

DOGA



MOTORES C.C.
D.C. MOTORS
MOTEURS C.C.
GLEICHSTROMMOTOREN



MOTORREDUCTORES C.C.
D.C. MOTORS WITH GEAR
MOTOREDUCTEURS C.C.
GLEICHSTROMGETRIEBEMOTOREN



05/2005

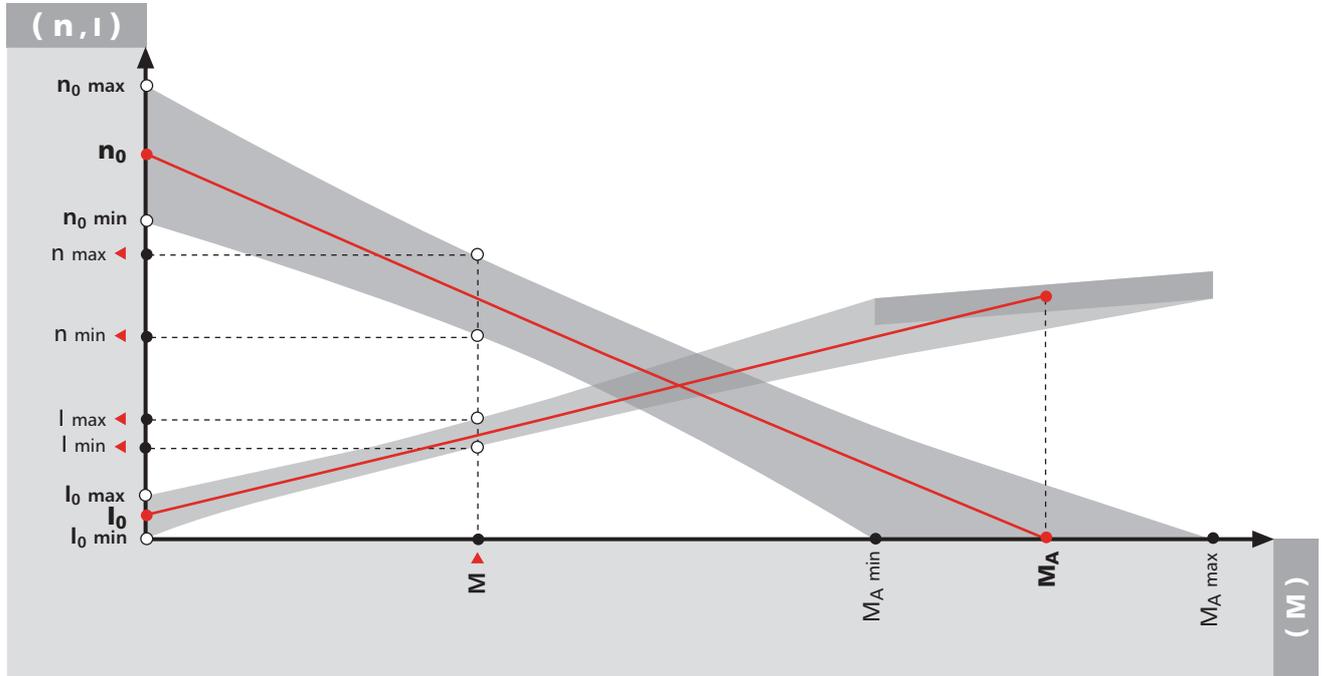
Un motor para cada aplicación.
One application, one motor.
Un moteur pour chaque application.
Ein Motor für jede Anwendung.

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SÍMBOLOS - SYMBOLS - SYMBOLES - ZEICHENERKLÄRUNG

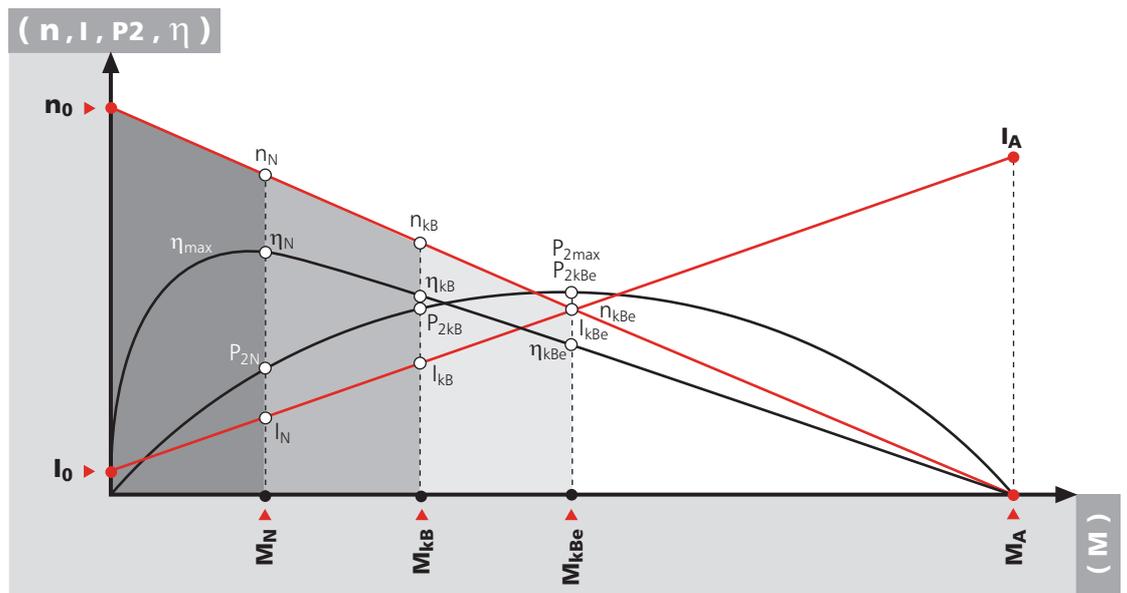
	ESPAÑOL	ENGLISH	FRANÇAIS	DEUTSCH
BRO	▶ Bronce	Bronze	Bronze	Bronze
CEL	▶ Resina fenólica estratificada	Resin bonded fabric	Résine phénolique stratifiée	Hartgewebe
η (%)	▶ Rendimiento nominal	Efficiency	Courant nominal	Wirkungsgrad nominal
η max (%)	▶ Rendimiento máximo	Maximum efficiency	Rendement maximum	Maximale Wirkungsgrad
i	▶ Relación de reducción	Transmission ratio	Rapport de réducteur	Übersetzung
I (A)	▶ Corriente	Current	Courant	Stromaufnahme
I_0 (A)	▶ Corriente en vacío	No load current	Courant à vide	Stromaufnahme im Leerlauf
I_{2kBe} (A)	▶ Corriente en servicio de muy corta duración	Current in very short term operation	Courant de service très courte durée	Strom bei extremem Kurzzeitbetrieb
I_a (A)	▶ Corriente de arranque	Starting current	Courant de démarrage	Anlaufstrom
I_{kB} (A)	▶ Corriente en servicio de corta duración	Current in short term operation	Courant de service courte durée	Strom bei Kurzzeitbetrieb
I_n (A)	▶ Corriente nominal	Nominal current	Courant nominal	Nominalstrom
IP	▶ Grado de estanqueidad	Watertightness	Étanchéité	Feuchtigkeitsschutzklasse
kB	▶ Servicio intermitente	Short operating	Service intermittent	Kurzzeitbetrieb
kB (A)	▶ Rendimiento en servicio de corta duración	Efficiency in short term operation	Rendement de service courte durée	Wirkungsgrad bei Kurzbetrieb
kBe	▶ Servicio de muy corta duración	Very short operation	Service de très courte durée	Extremer Kurzzeitbetrieb
kBe (A)	▶ Rendimiento en servicio de muy corta duración	Efficiency in very short term operation	Rendement de service de très courte durée	Wirkungsgrad bei Extremkurzbetrieb
M (N.m)	▶ Par	Torque	Couple	Drehmoment
M_a (N.m)	▶ Par de arranque	Starting torque	Couple de démarrage	Anzugsdrehmoment
M_k (N.m)	▶ Par de autobloqueo	Self-locking torque	Couple d'autoblocage	Selbsthemmungsmoment
M_{kB} (N.m)	▶ Par en servicio de corta duración	Torque at the output shaft in short term operation	Couple de service courte durée	Drehmoment bei Kurzbetrieb
M_{kBe} (N.m)	▶ Par en servicio de muy corta duración	Torque at the output shaft in very short operation	Couple de service très courte durée	Drehmoment bei Extremkurzbetrieb
M_n (N.m)	▶ Par nominal	Nominal torque	Couple nominal	Drehmoment nominal
N	▶ Servicio continuo	Continuous running	Service continu	Dauerbetrieb
n (r.p.m.)	▶ Velocidad	Speed	Vitesse	Geschwindigkeit
n_0 (r.p.m.)	▶ Velocidad en vacío	No load speed	Vitesse à vide	Geschwindigkeit im Leerlauf
n_{kB} (r.p.m.)	▶ Velocidad en servicio de corta duración	Speed in short operation	Vitesse de service courte durée	Geschwindigkeit bei Kurzbetrieb
n_{kBe} (r.p.m.)	▶ Velocidad en servicio de muy corta duración	Speed in very short operation	Vitesse de service très courte durée	Geschwindigkeit bei Extremkurzbetrieb
n_n (r.p.m.)	▶ Velocidad nominal	Nominal speed	Vitesse nominale	Geschwindigkeit nominal
P (kg)	▶ Peso aproximado	Approximate weight	Poids approximatif	Gewicht (ca.)
P (W)	▶ Potencia	Power	Puissance	Leistung
P_1 (W)	▶ Potencia absorbida (U.I)	Absorbed power (U.I)	Puissance absorbée (U.I)	Aufgenommene Leistung (U.I.)
P_2 max	▶ Potencia útil máxima	Maximum power at the output shaft	Puissance utile maximum	Maximale abgegebene Leistung
P_2 (W)	▶ Potencia nominal, útil	Nominal power, useful	Puissance nominale, utile	Abgegebene Leistung
P_{2kB} (W)	▶ Potencia útil en servicio de corta duración	Power at the output shaft in short operation	Puissance utile de service courte durée	Abgegebene Leistung bei Kurzbetrieb
P_{2kBe} (W)	▶ Potencia útil en servicio de muy corta duración	Power at the output shaft in very short operation	Puissance utile de service très courte durée	Abgegebene Leistung bei Extremkurzbetrieb
PLA	▶ Plástico	Plastic	Plastique	Kunststoff
U (V)	▶ Tensión	Voltage	Tension	Spannung
U_n (V)	▶ Tensión nominal	Nominal voltage	Tension nominale	Nennspannung

MÁRGENES DE TOLERANCIA - TOLERANCE ZONES - MARGES DE TOLERANCE - TOLERANZBEREICHE
 lectura de las curvas - Reading curves - lecture des courbes - Die Leistungskurven verstehen



CARACTERÍSTICAS DE LAS CURVAS - CHARACTERISTIC CURVES - CARACTÉRISTIQUES DES COURBES - LEISTUNGSKURVEN

- N** Servicio continuo
Continuous running
Service continu
Dauerbetrieb
- kB** Servicio intermitente
Short operation
Service intermittent
Kurzzeitbetrieb
- kBe** Servicio de muy corta duración
Very short operation
Service de très courte durée
Extremer Kurzzeitbetrieb



116

motorreductor
motor with gear
moteur réducteur
Gleichstromtriebmotoren

Referencia Part Number Reihennummer	U _n (V)	n _n (RPM)	T _n (kg.m)	I _n (A)	M _n (Nm)	I _a (A)	E29	C30	EE4	G2:1	1.00	IP40	PLA	a	6
116.2711.20.00	12	2	40	4	10	15	E29	C30	EE4	G2:1	1.00	IP40	PLA	a	6
116.2711.30.00	24	2	40	2	10	8	E29	C30	EE4	G2:1	1.00	IP40	PLA	a	6
116.2761.20.00	12	2	40	4	10	15	E30	C30	EE4	G2:1	1.00	IP40	PLA	a	6
116.2761.30.00	24	2	40	2	10	8	E30	C30	EE4	G2:1	1.00	IP40	PLA	a	6
116.2761.20.00E	12	2	40	4	10	15	E30	C30	F4	G2:1	1.00	IP40	PLA	a	6
116.2761.30.00E	24	2	40	2	10	8	E30	C30	F4	G2:1	1.00	IP40	PLA	a	6
116.9728.30.00	24	2	40	2	10	8	E30	C30	EE4	G2:1	1.00	IP40	SRO	a	6
116.9716.20.00	12	1.5	40	2.8	7.5	11.5	E30	C30	EE4	G2:1	1.00	IP40	PLA	b	7
116.9731.30.00	24	1.5	65	3.7	10	13	E30	C30	EE4	G2:1	1.00	IP40	PLA	a	8
116.9732.20.00	12	1.5	40	2.8	7.5	11.5	E56	C40	E55	G2:1	1.00	IP40	PLA	b	7

MOTORES C.C. - D.C. MOTORES - MOTEURS C.C. - GLEICHSTROMMOTOREN DOGA

EJE - SHAFT - ARBRE - WELLE

CONDICION - CONNECTION - CONNEXION - ANSCHLUSSART

ESQUEMA ELECTICO - WIRING DIAGRAM - SCHEMA ELECTRIQUE - SCHALTBIELD

CURVAS - CURVES - COURBES - KURVEN

DOGA MOTORES C.C. - D.C. MOTORES - MOTEURS C.C. - GLEICHSTROMMOTOREN

REFERENCIA - PART NUMBER - REFERENCE - ARTIKELNUMMER

AAA.BBBB.CD.EE.F

AAA Serie Série Baureihe	BBBB Código producto Product code Codage produit Produktnummer	C Tensión nominal Nominal voltage Tension nominale Nennspannung	"2" = 12V "3" = 24V "5" = 48V "7" = 72V	D Embalaje Packaging Emballage Verpackung	EE Acabado Finish Finition Finish	F "E" = con filtro EMC with EMC filter avec filtre EMC mit Filter EMC
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ejemplo - example - exemple - zum Beispiel : 111.3711.20.00

111 Serie 111 Série 111 Reihe 111	3711 Código producto Product code Codage produit Produktnummer	2 12V	0 Variará según embalaje final Packaging Variable suivant emballage final Verpackung	00 Acabado Finish Finition Finish	- Con o sin filtro EMC. Según plano. With or without EMC filter. Avec ou sans filtre EMC suivant plan. Mit Filter EMC
--	--	--------------	--	---	--

NOTAS - NOTES - ANMERKUNGEN

- ▶ Los valores de bloqueo (Ma, Ia) corresponden al par y la corriente del motor en frío con el eje de salida bloqueado. Los valores nominales (Un, In, N, Mn, n) están determinados para funcionamiento continuo (S1 según VDE) a condiciones ambiente normales. Las curvas son con el motor en frío.
- ▶ The stall values (Ma, Ia) correspond to the torque and the current of the motor in cold temperatures with the output shaft blocked. The nominal values, (In, N, Mn, n) are for continuous operation (S1 according to VDE) to normal ambient conditions. The curves are with the motor in cold temperature.
- ▶ Les valeurs de blocage (Ma, Ia) correspondent au couple du moteur à froid avec axe de sortie bloqué. Les valeurs nominales (Un, In, N, Mn, n) sont déterminées pour un fonctionnement continu (S1 suivant VDE) en conditions ambiantes normales. Les courbes sont avec moteur froid.
- ▶ Die Werte für die Anlaufstrom und der Anzugsdrehmoment (Ma, Ia) entsprechen dem Drehmoment und der Strom des Motors in kaltem Zustand mit blockierter Abgangswelle. Die Nominalwerte werden ermittelt bei Dauerbetrieb (S1 nach VDE) unter normalen Umgebungsbedingungen. Die Kurven beziehen sich auf den Motor in kaltem Zustand.

MOTORREDUCTORES - MOTORS WITH GEAR - MOTORÉDUCTEURS - GLEICHSTROMGETRIEBEMOTOREN

SERIE SERIES SÉRIE BAUREIHE	IMAGEN IMAGE IMAGE ABBILDUNG	Mn (N.m)	n (r.p.m.)	PÁGINA PAGE PAGE SEITE
111		1.5 - 6	25 - 240	8
112		0.8	30	10
113		1.4	35	12
116		1.5 - 2	40 - 65	14
119		3.5 - 10	18 - 195	16
210		3	55 - 75	18
258		12 - 15	25 - 40	20
259		15 - 25	22 - 40	22

MOTORES - MOTORS - MOTEURS - MOTOREN

SERIE SERIES SÉRIE BAUREIHE	IMAGEN IMAGE IMAGE ABBILDUNG	Mn (N.m)	n (r.p.m.)	PÁGINA PAGE PAGE SEITE
161		0.05	3500	24
162		0.12 - 0.20	1500 - 3000	26
168		0.3 - 0.75	750 - 3000	28
169		0.40 0.30 - 0.35	1500 - 2900 3200 - 4600	30
260		0.08	3000 - 4000	32
269		0.50 - 0.80	675 - 3000	34

"CUSTOMISED"

Motores fabricados a medida - Customised motors
Moteurs sur mesure - Kundenspezifische Motoren



36

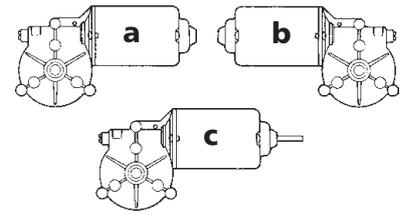
"SPECIAL"

Motores especiales - Special motors
Moteurs speciaux - Sondermodelle

37



motorreductor
motor with gear
motoréducteur
Gleichstromgetriebemotoren

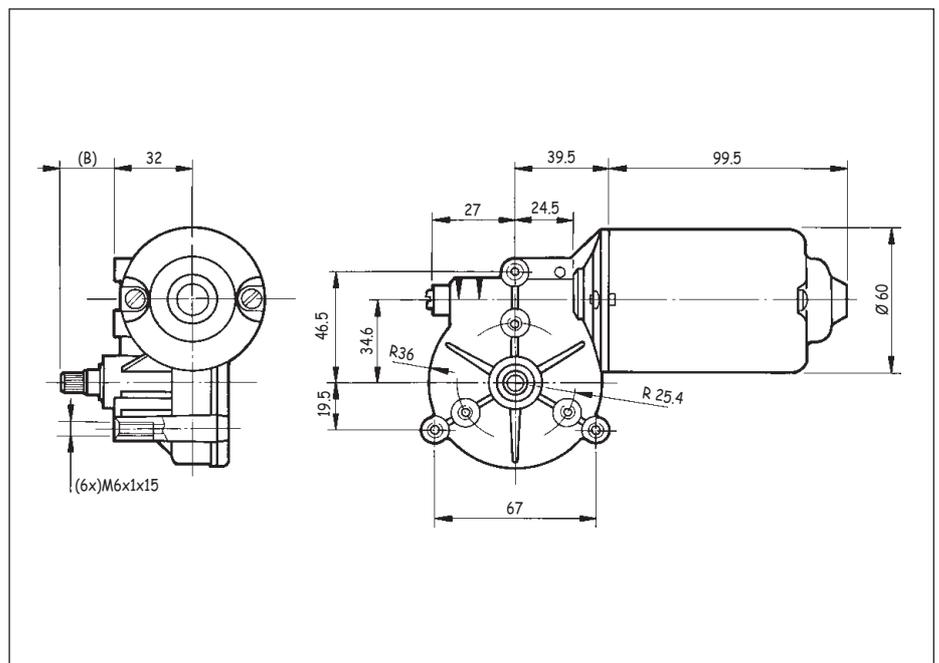


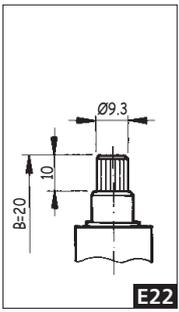
Referencia Reference number Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Axe Welle	Conexiones Connections Connexions Anschlußart	Esq. eléct. Wiring diag. Sch. élect. Schaltbild	Relación de reducción Transmission ratio Rapport de réducteur Übersetzung	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitsschutzklasse	Material rueda Wheel material Matériau roue Mat. des Schneckenrads	Diseño: a,b,c Design: a,b,c Desin: a,b,c Abbildung: a,b,c	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	Pn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				i	P (kg)	IP			
111.3711.20.00	12	5	40	5	25	25	E22	C25	EE2	62:1	1.25	IP53	PLA	a	1
111.3711.30.00	24	5	40	2.5	25	13	E22	C25	EE2	62:1	1.25	IP53	PLA	a	1
111.3761.20.00	12	5	40	5	25	25	E23	C25	EE2	62:1	1.25	IP53	PLA	a	1
111.3761.30.00	24	5	40	2.5	25	13	E23	C25	EE2	62:1	1.25	IP53	PLA	a	1
111.3761.20.00E	24	5	40	2.5	25	13	E23	C25	F2	62:1	1.25	IP53	PLA	a	1
111.3761.30.00E	24	5	40	2.5	25	13	E23	C25	F2	62:1	1.25	IP53	PLA	a	1
111.3763.20.00	12	6	25	4	25	15	E23	C25	EE2	62:1	1.25	IP53	PLA	a	3
111.3763.30.00	24	6	25	2	25	8	E23	C25	EE2	62:1	1.25	IP53	PLA	a	3
111.4761.30.00	24	5	40	2.5	25	13	E23	C25	EE2	62:1	1.25	IP53	PLA	b	1
111.9031.20.00	12	3	70	6	25	34	E23	C25	EE2	62:1	1.25	IP53	PLA	a	2
111.9031.30.00	24	3	70	3	25	17	E23	C25	EE2	62:1	1.25	IP53	PLA	a	2
111.9039.30.00	24	1.5	240	4	14	23	E23	C26	EE1	49:4	1.25	IP53	PLA	a	4
111.9041.30.00	24	5	40	2.5	25	13	E24	C25	EE2	62:1	1,30	IP53	BRO	a	1
111.9094.20.00	12	5	40	5	25	25	E52	C2	EE2	62:1	1.25	IP53	PLA	a	1
111.9107.30.00	24	1.5	240	4	14	23	E24/E53	C26	EE1	62:1	1.25	IP53	CEL	c	4
111.9114.30.00	24	3	70	3	25	17	E24/E54	C37	EE2	62:1	1.25	IP53	PLA	c	2

DOGA can develop for you!

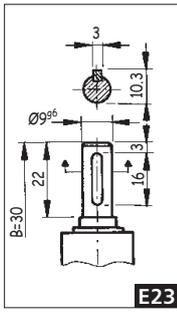
auto-bloqueo / SELF-LOCKING

Tensión nominal Nominal voltage Tension nominale Nennspannung	Par de autobloqueo Self-locking torque Couple d'autobloqueage Drehmoment	Velocidad en vacío Unload speed Vitesse à vide Geschwindigkeit im Leerlauf	Reducción Transmission ratio Rapport de réduction Übersetzung	Material rueda reductora Worm wheel material Mat. roue de réduction Mat. des Schneckenrads
U (V)	Mk (N.m.)	n (R.P.M.)	i	
12	30	30-50	58:1	CEL
24	30	30-50	58:1	CEL

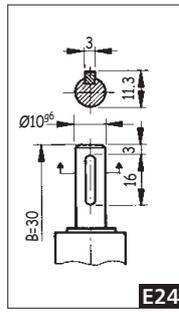




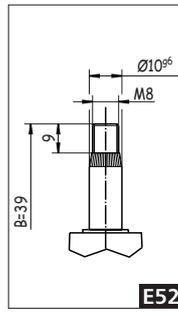
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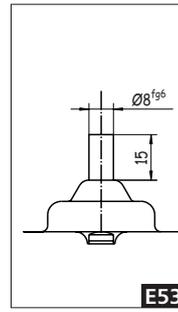
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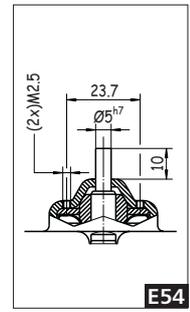
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E52



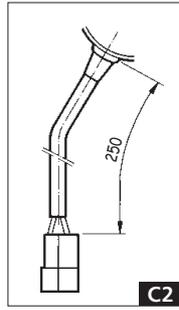
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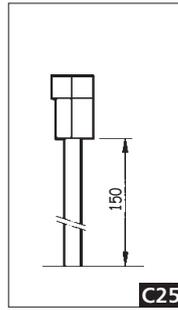
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111

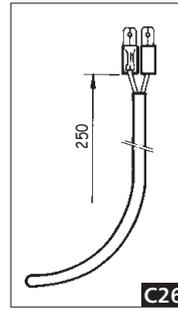
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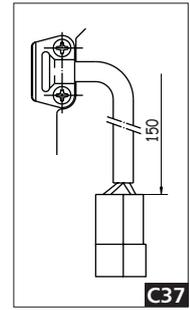
C2



C25



C26



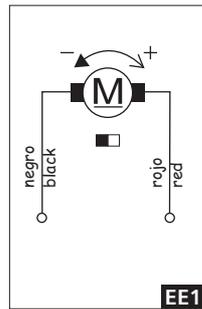
C37

113

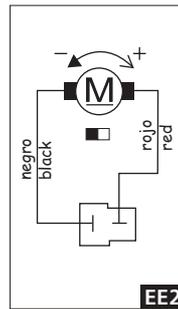
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119

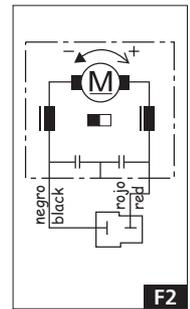
210



EE1



EE2

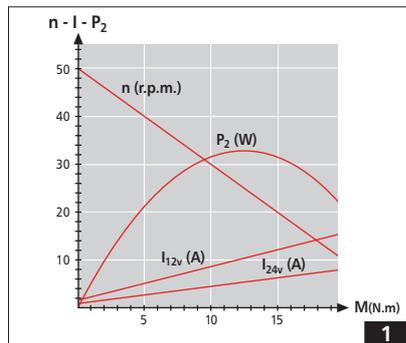


F2

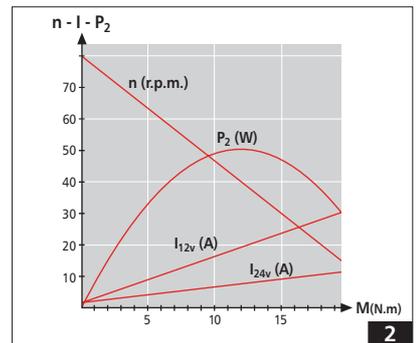
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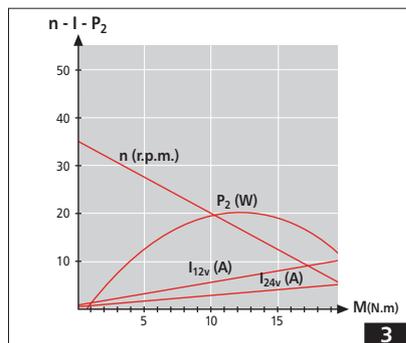
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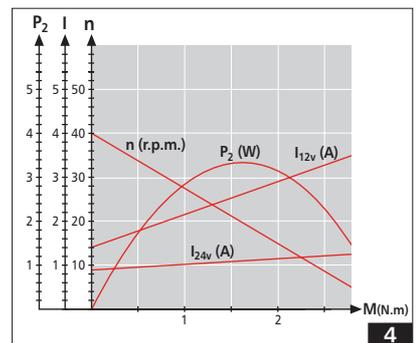
1



2



3



4

162

168

169

260

269

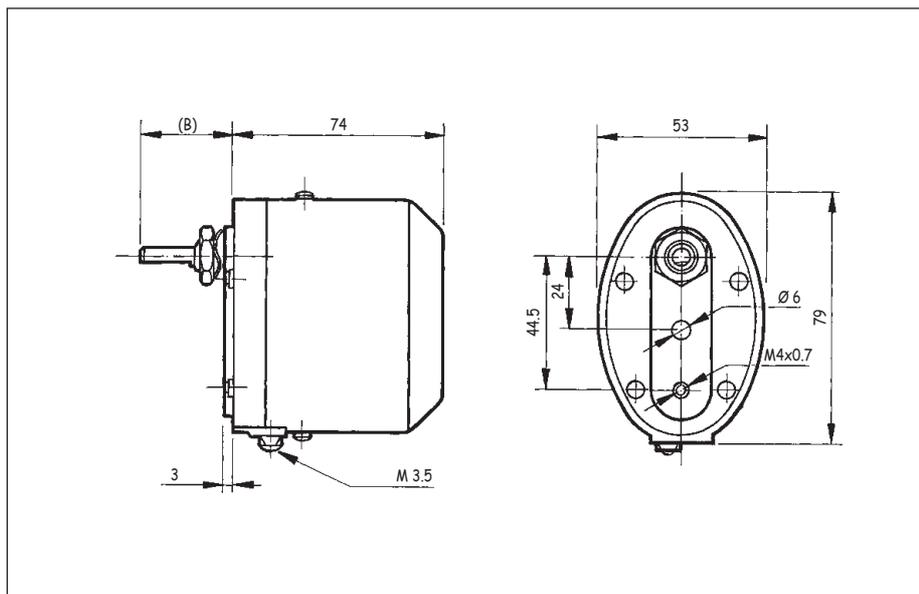
CUSTOMISE

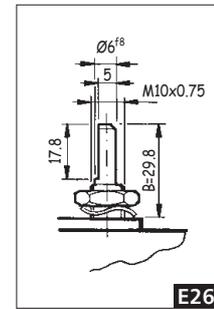
SPECIAL



motorreductor
 motor with gear
 motoréducteur
 Gleichstromgetriebemotoren

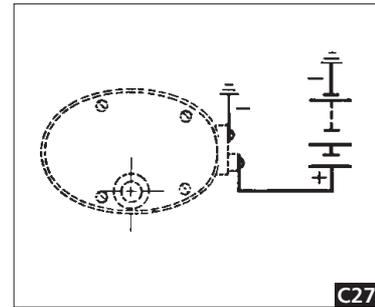
Referencia Reference number Referenznummern	Tensión nominal Nominal voltage tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Arbre Welle	Conexiones Connections Connexions Anschlußart	Esq. eléct. Wiring diag. Sch. élect. Schaltbild	Relación de reducción Transmission ratio Rapport de réducteur Übersetzung	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitsschutzklasse	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	nn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				i	P (kg)	IP	
112.9703.20.00	12	0.8	30	2	4.5	7	E26	C27	EE11	90:1	0.6	IP30	4
112.9703.30.00	24	0.8	30	1	4.5	3.5	E26	C27	EE11	90:1	0.6	IP30	4





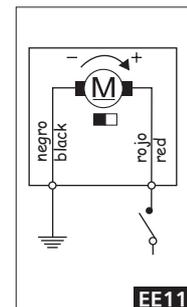
E26

- 111
- 112



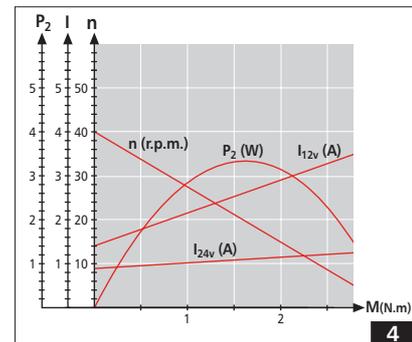
C27

- 113
- 116
- 119
- 210



EE11

- 258
- 259
- 161



4

- 162
- 168
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- 269

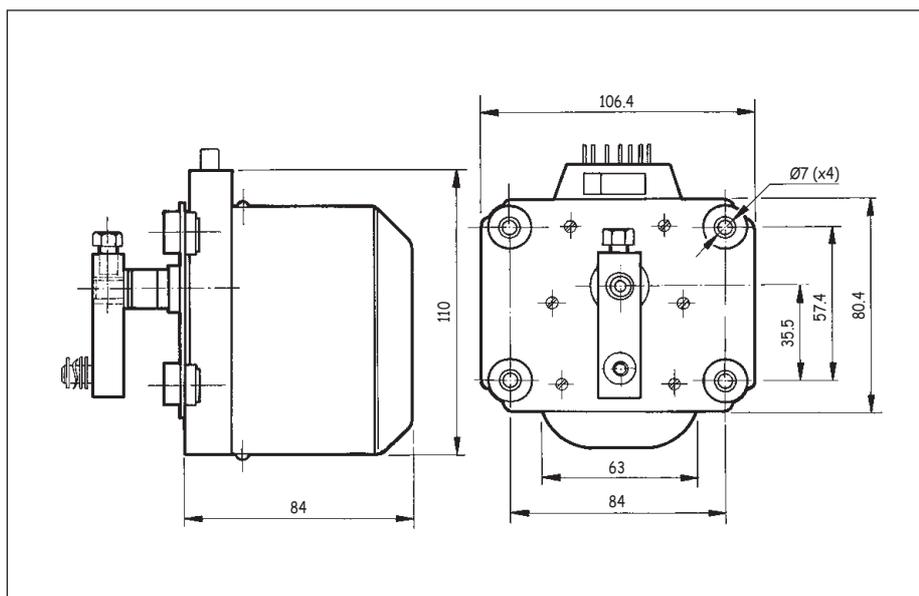
CUSTOMISE

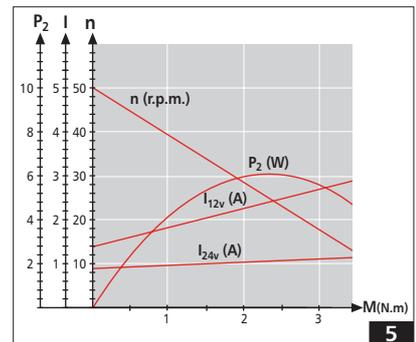
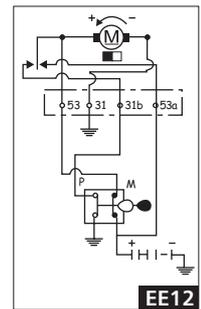
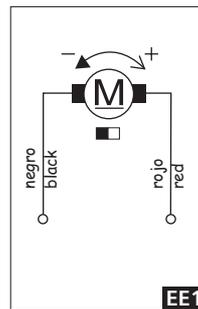
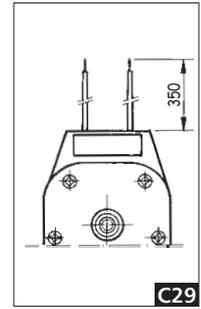
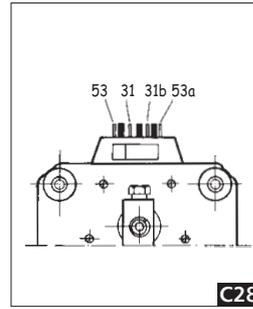
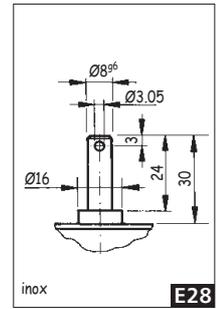
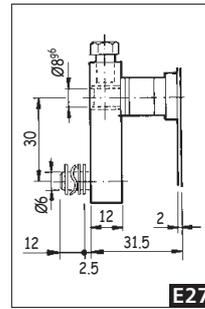
SPECIAL



motorreductor
 motor with gear
 motoréducteur
 Gleichstromgetriebemotoren

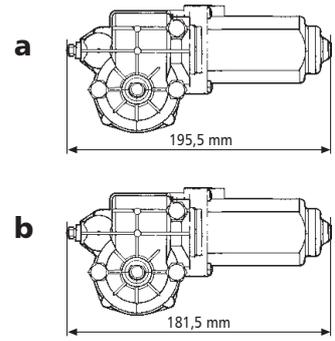
Referencia Reference number Référence Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Axe Welle	Conexiones Connections Connexions Anschlußbart	Esq. elect. Wiring diag. Sch. elect. Schaltbild	Relación de reducción Transmission ratio Rapport de réducteur Übersetzung	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitschutzklasse	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	Fn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				i	P (kg)	IP	
113.9703.20.00	12	1.4	35	2	7.5	8	E27	C28	EE12	54:1	1.5	IP30	5
113.9703.30.00	24	1.4	35	1	7.5	4	E27	C28	EE12	54:1	1.5	IP30	5
113.9722.30.00	24	1.4	35	1	7.5	4	E28	C29	EE1	54:1	1.5	IP30	5



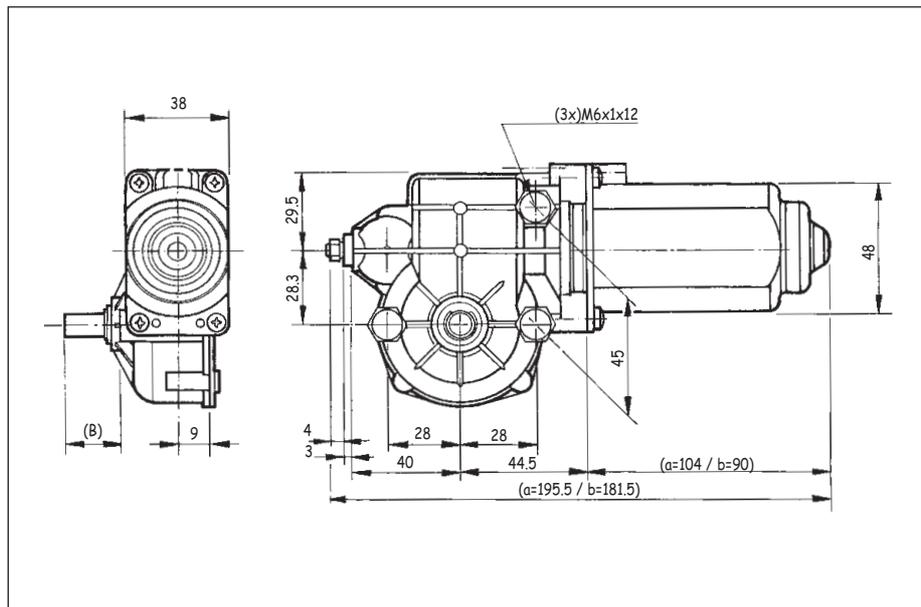


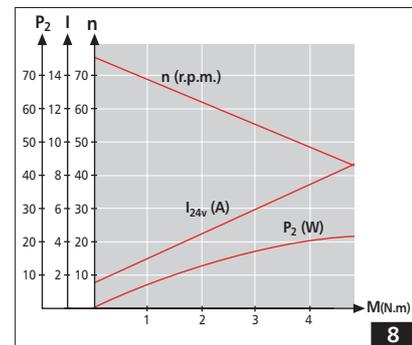
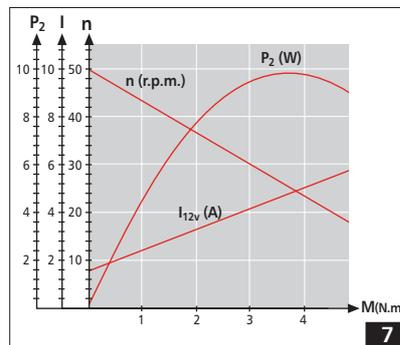
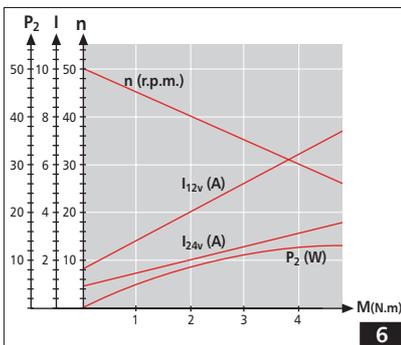
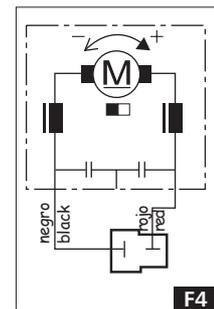
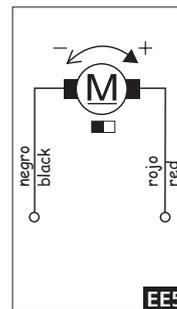
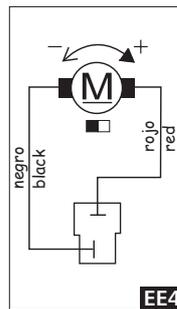
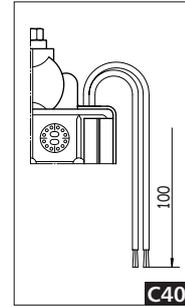
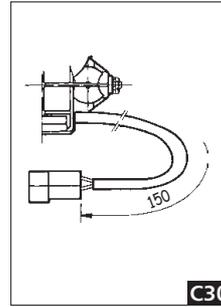
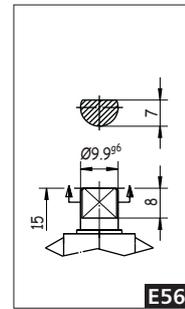
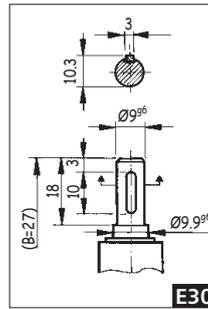
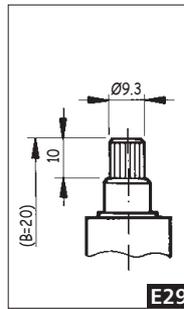


motorreductor
motor with gear
moteur réducteur
Gleichstromgetriebemotoren



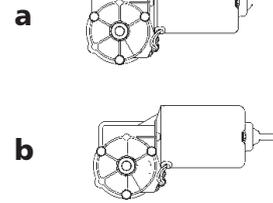
Referencia Référence number Réferenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Axe Welle	Conexiones Connections Connexions Anschlußart	Eq. elect. Wiring diag. Sch. élect. Schaltbild	Relación de reducción Transmission ratio Rapport de réducteur Übersetzung	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitsschutzklasse	Material rueda Wheel material Matériau roue Mat. des Schneckenrades	Diseño: a,b Design: a,b Dessin: a,b Abbildung: a,b	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	nn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				i	P (kg)	IP			
116.2711.20.00	12	2	40	4	10	15	E29	C30	EE4	62:1	1.00	IP40	PLA	a	6
116.2711.30.00	24	2	40	2	10	8	E29	C30	EE4	62:1	1.00	IP40	PLA	a	6
116.2761.20.00	12	2	40	4	10	15	E30	C30	EE4	62:1	1.00	IP40	PLA	a	6
116.2761.30.00	24	2	40	2	10	8	E30	C30	EE4	62:1	1.00	IP40	PLA	a	6
116.2761.20.00E	12	2	40	4	10	15	E30	C30	F4	62:1	1.00	IP40	PLA	a	6
116.2761.30.00E	24	2	40	2	10	8	E30	C30	F4	62:1	1.00	IP40	PLA	a	6
116.9728.30.00	24	2	40	2	10	8	E30	C30	EE4	62:1	1.00	IP40	BRO	a	6
116.9716.20.00	12	1.5	40	2.8	7.5	11.5	E30	C30	F4	62:1	1.00	IP40	PLA	b	7
116.9731.30.00	24	1.5	65	3.7	10	13	E30	C30	EE4	62:1	1.00	IP40	PLA	a	8
116.9732.20.00	12	1.5	40	2.8	7.5	11.5	E56	C40	EE5	62:1	1.00	IP40	PLA	b	7







motorreductor
motor with gear
motoréducteur
Gleichstromgetriebemotoren

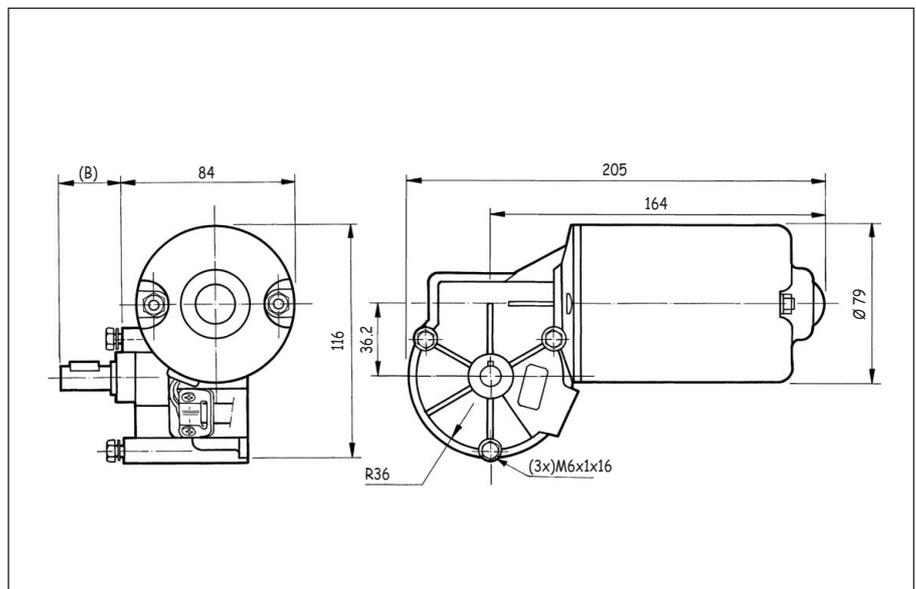


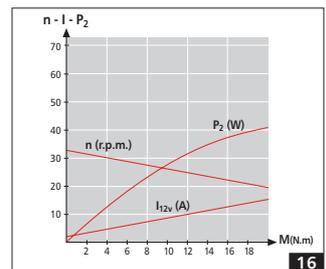
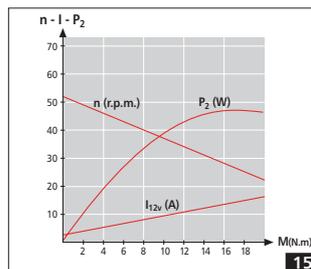
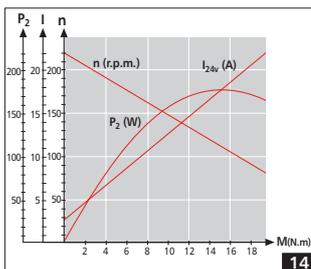
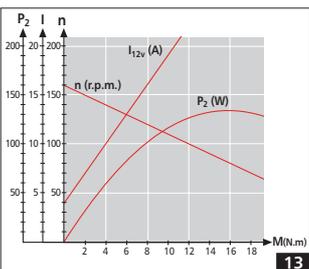
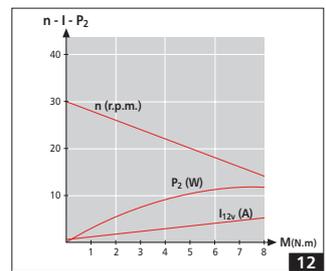
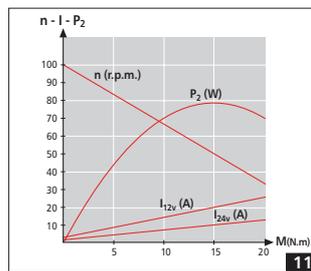
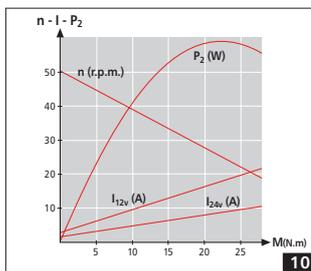
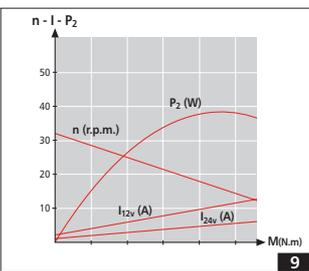
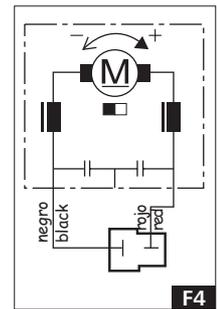
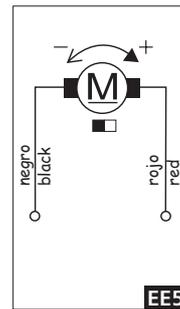
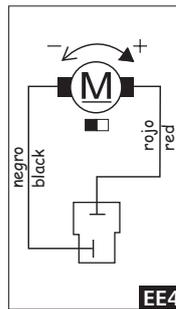
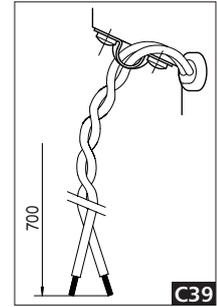
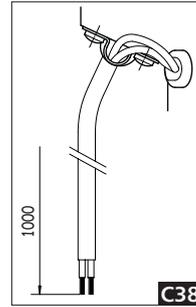
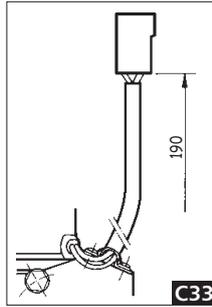
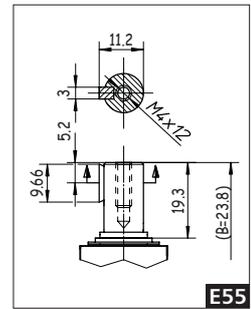
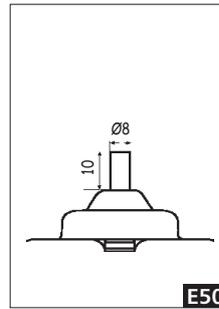
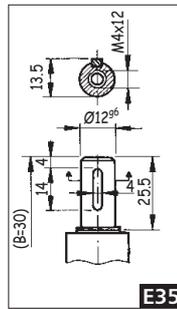
Referencia Reference number Référence nummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Par de autobloqueo Self-locking torque Couple d'autobloqueo Drehmoment	Eje Shaft Axe Welle	Conexiones Connections Connexions Anschlußart	Esp. eléct. Wiring diag. Sch. élect. Schaltbild	Relación de reducción Transmission ratio Rapport de réducteur Übersetzung	Peso aproximado Approximate weight Poids approximatif Gewicht (Ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitschutzklasse	Material rueda Wheel material Matériau roue Mat. des Schneckenrades	Diseño: a,b,c Design: a,b,c Dessin: a,b,c Abbildung: a,b,c	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	nn (r.p.m.)	In (A)	Ma (N.m.)	la (A)	Mk (N.m.)				i	P (kg)	IP			
119.3780.20.00	12	10	25	6	40	30	-	E35	C33	EE4	50:1	2.30	IP53	PLA	a	9
119.3780.30.00	24	10	25	3	40	15	-	E35	C33	EE4	50:1	2.30	IP53	PLA	a	9
119.3786.20.00	12	9	40	9	50	40	-	E35	C33	EE4	50:1	2.30	IP53	PLA	a	10
119.3786.30.00	24	9	40	4.5	50	20	-	E35	C33	EE4	50:1	2.30	IP53	PLA	a	10
119.3786.20.00E	12	9	40	9	50	40	-	E35	C33	F4	50:1	2.30	IP53	PLA	a	10
119.3786.30.00E	24	9	40	4.5	50	20	-	E35	C33	F4	50:1	2.30	IP53	PLA	a	10
119.3788.20.00	12	6	80	10	30	48	-	E35	C33	EE4	48:2	2.30	IP53	PLA	a	11
119.3788.30.00	24	6	80	5	30	24	-	E35	C33	EE4	48:2	2.30	IP53	PLA	a	11
119.9009.20.00	12	10	25	6	40	30	-	E35	C33	EE4	50:1	2.50	IP53	BRO	a	9
119.9009.30.00	24	10	25	3	40	15	-	E35	C33	EE4	50:1	2.50	IP53	BRO	a	9
119.9011.20.00	12	6	18	4	48	11	-	E35	C33	EE4	48:2	2.30	IP53	PLA	a	12
119.9032.20.00	12	9	40	9	50	40	-	E35	C33	EE4	50:1	2.50	IP53	BRO	a	10
119.9032.30.00	24	9	40	4.5	50	20	-	E35	C33	EE4	50:1	2.50	IP53	BRO	a	10
119.9035.20.00	12	4	140	10	25	60	-	E35	C38	EE4	48:2	2.30	IP53	PLA	a	13
119.9037.30.00	24	6	80	5	30	24	-	E35/E50	C33	EE4	48:2	2.30	IP53	PLA	b	11
119.9059.30.00	24	3.5	195	6	30	65	-	E35	C33	EE4	48:2	2.30	IP53	PLA	a	14
119.9062.20.00	12	8	40	8	30	40	40	E55	C39	EE5	58:1	2.50	IP53	CEL	a	15
119.9063.20.00	12	9	27	8	35	30	40	E35	C33	EE4	58:1	2.50	IP53	CEL	a	16

DOGA can develop for you!

auto-bloqueo / SELF-LOCKING

Tensión nominal Nominal voltage Tension nominale Nennspannung	Par de autobloqueo Self-locking torque Couple d'autobloqueo Drehmoment	Velocidad en vacío Unload speed Vitesse à vide Geschwindigkeit im Leerlauf	Reducción Transmission ratio Übersetzung	Material rueda reductora Worm wheel material Mat. roue de reduction Mat. des Schneckenrades
U (V)	Mk (N.m.)	n (R.P.M.)	i	
12	40	30-50	47:1	CEL
24	40	30-50	47:1	CEL

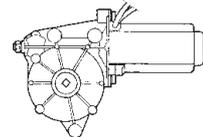




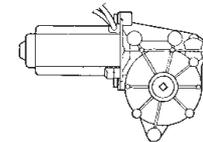


motorreductor
motor with gear
motorréducteur
Gleichstromgetriebemotoren

a

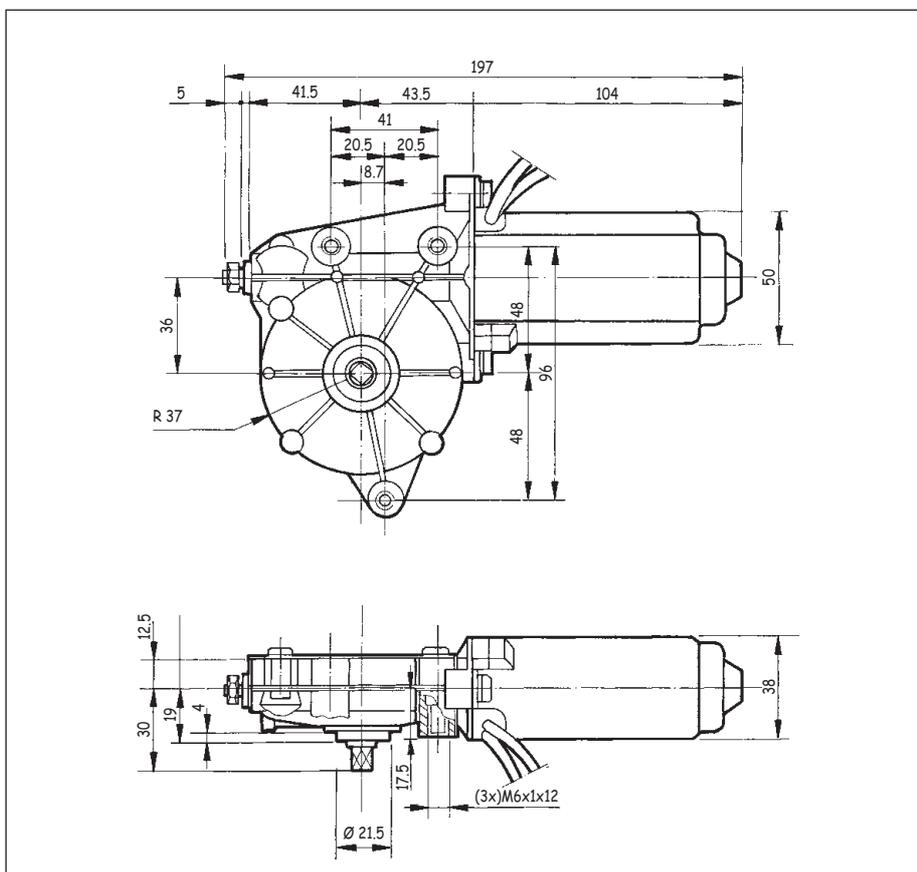


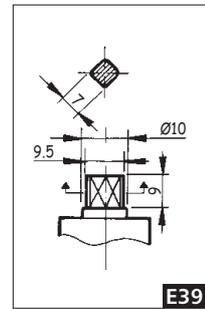
b



Referencia Reference number Référence Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Arbre Welle	Conexiones Connections Connexions Anschlußart	Esq. eléct. Wiring diag. Sch. élect. Schaltbild	Relación de reducción Transmission ratio Rapport de réducteur Übersetzung	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitsschutzklasse	Material rueda Wheel material Matériau roue Mat. des Schneckenrades	Diseño: a, b Design: a, b Dessin: a, b Abbildung: a, b	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	nn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				i	P (kg)	IP			
210.0102.20.D0	12	3	55-75	7.5	10	28	E39	C38	EE16	60:1	0.95	IP40	PLA	a	17
210.0102.20.I0	12	3	55-75	7.5	10	28	E39	C38	EE16	60:1	0.95	IP40	PLA	b	17
210.0102.30.D0	24	3	55-75	4	10	14	E39	C38	EE16	60:1	0.95	IP40	PLA	a	17
210.0102.30.I0	24	3	55-75	4	10	14	E39	C38	EE16	60:1	0.95	IP40	PLA	b	17

(VDE 0530) S3 - 10% (10 min.)

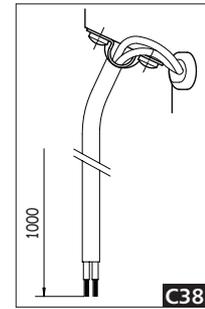




E39

111

112



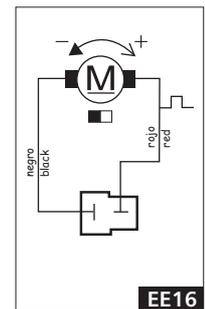
C38

113

116

119

210

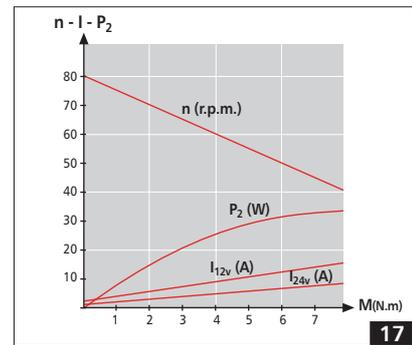


EE16

258

259

161



17

162

168

169

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269

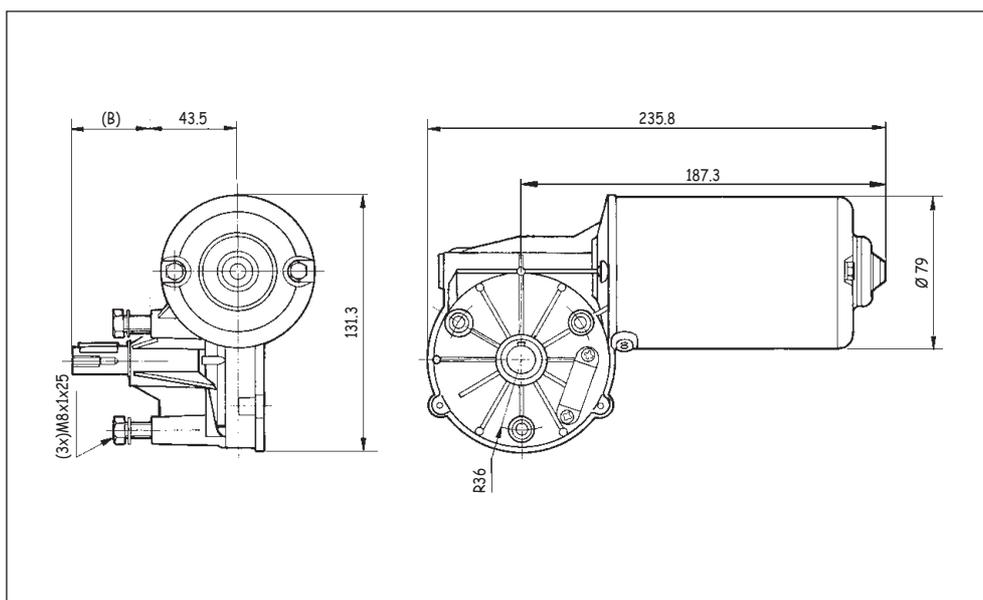
CUSTOMISE

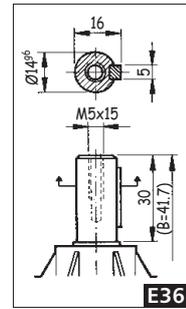
SPECIAL



motorreductor
motor with gear
moteur réducteur
Gleichstromgetriebemotoren

Referencia Reference number Référence Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de Arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Arbre Welle	Conexiones Connections Connexions Anschlußart	Esg. eléct. Wiring diag. Sch. élect. Schaltbild	Relación de reducción Transmission ratio Rapport de réducteur Übersetzung	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Water-tightness Étanchéité Feuchtigkeitsschutzklasse	Materiales Wheel material Matériau roue Mat. des Schneckenrads	Cuna Cure Courbe Kurve
	Un (V)	Mn (N.m.)	n_n (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				i	P (kg)	IP		
258.1710.20.00	12	15	25	10	80	42	E36	C34	F2	52:1	3.00	IP53	CEL	18
258.1710.30.00	24	15	25	5	80	21	E36	C34	F2	52:1	3.00	IP53	CEL	18
258.3710.20.00	12	15	25	10	80	42	E36	C34	EE2	52:1	3.00	IP53	CEL	18
258.3710.30.00	24	15	25	5	80	21	E36	C34	EE2	52:1	3.00	IP53	CEL	18
258.3712.20.00	12	12	40	12	80	55	E36	C34	EE2	52:1	3.00	IP53	CEL	19
258.3712.30.00	24	12	40	6	80	32	E36	C34	EE2	52:1	3.00	IP53	CEL	19

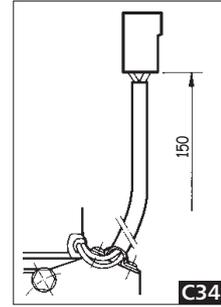




E36

111

112



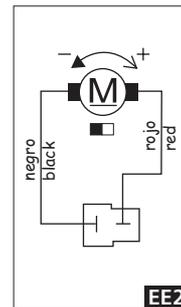
C34

113

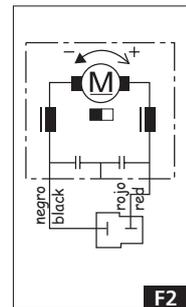
116

119

210



EE2

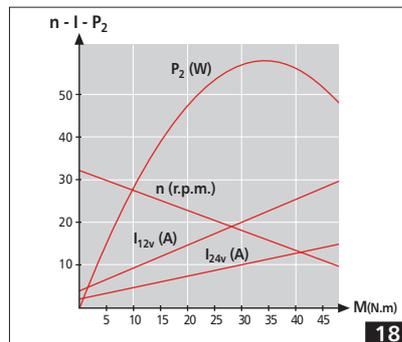


F2

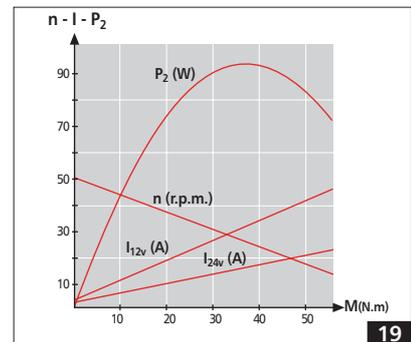
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259

161



18



19

162

168

169

260

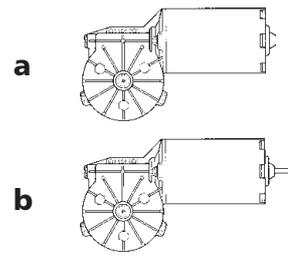
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CUSTOMISE

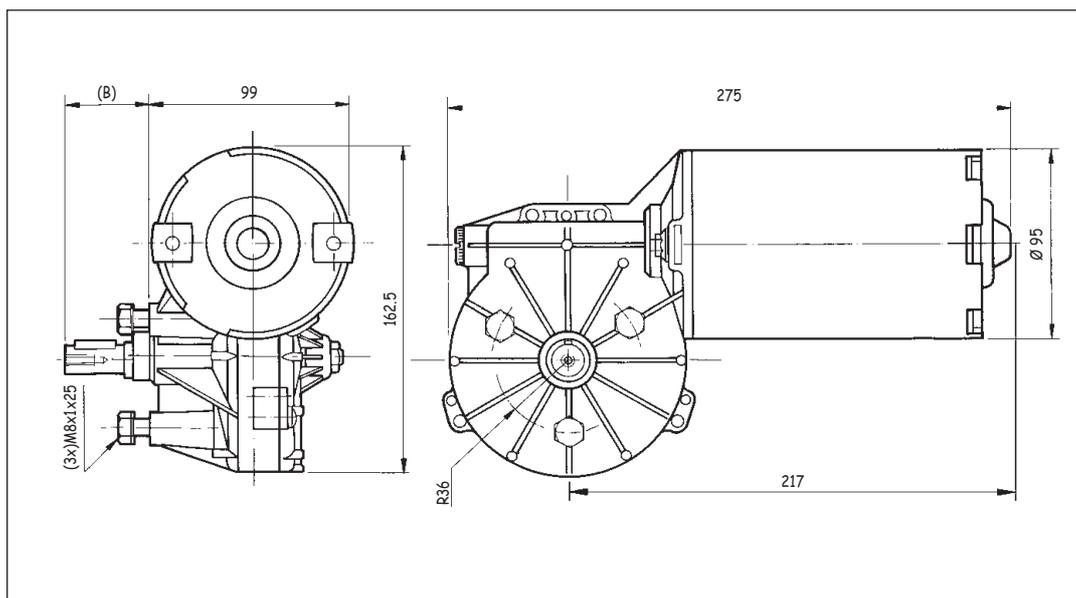
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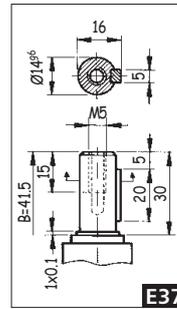


motorreductor
motor with gear
motoréducteur
Gleichstromgetriebemotoren

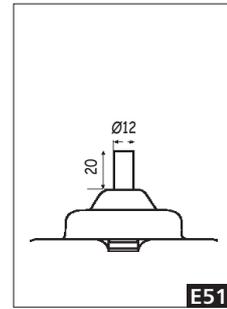


Referencia Reference number Référence Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Arbre Welle	Conexiones Connections Connexions Anschlußart	Esg. eléct. Wiring diag. Sch. élect. Schaltbild	Relación de reducción Transmission ratio Rapport de réducteur Übersetzung	Peso aproximado Approximate weight Poids approximatif Gewicht (ca)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitschutzklasse	Material rueda Wheel material Matériau roue Mat. des Schneckenrads	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	fn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				i	P (kg)	IP		
259.3710.20.00	12	20	22	12	130	60	E37	C34	EE2	50:1	5.90	IP53	PLA	20
259.3710.30.00	24	20	22	6	130	30	E37	C34	EE2	50:1	5.90	IP53	PLA	20
259.3716.20.00	12	15	40	18	120	98	E37	C34	EE7	50:1	5.90	IP53	PLA	21
259.3716.30.00	24	15	40	9	120	49	E37	C34	EE7	50:1	5.90	IP53	PLA	21
259.9001.20.00	12	15	40	18	120	98	E37	C34	F2	50:1	5.90	IP53	PLA	21
259.9001.30.00	24	15	40	9	120	49	E37	C34	F2	50:1	5.90	IP53	PLA	21
259.9008.30.00	24	25	25	7	135	30	E37/E51	C34	EE2	50:1	5.90	IP53	PLA	22
259.9016.30.00	24	20	22	6	130	30	E37	C34	EE2	50:1	5.90	IP53	CEL	20

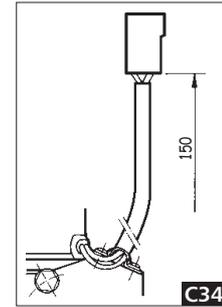




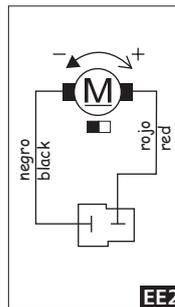
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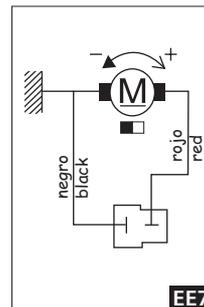
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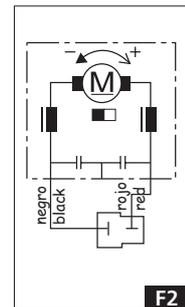
C34



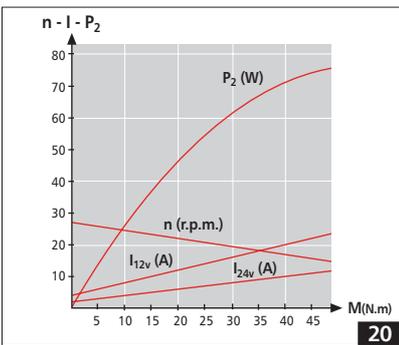
EE2



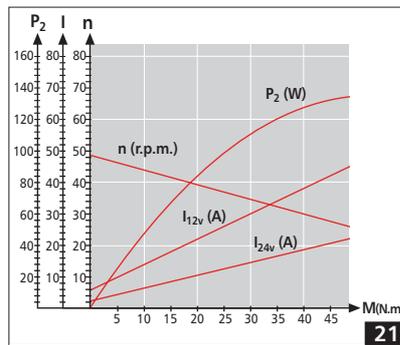
EE7



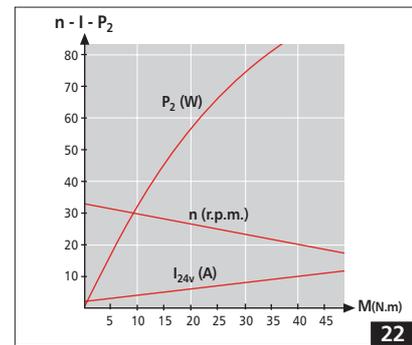
F2



20



21

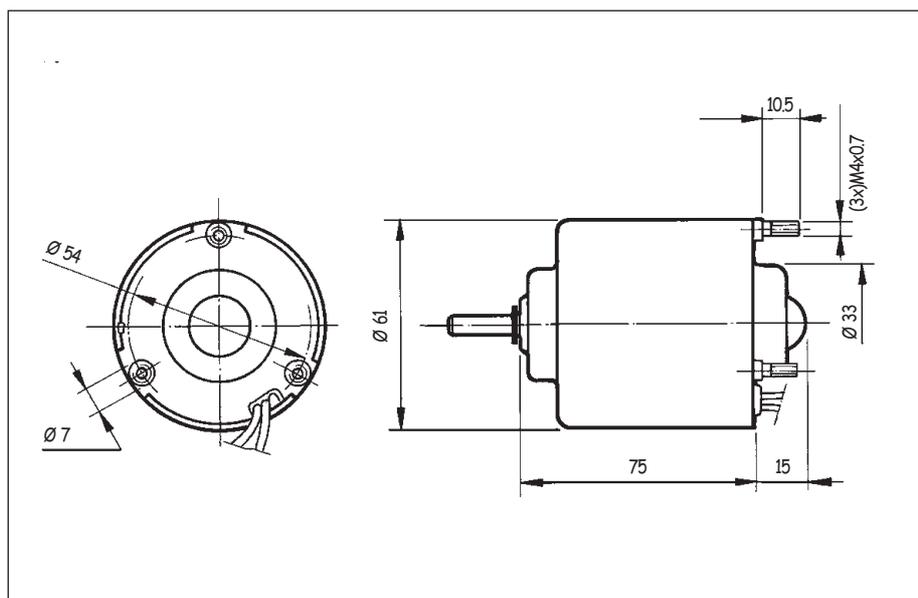


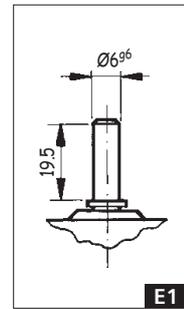
22



motor
moteur
Gleichstrommotor

Referencia Reference number Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Arbre Welle	Conexiones Connections Connexions Anschlußart	Esq. elect. Wiring diag. Sch. élect. Schaltbild	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitschutzklasse	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	nn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				P (kg)	IP	
161.3101.20.09	12	0.05	3500	3	0.25	12	E1	C1	EE1	0.5	IP53	31
161.3101.30.09	24	0.05	3500	1.5	0.25	6	E1	C1	EE1	0.5	IP53	31

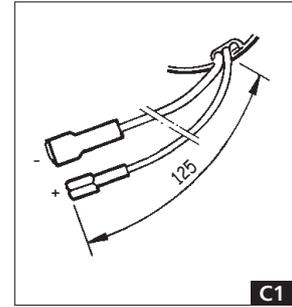




E1

111

112



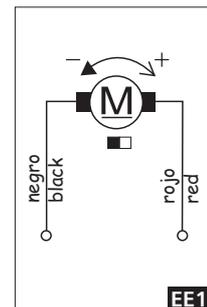
C1

113

116

119

210

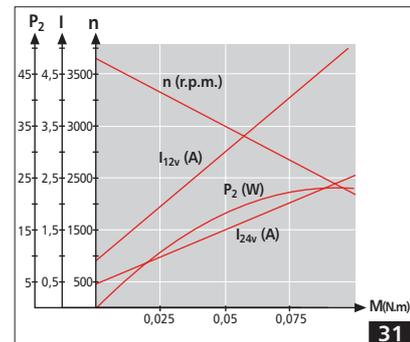


EE1

258

259

161



31

162

168

169

260

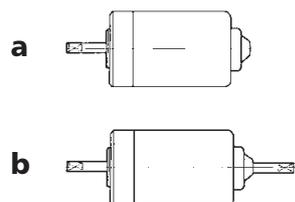
269

CUSTOMISE

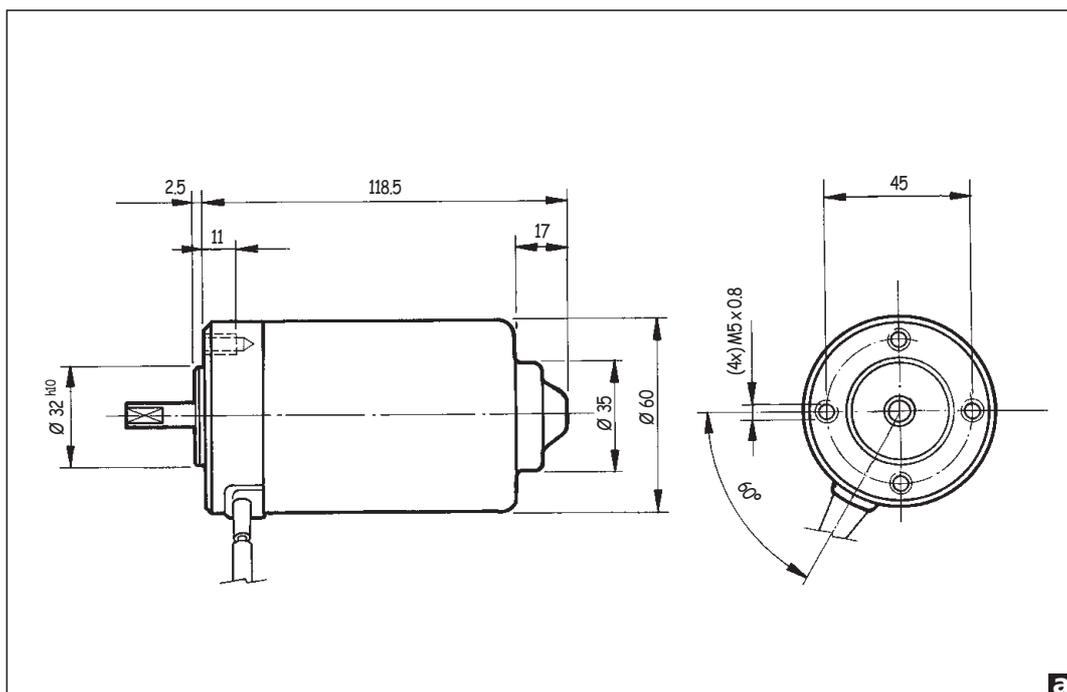
SPECIAL

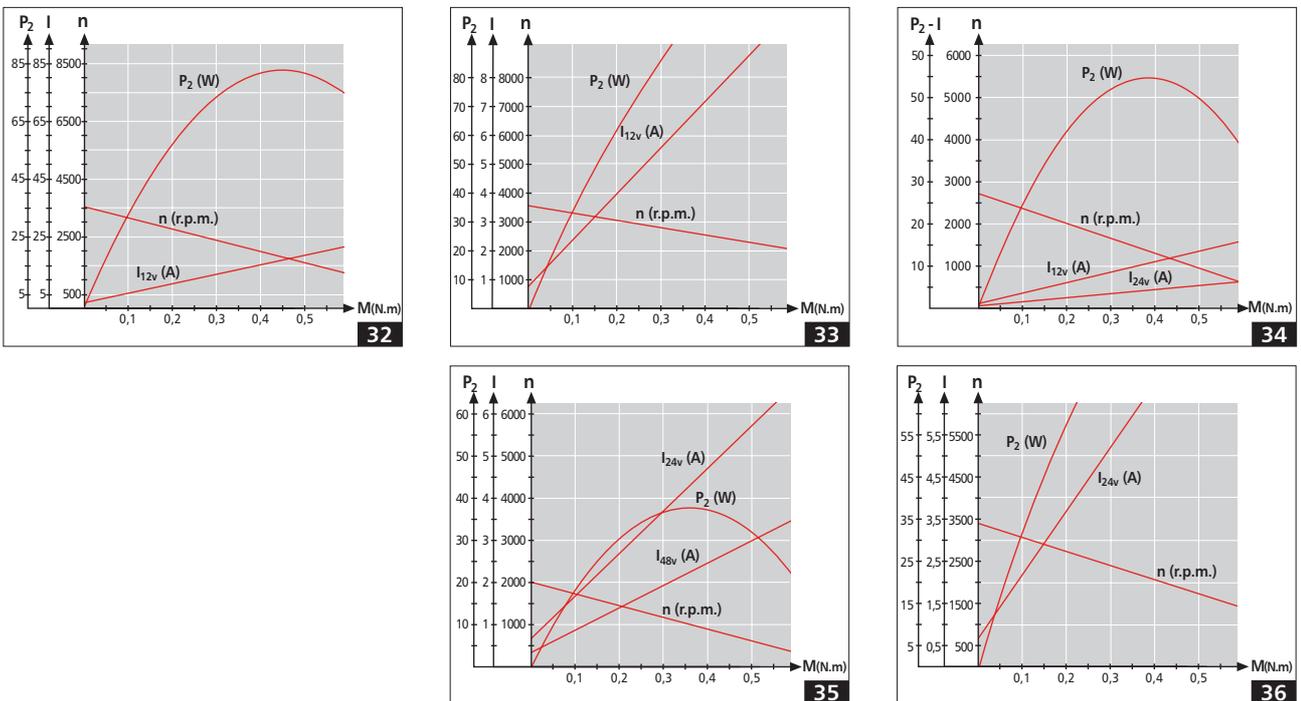
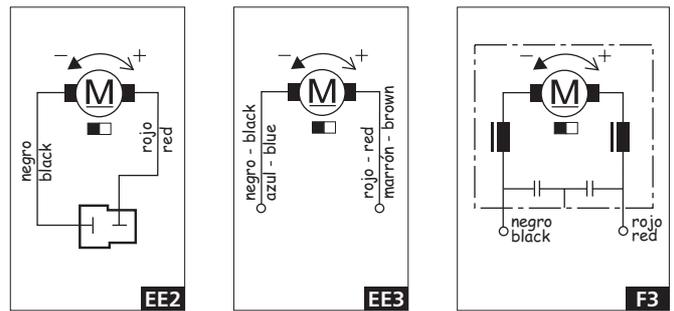
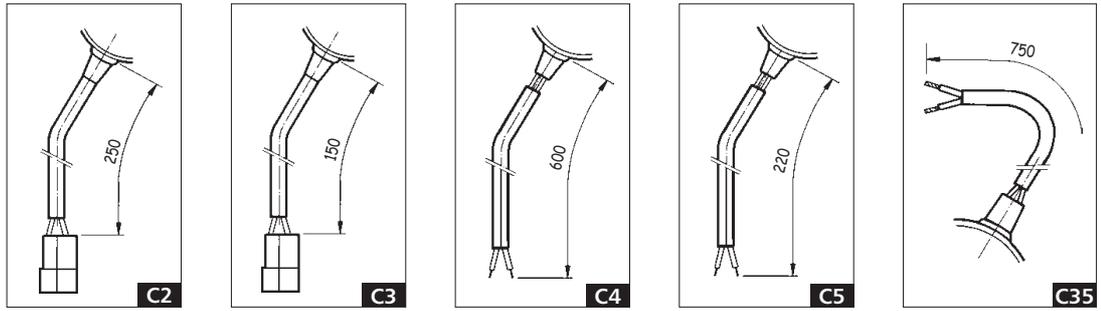
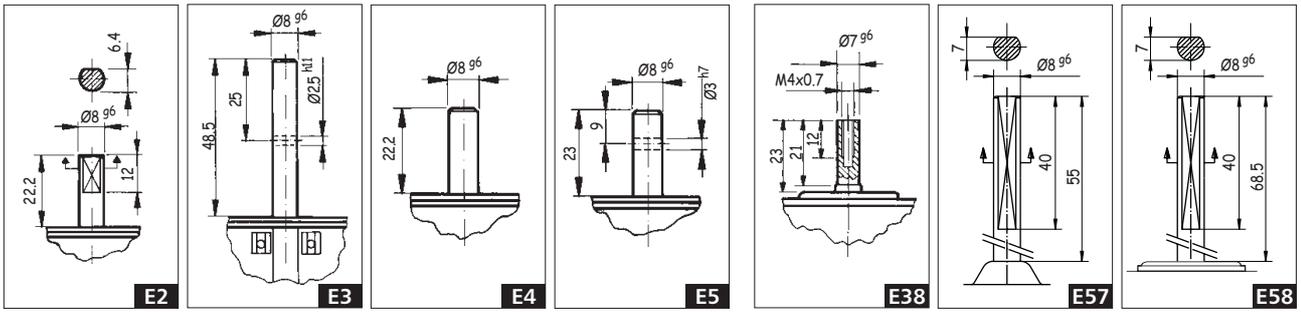


motor
moteur
Gleichstrommotor



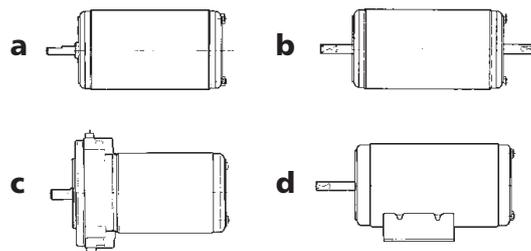
Referencia Reference number Référence Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Aibre Welle	Conexiones Connections Connexions Anschlußart	Esq. eléct. Wiring diag. Sch. élect. Schaltbild	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitsschutzklasse	Diseño: a,b Design: a,b Dessin: a,b Abbildung: a,b	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	nn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				P (kg)	IP		
162.4101.20.00	12	0.18	2800	7.5	1.0	33	E2	C2	EE2	1.1	IP53	a	32
162.4101.30.00	24	0.20	3000	4	1.0	18	E2	C2	EE2	1.1	IP53	a	33
162.4102.20.00	12	0.20	2000	6	1.0	24	E2	C3	EE2	1.1	IP53	a	34
162.4102.30.00	24	0.20	2000	3	1.0	12	E2	C3	EE2	1.1	IP53	a	34
162.4106.20.00	12	0.18	2800	7.5	1.0	33	E4	C2	EE2	1.1	IP53	a	32
162.4106.30.00	24	0.20	3000	4	1.0	18	E4	C2	EE2	1.1	IP53	a	33
162.4107.30.00E	24	0.20	2000	3	1.0	12	E5	C5	F3	1.1	IP53	a	34
162.4108.30.00	24	0.18	1500	2.5	0.8	8.5	E2	C3	EE2	1.1	IP53	a	35
162.4109.30.00	24	0.18	1500	2.5	0.8	8.5	E38	C35	EE3	1.1	IP53	a	35
162.4109.50.00	48	0.18	1500	1,3	0.8	4,5	E38	C35	EE3	1.1	IP53	a	35
162.4113.30.00	24	0.12	3000	2.5	1.0	15	E3	C4	F3	1.1	IP53	b	36
162.4116.30.00	24	0.20	3000	4	1.0	18	E58/E57	C2	EE2	1.1	IP53	b	33



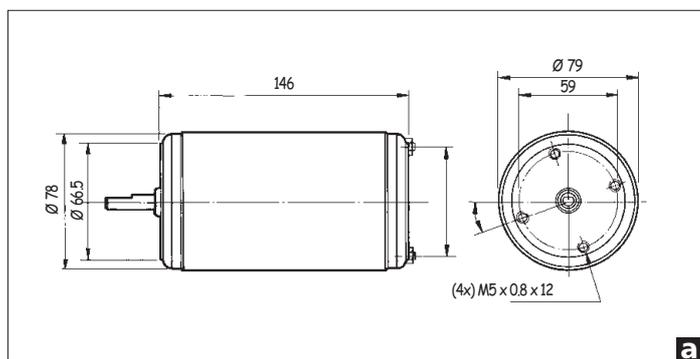




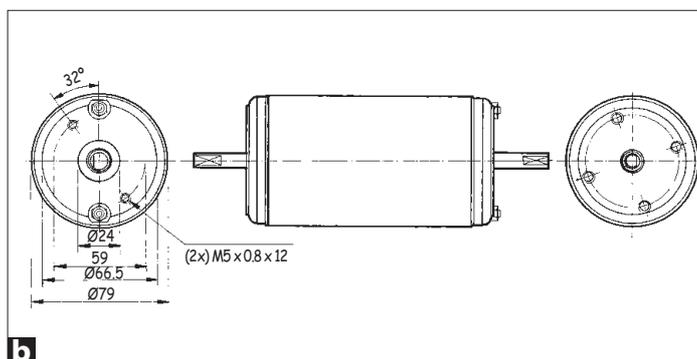
motor
moteur
Gleichstrommotor



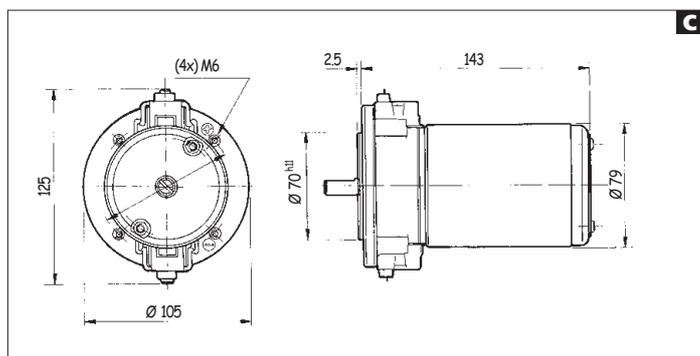
Referencia Reference number Référence Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Axe Welle	Conexiones Connections Connexions Anschlußart	Esq. elect. Wiring diag. Sch. elect. Schaltbild	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitsschutzklasse	Diseño: a, b, c, d Design: a, b, c, d Desig.: a, b, c, d Abbildung: a, b, c, d	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	Nn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				P (kg)	IP		
168.4105.20.04	12	0.50	1900	14	3.0	64	E8	C8	EE1	2.6	IP53	a	37
168.4105.30.04	24	0.50	1900	7	3.0	32	E8	C8	EE1	2.6	IP53	a	37
168.4107.20.04	12	0.50	2000	13	3.2	76	E46	-	EE1	2.6	IP53	c	38
168.4107.30.04	24	0.50	2000	6.5	3.2	38	E46	-	EE1	2.6	IP53	c	38
168.4108.20.04	12	0.45	2800	19	3.0	100	E9	C9	EE4	2.6	IP53	a	39
168.4108.30.04	24	0.45	2800	10	3.0	52	E9	C9	EE4	2.6	IP53	a	39
168.4111.20.04	12	0.75	1000	11	2.8	36	E11	C9	EE2	2.6	IP53	a	40
168.4111.30.04	24	0.75	1000	5.5	2.8	18	E11	C9	EE2	2.6	IP53	a	40
168.4112.20.04	12	0.70	1500	14	3.0	56	E12	C11	EE2	2.6	IP53	a	42
168.4112.30.04	24	0.70	1500	7	3.0	28	E12	C11	EE2	2.6	IP53	a	42
168.4115.30.04	24	0.50	3000	11	3.0	70	E13/E41	C13	EE2	2.6	IP53	a	41
168.4116.20.04	12	0.50	1900	14	3.0	64	E8	C8	EE1	2.6	IP53	d	37
168.4116.30.04	24	0.50	1900	7	3.0	32	E8	C8	EE1	2.6	IP53	d	37
168.4121.30.04E	24	0.50	3000	11	3.0	70	E11/E11	C13	F2	2.6	IP53	b	41
168.4122.30.04	24	0.75	1000	5.5	2.8	18	E13/E41	C13	EE2	2.6	IP53	a	40
168.4123.20.04	12	0.50	2100	16	3.0	76	E13/E41	C13	EE2	2.6	IP53	a	43
168.4123.30.04	24	0.50	2100	8	3.0	38	E13/E41	C13	EE2	2.6	IP53	a	43
168.4134.30.04	24	0.30	750	1.5	1.5	7	E59	C9	EE2	2.6	IP53	a	44



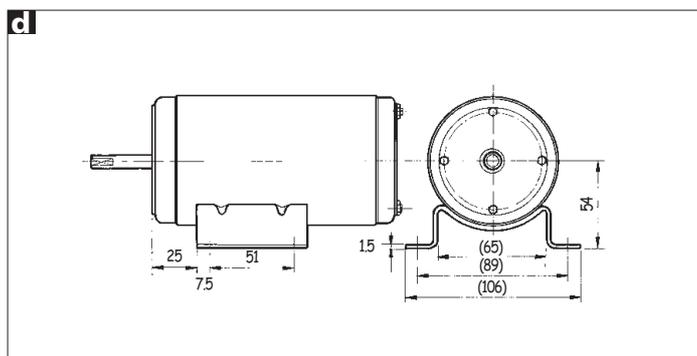
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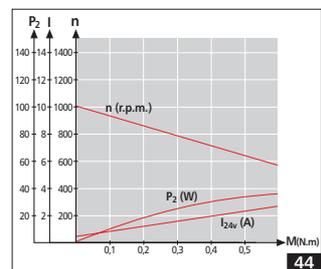
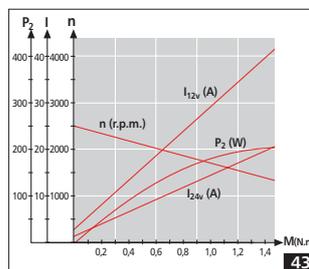
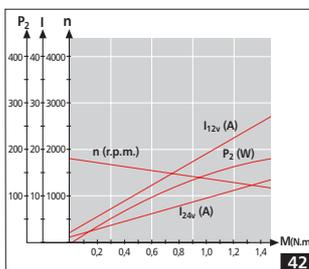
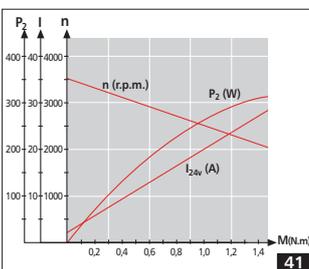
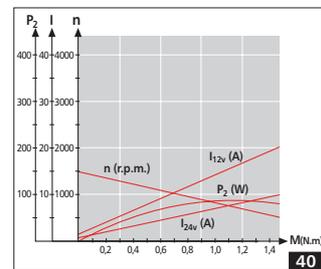
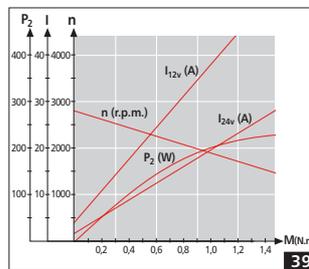
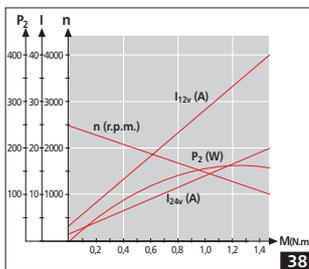
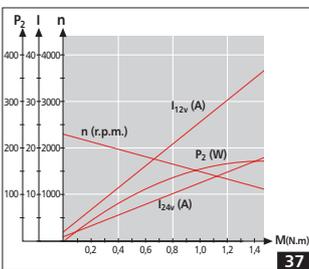
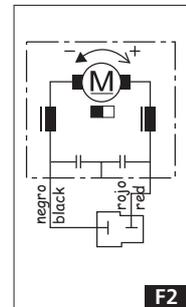
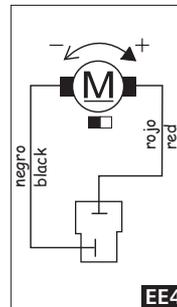
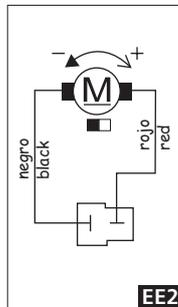
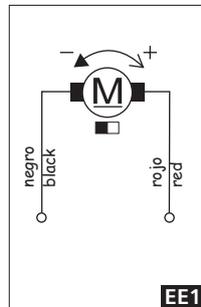
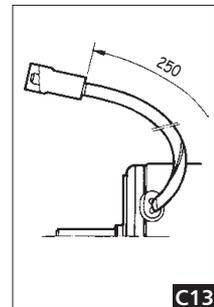
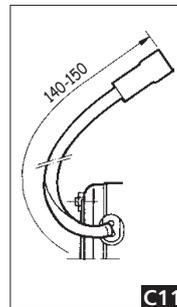
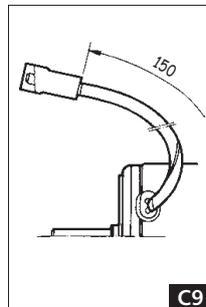
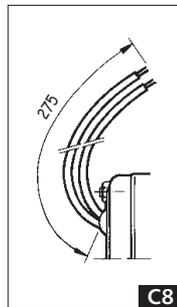
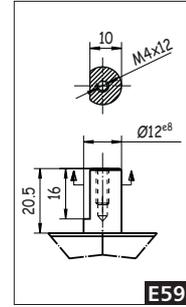
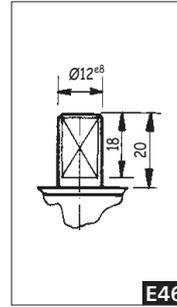
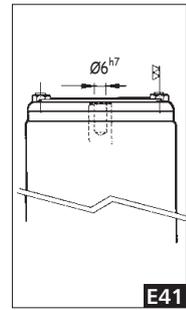
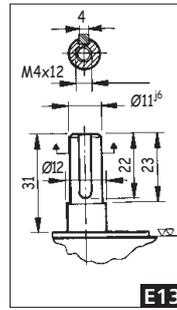
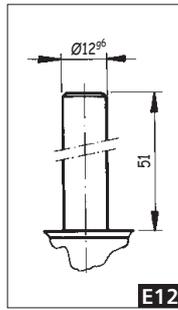
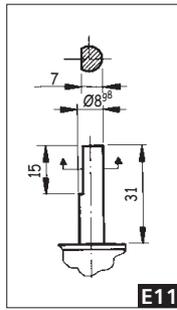
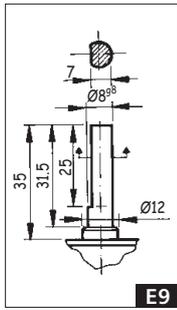
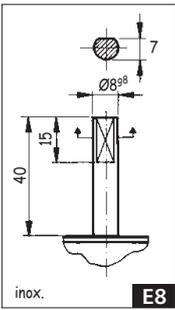
b



c



d



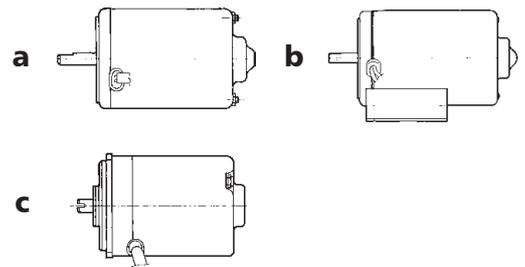


2 POLOS
2 POLES
2 PÔLES
2 PHASEN

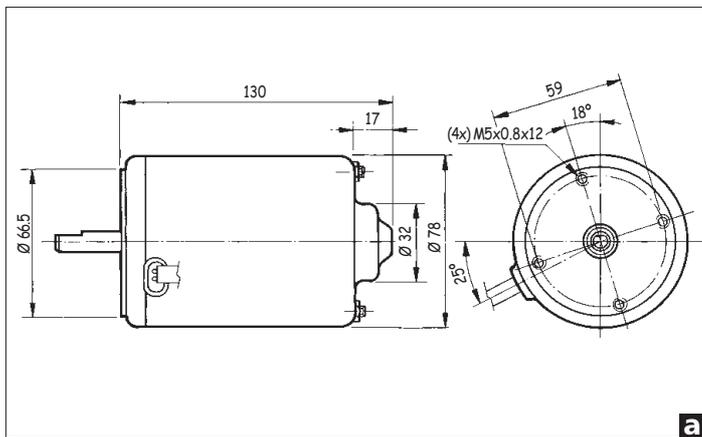


4 POLOS
4 POLES
4 PÔLES
4 PHASEN

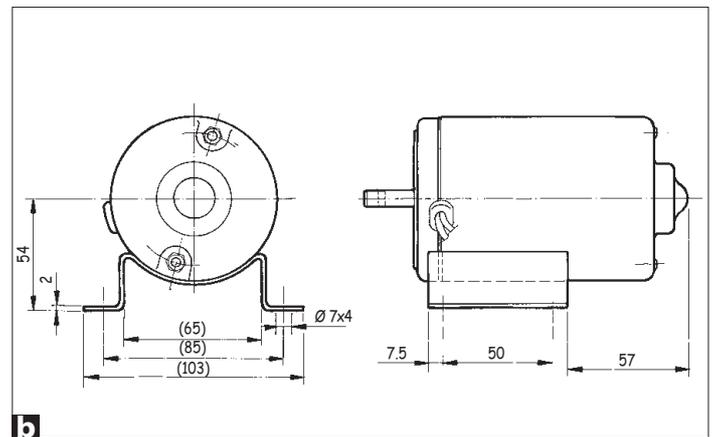
motor
moteur
Gleichstrommotor



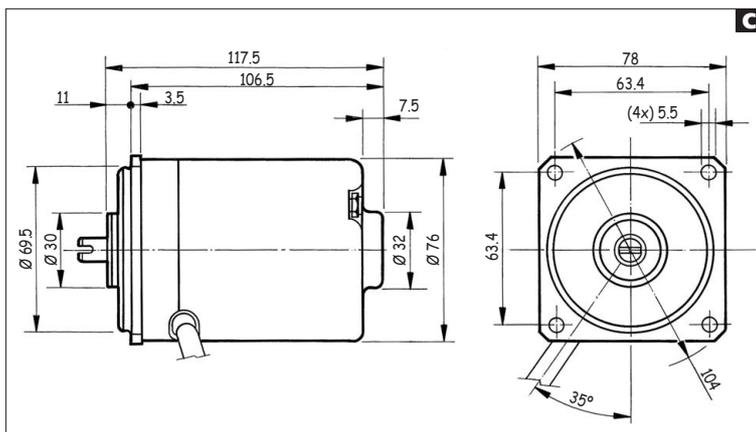
Referencia Reference number Référence nummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de Arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Arbre Welle	Conexiones Connections Connexions Anschlußart	Eq. elect. Wiring diag. Sch. elect. Schaltbild	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitsschutzklasse	Diseño: a, b, c Design: a, b, c Dessin: a, b, c Abbildung: a, b, c	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	Nn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				P (kg)	IP		
169.4106.20.04	12	0.40	1900	11	2.0	46	E14	C14	EE2	2.0	IP53	a	45
169.4106.30.04	24	0.40	1900	5.5	2.0	23	E14	C14	EE2	2.0	IP53	a	45
169.4107.20.04	12	0.40	2900	16	2.2	100	E15	C15	EE2	2.0	IP53	a	46
169.4107.30.04	24	0.40	2900	8	2.2	50	E15	C15	EE2	2.0	IP53	a	46
169.4110.20.04	12	0.40	1500	9	2.0	38	E16	C16	EE6	2.0	IP53	a	47
169.4110.30.04	24	0.40	1500	4.5	2.0	19	E16	C16	EE6	2.0	IP53	a	47
169.4113.20.04	12	0.40	3200	16	2.2	85	E18	C18	EE8	1.37	IP53	c	48
169.4113.30.04	24	0.40	3200	8	2.2	43	E18	C18	EE8	1.37	IP53	c	48
169.4117.20.04	12	0.40	1500	9	2.0	38	E47	C36	EE1	2.0	IP53	b	47
169.4122.20.09	12	0.30	4600	16	1.8	100	E18	C18	EE8	1.37	IP53	c	49
169.4124.20.04	12	0.40	1900	11	2.0	46	E60	C14	EE2	2.0	IP53	b	45
169.4124.30.04	24	0.40	1900	5.5	2.0	23	E60	C14	EE2	2.0	IP53	b	45



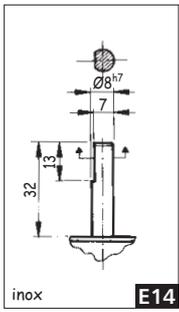
a



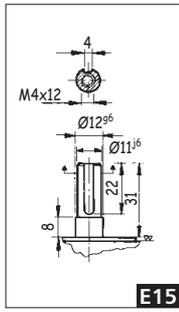
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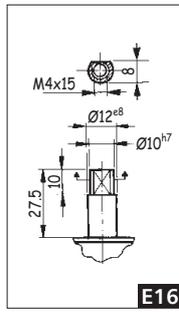
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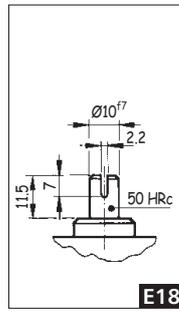
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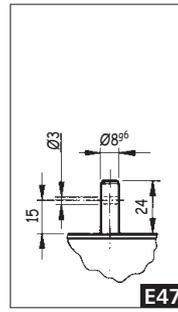
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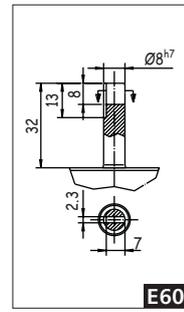
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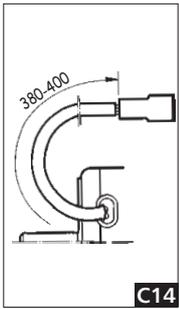
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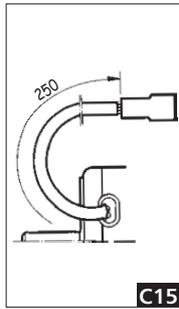
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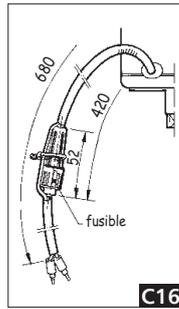
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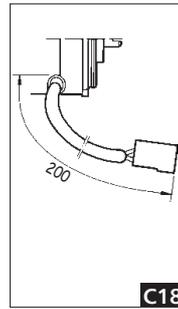
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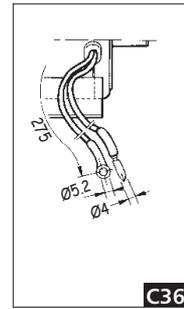
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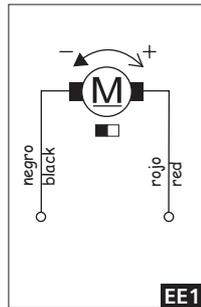
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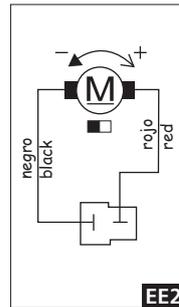
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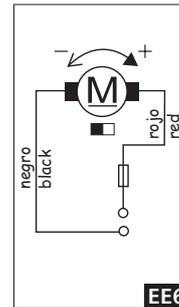
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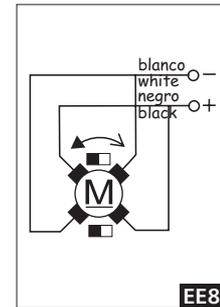
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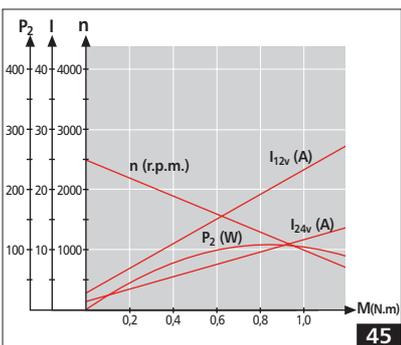
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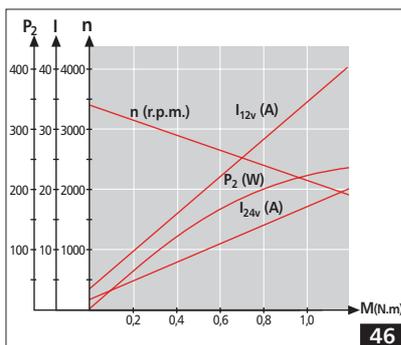
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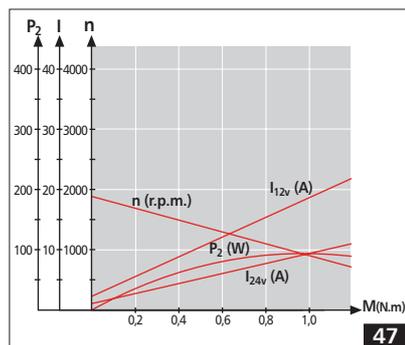
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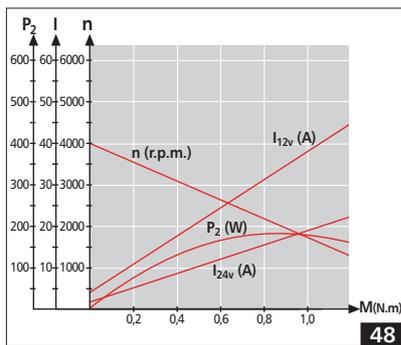
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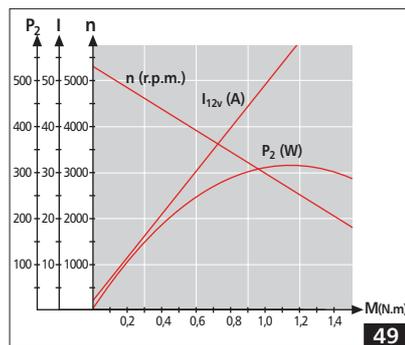
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47



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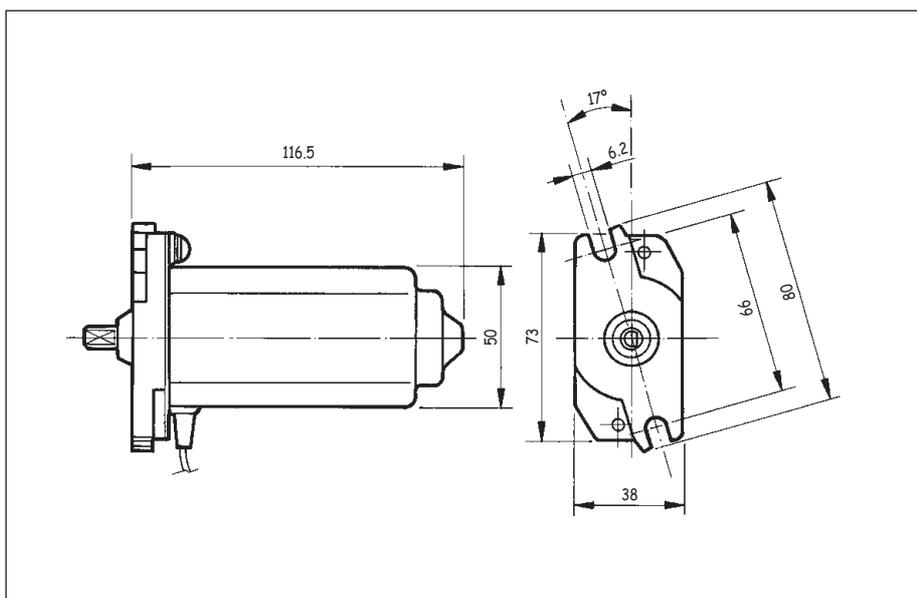


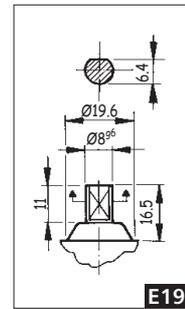
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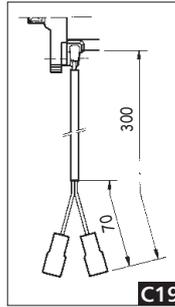
motor
moteur
Gleichstrommotor

Referencia Reference number Référence Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Aibre Welle	Conexiones Connections Connexions Anschlußart	Esq. eléct. Wiring diag. Sch. élect. Schaltbild	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Watertightness Étanchéité Feuchtigkeitsschutzklasse	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	fn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				P (kg)	IP	
260.0107.30.00	24	0.08	3000	2.5	0.4	11	E19	C19	EE9	0.7	IP40	50
260.0108.20.00	12	0.08	3000	5	0.4	22	E19	C20	EE9	0.7	IP40	50
260.0111.20.04	12	0.08	4000	6	0.4	24	E19	C21	EE2	0.7	IP40	51
260.0111.30.04	24	0.08	4000	3	0.4	12	E19	C21	EE2	0.7	IP40	51

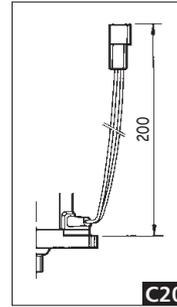




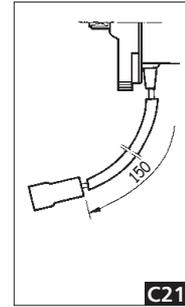
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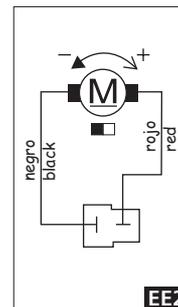
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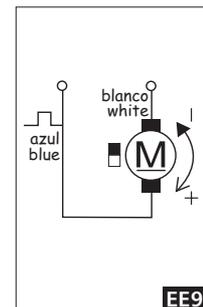
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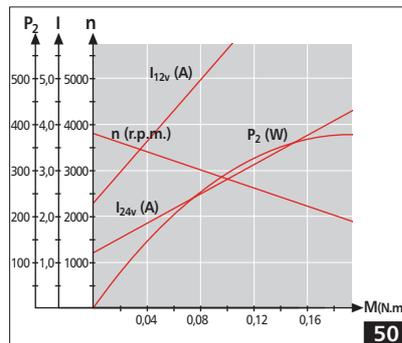
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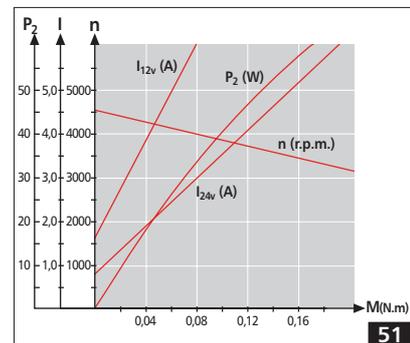
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EE9



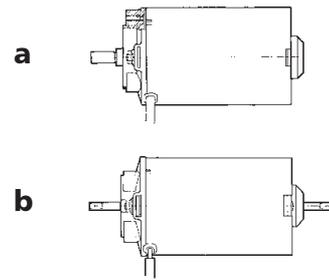
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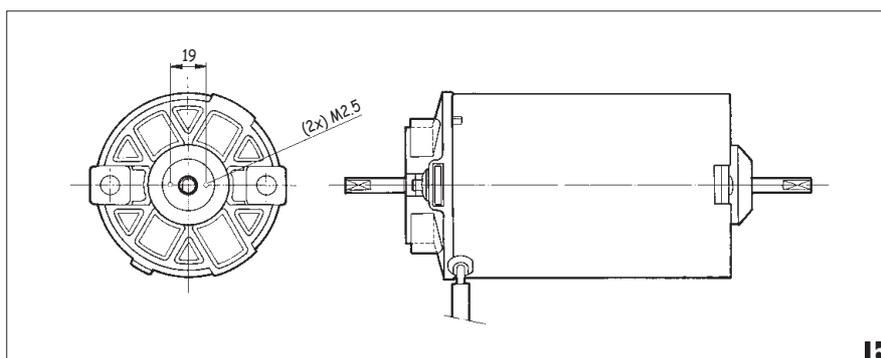
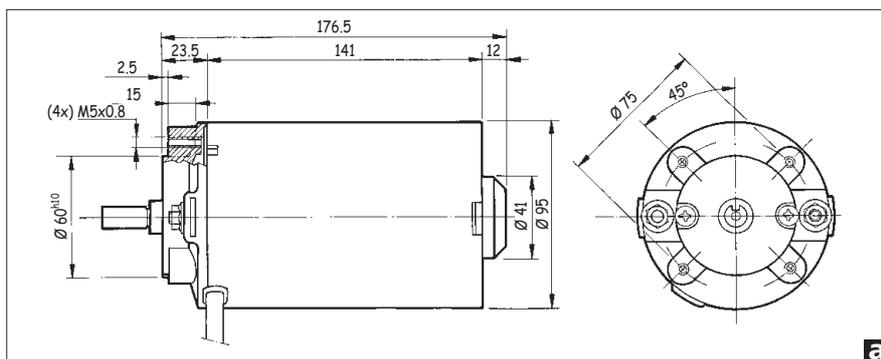
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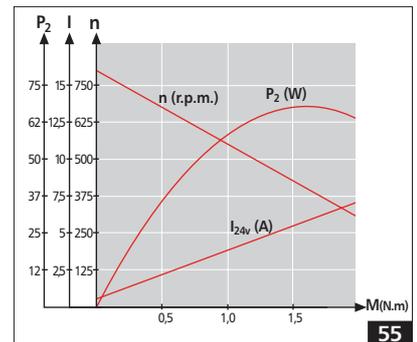
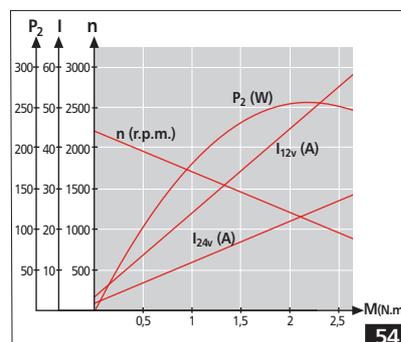
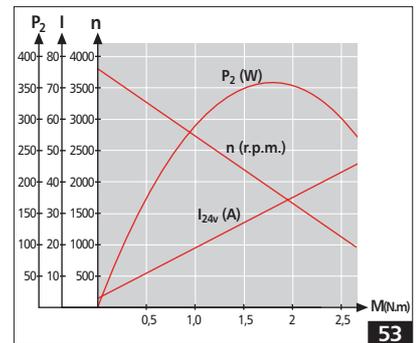
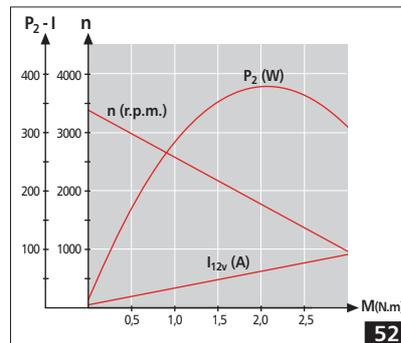
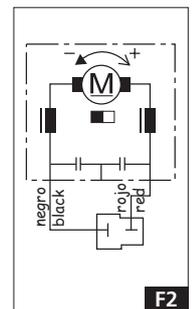
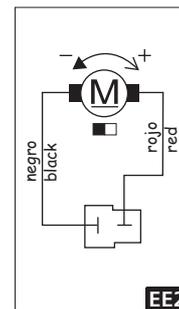
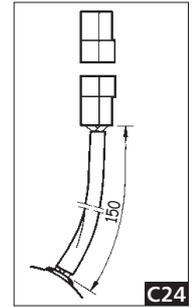
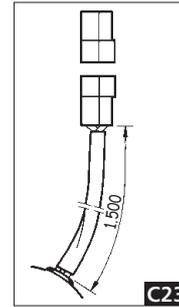
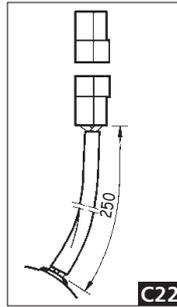
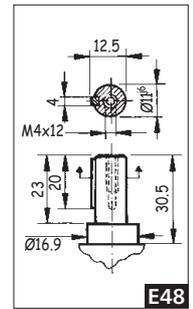
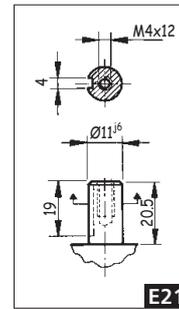
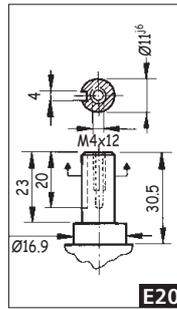
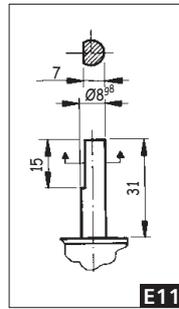


motor
moteur
Gleichstrommotor



Referencia Reference number Référence Referenznummern	Tensión nominal Nominal voltage Tension nominale Nennspannung	Par nominal Nominal torque Couple nominal Drehmoment nominal	Velocidad nominal Nominal speed Vitesse nominale Geschwindigkeit nominal	Corriente nominal Nominal current Courant nominal Nominalstrom	Par de arranque Starting torque Couple de démarrage Anzugsdrehmoment	Corriente de arranque Starting current Courant de démarrage Anlaufstrom	Eje Shaft Axe Welle	Conexiones Connections Connexions Anschlüsse	Esq. eléct. Wiring diag. Sch. élect. Schaltbild	Peso aproximado Approximate weight Poids approximatif Gewicht (ca.)	Grado de estanqueidad Water-tightness Étanchéité Feuchtigkeitschutzklasse	Diseño: a,b Design: a,b Dessin: a,b Abbildung: a,b	Curva Curve Courbe Kurve
	Un (V)	Mn (N.m.)	nn (r.p.m.)	In (A)	Ma (N.m.)	Ia (A)				P (kg)	IP		
269.4102.20.04	12	0.50	3000	20	4	140	E20	C22	EE2	3.8	IP53	a	52
269.4102.30.04	24	0.75	3000	15	4	120	E20	C22	EE2	3.8	IP53	a	53
269.4103.20.04	12	0.50	3000	20	4	140	E21	C23	EE2	3.8	IP53	a	52
269.4103.30.04	24	0.75	3000	15	4	120	E21	C23	EE2	3.8	IP53	a	53
269.4104.20.04	12	0.80	1800	20	4	100	E48	C24	EE2	3.8	IP53	a	54
269.4104.30.04	24	0.80	1800	10	4	50	E48	C24	EE2	3.8	IP53	a	54
269.4106.20.04	12	0.80	1800	20	4	100	E21	C23	EE2	3.8	IP53	a	54
269.4106.30.04	24	0.80	1800	10	4	50	E21	C23	EE2	3.8	IP53	a	54
269.4107.30.04E	24	0.75	3000	15	4	120	E48/E11	C22	F2	3.8	IP53	b	53
269.4108.20.04E	12	0.80	1800	10	4	100	E48/E11	C24	F2	3.8	IP53	b	54
269.4113.30.04	24	0.50	675	2.25	2.7	12	E48	C24	EE2	3.8	IP53	a	55





"CUSTOMISED"

Los motores y motorreductores de corriente continua DOGA de este catálogo han sido desarrollados por nuestros ingenieros para lograr una adaptación óptima a las necesidades del cliente en todo tipo de aplicaciones, en el sector automovilístico o en el sector industrial.

En DOGA somos especialistas en adaptar nuestros productos "estándar" a las necesidades del cliente: desde un conector especial, un eje a medida, un bobinado que ajuste las prestaciones del motor, hasta un diseño de motor completamente nuevo.

Nuestra misión es la de desarrollar motores y motorreductores de corriente continua a medida, y hasta 72 V, para satisfacer las necesidades particulares de nuestros clientes.

The Doga DC motors and gearmotors of this catalogue have been developed by our engineers to obtain an optimal adaptation to the necessities of the client for all type of applications, as much in the sector of the automobile, as in the rest of the industry.

In Doga we are specialist in adapting our "standard" products to the necessities of the client. From a special connector, to an axis, to size a winding that fits the specification of the motor to even a brand new design of motor.

Our mission is to develop customized DC motor and gearmotors, up to 72 V, to satisfy the necessities of our clients.

Les moteurs et motoréducteurs à courant continu Doga de ce catalogue ont été conçus par nos ingénieurs pour une adaptation optimale aux besoins du client et pour tout type d'application, tant pour le secteur automobile que pour l'industrie en général.

Chez Doga nous sommes spécialistes dans l'adaptation de produits "standard" aux nécessités du client. Du connecteur spécial, à l'axe à dimension spéciale, l'induit pour ajuster les capacités du moteur jusqu'à la conception totale d'un nouveau moteur.

Notre mission est de développer des moteurs et motoréducteurs à courant continu sur mesure, et jusqu'à 72V, pour satisfaire les besoins de nos clients.

Die Gleichstrommotoren mit und ohne Getriebe in diesem Katalog sind von unseren Technikern entwickelt worden, um die beste Anpassung an die Kundenanforderungen zu erzielen, für jede Art von Anwendung, sei es im Automotivebereich, sei es in der übrigen Industrie.

Wir bei Doga sind Spezialisten darin, unsere "Standardmodelle" an die Anforderungen des Kunden anzupassen. Seien es eine besondere Steckverbindung oder ein besonderes Wellenende, eine Wicklung, die den Wirkungsgrad des Motors verfeinert bis hin zu einem vollständigen neuen Design.

Wir sehen es als unsere Aufgabe an, Gleichstrommotoren mit und ohne Getriebe kundenspezifisch zu entwerfen, bis zu 72 V Spannung, um die Bedürfnisse unserer Kunden zu erfüllen.



"SPECIAL"

DOGA ofrece a sus clientes su tecnología y experiencia en la fabricación de motores y motorreductores de c.c., para desarrollar soluciones específicas que requieran una motorización en corriente continua y en baja tensión, hasta 75 V, en tecnología de imanes permanentes, con carbones o tecnología brushless.

DOGA offers to their clients their technology and experience in the manufacture of DC motors and gearmotors, to develop specific solutions that require a motorization in DC and low voltages, up to 75 V, as much as in permanent magnet technology as with coils as without them (brushless).

DOGA offre à ses clients sa technologie et expérience dans la fabrication de moteurs et motoréducteurs c.c., afin de développer des solutions spécifiques demandant une motorisation à courant continu et de basse tension, jusqu'à 75V, tant avec une technologie à aimants permanents qu'avec ou sans charbons (brushless).

DOGA bietet seinen Kunden Technologie und Erfahrung bei der Herstellung von Gleichstrommotoren mit und ohne Getriebe an, um spezifische Lösungen zu finden, die eines Gleichstromantriebs im Niederspannungsbereich bis zu 75 V bedürfen, in Permanentmagnettechnik ebenso wie in bürstenlosen Technik.

111

112

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116

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259

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168

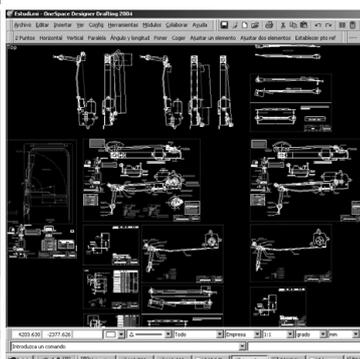
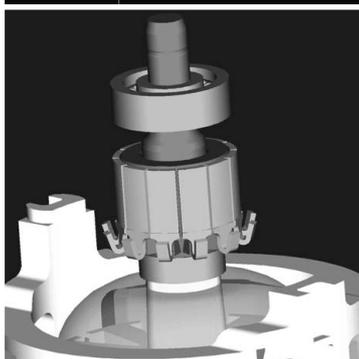
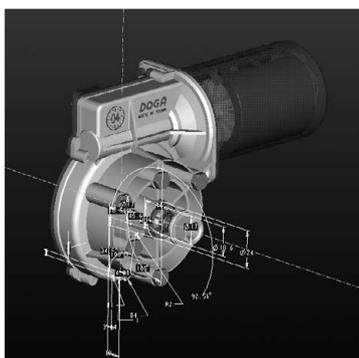
169

260

269

CUSTOMISED

SPECIAL



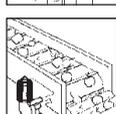
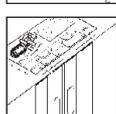
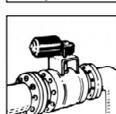
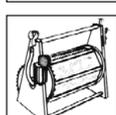
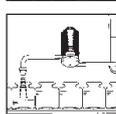
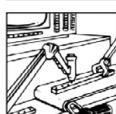
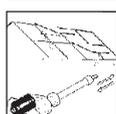
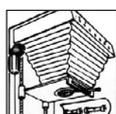
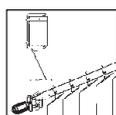
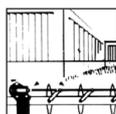
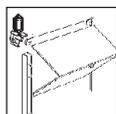
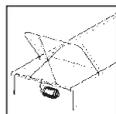
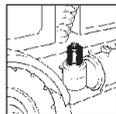
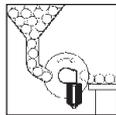
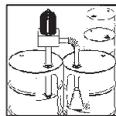
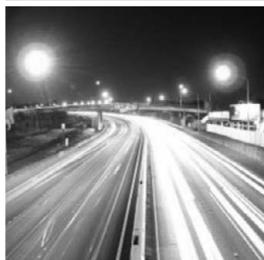
APLICACIONES APPLICATIONS ANWENDUNGEN

Un motor para cada aplicación.

One application, one motor.

Un moteur pour chaque application.

Ein Motor für jede Anwendung.



APLICACIONES

Climatización vehículos y maquinaria
Motobombas
Maquinaria en general, fresadoras, etc.
Maquinaria soldadura alimentación hilo continuo
Maquinaria agrícola (dosificadoras, alimentadoras)
Maquinaria gráficas
Maquinaria textil
Máquinas embalaje, envase, etiquetadoras
Maquinaria hidráulica
Automatización industrial (robots)
Edificación (accionamiento puertas, toldos, barreras, etc.)
Manutención (cintas transportadoras, etc.)
Expendedoras (bebidas, moneda, gasolina, etc.)
Máquinas recreativas
Electromedicina y laboratorio (dosificadores, agitadores, tamizadores, etc.)
Fotografía (ensamblaje películas, reproducción, proyectores)
Maquinaria oficina (fotocopiadoras, offset)
Informática (impresoras, ordenadores)
Galvanotecnica
Juguetes eléctrico y electrónicos
Nuevas energías (eólica, fotovoltaica)
Caravanas y embarcaciones deportivas
Bricolage y pequeños electrodomésticos

Y muchas otras ...

APPLICATIONS

Air conditioning in vehicles and machines
Pumps
Machine construction (grinders, automatic lathes, etc.)
Welding machines
Agricultural technology (fertilizer and feeding machines)
Printing machines
Textile machines
Packing and labeling machines
Hydraulic systems
Industrial automation (robots, etc.)
Constructional engineering (regulation of windows and drive mechanisms)
Material handling technology (conveyor belts)
Vending machines (drinks, change and cigarette machines, etc.)
Leisure time machines
Electromedicine and laboratory appliances (metering, stirrers and filters)
Photo (copying and film editing machines projectors)
Business machines (copiers, offset)
Data process (computers, printers)
Electroplating
Electric toys
New energies (wind energy, solar cells)
Caravanning and sailing
Do-it-yourself equipment and small household appliances

And many others ...

APPLICATIONS

Climatisation de véhicules et de machines
Pompes
Construction mécanique (machines à rectifier, tours, etc.)
Machines à souder
Appareils agricoles (machines à doser les engrais et de distribution de nourriture aux animaux)
Machines à imprimer
Construction textile
Machines à emballer et à étiqueter
Machines hydrauliques
Automatisation industrielle (robots, etc.)
Bâtiment (déplacement de fenêtres, commandes de portes et barrières)
Manutention (bandes transporteuses)
Distributeurs automatiques (boissons, monnaie, cigarettes, etc.)
Appareils de loisir
Electromédecine et appareils de laboratoire (doseurs, agitateurs, criblures, etc.)
Photographie (montage de films, reproduction et projecteurs)
Machines de bureau (appareils à copier, offset)
Informatique (ordinateur, imprimante)
Galvanoplastie
Jouets électriques
Nouvelles énergies (éolienne, photovoltaïque)
Caravane et sports de voile
Appareils de bricolage, machines portatives et petits appareils électrodomestiques

Et beaucoup d'autres ...

ANWENDUNGEN

Klimatisierung in Fahrzeugen und Maschinen
Pumpen
Maschinenbau (Schleifmaschinen, Dreh-automaten, usw.)
Schweissmaschinen
Landwirtschaftstechnik (Dünger und Fütterungsautomaten)
Druckereimaschinen
Webmaschinen
Verpackungs- und Etikettiermaschinen
Hydraulik Maschinenbau
Industrielle Automatisierung (Roboter, usw.)
Bautechnik (Verstellung von Fenstern und generelle Antriebe)
Förder (Förderbänder)
Getränke-, Zigarretten-, und Münzwechsler-terautomaten, usw.
Freizeitgeräte
Elektromedizin und Laborgeräte (Dosier-, Rühr-, und Siebmaschinen, usw.)
Foto (Repro- u. Filmschneidgeräte, Projektoren)
Büromaschinen (Kopiergeräte, offset)
Datenverarbeitung (Komputer, Drucker)
Galvanik
Elektrische Spielwaren
Neue Energie (Windenergie, Sonnenenergie)
Wohnwagen und Segeln
Heimwerkergeräte und kleine
Haushaltsgeräte

Und vielen anderen ...

Para otras características no reflejadas en nuestro catálogo, envíenos una copia de esta hoja cumplimentada y procuraremos complacerles a la mayor brevedad.

If you can not find any motor suitable for your application in our catalogue, please fill in this sheet and send it back to us. We will do our best to help you as soon as possible.

Si vous ne trouvez pas dans notre catalogue le moteur correspondant à vos besoins, remplissez ce formulaire et renvoyez-nous le par fax. Nous ferons tout notre possible pour résoudre votre problème dans les meilleurs délais.

Wenn Sie in unserem Katalog nicht den geeigneten Motor finden, so senden Sie uns bitte dieses Datenblatt ausgefüllt mit möglichst vielen Angaben zurück. Sie erhalten so bald wie möglich Nachricht von uns.

"INFO"

CARACTERISTICAS BASICAS - BASIC CHARACTERISTICS - CARACTERISTIQUES DE BASE - GRUNDDATEN

Tensión nominal - Nominal voltage - Tension nominale - Nominalspannung (V) ▶

Velocidad nominal - Nominal speed - Vitesse nominale - Nenndrehzahl (R.P.M.) ▶

Potencia nominal, útil - Nominal power, useful - Puissance nominale, utile - Abgegebene Leistung P2 (W)
(o/or/ou/oder) Par nominal - Nominal torque - Couple nominal - Nenndrehmoment (N.m) ▶

Corriente nominal - Nominal current - Courant nominal - Nennstrom (A) ▶

Par de arranque - Starting torque - Couple de démarrage - Anzugsdrehmoment (N.m) ▶

Corriente de arranque máxima admisible - Maximum permitted starting current - Courant de démarrage maximum admissible - Höchstzulässiger Anzugsstrom (A) ▶

Consumo anual en unidades - Quantities per year - Consommation annuelle, en nombre de moteurs - Jahresbedarf

1er. año - 1st year - 1ère année - 1. Jahr ▶

2o. año - 2nd year - 2ème année - 2. Jahr ▶

Aplicación - Application - Application - Anwendung ▶

VIDA, TIPO DE SERVICIO, COMPLEMENTOS OPCIONALES - LIFE, SERVICE, OPTIONAL EXTRAS - DUREE DE VIE, TYPE DE SERVICE, OPTIONS - LEBENSDAUER, NUTZUNGSART UND SONDERAUSFÜHRUNGEN

Tipo de servicio - Service - Type de service - Dauer- oder unterbrochener Betrieb ▶

Temperatura ambiente - Ambient temperature - Température ambiante - Umgebungstemperatur (min., max.) ▶

Humedad relativa - Relative humidity - Humidité relative - relative Luftfeuchtigkeit (%) ▶

Tipo de ambiente (descripción) - Ambient conditions (dusty, etc) - Type d'environnement (description) - Raumbedingungen (Staub, usw) ▶

Necesidad de vida útil (horas) - Life (hours) - Durée de vie nécessaire (heures) - Lebensdauer in Stunden ▶

Tipo de masa - Type of ground - Type de masse - Anschluss/Masse ▶

Antiparasitaje, clase - Electrical filter, specify - Antiparasitage, type - Art und Klasse der Entstörung ▶

Tipo de protección (estanqueidad) - Degree of protection - Type de protection (étanchéité) - Abdichtung gegen Nässe und Feuchtigkeit ▶

Dimensiones máximas motor/motorreductor, adjuntar plano o croquis - Maximum permitted dimensions motor/gearmotor, please enclose a drawing - Dimensions maximums admissibles moteur/moteur-réducteur, joindre plan ou croquis - Maximal zulässige Abmessungen (bitte Skizze beifügen) ●

Sistema de acoplamiento (eje, brida), adjuntar plano o croquis - Coupling (shaft, flange), enclose a drawing - Système d'accouplement (arbre, bride), joindre plan ou croquis - Verbindungsart (Welle, Flansch) (bitte Skizze beifügen) ●

Sentido de giro (eje) - Rotation (shaft) - Sens de rotation (arbre) - Drehrichtung der Welle ▶

derecha - right - droite - rechts

izquierda - left - gauche - links

ambos - both - les deux - beide

Autobloqueo - Self-locking - Autoblocage - Selbsthemmung ▶

Otras especificaciones - Other specifications - Autres spécifications - Andere Spezifikationen ▶

DATOS DE LA EMPRESA - COMPANY DATA - DONNEES DE L'ENTREPRISE - IHRE DATEN

Nombre de la empresa - Company's name - Nom de l'entreprise - Firmenname ▶

Dirección - Address - Adresse - Anschrift ▶

Código postal y población - Town - Code postal et département - Postleitzahl und Ort ▶

Pais - Country - Pays - Land ▶

Teléfono/Fax/e-mail - Phone/fax/e-mail - Téléphone/fax/e-mail - Telefon/Telefax/E-mail ▶

Persona de contacto - Person to be contacted - Personne à contacter - Ansprechpartner ▶

Fecha - Date - Date - Datum ▶

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www.elra.at

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