



DOGA

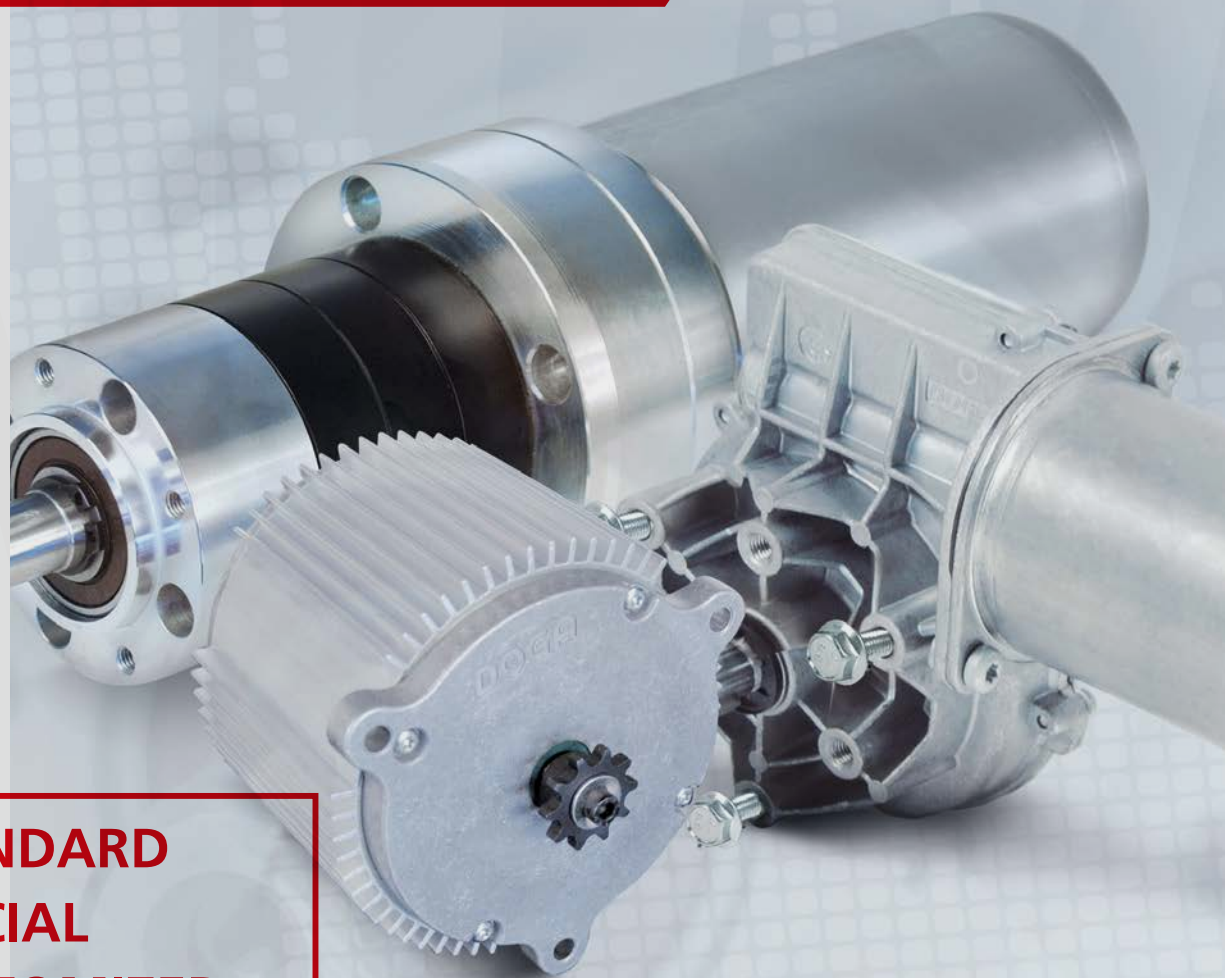
MOTORREDUCTORES **GEARED MOTORS** MOTOREDUCTEURS À VIS **GETRIEBEMOTOREN**

MOTORES C.C. **D.C. MOTORS** MOTEURS À C.C. **GLEICHSTROMMOTOREN**

MOTORES PLANETARIOS **PLANETARY GEARMOTORS** MOTEURS PLANETAIRES **PLANETENGETRIEBEMOTOREN**

MOTORES ELECTRÓNICOS **ELECTRONIC MOTORS** MOTEURS ÉLECTRONIQUES **ELEKTRONISCHE MOTOREN**

DRIVE SYSTEMS

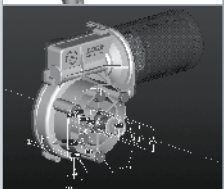
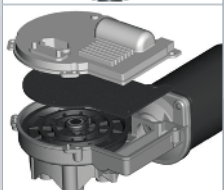
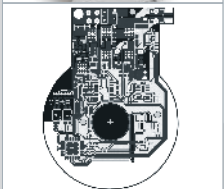


**STANDARD
SPECIAL
CUSTOMIZED**

One motor for each application.

DOGA can develop for YOU !!

**STANDARD
SPECIAL
CUSTOMIZED**



motores a medida

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 automóvil o en el sector industrial.

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

DOGA también está integrando ECU (Unidad de Control Electrónico) en sus motores para permitir a sus clientes lograr un control preciso de su aplicación.

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.

motores especiales

DOGA ofrece a sus clientes su tecnología y experiencia en la fabricación de motores y motorreductores de corriente continua, para desarrollar soluciones específicas que requieran una motorización en corriente continua y en baja tensión, hasta 72 V, en tecnología de imanes permanentes, con carbones o tecnología brushless.

moteurs sur mesure

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. Des un connecteur spécial, l'axe à dimension spéciale ou l'induit pour ajuster les capacités du moteur, jusqu'à la conception totale d'un nouveau moteur.

DOGA intègre l'ECU (Unité de Commande Électronique) dans ses moteurs permettant un contrôle précis à ses clients.

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.

motores spécialement conçus

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 72V, tant avec une technologie à aimants permanents qu'avec ou sans charbons (brushless).

customized motors

The DOGA DC motors and gearmotors in this catalog have been developed by our engineers to obtain an optimal adaptation to the needs of the client for all type of applications which come from a variety of industries.

At DOGA, we are specialized in adapting our "standard" products to meet the requirements of our customers. From a special connector or shaft, a selected winding that fits the specification of the motor, to even a brand new design of motor. DOGA does them all.

Also, DOGA is integrating ECU (Electronic Control Unit) in our motors to allow our customers for a precise control.

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

special motors

DOGA offers their technology and experience in the manufacture of DC motors and gearmotors, to develop specific solutions that operate on DC voltages to 72 Volts, using permanent magnet technology, both Brush type (PMDC) and Brushless (BLDC).

Kundenspezifisch

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.

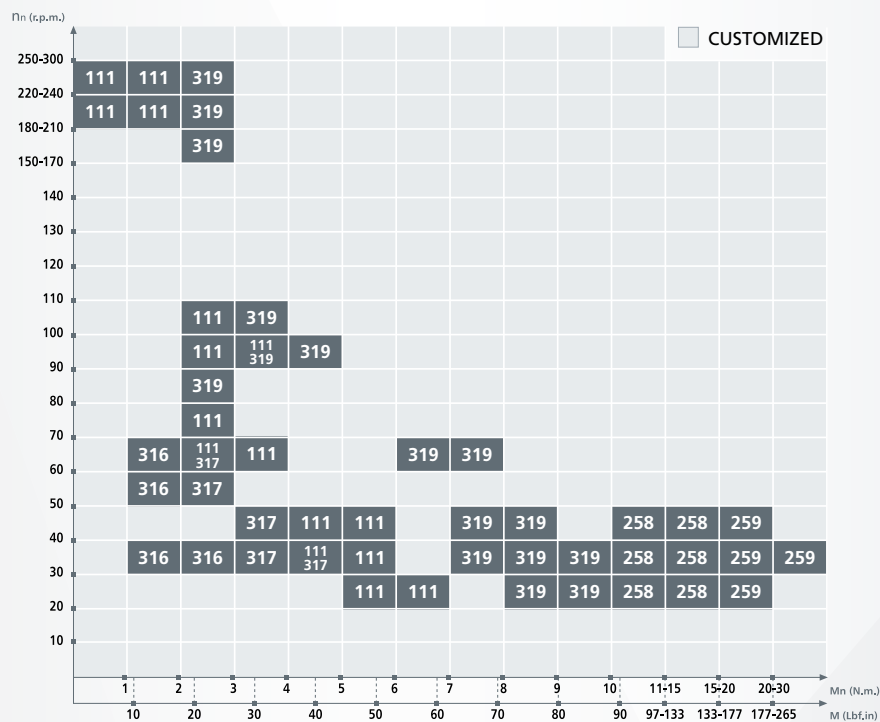
DOGA ist die Integration von ECU (Electronic Control Unit) in unsere Motoren erlauben unseren Kunden für eine präzise Steuerung.

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

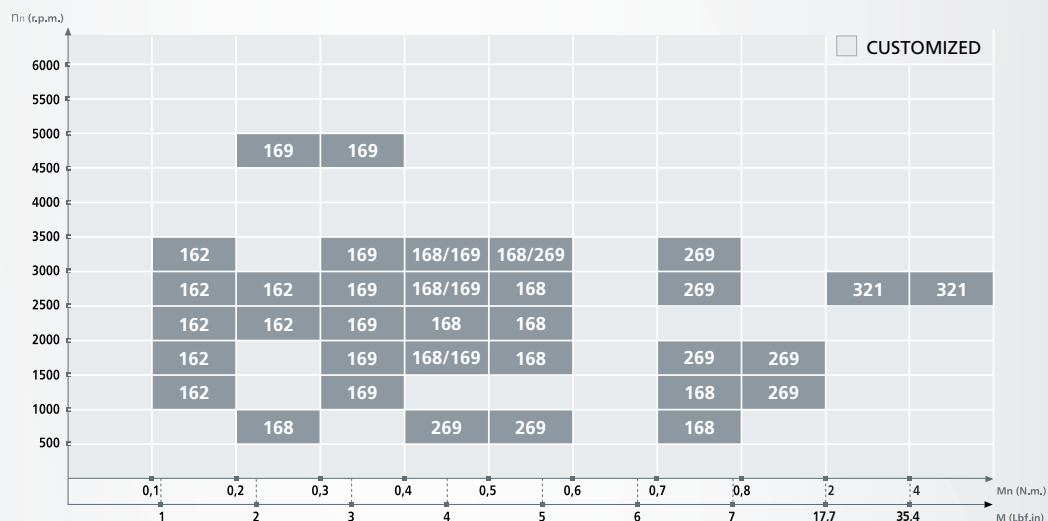
Spezialmotoren

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 72 V bedürfen, in Permanentmagnettechnik ebenso wie in bürstenlosen Technik.

MOTORREDUCTORES CC SIN FIN
MOTORS WITH WORM GEAR
MOTOREDUCTEURS À CC VIS SANS FIN
GLEICHSTROMSCHNECKENGETRIEBEMOTOREN



MOTORES CC
DC MOTORS
MOTEURS À CC
GLEICHSTROMMOTOREN



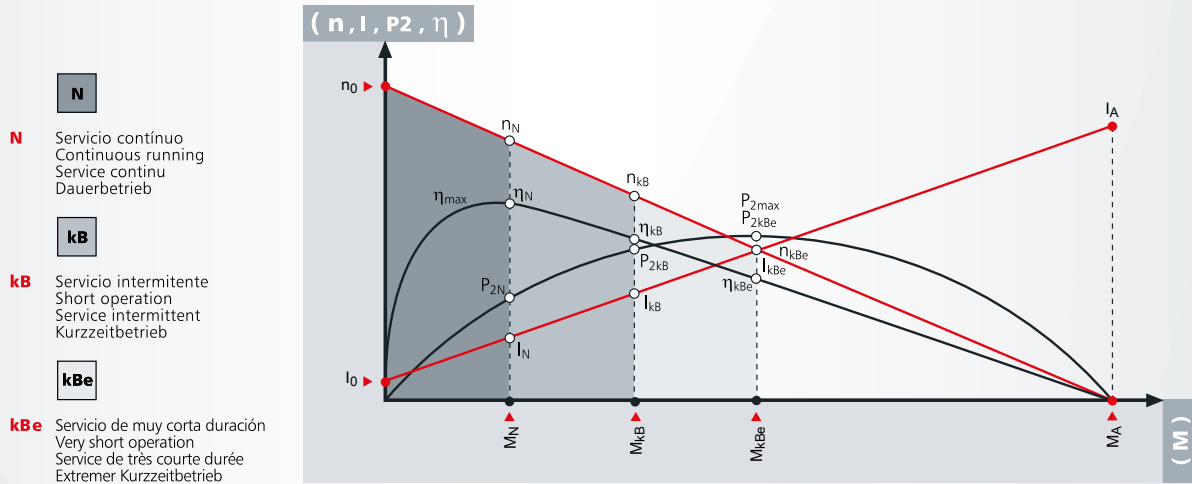
OTROS MOTORES
OTHER MOTORS
AUTRES MOTEURS
ANDERE MOTOREN

VER SECCIÓN ESPECIAL EN CATÁLOGO
 SEE SPECIAL SECTION IN CATALOGUE
 CONSULTEZ SECTION SPÉCIALE DU CATALOGUE
 SEHEN SIE SONDERABSCHNITT IM KATALOG

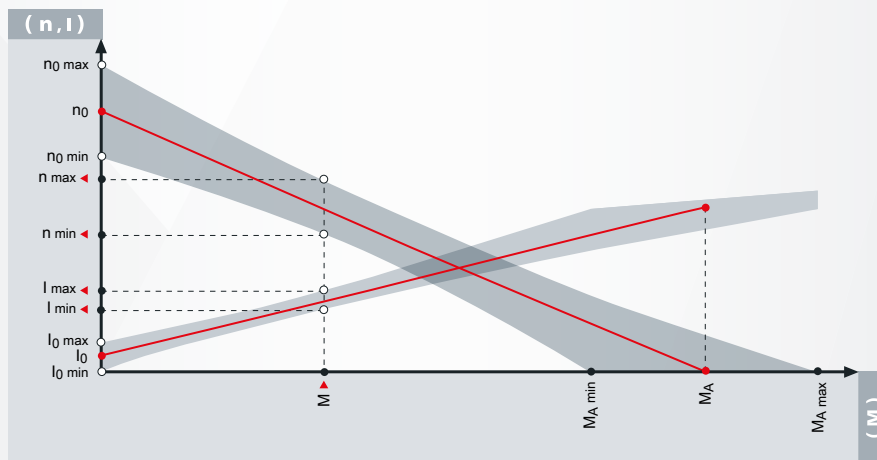
3	CUSTOMIZED & SPECIAL	
4	GAMA MOTORES DOGA DOGA MOTORS RANGE GAMME MOTEURS DOGA DOGA MOTORENSORTIMENT	
6	SÍMBOLOS SYMBOLS SYMBOLES ZEICHENERKLÄRUNG	
7	CURVAS CURVES COURBES KURVEN	
8	MOTORES MOTORS MOTEURS MOTOREN	
8	MOTORREDUCTORES C.C. SIN FIN MOTORS WITH WORM GEAR MOTORÉDUCTEURS À C.C. À VIS SANS FIN GLEICHSTROMSCHNECKENGETRIEBEMOTOREN	111
10		258
12		259
14		316 316 hall
18		317 317 hall
22		319 319 hall
26	MOTORES ELECTRÓNICOS ELECTRONIC MOTORS MOTEURS ÉLECTRONIQUES ELEKTRONISCHE MOTOREN	319e 319he
28	MOTORES C.C. D.C. MOTORS MOTEURS À C.C. GLEICHSTROMMOTOREN	162
30	MOTORES C.C. CON REDUCTOR PLANETARIO PLANETARY GEAR D.C. MOTORS MOTEURS À C.C. AVEC RÉDUCTEUR PLANETAIRE GLEICHSTROMPLANETENGETRIEBEMOTOREN	168
32		169
34		269
36	APLICACIONES DE MOTORES MOTOR APPLICATIONS APPLICATIONS MOTEURS ANWENDUNGSFÄLLE FÜR MOTOREN	321
44	DRIVE SYSTEMS DISTRIBUTION NETWORK	planetary gearmotors

	ESPAÑOL	ENGLISH	FRANÇAIS	DEUTSCH
BRO	Bronce	Bronze	Bronze	Bronze
CEL	Resina fenólica estratificada	Resin bonded fabric	Résine phénollique stratifiée	Hartgewebe
Fn	Fuerza nominal	Nominal load	Force nominal	Nennkraft
Fmax	Fuerza máxima	Maximal load	Force maximale	Maximale Festigkeit
i	Relación de reducción	Transmission ratio	Rapport de réducteur	Untersetzung
I	Corriente	Current	Courant	Stromaufnahme
I₀	Corriente en vacío	No load current	Courant à vide	Stromaufnahme im Leerlauf
I_a	Corriente de arranque	Starting current	Courant de démarrage	Anlaufstrom
I_n	Corriente nominal	Nominal current	Courant nominal	Nennstrom
IP	Grado de estanqueidad	Protection degree	Etanchéité	Feuchtigkeitsschutzklasse
M	Par	Torque	Couple	Drehmoment
Ma	Par de arranque	Starting torque	Couple de démarrage	Anzugsdrehmoment
Mk	Par de autobloqueo	Self-locking torque	Couple d'autoblocage	Selbsthemmungsmoment
Mn	Par nominal	Nominal torque	Couple nominal	Nenndrehmoment
η(%)	Rendimiento	Efficiency	Rendement	Wirkungsgrad
n	Velocidad	Speed	Vitesse	Geschwindigkeit
n₀	Velocidad en vacío	No load speed	Vitesse à vide	Geschwindigkeit im Leerlauf
n_n	Velocidad nominal	Nominal speed	Vitesse nominale	Nenngeschwindigkeit
P	Peso aproximado	Approximate weight	Poids approximatif	Gewicht (ca.)
P	Potencia	Power	Puissance	Leistung
P₁	Potencia absorbida (U.I)	Absorbed power (U.I)	Puissance absorbée (U.I.)	Aufgenommene Leistung (U.I.)
P₂	Potencia nominal, útil	Nominal power, useful	Puissance nominale, utile	Abgegebene Leistung
PLA	Plástico	Plastic	Plastique	Kunststoff
U	Tensión	Voltage	Tension	Spannung
Un	Tensión nominal	Nominal voltage	Tension nominale	Nennspannung

características de las curvas characteristic curves caractéristiques des courbes Leistungskurven



márgenes de tolerancia tolerance zones marges de tolerance Toleranzbereiche



Los valores de bloqueo (M_a , I_a) corresponden al par y la corriente del motor en frío con el eje de salida bloqueado.

Los valores nominales (U_n , I_n , M_n , n) están determinados para funcionamiento continuo (S1-VDE0530) a condiciones ambiente normales. Tolerancia $\pm 10\%$.

Las curvas son con el motor en frío.

The stall values of starting torque (M_a) and starting current (I_a) in this catalog correspond to the torque and the current of the motor at room temperature with the output shaft locked.

The nominal values for voltage (U_n), current (I_n), torque (M_n) and speed (n) are for continuous operation (S1-VDE0530) in normal ambient conditions. The tolerance is $\pm 10\%$ for all values shown unless otherwise noted. Performance curves are with the motor at 20 degrees C temperature.

Les valeurs de blocage (M_a , I_a) correspondent au couple du moteur à froid avec axe de sortie bloqué.

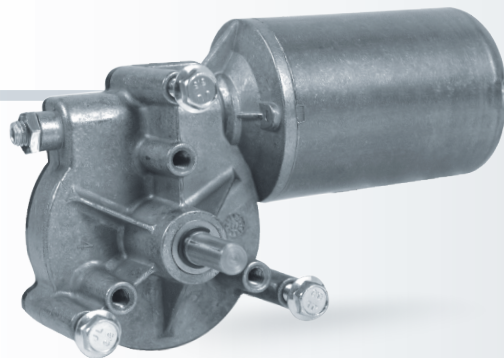
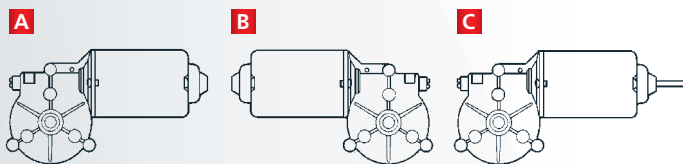
Les valeurs nominales (U_n , I_n , M_n , n) sont déterminées pour un fonctionnement continu (S1-VDE0530) en conditions ambiantes normales. Tolérance $\pm 10\%$.

Les courbes sont avec moteur froid.

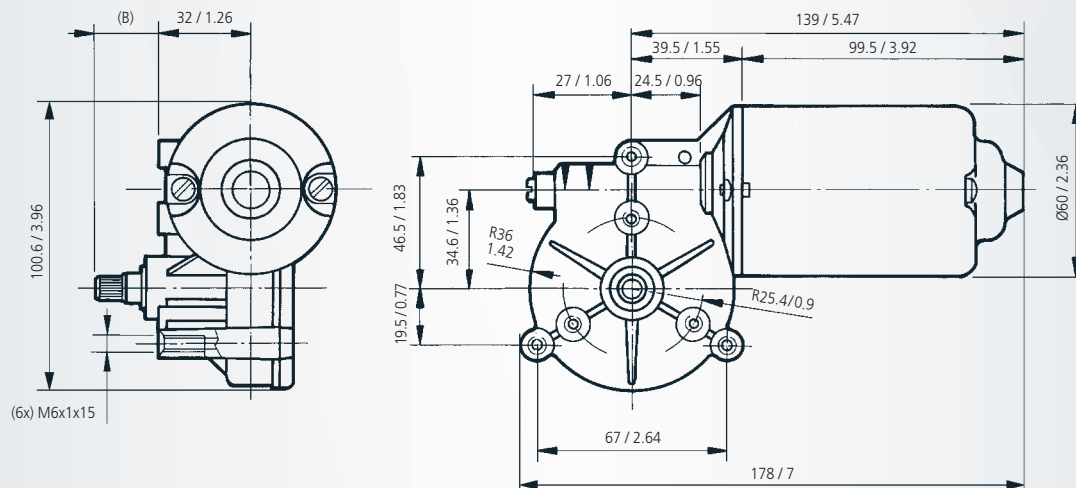
Die Werte für die Anlaufstrom und der Anzugsdrehmoment (M_a , I_a) entsprechen dem Drehmoment und der Strom des Motors in kaltem Zustand mit blockierter Abgangswelle.

Die Nominalwerte (U_n , I_n , M_n , n) werden ermittelt bei Dauerbetrieb (S1-VDE0530) unter normalen Umgebungsbedingungen. Toleranz $\pm 10\%$.

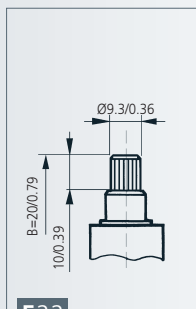
Die Kurven beziehen sich auf den Motor in kaltem Zustand.



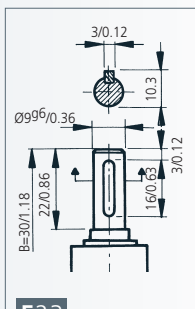
REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	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 ANSCHLÜSSE	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ÉLECTRIQUE SCHALTBIID	RELACION DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	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,C DESIGN: A,B,C Dessin: A,B,C ABBILDUNG: A,B,C	CURVA CURVE COURBE KURVE
	Un (V)	Mn (N.m./lbf.in)	n _n (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP			
111.3711.20.00	12	5 / 44.2	40	5	25 / 221.2	25	E22	C25	EE2	62:1	1.25 / 2.76	IP53	PLA	A	1
111.3711.30.00	24	5 / 44.2	40	2.5	25 / 221.2	13	E22	C25	EE2	62:1	1.25 / 2.76	IP53	PLA	A	1
111.3761.20.00	12	5 / 44.2	40	5	25 / 221.2	25	E23	C25	EE2	62:1	1.25 / 2.76	IP53	PLA	A	1
111.3761.30.00	24	5 / 44.2	40	2.5	25 / 221.2	13	E23	C25	EE2	62:1	1.25 / 2.76	IP53	PLA	A	1
111.3761.20.00E	12	5 / 44.2	40	5	25 / 221.2	25	E23	C25	F2	62:1	1.25 / 2.76	IP53	PLA	A	1
111.3761.30.00E	24	5 / 44.2	40	2.5	25 / 221.2	13	E23	C25	F2	62:1	1.25 / 2.76	IP53	PLA	A	1
111.3763.20.00	12	6 / 53.1	25	4	25 / 221.2	15	E23	C25	EE2	62:1	1.25 / 2.76	IP53	PLA	A	3
111.3763.30.00	24	6 / 53.1	25	2	25 / 221.2	8	E23	C25	EE2	62:1	1.25 / 2.76	IP53	PLA	A	3
111.4761.30.00	24	5 / 44.2	40	2.5	25 / 221.2	13	E23	C25	EE2	62:1	1.25 / 2.76	IP53	PLA	B	1
111.9031.20.00	12	3 / 26.5	70	6	25 / 221.2	34	E23	C25	EE2	62:1	1.25 / 2.76	IP53	PLA	A	2
111.9031.30.00	24	3 / 26.5	70	3	25 / 221.2	17	E23	C25	EE2	62:1	1.25 / 2.76	IP53	PLA	A	2
111.9039.20.00	12	1.5 / 13.2	240	8	10 / 88.5	46	E23	C26	EE1	49:4	1.25 / 2.76	IP53	PLA	A	4
111.9039.30.00	24	1.5 / 13.2	240	4	10 / 88.5	23	E23	C26	EE1	49:4	1.25 / 2.76	IP53	PLA	A	4
111.9041.30.00	24	5 / 44.2	40	2.5	25 / 221.2	13	E24	C25	EE2	62:1	1.30 / 2.87	IP53	BRO	A	1
111.9094.20.00	12	5 / 44.2	40	5	25 / 221.2	25	E52	C2	EE2	62:1	1.25 / 2.76	IP53	PLA	A	1
111.9107.30.00	24	1.5 / 13.2	240	4	14 / 123.9	23	E24/E53	C26	EE1	49:4	1.25 / 2.76	IP40	CEL	C	4
111.9199.20.00	12	3 / 26.5	100	6	20 / 177.01	48	E67	C26	F3	59:2	1.25 / 2.76	IP53	PLA	A	59
111.9199.30.00	24	3 / 26.5	100	3	20 / 177.01	24	E67	C26	F3	59:2	1.25 / 2.76	IP53	PLA	A	59



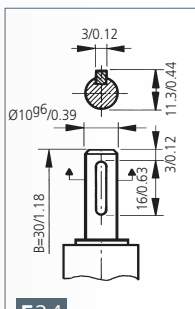
EJE SHAFT ARBRE WELLE



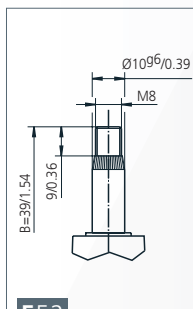
E22



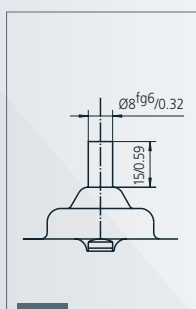
E23



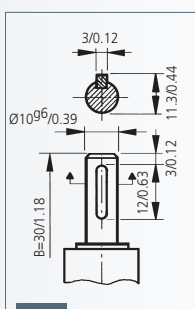
E24



E52

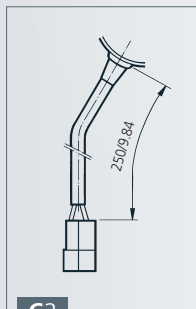


E53

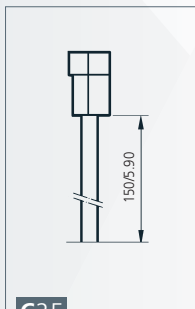


E67

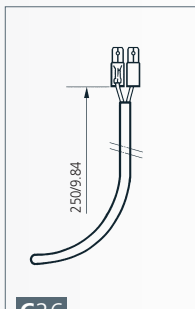
CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART



C2

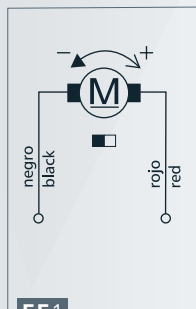


C25

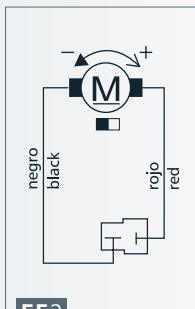


C26

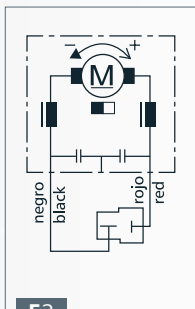
ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHÉMA ÉLECTRIQUE SCHALTBILD



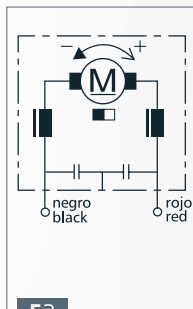
EE1



EE2

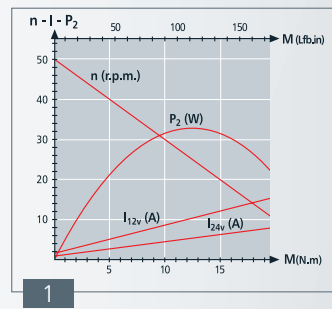


F2

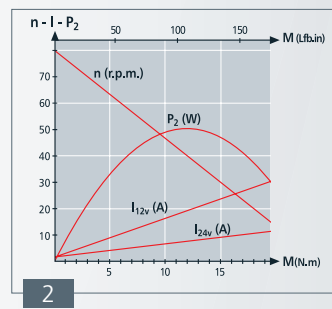


F3

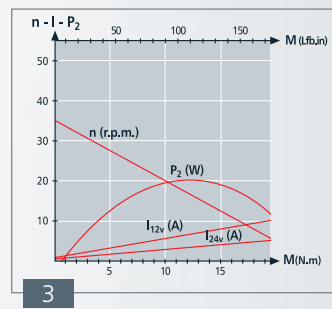
CURVAS CURVES COURBES KURVEN



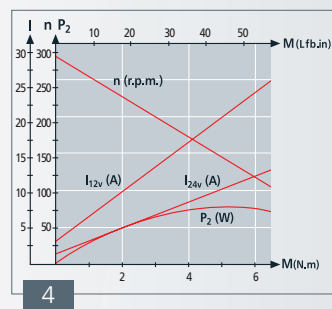
1



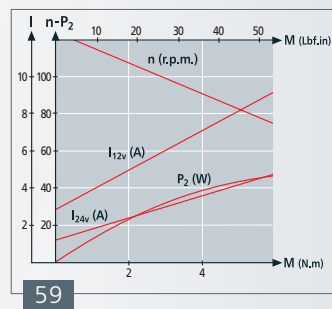
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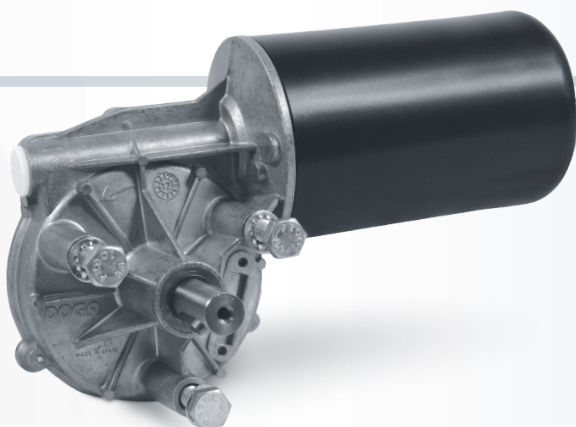
3



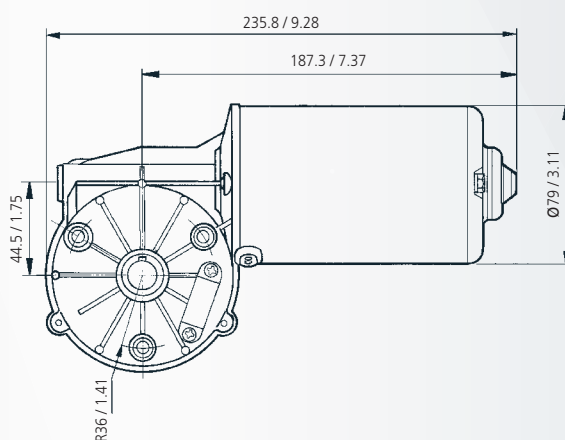
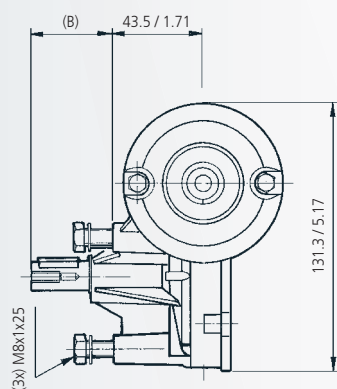
4



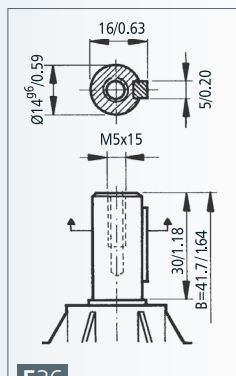
59



REFERENCIA REFERENCE 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 DEMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DEMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEME ELECTRIQUE SCHALTBILD	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ÉTANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAU ROUE MAT. DES SCHNECKENRADES	CURVA CURVE COURBE KURVE
	Un (V)	Mn (N.m./lbf.in)	nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP		
258.1710.20.00	12	15 / 133	25	10	80 / 708	42	E36	C34	F2	52:1	3.00/6.61	IP53	PLA	18
258.1710.30.00	24	15 / 133	25	5	80 / 708	21	E36	C34	F2	52:1	3.00/6.61	IP53	PLA	18
258.3710.20.00	12	15 / 133	25	10	80 / 708	42	E36	C34	EE2	52:1	3.00/6.61	IP53	PLA	18
258.3710.30.00	24	15 / 133	25	5	80 / 708	21	E36	C34	EE2	52:1	3.00/6.61	IP53	PLA	18
258.3712.20.00	12	12 / 106	40	12	80 / 708	55	E36	C34	EE2	52:1	3.00/6.61	IP53	PLA	19
258.3712.30.00	24	12 / 106	40	6	80 / 708	32	E36	C34	EE2	52:1	3.00/6.61	IP53	PLA	19
258.9026.20.00	12	12 / 106	40	12	80 / 708	55	E36	C34	EE2	52:1	3.00/6.61	IP53	CEL	19
258.9026.30.00	24	12 / 106	40	6	80 / 708	32	E36	C34	EE2	52:1	3.00/6.61	IP53	CEL	19

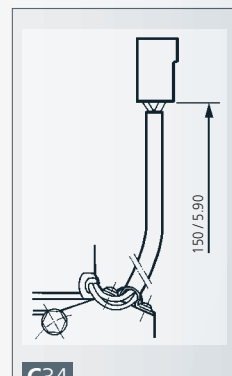


EJE SHAFT ARBRE WELLE



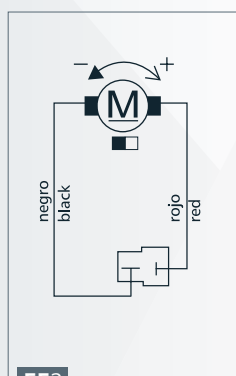
E36

CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART

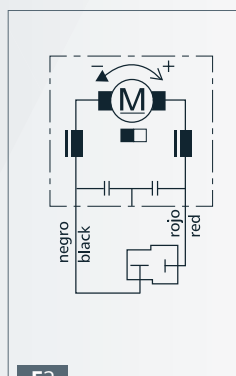


C34

ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHÉMA ÉLECTRIQUE SCHALTBILD

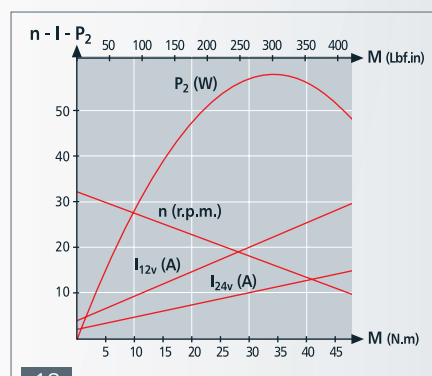


EE2

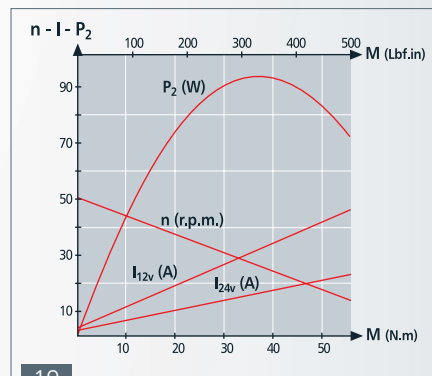


F2

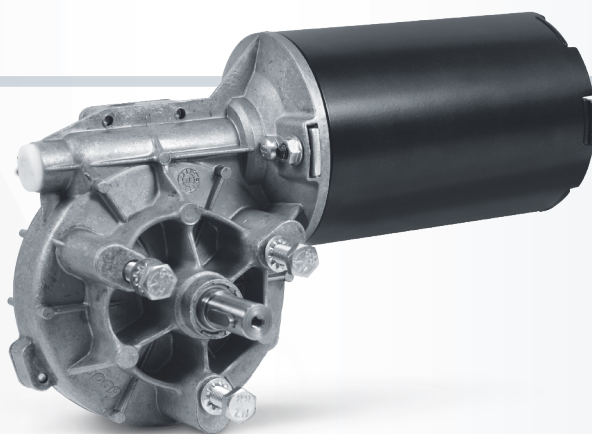
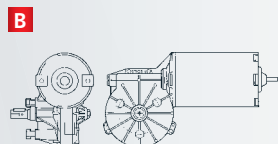
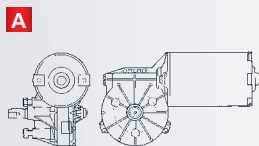
CURVAS CURVES COURBES KURVEN



18

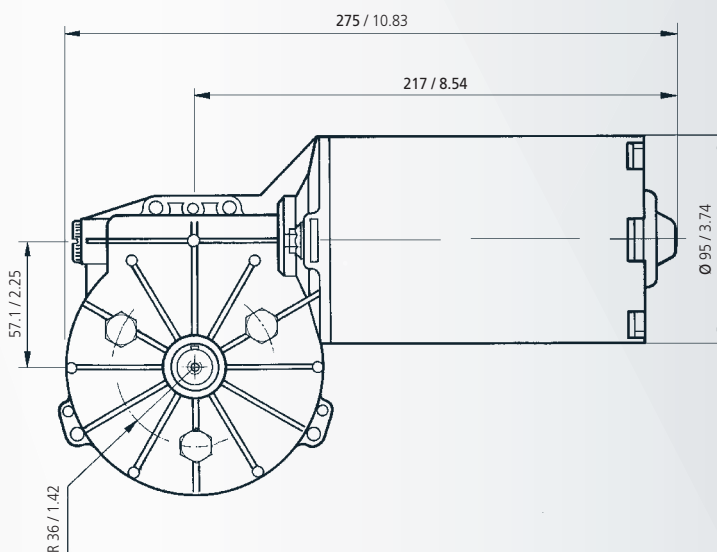
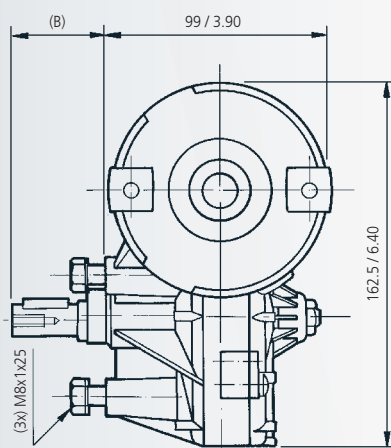


19



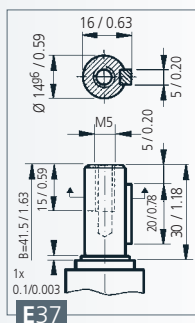
soon available IP66

REFERENCIA REFERENCE 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 DEMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DEMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ÉLECTRIQUE SCHALTBIID	RELACION DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSEIZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ÉTANCHÉITÉ FEUCHTIGKEITSSCHUTZKASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAU 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./lbf.in)	Pn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP			
259.3710.20.00	12	20 / 177	22	13.8	130 / 1150	60	E37	C34	EE2	50:1	5.90 / 13	IP53	PLA	A	20
259.3710.30.00	24	20 / 177	22	6	130 / 1150	30	E37	C34	EE2	50:1	5.90 / 13	IP53	PLA	A	20
259.9001.20.00	12	15 / 132.7	40	18	120 / 1062	98	E37	C34	F2	50:1	5.90 / 13	IP53	PLA	A	21
259.9001.30.00	24	15 / 132.7	40	9	120 / 1062	49	E37	C34	F2	50:1	5.90 / 13	IP53	PLA	A	21
259.9008.30.00	24	25 / 221	25	7	135 / 1195	30	E37/E51	C34	EE2	50:1	5.90 / 13	IP40	PLA	B	22
259.9016.30.00	24	20 / 177	22	6	130 / 1150	30	E37	C34	EE2	50:1	5.90 / 13	IP53	CEL	A	20

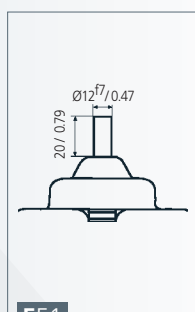


mm / inch

EJE SHAFT ARBRE WELLE

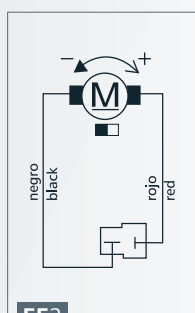


E37

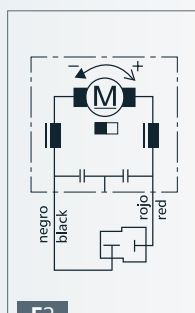


E51

ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHÉMA ÉLECTRIQUE SCHALTBIID

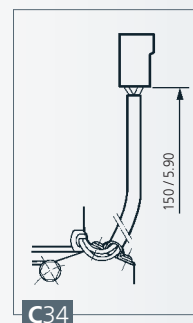


EE2



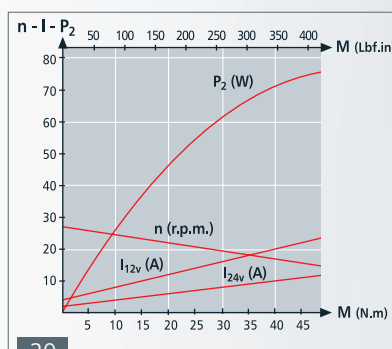
F2

CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART

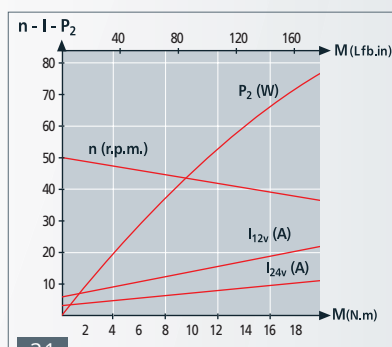


C34

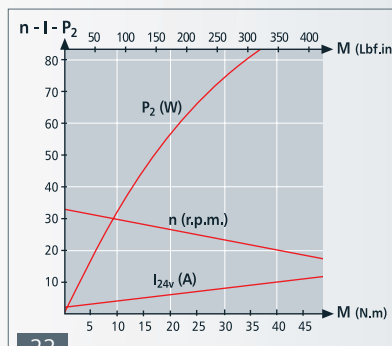
CURVAS CURVES COURBES KURVEN



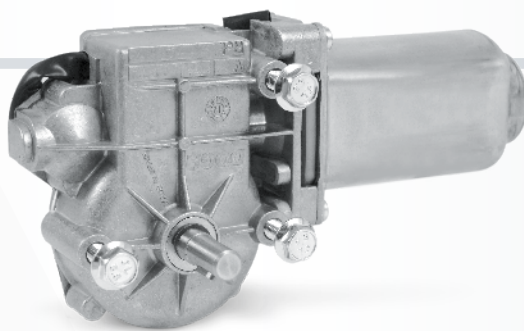
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21

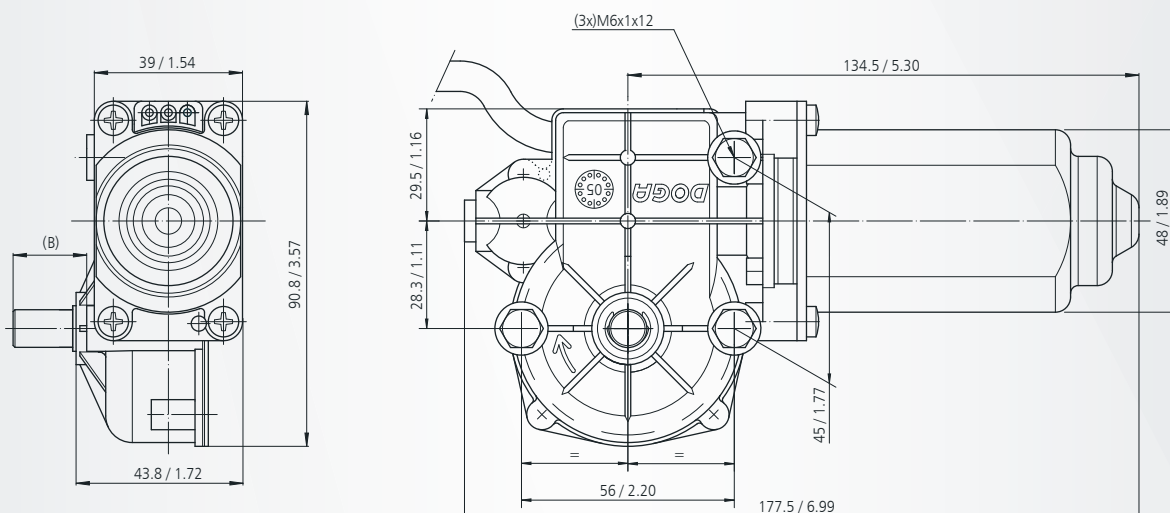


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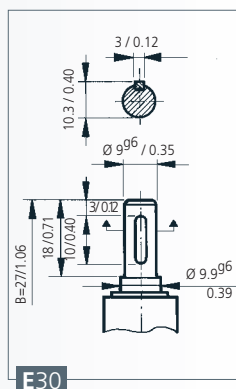
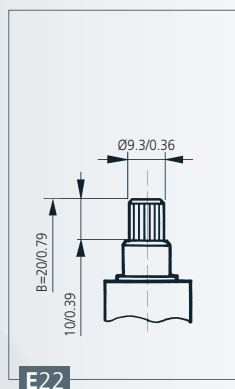


REFERENCIA REFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	PAR DE ARRANQUE STARTING TORQUE COUPLE DE DÉMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DÉMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ELECTRIQUE SCHALTBIID	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ÉTANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAU ROUE MAT. DES SCHNECKENRADES	CURVA CURVE COURBE KURVE
	Un (V)	Mn (N.m./lbf.in)	Pn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP		
316.2711.20.00	12	2 / 17.70	38	3.4	10 / 88.5	12	E22	C30	EE4	62:1	0.90 / 1.98	IP10	PLA	56
316.2711.30.00	24	2 / 17.70	38	1.7	10 / 88.5	6	E22	C30	EE4	62:1	0.90 / 1.98	IP10	PLA	56
316.2761.20.00	12	2 / 17.70	38	3.4	10 / 88.5	12	E30	C30	EE4	62:1	0.90 / 1.98	IP10	PLA	56
316.2761.30.00	24	2 / 17.70	38	1.7	10 / 88.5	6	E30	C30	EE4	62:1	0.90 / 1.98	IP10	PLA	56
316.2761.20.00E	12	2 / 17.70	38	3.4	10 / 88.5	12	E30	C30	F4	62:1	0.90 / 1.98	IP10	PLA	56
316.2761.30.00E	24	2 / 17.70	38	1.7	10 / 88.5	6	E30	C30	F4	62:1	0.90 / 1.98	IP10	PLA	56
316.9728.30.00	24	2 / 17.70	38	1.7	10 / 88.5	6	E30	C30	EE4	62:1	0.90 / 1.98	IP10	BRO	56
316.9731.20.00	12	*1.5 / 13.27	65	6.0	10 / 88.5	22	E30	C30	EE4	62:1	0.90 / 1.98	IP10	PLA	57
316.9731.30.00	24	*1.5 / 13.27	65	3.0	10 / 88.5	11	E30	C30	EE4	62:1	0.90 / 1.98	IP10	PLA	57

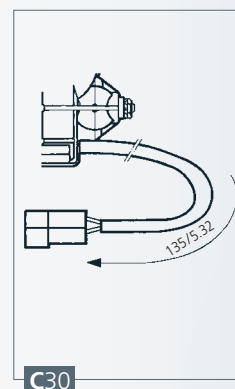
* (VDE 0530) S3 - 10% (10 min.)



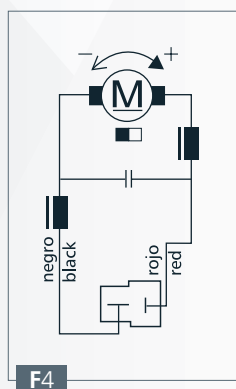
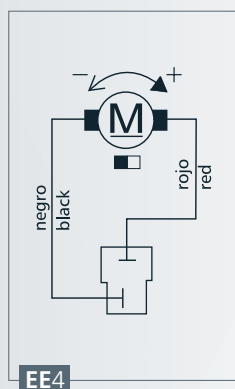
EJE **SHAFT** ARBRE **WELLE**



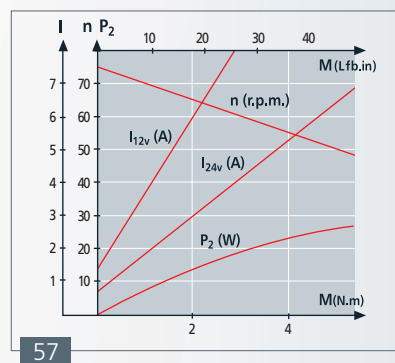
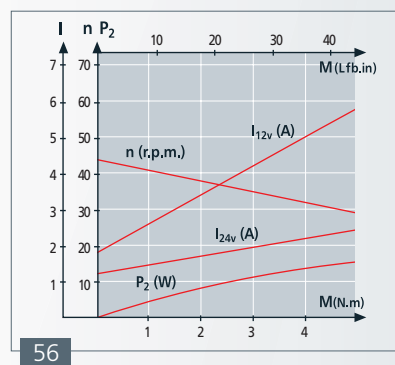
CONEXIONES **CONNECTIONS** CONNEXIONS **ANSCHLUSSART**

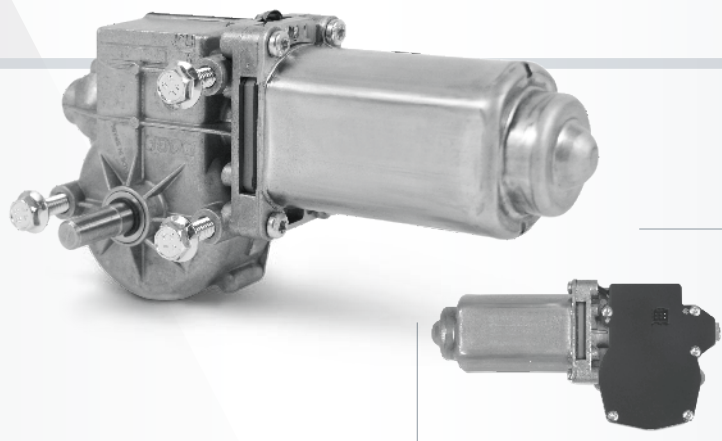


ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**

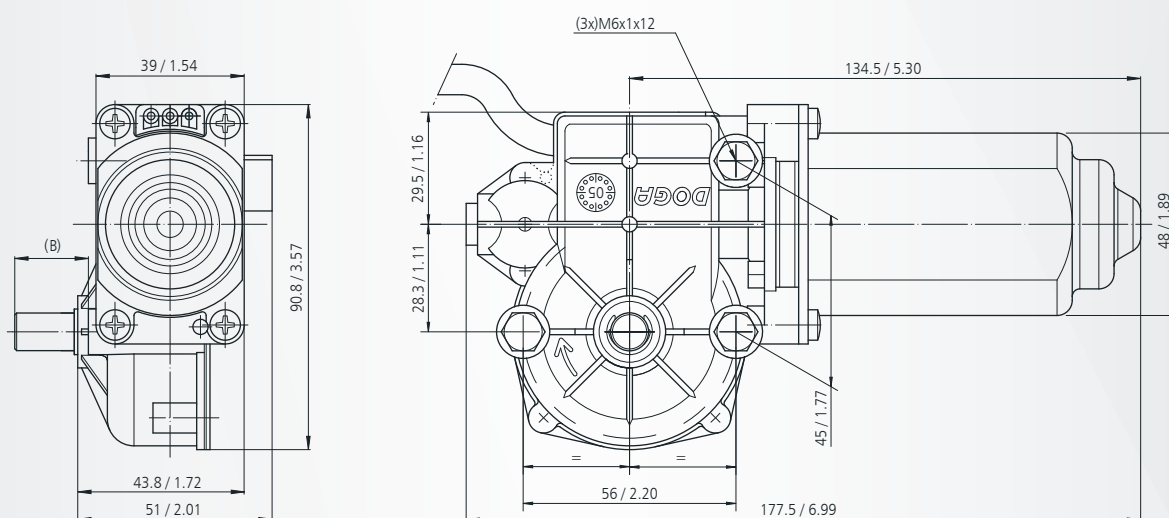


CURVAS **CURVES** COURBES **KURVEN**

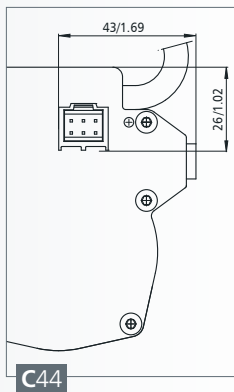
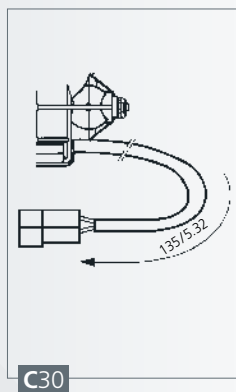




REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE Nominale GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	PAR DE ARRANQUE STARTING TORQUE COUPLE DE DEMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DEMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELECTRICO WIRING DIAGRAM SCHEMA ELECTRIQUE SCHALTBIID	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSEIZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ÉTANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAU ROUE MAT. DES SCHNECKENRADES	CURVA CURVE COURBE KURVE	Nº PULSOS PULSES NUM. NUM. POLES IMPULSANZAHL
	Un (V)	Mn (N.m./lbf.in)	nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP			
316.9747.20.00	12	1.5 / 13.27	65	6.0	10 / 88.5	22	E30	C30/C44	EE4	62:1	0.90 / 1.98	IP10	PLA	57	310
316.9747.30.00	24	1.5 / 13.27	65	3.0	10 / 88.5	11	E30	C30/C44	EE4	62:1	0.90 / 1.98	IP10	PLA	57	310
316.9751.20.00	12	2 / 17.70	38	3.4	10 / 88.5	12	E30	C30/C44	EE4	62:1	0.90 / 1.98	IP10	PLA	56	310
316.9751.30.00	24	2 / 17.70	38	1.7	10 / 88.5	6	E30	C30/C44	EE4	62:1	0.90 / 1.98	IP10	PLA	56	310

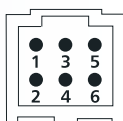


CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART

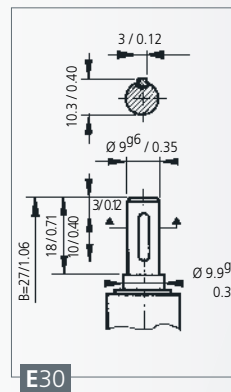


PIN FUNCTION - FUNCIÓN

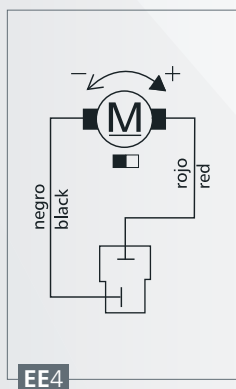
PIN	FUNCTION - FUNCIÓN
1	-
2	OUT A
3	OUT B
4	-
5	GND
6	VCC



EJE SHAFT ARBRE WELLE



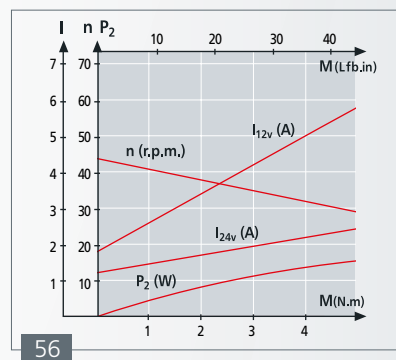
ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHÉMA ÉLECTRIQUE SCHALTBILD



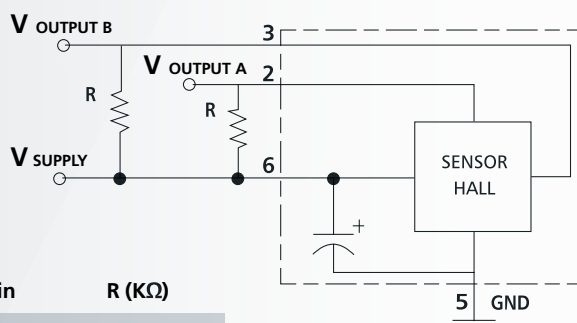
TERMINAL A TERMINAL B ROTATION DIRECTION

GND	VCC	↻
VCC	GND	↻

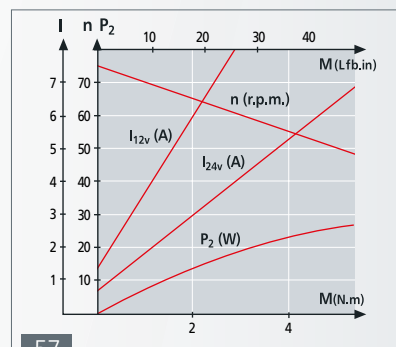
CURVAS CURVES COURBES KURVEN



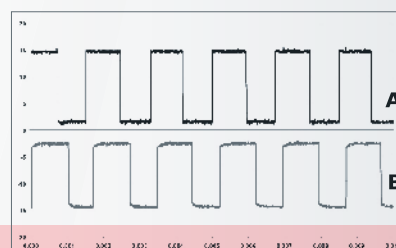
56

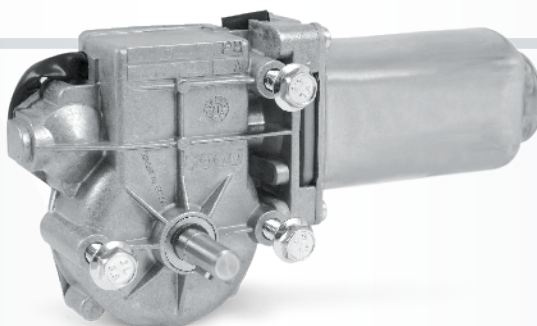
ESQUEMA SENSOR HALL SENSOR HALL
SCHÉME SENSOR HALL SCHALTBILD HALLSENSOR

Vout = Vin	R (KΩ)
5V	0.5
12V	1.2
24V	2.4



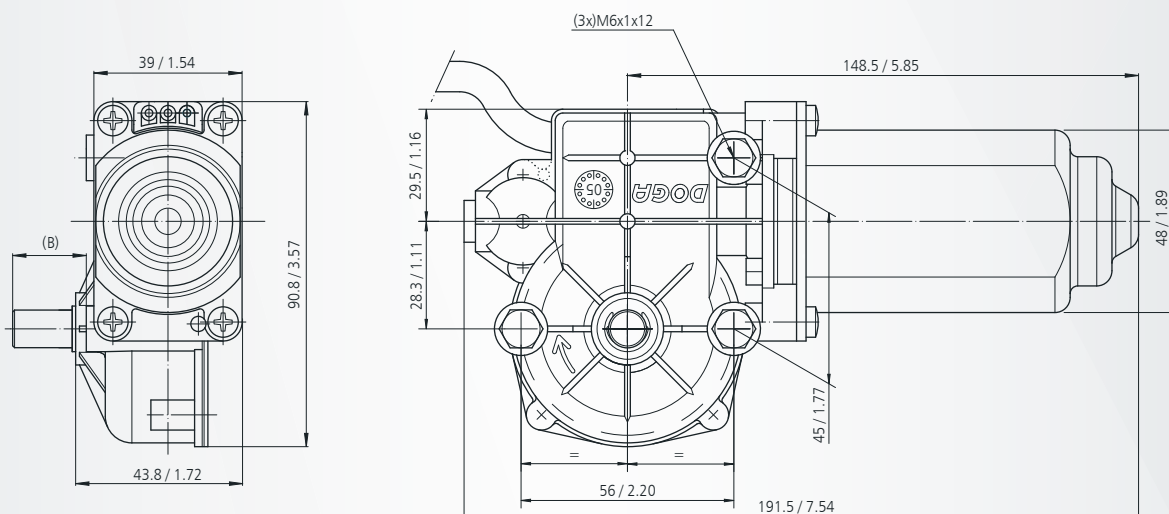
57

SEÑAL SALIDA OUTPUT SIGNAL
SIGNALISATION DE SORTIE AUSGANGSSIGNAL

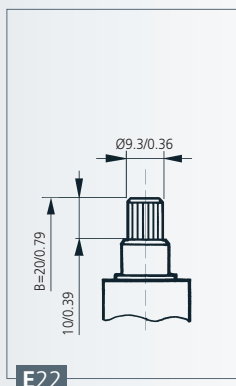


REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	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	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ÉLECTRIQUE SCHALTBIID	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ÉTANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAU ROUE MAT. DES SCHNECKENRADES	CURVA CURVE COURBE KURVE
	Un (V)	Mn (N.m./lbf.in)	n _n (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP		
317.2711.20.00	12	4 / 35	25	2.5	12 / 106	8	E22	C30	EE4	62:1	1.15/2.54	IP10	PLA	64
317.2711.30.00	24	4 / 35	25	1.1	12 / 106	4	E22	C30	EE4	62:1	1.15/2.54	IP10	PLA	64
317.2761.20.00	12	4 / 35	25	2.5	12 / 106	8	E30	C30	EE4	62:1	1.15/2.54	IP10	PLA	64
317.2761.30.00	24	4 / 35	25	1.1	12 / 106	4	E30	C30	EE4	62:1	1.15/2.54	IP10	PLA	64
317.2761.20.00E	12	4 / 35	25	2.5	12 / 106	8	E30	C30	F4	62:1	1.15/2.54	IP10	PLA	64
317.2761.30.00E	24	4 / 35	25	1.1	12 / 106	4	E30	C30	F4	62:1	1.15/2.54	IP10	PLA	64
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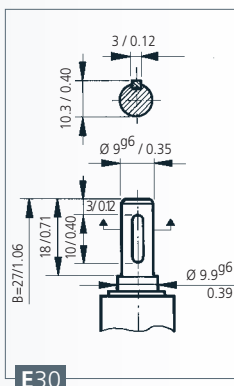
* (VDE 0530) S3 - 10% (10 min.)



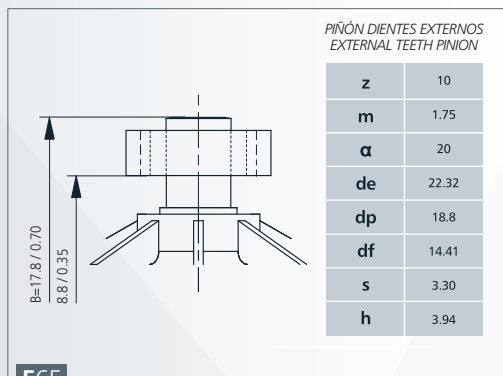
EJE SHAFT ARBRE WELLE



E22

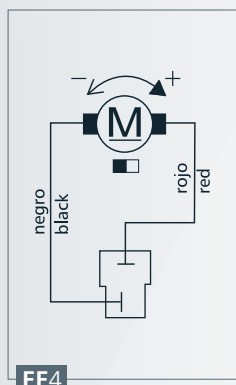


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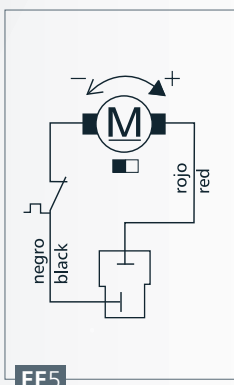


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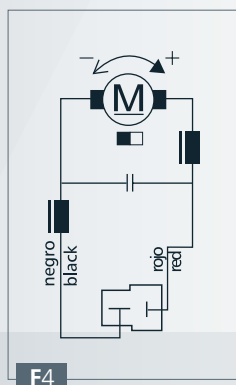
ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ÉLECTRIQUE SCHALTBILD



EE4

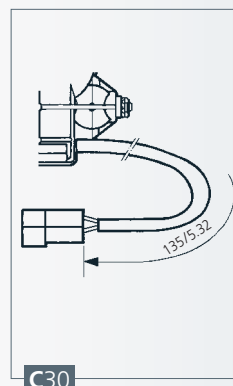


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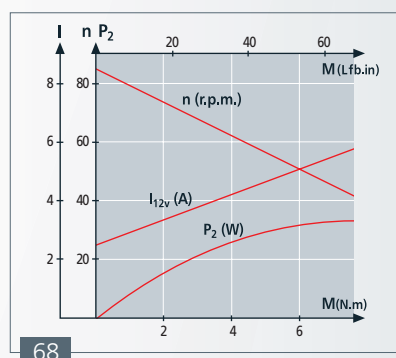
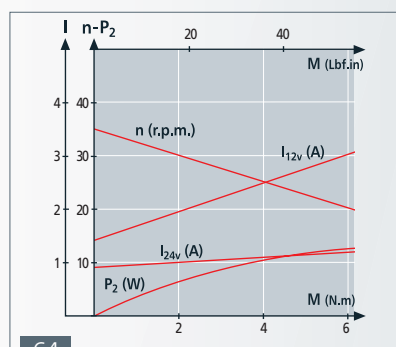
F4

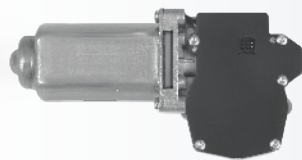
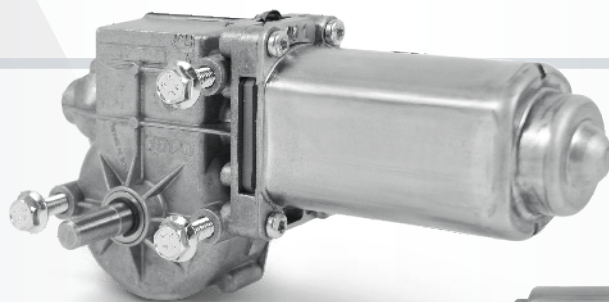
CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART



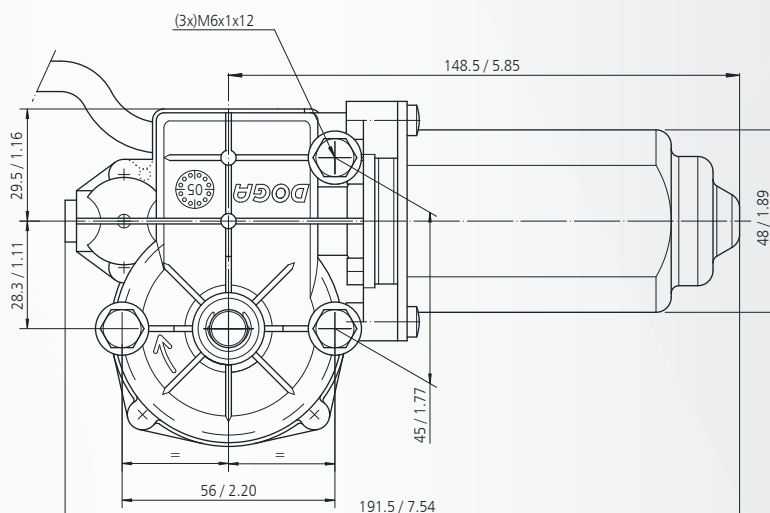
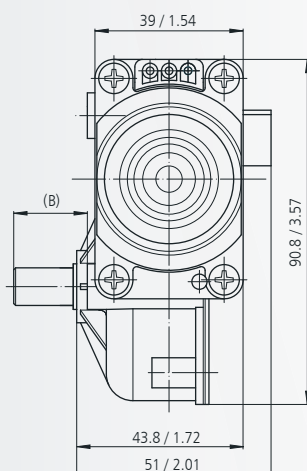
C30

CURVAS CURVES COURBES KURVEN

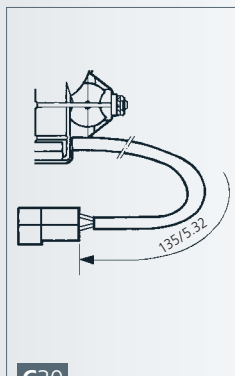




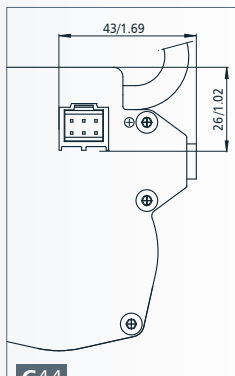
REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	PAR DE ARRANQUE STARTING TORQUE COUPLE DE DEMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DEMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELECTRICO WIRING DIAGRAM SCHEME ELECTRIQUE SCHALTBILD	RELACION DE REDUCCION TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHEITE FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAU ROUE MAT. DES SCHNECKENRADES	CURVA CURVE COURBE KURVE	Nº PULSOS PULSES NUM. NUM. PULSES IMPULSANZAHL
	Un (V)	Mn (N.m./lbf.in)	nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP			
317.9706.20.00	12	4 / 35	25	2.5	12 / 106	8	E30	C30/C44	EE4	62:1	1.15/2.54	IP10	PLA	64	310
317.9706.30.00	24	4 / 35	25	1.1	12 / 106	4	E30	C30/C44	EE4	62:1	1.15/2.54	IP10	PLA	64	310



CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART



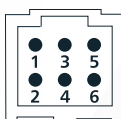
C30



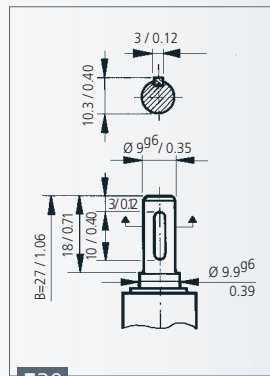
C44

PIN FUNCTION - FUNCIÓN

1	-
2	OUT A
3	OUT B
4	-
5	GND
6	VCC

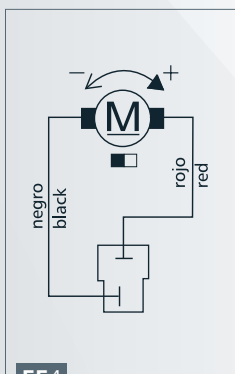


EJE SHAFT ARBRE WELLE



E30

ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHÉMA ÉLECTRIQUE SCHALTBIKD

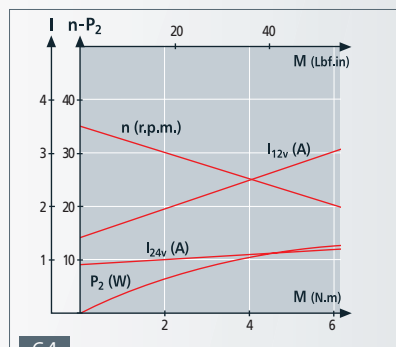


EE4

TERMINAL A TERMINAL B ROTATION DIRECTION

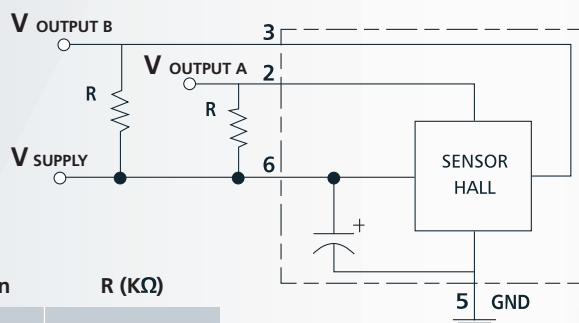
GND	VCC	↺
VCC	GND	↻

CURVAS CURVES COURBES KURVEN



64

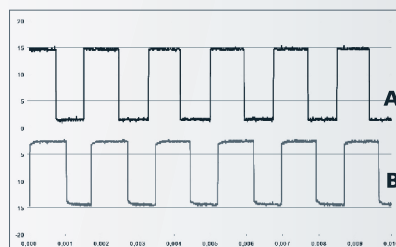
ESQUEMA SENSOR HALL SENSOR HALL
SCHÉMA SENSOR HALL SCHALTBIKD HALLSENSOR

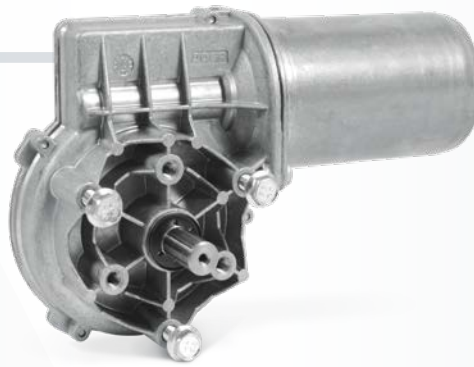
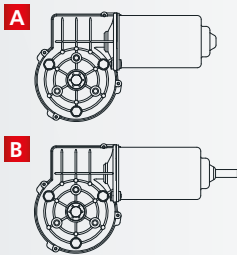


Vout = Vin R (KΩ)

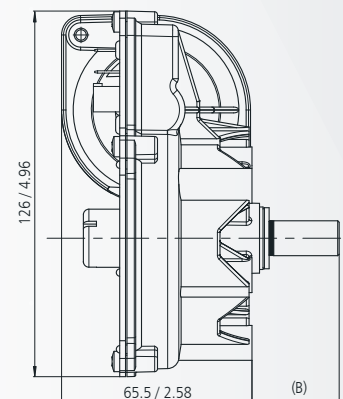
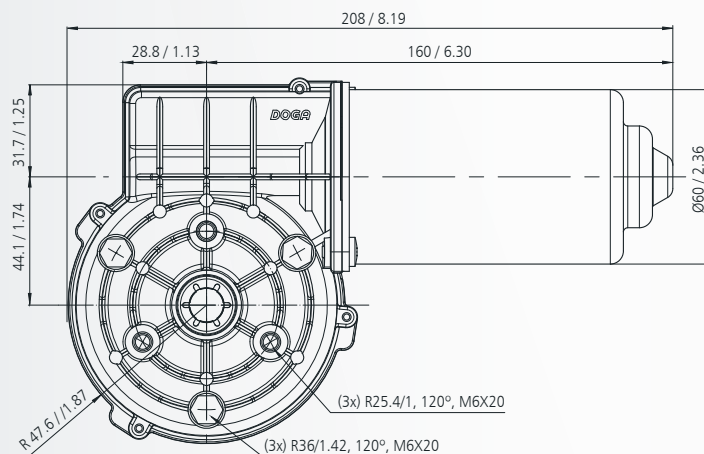
5V	0.5
12V	1.2
24V	2.4

SEÑAL SALIDA OUTPUT SIGNAL
SIGNALISATION DE SORTIE AUSGANGSSIGNAL



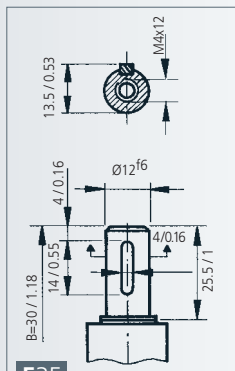


REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	PAR DE ARRANQUE STARTING TORQUE COUPLE DE DEMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DEMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLÜSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ELECTRIQUE SCHALTBILD	RELACION DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ÉTANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAL 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./lbf.in)	nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP			
319.1846.20.00	12	4 / 35	85	7	40 / 354	60	E35	C37	F5	78:2	1.7 / 3.75	IP65	PLA	A	62
319.1846.30.00	24	4 / 35	85	3.5	40 / 354	30	E35	C37	F5	78:2	1.7 / 3.75	IP65	PLA	A	62
319.1860.20.00	12	9 / 79.6	30	7	50 / 442	28	E35	C37	F5	81:1	1.7 / 3.75	IP65	PLA	A	58
319.1860.30.00	24	9 / 79.6	30	3	50 / 442	15	E35	C37	F5	81:1	1.7 / 3.75	IP65	PLA	A	58
319.1862.20.00	12	8 / 70.8	45	6	50 / 442	50	E35	C37	F5	81:1	1.7 / 3.75	IP65	PLA	A	60
319.1862.30.00	24	9 / 79.6	45	3	60 / 531	25	E35	C37	F5	81:1	1.7 / 3.75	IP65	PLA	A	61
319.3820.20.00	12	9 / 79.6	30	7	50 / 442	28	E35	C37	EE4	81:1	1.7 / 3.75	IP65	BRO	A	58
319.3820.30.00	24	9 / 79.6	30	3	50 / 442	15	E35	C37	EE4	81:1	1.7 / 3.75	IP65	BRO	A	58
319.3822.20.00	12	8 / 70.8	45	6	50 / 442	50	E35	C37	EE4	81:1	1.7 / 3.75	IP65	BRO	A	60
319.3822.30.00	24	9 / 79.6	45	3	60 / 531	25	E35	C37	EE4	81:1	1.7 / 3.75	IP65	BRO	A	61
319.3845.20.00	12	6 / 53.1	65	8	35 / 309	40	E35	C37	EE4	78:2	1.7 / 3.75	IP65	PLA	A	67
319.3845.30.00	24	6 / 53.1	65	4	40 / 354	25	E35	C37	EE4	78:2	1.7 / 3.75	IP65	PLA	A	67
319.3846.20.00	12	4 / 35	85	7	40 / 354	60	E35	C37	EE4	78:2	1.7 / 3.75	IP65	PLA	A	62
319.3846.30.00	24	4 / 35	85	3.5	40 / 354	30	E35	C37	EE4	78:2	1.7 / 3.75	IP65	PLA	A	62
319.3860.20.00	12	9 / 79.6	30	7	50 / 442	28	E35	C37	EE4	81:1	1.7 / 3.75	IP65	PLA	A	58
319.3860.30.00	24	9 / 79.6	30	3	50 / 442	15	E35	C37	EE4	81:1	1.7 / 3.75	IP65	PLA	A	58
319.3862.20.00	12	8 / 70.8	45	6	50 / 442	50	E35	C37	EE4	81:1	1.7 / 3.75	IP65	PLA	A	60
319.3862.30.00	24	9 / 79.6	45	3	60 / 531	25	E35	C37	EE4	81:1	1.7 / 3.75	IP65	PLA	A	61
319.9059.30.00	24	2.2 / 19.47	230	4	20 / 177	36	E35	C37	EE4	68:4	1.7 / 3.75	IP65	PLA	A	65
319.9128.30.00	24	2.2 / 19.47	230	4	20 / 177	36	E35/E66	C38	EE4	68:4	1.7 / 3.75	IP40	PLA	B	65
319.9137.20.00	12	2 / 17.7	155	8	20 / 177	60	E35	C38	EE4	68:4	1.7 / 3.75	IP65	PLA	A	66
319.9137.30.00	24	2 / 17.7	175	4	20 / 177	30	E35	C38	EE4	68:4	1.7 / 3.75	IP65	PLA	A	66

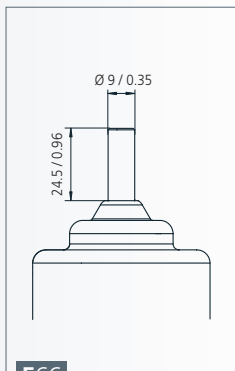


mm / inch

EJE SHAFT ARBRE WELLE

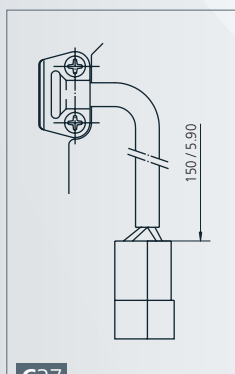


E35

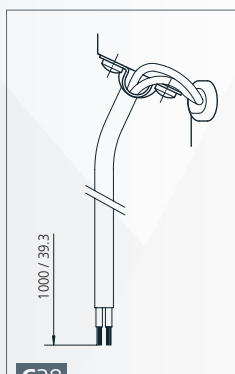


E66

CONEXIONES CONNECTIONS
 CONNEXIONS ANSCHLUSSART

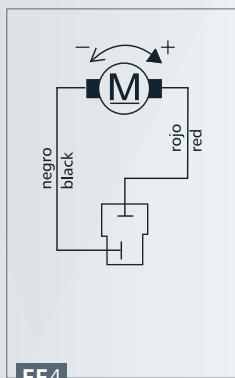


C37

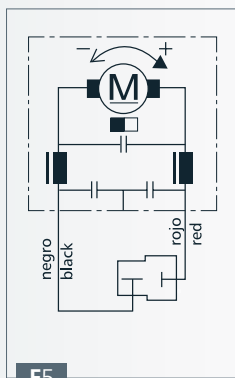


C38

ESQUEMA ELÉCTRICO WIRING DIAGRAM
 SCHÉMA ÉLECTRIQUE SCHALTBIID

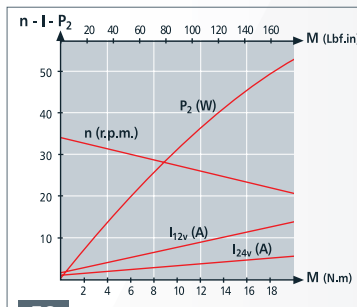


EE4

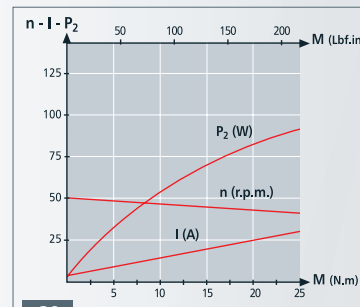


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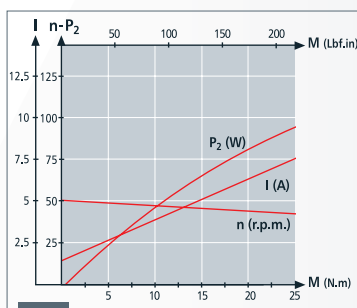
CURVAS CURVES COURBES KURVEN



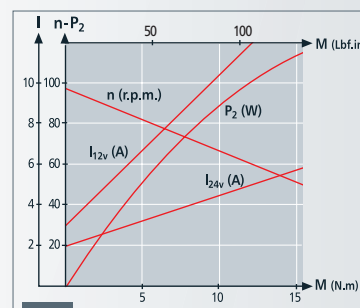
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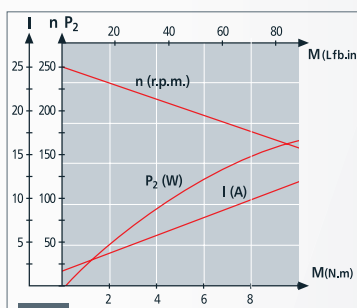
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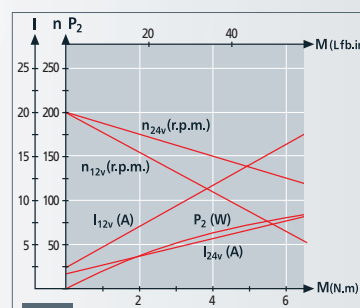
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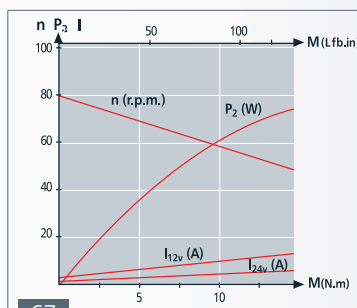
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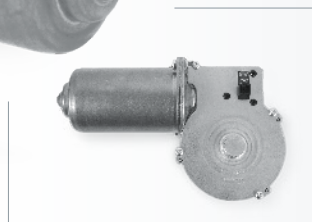
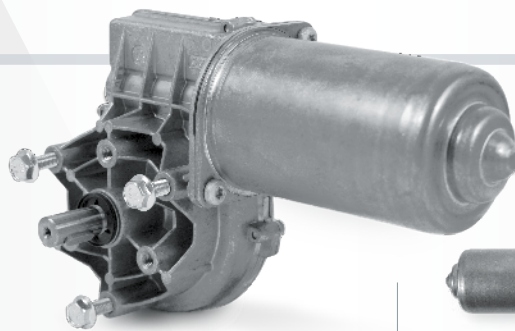
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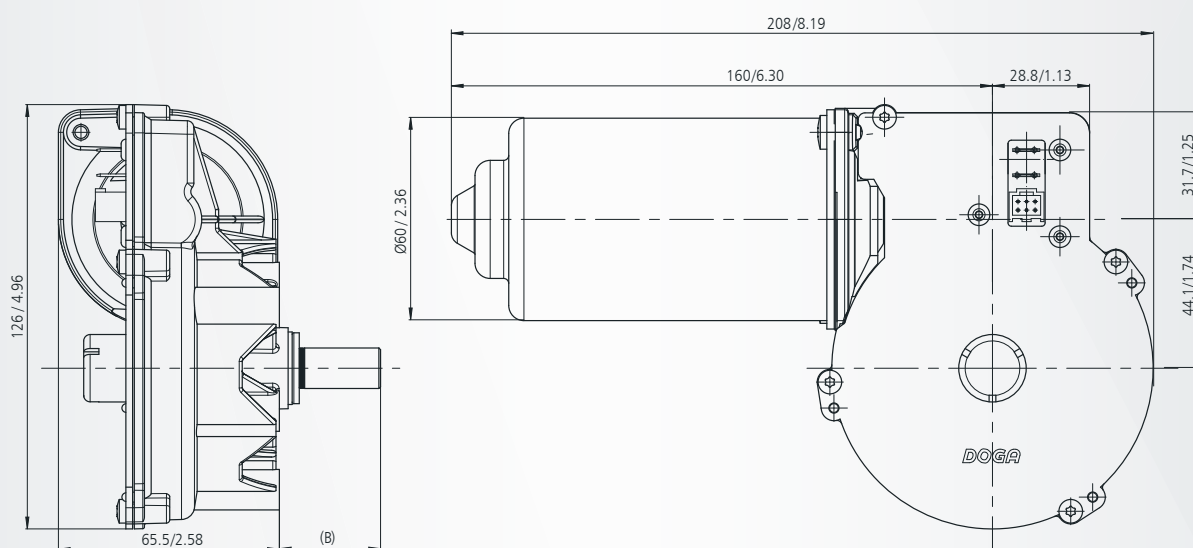
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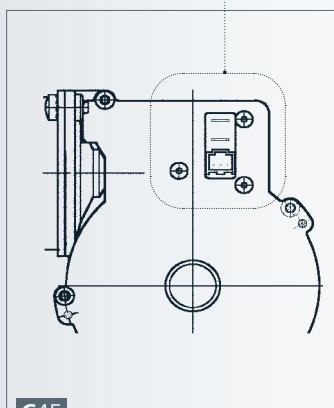
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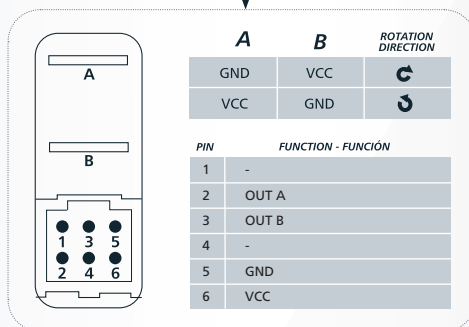
REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	PAR DE ARRANQUE STARTING TORQUE COUPLE DE DEMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DEMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLÜSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEME ÉLECTRIQUE SCHALTBIID	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ÉTANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAU ROUE MAT. DES SCHNECKENRADES	CURVA CURVE COURBE KURVE	Nº PULSOS PULSES NUM. NUM. PULSES IMPULSANZAHL
	Un (V)	Mn (N.m./lbf.in)	nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP			
319.4846.20.00	12	4 / 35	85	6	40 / 354	60	E35	C45	F6	78:2	1.7 / 3.75	IP40	PLA	62	468
319.4846.30.00	24	4 / 35	85	3	40 / 354	30	E35	C45	F6	78:2	1.7 / 3.75	IP40	PLA	62	468
319.4860.20.00	12	9 / 79.6	30	7	50 / 442	28	E35	C45	F6	81:1	1.7 / 3.75	IP40	PLA	58	972
319.4860.30.00	24	9 / 79.6	30	3	50 / 442	15	E35	C45	F6	81:1	1.7 / 3.75	IP40	PLA	58	972
319.4862.20.00	12	8 / 70.8	45	6	50 / 442	50	E35	C45	F6	81:1	1.7 / 3.75	IP40	PLA	60	972
319.4862.30.00	24	9 / 79.6	45	3	60 / 531	25	E35	C45	F6	81:1	1.7 / 3.75	IP40	PLA	61	972



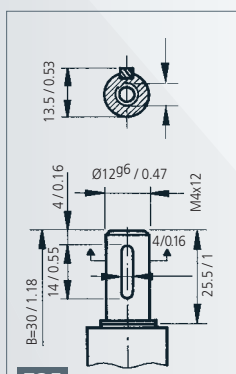
CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART



C45

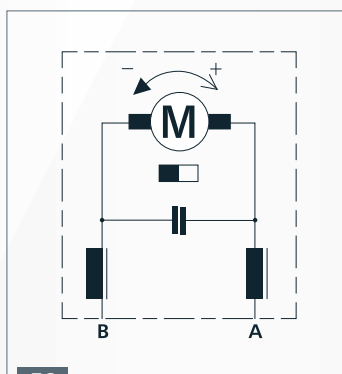


EJE SHAFT ARBRE WELLE



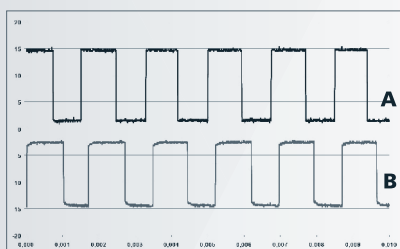
E35

ESQUEMA ELÉCTRICO WIRING DIAGRAM
SCHÉMA ÉLECTRIQUE SCHALTBIID

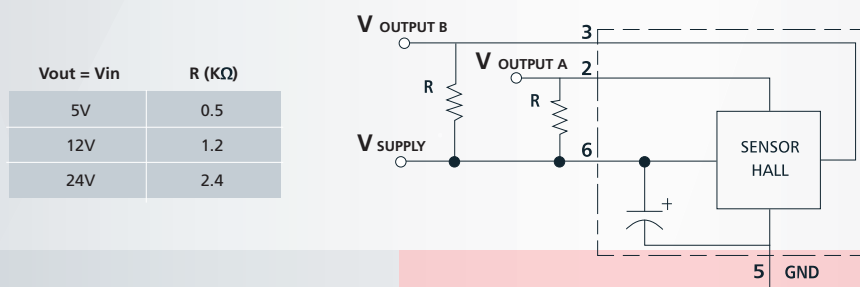


F6

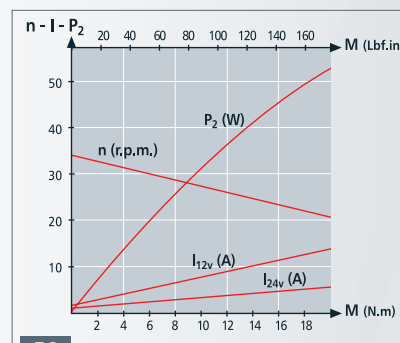
SEÑAL SALIDA OUTPUT SIGNAL
SIGNALISATION DE SORTIE AUSGANGSSIGNAL



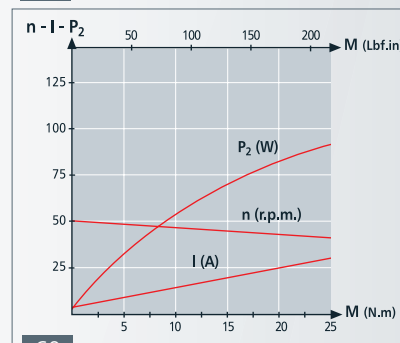
ESQUEMA SENSOR HALL SENSOR HALL
SCHÉMA SENSOR HALL SCHALTBIID HALLSENSOR



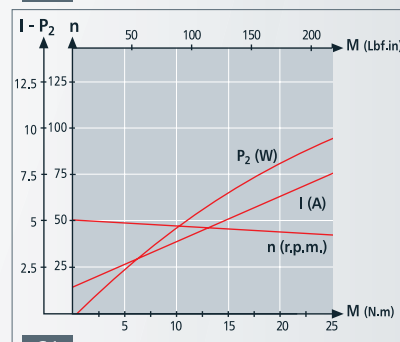
CURVAS CURVES COURBES KURVEN



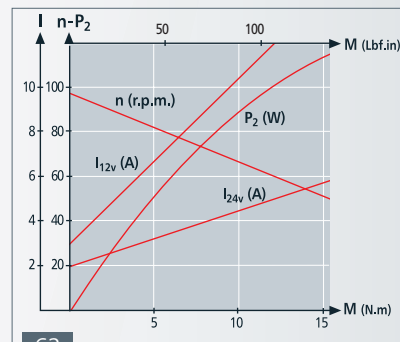
58



60



61



62

DOGA ha diseñado una Unidad de Control Electrónico, ECU embebida, para la serie de motores 319 (versión estándar y versión más corta 319H), la cual permite a los clientes, en un motor compacto, robusto y de coste contenido, lograr un control en lazo cerrado de cada aplicación.

Este concepto está ya implementado en varios proyectos, actualmente en producción, y puede ser implementado en proyectos particulares desarrollando un software específico.

INTERFACES

Digital inputs | LIN | CAN J1939 | CAN Open

CARACTERÍSTICAS

- ⇒ Motor compacto con controlador integrado
- ⇒ Voltaje adaptable: 12 o 24V
- ⇒ Control de velocidad muy exacto
- ⇒ Sincronización de varios motores
- ⇒ Suave movimiento en inversión de giro
- ⇒ IP hasta IP69k
- ⇒ Un sistema para múltiples necesidades
- ⇒ Retroalimentación del estado del motor
- ⇒ Permite la integración de varios motores en una línea (LIN-CAN)
- ⇒ Capacidad de rotación del motor en ambos sentidos

En DOGA, diseñamos nuestros motores para encajar perfectamente en cualquier proyecto. Un motor para cada aplicación.

DOGA a conçu embarqué ECU (Unité de Commande Électronique) pour la série 319 (le 319 standard et la version courte le 319H) qui permet aux clients d'un contrôle de boucle fermée dans chaque application sur un moteur très compact et robuste avec un coût contenu.

Ce concept a déjà été mis en place dans plusieurs projets, maintenant en production de séries, et peut être implémenté dans certains projets en mettant au point un logiciel dédié.

INTERFACES

Entrées numériques | LIN | CAN J1939 | CAN Open

CARACTÉRISTIQUES

- ⇒ Moteur compacte avec unité de commande électronique intégré
- ⇒ Personnalisation de système en tension : 12 ou 24V
- ⇒ Contrôle de la vitesse très précise
- ⇒ Synchronisation de plusieurs moteurs
- ⇒ Mouvement souple au cours de l'inversion de la rotation
- ⇒ IP jusqu'à IP69k
- ⇒ Système celui de multiples besoins
- ⇒ Rétroaction du moteur
- ⇒ Intégration permet des multiples moteurs dans un seul réseau (LIN-CAN)
- ⇒ Capacité pour faire tourner le moteur dans les deux sens

Chez DOGA, nous personnalisons pour s'adapter parfaitement à tout projet. Un moteur pour chaque application.

DOGA has designed embedded ECU (Electronic Control Unit) for the 319 series (319 standard and the shorter version 319H) which makes it possible for our customers, in a very compact and robust motor with a contained cost, to have a close loop control on each application.

This concept has, in several projects, already been implemented in series production, and can be implemented in particular projects by developing a specific software.

INTERFACES

Digital inputs | LIN | CAN J1939 | CAN Open

FEATURES

- ⇒ Compact motor with integrated driver
- ⇒ Voltage system customization: 12 or 24V
- ⇒ Very accurate speed control
- ⇒ Synchronization of several motors
- ⇒ Smooth motion during reversal of the rotation
- ⇒ IP up to 69k
- ⇒ One system of multiple needs
- ⇒ Motor status feedback
- ⇒ Allows integration of multiple motors in one network (LIN-CAN)
- ⇒ Capability to rotate the motor in both senses

At DOGA, we design our motors to perfectly fit in any project. One motor for each application.

DOGA hat für die Baureihe 319 (Standard 319 und die kürzere Variante 319H) eine eingebettete elektronische Steuerung (ECU) entwickelt, was eine Closed-loop Steuerung in einem sehr kompakten, robusten und günstigen Motor für beliebige Anwendungen ermöglicht. Die Kenndaten und möglichen Schnittstellen sind nachfolgend aufgeführt.

Dieses Konzept wurde bereits in mehreren Projekten in Serienfertigung umgesetzt. Spezielle Kundenanforderungen sind durch projektspezifische Programmierung möglich.

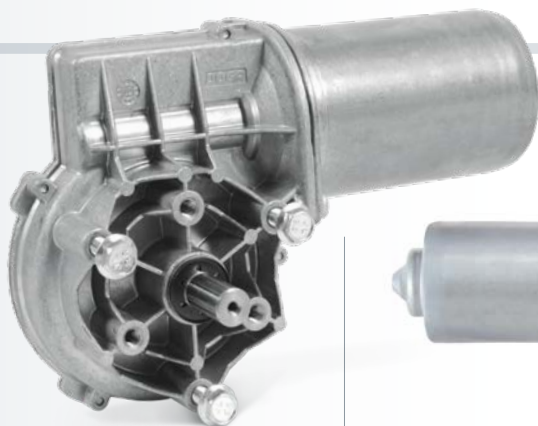
SCHNITTSTELLEN

Digitale Eingänge | LIN | CAN J1939 | CAN Open

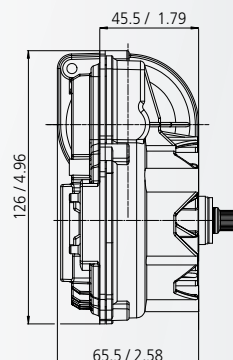
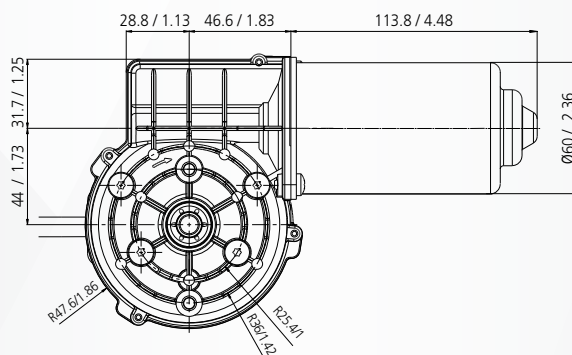
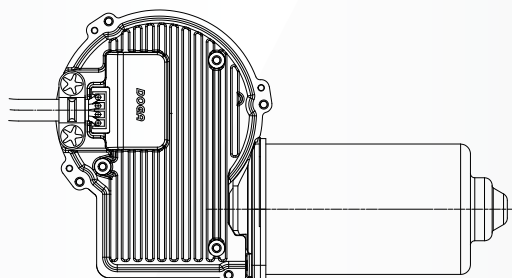
FUNKTIONEN

- ⇒ Kompakter Motor mit integrierter Steuerung
- ⇒ Nennspannung : 12 oder 24V
- ⇒ Sehr exakte Geschwindigkeitssteuerung
- ⇒ Synchronisation von mehreren Motoren
- ⇒ Ruckfreie Bewegung bei Drehrichtungsänderung
- ⇒ IP-Schutzklasse bis IP69k
- ⇒ Ein System für mehrere Bedürfnisse
- ⇒ Diagnosefunktion
- ⇒ Ermöglicht Integration von mehreren Motoren in einem Netzwerk (LIN-CAN)
- ⇒ Reversierbetrieb

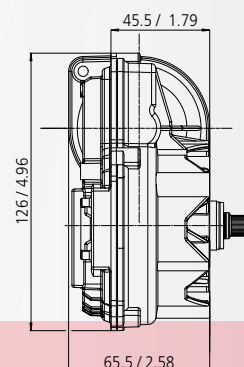
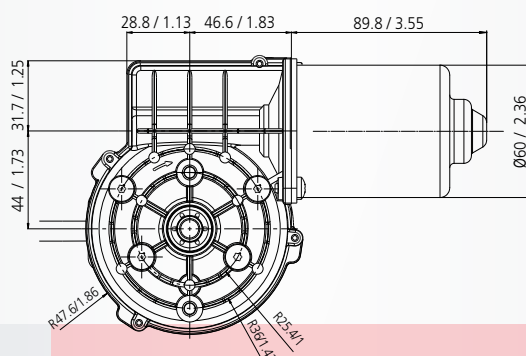
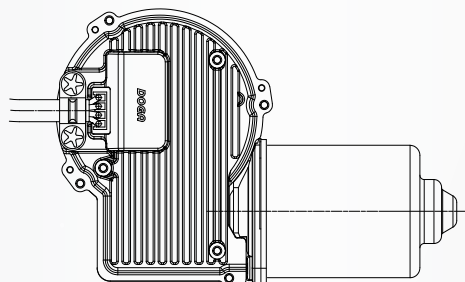
DOGA Motoren können spezifisch auf Kundenprojekte appliziert werden um eine perfekte Integration zu ermöglichen.



319_e



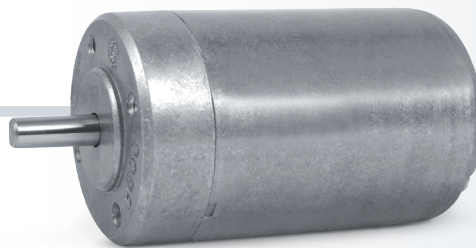
319_{he}



mm / inch

PLANETARY GEAR

- REDUCTORES PLANETARIOS: combinables con la serie 162. Ver sección especial en catálogo.
- PLANETARY GEARS: combinable with 162 series. See special section in catalogue.
- REDUCTEURS PLANETAIRES: combinables avec la série 162. Consultez section spécial du catalogue.
- PLANETENGETRIEBE: Mit der Reihe 162 kombinierbar. Sehen Sie Sonderabschnitt im Katalog.



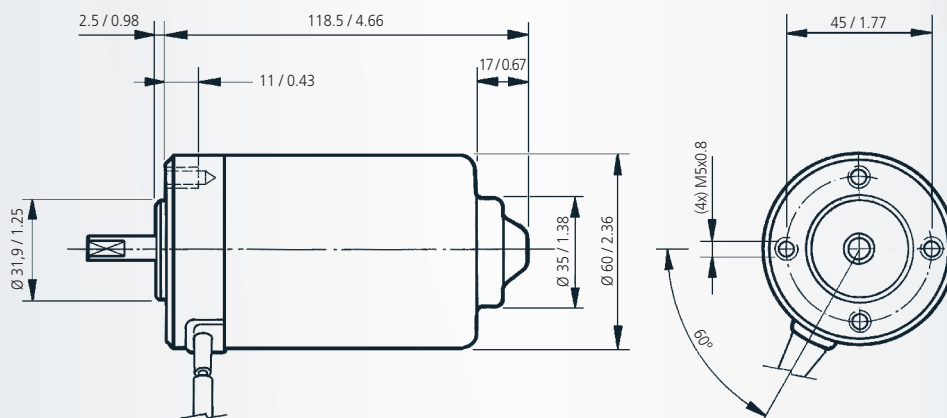
A



B

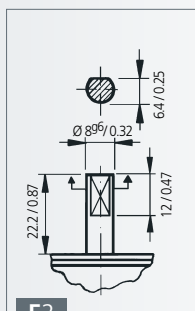


REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	TENSION NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	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 ANSCHLÜSSE	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ÉLECTRIQUE 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./lbf.in)	n _n (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				P (kg/lb)	IP		
162.4101.20.00	12	0.18 / 1.59	2800	7.5	1.0 / 8.85	33	E2	C2	EE2	1.1 / 2.43	IP53	A	32
162.4101.30.00	24	0.20 / 1.77	3000	4	1.0 / 8.85	18	E2	C2	EE2	1.1 / 2.43	IP53	A	33
162.4102.20.00	12	0.20 / 1.77	2000	6	1.0 / 8.85	24	E2	C3	EE2	1.1 / 2.43	IP53	A	34
162.4102.30.00	24	0.20 / 1.77	2000	3	1.0 / 8.85	12	E2	C3	EE2	1.1 / 2.43	IP53	A	34
162.4106.20.00	12	0.18 / 1.59	2800	7.5	1.0 / 8.85	33	E4	C2	EE2	1.1 / 2.43	IP53	A	32
162.4106.30.00	24	0.20 / 1.77	3000	4	1.0 / 8.85	18	E4	C2	EE2	1.1 / 2.43	IP53	A	33
162.4107.30.00E	24	0.20 / 1.77	2000	3	1.0 / 8.85	12	E5	C5	F3	1.1 / 2.43	IP53	A	34
162.4108.20.00	12	0.18 / 1.59	1500	5	0.8 / 7.08	17	E2	C3	EE2	1.1 / 2.43	IP53	A	35
162.4108.30.00	24	0.18 / 1.59	1500	2.5	0.8 / 7.08	8.5	E2	C3	EE2	1.1 / 2.43	IP53	A	35
162.4109.30.00	24	0.18 / 1.59	1500	2.5	0.8 / 7.08	8.5	E38	C35	EE3	1.1 / 2.43	IP53	A	35
162.4109.50.00	48	0.18 / 1.59	1500	1,3	0.8 / 7.08	4,5	E38	C35	EE3	1.1 / 2.43	IP53	A	35
162.4113.30.00	24	0.12 / 1.06	3000	2.5	1.0 / 8.85	15	E3	C4	F3	1.1 / 2.43	IP40	A	36
162.4116.30.00	24	0.20 / 1.77	3000	4	1.0 / 8.85	18	E58/E57	C2	EE2	1.1 / 2.43	IP40	B	33

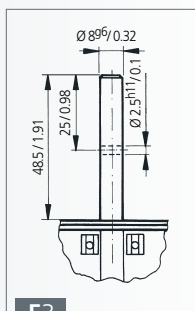


mm / inch

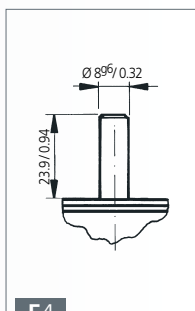
EJE SHAFT ARBRE WELLE



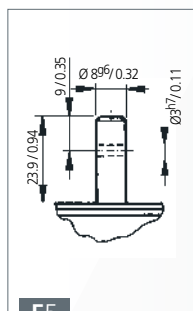
E2



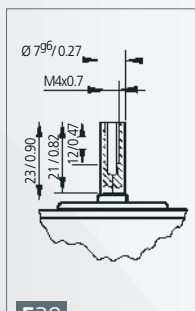
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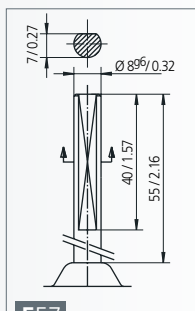
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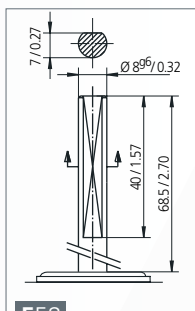
E5



E38

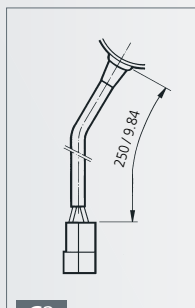


E57

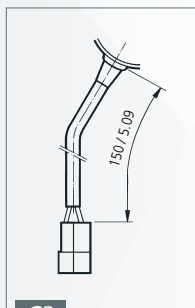


E58

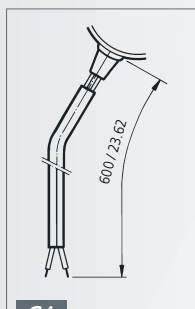
CONEXIONES CONNECTIONS
CONNEXIONS ANSCHLUSSART



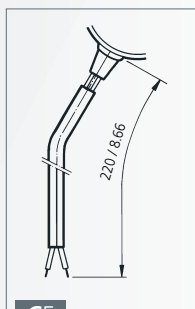
C2



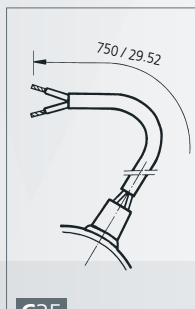
C3



C4

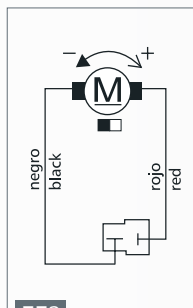


C5

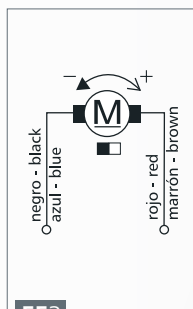


C35

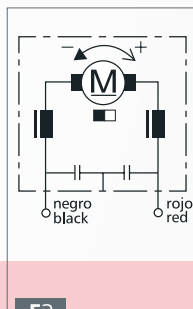
ESQUEMA ELÉCTRICO WIRING DIAGRAM
SCHEMA ÉLECTRIQUE SCHALTBIELD



EE2

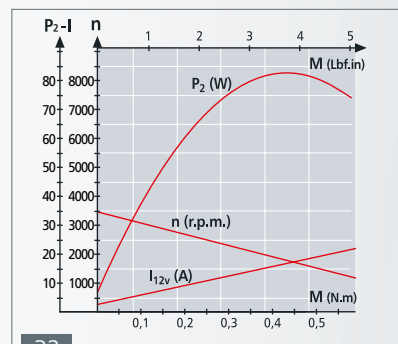


EE3

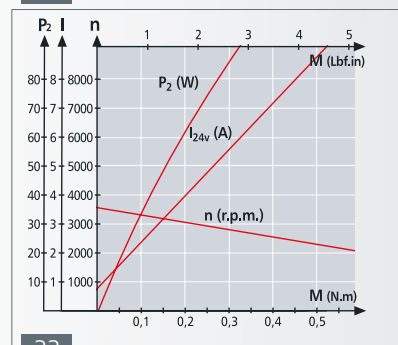


F3

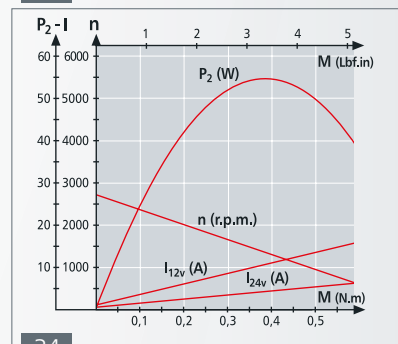
CURVAS CURVES COURBES KURVEN



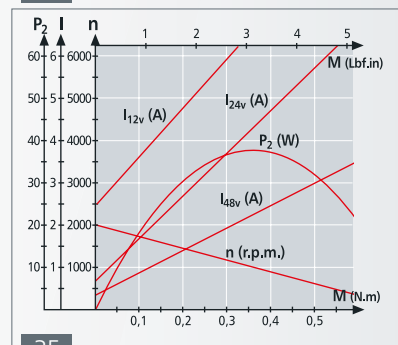
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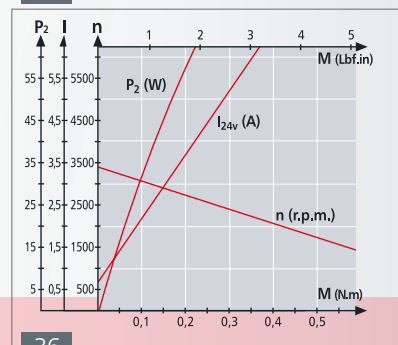
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34



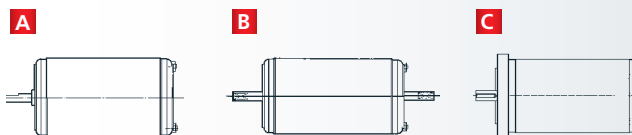
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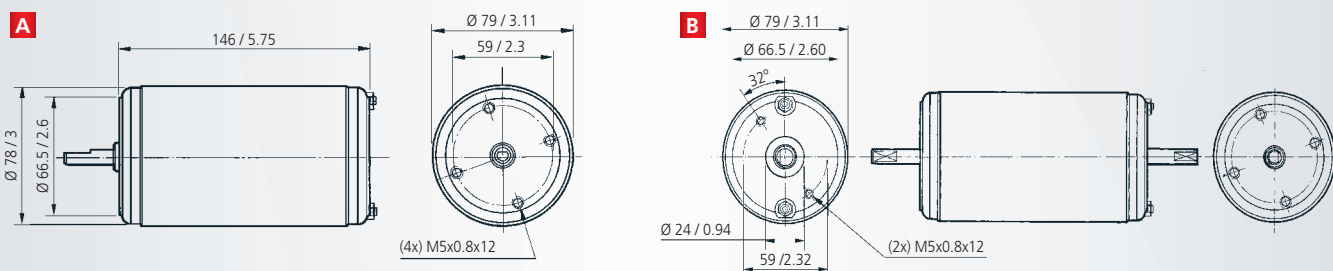
36

PLANETARY GEAR

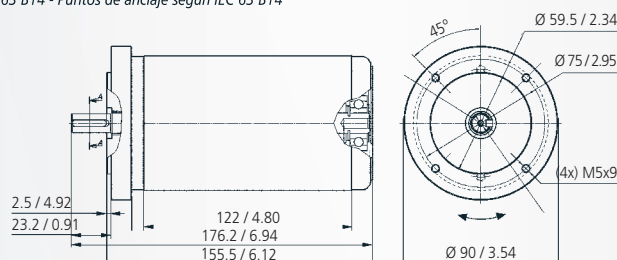
- REDUCTORES PLANETARIOS: combinables con la serie 168. Ver sección especial en catálogo.
- PLANETARY GEARS: combinable with 168 series. See special section in catalogue.
- REDUCTEURS PLANETAIRES: combinables avec la série 168. Consultez section spécial du catalogue.
- PLANETENGETRIEBE: Mit der Reihe 168 kombinierbar. Sehen Sie Sonderabschnitt im Katalog.



REFERENCIA REFERENCE REFERENZNUMMERN	TENSION 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	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ÉLECTRIQUE SCHALTBIID	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./lbf.in)	Pn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				P (kg/lb)	IP		
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168.4105.30.04	24	0.50 / 4.42	1900	7	3.0 / 26.5	32	E8	C8	EE1	2.6 / 5.73	IP40	A	37
168.4108.20.04	12	0.45 / 3.98	2800	19	3.0 / 26.5	100	E9	C9	EE4	2.6 / 5.73	IP40	A	39
168.4108.30.04	24	0.45 / 3.98	2800	10	3.0 / 26.5	52	E9	C9	EE4	2.6 / 5.73	IP40	A	39
168.4111.20.04	12	0.75 / 6.64	1000	11	2.8 / 24.8	36	E11	C9	EE2	2.6 / 5.73	IP40	A	40
168.4111.30.04	24	0.75 / 6.64	1000	5.5	2.8 / 24.8	18	E11	C9	EE2	2.6 / 5.73	IP40	A	40
168.4112.20.04	12	0.70 / 6.19	1500	14	3.0 / 26.5	56	E12	C11	EE2	2.6 / 5.73	IP40	A	42
168.4112.30.04	24	0.70 / 6.19	1500	7	3.0 / 26.5	28	E12	C11	EE2	2.6 / 5.73	IP40	A	42
168.4115.30.04	24	0.50 / 4.42	3000	11	3.0 / 26.5	70	E13/E41	C13	EE2	2.6 / 5.73	IP40	A	41
168.4121.30.04E	24	0.50 / 4.42	3000	11	3.0 / 26.5	70	E11/E11	C13	F2	2.6 / 5.73	IP40	B	41
168.4122.30.04	24	0.75 / 6.64	1000	5.5	2.8 / 24.8	18	E13/E41	C13	EE2	2.6 / 5.73	IP40	A	40
168.4123.20.04	12	0.50 / 4.42	2100	16	3.0 / 26.5	76	E13/E41	C13	EE2	2.6 / 5.73	IP40	A	43
168.4123.30.04	24	0.50 / 4.42	2100	8	3.0 / 26.5	38	E13/E41	C13	EE2	2.6 / 5.73	IP40	A	43
168.4134.30.04	24	0.30 / 2.65	750	1.5	1.5 / 13.3	7	E59	C9	EE2	2.6 / 5.73	IP40	A	44
168.4136.30.00E	24	0.75 / 6.64	1000	5.5	2.8 / 24.8	18	E63	C42	F2	2.6 / 5.73	IP40	C	40

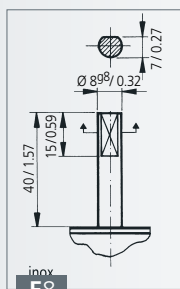


C Flange according to IEC 63 B14 - Puntos de anclaje según IEC 63 B14

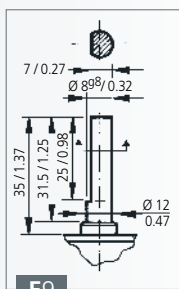


mm / inch

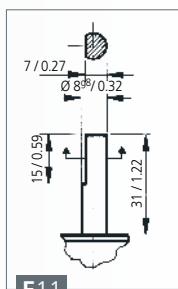
EJE SHAFT ARBRE WELLE



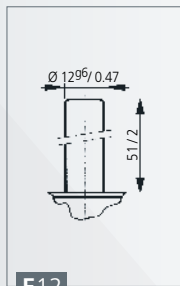
E8



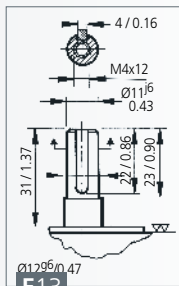
E9



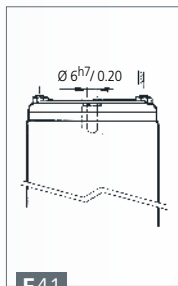
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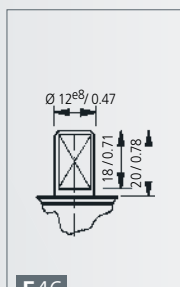
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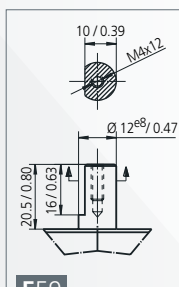
E13



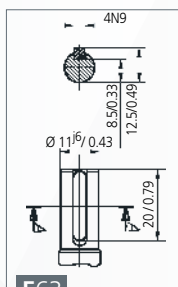
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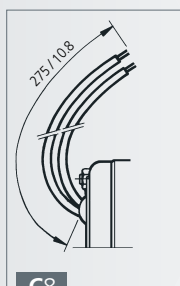
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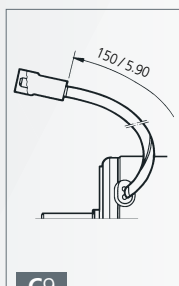
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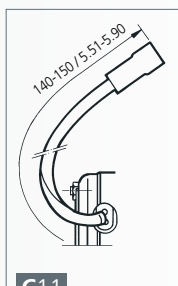
E63

CONEXIONES CONNECTIONS
CONNEXIONS ANSCHLUSSART

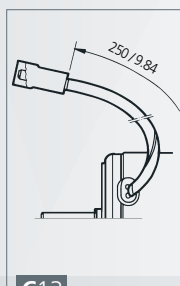
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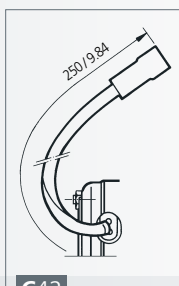
C9



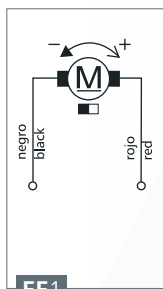
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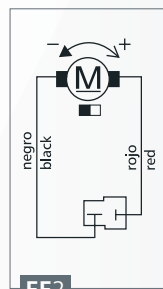
C13



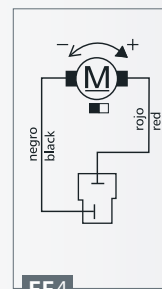
C42

ESQUEMA ELÉCTRICO WIRING DIAGRAM
SCHEMA ÉLECTRIQUE SCHALTBIID

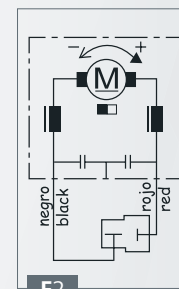
EE1



EE2

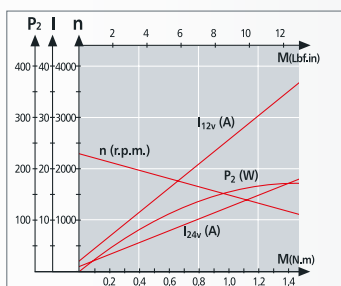


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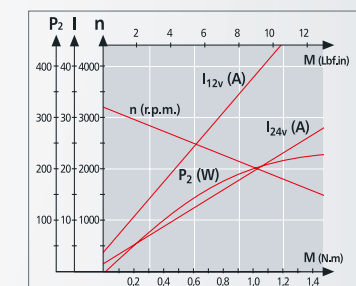


F2

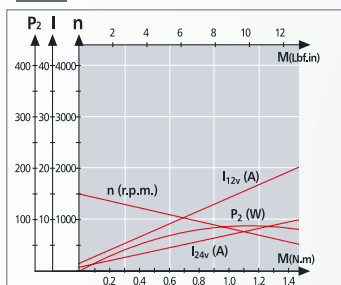
CURVAS CURVES COURBES KURVEN



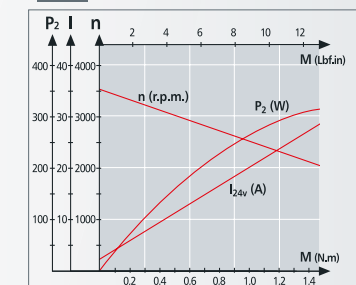
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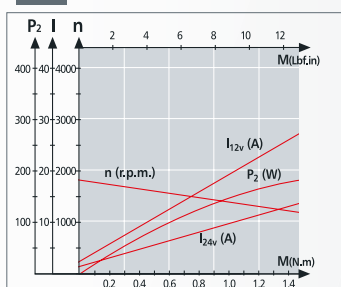
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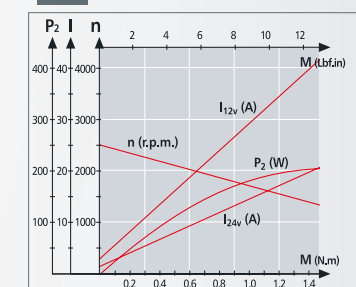
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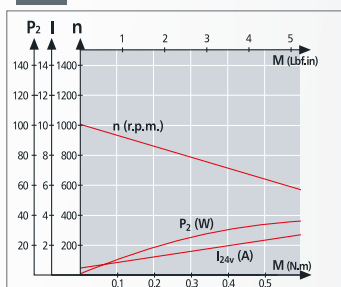
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42



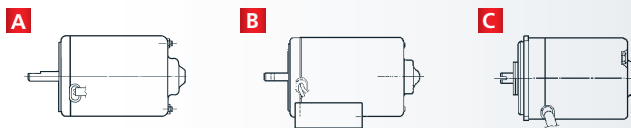
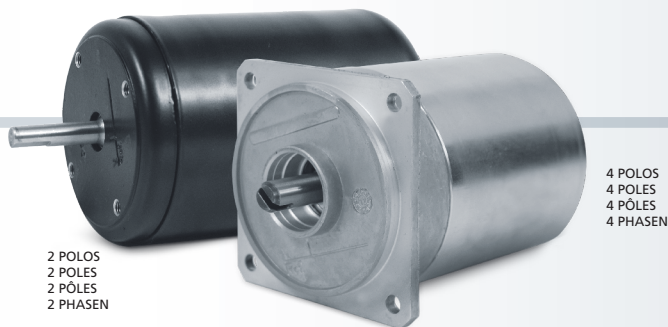
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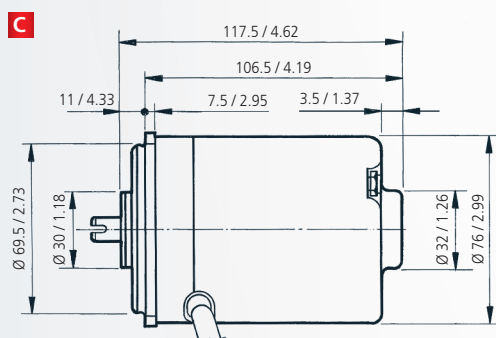
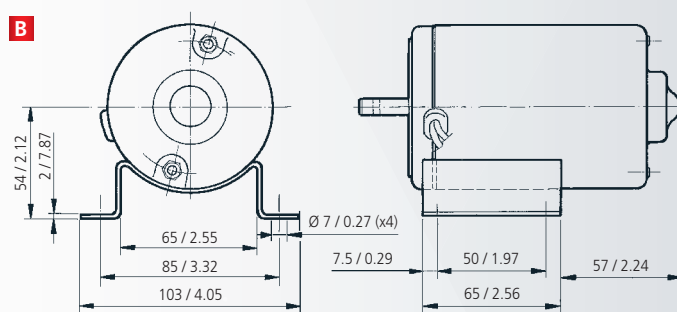
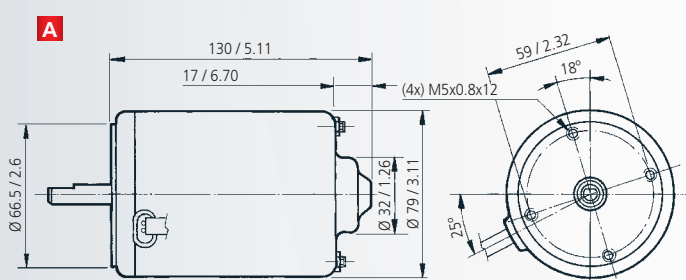
44

PLANETARY GEAR

- REDUCTORES PLANETARIOS: combinables con la serie 169. Ver sección especial en catálogo.
- PLANETARY GEARS: combinable with 169 series. See special section in catalogue.
- REDUCTEURS PLANETAIRES: combinables avec la série 169. Consultez section spécial du catalogue.
- PLANETENGETRIEBE: Mit der Reihe 169 kombinierbar. Sehen Sie Sonderabschnitt im Katalog.

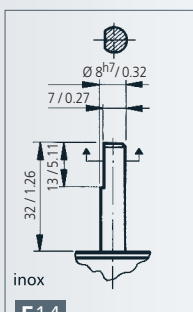


REFERENCIA REFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	PAR DE ARRANQUE STARTING TORQUE COUPLE DE DÉMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DÉMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ÉLECTRIQUE SCHALTBIID	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ÉTANCHEITÉ FEUCHTIGKEITSSCHUTZKLASSE	DISEÑO: A, B DESIGN: A, B Dessin: A, B ABBILDUNG: A, B	CURVA CURVE COURBE KURVE
	Un (V)	Mn (N.m./lbf.in)	n _n (r.p.m.)	I _n (A)	Ma (N.m./lbf.in)	Ia (A)				P (kg/lb)	IP		
169.4106.20.04	12	0.40 / 3.54	1900	11	2.0 / 17.7	46	E14	C14	EE2	2.0 / 4.41	IP53	A	45
169.4106.30.04	24	0.40 / 3.54	1900	5.5	2.0 / 17.7	23	E14	C14	EE2	2.0 / 4.41	IP53	A	45
169.4107.20.04	12	0.40 / 3.54	2900	16	2.2 / 19.4	100	E15	C15	EE2	2.0 / 4.41	IP53	A	46
169.4107.30.04	24	0.40 / 3.54	2900	8	2.2 / 19.4	50	E15	C15	EE2	2.0 / 4.41	IP53	A	46
169.4110.20.04	12	0.40 / 3.54	1500	9	2.0 / 17.7	38	E16	C16	EE6	2.0 / 4.41	IP53	A	47
169.4110.30.04	24	0.40 / 3.54	1500	4.5	2.0 / 17.7	19	E16	C16	EE6	2.0 / 4.41	IP53	A	47
169.4113.20.09	12	0.40 / 3.54	3200	16	2.2 / 19.4	85	E18	C18	EE8	1.37 / 3.02	IP53	C	48
169.4113.30.09	24	0.40 / 3.54	3200	8	2.2 / 19.4	43	E18	C18	EE8	1.37 / 3.02	IP53	C	48
169.4122.20.09	12	0.30 / 2.65	4600	16	1.8 / 15.9	100	E18	C18	EE8	1.37 / 3.02	IP53	C	49
169.4124.20.04	12	0.40 / 3.54	1900	11	2.0 / 17.7	46	E60	C14	EE2	2.0 / 4.41	IP53	B	45
169.4124.30.04	24	0.40 / 3.54	1900	5.5	2.0 / 17.7	23	E60	C14	EE2	2.0 / 4.41	IP53	B	45
169.4128.20.04	12	0.40 / 3.54	1500	9	2.0 / 17.7	38	E64	C26	EE1	2.0 / 4.41	IP53	B	47

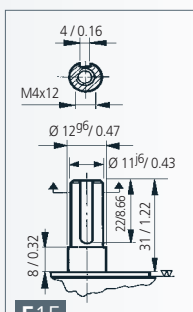


mm / inch

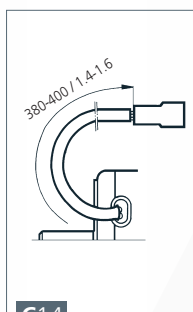
EJE SHAFT ARBRE WELLE



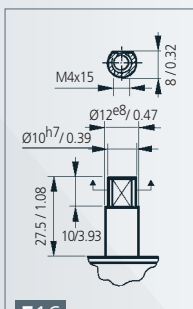
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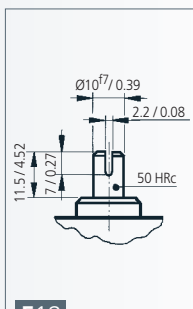
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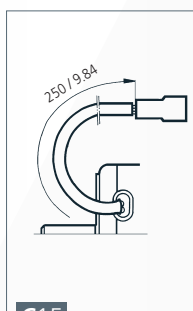
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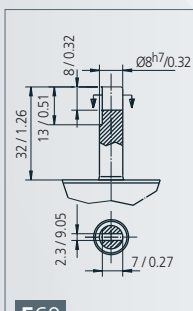
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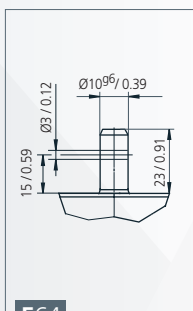
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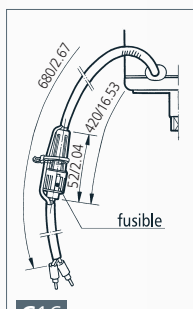
C15



E60

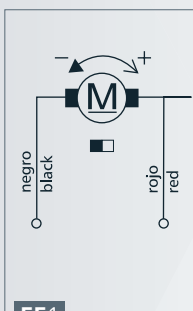


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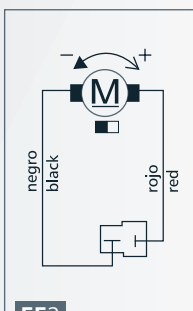


C16

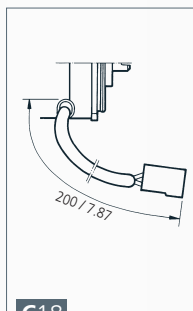
ESQUEMA ELÉCTRICO WIRING DIAGRAM
SCHÉMA ÉLECTRIQUE SCHALTBIID



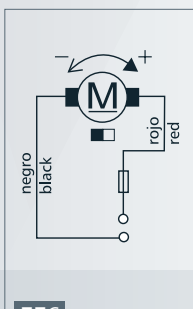
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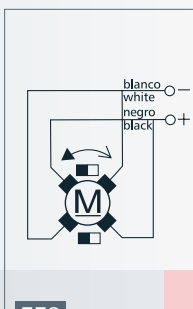
EE2



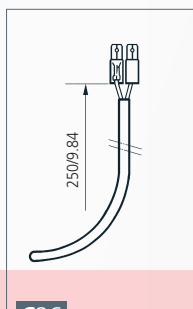
C18



EE6



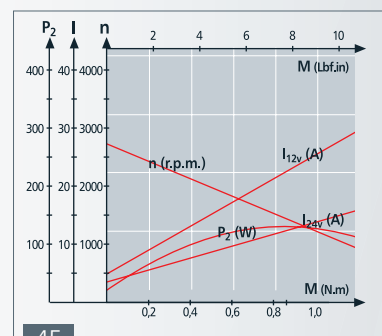
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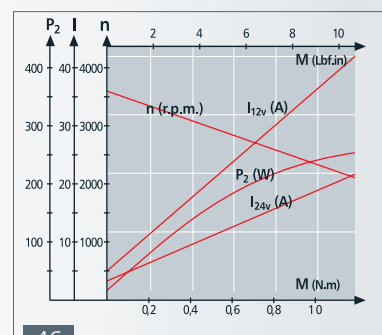
C26

CONEXIONES CONNECTIONS
CONNEXIONS ANSCHLUSSART

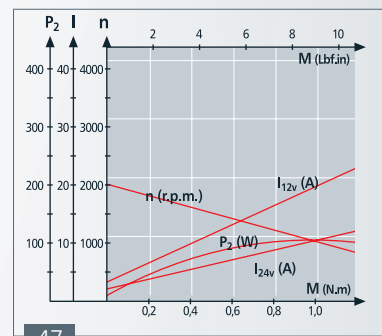
CURVAS CURVES COURBES KURVEN



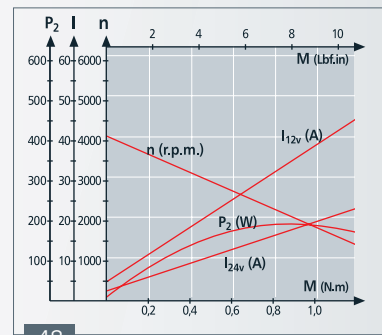
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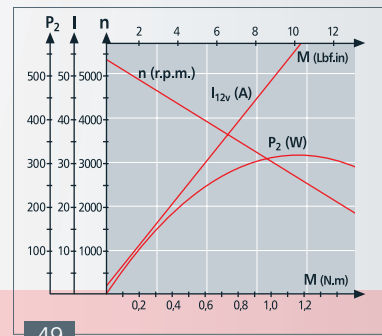
46



47



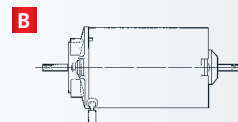
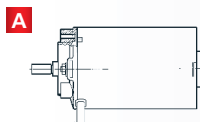
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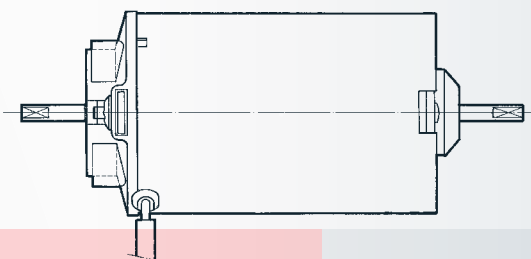
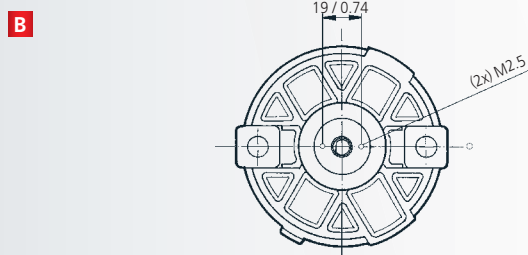
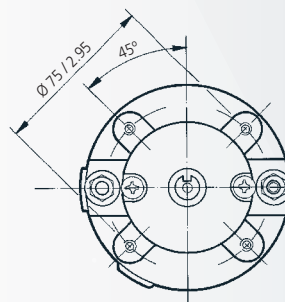
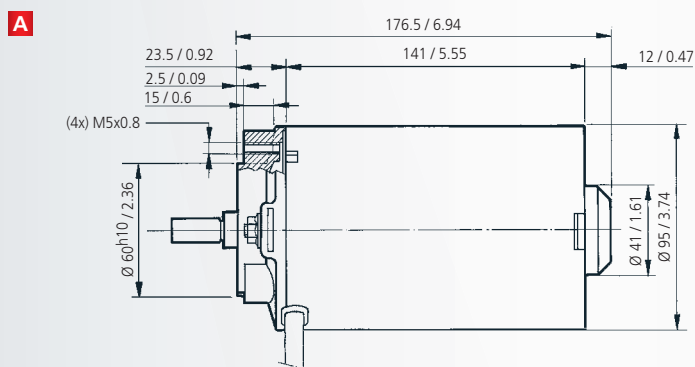
49

PLANETARY GEAR

- REDUCTORES PLANETARIOS: combinables con la serie 269. Ver sección especial en catálogo.
- PLANETARY GEARS: combinable with 269 series. See special section in catalogue.
- REDUCTEURS PLANETAIRES: combinables avec la série 269. Consultez section spécial du catalogue.
- PLANETENGETRIEBE: Mit der Reihe 269 kombinierbar. Sehen Sie Sonderabschnitt im Katalog.

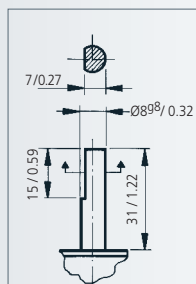


REFERENCIA REFERENCE REFERENZNUMMERN	TENSION NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	PAR DE ARRANQUE STARTING TORQUE COUPLE DE DÉMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DÉMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSE	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEMA ÉLECTRIQUE SCHALTBIID	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./lbf.in)	nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				P (kg/lb)	IP		
269.4102.20.04	12	0.50 / 4.42	3000	20	4 / 35.4	140	E20	C22	EE2	3.8 / 8.38	IP53	A	52
269.4102.30.04	24	0.75 / 6.63	3000	15	4 / 35.4	120	E20	C22	EE2	3.8 / 8.38	IP53	A	53
269.4103.20.04	12	0.50 / 4.42	3000	20	4 / 35.4	140	E21	C23	EE2	3.8 / 8.38	IP53	A	52
269.4103.30.04	24	0.75 / 6.63	3000	15	4 / 35.4	120	E21	C23	EE2	3.8 / 8.38	IP53	A	53
269.4104.20.04	12	0.80 / 7.08	1800	20	4 / 35.4	100	E48	C24	EE2	3.8 / 8.38	IP53	A	54
269.4104.30.04	24	0.80 / 7.08	1800	10	4 / 35.4	50	E48	C24	EE2	3.8 / 8.38	IP53	A	54
269.4106.20.04	12	0.80 / 7.08	1800	20	4 / 35.4	100	E21	C23	EE2	3.8 / 8.38	IP53	A	54
269.4106.30.04	24	0.80 / 7.08	1800	10	4 / 35.4	50	E21	C23	EE2	3.8 / 8.38	IP53	A	54
269.4107.30.04E	24	0.75 / 6.63	3000	15	4 / 35.4	120	E48/E11	C22	F2	3.8 / 8.38	IP40	B	53
269.4108.20.04E	12	0.80 / 7.08	1800	20	4 / 35.4	100	E48/E11	C24	F2	3.8 / 8.38	IP40	B	54
269.4113.30.04	24	0.50 / 4.42	675	2.25	2.7 / 23.8	12	E48	C24	EE2	3.8 / 8.38	IP53	A	55

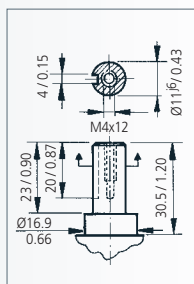


mm / inch

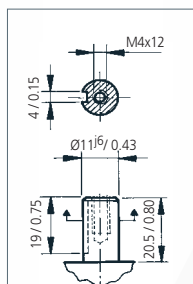
EJE SHAFT ARBRE WELLE



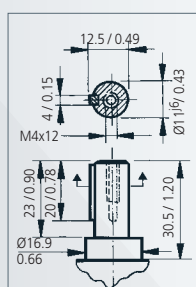
E11



E20

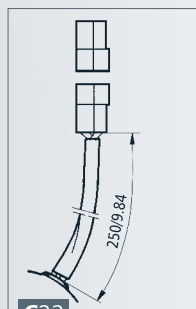


E21

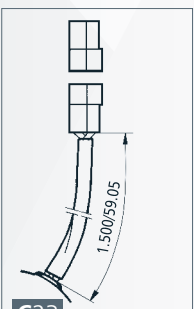


E48

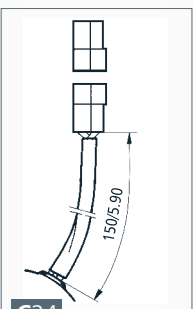
CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART



C22

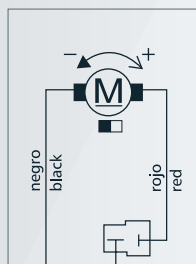


C23

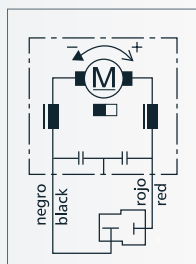


C24

ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHÉMA ÉLECTRIQUE SCHALTBILD

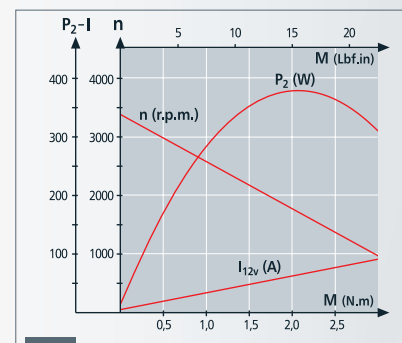


EE2

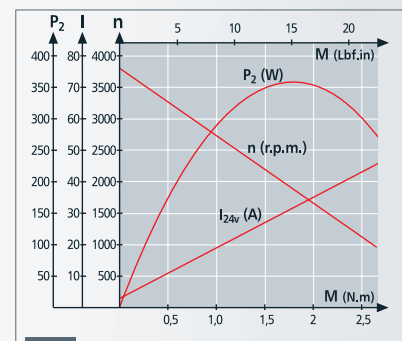


F2

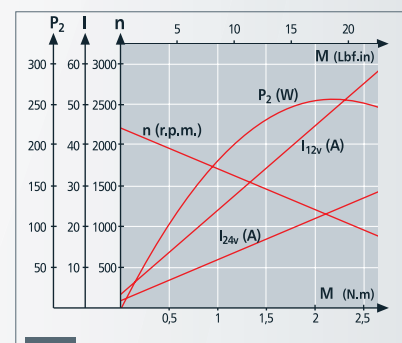
CURVAS CURVES COURBES KURVEN



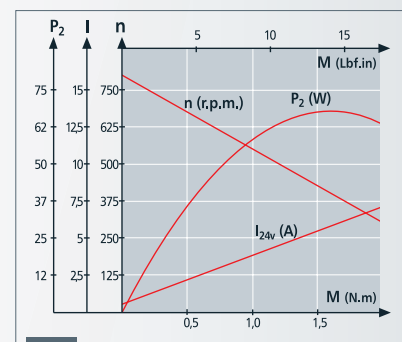
52



53



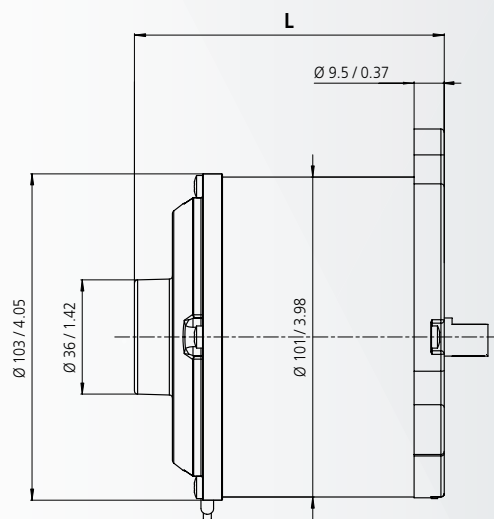
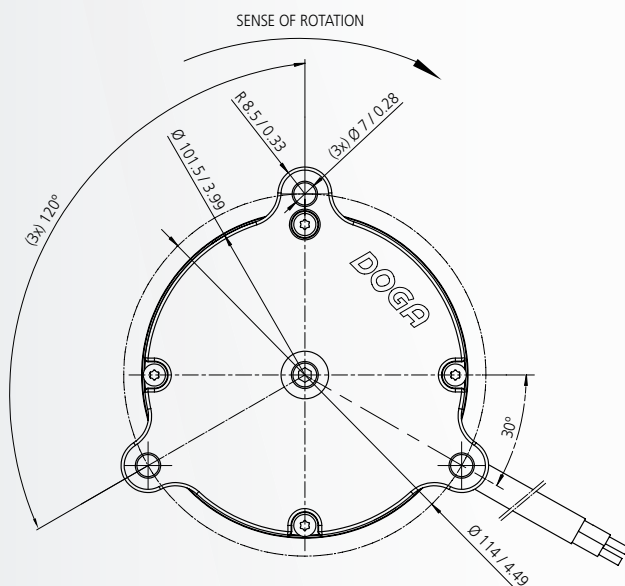
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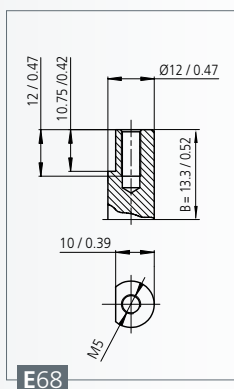
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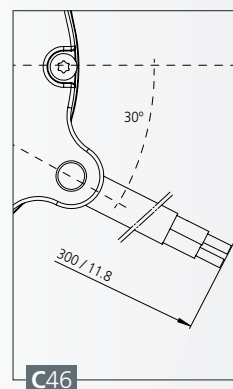
REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	TENSION NOMINAL NOMINAL VOLTAGE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	PAR DE ARRANQUE STARTING TORQUE COUPLE DE DEMARRAGE ANZUGSDREHMOMENT	CORRIENTE DE ARRANQUE STARTING CURRENT COURANT DE DEMARRAGE ANLAUFSTROM	EJE SHAFT ARBRE WELLE	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSTART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEME ELECTRIQUE SCHALTBIID	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ÉTANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	L	CURVA CURVE COURBE KURVE
	Un (V)	Mn (N.m./lbf.in)	nn (r.p.m.)	In (A)Ma	(N.m./lbf.in)	Ia (A)				P (kg/lb)	IP	(mm/inch)	
321.1000.30.09	24	1.9/17	2700	27	19/168	250	E68	C46	EE17	2.6/5.73	IP69K	98/3.86	69
321.2000.40.09	36	2.7/24	2700	28	22/195	270	E68	C46	EE17	3.1/6.83	IP69K	108/4.25	70



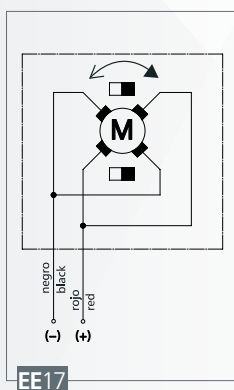
EJE SHAFT ARBRE WELLE



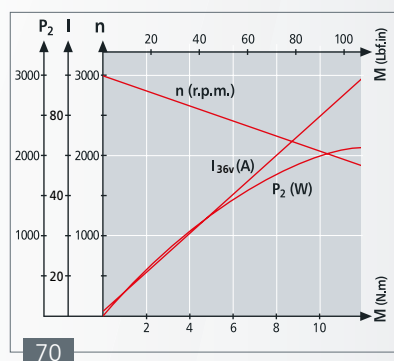
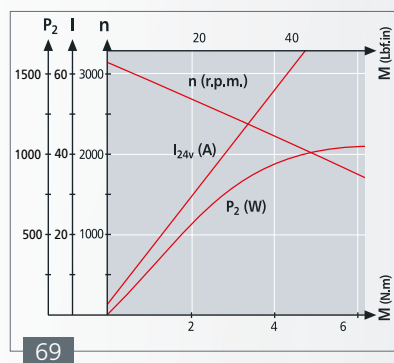
CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART



ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHÉMA ÉLECTRIQUE SCHALTBILD



CURVAS CURVES COURBES KURVEN



MOTORES CON REDUCTOR PLANETARIO **PLANETARY GEAR DC MOTORS**
MOTEURS À CC AVEC RÉDUCTEUR PLANETAIRE GLEICHSTROMPLANETENGETRIEBEMOTOREN

		motor ⁽¹⁾ 162			motor ⁽¹⁾ 168			motor ⁽¹⁾ 169			motor ⁽¹⁾ 269			
TENSIÓN VOLTAGE TENSION SPANNUNG		12V standard 24V standard <72V customised			12V standard 24V standard <72V customised			12V standard 24V standard <72V customised			12V standard 24V standard <72V customised			
POTENCIA EN SERVICIO CONTÍNUO CONTINUOUS POWER PUISSANCE EN SERVICE CONTINU DAUERLEISTUNG	W	63			158			122			236			
	H.P.	0.08			0.21			0.16			0.32			
PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL NENNDREHMOMENT	N.m.	0.2			0.5			0.4			0.75			
	lbf.in	1.77			4.42			3.54			6.63			
PAR DE BLOQUEO STALL TORQUE COUPLE DE BLOCAGE ANLAUFDEHMOMENT	N.m.	1.0			3.0			2.2			4.0			
	lbf.in	8.85			26.50			19.40			35.4			
DIÁMETRO DIAMETER DIAMETRE DURCHMESSER	mm	60			79			79			95			
	in	2.36			3.11			3.11			3.74			

		Ø 52 mm			Ø 62 mm			Ø 72 mm			Ø 81 mm			
		Ø 2.05 in			Ø 2.44 in			Ø 2.83 in			Ø 3.19 in			
TRANSMISIÓN TRANSMISSIONS TRANSMISSION GETRIEBE		i = (4, 5 ,7, 14, 16, 18, 19, 22, 25, 27, 29, 35, 46, 51, 59, 68, 71, 79, 93, 95, 100, 107, 115, 124, 130, 139, 150, 169, 181, 195, 236, 308) : 1												
(2) PAR EN SERVICIO CONTINUO CONTINUOUS TORQUE COUPLE EN SERVICE CONTINU NENNDREHMOMENT	max N.m.	4	12	25	8	25	50	14	42	84	20	60	120	
	lbf.in	35	106	221	71	221	442	124	372	743	177	531	1062	
	STAGES ▶	1	2	3	1	2	3	1	2	3	1	2	3	
(3) RENDIMIENTO % EFFICIENCY LEVEL % RENDEMENT % WIRKUNGSGRAD %		80%			75%			70%						
	ETAPAS STAGES ÉTAGES DE RÉDUCTION STUFE	1			2			3						

- (1) En cada serie de motores disponemos de distintas combinaciones de potencia. Ver hojas de características de los motores en el este catálogo.
(2) La capacidad de par será precisado para cada combinación de motor y redactor y aplicación. Los valores están indicados para 1, 2 o 3 etapas respectivamente. En ciertas condiciones los pares indicados pueden ser excedidos.
(3) Valores aproximados para cada n° de etapas de reducción.

- (1) In each motor series we have different power configurations. Here we show one of them. See motor catalogue for others
(2) The Torque capacity will be precisele defined for each motor and gear combination and for each application. Values indicated per 1, 2 & 3 stages respectively. In certain conditions the mentioned torque can be exceeded.
(3) Approximate values for each nr. of stages combination.

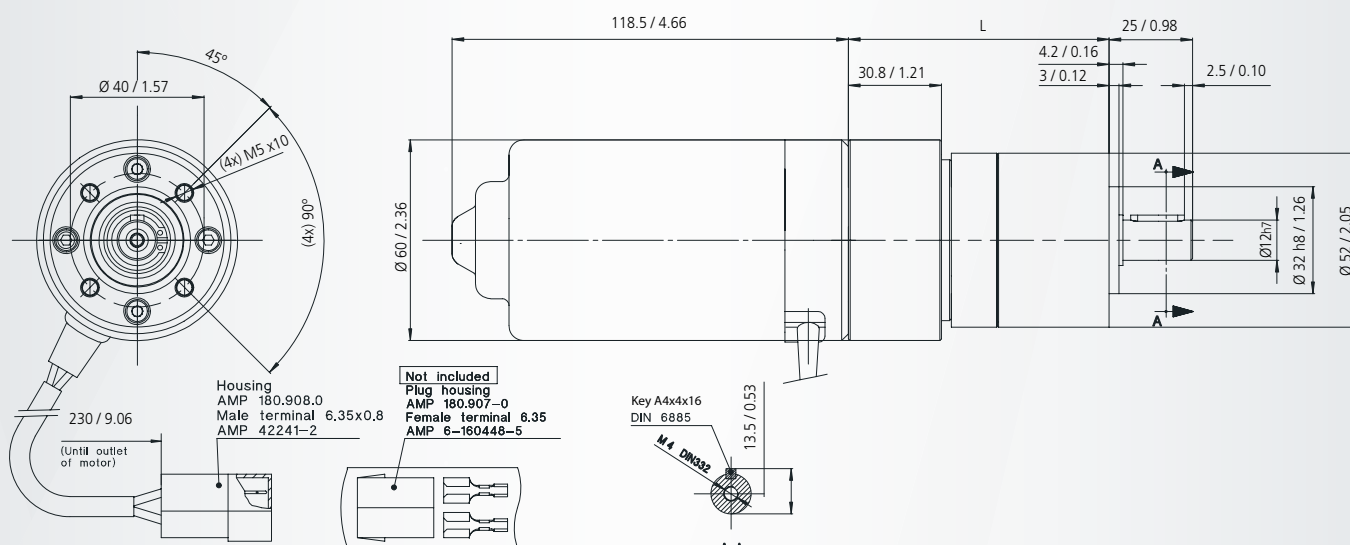
- (1) Dans chaque série de moteurs nous offrons différentes puissances. Voir page de caractéristiques des moteurs.
(2) La capacité de couple sera définie pour chaque combinaison de moteur et réducteur ainsi que pour chaque application. Les valeurs sont indiquées pour 1, 2 et 3 étages respectivement. Dans certaines conditions de fonctionnement les valeurs de couple indiquées peuvent être excédées.
(3) Valeurs approximatives pour chaque n° d'étages.

- (1) Für jede Motorreihe gibt es verschiedene Leistungsvarianten. Hier zeigen wir einige von diesen, für andere Sehen Sie die Motorsektion des Katalogs.
(2) Das Drehmoment wird genau definiert für jede Motor- und Getriebekombination und für jede Anwendung. Werte für jeweils 1, 2 und 3 Stufen. Unter manche Bedingungen kann das erwähnte Drehmoment überschritten werden.
(3) Näherungswerte für jede Stufenkombination.



MOTOR					GEAR		
REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	REFERENCIA REFERENCE NUMBER REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	VELOCIDAD EN VACÍO NO LOAD SPEED VITESSE À VIDE GESCHWINDIGKEIT IM LEERLAUF	CURBA CURVE COURBE KURVE	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSETZUNG	ETAPAS STAGES ETAGES STUFEN	
	base motor nr. (*)	Un (V)	n0 (r.p.m.)		i		(mm/inch)
162.9003.20.00	162.4101.20.00	12	3500	32	4:1	1	81 / 3.19
162.9003.30.00	162.4101.30.00	24	3500	33	4:1	1	81 / 3.19
162.9004.20.00	162.4101.20.00	12	3500	32	16:1	2	95 / 3.74
162.9004.30.00	162.4101.30.00	24	3500	33	16:1	2	95 / 3.74
162.9005.20.00	162.4101.20.00	12	3500	32	35:1	2	95 / 3.74
162.9005.30.00	162.4101.30.00	24	3500	33	35:1	2	95 / 3.74
162.9006.20.00	162.4101.20.00	12	3500	32	169:1	3	109 / 4.29
162.9006.30.00	162.4101.30.00	24	3500	33	169:1	3	109 / 4.29

(*) página - page - Seite: 32

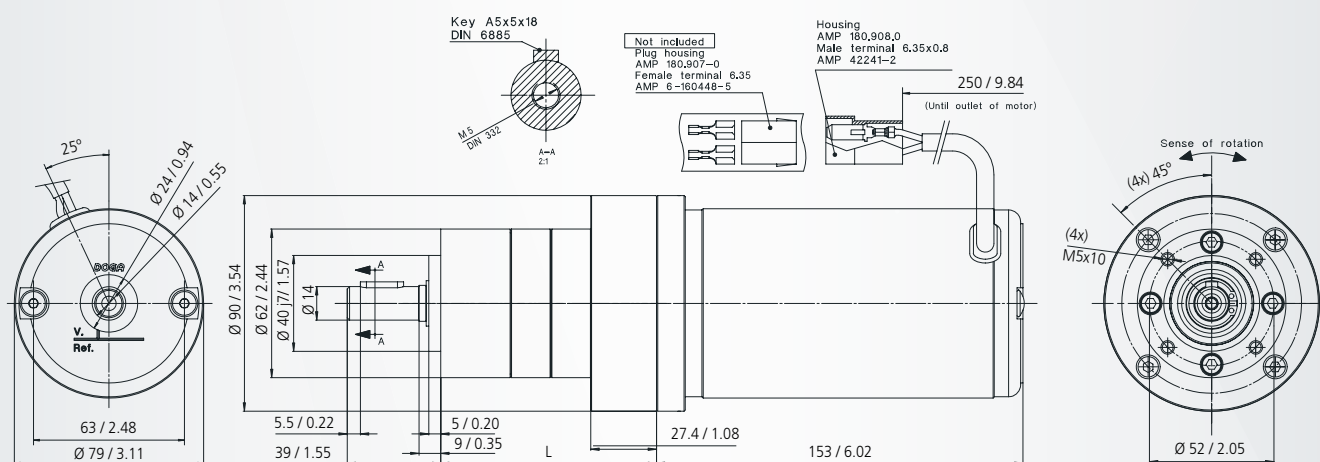


mm / inch

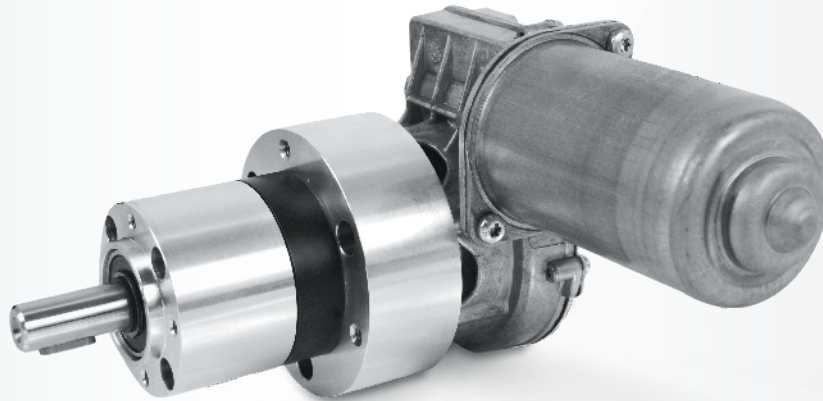
**MOTOR****GEAR**

REFERENCIA REFERENCE REFERENZNUMMERN	REFERENCIA REFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	VELOCIDAD EN VACÍO NO LOAD SPEED VITESSE À VIDE GESCHWINDIGKEIT IM LEERLAUF	CURBA CURVE COURBE KURVE	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	ETAPAS STAGES ÉTAGES STUFEN	L
	base motor nr. (*)	Un (V)	n0 (r.p.m.)		i		(mm/inch)
168.4143.20.00	168.4108.20.04	12	3200	39	4:1	1	73.2/2.88
168.4143.30.00	168.4108.30.04	24	3200	39	4:1	1	73.2/2.88
168.4144.20.00	168.4108.20.04	12	3200	39	25:1	2	90.1/3.55
168.4144.30.00	168.4108.30.04	24	3200	39	25:1	2	90.1/3.55
168.4145.20.00	168.4108.20.04	12	3200	39	71:1	3	106.9/4.21
168.4145.30.00	168.4108.30.04	24	3200	39	71:1	3	106.9/4.21

(*) página - page - Seite: 34

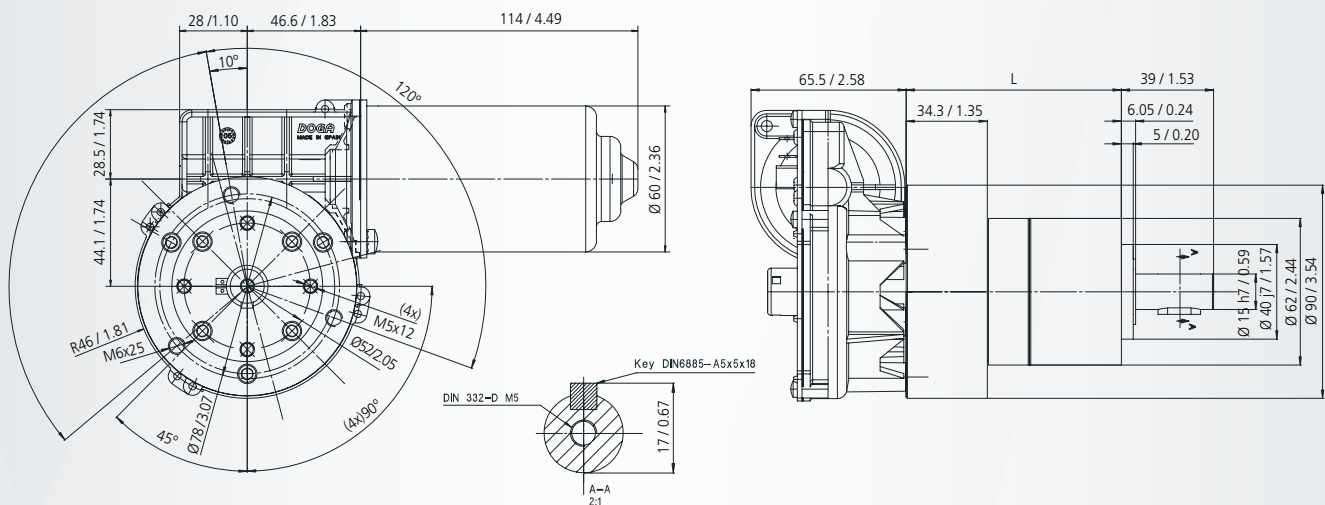


mm / inch



MOTOR					GEAR		
REFERENCIA REFERENCE REFERENZNUMMERN	REFERENCIA REFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	VELOCIDAD EN VACÍO NO LOAD SPEED VITESSE À VIDE GESCHWINDIGKEIT IM LEERLAUF	CURBA CURVE COURBE KURVE	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	ETAPAS STAGES ÉTAGES STUFEN	L
	base motor nr. (*)	Un (V)	n0 (r.p.m.)	(*)	i		(mm/inch)
319.9701.20.00	319.3860.20.00	12	35	58	7:1	1	90.9/3.58
319.9701.30.00	319.3860.30.00	24	35	58	7:1	1	90.9/3.58

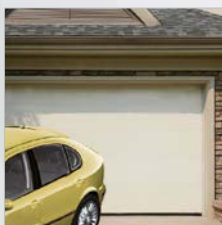
(*) página - page - Seite: 24



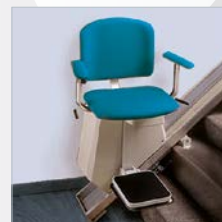
AGRICULTURA Y GANADERÍA AGRICULTURAL & FARM **AGRICULTURE ET BÉTAIL** LANDWIRTSCHAFT



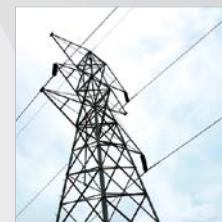
ACCESO Y EDIFICIOS ACCESS & BUILDING **ACCES ET EDIFICES** ZUGANG UND GEBÄUDE



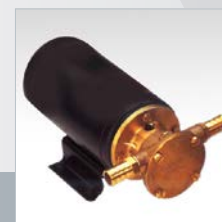
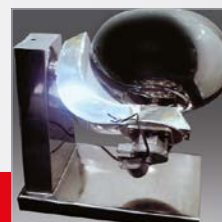
SISTEMAS DE AYUDA A PERSONAS CARE AID SYSTEMS **SYSTEMES D'AIDE AUX PERSONNES** PERSONENBEHILFSEINRICHTUNGEN



ENERGÍA ENERGY **ENERGIE**



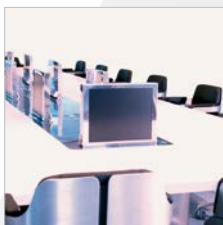
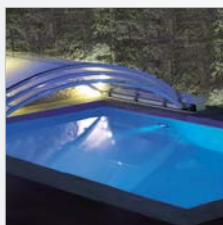
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APPLICATIONS POUR MOTEURS ANWENDUNGSFÄLLE FÜR MOTOREN

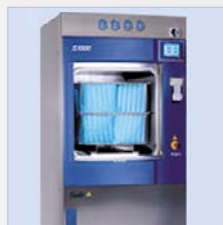
HOGAR HOME MAISON HEIM



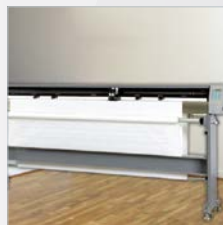
MARINA MARINE MARIN WASSERSPORT



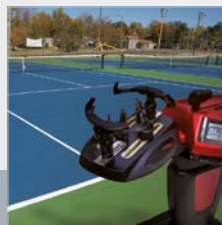
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DOGA S.A.

HEADQUARTER

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Tel. +34 93 770 46 00
Fax +34 93 770 23 52
e-mail: doga@dog.es
www.doga.es

AUSTRIA

ELRA Antriebstechnik Vertriebs GmbH

Schönngasse 15-17
A-1020 WIEN
Tel. +43 1 2141785 0
Fax +43 1 2163834
e-mail: info@elra.at
www.elra.at

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CZECH REPUBLIC AND SLOVAKIA

OEM Automatic, spol. s r.o.

Mr. Tomas Hynek
Pražská 239
250 66 ZDIBY, CZECH REPUBLIC
Tel. +420 241 484 940
Mobile. +420 734 674 807
email: tomas.hynek@oem-automatic.cz
www.oem-automatic.cz

FINLAND

OEM Automatic OY

Mr. Juhani Lehtinen
PL 9
FI-20101 TURKU
Tel. +358-(0)403 412 447
Fax +358 2 07 499 456
e-mail: juhani.lehtinen@oem.fi
www.oem.fi

FRANCE

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Fax +49 7143 8152-50
e-mail: info@eph-elektronik.de
www.eph-elektronik.de

GREAT BRITAIN

OEM Automatic Ltd

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Leicestershire LE8 6ZG
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Fax +44 (0116) 2841721
e-mail: motors@uk.oem.se
www.oem.co.uk

HUNGARY

CONTRADEX Kereskedelmi Kft.

Mr. Tibor Nardai
Olaj u. 80
8000 SZEKESFEHERVAR
Tel. +36 1 8148801
Fax +36 1 8148813
e-mail: t.nardai@contradex.hu
www.contradex.hu

NETHERLANDS

Eriks Aandrijftechniek / Elmeq

Mr. René Boere
Broeikweg 25
NL-2871 RM SCHOONHOVEN
Tel. +31 (0182) 303453
Fax +31 (0182) 386920
e-mail: info.schoonhoven@eriks-at.nl
www.eriks-at.nl

POLAND

OEM Automatic Sp.z.o.o.

Mr. Wojciech Drabik
ul. Działkowa 121A,
02-234 WARSZAWA
Tel. +48 022 863 27 22
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RUSSIA

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NORTH AMERICA (USA-CANADA)**DOGA USA, Corp.**

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Tel. +1 847 669 8529
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USA NORTH- EAST
(ME, NM, MA, VT, NY, NJ, CT, RI)**Group Six LLC**

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PO Box 36248
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SOUTH AMERICA**DOGA do Brasil, Ltda.**

Mrs. Gislene Nogueira
Rua Ibaiti, 111 / Vila Perneta / Cond. Portal da Serra
83325-060 PINHAIS - PARANÁ
Tel. +55 41 3668 65 98
Fax +55 41 3668 1988
e-mail: dogabrasil@dogacom.br
www.doga.com.br

REST OF THE WORLD**DOGA S.A.****HEADQUARTER**

Autovía A-2, km. 583
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BARCELONA - (SPAIN)
Tel. +34 93 770 46 00
Fax +34 93 770 23 52
e-mail: doga@dog.es

DOGA Italia, S.R.L.

Regione Opessina, 44
14040 CASTELNUOVO CALCEA (AT) - (ITALY)
Tel. +39 0141 963000
Fax +39 0141 963001
e-mail: dogaitalia@dogaitalia.com

DOGA Parts, S.L.U.

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Tel. +34 93 777 88 55
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AMERICA

DOGA do Brasil, Ltda.

Rua Ibaiti, 111 - Vila Pernetá - Cond. Portal da Serra
83325-060 PINHAIS - PARANÁ - (BRAZIL)
Tel. +55 41 3668 1513
Fax +55 41 3668 1988
e-mail: dogabrasil@dog.com.br

DOGA INMESA COMPONENTES DE MÉXICO

Avda. Hércules 301-C, Bodega 8
Col. Polígono Industrial Santa Rosa
Km 21 Ctra. Querétaro a San Luis Potosí
Edo. Querétaro CP 76220 - (MÉXICO)
Tel. +52 (442) 291 14 24
e-mail: comercial@dogainmesa.com

DOGA USA, Corp.

12060 Raymond Court
Huntley - IL - 60142 - (USA)
Tel. +1 847 669 8529
Fax +1 847 669 8694
e-mail: dogausa@dogausa.com

ASIA

DOGA India, S.R.L.

#13, SNS Chambers 239
Sankey Road
BANGALORE 560 080 - (INDIA)
Phone +91 80 23614625 - 23615264
Fax +91 80 23610504
e-mail: dogaindia@dogaindia.com

DOGA NanTong Auto Parts Co., Ltd.

1 Xindong Road
NanTong Economic & Technology Development Area
226016 NANTONG - JIANGSU - (P.R.CHINA)
Tel. +86 513 8517 5166 - Fax +86 513 8517 5160
e-mail: doganantong@doganantong.com

道佳 (南通) 汽车零配件有限公司
中国江苏省南通经济技术开发区新东路1号 邮编:226016
电话:+86 513 8517 5166 - 传真:+86 513 8517 5160
电子邮件: doganantong@dog.es



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