

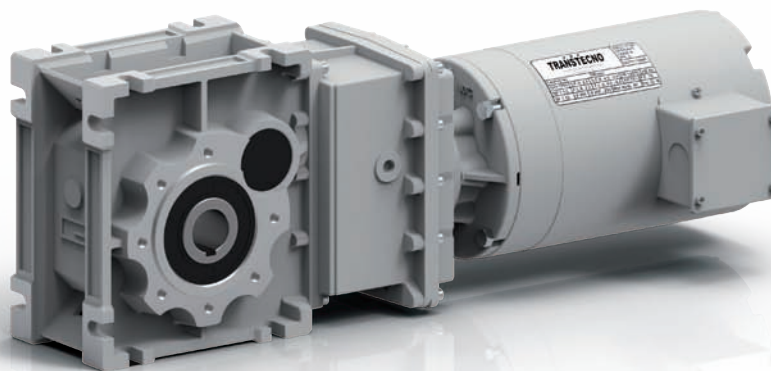
# CMB

CMB



NEMA DIMENSIONS

## Коническо-цилиндрические мотор-редукторы Руководство по эксплуатации

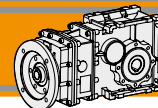


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Владивосток (423)249-28-31  
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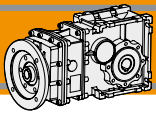
Нижний Новгород (831)429-08-12  
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Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
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### Características técnicas

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

Características comunes a toda la serie:

- Carcasa en aluminio en los tamaños.
- Engranajes siempre rectificadas.
- Lubricación permanente con aceite sintético de larga vida..

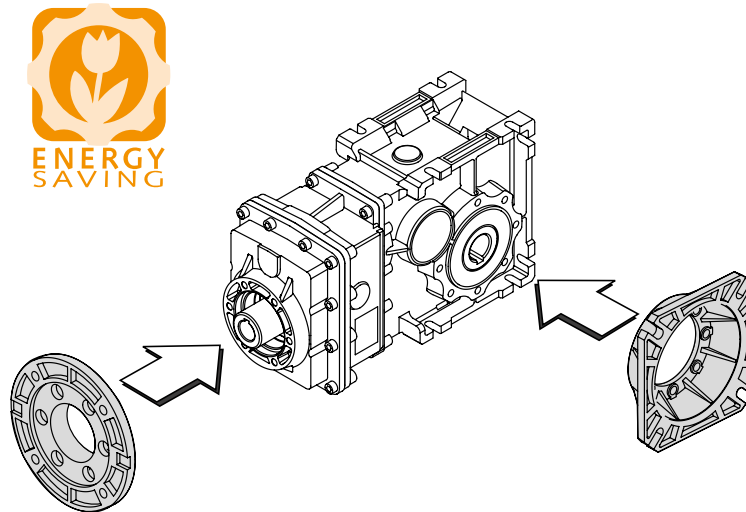
### Technical features

The high degree of modularity of CMB helical bevel gearbox allows it to be completely interchangeable with CM wormgearboxes.

With this feature, output flanges, output shafts and torque arms can be interchanged as required.

Common features of all CMB range are:

- Die-cast aluminum housing.
- Ground helical gears.
- Permanently filled with synthetic oil for long life lubrication.

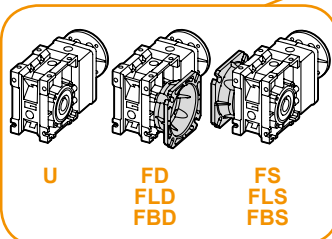


### Clasificación

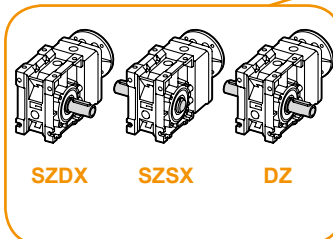
### Classification

REDUCTOR / GEARBOX								
CMB	63	3	U	9.81	56C	SZDX	BRSX	90°
Tipo Type	Tamaño Size	Etapas Stages	Versión Version	Relación de reducción Ratio		Eje de salida Output shaft	Brazo de reacción Torque arm	Ángulo Angle
<b>CMB</b> 	<b>40</b> <b>50</b> <b>63</b> <b>90</b>	<b>2</b> <b>3</b>	<b>U</b> <b>FD</b> <b>FS</b> <b>FBD</b> <b>FLD</b> <b>FLS</b>	véase tablas see tables	<b>56C</b> <b>140TC</b> <b>180TC</b> <b>210TC</b>	<b>SZDX</b> <b>SZSX</b> <b>DZ</b>	<b>BRSX</b> <b>BRDX</b>	<b>0°</b> <b>90°</b> <b>180°</b> <b>270°</b>

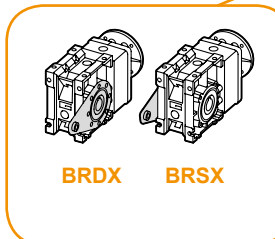
Relación de reducción  
Gearbox Version



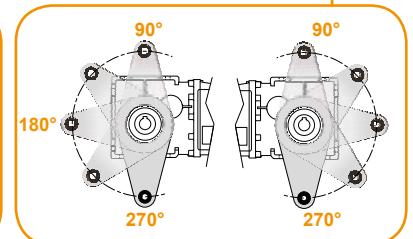
Eje de salida  
Output shaft



Brazo de reacción  
Torque arm



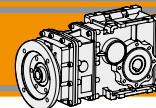
Posición del Brazo  
Torque arm position



F....D = Lado derecho / Right side  
FL = Brida larga / Long flange  
F....S = Lado izquierdo / Left side  
FB = Brida corta / Short flange

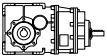
SZDX = Flecha sencilla lado derecho  
Single shaft right side  
DZ = Flecha doble / Double shaft  
SZSX = Flecha sencilla lado izquierdo  
Single shaft left side

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

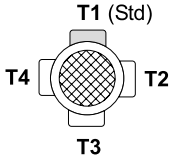


**Clasificación**

**Classification**

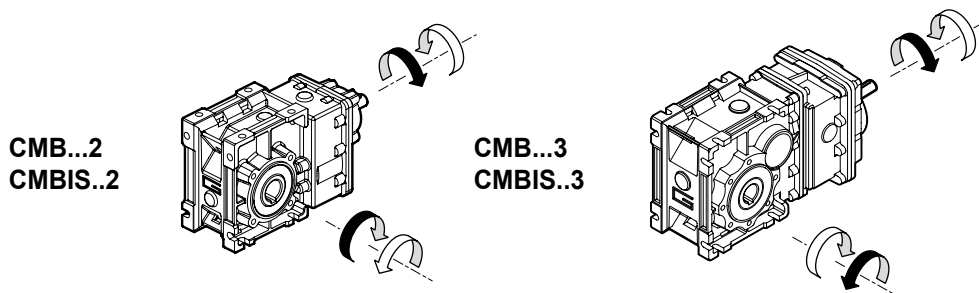
REDUCTOR / GEARBOX							
CMB	63	3	U	9.81	SZDX	BRSX	90°
Tipo Type	Tamaño Size	Etapas Stages	Versión Version	Relación de reducción Ratio	Eje de salida Output shaft	Brazo de reacción Torque arm	Ángulo Angle
<b>CMBIS</b> 	<b>40</b> <b>50</b> <b>63</b> <b>90</b>	<b>2</b> <b>3</b>	<b>U</b> <b>FD</b> <b>FS</b> <b>FBD</b> <b>FBS</b> <b>FLD</b> <b>FLS</b>	véase tablas see tables	<b>SZDX</b> <b>SZSX</b> <b>DZ</b>	<b>BRSX</b> <b>BRDX</b>	<b>0°</b> <b>90°</b> <b>180°</b> <b>270°</b>

**CMB**

MOTOR / MOTOR						
1 hp / 0.75 kW	4p	3ph	220/440V	60Hz	T1	
Potencia Power	Polos Poles	Fases Phases	Tensión Voltage	Frecuencia Frequency	Posición caja de bornes Terminal box pos.	
véase tablas see tables	<b>2p</b> <b>4p</b> <b>6p</b> <b>8p</b>	<b>1ph</b> <b>3ph</b>	<b>230V</b> <b>230/400V</b>  <b>220/440V</b>	<b>50Hz</b> <b>60Hz</b>		

**Sentido de rotación**

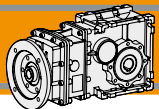
**Direction of rotation**



**Nomenclatura**

**Legend**

$n_1$	[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>
$P_1$	[kW]	Potencia en la entrada / <i>Input power</i>
$M_2$	[Nm]	Par en la salida en función de $P_1$ / <i>Output torque referred to <math>P_1</math></i>
$P_{n1}$	[kW]	Potencia nominal en la entrada / <i>Nominal input power</i>
$M_{n2}$	[Nm]	Par nominal en la salida en función de $P_{n1}$ / <i>Nominal output torque referred to <math>P_{n1}</math></i>
$sf$		Rendimiento dinámico / <i>Service factor</i>
$R_2$	[N]	Carga radial admisible en la salida / <i>Maximum output radial load</i>
$A_2$	[N]	Carga axial admisible en la salida / <i>Maximum output axial load</i>



**Lubricación**

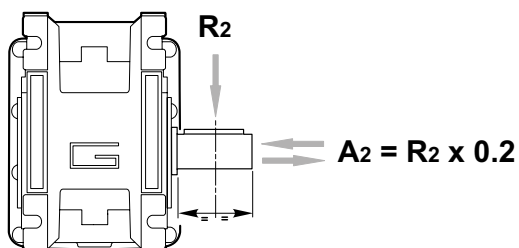
Todos los engranajes en los tamaños 402, 502, 633 y 903 se suministran con lubricante sintético, viscosidad 320, por lo que se pueden instalar en cualquier posición de montaje y no requieren mantenimiento.

**Lubrication**

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

**Cargas radiales**

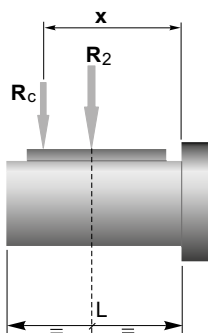
**Radial loads**



n <sub>2</sub> [rpm]	R <sub>2</sub> [lb]			
	CMB 402	CMB 502	CMB 633	CMB 903
400	204	251	413	603
300	224	276	454	664
200	256	316	520	760
170	271	334	549	802
140	318	392	585	856
100	356	438	655	1053
90	368	454	747	1091
60	460	560	855	1249
40	567	681	1010	1487
30	625	749	1160	1695
20	715	858	1328	1940
15	787	944	1461	2136
10	787	944	1461	2136

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

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

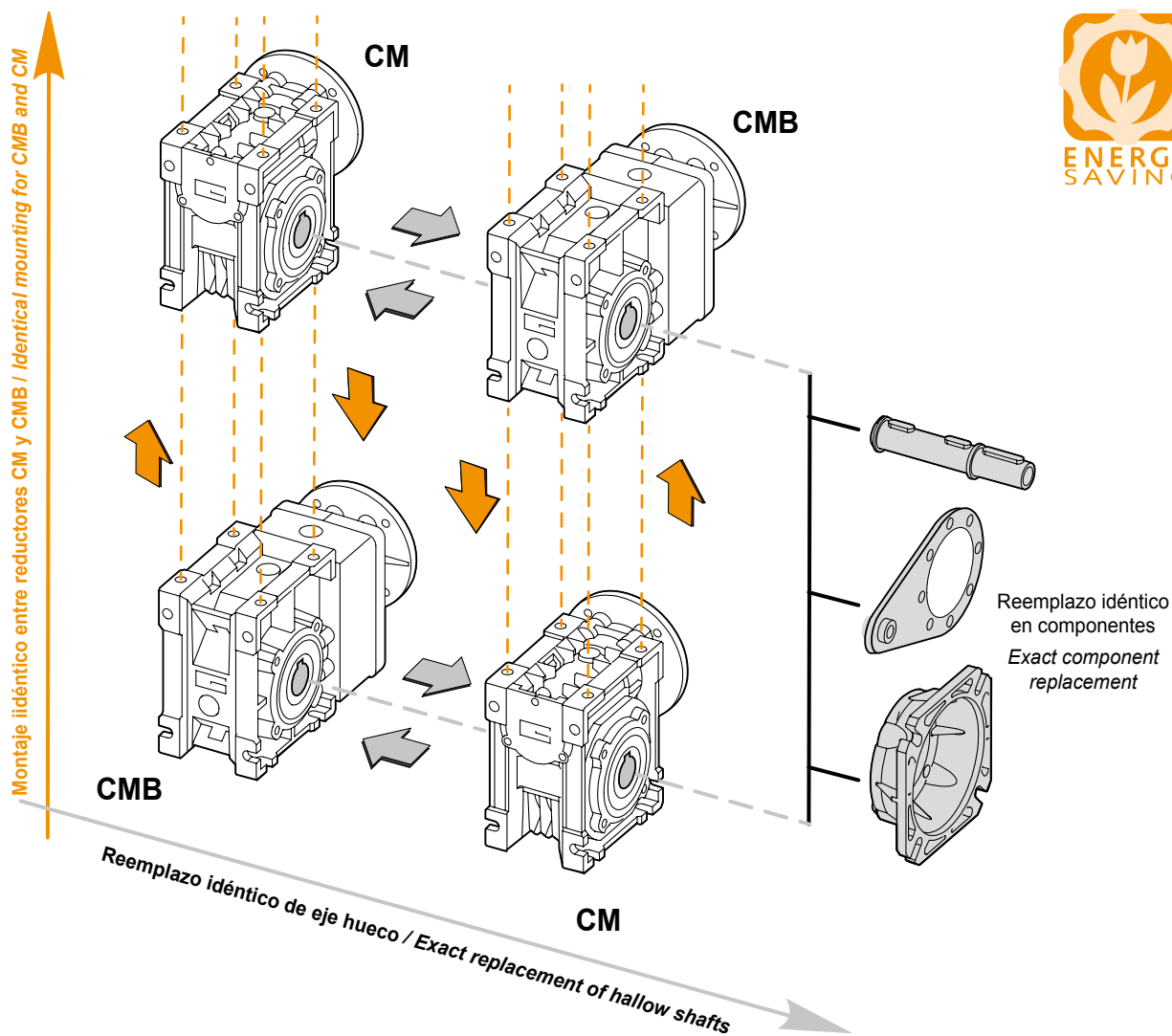
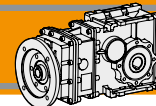


	CMB 402	CMB 502	CMB 633	CMB 903
<b>a</b>	3.386	4.094	4.646	6.181
<b>b</b>	2.598	3.110	3.661	4.606
<b>R<sub>2MAX</sub></b>	787	944	1461	2136

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

$$R \leq R_c$$

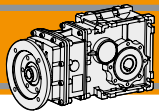
a, b = valores dados en la tabla  
a, b = values given in the table



CMB	Image	CM	Image
C16	<b>CMB 402</b>	<b>CM 040</b>	D18
C17	<b>CMB 502</b>	<b>CM 050</b>	D20
C18	<b>CMB 633</b>	<b>CM 063</b>	D22
C19	<b>CMB 903</b>	<b>CM 090</b>	D26

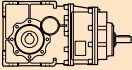
**CMB:** Reductores ejes Ortogonales  
*Helical Bevel Gearboxes*

**CM:** Reductores sinfin Corona  
*Wormgearboxes*



**Datos técnicos**

**Technical data**

	i	Mn <sub>2</sub> [lb·in]	n <sub>1</sub> = 1750 rpm			n <sub>1</sub> = 1150 rpm		
			n <sub>2</sub> [rpm]	Pn <sub>1</sub> [hp]	NEMA Motores aplicables NEMA Motor adapters 56 C	n <sub>2</sub> [rpm]	Pn <sub>1</sub> [hp]	NEMA Motores aplicables NEMA Motor adapters 56 C

**CMBIS 402**

6.18	354	283	1.69		186	1.11	
7.49	354	234	1.40		153	0.92	
9.2	354	190	1.14		125	0.75	
11.83	398	148	0.99		97.2	0.65	
12.48	398	140	0.94		92.1	0.62	
14.83	398	118	0.79		77.6	0.52	
17.63	398	99.3	0.67		65.2	0.44	
18.6	487	94.1	0.77		61.8	0.51	
22.33	487	78.4	0.64		51.5	0.42	
23.91	487	73.2	0.60		48.1	0.40	
28.89	575	60.6	0.59		39.8	0.39	
30.84	575	56.7	0.55		37.3	0.36	
33.57	575	52.1	0.51		34.3	0.33	
35.63	575	49.1	0.48		32.3	0.31	
42.75	575	40.9	0.40		26.9	0.26	
55.31	575	31.6	0.31		20.8	0.20	
59.06	575	29.6	0.29		19.5	0.19	
64.29	575	27.2	0.26		17.9	0.17	

**CMBIS 502**

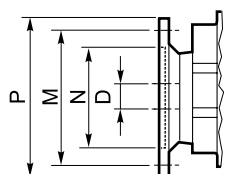
6.18	619	283	2.96		186	1.95	
7.49	619	234	2.44		153	1.60	
9.20	619	190	1.99		125	1.31	
11.83	796	148	1.99		97.2	1.31	
12.48	796	140	1.88		92.1	1.24	
14.83	796	118	1.59		77.6	1.04	
17.63	796	99.3	1.33		65.2	0.88	
18.60	973	94.1	1.55		61.8	1.02	
22.33	973	78.4	1.29		51.5	0.85	
23.91	973	73.2	1.20		48.1	0.79	
28.89	1106	60.6	1.13		39.8	0.74	
30.84	1106	56.7	1.06		37.3	0.70	
33.57	1106	52.1	0.97		34.3	0.64	
35.63	1106	49.1	0.92		32.3	0.60	
42.75	1106	40.9	0.76		26.9	0.50	
55.31	1106	31.6	0.59		20.8	0.39	
59.06	1106	29.6	0.55		19.5	0.36	
64.29	1106	27.2	0.51		17.9	0.33	

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

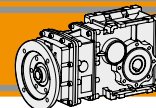
NOTE Highlighted areas indicate the motor input flange available on each gearbox size.

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas C9 a la C15.

Before selecting any gearbox, please read the performance values shown in the tables on page C9 to C15.

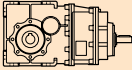


Dimensiones NEMA/ NEMA Dimensions	
	<b>56 C</b>
<b>N</b>	4.5
<b>M</b>	5.88
<b>P</b>	6.5
<b>D</b>	0.625



**Datos técnicos**

**Technical data**

	i	Mn <sub>2</sub> [lb·in]	n <sub>1</sub> = 1750 rpm				n <sub>1</sub> = 1150 rpm			
			n <sub>2</sub> [rpm]	Pn <sub>1</sub> [hp]	NEMA Motores aplicables NEMA Motor adapters		n <sub>2</sub> [rpm]	Pn <sub>1</sub> [hp]	NEMA Motores aplicables NEMA Motor adapters	
					56 C	140 TC			56 C	140 TC

**CMBIS 633**

6.58	1327	266	5.95			175	3.91		
7.99	1327	219	4.91			144	3.23		
9.81	1327	178	4.00			117	2.63		
10.44	1327	168	3.76			110	2.47		
12.53	1327	140	3.13			91.8	2.06		
13.31	1327	131	2.95			86.4	1.94		
15.81	1504	111	2.81			72.7	1.85		
17.77	1947	98.5	3.24			64.7	2.13		
21.56	1947	81.2	2.67			53.3	1.75		
26.48	1947	66.1	2.17			43.4	1.43		
28.17	1947	62.1	2.04			40.8	1.34		
33.81	1947	51.8	1.70			34.0	1.12		
35.92	1947	48.7	1.60			32.0	1.05		
38.88	2212	45.0	1.68			29.6	1.10		
47.16	2212	37.1	1.39			24.4	0.91		
57.93	2212	30.2	1.13			19.9	0.74		
61.63	2212	28.4	1.06			18.7	0.70		
73.96	2212	23.7	0.88		*	15.5	0.58		*
78.58	2212	22.3	0.83		*	14.6	0.55		*
93.33	2212	18.8	0.70		*	12.3	0.46		*
140.52	2212	12.5	0.47		*	8.2	0.31		*
181.81	2212	9.6	0.36		*	6.3	0.24	*	*
211.31	2212	8.3	0.31		*	5.4	0.20	*	*

CMB

**NOTA**

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



\* = Pn<sub>1</sub> es la potencia mecánica. La potencia aplicable resulta reducida por el factor térmico. Para más detalles consultar con nuestro servicio técnico

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas C9 a la C15.

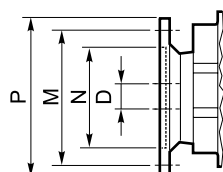
**NOTE**

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



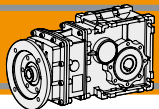
\* = The service factor (sf) has to be selected depending on application: please contact our Technical Department.

Before selecting any gearbox, please read the performance values shown in the tables on page C9 to C15.



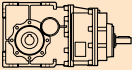
Dimensiones NEMA/ NEMA Dimensions		
	56 C	140 TC
N	4.5	
M	5.88	
P	6.5	
D	0.625	0.875





**Datos técnicos**

**Technical data**

	i	Mn <sub>2</sub> [lb·in]	n <sub>1</sub> = 1750 rpm					n <sub>1</sub> = 1150 rpm				
			n <sub>2</sub> [rpm]	Pn <sub>1</sub> [hp]	NEMA Motores aplicables NEMA Motor adapters			n <sub>2</sub> [rpm]	Pn <sub>1</sub> [hp]	NEMA Motores aplicables NEMA Motor adapters		
					56 C	140 TC	180 TC			56 C	140 TC	180 TC
<b>CMBIS 903</b>												
	6.65	2478	263	11.01				173	7.23			
	8.00	2478	219	9.15				144	6.01			
	9.74	2478	180	7.51				118	4.94			
	11.21	2478	156	6.53				103	4.29			
	14.09	2655	124	5.56				81.6	3.66			
	17.95	3982	97.5	6.55				64.1	4.31			
	21.60	3982	81.0	5.45				53.2	3.58			
	26.30	3982	66.5	4.47				43.7	2.94			
	30.25	3982	57.9	3.89				38.0	2.56			
	39.26	4425	44.6	3.33				29.3	2.19			
	47.25	4425	37.0	2.77				24.3	1.82			
	57.52	4425	30.4	2.27			*	20.0	1.49			
	66.17	4425	26.4	1.98			*	17.4	1.30			
	83.20	4425	21.0	1.57			*	13.8	1.03			*
	108.09	4425	16.2	1.21			*	10.6	0.79			*
	132.23	4425	13.2	0.99			*	8.7	0.65			*
	147.92	4425	11.8	0.88		*	*	7.8	0.58	*	*	
	167.09	4425	10.5	0.78		*	*	6.9	0.51	*	*	
	191.06	4425	9.2	0.68		*	*	6.0	0.45	*	*	
	221.88	4425	7.9	0.59		*	*	5.2	0.39	*	*	
	262.96	4425	6.7	0.50		*	*	4.4	0.33	*	*	

**NOTA**

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

**NOTE**

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



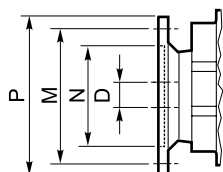
\* = Pn<sub>1</sub> es la potencia mecánica. La potencia aplicable resulta reducida por el factor térmico. Para más detalles consultar con nuestro servicio técnico



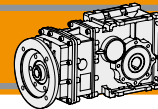
\* = The service factor (sf) has to be selected depending on application: please contact our Technical Department.

Antes de seleccionar cualquier reductor, favor de revisar los valores de desempeño en las páginas C9 a la C15.

Before selecting any gearbox, please read the performance values shown in the tables on page C9 to C15.

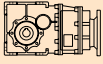

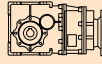



Dimensiones NEMA/ NEMA Dimensions			
	56 C	140 TC	180 TC
<b>N</b>		4.5	8.5
<b>M</b>		5.88	7.25
<b>P</b>		6.5	9
<b>D</b>	0.625	0.875	1.125



**Datos técnicos**

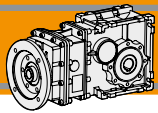
**Technical data**

$P_1$ [hp]	$n_2$ [rpm]	$M_2$ [lb·in]	sf	AGMA	i			$P_1$ [hp]	$n_2$ [rpm]	$M_2$ [lb·in]	sf	AGMA	i		
<b>0.16 hp</b>								<b>0.25 hp</b>							
0.12 kW (1750 rpm)	283	33	10.6	III	6.18	CMB402	56C	0.18 kW (1750 rpm)	73.2	202	4.8	III	23.91	CMB502	56C
	234	41	8.7	III	7.49				60.6	244	4.5	III	28.89		
	190	50	7.1	III	9.20		56C		56.7	261	4.2	III	30.84		56C
	148	64	6.2	III	11.83		56C		52.1	284	3.9	III	33.57		56C
	140	68	5.9	III	12.48		56C		49.1	301	3.7	III	35.63		56C
	118	80	5.0	III	14.83		56C		40.9	362	3.1	III	42.75		56C
	99.3	95	4.2	III	17.63		56C		31.6	468	2.4	III	55.31		56C
	94.1	101	4.8	III	18.60		56C		29.6	500	2.2	III	59.06		56C
	78.4	121	4.0	III	22.33		56C		27.2	544	2.0	III	64.29		56C
	73.2	129	3.8	III	23.91		56C								
	60.6	156	3.7	III	28.89		56C		37.1	399	5.5	III	47.16	CMB633	56C
	56.7	167	3.4	III	30.84		56C		30.2	490	4.5	III	57.93		56C
	52.1	182	3.2	III	33.57		56C		28.4	522	4.2	III	61.63		56C
	49.1	193	3.0	III	35.63		56C		23.7	626	3.5	III	73.96		56C
	40.9	232	2.5	III	42.75		56C		22.3	665	3.3	III	78.58		56C
	31.6	300	1.9	II	55.31		56C		18.8	790	2.8	III	93.33		56C
	29.6	320	1.8	II	59.06		56C		12.5	1189	1.9	II	140.52		56C
	27.2	348	1.7	II	64.29		56C		9.6	1539	1.4	II	181.81		56C
									8.3	1788	1.2	I	211.31		56C
	40.9	232	4.8	III	42.75	CMB502	56C		16.2	915	4.8	III	108.09	CMB903	56C
	31.6	300	3.7	III	55.31		56C		13.2	1119	4.0	III	132.23		56C
	29.6	320	3.5	III	59.06		56C		11.8	1252	3.5	III	147.92		56C
	27.2	348	3.2	III	64.29		56C		10.5	1414	3.1	III	167.09		56C
									9.2	1617	2.7	III	191.06		56C
	23.7	401	5.5	III	73.96	CMB633	56C		7.9	1878	2.4	III	221.88		56C
	22.3	426	5.2	III	78.58		56C		6.7	2225	2.0	II	262.96		56C
	18.8	505	4.4	III	93.33		56C								
	12.5	761	2.9	III	140.52		56C								
	9.6	985	2.2	III	181.81		56C								
	8.3	1145	1.9	II	211.31		56C								
	9.2	1035	4.3	III	191.06	CMB903	56C								
	7.9	1202	3.7	III	221.88		56C								
	6.7	1424	3.1	III	262.96		56C								

<b>0.25 hp</b>							
0.18 kW (1750 rpm)	283	52	6.8	III	6.18	CMB402	56C
	234	63	5.6	III	7.49		
	190	78	4.5	III	9.20		56C
	148	100	4.0	III	11.83		56C
	140	106	3.8	III	12.48		56C
	118	125	3.2	III	14.83		56C
	99.3	149	2.7	III	17.63		56C
	94.1	157	3.1	III	18.60		56C
	78.4	189	2.6	III	22.33		56C
	73.2	202	2.4	III	23.91		56C
	60.6	244	2.4	III	28.89		56C
	56.7	261	2.2	III	30.84		56C
	52.1	284	2.0	III	33.57		56C
	49.1	301	1.9	II	35.63		56C
	40.9	362	1.6	II	42.75		56C
	31.6	468	1.2	I	55.31		56C
	29.6	500	1.2	I	59.06		56C
	27.2	544	1.1	I	64.29		56C

<b>0.33 hp</b>							
0.22 kW (1750 rpm)	283	69	5.1	III	6.18	CMB402	56C
	234	84	4.2	III	7.49		
	190	103	3.4	III	9.20		56C
	148	132	3.0	III	11.83		56C
	140	139	2.9	III	12.48		56C
	118	166	2.4	III	14.83		56C
	99.3	197	2.0	III	17.63		56C
	94.1	208	2.3	III	18.60		56C
	78.4	249	2.0	II	22.33		56C
	73.2	267	1.8	II	23.91		56C
	60.6	323	1.8	II	28.89		56C
	56.7	345	1.7	II	30.84		56C
	52.1	375	1.5	II	33.57		56C
	49.1	398	1.4	II	35.63		56C
	40.9	478	1.2	I	42.75		56C
	31.6	618	0.9	I	55.31		56C

**CMB**

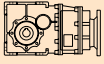

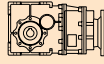



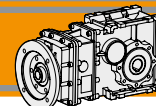
**CMB**

**REDUCTORES ORTOGONALES DE ENGRANAJES HELICOIDALES**  
**HELICAL BEVEL GEARBOXES**

**Datos técnicos**

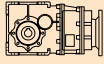

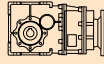

**Technical data**

P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i			P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i		
<b>0.33 hp</b>								<b>0.33 hp</b>							
0.25 kW (1750 rpm)	<b>118</b>	166	4.8	III	14.83	<b>CMB502</b>	<b>56C</b>	0.25 kW (1150 rpm)	<b>125</b>	156	4.0	III	9.20	<b>CMB502</b>	<b>56C</b>
	<b>99.3</b>	197	4.0	III	17.63				<b>97.2</b>	201	4.0	III	11.83		
<b>94.1</b>	208	4.7	III	18.60	<b>92.1</b>			212	3.8	III	12.48				
<b>78.4</b>	249	3.9	III	22.33	<b>77.6</b>			252	3.2	III	14.83				
<b>73.2</b>	267	3.6	III	23.91	<b>65.2</b>			300	2.7	III	17.63				
<b>60.6</b>	323	3.4	III	28.89	<b>61.8</b>			316	3.1	III	18.60				
<b>56.7</b>	345	3.2	III	30.84	<b>51.5</b>			380	2.6	III	22.33				
<b>52.1</b>	375	2.9	III	33.57	<b>48.1</b>			406	2.4	III	23.91				
<b>49.1</b>	398	2.8	III	35.63	<b>39.8</b>			491	2.3	III	28.89				
<b>40.9</b>	478	2.3	III	42.75	<b>37.3</b>			524	2.1	III	30.84				
<b>31.6</b>	618	1.8	II	55.31	<b>34.3</b>			571	1.9	III	33.57				
<b>29.6</b>	660	1.7	II	59.06	<b>32.3</b>			606	1.8	II	35.63				
<b>27.2</b>	718	1.5	II	64.29	<b>26.9</b>			727	1.5	II	42.75				
								<b>20.8</b>	940	1.2	I	55.31			
								<b>19.5</b>	1004	1.1	I	59.06			
						<b>17.9</b>	1093	1.0	I	64.29					
	<b>45.0</b>	434	5.1	III	38.88	<b>CMB633</b>	<b>56C</b>		<b>53.3</b>	367	5.3	III	21.56	<b>CMB633</b>	<b>56C</b>
	<b>37.1</b>	527	4.2	III	47.16			<b>43.4</b>	450	4.3	III	26.48			
	<b>30.2</b>	647	3.4	III	57.93			<b>40.8</b>	479	4.1	III	28.17			
	<b>28.4</b>	688	3.2	III	61.63			<b>34.0</b>	575	3.4	III	33.81			
	<b>23.7</b>	826	2.7	III	73.96			<b>32.0</b>	611	3.2	III	35.92			
	<b>22.3</b>	878	2.5	III	78.58			<b>29.6</b>	661	3.3	III	38.88			
	<b>18.8</b>	1043	2.1	III	93.33			<b>24.4</b>	802	2.8	III	47.16			
	<b>12.5</b>	1570	1.4	II	140.52			<b>19.9</b>	985	2.2	III	57.93			
	<b>9.6</b>	2031	1.1	I	181.81			<b>18.7</b>	1048	2.1	III	61.63			
	<b>8.3</b>	2361	0.9	I	211.31			<b>15.5</b>	1257	1.8	II	73.96			
						<b>CMB903</b>	<b>56C</b>		<b>14.6</b>	1336	1.7	II	78.58	<b>CMB903</b>	<b>56C</b>
	<b>21.0</b>	929	4.8	III	83.20			<b>12.3</b>	1587	1.4	I	93.33			
	<b>16.2</b>	1208	3.7	III	108.09			<b>8.2</b>	2389	0.9	I	140.52			
	<b>13.2</b>	1477	3.0	III	132.23										
	<b>11.8</b>	1652	2.7	III	147.92			<b>20.0</b>	978	4.5	III	57.52			
	<b>10.5</b>	1867	2.4	III	167.09			<b>17.4</b>	1125	3.9	III	66.17			
	<b>9.2</b>	2134	2.1	III	191.06			<b>13.8</b>	1414	3.1	III	83.20			
	<b>7.9</b>	2479	1.8	II	221.88			<b>10.6</b>	1838	2.4	III	108.09			
	<b>6.7</b>	2938	1.5	II	262.96			<b>8.7</b>	2248	2.0	II	132.23			
								<b>7.8</b>	2514	1.8	II	147.92			
						<b>6.9</b>	2840	1.6	II	167.09					
						<b>6.0</b>	3248	1.4	I	191.06					
						<b>5.2</b>	3772	1.2	I	221.88					
						<b>4.4</b>	4470	1.0	I	262.96					
0.25 kW (1150 rpm)	<b>186</b>	105	3.4	III	6.18	<b>CMB402</b>	<b>56C</b>								
	<b>153</b>	127	2.8	III	7.49			<b>56C</b>							
	<b>125</b>	156	2.3	III	9.20			<b>56C</b>							
	<b>97.2</b>	201	2.0	II	11.83			<b>56C</b>							
	<b>92.1</b>	212	1.9	II	12.48			<b>56C</b>							
	<b>77.6</b>	252	1.6	II	14.83			<b>56C</b>							
	<b>65.2</b>	300	1.3	I	17.63			<b>56C</b>							
	<b>61.8</b>	316	1.5	II	18.60			<b>56C</b>							
	<b>51.5</b>	380	1.3	I	22.33			<b>56C</b>							
	<b>48.1</b>	406	1.2	I	23.91			<b>56C</b>							
	<b>39.8</b>	491	1.2	I	28.89			<b>56C</b>							
	<b>37.3</b>	524	1.1	I	30.84			<b>56C</b>							
	<b>34.3</b>	571	1.0	I	33.57			<b>56C</b>							
	<b>32.3</b>	606	0.9	I	35.63			<b>56C</b>							



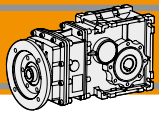
**Datos técnicos**

**Technical data**

P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i			P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i		
<b>0.5 hp</b>								<b>0.5 hp</b>							
0.37 kW (1750 rpm)	283	105	3.4	III	6.18	CMB402	56C	0.37 kW (1150 rpm)	186	159	2.2	III	6.18	CMB402	56C
	234	127	2.8	III	7.49				153	193	1.8	II	7.49		
	190	156	2.3	III	9.20		56C		125	237	1.5	II	9.20		56C
	148	200	2.0	II	11.83		56C		97.2	305	1.3	I	11.83		56C
	140	211	1.9	II	12.48		56C		92.1	322	1.2	I	12.48		56C
	118	251	1.6	II	14.83		56C		77.6	382	1.0	I	14.83		56C
	99.3	298	1.3	I	17.63		56C		65.2	454	0.9	I	17.63		56C
	94.1	315	1.5	II	18.60		56C		61.8	479	1.0	I	18.60		56C
	78.4	378	1.3	I	22.33		56C								
	73.2	405	1.2	I	23.91		56C		186	159	3.9	III	6.18	CMB502	56C
	60.6	489	1.2	I	28.89		56C		153	193	3.2	III	7.49		56C
	56.7	522	1.1	I	30.84		56C		125	237	2.6	III	9.20		56C
	52.1	568	1.0	I	33.57		56C		97.2	305	2.6	III	11.83		56C
	49.1	603	1.0	I	35.63		56C		92.1	322	2.5	III	12.48		56C
									77.6	382	2.1	III	14.83		56C
	283	105	5.9	III	6.18	CMB502	56C		65.2	454	1.8	II	17.63		56C
	234	127	4.9	III	7.49		56C		61.8	479	2.0	III	18.60		56C
	190	156	4.0	III	9.20		56C		51.5	575	1.7	II	22.33		56C
	148	200	4.0	III	11.83		56C		48.1	616	1.6	II	23.91		56C
	140	211	3.8	III	12.48		56C		39.8	744	1.5	II	28.89		56C
	118	251	3.2	III	14.83		56C		37.3	794	1.4	I	30.84		56C
	99.3	298	2.7	III	17.63		56C		34.3	865	1.3	I	33.57		56C
	94.1	315	3.1	III	18.60		56C		32.3	918	1.2	I	35.63		56C
	78.4	378	2.6	III	22.33		56C		26.9	1101	1.0	I	42.75		56C
	73.2	405	2.4	III	23.91		56C								
	60.6	489	2.3	III	28.89		56C		91.8	323	4.1	III	12.53	CMB633	56C
	56.7	522	2.1	III	30.84		56C		86.4	343	3.9	III	13.31		56C
	52.1	568	1.9	II	33.57		56C		72.7	407	3.7	III	15.81		56C
	49.1	603	1.8	II	35.63		56C		64.7	458	4.3	III	17.77		56C
	40.9	724	1.5	II	42.75		56C		53.3	555	3.5	III	21.56		56C
	31.6	936	1.2	I	55.31		56C		43.4	682	2.9	III	26.48		56C
	29.6	1000	1.1	I	59.06		56C		40.8	726	2.7	III	28.17		56C
	27.2	1088	1.0	I	64.29		56C		34.0	871	2.2	III	33.81		56C
									32.0	925	2.1	III	35.92		56C
	81.2	365	5.3	III	21.56	CMB633	56C		29.6	1001	2.2	III	38.88		56C
	66.1	448	4.3	III	26.48		56C		24.4	1215	1.8	II	47.16		56C
	62.1	477	4.1	III	28.17		56C		19.9	1492	1.5	II	57.93		56C
	51.8	572	3.4	III	33.81		56C		18.7	1587	1.4	I	61.63		56C
	48.7	608	3.2	III	35.92		56C		15.5	1905	1.2	I	73.96		56C
	45.0	658	3.4	III	38.88		56C		14.6	2024	1.1	I	78.58		56C
	37.1	798	2.8	III	47.16		56C		12.3	2404	0.9	I	93.33		56C
	30.2	981	2.3	III	57.93		56C								
	28.4	1043	2.1	III	61.63		56C		38.0	779	5.1	III	30.25	CMB903	56C
	23.7	1252	1.8	II	73.96		56C		29.3	1011	4.4	III	39.26		56C
	22.3	1330	1.7	II	78.58		56C		24.3	1217	3.6	III	47.25		56C
	18.8	1580	1.4	II	93.33		56C		20.0	1482	3.0	III	57.52		56C
	12.5	2378	0.9	I	140.52		56C		17.4	1704	2.6	III	66.17		56C
									13.8	2143	2.1	III	83.20		56C
	30.4	974	4.5	III	57.52	CMB903	56C		10.6	2784	1.6	II	108.09		56C
	26.4	1120	4.0	III	66.17		56C		8.7	3406	1.3	I	132.23		56C
	21.0	1408	3.1	III	83.20		56C		7.8	3810	1.2	I	147.92		56C
	16.2	1830	2.4	III	108.09		56C		6.9	4304	1.0	I	167.09		56C
	13.2	2238	2.0	II	132.23		56C		6.0	4921	0.9	I	191.06		56C
	11.8	2504	1.8	II	147.92		56C								
	10.5	2828	1.6	II	167.09		56C								
	9.2	3234	1.4	I	191.06		56C								
	7.9	3755	1.2	I	221.88		56C								
	6.7	4451	1.0	I	262.96		56C								

**CMB**



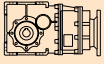

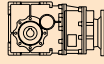



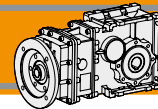
**CMB**

**REDUCTORES ORTOGONALES DE ENGRANAJES HELICOIDALES**  
**HELICAL BEVEL GEARBOXES**

**Datos técnicos**

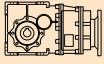

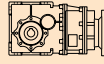

**Technical data**

P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i			P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i									
<b>0.75 hp</b>								<b>0.75 hp</b>														
0.55 kW (1750 rpm)	<b>283</b>	157	2.3	III	6.18	<b>CMB402</b>	<b>56C</b>	0.55 kW	<b>186</b>	239	1.5	II	6.18	<b>CMB402</b>	<b>56C</b>							
	<b>234</b>	190	1.9	II	7.49			<b>56C</b>	(1150 rpm)	<b>153</b>	289	1.2	I			7.49	<b>56C</b>					
	<b>190</b>	234	1.5	II	9.20			<b>56C</b>	<b>125</b>	356	1.0	I	9.20			<b>56C</b>						
	<b>148</b>	300	1.3	I	11.83			<b>56C</b>	<b>97.2</b>	457	0.9	I	11.83			<b>56C</b>						
	<b>140</b>	317	1.3	I	12.48			<b>56C</b>														
	<b>118</b>	376	1.1	I	14.83			<b>56C</b>			<b>186</b>	239	2.6			III	6.18	<b>CMB502</b>	<b>56C</b>			
	<b>99.3</b>	447	0.9	I	17.63			<b>56C</b>			<b>153</b>	289	2.1			III	7.49			<b>56C</b>		
	<b>94.1</b>	472	1.0	I	18.60			<b>56C</b>			<b>125</b>	356	1.7			II	9.20			<b>56C</b>		
											<b>97.2</b>	457	1.7			II	11.83			<b>56C</b>		
	<b>283</b>	157	4.0	III	6.18			<b>CMB502</b>	<b>56C</b>			<b>92.1</b>	482			1.7	II			12.48	<b>56C</b>	
	<b>234</b>	190	3.3	III	7.49					<b>56C</b>			<b>77.6</b>			573	1.4			I	14.83	<b>56C</b>
	<b>190</b>	234	2.7	III	9.20					<b>56C</b>			<b>65.2</b>			681	1.2			I	17.63	<b>56C</b>
	<b>148</b>	300	2.7	III	11.83	<b>56C</b>					<b>61.8</b>	719	1.4	I	18.60	<b>56C</b>						
	<b>140</b>	317	2.5	III	12.48	<b>56C</b>					<b>51.5</b>	863	1.1	I	22.33	<b>56C</b>						
	<b>118</b>	376	2.1	III	14.83	<b>56C</b>					<b>48.1</b>	924	1.1	I	23.91	<b>56C</b>						
	<b>99.3</b>	447	1.8	II	17.63	<b>56C</b>					<b>39.8</b>	1116	1.0	I	28.89	<b>56C</b>						
	<b>94.1</b>	472	2.1	III	18.60	<b>56C</b>					<b>37.3</b>	1192	0.9	I	30.84	<b>56C</b>						
	<b>78.4</b>	567	1.7	II	22.33	<b>56C</b>																
	<b>73.2</b>	607	1.6	II	23.91	<b>56C</b>					<b>175</b>	254	5.2	III	6.58	<b>CMB633</b>	<b>56C-140TC</b>					
	<b>60.6</b>	733	1.5	II	28.89	<b>56C</b>					<b>144</b>	309	4.3	III	7.99			<b>56C-140TC</b>				
	<b>56.7</b>	783	1.4	II	30.84	<b>56C</b>					<b>117</b>	379	3.5	III	9.81			<b>56C-140TC</b>				
	<b>52.1</b>	852	1.3	I	33.57	<b>56C</b>			<b>110</b>	403	3.3	III	10.44	<b>56C-140TC</b>								
	<b>49.1</b>	904	1.2	I	35.63	<b>56C</b>			<b>91.8</b>	484	2.7	III	12.53	<b>56C-140TC</b>								
	<b>40.9</b>	1085	1.0	I	42.75	<b>56C</b>			<b>86.4</b>	514	2.6	III	13.31	<b>56C-140TC</b>								
									<b>72.7</b>	611	2.5	III	15.81	<b>56C-140TC</b>								
	<b>140</b>	318	4.2	III	12.53	<b>CMB633</b>	<b>56C</b>			<b>64.7</b>	687	2.8	III	17.77	<b>56C-140TC</b>							
	<b>131</b>	338	3.9	III	13.31			<b>56C</b>			<b>53.3</b>	833	2.3	III	21.56			<b>56C-140TC</b>				
	<b>111</b>	401	3.7	III	15.81			<b>56C</b>			<b>43.4</b>	1023	1.9	II	26.48			<b>56C-140TC</b>				
	<b>98.5</b>	451	4.3	III	17.77			<b>56C</b>			<b>40.8</b>	1089	1.8	II	28.17			<b>56C-140TC</b>				
	<b>81.2</b>	547	3.6	III	21.56			<b>56C</b>			<b>34.0</b>	1306	1.5	II	33.81			<b>56C-140TC</b>				
	<b>66.1</b>	672	2.9	III	26.48			<b>56C</b>			<b>32.0</b>	1388	1.4	II	35.92	<b>56C-140TC</b>						
	<b>62.1</b>	715	2.7	III	28.17			<b>56C</b>			<b>29.6</b>	1502	1.5	II	38.88	<b>56C-140TC</b>						
	<b>51.8</b>	858	2.3	III	33.81			<b>56C</b>			<b>24.4</b>	1822	1.2	I	47.16	<b>56C-140TC</b>						
	<b>48.7</b>	912	2.1	III	35.92			<b>56C</b>			<b>19.9</b>	2238	1.0	I	57.93	<b>56C-140TC</b>						
	<b>45.0</b>	987	2.2	III	38.88			<b>56C</b>			<b>18.7</b>	2381	0.9	I	61.63	<b>56C-140TC</b>						
	<b>37.1</b>	1197	1.8	II	47.16			<b>56C</b>														
	<b>30.2</b>	1471	1.5	II	57.93			<b>56C</b>			<b>53.2</b>	835	4.8	III	21.60	<b>CMB903</b>	<b>56C-140TC</b>					
	<b>28.4</b>	1565	1.4	II	61.63	<b>56C</b>			<b>43.7</b>	1016	3.9	III	26.30	<b>56C-140TC</b>								
	<b>23.7</b>	1878	1.2	I	73.96	<b>56C</b>			<b>38.0</b>	1169	3.4	III	30.25	<b>56C-140TC</b>								
	<b>22.3</b>	1995	1.1	I	78.58	<b>56C</b>			<b>29.3</b>	1517	2.9	III	39.26	<b>56C-140TC</b>								
	<b>18.8</b>	2369	0.9	I	93.33	<b>56C</b>			<b>24.3</b>	1826	2.4	III	47.25	<b>56C-140TC</b>								
									<b>20.0</b>	2222	2.0	II	57.52	<b>56C-140TC</b>								
	<b>57.9</b>	768	5.2	III	30.25	<b>CMB903</b>	<b>56C</b>			<b>17.4</b>	2557	1.7	II	66.17	<b>56C-140TC</b>							
	<b>44.6</b>	997	4.4	III	39.26			<b>56C</b>			<b>13.8</b>	3215	1.4	I	83.20			<b>56C-140TC</b>				
<b>37.0</b>	1200	3.7	III	47.25	<b>56C</b>					<b>10.6</b>	4176	1.1	I	108.09	<b>56C-140TC</b>							
<b>30.4</b>	1460	3.0	III	57.52	<b>56C</b>					<b>8.7</b>	5109	0.9	I	132.23	<b>56C-140TC</b>							
<b>26.4</b>	1680	2.6	III	66.17	<b>56C</b>																	
<b>21.0</b>	2112	2.1	III	83.20	<b>56C</b>																	
<b>16.2</b>	2744	1.6	II	108.09	<b>56C</b>																	
<b>13.2</b>	3357	1.3	I	132.23	<b>56C</b>																	
<b>11.8</b>	3755	1.2	I	147.92	<b>56C</b>																	
<b>10.5</b>	4242	1.0	I	167.09	<b>56C</b>																	
<b>9.2</b>	4851	0.9	I	191.06	<b>56C</b>																	



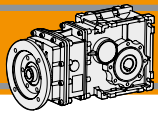
**Datos técnicos**

**Technical data**

P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i			P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i		
<b>1 hp</b>								<b>1 hp</b>							
0.75 kW (1750 rpm)	283	209	1.7	II	6.18	<b>CMB402</b>	<b>56C</b>	0.75 kW	186	318	1.1	I	6.18	<b>CMB402</b>	<b>56C</b>
	234	254	1.4	I	7.49			(1150 rpm)	153	386	0.9	I	7.49		
190	312	1.1	I	9.20	<b>CMB502</b>			<b>56C</b>	186	318	1.9	II	6.18	<b>CMB502</b>	<b>56C</b>
148	400	1.0	I	11.83					153	386	1.6	II	7.49		
140	423	0.9	I	12.48					125	474	1.3	I	9.20		
283	209	3.0	III	6.18		97.2	609		1.3	I	11.83				
234	254	2.4	III	7.49		92.1	643		1.2	I	12.48				
190	312	2.0	II	9.20		77.6	764		1.0	I	14.83				
148	400	2.0	II	11.83		65.2	908		0.9	I	17.63				
140	423	1.9	II	12.48		61.8	958		1.0	I	18.60				
118	502	1.6	II	14.83		175	339		3.9	III	6.58	<b>CMB633</b>	<b>56C-140TC</b>		
99.3	597	1.3	I	17.63		144	412		3.2	III	7.99				
94.1	630	1.5	II	18.60	117	506	2.6	III	9.81						
78.4	756	1.3	I	22.33	110	538	2.5	III	10.44						
73.2	809	1.2	I	23.91	91.8	645	2.1	III	12.53						
60.6	978	1.1	I	28.89	86.4	686	1.9	II	13.31						
56.7	1044	1.1	I	30.84	72.7	814	1.8	II	15.81						
52.1	1136	1.0	I	33.57	64.7	915	2.1	III	17.77						
49.1	1206	0.9	I	35.63	53.3	1111	1.8	II	21.56						
266	223	6.0	III	6.58	43.4	1364	1.4	II	26.48	<b>CMB903</b>	<b>56C-140TC</b>				
219	270	4.9	III	7.99	40.8	1451	1.3	I	28.17						
178	332	4.0	III	9.81	34.0	1742	1.1	I	33.81						
168	353	3.8	III	10.44	32.0	1850	1.1	I	35.92						
140	424	3.1	III	12.53	29.6	2003	1.1	I	38.88						
131	451	2.9	III	13.31	24.4	2429	0.9	I	47.16						
111	535	2.8	III	15.81	103	577	4.3	III	11.21						
98.5	602	3.2	III	17.77	81.6	726	3.7	III	14.09						
81.2	730	2.7	III	21.56	64.1	925	4.3	III	17.95						
66.1	897	2.2	III	26.48	53.2	1113	3.6	III	21.60						
62.1	954	2.0	III	28.17	43.7	1355	2.9	III	26.30						
51.8	1145	1.7	II	33.81	38.0	1558	2.6	III	30.25						
48.7	1216	1.6	II	35.92	29.3	2023	2.2	III	39.26						
45.0	1316	1.7	II	38.88	24.3	2434	1.8	II	47.25						
37.1	1597	1.4	I	47.16	20.0	2963	1.5	II	57.52						
30.2	1961	1.1	I	57.93	17.4	3409	1.3	I	66.17						
28.4	2086	1.1	I	61.63	13.8	4286	1.0	I	83.20						
66.5	890	4.5	III	26.30	<b>CMB903</b>	<b>56C-140TC</b>									
57.9	1024	3.9	III	30.25											
44.6	1329	3.3	III	39.26											
37.0	1600	2.8	III	47.25											
30.4	1947	2.3	III	57.52											
26.4	2240	2.0	II	66.17											
21.0	2817	1.6	II	83.20											
16.2	3659	1.2	I	108.09											
13.2	4476	1.0	I	132.23											

**CMB**



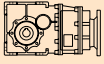

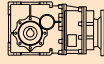



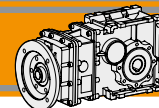
**CMB**

**REDUCTORES ORTOGONALES DE ENGRANAJES HELICOIDALES**  
**HELICAL BEVEL GEARBOXES**

**Datos técnicos**

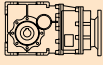

**Technical data**

P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i			P <sub>1</sub> [hp]	n <sub>2</sub> [rpm]	M <sub>2</sub> [lb·in]	sf	AGMA	i				
<b>1.5 hp</b>								<b>1.5 hp</b>									
1.1 kW (1750 rpm)	283	314	1.1	I	6.18	<b>CMB402</b>	<b>56C</b>	1.1 kW	173	514	4.8	III	6.65	<b>CMB903</b>	140TC-180TC		
	234	380	0.9	I	7.49			1150 rpm	144	618	4.0	III	8.00		140TC-180TC		
	283	314	2.0	II	6.18	<b>CMB502</b>	<b>56C</b>		118	753	3.3	III	9.74		140TC-180TC		
	234	380	1.6	II	7.49				103	866	2.9	III	11.21		140TC-180TC		
	190	467	1.3	I	9.20				81.6	1089	2.4	III	14.09		140TC-180TC		
	148	601	1.3	I	11.83				64.1	1387	2.9	III	17.95		140TC-180TC		
	140	634	1.3	I	12.48				53.2	1669	2.4	III	21.60		140TC-180TC		
	118	753	1.1	I	14.83				43.7	2032	2.0	II	26.30		140TC-180TC		
	99.3	895	0.9	I	17.63				38.0	2337	1.7	II	30.25		140TC-180TC		
	94.1	945	1.0	I	18.60				29.3	3034	1.5	II	39.26		140TC-180TC		
									24.3	3651	1.2	I	47.25		140TC-180TC		
									20.0	4445	1.0	I	57.52		140TC-180TC		
							17.4	5113	0.9	I	66.17		140TC-180TC				
	266	334	4.0	III	6.58	<b>CMB633</b>	<b>56C-140TC</b>	<b>2 hp</b>									
	219	406	3.3	III	7.99				1.5 kW	283	418	1.5	II	6.18	<b>CMB502</b>	56C	
	178	498	2.7	III	9.81				(1150 rpm)	234	507	1.2	I	7.49			56C
	168	530	2.5	III	10.44					190	623	1.0	I	9.20		56C	
	140	636	2.1	III	12.53					148	801	1.0	I	11.83		56C	
	131	676	2.0	II	13.31					140	845	0.9	I	12.48		56C	
	111	803	1.9	II	15.81										<b>CMB633</b>	56C-140TC	
	98.5	902	2.2	III	17.77					266	446	3.0	III	6.58			56C-140TC
	81.2	1095	1.8	II	21.56					219	541	2.5	III	7.99			56C-140TC
	66.1	1345	1.4	II	26.48					178	664	2.0	II	9.81			56C-140TC
	62.1	1431	1.4	I	28.17			168	707	1.9	II	10.44		56C-140TC			
	51.8	1717	1.1	I	33.81			140	848	1.6	II	12.53		56C-140TC			
	48.7	1824	1.1	I	35.92			131	901	1.5	II	13.31		56C-140TC			
	45.0	1974	1.1	I	38.88			111	1070	1.4	II	15.81		56C-140TC			
	37.1	2395	0.9	I	47.16			98.5	1203	1.6	II	17.77		56C-140TC			
								81.2	1460	1.3	I	21.56		56C-140TC			
								66.1	1793	1.1	I	26.48		56C-140TC			
	180	495	5.0	III	9.74	<b>CMB903</b>	<b>56C-140TC</b>		62.1	1908	1.0	I	28.17		56C-140TC		
	156	569	4.4	III	11.21										<b>CMB903</b>	56C-140TC	
	124	716	3.7	III	14.09					263	450	5.5	III	6.65			56C-140TC
	97.5	911	4.4	III	17.95					219	542	4.6	III	8.00			56C-140TC
	81.0	1097	3.6	III	21.60					180	660	3.8	III	9.74			56C-140TC
	66.5	1335	3.0	III	26.30					156	759	3.3	III	11.21			56C-140TC
	57.9	1536	2.6	III	30.25					124	954	2.8	III	14.09			56C-140TC
	44.6	1994	2.2	III	39.26					97.5	1215	3.3	III	17.95			56C-140TC
	37.0	2399	1.8	II	47.25					81.0	1462	2.7	III	21.60			56C-140TC
	30.4	2921	1.5	II	57.52					66.5	1780	2.2	III	26.30			56C-140TC
	26.4	3360	1.3	I	66.17			57.9	2048	1.9	II	30.25		56C-140TC			
	21.0	4225	1.0	I	83.20			44.6	2658	1.7	II	39.26		56C-140TC			
								37.0	3199	1.4	I	47.25		56C-140TC			
								30.4	3894	1.1	I	57.52		56C-140TC			
								26.4	4480	1.0	I	66.17		56C-140TC			
1.1 kW (1150 rpm)	175	509	2.6	III	6.58	<b>CMB633</b>	<b>140TC</b>										
	144	617	2.2	III	7.99												
	117	758	1.8	II	9.81												
	110	807	1.6	II	10.44												
	91.8	968	1.4	I	12.53												
	86.4	1028	1.3	I	13.31												
	72.7	1222	1.2	I	15.81												
	64.7	1373	1.4	II	17.77												
	53.3	1666	1.2	I	21.56												
	43.4	2046	1.0	I	26.48												
	40.8	2177	0.9	I	28.17												



**Datos técnicos**

**Technical data**

$P_1$ [hp]	$n_2$ [rpm]	$M_2$ [lb·in]	sf	AGMA	i		
<b>2 hp</b>							
1.5 kW (1150 rpm)	173	685	3.6	III	6.65	<b>CMB903</b>	<b>180TC</b>
	144	825	3.0	III	8.00		<b>180TC</b>
	118	1004	2.5	III	9.74		<b>180TC</b>
	103	1155	2.1	III	11.21		<b>180TC</b>
	81.6	1452	1.8	II	14.09		<b>180TC</b>
	64.1	1849	2.2	III	17.95		<b>180TC</b>
	53.2	2225	1.8	II	21.60		<b>180TC</b>
	43.7	2709	1.5	II	26.30		<b>180TC</b>
	38.0	3117	1.3	I	30.25		<b>180TC</b>
	29.3	4045	1.1	I	39.26		<b>180TC</b>
	24.3	4868	0.9	I	47.25		<b>180TC</b>

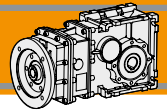
<b>3 hp</b>								
2.2 kW (1750 rpm)	266	669	2.0	II	6.58	<b>CMB633</b>	<b>140TC</b>	
	219	811	1.6	II	7.99		<b>140TC</b>	
	178	997	1.3	I	9.81		<b>140TC</b>	
	168	1060	1.3	I	10.44		<b>140TC</b>	
	140	1272	1.0	I	12.53		<b>140TC</b>	
	131	1352	1.0	I	13.31		<b>140TC</b>	
	111	1605	0.9	I	15.81		<b>140TC</b>	
	98.5	1805	1.1	I	17.77		<b>140TC</b>	
	263	675	3.7	III	6.65		<b>CMB903</b>	<b>140TC-180TC</b>
	219	813	3.0	III	8.00			<b>140TC-180TC</b>
	180	990	2.5	III	9.74	<b>140TC-180TC</b>		
	156	1138	2.2	III	11.21	<b>140TC-180TC</b>		
	124	1431	1.9	II	14.09	<b>140TC-180TC</b>		
	97.5	1823	2.2	III	17.95	<b>140TC-180TC</b>		
	81.0	2194	1.8	II	21.60	<b>140TC-180TC</b>		
	66.5	2671	1.5	II	26.30	<b>140TC-180TC</b>		
	57.9	3072	1.3	I	30.25	<b>140TC-180TC</b>		
	44.6	3987	1.1	I	39.26	<b>140TC-180TC</b>		
	37.0	4799	0.9	I	47.25	<b>140TC-180TC</b>		

<b>5 hp</b>							
3.7 kW (1750 rpm)	263	1126	2.2	III	6.65	<b>CMB903</b>	<b>180TC</b>
	219	1355	1.8	II	8.00		<b>180TC</b>
	180	1649	1.5	II	9.74		<b>180TC</b>
	156	1897	1.3	I	11.21		<b>180TC</b>
	124	2385	1.1	I	14.09		<b>180TC</b>
	97.5	3038	1.3	I	17.95		<b>180TC</b>
	81.0	3656	1.1	I	21.60		<b>180TC</b>
	66.5	4451	0.9	I	26.30		<b>180TC</b>

**CMB**







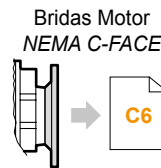
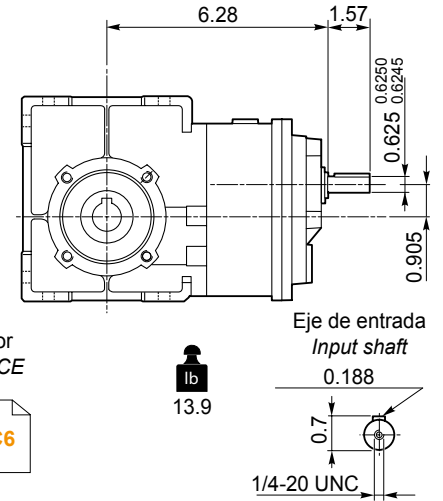
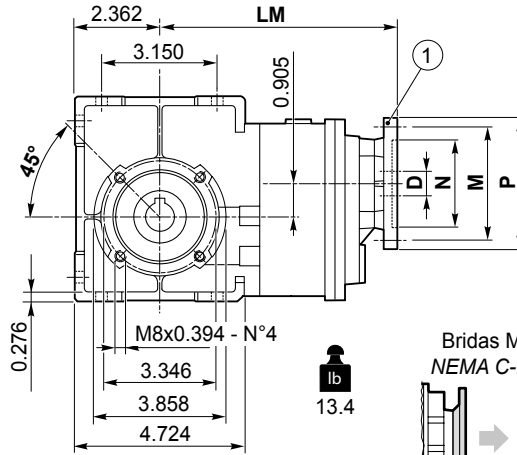
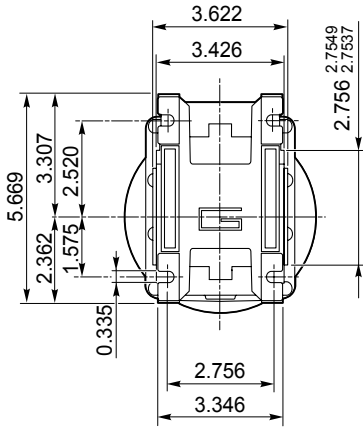
Dimensiones

Dimensions

CMB 502 - CMBIS 502

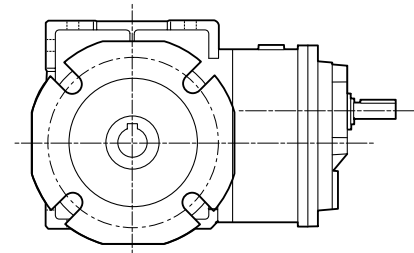
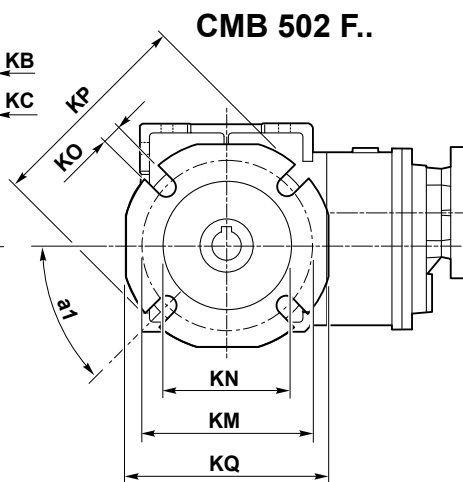
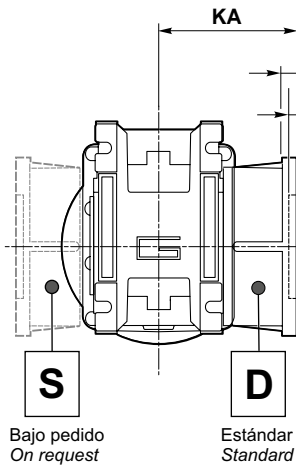
CMB 502 U

CMBIS 502 U



CMB 502 F.

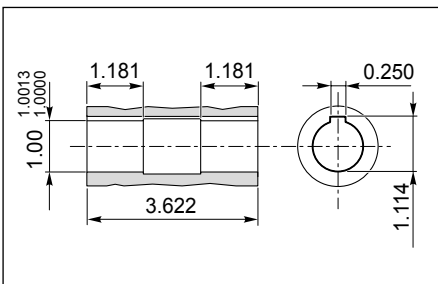
CMBIS 502 F..



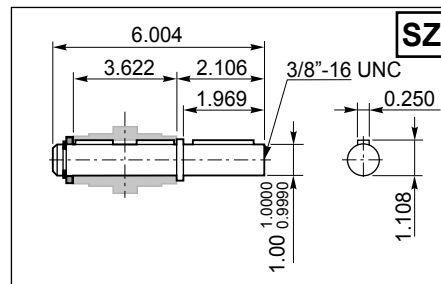
Versión F / F Version										
CMB CMBIS	a <sub>1</sub>	KA	KB	KC	KM	KN	KO	KP	□ KQ	Brida / Flange Tipo / Type
502	45°	3.543	0.354	0.197	3.543-4.331	2.756 <sup>2.7577</sup> 2.7559	0.433	4.921	4,331	F
	45°	4.724	0.354	0.197	3.543-4.331	2.756 <sup>2.7577</sup> 2.7559	0.433	4.921	4,331	FL
	45°	3.504	0.354	0.197	5.118-5.709	4.331 <sup>4.3328</sup> 4.3307	0.374	6.299	5,197	FB

Brida Motor / Motor flange	
① Dimensiones NEMA NEMA Dimensions	
	56 C
N	4.5
M	5.88
P	6.5
D	0.625
LM	7.11

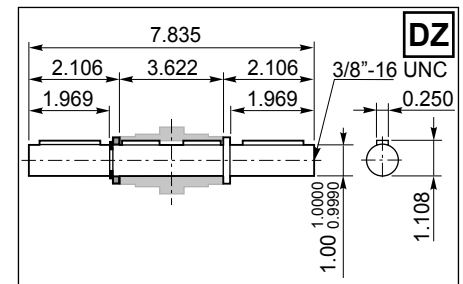
Eje de salida hueco / Hollow output shaft

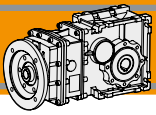


Eje de salida / Output shaft



Eje de salida / Output shaft





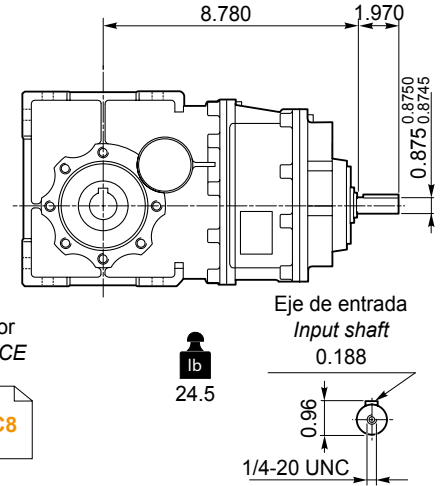
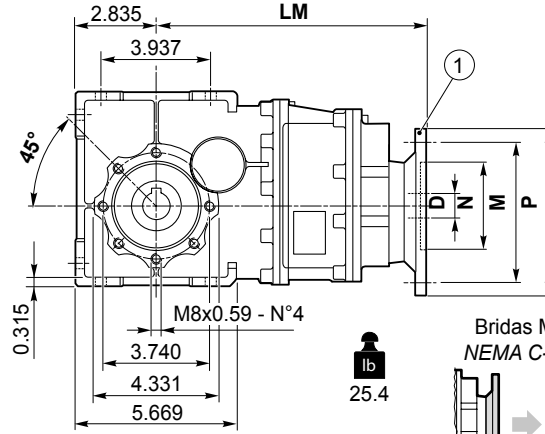
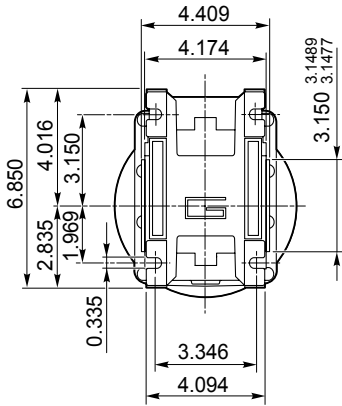
Dimensiones

Dimensions

**CMB 633 - CMBIS 633**

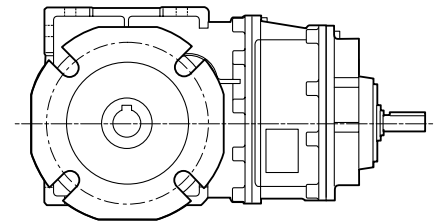
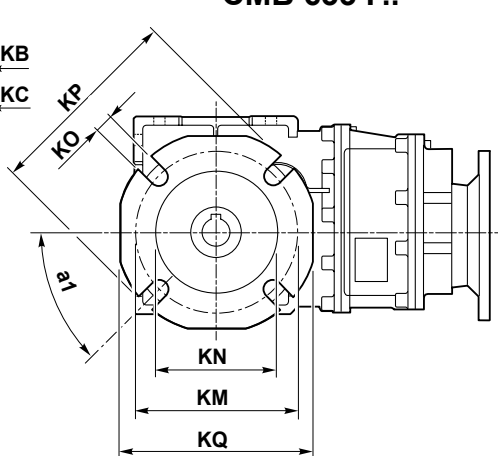
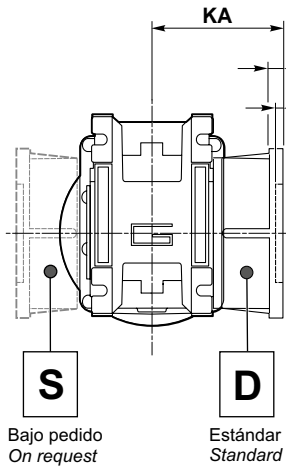
**CMB 633 U**

**CMBIS 633 U**



**CMB 633 F..**

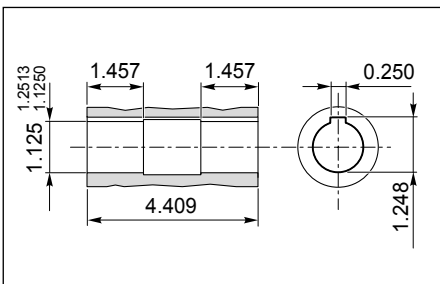
**CMBIS 633 F..**



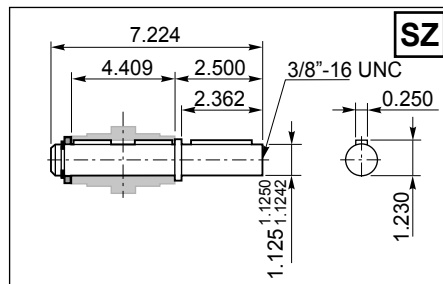
Versión F / F Version										
CMB / CMBIS	a <sub>1</sub>	KA	KB	KC	KM	KN	KO	KP	□ KQ	Brida / Flange Tipo / Type
633	45°	3.228	0.394	0.236	5.906-6.299	4.528 <sup>4.5297</sup> 4.5276	0.433	7.087	5.591	F
	45°	4.409	0.394	0.314	5.906-6.299	4.528 <sup>4.5297</sup> 4.5276	0.433	7.087	5.591	FL
	45°	3.858	0.433	0.197	6.496-7.087	5.118 <sup>5.1206</sup> 5.1181	0.433	7.874	6.229	FB

Brida Motor / Motor flange		
①	Dimensiones NEMA / NEMA Dimensions	
	56 C	140 TC
N	4.5	4.5
M	5.88	5.88
P	6.5	6.5
D	0.625	0.875
LM	9.69	9.69

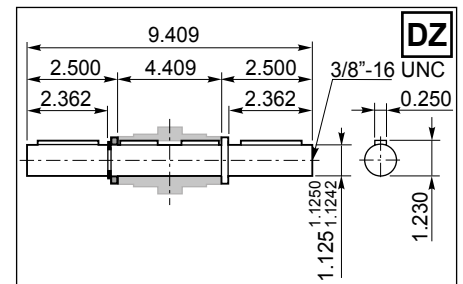
Eje de salida hueco / Hollow output shaft

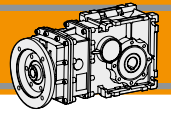


Eje de salida / Output shaft



Eje de salida / Output shaft





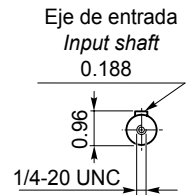
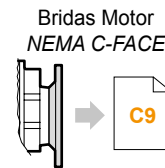
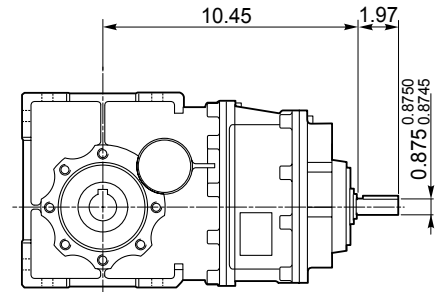
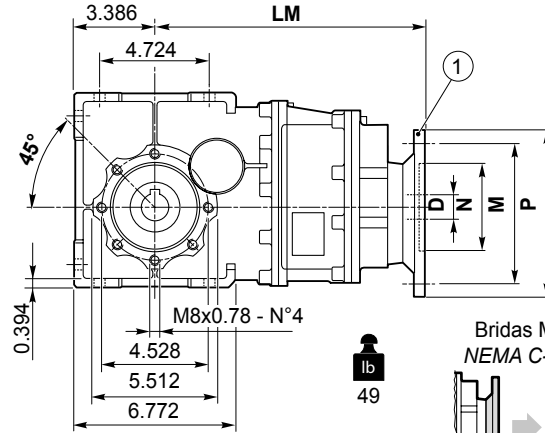
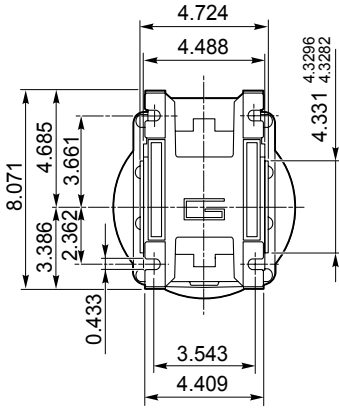
Dimensiones

Dimensions

CMB 903 - CMBIS 903

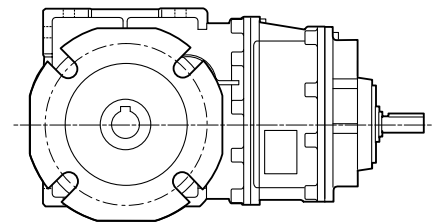
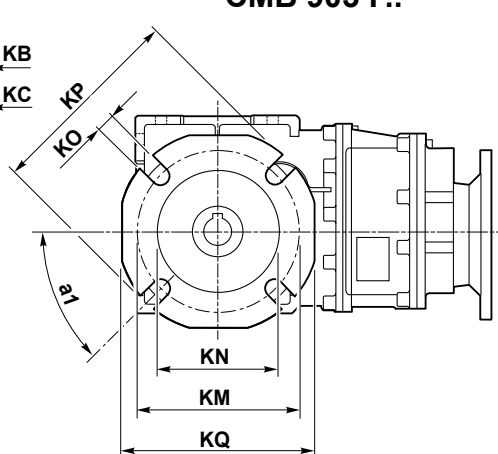
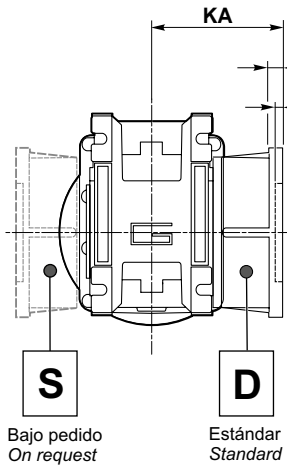
CMB 903 U

CMBIS 903 U



CMB 903 F..

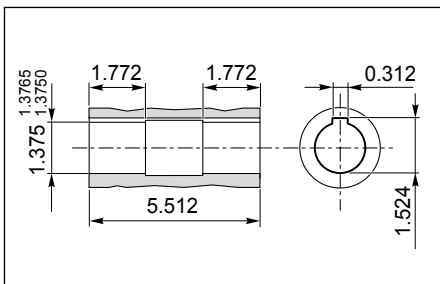
CMBIS 903 F..



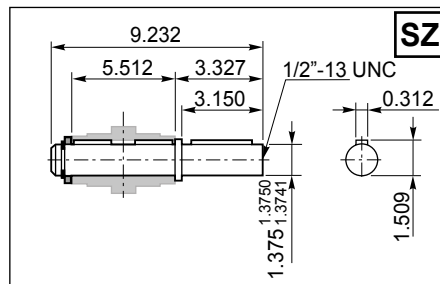
Versión F / F Version											
CMB CMBIS	a <sub>1</sub>	KA	KB	KC	KM	KN	KO	KP	□ KQ	Brida / Flange Tipo / Type	
933	45°	4.37	0.512	0.236	6.890-7.480	5.984 5.9843	5.9867 5.9843	0.551	8.268	7.874	F

Brida Motor / Motor flange			
①	Dimensiones NEMA NEMA Dimensions		
	56 C	140 TC	180 TC
N	4.5	4.5	8.5
M	5.88	5.88	7.25
P	6.5	6.5	9
D	0.625	0.875	1.125
LM	11.67	11.67	11.58

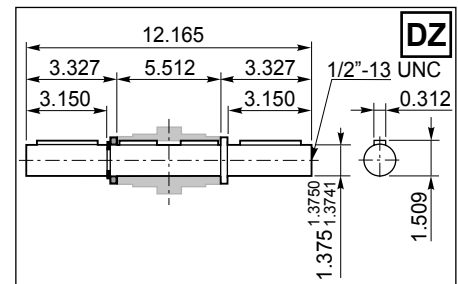
Eje de salida hueco / Hollow output shaft

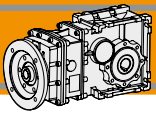


Eje de salida / Output shaft



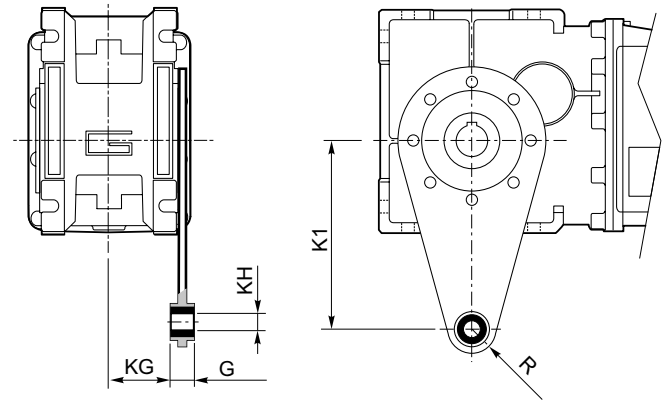
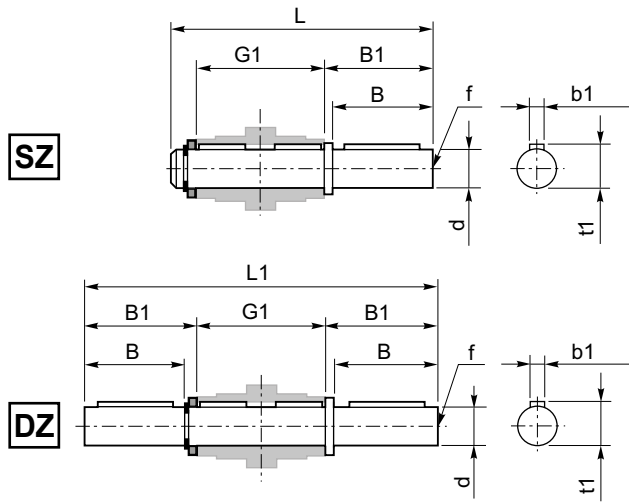
Eje de salida / Output shaft





**Accesorios**

**Accessories**



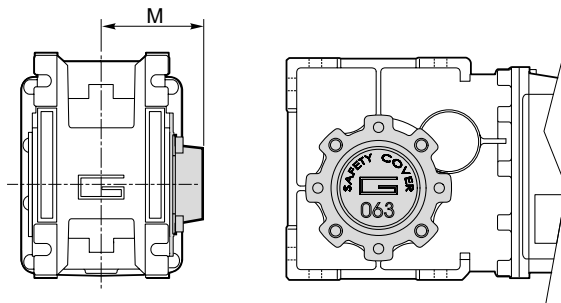
Eje de salida / Output shaft

CMB	d	B	B1	G1	L	L1	f	b1	t1
<b>402</b>	0.750 0.7500 0.7430	1.969	20.87	3.071	5.394	7.244	1/4"-20	0.188	0.830
<b>502</b>	1.000 1.0000 0.9992	1.696	2.106	3.622	6.004	7.835	3/8"-16	0.250	1.108
<b>633</b>	1.125 1.1250 1.1242	2.362	2.500	4.409	7.224	9.409	3/8"-16	0.250	1.230
<b>903</b>	1.375 1.3750 1.3741	3.150	3.327	5.512	9.232	12.165	1/2"-13	0.312	1.509

Brazo de reacción / Torque arm

CMB	K1	G	KG	KH	R
<b>402</b>	3.937	0.551	1.220	0.394	0.709
<b>502</b>	3.937	0.551	1.496	0.394	0.709
<b>633</b>	5.906	0.551	1.870	0.394	0.709
<b>903</b>	7.874	0.984	2.224	0.787	1.181

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



CMB	M
<b>402</b>	2.146
<b>502</b>	2.461
<b>633</b>	2.874
<b>903</b>	3.701

<b>Архангельск (8182)63-90-72</b>	<b>Калининград (4012)72-03-81</b>	<b>Нижегород (831)429-08-12</b>	<b>Смоленск (4812)29-41-54</b>
<b>Астана (7172)727-132</b>	<b>Калуга (4842)92-23-67</b>	<b>Новокузнецк (3843)20-46-81</b>	<b>Сочи (862)225-72-31</b>
<b>Белгород (4722)40-23-64</b>	<b>Кемерово (3842)65-04-62</b>	<b>Новосибирск (383)227-86-73</b>	<b>Ставрополь (8652)20-65-13</b>
<b>Брянск (4832)59-03-52</b>	<b>Киров (8332)68-02-04</b>	<b>Орел (4862)44-53-42</b>	<b>Тверь (4822)63-31-35</b>
<b>Владивосток (423)249-28-31</b>	<b>Краснодар (861)203-40-90</b>	<b>Оренбург (3532)37-68-04</b>	<b>Томск (3822)98-41-53</b>
<b>Волгоград (844)278-03-48</b>	<b>Красноярск (391)204-63-61</b>	<b>Пенза (8412)22-31-16</b>	<b>Тула (4872)74-02-29</b>
<b>Вологда (8172)26-41-59</b>	<b>Курск (4712)77-13-04</b>	<b>Пермь (342)205-81-47</b>	<b>Тюмень (3452)66-21-18</b>
<b>Воронеж (473)204-51-73</b>	<b>Липецк (4742)52-20-81</b>	<b>Ростов-на-Дону (863)308-18-15</b>	<b>Ульяновск (8422)24-23-59</b>
<b>Екатеринбург (343)384-55-89</b>	<b>Магнитогорск (3519)55-03-13</b>	<b>Рязань (4912)46-61-64</b>	<b>Уфа (347)229-48-12</b>
<b>Иваново (4932)77-34-06</b>	<b>Москва (495)268-04-70</b>	<b>Самара (846)206-03-16</b>	<b>Челябинск (351)202-03-61</b>
<b>Ижевск (3412)26-03-58</b>	<b>Мурманск (8152)59-64-93</b>	<b>Санкт-Петербург (812)309-46-40</b>	<b>Череповец (8202)49-02-64</b>
<b>Казань (843)206-01-48</b>	<b>Набережные Челны (8552)20-53-41</b>	<b>Саратов (845)249-38-78</b>	<b>Ярославль (4852)69-52-93</b>

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