-140TC	4206			
							100	1195	10.4	III	17.49		56C-140TC	4867			
							86	1390	10.2	III	20.44		56C-140TC	5171			
							78	1531	9.8	III	22.50		56C-140TC	5171			
							69	1735	8.7	III	25.49		56C-140TC	5171			
							56	2151	7.0	III	31.56	56C-140TC	5171				
							52	2346	6.7	III	36.26	56C-140TC	5171				



Datos técnicos

Technical data

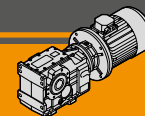
P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]
2.0 hp									3.0 hp								
1.5 kW (1750 rpm)	26	4514	3.1	III	66.27	ITB433	56C-140TC	5171	2.2 kW (1750 rpm)	41	4240	3.5	III	42.48	ITB433	140TC-180TC	5171
	22	5346	3.0	III	78.52		56C-140TC	5171	40	4346	3.7	III	43.51	140TC-180TC		5171	
	20	5859	2.7	III	85.97		56C-140TC	5171	38	4655	3.4	III	46.64	140TC-180TC		5171	
	18	6550	2.4	III	96.19		56C-140TC	5171	31	5594	2.8	III	55.98	140TC-180TC		5171	
	17	7196	2.2	III	105.70		56C-140TC	5171	29	6010	2.4	III	60.14	140TC-180TC		5171	
	15	7904	2.0	II	116.04		56C-140TC	5171	26	6620	2.1	III	66.27	140TC-180TC		5171	
	13	9311	1.7	II	136.71		56C-140TC	5171	22	7842	2.0	II	78.52	140TC-180TC		5171	
	12	10187	1.6	II	149.63		56C-140TC	5171	20	8585	1.9	II	85.97	140TC-180TC		5171	
	11	11232	1.4	II	164.89		56C-140TC	5171	18	9612	1.7	II	96.19	140TC-180TC		5171	
									17	10559	1.5	II	105.70	140TC-180TC		5171	
	47	2522	10.5	III	37.01	ITB443	56C-140TC	6969	15	11594	1.4	II	116.04	ITB443	140TC-180TC	5171	
	44	2691	9.2	III	39.46		56C-140TC	6969	47	3700	7.2	III	37.01		140TC-180TC	6969	
	39	3036	9.3	III	44.51		56C-140TC	6969	44	3939	6.3	III	39.46		140TC-180TC	6969	
	37	3248	7.6	III	47.67		56C-140TC	6969	39	4443	6.4	III	44.51		140TC-180TC	6969	
	32	3700	7.7	III	54.26		56C-140TC	6969	37	4762	5.2	III	47.67		140TC-180TC	6969	
	24	4965	6.2	III	72.94		56C-140TC	6969	32	5417	5.2	III	54.26		140TC-180TC	6969	
	19	6275	4.9	III	92.14		56C-140TC	6969	24	7284	4.3	III	72.94		140TC-180TC	6969	
	14	8470	3.7	III	124.32		56C-140TC	6969	19	9205	3.4	III	92.14		140TC-180TC	6969	
	13	9222	3.4	III	135.45		56C-140TC	6969	14	12418	2.5	III	124.32		140TC-180TC	6969	
12	10223	3.0	III	150.15	56C-140TC	6969	13	13533	2.3	III	135.45	140TC-180TC	6969				
11	11152	2.8	III	163.80	56C-140TC	6969	12	15002	2.1	III	150.15	140TC-180TC	6969				
9.8	12205	2.5	III	179.16	56C-140TC	6969	11	16365	1.9	II	163.80	140TC-180TC	6969				
							9.8	17896	1.7	II	179.16	140TC-180TC	6969				
3.0 hp									5.0 hp								
2.2 kW (1750 rpm)	238	735	6.0	III	7.34	ITB423	140TC-180TC	2422	3.7 kW (1750 rpm)	238	1234	3.6	III	7.34	ITB423	180TC	2366
	191	912	4.8	III	9.16		140TC-180TC	2716		191	1539	2.9	III	9.16		180TC	2637
	148	1186	4.5	III	11.85		140TC-180TC	3097		148	1991	2.7	III	11.85		180TC	2979
	112	1558	3.4	III	15.64		140TC-180TC	3554		112	2627	2.0	II	15.64		180TC	3373
	96	1832	3.4	III	18.32		140TC-180TC	3836		96	3078	2.0	II	18.32		180TC	3605
	87	2009	3.1	III	20.12		140TC-180TC	4010		87	3380	1.8	II	20.12		180TC	3743
	77	2283	3.1	III	22.85		140TC-180TC	4159		77	3839	1.8	II	22.85		180TC	3928
	62	2815	2.5	III	28.22		140TC-180TC	4159		62	4740	1.5	II	28.22		180TC	4159
	59	2956	2.5	III	29.57		140TC-180TC	4159		59	4967	1.5	II	29.57		180TC	4159
	57	3089	2.4	III	30.90		140TC-180TC	4159		57	5190	1.4	I	30.90		180TC	4159
	51	3452	2.2	III	34.57		140TC-180TC	4159		51	5807	1.3	I	34.57		180TC	4159
	46	3797	2.0	II	37.99		140TC-180TC	4159		46	6381	1.2	I	37.99		180TC	4159
	45	3894	2.0	II	39.01		140TC-180TC	4159		45	6554	1.2	I	39.01		180TC	4159
	42	4169	1.9	II	41.70		140TC-180TC	4159		42	7005	1.1	I	41.70		180TC	4159
	36	4903	1.6	II	49.13	140TC-180TC	4159	36	8253	1.0	I	49.13	180TC	4159			
	35	5010	1.6	II	50.19	140TC-180TC	4159	35	8432	0.9	I	50.19	180TC	4159			
	33	5372	1.5	II	53.77	140TC-180TC	4159										
	30	5921	1.3	I	59.26	140TC-180TC	4159										
	213	823	10.8	III	8.21	ITB433	140TC-180TC	3239	213	1380	6.4	III	8.21	ITB433	180TC	3189	
	171	1027	8.6	III	10.25		140TC-180TC	3640	171	1721	5.1	III	10.25		180TC	3570	
132	1328	8.7	III	13.25	140TC-180TC		4166	132	2227	5.2	III	13.25	180TC		4061		
100	1744	7.1	III	17.49	140TC-180TC		4805	100	2938	4.2	III	17.49	180TC		4644		
86	2045	6.9	III	20.44	140TC-180TC		5171	86	3433	4.1	III	20.44	180TC		4994		
78	2248	6.7	III	22.50	140TC-180TC		5171	78	3780	4.0	III	22.50	180TC		5171		
69	2549	5.9	III	25.49	140TC-180TC		5171	69	4282	3.5	III	25.49	180TC		5171		
56	3151	4.8	III	31.56	140TC-180TC		5171	56	5301	2.8	III	31.56	180TC		5171		
53	3292	4.6	III	32.98	140TC-180TC		5171	53	5540	2.7	III	32.98	180TC		5171		
51	3452	4.4	III	34.55	140TC-180TC		5171	51	5804	2.6	III	34.55	180TC		5171		
45	3859	3.9	III	38.66	140TC-180TC	5171	45	6494	2.3	III	38.66	180TC	5171				



Datos técnicos

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]	
5.0 hp									7.5 hp									
3.7 kW (1750 rpm)	41	7136	2.1	II	42.48	ITB433	180TC	5171	5.5 kW (1750 rpm)	222	1965	7.6	III	7.88	ITB443	210TC	4503	
	40	7310	2.2	II	43.51		180TC	5171		184	2381	6.3	III	9.53		210TC	4973	
	38	7834	2.0	II	46.64		180TC	5171		149	2938	5.4	III	11.75		210TC	5537	
	31	9404	1.7	II	55.98		180TC	5171		124	3531	5.0	III	14.13		210TC	6079	
	29	10102	1.4	I	60.14		180TC	5171		102	4301	4.7	III	17.23		210TC	6707	
	26	11133	1.3	I	66.27		180TC	5171		76	5780	4.3	III	23.16		210TC	6969	
	22	13190	1.2	I	78.52		180TC	5171		71	6196	4.3	III	24.82		210TC	6969	
	20	14442	1.1	I	85.97		180TC	5171		58	7497	3.5	III	30.03		210TC	6969	
	18	16158	1.0	I	96.19		180TC	5171		47	9240	2.9	III	37.01		210TC	6969	
										44	9851	2.5	III	39.46		210TC	6969	
	47	6218	4.3	III	37.01	ITB443	180TC	6969		39	11117	2.5	III	44.51	210TC	6969		
	44	6629	3.7	III	39.46		180TC	6969		37	11904	2.1	III	47.67	210TC	6969		
	39	7477	3.8	III	44.51		180TC	6969		32	13550	2.1	III	54.26	210TC	6969		
	37	8007	3.1	III	47.67		180TC	6969		24	18215	1.7	II	72.94	210TC	6969		
	32	9115	3.1	III	54.26		180TC	6969		19	23012	1.3	I	92.14	210TC	6969		
	24	12254	2.5	III	72.94		180TC	6969		14	31040	1.0	I	124.32	210TC	6969		
	19	15478	2.0	II	92.14		180TC	6969		13	33828	0.9	I	135.45	210TC	6969		
	14	20883	1.5	II	124.32		180TC	6969										
	13	22754	1.4	I	135.45		180TC	6969										
	12	25224	1.2	I	150.15		180TC	6969										
11	27517	1.1	I	163.80	180TC	6969												
9.8	30097	1.0	I	179.16	180TC	6969												
7.5 hp									10.0 hp									
5.5 kW (1750 rpm)	238	1832	2.4	III	7.34	ITB423	210TC	2319	7.5 kW (1750 rpm)	238	2505	1.8	II	7.34	ITB423	210TC	2257	
	191	2283	1.9	II	9.16		210TC	2571		191	3115	1.4	II	9.16		210TC	2484	
	148	2956	1.8	II	11.85		210TC	2881		148	4036	1.3	I	11.85		210TC	2751	
	112	3903	1.4	II	15.64		210TC	3223		112	5328	1.0	I	15.64		210TC	3223	
	96	4576	1.4	II	18.32		210TC	3413		96	6240	1.0	I	18.32		210TC	3413	
	87	5027	1.2	I	20.12		210TC	3520		87	6850	0.9	I	20.12		210TC	3520	
	77	5709	1.2	I	22.85		210TC	3657		77	7780	0.9	I	22.85		210TC	3657	
	62	7045	1.0	I	28.22		210TC	4159		213	2797	3.2	III	8.21		ITB433	210TC	3092
	59	7382	1.0	I	29.57		210TC	4159		171	3487	2.5	III	10.25			210TC	3434
	57	7718	1.0	I	30.90		210TC	4159		132	4514	2.5	III	13.25			210TC	3857
	51	8629	0.9	I	34.57	210TC	4159	100		5957	2.1	III	17.49	210TC	4331			
	213	2053	4.3	III	8.21	ITB433	210TC	3147		86	6957	2.0	II	20.44	210TC		4596	
	171	2558	3.5	III	10.25		210TC	3512		78	7665	2.0	II	22.50	210TC		4755	
	132	3310	3.5	III	13.25		210TC	3974		69	8683	1.7	II	25.49	210TC		4952	
	100	4363	2.8	III	17.49		210TC	4510		56	10745	1.4	II	31.56	210TC		5171	
	86	5107	2.8	III	20.44		210TC	4823		53	11232	1.3	I	32.98	210TC		5171	
	78	5620	2.7	III	22.50		210TC	5019		51	11763	1.3	I	34.55	210TC		5171	
	69	6364	2.4	III	25.49		210TC	5171		45	13161	1.1	I	38.66	210TC	5171		
	56	7877	1.9	II	31.56		210TC	5171		41	14462	1.0	I	42.48	210TC	5171		
	53	8231	1.8	II	32.98		210TC	5171		40	14816	1.1	I	43.51	210TC	5171		
	51	8629	1.7	II	34.55		210TC	5171		38	15878	1.0	I	46.64	210TC	5171		
	45	9656	1.6	II	38.66	210TC	5171	222		2682	5.6	III	7.88	ITB443	210TC	4459		
	41	10612	1.4	II	42.48	210TC	5171	184		3248	4.6	III	9.53		210TC	4914		
	40	10869	1.5	II	43.51	210TC	5171	149		4001	4.0	III	11.75		210TC	5456		
	38	11648	1.4	II	46.64	210TC	5171	124		4815	3.7	III	14.13		210TC	5971		
	31	13975	1.1	I	55.98	210TC	5171	102		5868	3.5	III	17.23		210TC	6560		
								76		7886	3.1	III	23.16		210TC	6969		
								71		8452	3.1	III	24.82		210TC	6969		
								58		10223	2.6	III	30.03		210TC	6969		
								47		12603	2.1	III	37.01		210TC	6969		
							44	13435	1.8	II	39.46	210TC	6969					
							39	15161	1.9	II	44.51	210TC	6969					



Datos técnicos

Technical data

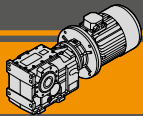
P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]
10.0 hp								
7.5 kW (1750 rpm)	37	16232	1.5	II	47.67	ITB443	210TC	6969
	32	18480	1.5	II	54.26		210TC	6969
	24	24835	1.2	I	72.94		210TC	6969
	19	31376	1.0	I	92.14		210TC	6969

15.0 hp								
11.0 kW (1750 rpm)	213	4098	2.2	III	8.21	ITB433	250TC	2995
	171	5116	1.7	II	10.25		250TC	3297
	132	6620	1.7	II	13.25		250TC	3654
	100	8736	1.4	II	17.49		250TC	4018
	86	10205	1.4	II	20.44		250TC	4198
	78	11240	1.3	I	22.50		250TC	4293
	69	12727	1.2	I	25.49		250TC	4952
	56	15763	1.0	I	31.56		250TC	5171
	53	16471	0.9	I	32.98		250TC	5171
	222	3939	3.8	III	7.88	ITB443	250TC	4383
	184	4762	3.2	III	9.53		250TC	4812
	149	5868	2.7	III	11.75		250TC	5315
	124	7054	2.5	III	14.13		250TC	5783
	102	8603	2.4	III	17.23		250TC	6305
	76	11568	2.1	III	23.16		250TC	6969
	71	12391	2.1	III	24.82		250TC	6969
	58	15002	1.8	II	30.03		250TC	6969
	47	18489	1.4	II	37.01		250TC	6969
	44	19711	1.3	I	39.46		250TC	6969
	39	22233	1.3	I	44.51		250TC	6969
	32	27101	1.0	I	54.26		250TC	6969

20.0 hp								
15.0 kW (1750 rpm)	213	5594	1.6	II	8.21	ITB433	250TC	2884
	171	6974	1.3	I	10.25		250TC	3141
	132	9028	1.3	I	13.25		250TC	3422
	100	11913	1.0	I	17.49		250TC	4018
	86	13913	1.0	I	20.44		250TC	4198
	78	15321	1.0	I	22.50		250TC	4293
	69	17356	0.9	I	25.49		250TC	4952
	222	5364	2.8	III	7.88	ITB443	250TC	4296
	184	6496	2.3	III	9.53		250TC	4695
	149	8001	2.0	II	11.75		250TC	5153
	124	9621	1.8	II	14.13		250TC	5568
	102	11727	1.7	II	17.23		250TC	6012
	76	15772	1.6	II	23.16		250TC	6631
	71	16905	1.6	II	24.82		250TC	6759
	58	20454	1.3	I	30.03		250TC	6969
	47	25207	1.1	I	37.01		250TC	6969
	44	26880	0.9	I	39.46		250TC	6969
	39	30314	0.9	I	44.51		250TC	6969

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ [lb]
25.0 hp								
18.5 kW (1750 rpm)	222	6620	2.3	III	7.88	ITB443	280TC	4220
	184	8010	1.9	II	9.53		280TC	4593
	149	9869	1.6	II	11.75		280TC	5012
	124	11869	1.5	II	14.13		280TC	5380
	102	14471	1.4	II	17.23		280TC	5756
	76	19454	1.3	I	23.16		280TC	6226
	71	20844	1.3	I	24.82		280TC	6309
	58	25225	1.1	I	30.03		280TC	6969
	47	31093	0.9	I	37.01		280TC	6969

30.0 hp								
22.3 kW (1750 rpm)	222	7977	1.9	II	7.88	ITB443	280TC	4144
	184	9652	1.6	II	9.53		280TC	4491
	149	11896	1.3	I	11.75		280TC	4870
	124	14307	1.2	I	14.13		280TC	5192
	102	17440	1.2	I	17.23		280TC	5500
	76	23445	1.1	I	23.16		280TC	6226
	71	25128	1.1	I	24.82		280TC	6309
	58	30405	0.9	I	30.03		280TC	6969

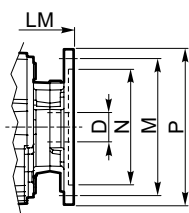
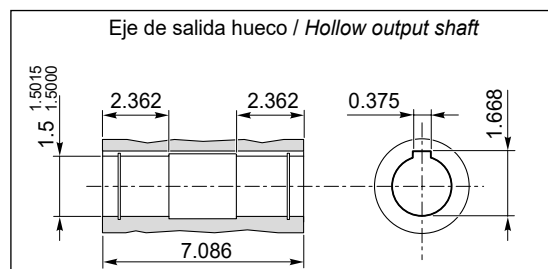
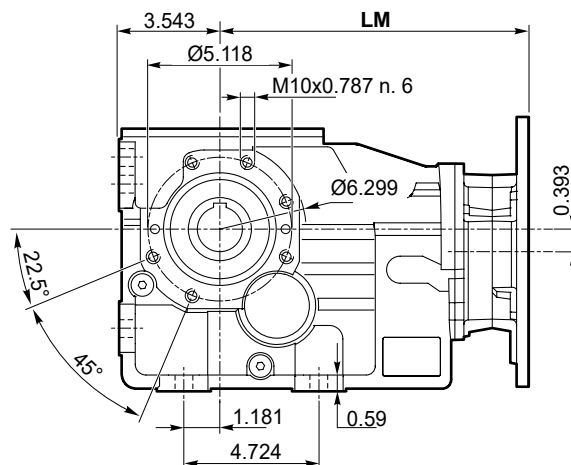
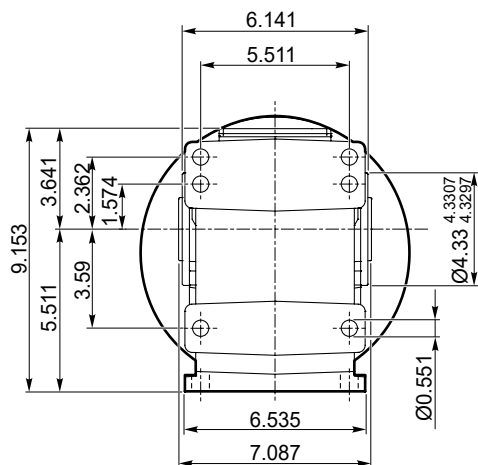


Dimensiones

Dimensions

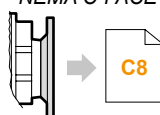
ITB 423 U

ITB 423 U

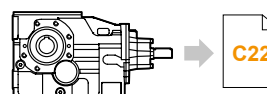


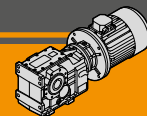
Dimensiones NEMA/ NEMA Dimensions				
	56C	140TC	180TC	210TC
LM	11.75		12.77	
N	4.5		8.5	
M	5.875		7.25	
P	6.5		9	
D	0.625	0.875	1.125	1.375

Bridas Motor
NEMA C-FACE



ITBIS 423..



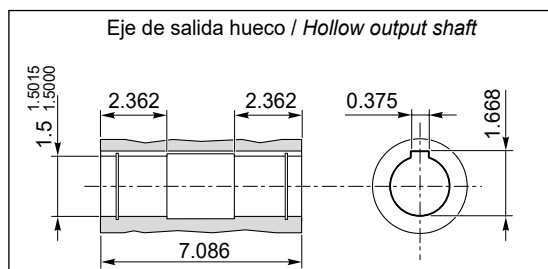
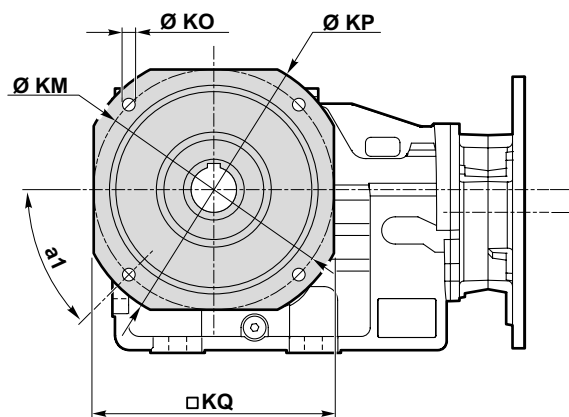
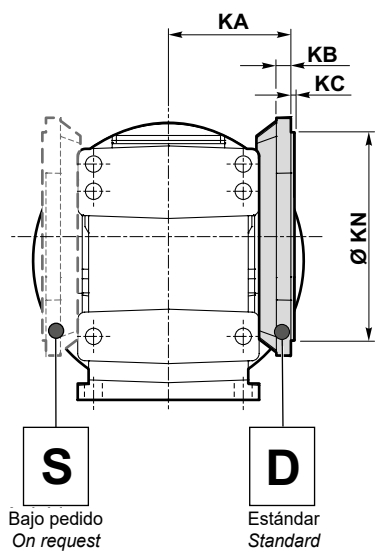


Dimensiones

Dimensions

ITB 423 F...

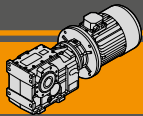
ITB 423 F...



Versión F / F Version											
ITB	a ₁	KA	KB	KC	KM	KN	KO	KP	KQ	Brida / Flange	
										Tipo / Type	Peso / Weight [lb]
423	45°	4.448	0.512	0.157	6.496	5.118 ^{5.1164} _{5.1148}	0.433	7.874	6.772	F200	5.7
	45°	4.448	0.512	0.157	8.465	7.086 ^{7.0849} _{7.0833}	0.551	9.843	8.465	F250	8.3
	45°	4.448	0.512	0.157	10.433	9.055 ^{9.0534} _{9.0519}	0.551	11.811	10.433	F300	12.3

Peso / Weight [lb]				
ITB	56C	140TC	180TC	210TC
423 U	79.96		87.55	

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)
 Note: weight of the gearbox filled with oil for M1 (B3) assembly position

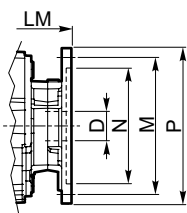
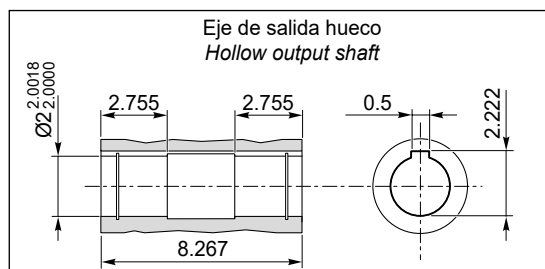
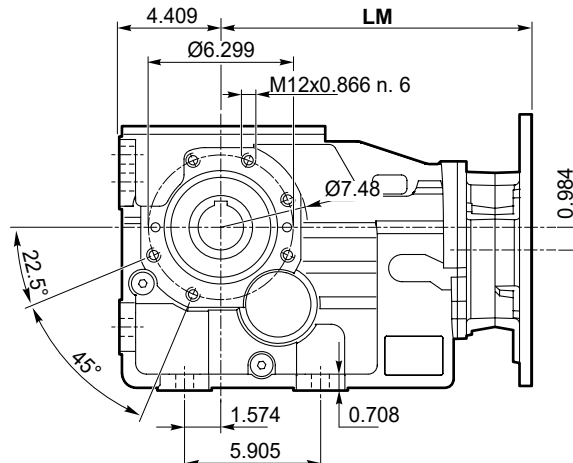
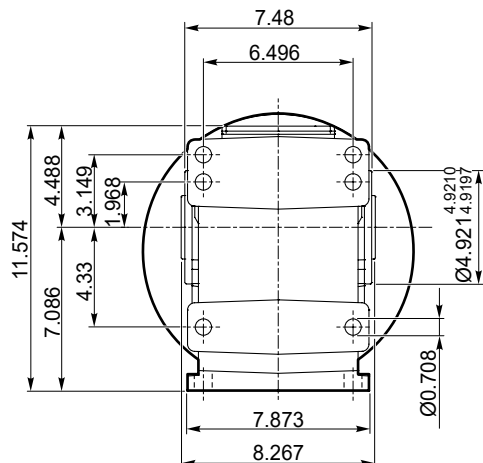


Dimensiones

Dimensions

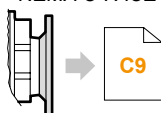
ITB 433 U

ITB 433 U

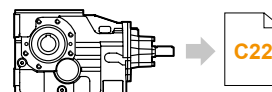


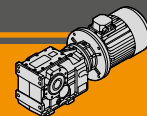
Dimensiones NEMA/ NEMA Dimensions					
	56C	140TC	180TC	210TC	250TC
LM	13.73		14.75		16.7
N	4.5		8.5		
M	5.875		7.25		
P	6.5		9		10
D	0.625	0.875	1.125	1.375	1.625

Bridas Motor
NEMA C-FACE



ITBIS 433..



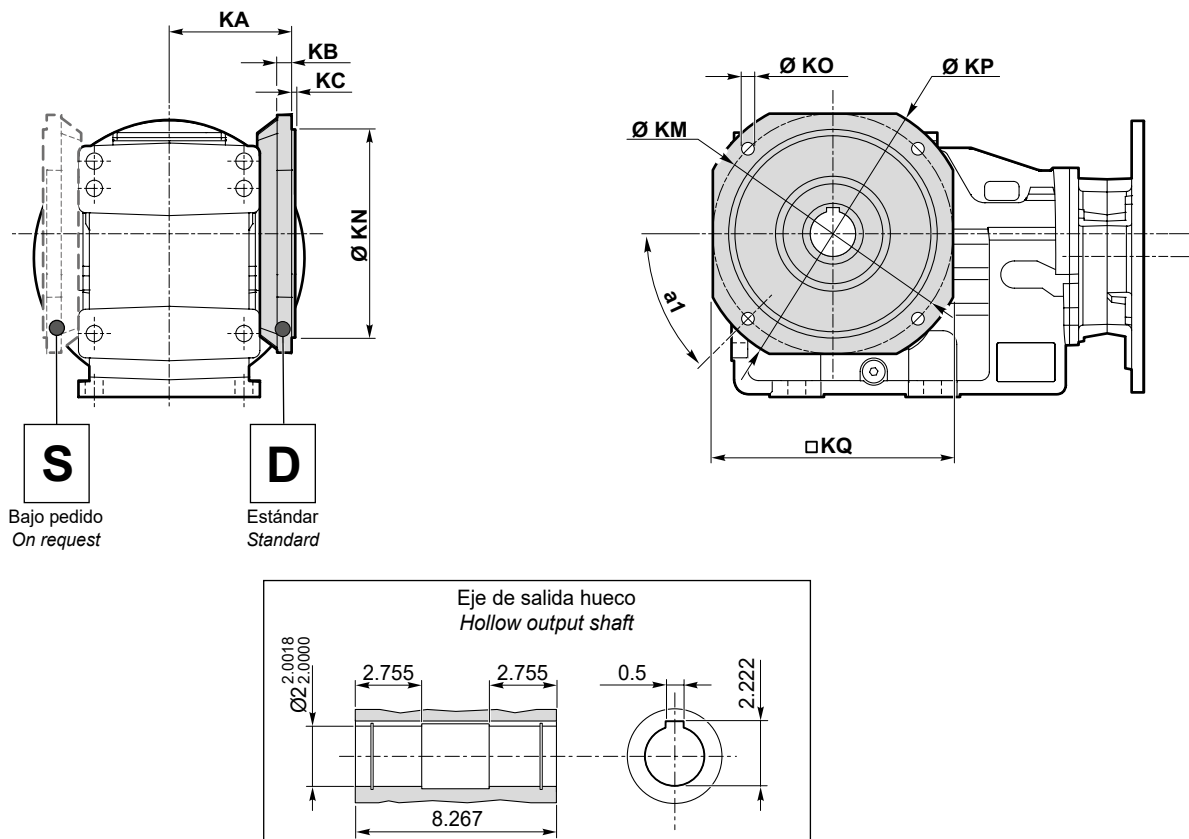


Dimensiones

Dimensions

ITB 433 F...

ITB 433 F...



ITB

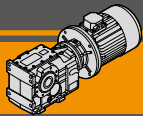
Versión F / F Version

ITB	a_1	KA	KB	KC	KM	KN	KO	KP	KQ	Brida / Flange	
										Tipo / Type	Peso / Weight [lb]
433	45°	5.314	0.630	0.157	8.465	7.086 ^{7.0849} _{7.0833}	0.551	9.843	8.465	F250	8.3
	45°	5.314	0.630	0.157	10.433	9.055 ^{9.0534} _{9.0519}	0.551	11.811	10.236	F300	12.3
	45°	5.314	0.630	0.157	11.811	9.842 ^{9.8408} _{9.8393}	0.709	13.780	11.811	F350	20.0

Peso / Weight [lb]

ITB	56C	140TC	180TC	210TC	250TC
433 U	118.51		126.13		139.27

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)
 Note: weight of the gearbox filled with oil for M1 (B3) assembly position

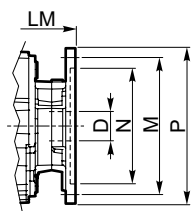
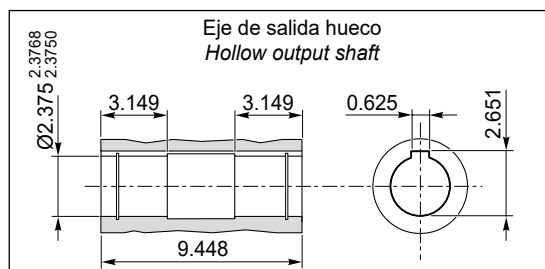
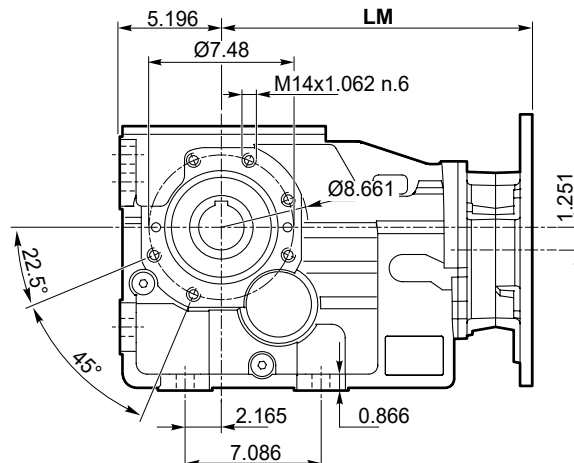
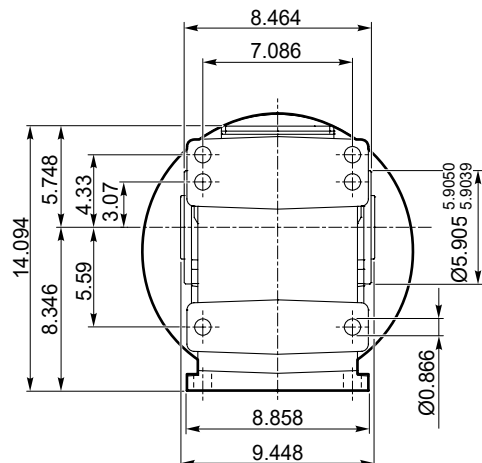


Dimensiones

Dimensions

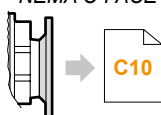
ITB 443 U

ITB 443 U

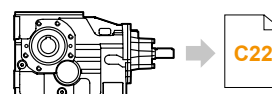


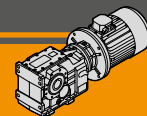
Dimensiones NEMA/ NEMA Dimensions						
	56C	140TC	180TC	210TC	250TC	280TC
LM	15.525		16.549		18.498	18.897
N	4.5		8.5		10.5	
M	5.875		7.25		9	
P	6.5		9		10	11.252
D	0.625	0.875	1.125	1.375	1.625	1.875

Bridas Motor
NEMA C-FACE



ITBIS 443..



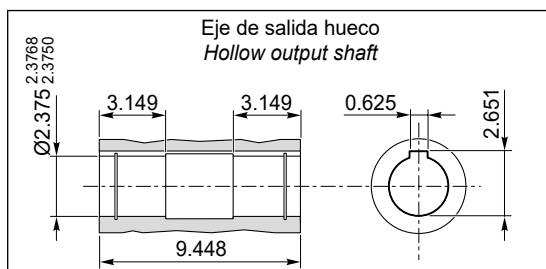
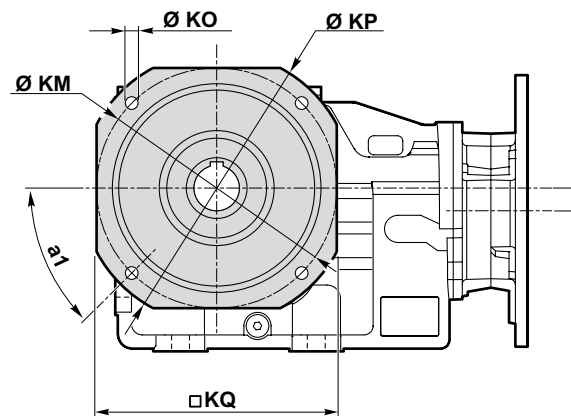
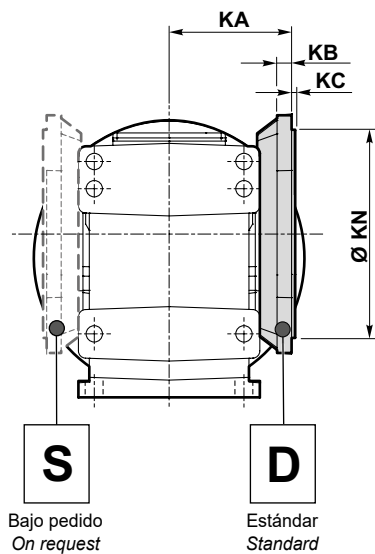


Dimensiones

Dimensions

ITB 443 F...

ITB 443 F...

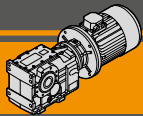


Versión F / F Version											
ITB	a ₁	KA	KB	KC	KM	KN	KO	KP	KQ	Brida / Flange	
										Tipo / Type	Peso / Weight [lb]
443	45°	5.905	0.709	0.157	10.433	9.055 ^{9.0534} _{9.0519}	0.551	11.811	10.433	F300	16.3
	45°	5.905	0.709	0.157	11.811	9.842 ^{9.8408} _{9.8393}	0.709	13.780	11.811	F350	22.4
	45°	5.905	0.709	0.157	15.748	13.779 ^{13.7778} _{13.7763}	0.709	17.717	15.748	F400	37.2

Peso / Weight [lb]						
ITB	56C	140TC	180TC	210TC	250TC	280TC
443 U	221.06		228.64		241.78	244.56

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)

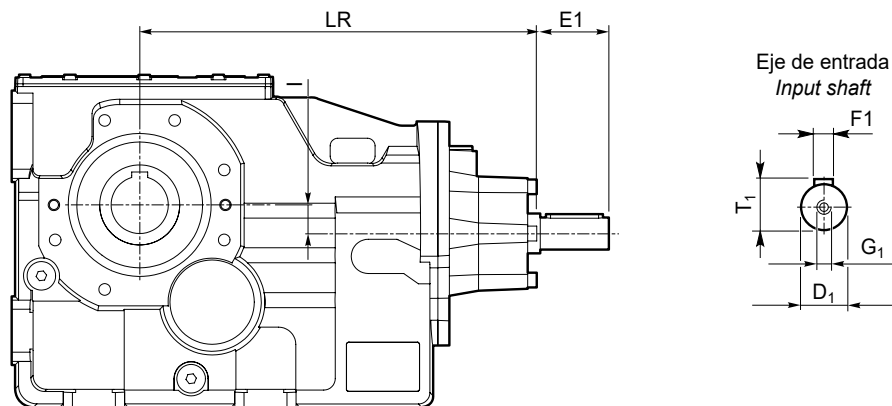
Note: weight of the gearbox filled with oil for M1 (B3) assembly position



Dimensiones

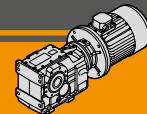
Dimensions

ITBIS..



ITBIS	Versione Version	LR	D1	E1	I	T1	F1	G1
423	U F	12.283	0.875 ^{0.8742} _{0.8734}	1.969	1.26	0.958	0.188	1/4-20 UNC
433		14.263	0.875 ^{0.8742} _{0.8734}	1.969	1.26	0.958	0.188	1/4-20 UNC
443		16.746	1.625 ^{1.6254} _{1.6248}	3.15	1.476	1.791	0.375	5/8-11 UNC

ITBIS	Peso / Weight [lb]
423 U	87.96
433 U	131.39
443 U	251.1



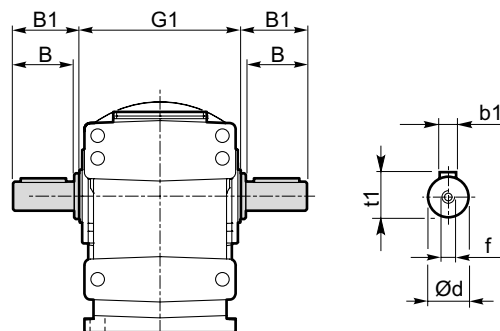
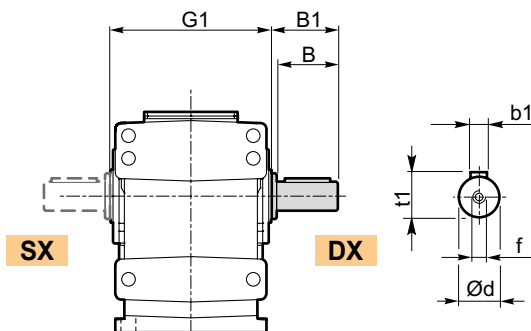
Accesorios

Accessories

Eje de salida / Output shaft

ITB.. SZ..
ITBIS..SZ..

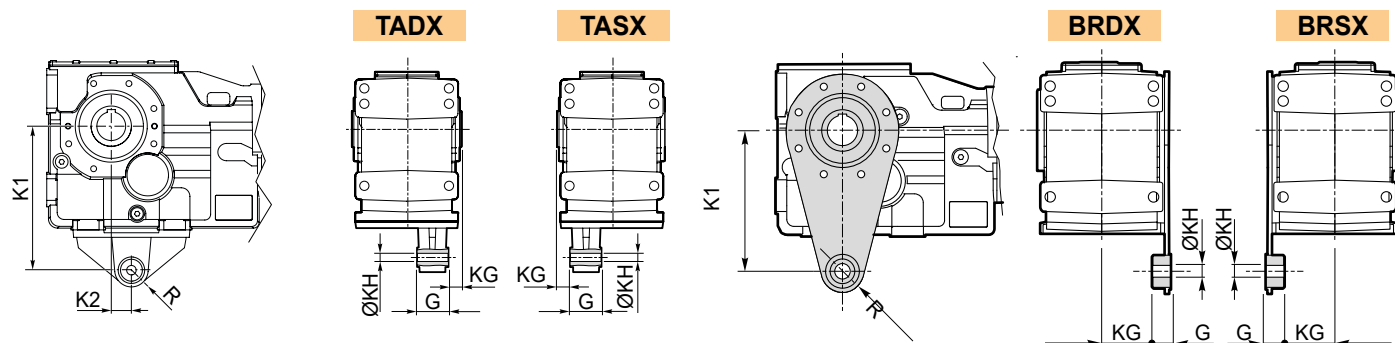
ITB... DZ
ITBIS..DZ



ITB	d	B	B1	G1	f	b1	t1	Peso / Weight [lb]	
								SZ	DZ
423	1.5 ^{1.5000} 1.4988	2.992	3.149	7.086	5/8-11 UNC	0.375	1.664	4.85	7.05
433	2 ^{2.0000} 1.9988	3.937	4.133	8.267	5/8-11 UNC	0.5	2.218	9.48	13.66
443	2.375 ^{2.3750} 2.3738	4.724	4.921	9.448	3/4-10 UNC	0.625	2.645	15.65	22.70

Brazo de reacción / Torque arm kit

ITB..
ITBIS..

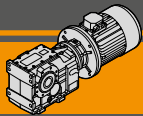


Brazo de reacción / Torque arm

ITB ITBIS	K1	K2	KG	KH	G	R	Peso Weight [lb]
423	7.874	1.181	0.984	0.650	2.362	1.142	6.39
433	9.843	1.378	0.984	0.650	2.362	1.142	9.7
443	11.811	1.378	1.181	0.984	3.150	1.575	17.85

Brazo de reacción / Torque arm

ITB ITBIS	K1	KG	KH	G	R	Peso Weight [lb]
423	7.874	2.697	0.787	0.984	1.181	3.52
433	9.842	3.268	0.984	1.181	1.378	5.95

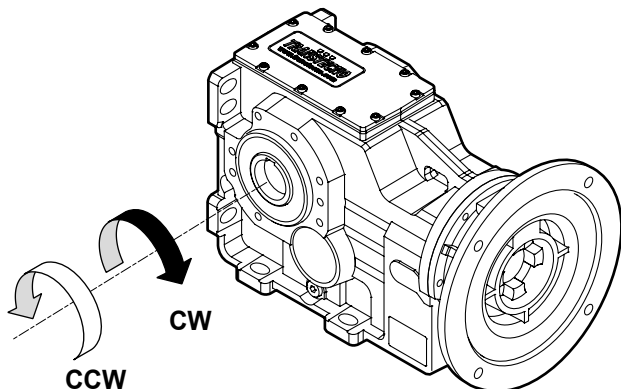


Accesorios

Accessories

Dispositivo anti-retorno / Backstop device

ITB...CW
ITB...CCW

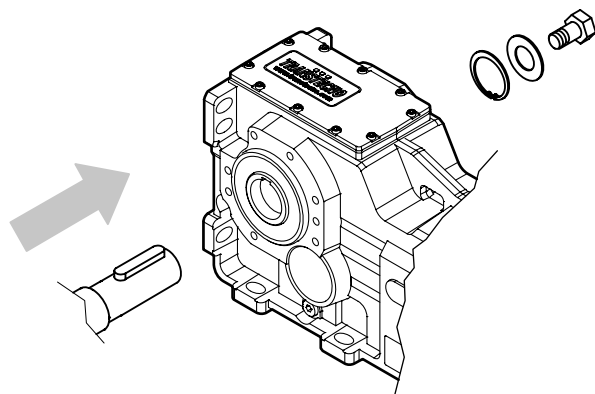


El dispositivo anti-retorno permite que la flecha de salida gire en un solo sentido.

Antes de utilizarlo, especifique la rotación deseada como se muestra en la figura

The backstop device allows the output shaft to rotate in just one direction. Before using it, please specify output shaft rotation direction as shown in the figure.

Kit de montaje para eje solido / Output shaft assembly kit

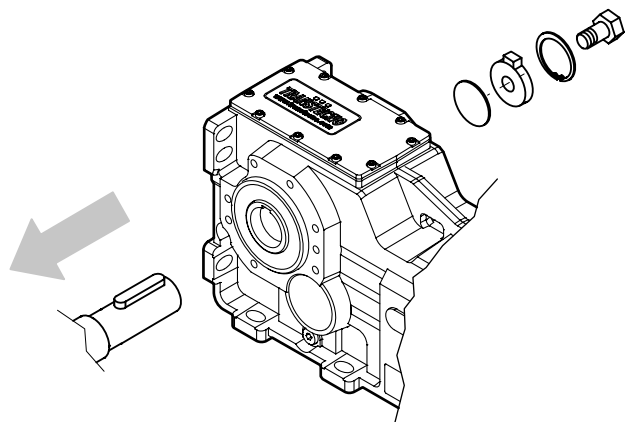


Kit de montaje para eje sólido disponible a solicitud.

Referirse con nuestro departamento técnico para conocer las instrucciones de montaje.

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

Kit de montaje para eje solido / Output shaft disassembly kit



Kit de desmontaje para eje sólido disponible a solicitud.

Referirse con nuestro departamento técnico para conocer las instrucciones de montaje.

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

TRANSTECNO[®]
the modular gearmotor

ITS

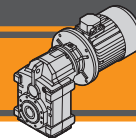


60Hz

Motorreductores pendulares
Helical parallel gearmotors

Nema



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Características técnicas
Versiones
Clasificación
Sentido de rotación
Nomenclatura
Lubricación
Cargas radiales
Datos técnicos
Dimensiones
Accesorios

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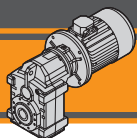
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Versions
Classification
Direction of rotation
Symbols
Lubrication
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Características técnicas

El motorreductor ITS está diseñado para aplicaciones de uso rudo. Su carcasa fundida en una sola pieza y su diseño modular con distintos accesorios en la entrada y en la salida, incrementan su flexibilidad de uso en múltiples aplicaciones.

Características principales de la serie ITH:

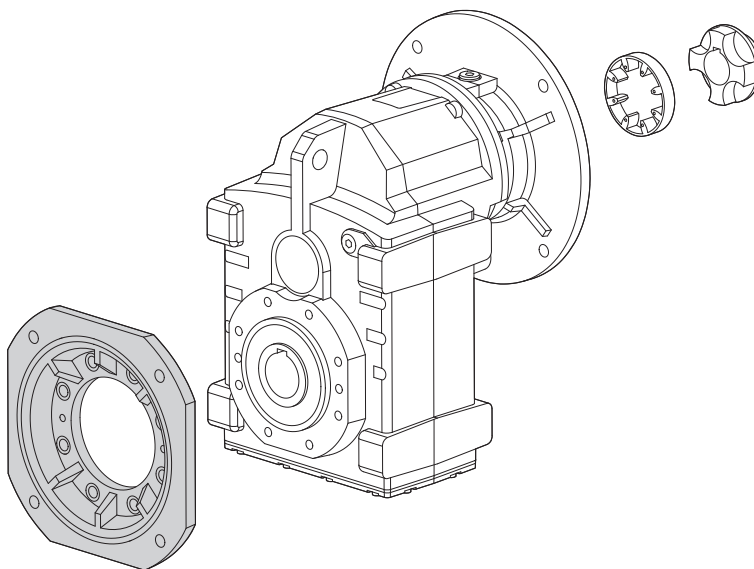
- Carcasa en hierro fundido;
- Elevada modularidad;
- Lubricación con aceite sintético;
- Acoplamiento a motor con cople flexible;
- Acabado en pintura epóxica RAL 7016.

Technical features

The ITS gearmotors are intended for heavy duty applications. The robust one pieces casing of the main housing and the modular design of input and output sets increase application flexibility.

The main features of ITS range are:

- Robust cast iron housings
- High degree of modularity
- Lubrication with synthetic oil
- Coupled to motor with flexible coupling
- Epoxy powder coating RAL 7016.



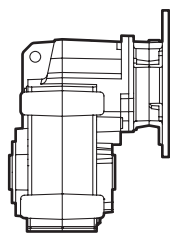
Clasificación

Classification

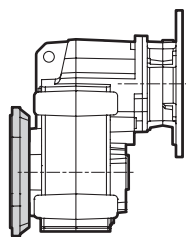
ITS...

Versione Riduttore
Gearbox Version

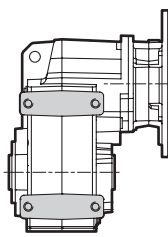
Albero di uscita
Output shaft



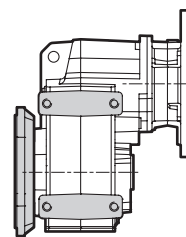
U



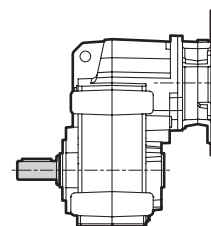
U/F...



P



P/F...

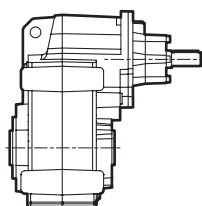


SZ

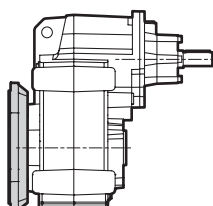
ITSIS...

Versione Riduttore
Gearbox Version

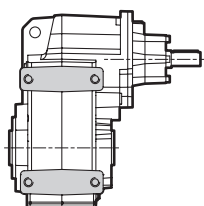
Albero di uscita
Output shaft



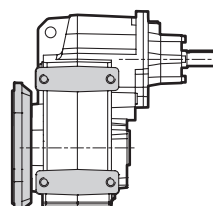
U



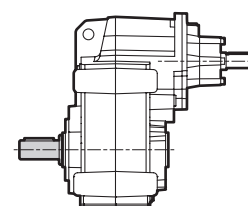
U/F...



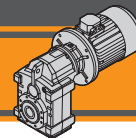
P



P/F...



SZ



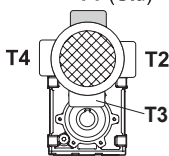
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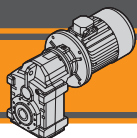
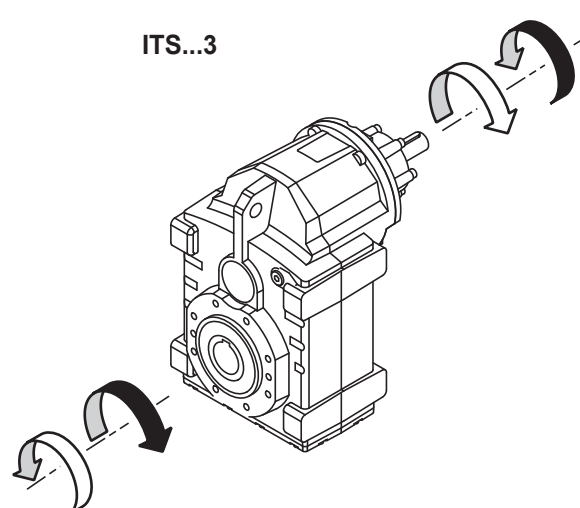
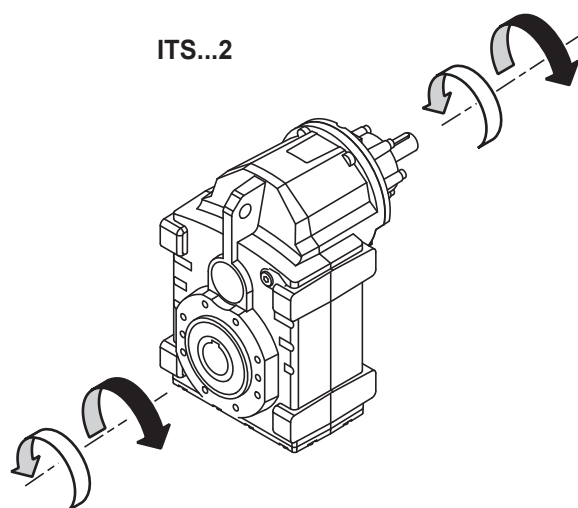
Classification

REDUCTOR / GEARBOX									
ITS	92	2	U	22.92	D1.5	56C	SZ	M1	CW
Tipo Type	Tamaño Size	Etapas Stages	Versión Version	Relación de reducción Ratio	Eje de salida Output shaft		Eje de salida Output shaft	Posición de Montaje Mounting position	Dispositivo anti retroceso Backstop device
ITS 	92 93 94	2 3	U... U/F... P... P/F...	véase tablas see tables	véase tablas see tables	56C 140TC 180TC 210TC 250TC 280TC	SZ	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)	CW CCW

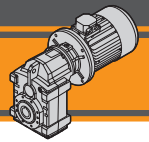
ITS

REDUCTOR / GEARBOX							
ITSIS	92	2	U	22.92	D1.5	SZ	M1
Tipo Type	Tamaño Size	Etapas Stages	Versión Version	Relación de reducción Ratio	Eje de salida Output shaft	Eje de salida Output shaft	Posición de Montaje Mounting position
ITSIS 	92 93 94	2 3	U... U/F... P... P/F...	véase tablas see tables	véase tablas see tables	SZ	M1 (B3) M2 (V6) M3 (B8) M4 (V5) M5 (B7) M6 (B6)

MOTOR / MOTOR					
7.5hp / 5.5kW	4p	3ph	230/400V	60Hz	T1
Potencia Power	Polos Poles	Fases Phases	Tensión Voltage	Frecuencia Frequency	Posición caja de bornes Terminal box pos.
véase tablas see tables	2p 4p 6p 8p	1ph 3ph	230V 230/400V	50Hz 60Hz	T1 (Std) 

**ITS****Motorreductores pendulares**
Helical parallel gearmotors**Nema 60 Hz****Sentidos de rotación****Direction of rotation****Nomenclatura****Symbols**

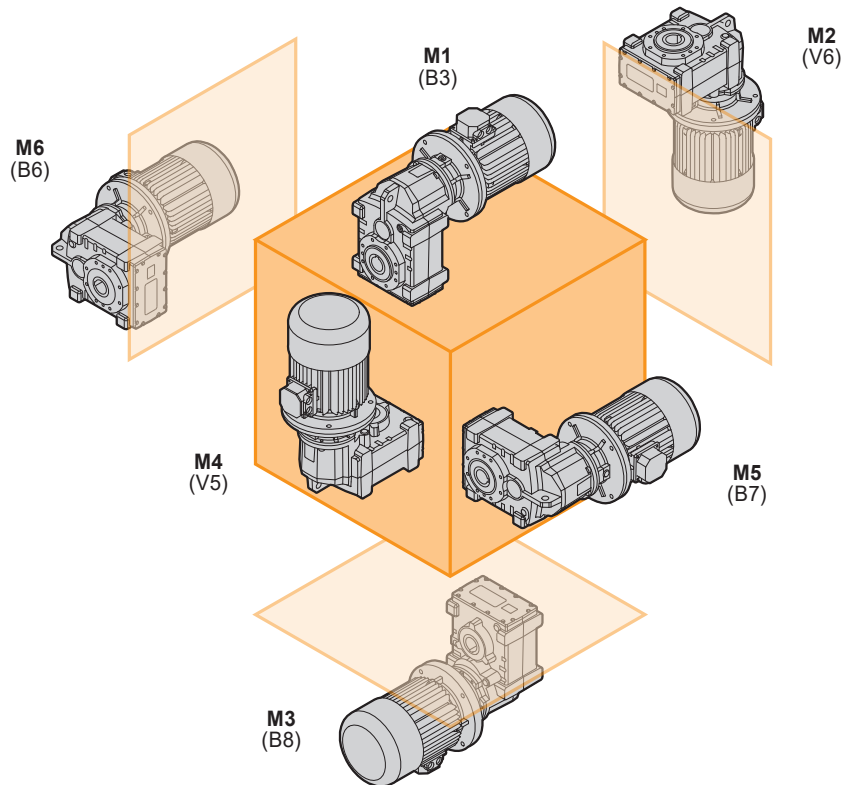
n_1	[rpm]	Velocidad de entrada / <i>Input speed</i>
n_2	[rpm]	Velocidad de salida / <i>Output speed</i>
i		Relación de reducción / <i>Ratio</i>
P_1	[hp]	Potencia en la entrada / <i>Input power</i>
M_2	[lb·in]	Par en la salida en función de P_1 / <i>Output torque referred to P_1</i>
P_{n1}	[hp]	Potencia nominal en la entrada / <i>Nominal input power</i>
M_{n2}	[lb·in]	Par nominal en la salida en función de P_{n1} / <i>Nominal output torque referred to P_{n1}</i>
sf		Rendimiento dinámico / <i>Service factor</i>
R_1	[lb]	Carga radial permitida a la entrada / <i>Permitted input radial load</i>
A_1	[lb]	Carga axial permitida a la entrada / <i>Permitted input axial load</i>
R_2	[lb]	Carga radial admisible en la salida / <i>Maximum output radial load</i>
A_2	[lb]	Carga axial admisible en la salida / <i>Maximum output axial load</i>

**Lubricación****Lubrication**

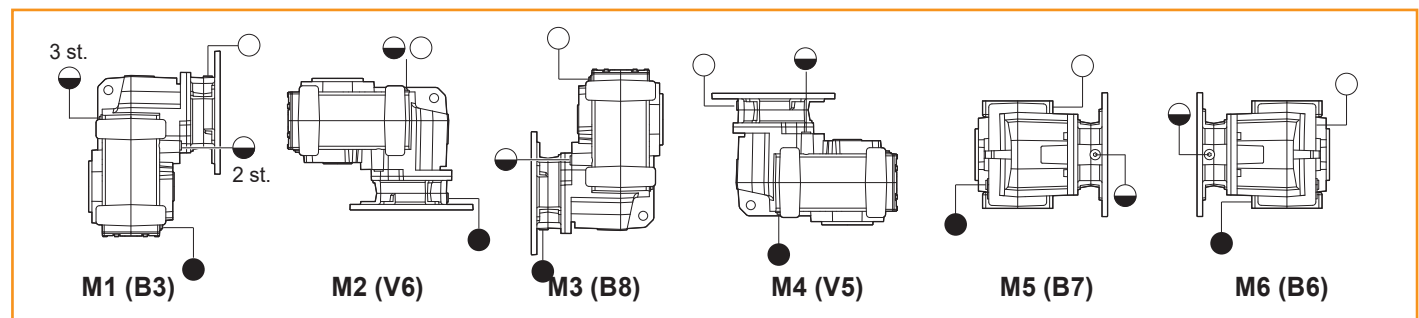
Los moto reductores de la serie ITS se suministran con lubricante sintético viscosidad 320. La cantidad de lubricante dependerá de la posición de montaje requerida.

ITS series gearmotors come complete with synthetic lubricant 320 viscosity. The lubricant quantity depends on assembly position.

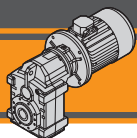
ITS..



ITS	Cantidad de aceite (US gal) / Oil quantity (US gal)					
	M1 (B3)	M2 (V6)	M3 (B8)	M4 (V5)	M5 (B7)	M6 (B6)
922	0.89	1.36	1.10	1.61	0.97	0.95
923	1.29			1.56		
932	1.24	1.84	1.13	2.03	1.18	1.16
933	1.76			1.98		
942	2.40	3.8	2.40	4.06	2.4	2.35
943	3.17			3.99		



- Respiradero y tapón de llenado / Breather and filling plug
- Tapón de nivel de aceite / Oil level plug
- Tapón de dren de aceite / Oil drain plug



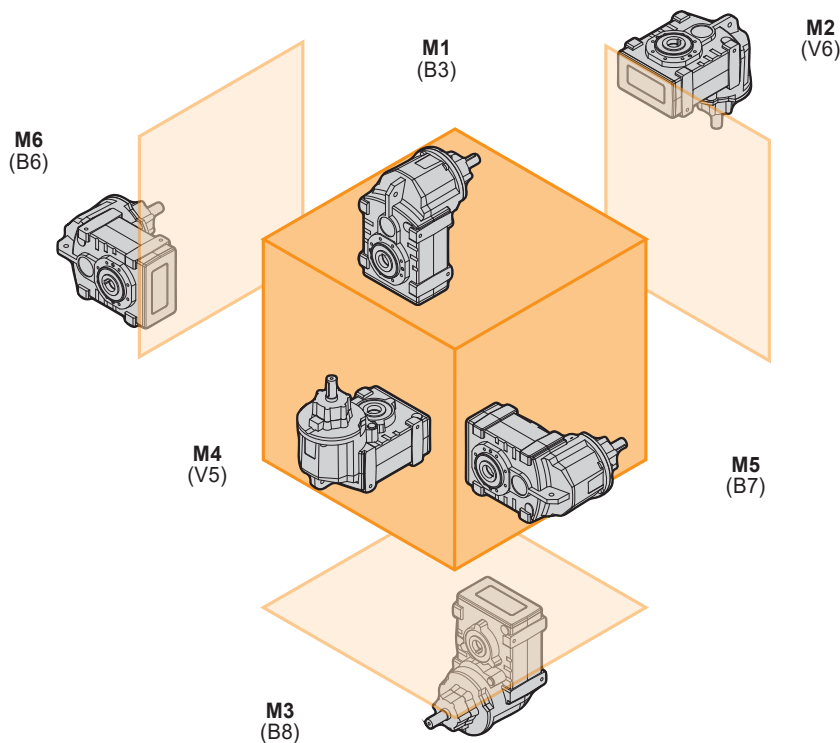
Lubricación

Lubrication

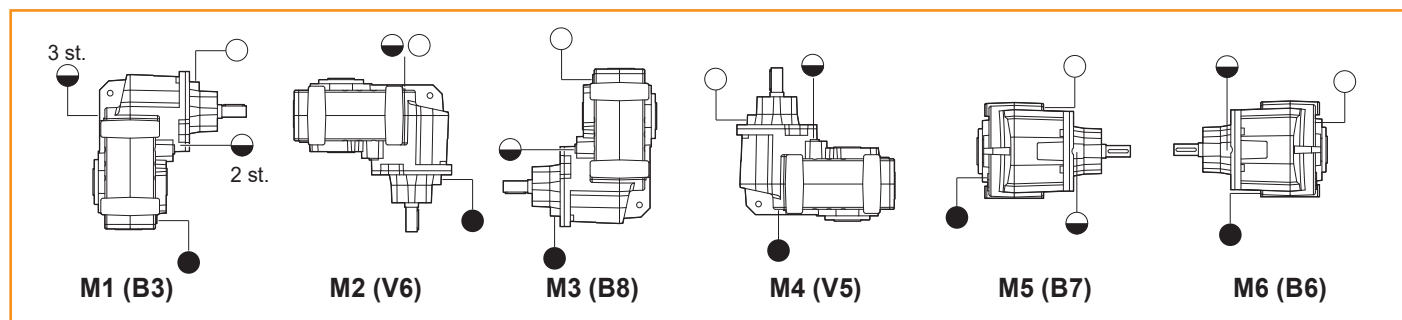
Los reductores de la serie ITSIS se suministran con lubricante sintético viscosidad 320. La cantidad de lubricante dependerá de la posición de montaje requerida.

ITSIS series gearboxes come complete with synthetic lubricant 320 viscosity. The lubricant quantity depends on assembly position.

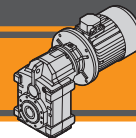
ITSIS..



ITSIS	Cantidad de aceite (US gal) / Oil quantity (US gal)					
	M1 (B3)	M2 (V6)	M3 (B8)	M4 (V5)	M5 (B7)	M6 (B6)
922	0.95	1.47	1.16	1.61	1.03	1.00
923	1.34			1.56		
932	1.29	1.95	1.24	2.03	1.24	1.21
933	1.82			1.98		
942	2.45	3.97	2.58	4.06	2.5	2.43
943	3.22	3.90	2.50	3.99	2.45	2.40



- Respiradero y tapón de llenado / Breather and filling plug
- Tapón de nivel de aceite / Oil level plug
- Tapón de dren de aceite / Oil drain plug



Carga radial a la entrada

Input Radial loads

ITS 922 ITS 923 - 932 ITS 933 - 943	n ₁ [rpm]	Potencia motor / Motor Power [hp]		
		3	5	7.5
R ₁ [lb]	1750	404		168
	1150	472	269	-
	850	562	-	-

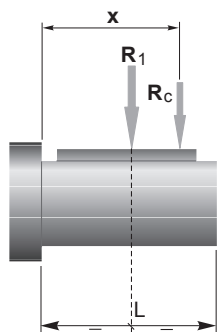
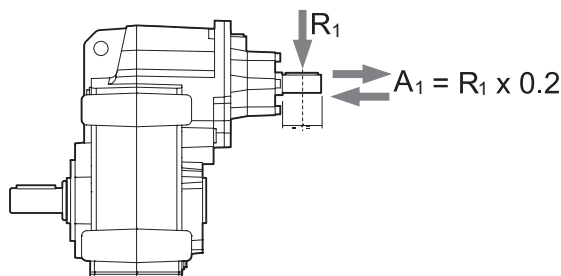
ITS 942	n ₁ [rpm]	Potencia motor / Motor Power [hp]				
		7.5	10	15	20	25
R ₁ [lb]	1750	831			629	269
	1150	1101		741	146	-
	850	1180	876	-	-	-

Las cargas radiales máximas aplicables están indicadas en las tablas.

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

The radial loads maximum output applicable are indicated in the previous tables.

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:



	ITS922	ITS923	ITS932	ITS933	ITS942	ITS943
a	5.472				6.181	5.472
b	4.330				4.645	4.330

$$R_c = \frac{R_1 \cdot a}{(b + x)} \leq R_1$$

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

$$R \leq R_c$$

Carga radial en la salida

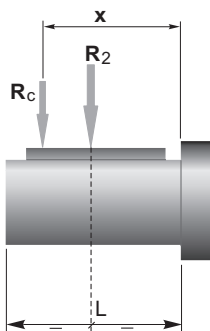
Output radial loads

Las cargas radiales máximas aplicables en la salida están indicadas en la siguiente tabla.

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

The radial loads maximum output applicable are indicated in the technical data table.

When the resulting radial load is not applied on the centre line of the shaft it is necessary to calculate the effective load with the following formula:



ITS	922 U... 923 U...	922 P... 923 P...	932 U... 933 U...	932 P... 933 P...	942 U... 943 U...	942 P... 943 P...
a	7.480	7.165	8.818	8.503	10.314	9.921
b	5.905	5.590	6.850	6.535	7.952	7.559
R _{2MAX}	2135	4046	2697	5170	3372	6969

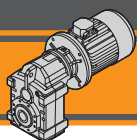
$$R_c = \frac{R_2 \cdot a}{(b + x)} \leq R_{2MAX}$$

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

$$R \leq R_c$$

La versión U se suministra con rodamientos esféricos en la salida.
La versión P se suministra con rodamientos de rodillos en la salida.

U version has ball bearings on the output side.
P version uses taper roller bearings.
It's possible to have taper roller bearings for U version upon request.

**ITS****Motorreductores pendulares**
Helical parallel gearmotors**Nema 60 Hz****Datos técnicos****n₁ 1750 rpm****Technical data**

	n₂ [rpm]	Mn₂ [lb·in]	Pn₁ [hp]	i	R₂ U [lb]	R₂ P [lb]
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	NEMA Motores aplicables NEMA Motor adapters		
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ITSIS 922

	309	4425	22.63	5.66	560	2106
	248	4425	18.14	7.06	637	2378
	209	4425	15.30	8.37	704	2612
	192	5753	18.23	9.13	692	2632
	168	5753	15.94	10.43	748	2833
	145	5753	13.81	12.04	813	3066
	130	6638	14.22	13.50	829	3175
	113	6638	12.39	15.50	898	3425
	98	7966	12.93	17.81	902	3541
	81	7966	10.60	21.73	1013	3951
	76	7966	10.06	22.92	1045	4068
	74	7966	9.68	23.80	1068	4159
	66	7966	8.65	26.63	1140	4159
	60	7966	7.87	29.26	1205	4159
	54	8851	7.96	32.14	1205	4159
	50	8851	7.27	35.19	1271	4159
	44	8851	6.49	39.38	1357	4159
	40	8851	5.91	43.27	1433	4159
	37	8851	5.38	47.50	1514	4159
	31	9736	5.04	55.96	1572	4159
	29	9736	4.60	61.25	1657	4159
	26	9736	4.17	67.50	1754	4159

ITS 922

56C	140TC	180TC	210TC
			*
			*

ITSIS 923

	23	9736	3.83	75.00	1865	4159
	20	9736	3.34	86.28	2024	4159
	19	9736	3.04	94.46	2136	4159
	16	9736	2.65	108.48	2136	4159
	15	9736	2.42	118.77	2136	4159
	12	9736	2.04	140.93	2136	4159
	11	9736	1.86	154.30	2136	4159
	10	9736	1.68	172.40	2136	4159
	9.3	9736	1.53	188.76	2136	4159
	8.3	9736	1.36	211.15	2136	4159
	7.3	9736	1.20	238.53	2136	4159
	6.4	9736	1.05	272.74	2136	4159
	6.0	9736	0.99	289.29	2136	4159
	5.5	9736	0.90	316.73	2136	4159
	5.1	9736	0.84	342.86	2136	4159
	4.7	9736	0.77	375.38	2136	4159

ITS 923

56C	140TC	180TC
		*
		*
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		*
		*
		*
		*
		*
		*
	*	*
	*	*

NOTA

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



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

NOTE

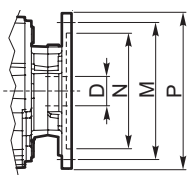
Highlighted áreas indicate the motor input flange available on each gearbox size.



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

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas D11 a la D17.

Before selecting any gearbox, please read the performance values shown in the tables on page D11 to D17.

**Dimensiones NEMA/ NEMA Dimensions**

	56C	140TC	180TC	210TC
N	4.5		8.5	
M	5.88		7.25	
P	6.5		9	
D	0.625	0.875	1.125	1.375

Technical data

	n₂ [rpm]	Mn₂ [lb·in]	Pn₁ [hp]	i	R₂ U [lb]	R₂ P [lb]
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ITSIS 932

285	7523	35.47	6.13	623	2614
229	7523	28.43	7.65	709	2952
194	7523	24.08	9.03	781	3234
177	7966	23.28	9.90	811	3368
155	7966	20.45	11.27	874	3617
134	7966	17.64	13.06	953	3924
120	7966	15.80	14.58	1016	4168
104	8851	15.23	16.81	1069	4420
91	8851	13.31	19.24	1156	4761
74	10621	13.02	23.57	1217	5114
71	10621	12.41	24.75	1252	5171
68	12391	13.88	25.81	1193	5171
61	12391	12.41	28.88	1274	5171
50	14604	12.16	34.71	1285	5171
46	14604	11.10	38.01	1354	5171
41	14604	9.94	42.53	1446	5171
37	14604	9.03	46.73	1528	5171
34	14604	8.23	51.30	1613	5171
29	14604	7.00	60.44	1775	5171
27	14604	6.40	66.15	1871	5171
24	13276	5.27	72.90	2104	5171



NEMA Motores aplicables
NEMA Motor adapters

ITS 932

[illegible]

ITSIS 933

22	15046	5.49	81.00	2062	5171
19	15046	4.77	93.18	2238	5171
17	15046	4.37	102.02	2359	5171
15	15046	3.78	117.16	2557	5171
14	15046	3.45	128.28	2698	5171
12	15046	2.92	152.21	2698	5171
11	15046	2.67	166.65	2698	5171
9.4	15046	2.39	186.19	2698	5171
8.6	15046	2.18	203.86	2698	5171
7.7	15046	1.96	228.05	2698	5171
6.8	15046	1.73	257.61	2698	5171
5.9	15046	1.50	294.56	2698	5171
5.6	15046	1.42	312.43	2698	5171
5.1	15046	1.30	342.07	2698	5171
4.7	15046	1.19	370.29	2698	5171
4.3	15046	1.09	405.42	2698	5171

ITS 933

[illegible]

NOTA

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



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

NOTE

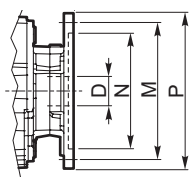
Highlighted áreas indicate the motor input flange available on each gearbox size.



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

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas D11 a la D17.

Before selecting any gearbox, please read the performance values shown in the tables on page D11 to D17.



Dimensiones NEMA/ NEMA Dimensions					
	56C	140TC	180TC	210TC	250TC
N	4.5		8.5		
M	5.88		7.25		
P	6.5		9		10
D	0.625	0.875	1.125	1.375	1.625

Datos técnicos

n_1 1750 rpm

Technical data

	n ₂ [rpm]	Mn ₂ [lb·in]	Pn ₁ [hp]	i	R ₂ U [lb]	R ₂ P [lb]
ITSIS 942						
	221	13276	48.44	7.93	946	3882
	183	13276	40.04	9.59	1057	4311
	164	15046	40.80	10.67	1083	4477
	148	15046	36.83	11.82	1150	4738
	136	17702	39.67	12.91	1140	4816
	123	17702	36.01	14.21	1206	5078
	110	21242	38.62	15.91	1182	5168
	101	21242	35.46	17.33	1242	5417
	92	22127	33.46	19.13	1287	5656
	75	22127	27.43	23.32	1445	6307
	60	23897	23.50	29.42	1579	6969
	56	26552	24.49	31.35	1520	6969
	44	26552	19.40	39.60	1742	6969
	41	23897	15.99	43.25	1977	6969
	37	23897	14.42	47.95	2099	6969
	33	28322	15.35	53.43	1968	6969
	30	28322	14.09	58.22	2069	6969
	27	28322	12.68	64.53	2197	6969
	25	26552	10.93	70.40	2437	6969
	23	26552	9.96	77.00	2568	6969

	NEMA Motores aplicables <i>NEMA Motor adapters</i>					
ITS 942						
	56C	140TC	180TC	210TC	250TC	280TC
						*
						*

ITSIS 943						
	19	28322	8.89	94.05	2737	6969
	18	28322	8.37	99.94	2836	6969
	16	28322	7.65	109.42	2990	6969
	15	28322	6.93	121.00	3170	6969
	13	28322	6.21	134.54	3372	6969
	12	28322	5.64	147.69	3372	6969
	10	28322	4.92	169.71	3372	6969
	9.4	28322	4.49	185.82	3372	6969
	8.4	28322	4.02	207.90	3372	6969
	7.7	28322	3.68	228.46	3372	6969
	7.0	28322	3.35	250.80	3372	6969
	5.9	28322	2.82	295.48	3372	6969
	5.4	28322	2.58	323.40	3372	6969
	4.9	28322	2.34	356.40	3372	6969

ITS 943			
56C	140TC	180TC	210TC
			*
			*
			*
			*
			*
			*
			*
		*	

NOTA

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



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

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas D11 a la D17.

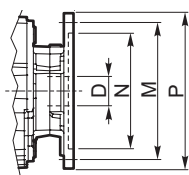
NOTE

Highlighted áreas indicate the motor input flange available on each gearbox size.



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

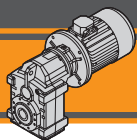
Before selecting any gearbox, please read the performance values shown in the tables on page D11 to D17.



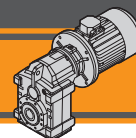
Dimensiones NEMA/ <i>NEMA Dimensions</i>						
	56C	140TC	180TC	210TC	250TC	280TC
N	4.5		8.5			10.5
M	5.875		7.25			9
P	6.5		9		10	11.252
D	0.625	0.875	1.125	1.375	1.625	1.875

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]						
0.33 hp										0.75 hp															
0.25 kW (1750 rpm)	7.3	2708	3.6	III	238.53	ITS923		56C	2136	4159	0.55 kW (1750 rpm)	309	142	30.7	III	5.66	ITS922		56C	678	2373				
	6.4	3098	3.1	III	272.74			56C	2136	4159		248	177	24.6	III	7.06			56C	770	2676				
	6.0	3284	3.0	III	289.29			56C	2136	4159		209	212	20.7	III	8.37			56C	849	2936				
	5.5	3593	2.7	III	316.73			56C	2136	4159		192	230	24.7	III	9.13			56C	892	3078				
	5.1	3894	2.5	III	342.86			56C	2136	4159		168	266	21.6	III	10.43			56C	963	3310				
	4.7	4257	2.3	III	375.38			56C	2136	4159		145	310	18.7	III	12.04			56C	1045	3577				
	9.4	2115	7.1	III	186.19	ITS933		56C	2698	5171		130	345	19.3	III	13.50	ITS932		56C	1115	3804				
	8.6	2310	6.5	III	203.86			56C	2698	5171		113	398	16.8	III	15.50			56C	1205	4097				
	7.7	2584	5.8	III	228.05			56C	2698	5171		98	451	17.5	III	17.81			56C	1303	4159				
	6.8	2921	5.1	III	257.61			56C	2698	5171		81	558	14.4	III	21.73			56C	1455	4159				
	5.9	3346	4.5	III	294.56			56C	2698	5171		76	584	13.6	III	22.92			56C	1499	4159				
	5.6	3549	4.2	III	312.43			56C	2698	5171		74	611	13.1	III	23.80			56C	1530	4159				
	5.1	3885	3.9	III	342.07	ITS933		56C	2698	5171		66	682	11.7	III	26.63	ITS932		56C	1628	4159				
	4.7	4204	3.6	III	370.29			56C	2698	5171		60	743	10.7	III	29.26			56C	1714	4159				
	4.3	4602	3.3	III	405.42			56C	2698	5171		54	823	10.8	III	32.14			56C	1803	4159				
	19	1584	17.9	III	94.05			ITS943		56C		3372	6969	50	894	9.9			III	35.19	ITS932		56C	1895	4159
	18	1682	16.9	III	99.94					56C		3372	6969	44	1000	8.8			III	39.38			56C	2012	4159
	16	1841	15.4	III	109.42					56C		3372	6969	40	1106	8.0			III	43.27			56C	2115	4159
15	2036	13.9	III	121.00	56C	3372	6969			37	1213	7.3	III	47.50	56C	2136	4159								
13	2257	12.5	III	134.54	56C	3372	6969			31	1425	6.8	III	55.96	56C	2136	4159								
12	2478	11.4	III	147.69	56C	3372	6969			29	1558	6.2	III	61.25	56C	2136	4159								
10	2850	9.9	III	169.71	ITS933		56C	3372	6969	26	1717	5.7	III	67.50	ITS932		56C	2136	4159						
9.4	3124	9.1	III	185.82			56C	3372	6969	23	1876	5.2	III	75.00			56C	2136	4159						
8.4	3496	8.1	III	207.90			56C	3372	6969	20	2151	4.5	III	86.28			56C	2136	4159						
7.7	3841	7.4	III	228.46			56C	3372	6969	19	2363	4.1	III	94.46			56C	2136	4159						
7.0	4213	6.7	III	250.80			56C	3372	6969	16	2708	3.6	III	108.48			56C	2136	4159						
5.9	4965	5.7	III	295.48			56C	3372	6969	15	2965	3.3	III	118.77			56C	2136	4159						
5.4	5434	5.2	III	323.40	ITS943		56C	3372	6969	12	3523	2.8	III	140.93	ITS932		56C	2136	4159						
4.9	5983	4.7	III	356.40			56C	3372	6969	11	3850	2.5	III	154.30			56C	2136	4159						
19	1584	17.9	III	94.05			ITS943		56C	3372	6969	10	4301	2.3			III	172.40	ITS932		56C	2136	4159		
18	1682	16.9	III	99.94					56C	3372	6969	9.3	4717	2.1			III	188.76			56C	2136	4159		
16	1841	15.4	III	109.42					56C	3372	6969	8.3	5275	1.8			II	211.15			56C	2136	4159		
15	2036	13.9	III	121.00					56C	3372	6969	7.3	5957	1.6			II	238.53			56C	2136	4159		
13	2257	12.5	III	134.54	56C	3372			6969	6.4	6806	1.4	II	272.74	56C	2136	4159								
12	2478	11.4	III	147.69	56C	3372			6969	6.0	7222	1.3	I	289.29	56C	2136	4159								
10	2850	9.9	III	169.71	ITS933		56C	3372	6969	5.5	7913	1.2	I	316.73	ITS932		56C	2136	4159						
9.4	3124	9.1	III	185.82			56C	3372	6969	5.1	8559	1.1	I	342.86			56C	2136	4159						
8.4	3496	8.1	III	207.90			56C	3372	6969	4.7	9373	1.0	I	375.38			56C	2136	4159						
7.7	3841	7.4	III	228.46			56C	3372	6969	37	1195	12.3	III	46.73			ITS932		56C	2471	5171				
7.0	4213	6.7	III	250.80			56C	3372	6969	34	1310	11.2	III	51.30					56C	2599	5171				
5.9	4965	5.7	III	295.48			56C	3372	6969	29	1540	9.5	III	60.44					56C	2698	5171				
5.4	5434	5.2	III	323.40	56C	3372	6969	27	1690	8.7	III	66.15	56C	2698	5171										
4.9	5983	4.7	III	356.40	56C	3372	6969	24	1859	7.1	III	72.90	56C	2698	5171										

**ITS****Motorreductores pendulares**
Helical parallel gearmotors**Nema 60 Hz****Datos técnicos****Technical data**

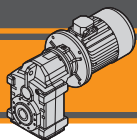
P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]
0.75 hp										1.0 hp									
0.55 kW (1750 rpm)	22	2027	7.4	III	81.00	ITS933		2698	5171	0.75 kW (1750 rpm)	309	195	22.5	III	5.66	ITS922		676	2368
	19	2328	6.5	III	93.18			2698	5171		248	248	18.0	III	7.06			767	2671
	17	2549	5.9	III	102.02			2698	5171		209	292	15.2	III	8.37			845	2928
	15	2930	5.1	III	117.16			2698	5171		192	319	18.1	III	9.13			888	3070
	14	3204	4.7	III	128.28			2698	5171		168	363	15.9	III	10.43			958	3299
	12	3797	4.0	III	152.21			2698	5171		145	416	13.7	III	12.04			1039	3563
	11	4160	3.6	III	166.65			2698	5171		130	469	14.1	III	13.50			1107	3788
	9.4	4647	3.2	III	186.19			2698	5171		113	540	12.3	III	15.50			1196	4077
	8.6	5089	3.0	III	203.86			2698	5171		98	620	12.9	III	17.81			1292	4159
	7.7	5691	2.6	III	228.05			2698	5171		81	752	10.5	III	21.73			1440	4159
	6.8	6434	2.3	III	257.61			2698	5171		76	797	10.0	III	22.92			1482	4159
	5.9	7355	2.0	II	294.56			2698	5171		74	832	9.6	III	23.80			1513	4159
	5.6	7798	1.9	II	312.43			2698	5171		66	929	8.6	III	26.63			1606	4159
	5.1	8541	1.8	II	342.07			2698	5171		60	1018	7.8	III	29.26			1689	4159
	4.7	9249	1.6	II	370.29			2698	5171		54	1115	7.9	III	32.14			1775	4159
	4.3	10125	1.5	II	405.42			2698	5171		50	1221	7.2	III	35.19			1863	4159
	19	2345	12.1	III	94.05	ITS943		3372	6969		44	1372	6.5	III	39.38			1974	4159
	18	2496	11.3	III	99.94			3372	6969		40	1505	5.9	III	43.27			2070	4159
	16	2735	10.4	III	109.42			3372	6969		37	1655	5.4	III	47.50			2136	4159
	15	3018	9.4	III	121.00			3372	6969		31	1947	5.0	III	55.96			2136	4159
	13	3363	8.4	III	134.54			3372	6969		29	2133	4.6	III	61.25			2136	4159
	12	3691	7.7	III	147.69			3372	6969		26	2345	4.1	III	67.50			2136	4159
	10	4240	6.7	III	169.71			3372	6969		ITS923	23	2558	3.8	III	75.00		2136	4159
	9.4	4638	6.1	III	185.82			3372	6969			20	2938	3.3	III	86.28		2136	4159
	8.4	5195	5.5	III	207.90			3372	6969			19	3213	3.0	III	94.46		2136	4159
	7.7	5709	5.0	III	228.46			3372	6969			16	3691	2.6	III	108.48		2136	4159
	7.0	6266	4.5	III	250.80			3372	6969			15	4045	2.4	III	118.77		2136	4159
	5.9	7382	3.8	III	295.48			3372	6969			12	4797	2.0	II	140.93		2136	4159
	5.4	8072	3.5	III	323.40			3372	6969			11	5257	1.9	II	154.30		2136	4159
	4.9	8904	3.2	III	356.40			3372	6969			10	5868	1.7	II	172.40		2136	4159
												9.3	6426	1.5	II	188.76		2136	4159
												8.3	7187	1.4	II	211.15		2136	4159
												7.3	8125	1.2	I	238.53		2136	4159
												6.4	9284	1.0	I	272.74		2136	4159
												6.0	9851	1.0	I	289.29		2136	4159
												5.5	10789	0.9	I	316.73		2136	4159
											ITS932	71	859	12.3	III	24.75		1725	5171
												68	894	13.8	III	25.81		1765	5171
												61	1000	12.3	III	28.88		1877	5171
												50	1204	12.1	III	34.71		2075	5171
												46	1319	11.0	III	38.01		2178	5171
												41	1478	9.9	III	42.53		2315	5171
												37	1629	9.0	III	46.73		2433	5171
												34	1788	8.2	III	51.30		2554	5171
												29	2098	6.9	III	60.44		2698	5171
												27	2301	6.3	III	66.15		2698	5171
												24	2531	5.2	III	72.90		2698	5171



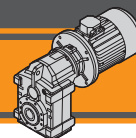
Datos técnicos

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]
1.0 hp										1.5 hp									
0.75 kW (1750 rpm)	22	2761	5.5	III	81.00	ITS933	56C-140TC	2698	5171	1.1 kW (1750 rpm)	309	292	15.3	III	5.66	ITS922	56C-140TC	673	2361
	19	3169	4.7	III	93.18			2698	5171		248	363	12.3	III	7.06			763	2660
	17	3478	4.3	III	102.02			2698	5171		209	425	10.4	III	8.37			839	2915
	15	3992	3.8	III	117.16			2698	5171		192	469	12.4	III	9.13			881	3054
	14	4372	3.4	III	128.28			2698	5171		168	531	10.8	III	10.43			950	3280
	12	5187	2.9	III	152.21			2698	5171		145	611	9.4	III	12.04			1028	3540
	11	5673	2.7	III	166.65			2698	5171		130	690	9.6	III	13.50			1095	3760
	9.4	6337	2.4	III	186.19			2698	5171		113	788	8.4	III	15.50			1180	4043
	8.6	6939	2.2	III	203.86			2698	5171		98	912	8.8	III	17.81			1272	4159
	7.7	7762	1.9	II	228.05			2698	5171		81	1106	7.2	III	21.73			1413	4159
	6.8	8771	1.7	II	257.61			2698	5171		76	1168	6.8	III	22.92			1453	4159
	5.9	10028	1.5	II	294.56			2698	5171		74	1213	6.6	III	23.80			1482	4159
	5.6	10639	1.4	II	312.43			2698	5171		66	1354	5.9	III	26.63			1570	4159
	5.1	11648	1.3	I	342.07			2698	5171		60	1496	5.3	III	29.26			1646	4159
	4.7	12612	1.2	I	370.29			2698	5171		54	1637	5.4	III	32.14			1725	4159
	4.3	13807	1.1	I	405.42			2698	5171		50	1797	4.9	III	35.19			1807	4159
	27	2248	12.6	III	64.53	ITS942	56C-140TC	3372	6969		44	2009	4.4	III	39.38	ITS923	56C-140TC	1907	4159
	25	2452	10.8	III	70.40			3372	6969		40	2204	4.0	III	43.27			1992	4159
	23	2682	9.9	III	77.00			3372	6969		37	2425	3.7	III	47.50			2078	4159
	19	3204	8.8	III	94.05	ITS943	56C-140TC	3372	6969		31	2850	3.4	III	55.96			2136	4159
	18	3408	8.3	III	99.94			3372	6969		29	3124	3.1	III	61.25			2136	4159
	16	3726	7.6	III	109.42			3372	6969		26	3443	2.8	III	67.50			2136	4159
	15	4124	6.9	III	121.00			3372	6969		23	3744	2.6	III	75.00			2136	4159
	13	4585	6.2	III	134.54			3372	6969		20	4310	2.3	III	86.28			2136	4159
	12	5027	5.6	III	147.69			3372	6969		19	4717	2.1	III	94.46			2136	4159
	10	5780	4.9	III	169.71			3372	6969		16	5417	1.8	II	108.48			2136	4159
	9.4	6328	4.5	III	185.82			3372	6969		15	5930	1.6	II	118.77			2136	4159
	8.4	7081	4.0	III	207.90			3372	6969		12	7036	1.4	II	140.93			2136	4159
	7.7	7780	3.6	III	228.46			3372	6969		11	7709	1.3	I	154.30			2136	4159
	7.0	8541	3.3	III	250.80			3372	6969		10	8612	1.1	I	172.40			2136	4159
	5.9	10063	2.8	III	295.48			3372	6969		9.3	9426	1.0	I	188.76			2136	4159
	5.4	11010	2.6	III	323.40			3372	6969		8.3	10541	0.9	I	211.15			2136	4159
	4.9	12134	2.3	III	356.40			3372	6969		134	664	12.0	III	13.06	ITS932	56C-140TC	1196	4536
											120	743	10.7	III	14.58			1272	4810
											104	859	10.3	III	16.81			1376	5171
											91	982	9.0	III	19.24			1482	5171
											74	1204	8.8	III	23.57			1656	5171
											71	1266	8.4	III	24.75			1700	5171
											68	1319	9.4	III	25.81			1738	5171
											61	1469	8.4	III	28.88			1845	5171
											50	1770	8.2	III	34.71			2032	5171
											46	1938	7.5	III	38.01			2129	5171
											41	2168	6.7	III	42.53			2258	5171
											37	2381	6.1	III	46.73			2366	5171
											34	2620	5.6	III	51.30			2477	5171
											29	3080	4.7	III	60.44			2678	5171
											27	3372	4.3	III	66.15			2698	5171
											24	3717	3.6	III	72.90			2698	5171

**ITS****Motorreductores pendulares**
Helical parallel gearmotors**Nema 60 Hz****Datos técnicos****Technical data**

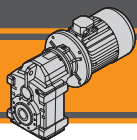
P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]
1.5 hp										2.0 hp									
1.1 kW (1750 rpm)	22	4045	3.7	III	81.00	ITS933	56C-140TC	2698	5171	1.5 kW (1750 rpm)	309	389	11.2	III	5.66	ITS922	56C-140TC	669	2353
	19	4655	3.2	III	93.18			2698	5171		248	487	9.0	III	7.06			758	2649
	17	5098	3.0	III	102.02			2698	5171		209	584	7.6	III	8.37			833	2900
	15	5850	2.6	III	117.16			2698	5171		192	637	9.1	III	9.13			874	3037
	14	6408	2.3	III	128.28			2698	5171		168	726	7.9	III	10.43			940	3259
	12	7603	2.0	II	152.21			2698	5171		145	841	6.9	III	12.04			1016	3514
	11	8320	1.8	II	166.65			2698	5171		130	938	7.1	III	13.50			1080	3728
	9.4	9302	1.6	II	186.19			2698	5171		113	1080	6.2	III	15.50			1162	4003
	8.6	10178	1.5	II	203.86			2698	5171		98	1239	6.4	III	17.81			1249	4159
	7.7	11391	1.3	I	228.05			2698	5171		81	1513	5.3	III	21.73			1383	4159
	6.8	12869	1.2	I	257.61			2698	5171		76	1593	5.0	III	22.92			1420	4159
	5.9	14710	1.0	I	294.56			2698	5171		74	1655	4.8	III	23.80			1446	4159
	5.6	15604	1.0	I	312.43			2698	5171		66	1850	4.3	III	26.63			1527	4159
	5.1	17082	0.9	I	342.07			2698	5171		60	2036	3.9	III	29.26			1597	4159
	41	2204	10.8	III	43.25	ITS942	56C-140TC	3108	6969		54	2239	4.0	III	32.14			1668	4159
	37	2443	9.8	III	47.95			3283	6969		50	2452	3.6	III	35.19			1742	4159
	33	2726	10.4	III	53.43			3372	6969		44	2735	3.2	III	39.38			1830	4159
	30	2965	9.5	III	58.22			3372	6969		40	3009	2.9	III	43.27			1903	4159
	27	3292	8.6	III	64.53			3372	6969		37	3301	2.7	III	47.50			1975	4159
	25	3593	7.4	III	70.40			3372	6969		31	3894	2.5	III	55.96			2097	4159
	23	3930	6.8	III	77.00			3372	6969		29	4257	2.3	III	61.25			2136	4159
	26	4691	2.1	III	67.50			3372	6969		23	5107	1.9	II	75.00	ITS923	56C-140TC	2136	4159
	19	4700	6.0	III	94.05	ITS943	56C-140TC	3372	6969		20	5877	1.7	II	86.28			2136	4159
	18	4992	5.7	III	99.94			3372	6969		19	6434	1.5	II	94.46			2136	4159
	16	5461	5.2	III	109.42			3372	6969		16	7390	1.3	I	108.48			2136	4159
	15	6045	4.7	III	121.00			3372	6969		16	7390	1.3	I	108.48			2136	4159
	13	6718	4.2	III	134.54			3372	6969		15	8090	1.2	I	118.77			2136	4159
	12	7373	3.8	III	147.69			3372	6969		15	8090	1.2	I	118.77			2136	4159
	10	8479	3.3	III	169.71			3372	6969		12	9594	1.0	I	140.93			2136	4159
	9.4	9276	3.1	III	185.82			3372	6969		11	10506	0.9	I	154.30			2136	4159
	8.4	10382	2.7	III	207.90			3372	6969		194	628	12.0	III	9.03	ITS932	56C-140TC	966	3706
	7.7	11409	2.5	III	228.46			3372	6969		177	690	11.6	III	9.90			1017	3892
	7.0	12524	2.3	III	250.80			3372	6969		155	788	10.2	III	11.27			1093	4170
	5.9	14754	1.9	II	295.48			3372	6969		134	912	8.8	III	13.06			1186	4509
	5.4	16153	1.8	II	323.40			3372	6969		120	1018	7.9	III	14.58			1260	4779
	4.9	17799	1.6	II	356.40			3372	6969		104	1168	7.6	III	16.81			1361	5148
											91	1336	6.6	III	19.24			1463	5171
											74	1637	6.5	III	23.57			1629	5171
											71	1717	6.2	III	24.75			1671	5171
											68	1797	6.9	III	25.81			1708	5171
											61	2009	6.2	III	28.88			1809	5171
											50	2416	6.0	III	34.71			1984	5171
											46	2646	5.5	III	38.01			2073	5171
											41	2956	4.9	III	42.53			2192	5171
											37	3248	4.5	III	46.73			2290	5171
											34	3567	4.1	III	51.30			2389	5171
											29	4204	3.5	III	60.44			2564	5171
											27	4602	3.2	III	66.15			2660	5171
											24	5071	2.6	III	72.90			2698	5171



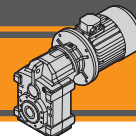
Datos técnicos

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]
2.0 hp										3.0 hp									
1.5 kW (1750 rpm)	22	5514	2.7	III	81.00	ITS933	56C-140TC	2698	5171	2.2 kW (1750 rpm)	309	575	7.7	III	5.66	ITS922	140TC-180TC	663	2338
	19	6346	2.4	III	93.18			2698	5171		248	717	6.1	III	7.06			749	2628
	17	6948	2.2	III	102.02			2698	5171		209	850	5.2	III	8.37			821	2874
	15	7983	1.9	II	117.16			2698	5171		192	929	6.2	III	9.13			860	3007
	14	8736	1.7	II	128.28			2698	5171		168	1062	5.4	III	10.43			923	3222
	12	10364	1.5	II	152.21			2698	5171		145	1230	4.7	III	12.04			995	3467
	11	11347	1.3	I	166.65			2698	5171		130	1381	4.8	III	13.50			1055	3673
	9.4	12683	1.2	I	186.19			2698	5171		113	1584	4.2	III	15.50			1131	3935
	8.6	13887	1.1	I	203.86			2698	5171		98	1814	4.4	III	17.81			1210	4159
	7.7	15533	1.0	I	228.05			2698	5171		81	2222	3.6	III	21.73			1329	4159
	6.8	17542	0.9	I	257.61			2698	5171		76	2337	3.4	III	22.92			1361	4159
						ITS942	56C-140TC	2490	6969		74	2425	3.3	III	23.80			1384	4159
	60	2045	11.7	III	29.42			2577	6969		66	2717	2.9	III	26.63			1453	4159
	56	2177	12.2	III	31.35			2917	6969		60	2983	2.7	III	29.26			1511	4159
	44	2753	9.6	III	39.60			3054	6969		54	3275	2.7	III	32.14			1568	4159
	41	3009	7.9	III	43.25			3220	6969		50	3593	2.5	III	35.19			1630	4159
	37	3337	7.2	III	47.95			3372	6969		44	4018	2.2	III	39.38			1695	4159
	33	3717	7.6	III	53.43			3372	6969		40	4417	2.0	II	43.27			1747	4159
	30	4045	7.0	III	58.22			3372	6969		37	4841	1.8	II	47.50			1794	4159
	27	4487	6.3	III	64.53			3372	6969		31	5709	1.7	II	55.96			1862	4159
	25	4894	5.4	III	70.40			3372	6969		29	6249	1.6	II	61.25			1890	4159
	23	5355	5.0	III	77.00			3372	6969		26	6886	1.4	II	67.50			1908	4159
						ITS943	56C-140TC	3372	6969		23	7488	1.3	I	75.00	ITS923	140TC-180TC	1911	4159
	19	6408	4.4	III	94.05			3372	6969		20	8621	1.1	I	86.28			2136	4159
	18	6806	4.2	III	99.94			3372	6969		19	9435	1.0	I	94.46			2136	4159
	16	7452	3.8	III	109.42			3372	6969		16	10833	0.9	I	108.48			2136	4159
	15	8240	3.4	III	121.00			3372	6969										
	13	9161	3.1	III	134.54			3372	6969										
	12	10054	2.8	III	147.69			3372	6969		285	628	12.0	III	6.13	ITS932	140TC-180TC	771	2995
	10	11559	2.5	III	169.71			3372	6969		229	779	9.6	III	7.65			872	3370
	9.4	12657	2.2	III	185.82			3372	6969		194	920	8.2	III	9.03			956	3680
	8.4	14161	2.0	II	207.90			3372	6969		177	1009	7.9	III	9.90			1005	3862
	7.7	15560	1.8	II	228.46			3372	6969		155	1151	6.9	III	11.27			1079	4134
	7.0	17082	1.7	II	250.80			3372	6969		134	1336	6.0	III	13.06			1168	4464
	5.9	20127	1.4	II	295.48			3372	6969		120	1487	5.4	III	14.58			1238	4725
	5.4	22021	1.3	I	323.40			3372	6969		104	1717	5.2	III	16.81			1334	5081
	4.9	24269	1.2	I	356.40			3372	6969		91	1965	4.5	III	19.24			1430	5171
							56C-140TC				74	2407	4.4	III	23.57			1583	5171
											71	2522	4.2	III	24.75			1622	5171
											68	2629	4.7	III	25.81			1655	5171
											61	2947	4.2	III	28.88			1746	5171
											50	3540	4.1	III	34.71			1899	5171
											46	3877	3.8	III	38.01			1975	5171
											41	4337	3.4	III	42.53			2077	5171
											37	4771	3.1	III	46.73			2157	5171
											34	5231	2.8	III	51.30			2234	5171
											29	6169	2.4	III	60.44			2364	5171
											27	6744	2.2	III	66.15			2429	5171
											24	7435	1.8	II	72.90			2492	5171

**ITS****Motorreductores pendulares**
Helical parallel gearmotors**Nema 60 Hz****Datos técnicos****Technical data**

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]
3.0 hp										5.0 hp									
2.2 kW (1750 rpm)	22	8090	1.9	II	81.00	ITS933	140TC-180TC	2550	5171	3.7 kW (1750 rpm)	309	974	4.6	III	5.66	ITS922	180TC	647	2302
	19	9311	1.6	II	93.18		140TC-180TC	2604	5171		248	1213	3.7	III	7.06		180TC	725	2576
	17	10187	1.5	II	102.02		140TC-180TC	2620	5171		209	1434	3.1	III	8.37		180TC	790	2806
	15	11701	1.3	I	117.16		140TC-180TC	2609	5171		192	1567	3.7	III	9.13		180TC	825	2929
	14	12816	1.2	I	128.28		140TC-180TC	2571	5171		168	1788	3.2	III	10.43		180TC	880	3126
	12	15206	1.0	I	152.21		140TC-180TC	2698	5171		145	2062	2.8	III	12.04		180TC	941	3348
	11	16648	0.9	I	166.65		140TC-180TC	2698	5171		130	2319	2.9	III	13.50		180TC	990	3530
	123	1452	12.2	III	14.21	ITS942	140TC-180TC	1650	6068		113	2655	2.5	III	15.50		180TC	1050	3758
	110	1620	13.1	III	15.91		140TC-180TC	1756	6441		98	3054	2.6	III	17.81		180TC	1110	3994
	101	1770	12.0	III	17.33		140TC-180TC	1840	6739		81	3726	2.1	III	21.73		180TC	1191	4159
	92	1947	11.3	III	19.13		140TC-180TC	1941	6969		76	3930	2.0	II	22.92		180TC	1211	4159
	75	2381	9.3	III	23.32		140TC-180TC	2159	6969		74	4080	2.0	II	23.80		180TC	1225	4159
	60	3000	8.0	III	29.42		140TC-180TC	2439	6969		66	4567	1.7	II	26.63		180TC	1263	4159
	56	3195	8.3	III	31.35		140TC-180TC	2521	6969		60	5018	1.6	II	29.26		180TC	1290	4159
	44	4036	6.6	III	39.60		140TC-180TC	2835	6969		54	5514	1.6	II	32.14		180TC	1312	4159
	41	4417	5.4	III	43.25		140TC-180TC	2960	6969		50	6036	1.5	II	35.19		180TC	1340	4159
	37	4894	4.9	III	47.95		140TC-180TC	3109	6969		44	6753	1.3	I	39.38		180TC	1349	4159
	33	5452	5.2	III	53.43	ITS943	140TC-180TC	3278	6969		40	7426	1.2	I	43.27	ITS932	180TC	1345	4159
	30	5939	4.8	III	58.22		140TC-180TC	3372	6969		37	8152	1.1	I	47.50		180TC	1794	4159
	27	6585	4.3	III	64.53		140TC-180TC	3372	6969		31	9603	1.0	I	55.96		180TC	1862	4159
	25	7178	3.7	III	70.40		140TC-180TC	3372	6969		29	10506	0.9	I	61.25		180TC	1890	4159
	23	7851	3.4	III	77.00		140TC-180TC	3372	6969		285	1053	7.1	III	6.13		180TC	757	2959
	19	9391	3.0	III	94.05		140TC-180TC	3372	6969		229	1310	5.7	III	7.65		180TC	852	3319
	18	9984	2.8	III	99.94		140TC-180TC	3372	6969		194	1549	4.9	III	9.03		180TC	930	3614
	16	10931	2.6	III	109.42		140TC-180TC	3372	6969		177	1699	4.7	III	9.90		180TC	975	3786
	15	12090	2.3	III	121.00		140TC-180TC	3372	6969		155	1929	4.1	III	11.27		180TC	1042	4041
	13	13435	2.1	III	134.54		140TC-180TC	3372	6969		134	2239	3.6	III	13.06		180TC	1121	4347
	12	14754	1.9	II	147.69	ITS933	140TC-180TC	3372	6969		120	2505	3.2	III	14.58	ITS933	180TC	1183	4586
	10	16949	1.7	II	169.71		140TC-180TC	3372	6969		104	2885	3.1	III	16.81		180TC	1265	4908
	9.4	18560	1.5	II	185.82		140TC-180TC	3372	6969		91	3301	2.7	III	19.24		180TC	1344	5171
	8.4	20764	1.4	II	207.90		140TC-180TC	3372	6969		74	4045	2.6	III	23.57		180TC	1465	5171
	7.7	22817	1.2	I	228.46		140TC-180TC	3372	6969		71	4248	2.5	III	24.75		180TC	1494	5171
	7.0	25048	1.1	I	250.80		140TC-180TC	3372	6969		68	4425	2.8	III	25.81		180TC	1518	5171
	5.9	29517	1.0	I	295.48		140TC-180TC	3372	6969		61	4956	2.5	III	28.88		180TC	1582	5171
	5.4	32305	0.9	I	323.40		140TC-180TC	3372	6969		50	5957	2.5	III	34.71		180TC	1680	5171
							140TC-180TC	3372	6969		46	6523	2.2	III	38.01		180TC	1723	5171
							140TC-180TC	3372	6969		41	7293	2.0	II	42.53		180TC	1782	5171
							140TC-180TC	3372	6969		37	8019	1.8	II	46.73		180TC	1814	5171
						ITS933	140TC-180TC	3372	6969		34	8798	1.7	II	51.30		180TC	1837	5171
							140TC-180TC	3372	6969		29	10373	1.4	II	60.44		180TC	1849	5171
							140TC-180TC	3372	6969		27	11347	1.3	I	66.15		180TC	1835	5171
							140TC-180TC	3372	6969		24	12506	1.1	I	72.90		180TC	2492	5171
							140TC-180TC	3372	6969		22	13604	1.1	I	81.00		180TC	2550	5171
							140TC-180TC	3372	6969		19	15657	1.0	I	93.18		180TC	2604	5171

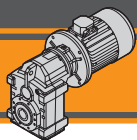


Datos técnicos

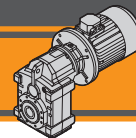
Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]	
5.0 hp										
3.7 kW (1750 rpm)	123	2443	7.3	III	14.21	ITS942		1609	5975	
	110	2726	7.8	III	15.91			1706	6331	
	101	2974	7.1	III	17.33			1783	6613	
	92	3284	6.7	III	19.13			1875	6953	
	75	4001	5.5	III	23.32			2068	6969	
	60	5045	4.7	III	29.42			2308	6969	
	56	5381	4.9	III	31.35			2376	6969	
	44	6797	3.9	III	39.60			2625	6969	
	41	7417	3.2	III	43.25			2719	6969	
	37	8222	2.9	III	47.95			2825	6969	
	33	9169	3.1	III	53.43			2948	6969	
	30	9984	2.8	III	58.22			3030	6969	
	27	11072	2.6	III	64.53			3121	6969	
	25	12081	2.2	III	70.40			3189	6969	
	23	13214	2.0	II	77.00			3248	6969	
	19	15799	1.8	II	94.05	ITS943		3324	6969	
	18	16790	1.7	II	99.94			3327	6969	
	16	18383	1.5	II	109.42			3310	6969	
	15	20330	1.4	II	121.00			3254	6969	
	13	22605	1.3	I	134.54			3372	6969	
	12	24809	1.1	I	147.69			3372	6969	
	10	28508	1.0	I	169.71			3372	6969	
	7.5 hp									
	5.5 kW (1750 rpm)	309	1443	3.1	III	5.66	ITS922		633	2271
		248	1797	2.5	III	7.06			706	2533
209		2133	2.1	III	8.37	765			2749	
192		2328	2.5	III	9.13	796			2864	
168		2664	2.2	III	10.43	844			3047	
145		3071	1.9	II	12.04	896			3248	
130		3443	1.9	II	13.50	936			3411	
113		3947	1.7	II	15.50	983			3611	
98		4540	1.8	II	17.81	1026			3811	
81		5541	1.4	II	21.73	1076			4088	
76		5841	1.4	II	22.92	1086			4158	
74		6072	1.3	I	23.80	1092			4159	
66		6789	1.2	I	26.63	1263			4159	
60		7461	1.1	I	29.26	1290			4159	
54		8196	1.1	I	32.14	1312			4159	
50		8975	1.0	I	35.19	1340	4159			
44		10046	0.9	I	39.38	1349	4159			
285		1567	4.8	III	6.13	ITS932		745	2929	
229		1947	3.9	III	7.65			836	3277	
194		2301	3.3	III	9.03			908	3559	
177		2522	3.2	III	9.90			950	3723	
155		2876	2.8	III	11.27			1011	3963	
134		3328	2.4	III	13.06			1082	4250	
120		3717	2.1	III	14.58			1137	4471	
104		4284	2.1	III	16.81			1207	4764	
91	4903	1.8	II	19.24	1273			5050		
74	6010	1.8	II	23.57	1366			5171		
71	6311	1.7	II	24.75	1387			5171		

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]
7.5 hp									
5.5 kW (1750 rpm)	68	6585	1.9	II	25.81	ITS932		1404	5171
	61	7364	1.7	II	28.88			1446	5171
	50	8851	1.6	II	34.71			1498	5171
	46	9692	1.5	II	38.01			1513	5171
	41	10842	1.3	I	42.53			1536	5171
	37	11913	1.2	I	46.73			1529	5171
	34	13081	1.1	I	51.30			1506	5171
	221	2018	6.6	III	7.93	ITS942		1159	4367
	183	2443	5.4	III	9.59			1284	4824
	164	2717	5.5	III	10.67			1358	5097
	148	3018	5.0	III	11.82			1432	5372
	136	3292	5.4	III	12.91			1499	5618
	123	3629	4.9	III	14.21			1574	5899
	110	4054	5.2	III	15.91			1665	6240
	101	4417	4.8	III	17.33			1736	6509
	92	4877	4.5	III	19.13			1820	6831
	75	5948	3.7	III	23.32			1993	6969
	60	7505	3.2	III	29.42			2199	6969
	56	7992	3.3	III	31.35			2255	6969
	44	10099	2.6	III	39.60			2450	6969
	41	11028	2.2	III	43.25			2517	6969
	37	12232	2.0	II	47.95			2588	6969
	33	13621	2.1	III	53.43			2673	6969
	30	14843	1.9	II	58.22			2715	6969
	27	16454	1.7	II	64.53			2750	6969
25	17949	1.5	II	70.40	2763	6969			
23	19640	1.4	II	77.00	2757	6969			
19	23481	1.2	I	94.05	ITS943		2650	6969	
18	24959	1.1	I	99.94			3327	6969	
16	27322	1.0	I	109.42			3310	6969	
15	30216	0.9	I	121.00			3254	6969	

**ITS****Motorreductores pendulares**
Helical parallel gearmotors**Nema 60 Hz****Datos técnicos****Technical data**

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb-in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]	P ₁ [hp]	n ₂ [rpm]	M ₂ [lb-in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]
10.0 hp										15.0 hp									
7.5 kW (1750 rpm)	309	1965	2.2	III	5.66	ITS922	210TC	615	2229	11.0 kW (1750 rpm)	285	3133	2.4	III	6.13	ITS932	250TC	702	2818
	248	2452	1.8	II	7.06		210TC	680	2475		229	3903	1.9	II	7.65		250TC	775	3121
	209	2912	1.5	II	8.37		210TC	731	2673		194	4611	1.6	II	9.03		250TC	829	3358
	192	3177	1.8	II	9.13		210TC	757	2778		177	5054	1.6	II	9.90		250TC	859	3490
	168	3629	1.6	II	10.43		210TC	796	2940		155	5744	1.4	II	11.27		250TC	899	3679
	145	4186	1.4	II	12.04		210TC	836	3115		134	6665	1.2	I	13.06		250TC	940	3893
	130	4691	1.4	II	13.50		210TC	864	3253		120	7435	1.1	I	14.58		250TC	1075	4317
	113	5390	1.2	I	15.50		210TC	893	3414		104	8568	1.0	I	16.81		250TC	1130	4572
	98	6196	1.3	I	17.81		210TC	914	3567		91	9815	0.9	I	19.24		250TC	1177	4813
	81	7559	1.1	I	21.73		210TC	1076	4088		74	12019	0.9	I	23.57		250TC	1235	5159
	76	7966	1.0	I	22.92		210TC	1086	4158							ITS942	250TC	1109	4253
	74	8275	1.0	I	23.80		210TC	1092	4159		221	4045	3.3	III	7.93		250TC	1216	4671
	66	9258	0.9	I	26.63		210TC	1263	4159		183	4894	2.7	III	9.59		250TC	1278	4916
						ITS932					164	5443	2.8	III	10.67		250TC	1338	5160
	285	2133	3.5	III	6.13		210TC	730	2888		148	6027	2.5	III	11.82		250TC	1390	5375
	229	2664	2.8	III	7.65		210TC	813	3220		136	6585	2.7	III	12.91		250TC	1447	5616
	194	3142	2.4	III	9.03		210TC	879	3486		123	7249	2.4	III	14.21		250TC	1513	5904
	177	3443	2.3	III	9.90		210TC	917	3638		110	8116	2.6	III	15.91		250TC	1562	6125
	155	3921	2.0	II	11.27		210TC	970	3860		101	8842	2.4	III	17.33		250TC	1617	6384
	134	4540	1.8	II	13.06		210TC	1031	4120		92	9754	2.3	III	19.13		250TC	1715	6901
	120	5071	1.6	II	14.58		210TC	1075	4317		75	11895	1.9	II	23.32		250TC	1798	6969
	104	5841	1.5	II	16.81		210TC	1130	4572		60	15011	1.6	II	29.42		250TC	1812	6969
	91	6691	1.3	I	19.24		210TC	1177	4813		56	15993	1.7	II	31.35		250TC	1809	6969
	74	8196	1.3	I	23.57		210TC	1235	5159		44	20197	1.3	I	39.60		250TC	2306	6969
	71	8603	1.2	I	24.75		210TC	1245	5171		33	27251	1.0	I	53.43				
	68	8975	1.4	II	25.81		210TC	1252	5171							ITS942	250TC	671	2737
	61	10046	1.2	I	28.88		210TC	1265	5171								250TC	730	3007
	50	12072	1.2	I	34.71		210TC	1255	5171		285	4266	1.8	II	6.13		250TC	772	3211
	46	13214	1.1	I	38.01		210TC	1513	5171		229	5319	1.4	II	7.65		250TC	859	3490
	41	14790	1.0	I	42.53		210TC	1536	5171		194	6284	1.2	I	9.03		250TC	899	3679
	37	16250	0.9	I	46.73		210TC	1529	5171		177	6886	1.2	I	9.90		250TC	940	3893
						ITS942					155	7842	1.0	I	11.27		250TC		
	221	2753	4.8	III	7.93		210TC	1141	4326		134	9081	0.9	I	13.06		250TC		
	183	3337	4.0	III	9.59		210TC	1259	4768							ITS942	250TC	1073	4170
	164	3708	4.1	III	10.67		210TC	1329	5031		221	5514	2.4	III	7.93		250TC	1167	4559
	148	4107	3.7	III	11.82		210TC	1398	5295		183	6673	2.0	II	9.59		250TC	1219	4784
	136	4487	3.9	III	12.91		210TC	1459	5530		164	7417	2.0	II	10.67		250TC	1269	5006
	123	4939	3.6	III	14.21		210TC	1528	5796		148	8222	1.8	II	11.82		250TC	1311	5198
	110	5532	3.8	III	15.91		210TC	1610	6118		136	8975	2.0	II	12.91		250TC	1355	5411
	101	6027	3.5	III	17.33		210TC	1673	6369		123	9886	1.8	II	14.21		250TC	1403	5659
	92	6656	3.3	III	19.13		210TC	1746	6669		110	11063	1.9	II	15.91		250TC	1436	5846
	75	8107	2.7	III	23.32		210TC	1892	6969		101	12055	1.8	II	17.33		250TC	1470	6059
	60	10231	2.3	III	29.42		210TC	2053	6969		92	13303	1.7	II	19.13		250TC	1514	6459
	56	10904	2.4	III	31.35		210TC	2093	6969		75	16223	1.4	II	23.32		250TC	1798	6969
	44	13772	1.9	II	39.60		210TC	2217	6969		60	20463	1.2	I	29.42		250TC	1812	6969
	41	15046	1.6	II	43.25		210TC	2249	6969		56	21808	1.2	I	31.35		250TC	1809	6969
	37	16675	1.4	II	47.95		210TC	2272	6969		44	27544	1.0	I	39.60				
	33	18578	1.5	II	53.43		210TC	2306	6969										
	30	20242	1.4	II	58.22	ITS943	210TC	2294	6969										
	27	22446	1.3	I	64.53		210TC	2255	6969										
	19	32022	0.9	I	94.05		210TC	2650	6969										



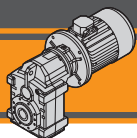
Datos técnicos

Technical data

P ₁ [hp]	n ₂ [rpm]	M ₂ [lb·in]	sf	AGMA	i			R ₂ U [lb]	R ₂ P [lb]
25.0 hp									
18.5 kW (1750 rpm)	221	6797	2,0	II	7,93	ITS942	280TC	1041	4098
	183	8222	1,6	II	9,59		280TC	1123	4462
	164	9152	1,6	II	10,67		280TC	1168	4669
	148	10143	1,5	II	11,82		280TC	1209	4871
	136	11072	1,6	II	12,91		280TC	1242	5044
	123	12196	1,5	II	14,21		280TC	1275	5232
	110	13648	1,6	II	15,91		280TC	1307	5446
	101	14860	1,4	II	17,33		280TC	1326	5602
	92	16409	1,3	I	19,13		280TC	1341	5774
	75	20003	1,1	I	23,32		280TC	1514	6459
	60	25242	0,9	I	29,42		280TC	1798	6969
	56	26889	1,0	I	31,35		280TC	1812	6969

30.0 hp

22.3 kW (1750 rpm)	221	8196	1,6	II	7,93	ITS942	280TC	1009	4025
	183	9913	1,3	I	9,59		280TC	1080	4364
	164	11028	1,4	II	10,67		280TC	1117	4554
	148	12223	1,2	I	11,82		280TC	1149	4736
	136	13347	1,3	I	12,91		280TC	1173	4889
	123	14701	1,2	I	14,21		280TC	1194	5052
	110	16445	1,3	I	15,91		280TC	1211	5232
	101	17914	1,2	I	17,33		280TC	1326	5602
	92	19781	1,1	I	19,13		280TC	1341	5774
	75	24109	0,9	I	23,32		280TC	1514	6459



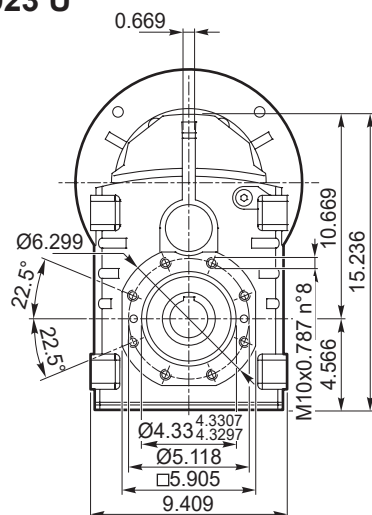
Dimensiones

Dimensions

ITS 922 - ITS 923

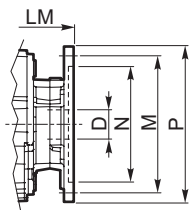
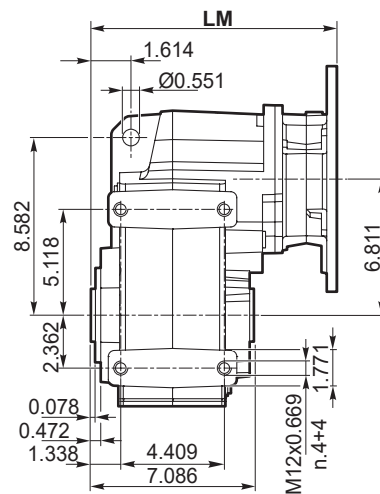
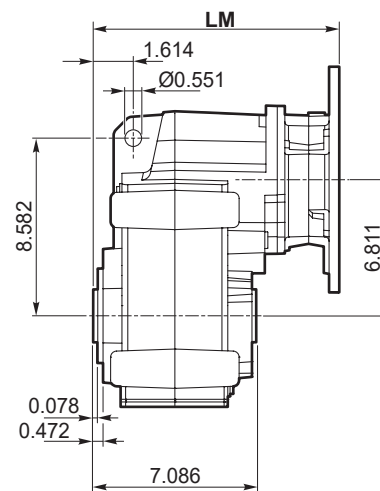
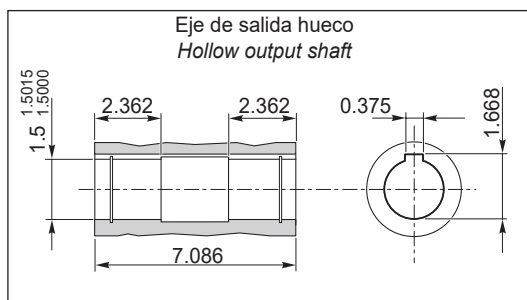
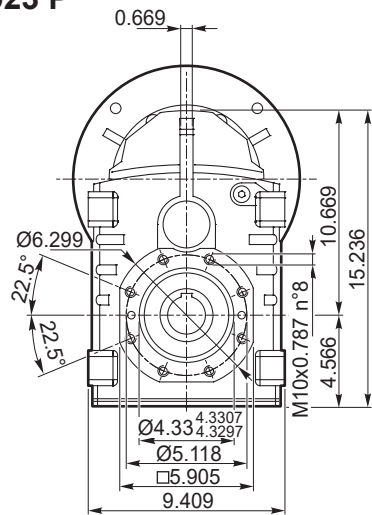
ITS 922 U

ITS 923 U



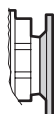
ITS 922 P

ITS 923 P

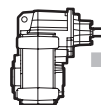


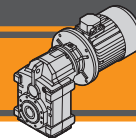
Dimensiones NEMA/ NEMA Dimensions				
	56C	140TC	180TC	210TC
LM	11.87		12.893	
N	4.5		8.5	
M	5.88		7.25	
P	6.5		9	
D	0.625	0.875	1.125	1.375

Bridas Motor
NEMA C-FACE



ITSIS..





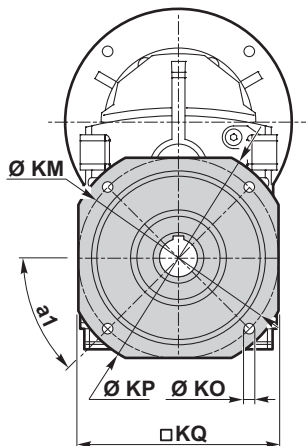
Dimensiones

Dimensions

ITS 922 - ITS 923

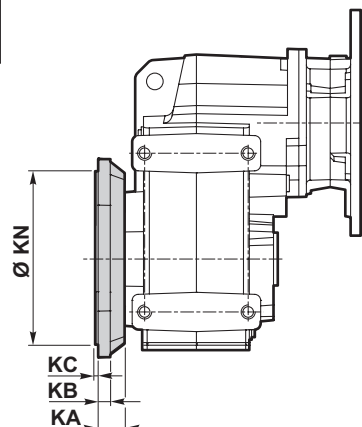
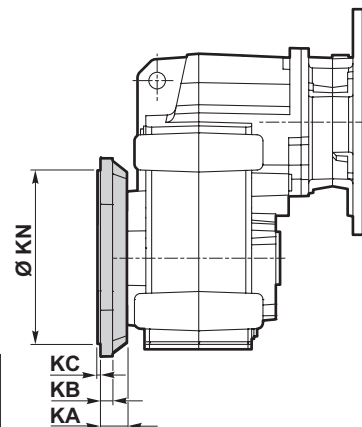
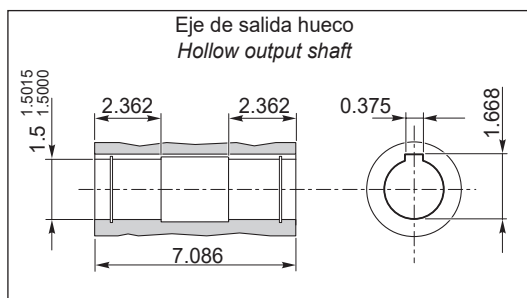
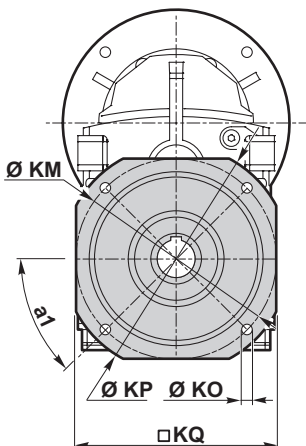
ITS 922 U/F...

ITS 923 U/F...



ITS 922 P/F...

ITS 923 P/F...

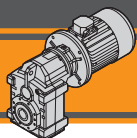


ITS

Versión F / F Version											
ITS	KA	a ₁	KB	KC	Ø KM	KN	KO	□KP	KQ	Brida / Flange	
										Tipo / Type	Peso / Weight [lb]
922 923	1.377	45°	0.512	0.157	6.496	5.118 ^{5.1164} _{5.1148}	0.433	7.874	6.772	F200	5.7
	1.377	45°	0.512	0.157	8.465	7.086 ^{7.0849} _{7.0833}	0.551	9.843	8.465	F250	8.3
	1.377	45°	0.512	0.157	10.433	9.055 ^{9.0534} _{9.0519}	0.551	11.811	10.433	F300	12.3
Peso / Weight [lb]											
ITS			56C		140TC		180TC		210TC		
ITS922 U			84.37		84.37		91.95		91.95		
ITS922 G			83.27		83.27		90.85		90.85		
ITS923 U			86.58		86.58		94.16		94.16		
ITS923 G			85.47		85.47		93.06		93.06		

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)

Note: weight of the gearbox filled with oil for M1 (B3) assembly position



ITS

Motorreductores pendulares
Helical parallel gearmotors

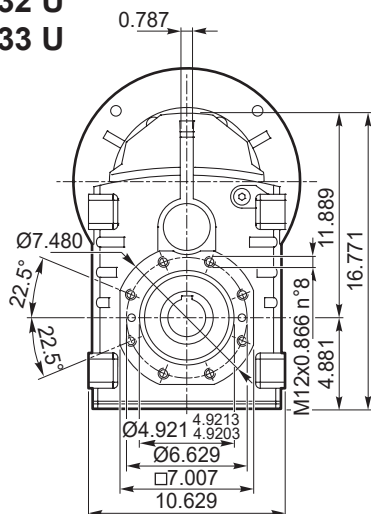
Nema 60 Hz

Dimensiones

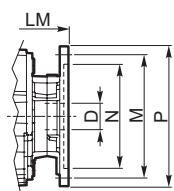
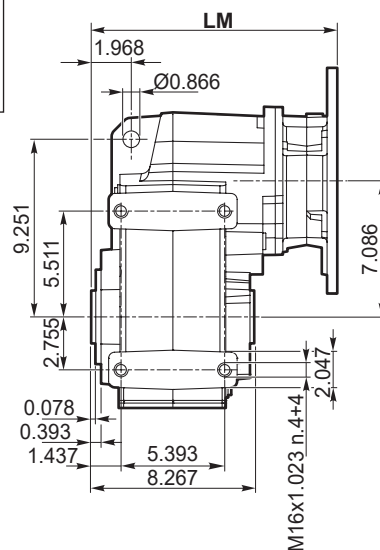
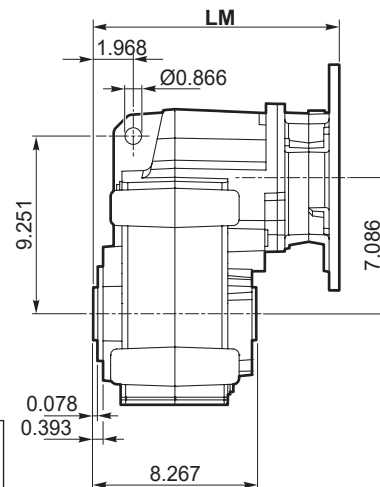
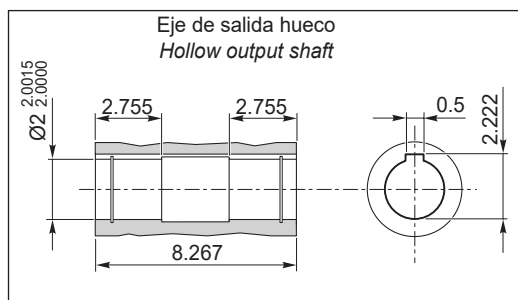
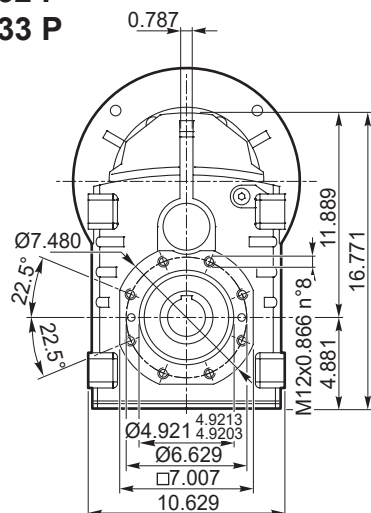
Dimensions

ITS 932 - ITS 933

ITS 932 U
ITS 933 U

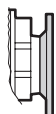


ITS 932 P
ITS 933 P



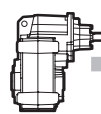
Dimensiones NEMA/ NEMA Dimensions					
	56C	140TC	180TC	210TC	250TC
LM	12.46		13.484		15.433
N	4.5		8.5		
M	5.875		7.25		
P	6.5		9		10
D	0.625	0.875	1.125	1.375	1.625

Bridas Motor
NEMA C-FACE

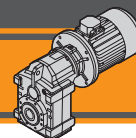


D9

ITSIS..



D26



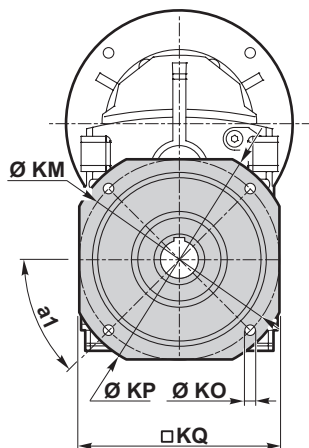
Dimensiones

Dimensions

ITS 932 - ITS 933

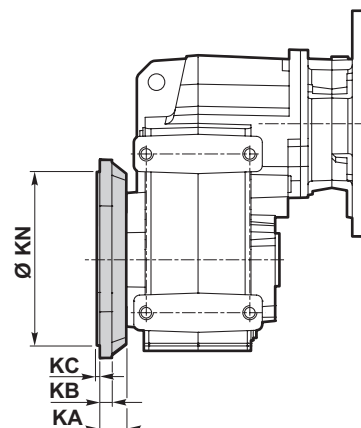
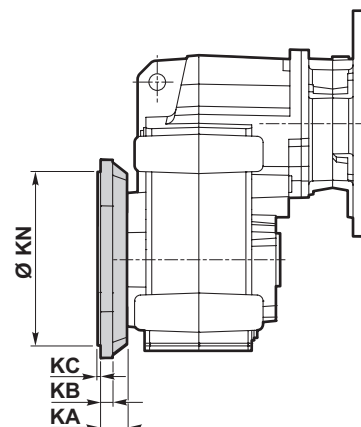
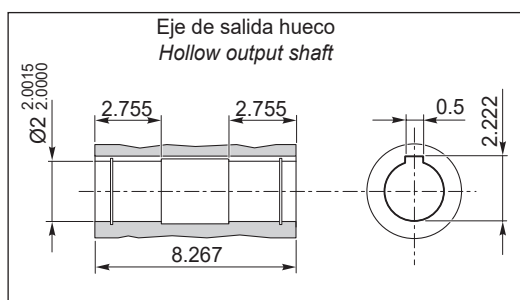
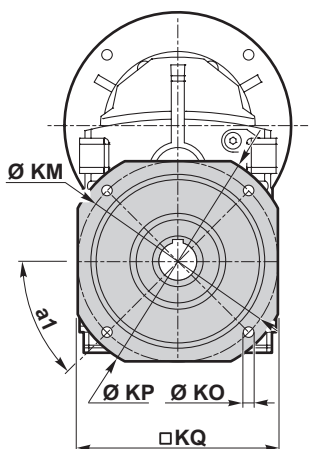
ITS 932 U/F...

ITS 933 U/F...



ITS 932 P/F...

ITS 933 P/F...



ITS

Versión F / F Version

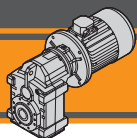
ITS	KA	a ₁	KB	KC	Ø KM	KN	KO	□ KP	KQ	Brida / Flange	
										Tipo / Type	Peso / Weight [lb]
932 933	1.574	45°	0.630	0.157	8.465	7.086 ^{7.0849} / _{7.0833}	0.551	9.843	8.465	F250	8.3
	1.574	45°	0.630	0.157	10.433	9.055 ^{9.0534} / _{9.0519}	0.551	11.811	10.236	F300	12.3
	1.574	45°	0.630	0.157	11.811	9.842 ^{9.8408} / _{9.8393}	0.709	13.780	11.811	F350	20.0

Peso / Weight [lb]

ITS	56C	140TC	180TC	210TC	250TC
ITS932 U	113.03	113.03	120.61	120.61	133.75
ITS932 G	113.03	113.03	120.61	120.61	133.75
ITS933 U	113.03	113.03	120.61	120.61	133.75
ITS933 G	113.03	113.03	120.61	120.61	133.75

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)

Note: weight of the gearbox filled with oil for M1 (B3) assembly position



ITS

Motorreductores pendulares
Helical parallel gearmotors

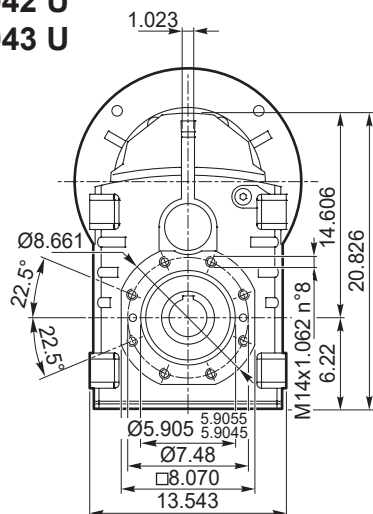
Nema 60 Hz

Dimensiones

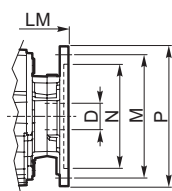
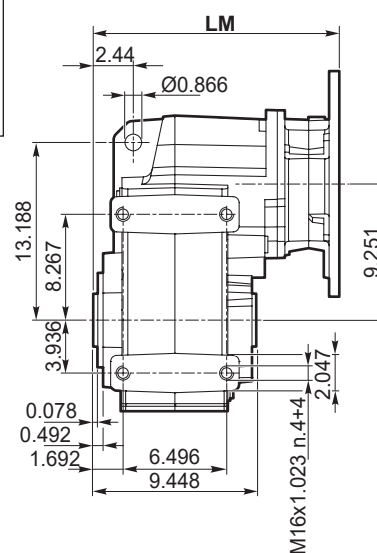
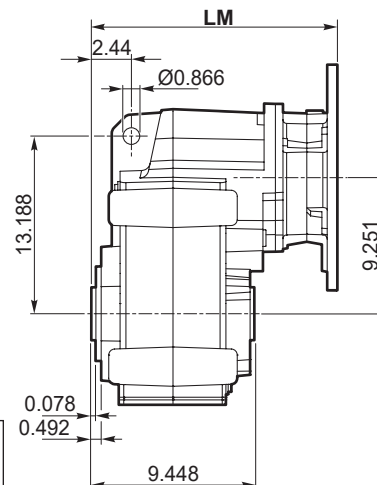
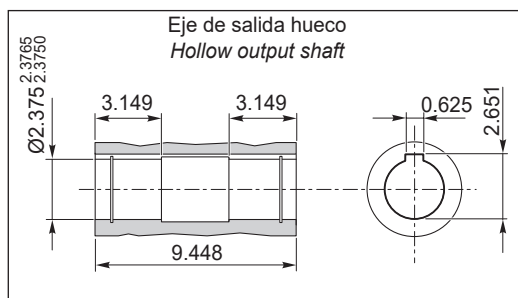
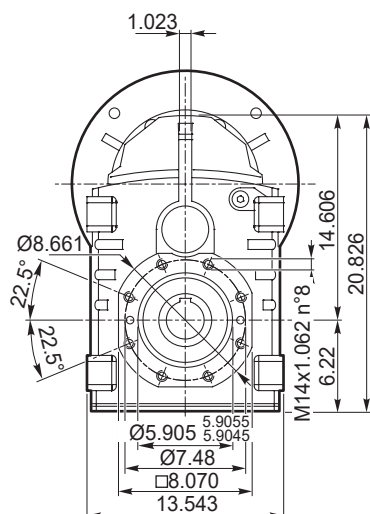
Dimensions

ITS 942 - ITS 943

ITS 942 U
ITS 943 U



ITS 942 P
ITS 943 P



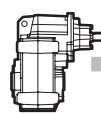
Dimensiones NEMA/ NEMA Dimensions						
	56C	140TC	180TC	210TC	250TC	280TC
LM	13.562		14.586		16.535	16.929
N	4.5		8.5		10.5	
M	5.875		7.25		9	
P	6.5		9		10	11.252
D	0.625	0.875	1.125	1.375	1.625	1.875

Bridas Motor
NEMA C-FACE

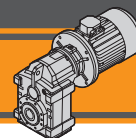


D10

ITSIS..



D26



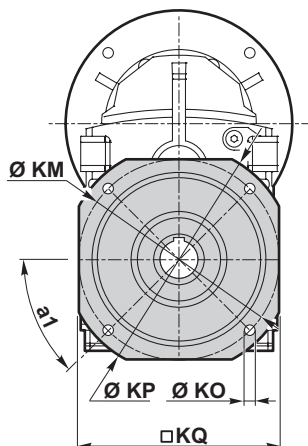
Dimensiones

Dimensions

ITS 942 - ITS 943

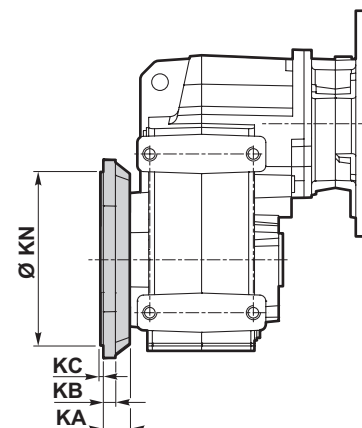
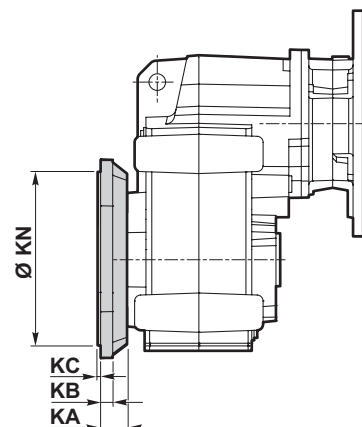
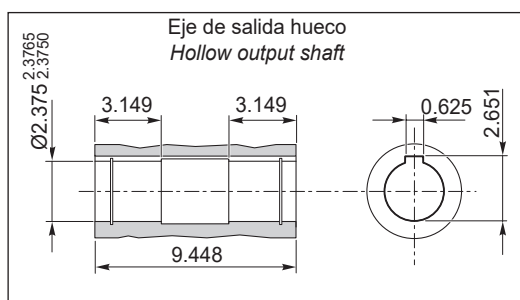
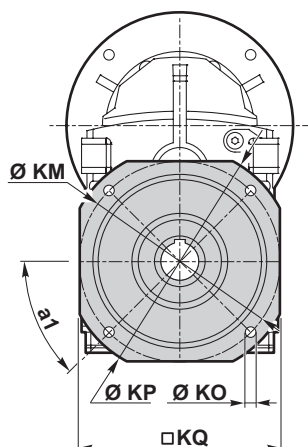
ITS 942 U/F...

ITS 943 U/F...



ITS 942 P/F...

ITS 943 P/F...



ITS

Versión F / F Version

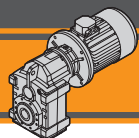
ITS	KA	a ₁	KB	KC	Ø KM	KN	KO	□KP	KQ	Brida / Flange	
										Tipo / Type	Peso / Weight [lb]
942 943	1.673	45°	0.709	0.157	10.433	9.055 ^{9.0534} _{9.0519}	0.551	11.811	10.433	F300	16.3
	1.673	45°	0.709	0.157	11.811	9.842 ^{9.8408} _{9.8393}	0.709	13.780	11.811	F350	22.4
	1.673	45°	0.709	0.157	15.748	13.779 ^{13.7778} _{13.7763}	0.709	17.717	15.748	F400	37.2

Peso / Weight [lb]

ITS	56C	140TC	180TC	210TC	250TC	280TC
ITS942 U	199.01	199.01	206.59	206.59	219.73	222.51
ITS942 G	196.81	196.81	204.39	204.39	217.53	220.31
ITS943 U	205.62	205.62	213.21	213.21	226.35	229.13
ITS943 G	203.42	203.42	211.00	211.00	221.14	226.92

Nota: Peso del reductor llenado con aceite para la posición de montaje M1 (B3)

Note: weight of the gearbox filled with oil for M1 (B3) assembly position



ITS

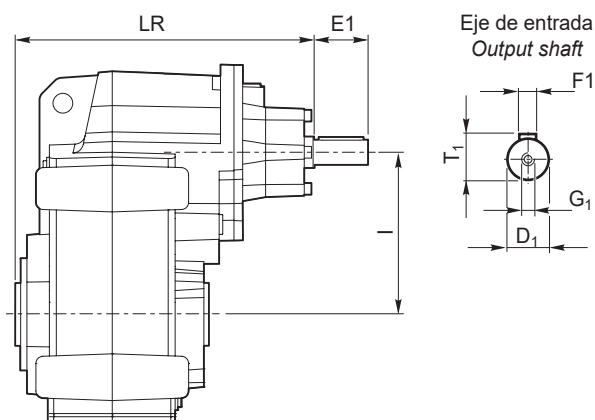
Motorreductores pendulares
Helical parallel gearmotors

Nema 60 Hz

Dimensiones

Dimensions

ITSIS...



ITHIS	Versione Version	LR	D1	E1	I	T1	F1	G1
922	U P U/F... P/F...	12.401	0.875 ^{0.8742} / _{0.8734}	1.969	1.26	0.958	0.188	1/4-20 UNC
923		12.401	0.875 ^{0.8742} / _{0.8734}	1.969	1.26	0.958	0.188	1/4-20 UNC
932		12.992	0.875 ^{0.8742} / _{0.8734}	1.969	1.26	0.958	0.188	1/4-20 UNC
933		12.992	0.875 ^{0.8742} / _{0.8734}	1.969	1.26	0.958	0.188	1/4-20 UNC
942		14.783	1.625 ^{1.6254} / _{1.6248}	3.15	1.476	1.791	0.375	5/8-11 UNC
943		14.783	1.625 ^{1.6254} / _{1.6248}	3.15	1.476	1.791	0.375	5/8-11 UNC

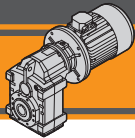
ITHIS	Peso / Weight [lb]
922 U	98.54
922 P	97.44
923 U	100.75
923 P	99.64
932 U	127.2
932 P	126.1
933 U	131.61
933 P	130.51
942 U	225.09
942 P	222.88
943 U	219.8
943 P	217.59

Nota: ITSIS943 relación 295,48 – 323,40 – 356,40 pedido bajo demanda.

Favor de contactar al servicio técnico TRANSTECNO.

Note: ITSIS943 ratios 295,48 – 323,40 – 356,40 available upon request.

Please contact TRANSTECNO technical service.

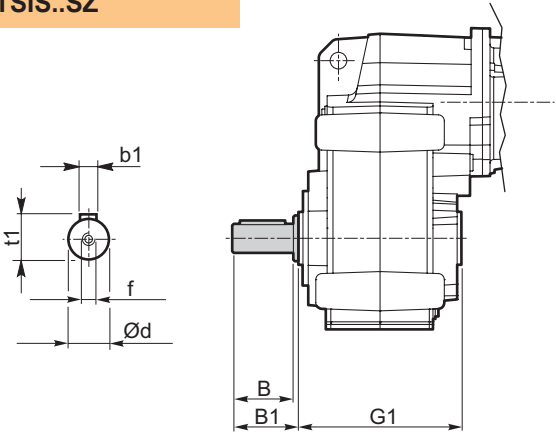


Accesorios

Accessories

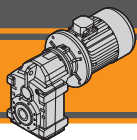
Eje de salida / *Output shaft*

ITS...SZ
ITSIS..SZ



ITS	d	B	B1	G1	f	b1	t1	Peso / Weight [lb]
922 923	1.5 1.5000 1.4988	2.992	3.149	7.086	5/8 - 11 UNC	0.375	1.664	4.85
932 933	2 2.0000 1.9988	3.937	4.133	8.267	5/8 - 11 UNC	0.5	2.218	9.47
942 943	2.375 2.3750 2.3738	4.724	4.921	9.448	3/4 - 10 UNC	0.625	2.645	15.65

ITS

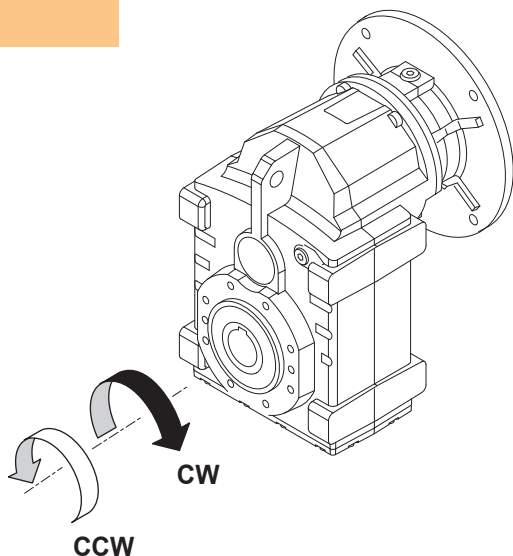


Accesorios

Accessories

Dispositivo anti-retorno / Backstop device

ITS...CW
ITS...CCW

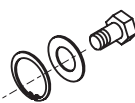
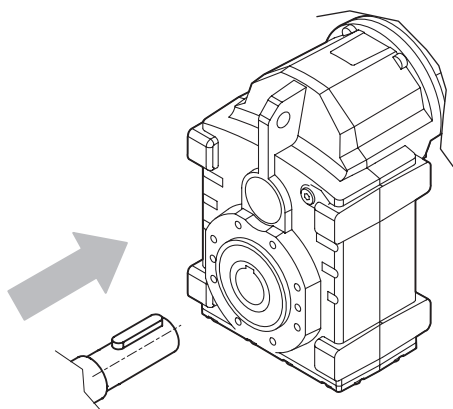


El dispositivo anti-retorno permite que la flecha de salida gire en un solo sentido.

Antes de utilizarlo, especifique la rotación deseada como se muestra en la figura

*The backstop device allows the output shaft to rotate in just one direction.
Before using it, please specify output shaft rotation direction as shown in the figure.*

Kit de montaje para eje solido / Output shaft assembly kit

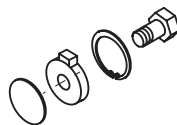
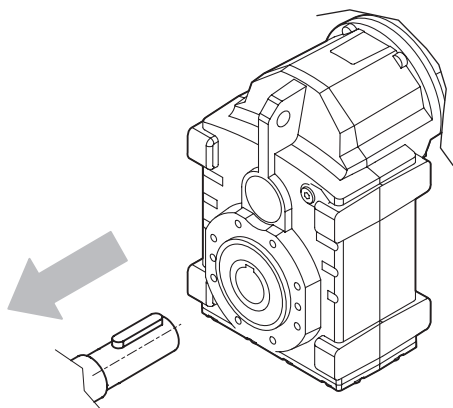


Kit de montaje para eje sólido disponible a solicitud.

Referirse con nuestro departamento técnico para conocer las instrucciones de montaje.

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

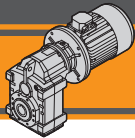
Kit de montaje para eje solido / Output shaft disassembly kit



Kit de desmontaje para eje sólido disponible a solicitud.

Referirse con nuestro departamento técnico para conocer las instrucciones de montaje.

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



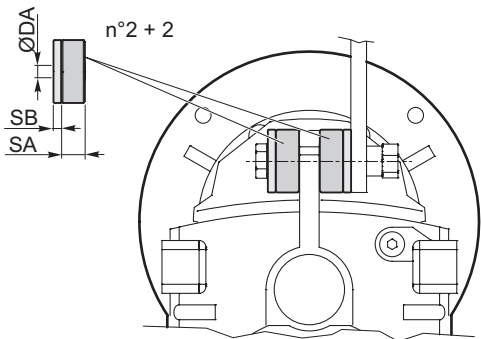
Accesorios

Accessories

Kit Brazo de reacción / Torque arm kit

Kit brazo de reacción disponible a solicitud, referirse con nuestro departamento técnico para conocer las instrucciones de montaje.

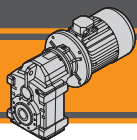
*Torque arm kit available upon request:
for assembly instructions please contact our Technical Assistance*



Brazo de reacción / Torque arm

ITS	ØDA	SA	SB
922 923	0.511	0.59	0.196
932 933	0.826	1.181	0.393
942 943	0.826	1.181	0.393

ITS



ITS Motorreductores pendulares
Helical parallel gearmotors

Nema 60 Hz



Apéndice
Appendix

60Hz

Nema

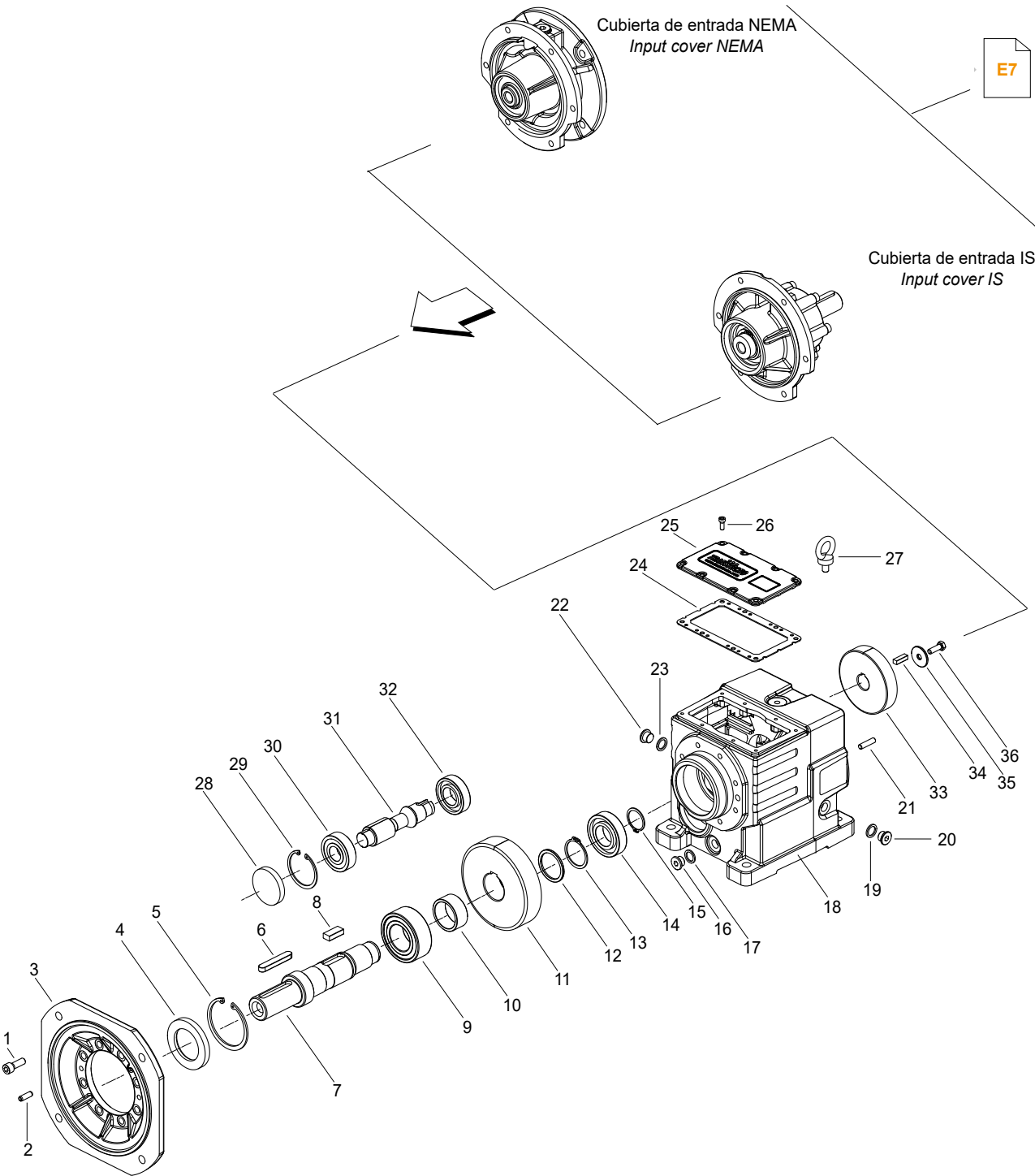


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Listado de refacciones	<i>Spare parts list</i>	
ITH..2	<i>ITH..2</i>	E2
ITH..3	<i>ITH..3</i>	E3
ITB..	<i>ITB..</i>	E4
ITS..2	<i>ITS..2</i>	E5
ITS..3	<i>ITS..3</i>	E6
Cubierta de entrada	<i>Input cover</i>	E7

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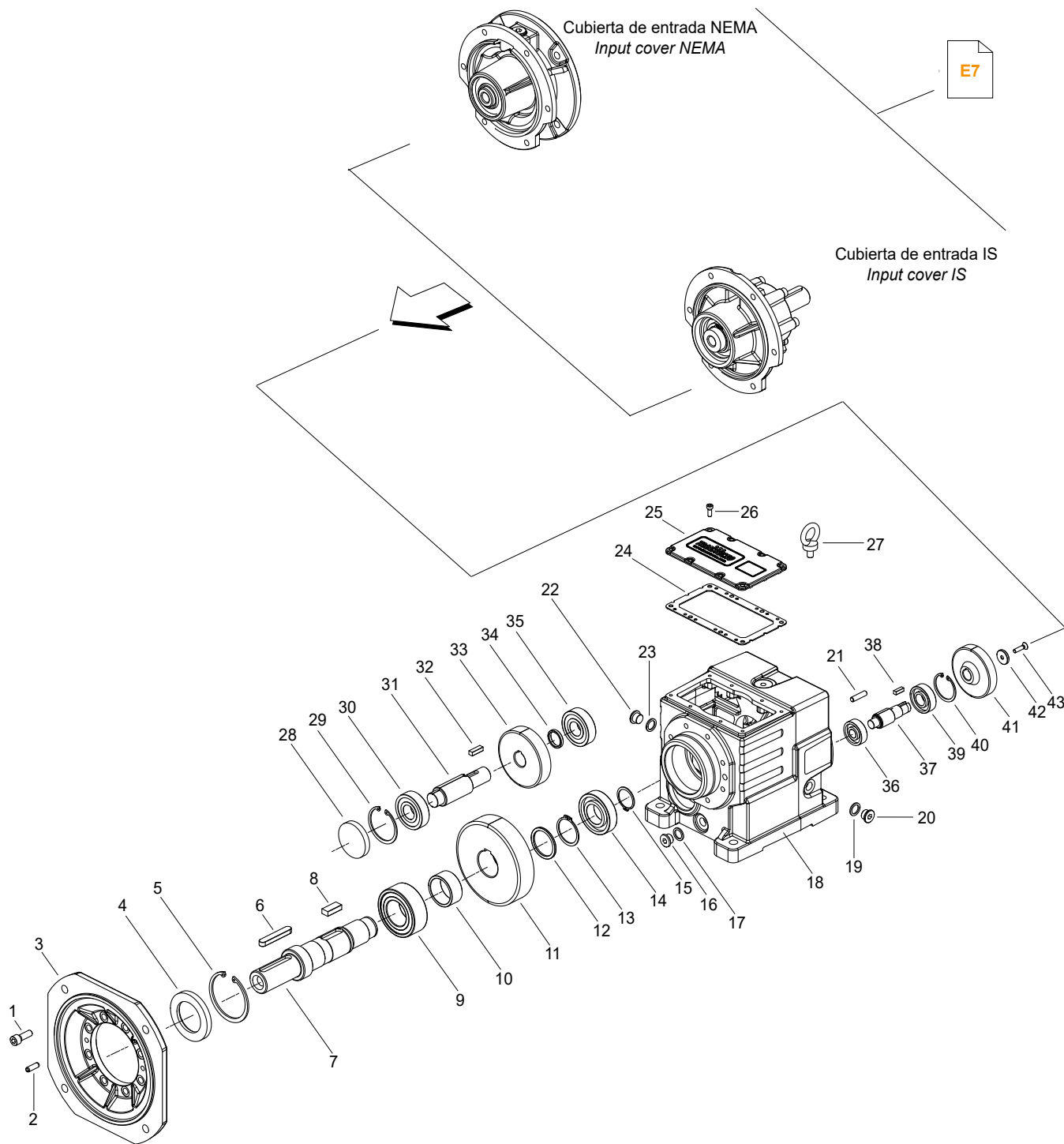
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ITH..2



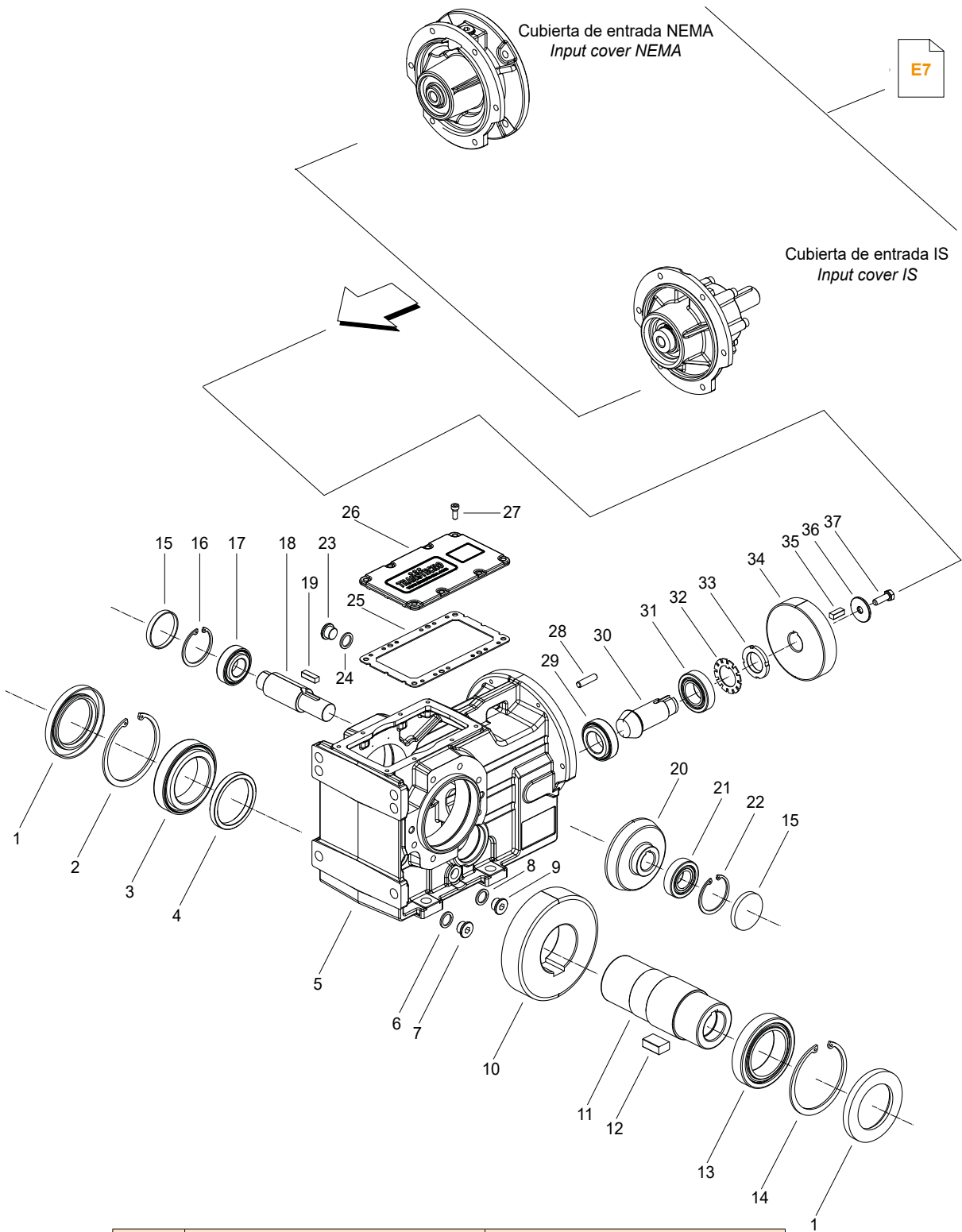
ITH	Sellos de aceite / Oil seals	RCA
	4	28
112	45/80/10	52x10
122	55/85/10	62x10
132	65/100/10	72x10
142	75/120/10	80x10

ITH..3



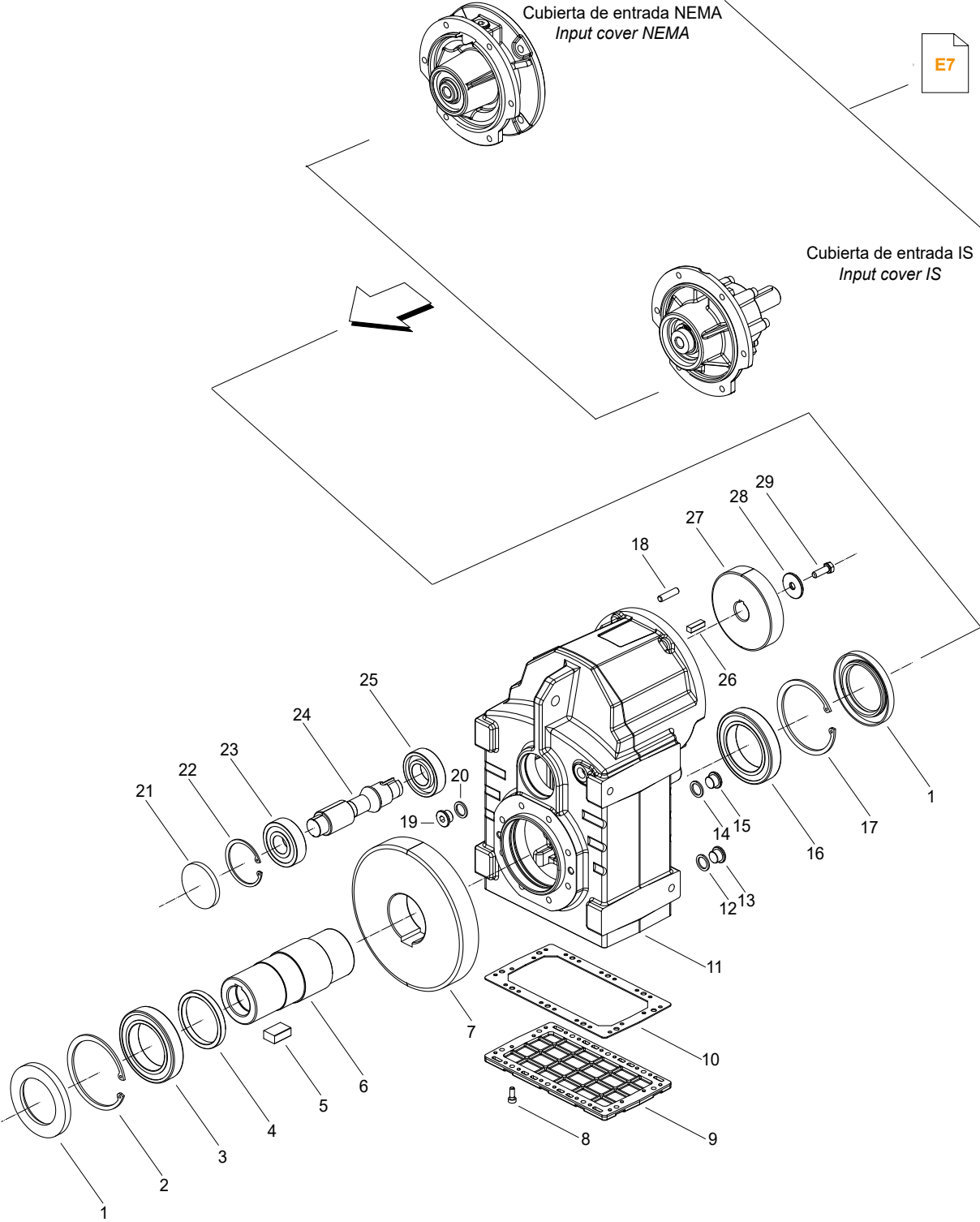
ITH	Sellos de aceite / Oil seals	RCA
	4	28
113	45/80/10	52x10
123	55/85/10	62x10
133	65/100/10	72x10
143	75/120/10	80x10

ITB



ITB	Sellos de aceite / Oil seals	RCA
	1	15
423	65/100/10	52x7
433	70/110/12	72x10
443	85/130/10	80x10

ITS..2

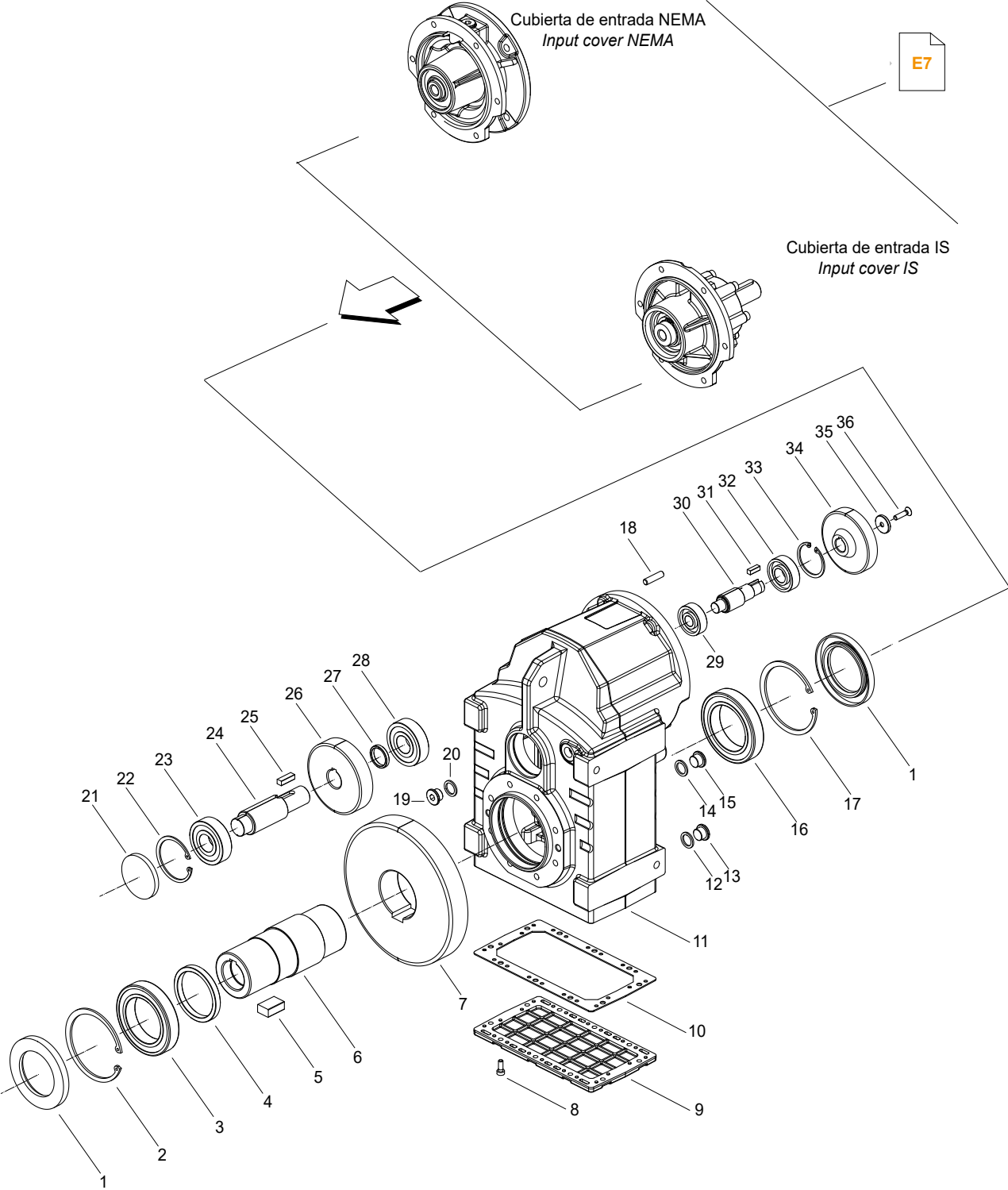


ITS	Sellos de aceite / Oil seals	RCA
	1	21
922	65/100/10	62x7
932	70/110/12	62x7
942	85/130/10	72x10

Listado de refacciones

Spare parts list

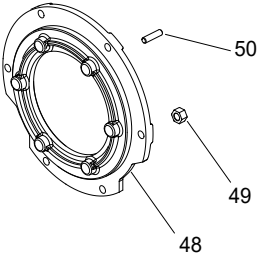
ITS..3



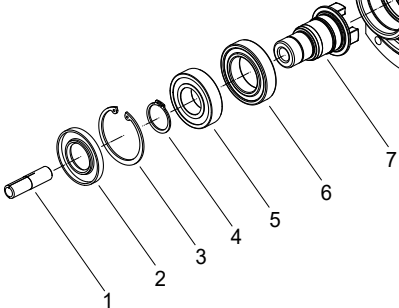
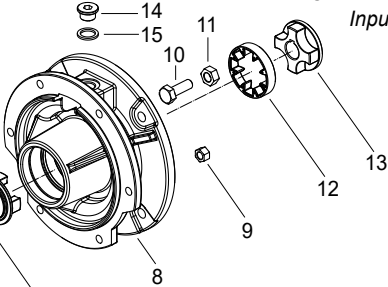
ITS	Sellos de aceite / Oil seals	RCA
	1	21
923	65/100/10	62x10
933	70/110/12	62x10
943	85/130/10	72x10

CUBIERTA DE ENTRADA - INPUT COVER

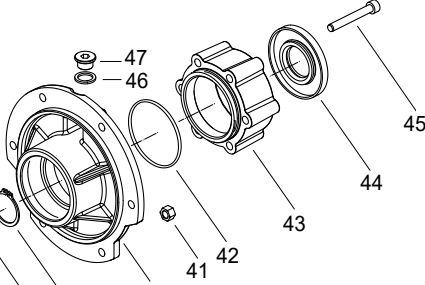
Adaptador de entrada...
Input adapter...



Cubierta de entrada NEMA
Input cover NEMA



Cubierta de entrada IS
Input cover IS



ITH..
ITB..
ITS..

NEMA	Sellos de aceite / Oil seals
	2
56	30/62/7
140TC	30/62/7
180TC	40/80/10
210TC	40/80/10
250TC	50/110/12
280TC	50/110/12

IS	Sellos de aceite / Oil seals
	44
0.875	35/80/8
1.625	45/100/10

Note/Notes



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