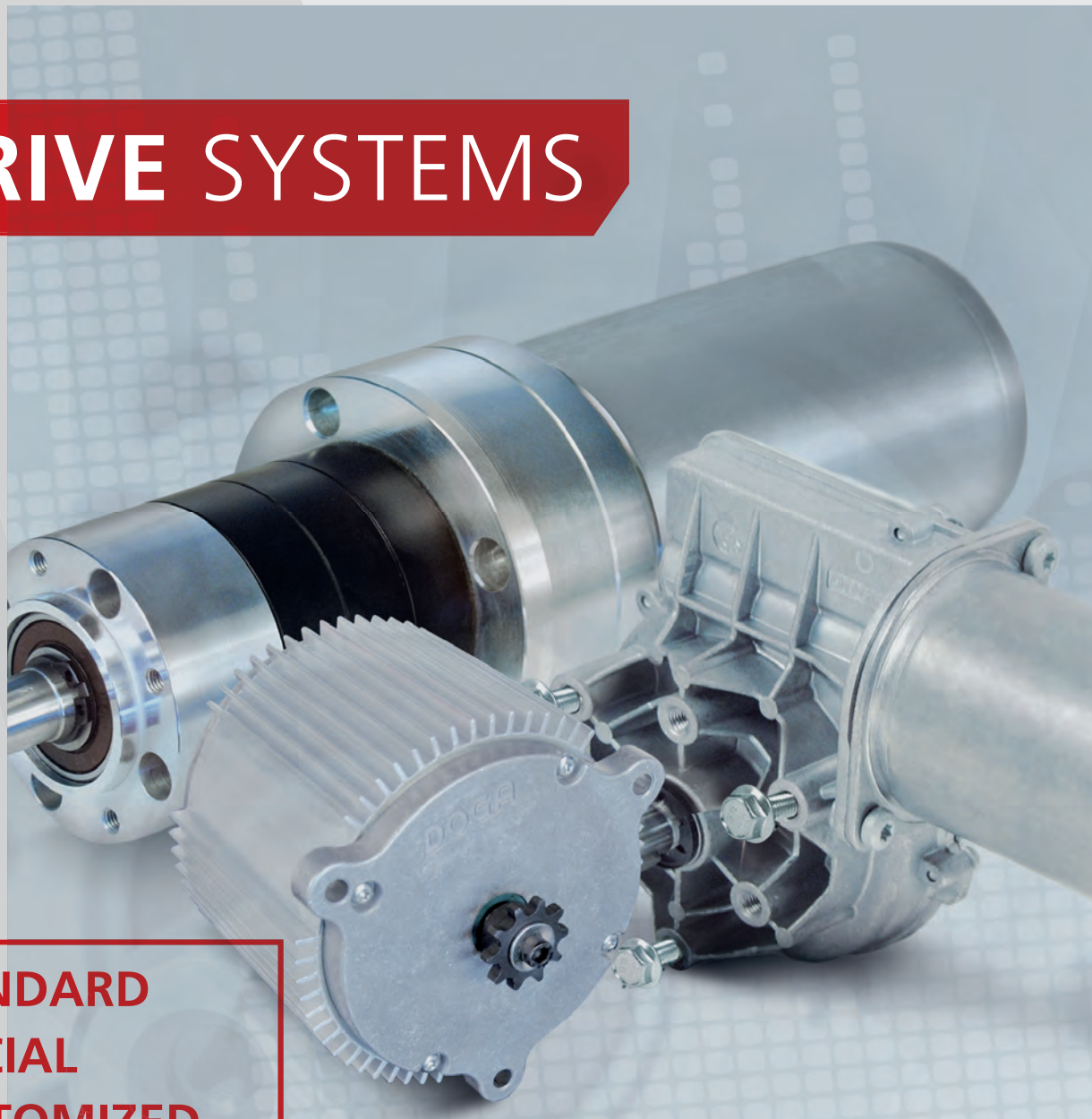
DOGA

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**
ACTUADORES LINEALES **LINEAR ACTUATORS** ACTIONNEURS LINÉAIRES **LINEARANTRIEBE**

DRIVE SYSTEMS



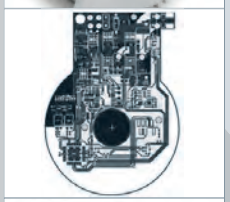
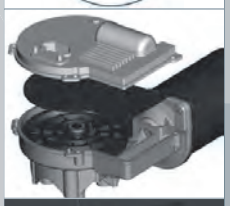
STANDARD
SPECIAL
CUSTOMIZED

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.

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).

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.

moteurs **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 a aimants permanents qu'avec ou sans charbons (brushless).

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.

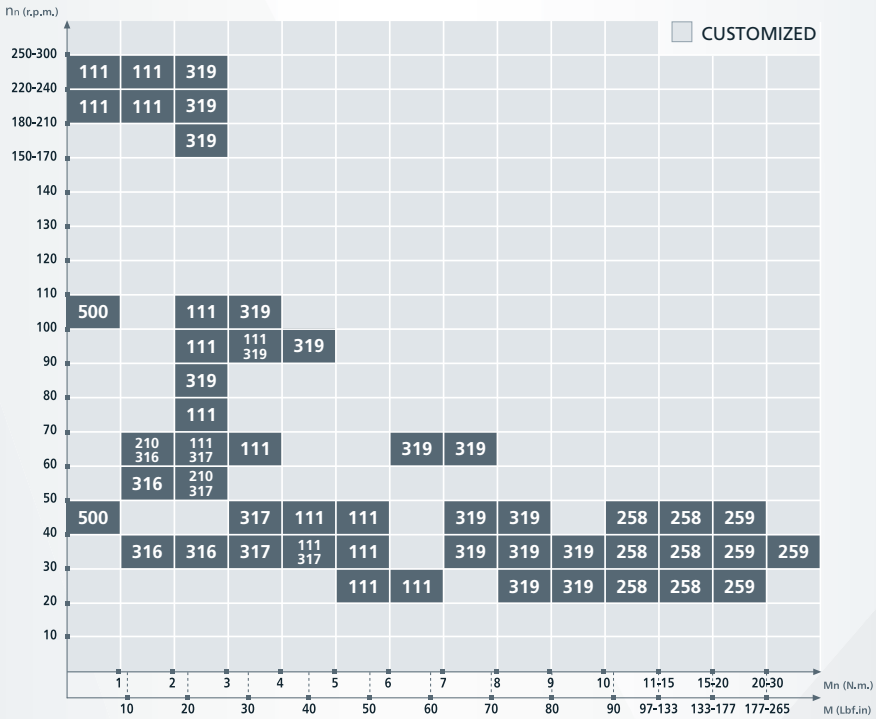
DOGA ist die Integration von ECU (Electronic Control Unit) in unsere Motoren erlauben unseren Kunden für eine präzise Steuerung.

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.

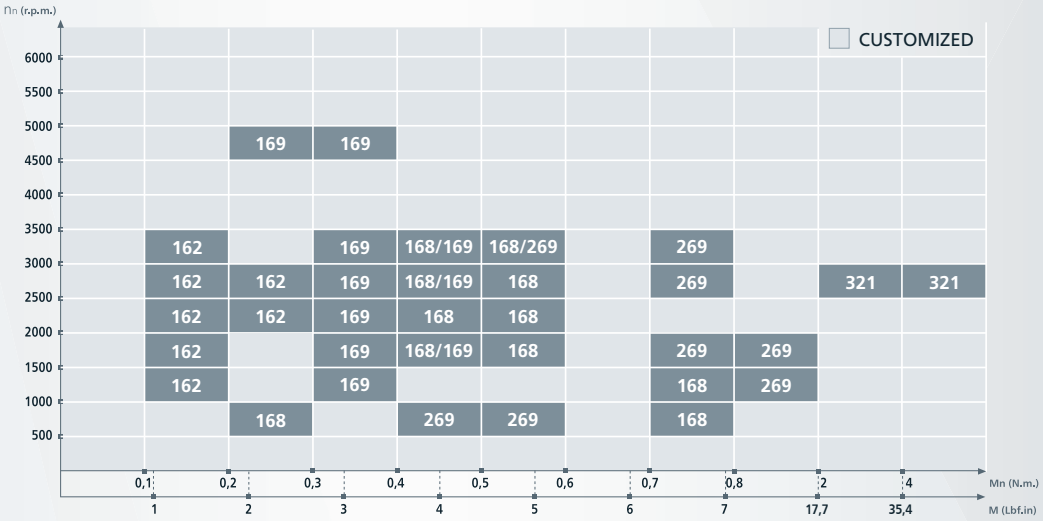
Spezialmotoren

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 Niedrigspannungsbereich bis zu 72 V bedürfen, in Permanentmagnettechnik ebenso wie in bürstenlosen Technik.

MOTORREDUCTORES CC SIN FIN
MOTORS WITH WORM GEAR
MOTORÉDUCTEURS 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 SPÉCIAL DU CATALOGUE
SEHEN SIE SONDERABSCHNITT IM KATALOG

SÍMBOLOS SYMBOLS **SYMBOLES** ZEICHENERKLÄRUNG

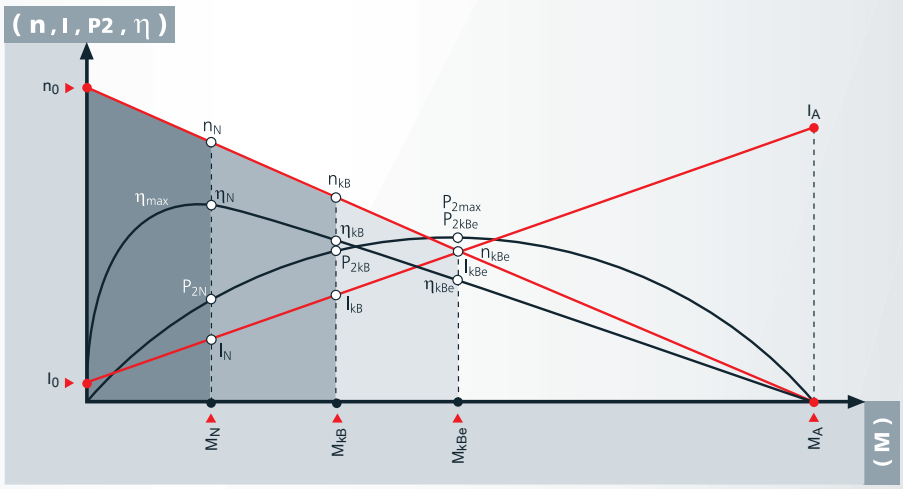
	ESPAÑOL	ENGLISH	FRANÇAIS	DEUTSCH
BRO	Bronce	Bronze	Bronze	Bronze
CEL	Resina fenólica estratificada	Resin bonded fabric	Résine phénollique stratifiée	Hartgewebe
Fn	Fuerza nominal	Nominal load	Force nominal	Nennkraft
Fmax	Fuerza máxima	Maximal load	Force maximale	Maximale Festigkeit
i	Relación de reducción	Transmission ratio	Rapport de réducteur	Untersetzung
I	Corriente	Current	Courant	Stromaufnahme
I_0	Corriente en vacío	No load current	Courant à vide	Stromaufnahme im Leerlauf
I_a	Corriente de arranque	Starting current	Courant de démarrage	Anlaufstrom
In	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	Sefbsthemmungsmoment
Mn	Par nominal	Nominal torque	Couple nominal	Nenndrehmoment
η(%)	Rendimiento	Efficiency	Rendement	Wirkungsgrad
n	Velocidad	Speed	Vitesse	Geschwindigkeit
n_0	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
P_1	Potencia absorbida (U.I)	Absorbed power (U.I)	Puissance absorbée (U.I.)	Aufgenommene Leistung (U.I.)
P_2	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 **caracteristiques des courbes** Leistungskurven

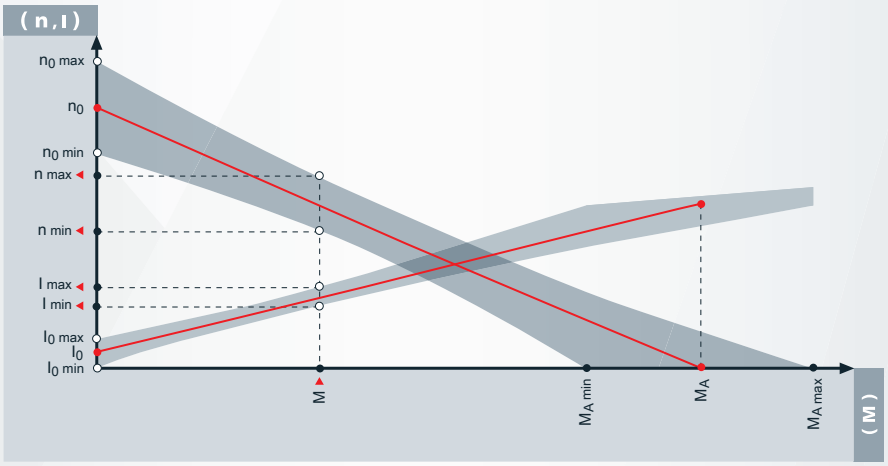
N Servicio contínuo
Continuous running
Service continu
Dauerbetrieb

kB Servicio intermitente
Short operation
Service intermittent
Kurzzeitbetrieb

kBe Servicio de muy corta duración
Very short operation
Service de très courte durée
Extremer Kurzzeitbetrieb



márgenes de tolerancia tolerance zones **marges de tolerance** Toleranzbereiche



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

Los valores nominales (Un, In, Mn, n) están determinados para funcionamiento contínuo (S1-VDE0530) a condiciones ambiente normales. Tolerancia ±10%.

Las curvas son con el motor en frío.

The stall values of starting torque (Ma) and starting current (Ia) 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 (Un), current (In), torque (Mn) and speed (n) are for continuous operation (S1-VDE0530) in normal ambient conditions. The tolerance is 10% for all values shown unless otherwise noted. Performance curves are with the motor at 20 degrees C temperature.

Les valeurs de blocage (Ma, Ia) correspondent au couple du moteur à frid avec axe de sortie bloqué.

Les valeurs nominales (Un, In, Mn, n) sont déterminées pour un fonctionnement continu (S1-VDE0530) en conditions ambiantes normales. Tolérance ±10%.

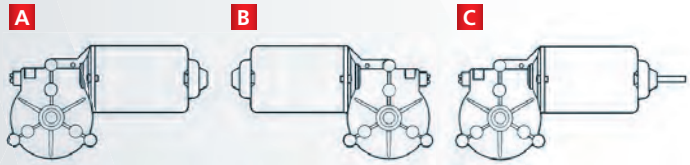
Les courbes sont avec moteur froid.

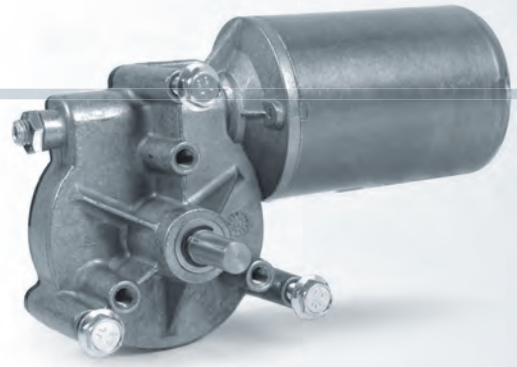
Die Werte für die Anlaufstrom und der Anzugsdrehmoment (Ma, Ia) entsprechen dem Drehmoment und der Strom des Motors in kaltem Zustand mit blockierter Abgangswelle.

Die Nominalwerte (Un, In, Mn, n) werden ermittelt bei Dauerbetrieb (S1-VDE0530) unter normalen Umgebungsbedingungen. Toleranz ±10%.

Die Kurven beziehen sich auf den Motor in kaltem Zustand.

111





REFERENCIA REFERENCE NUMBER RÉFERENCE 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 SCHÉMA ÉLECTRIQUE SCHALTBILD	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 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)	nn (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
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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
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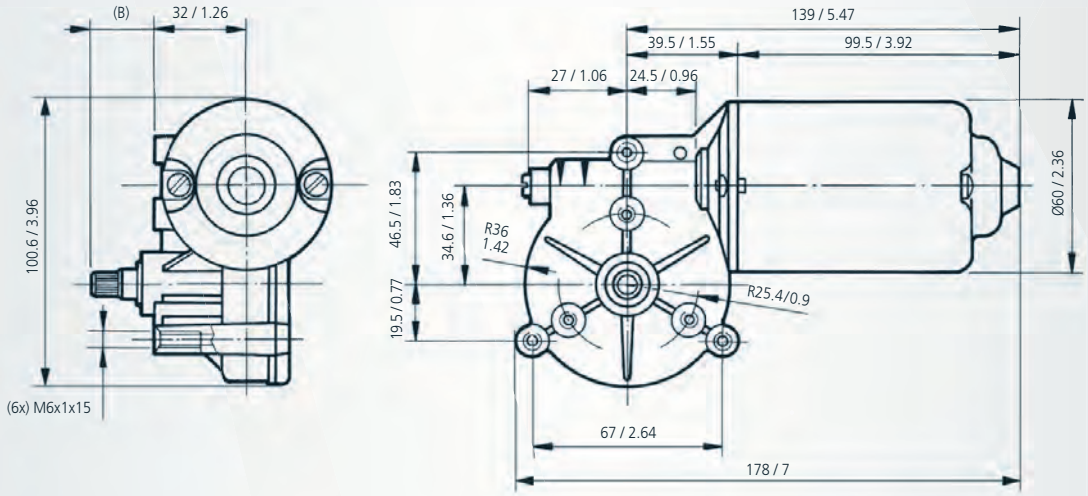
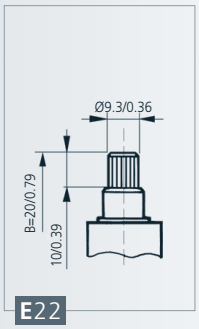
111.9094.20.00	12	5 / 44.2	40	5	25 / 221.2	25	E52	C2	EE2	62:1	1.25 / 2.76	IP53	PLA	A	1
111.9107.30.00	24	1.5 / 13.2	240	4	14 / 123.9	23	E24/E53	C26	EE1	49:4	1.25 / 2.76	IP40	CEL	C	4
111.9199.20.00	12	3 / 26.5	100	6	20 / 177.01	48	E67	C26	F3	59:2	1.25 / 2.76	IP53	PLA	A	59
111.9199.30.00	24	3 / 26.5	100	3	20 / 177.01	24	E67	C26	F3	59:2	1.25 / 2.76	IP53	PLA	A	59



mm / inch

DOGA

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



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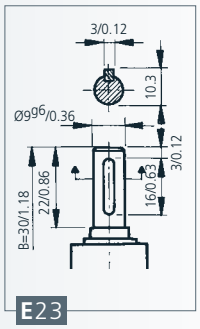

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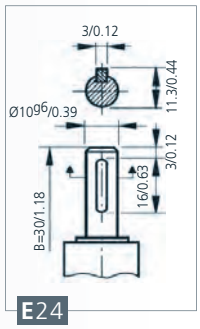

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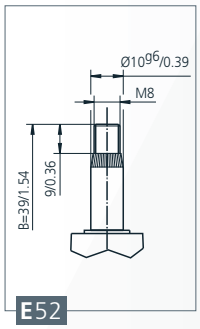

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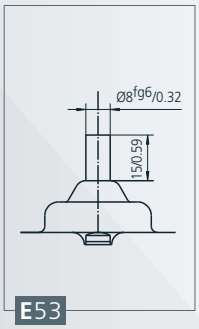

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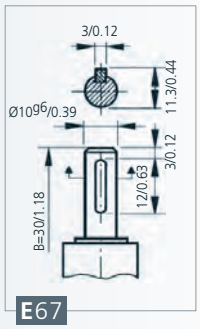
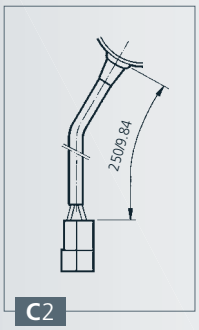


E67

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



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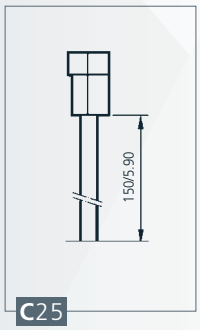

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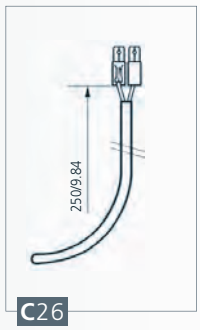
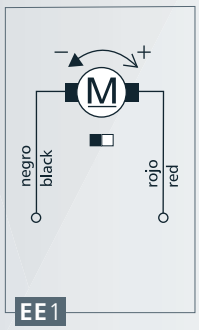


C26

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



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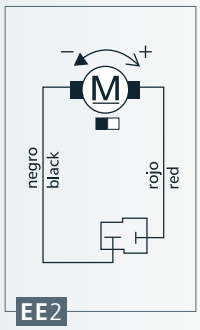

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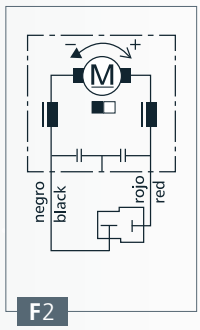

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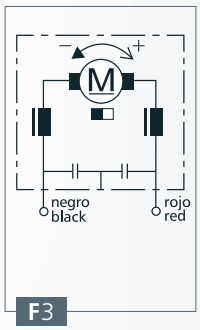
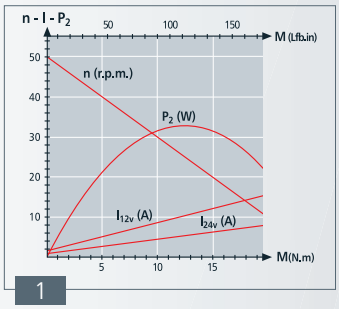


F3

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



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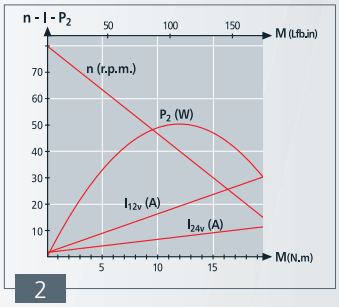

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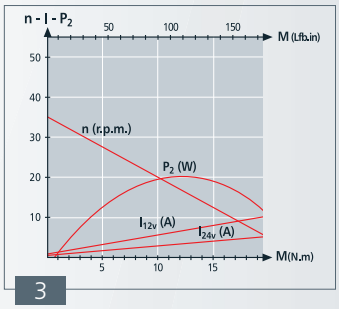
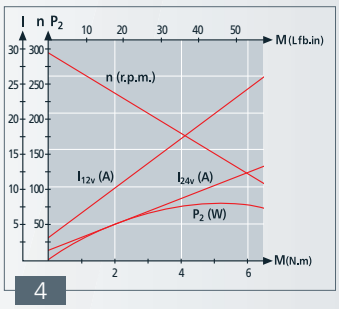
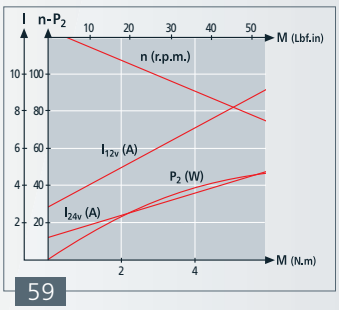


3



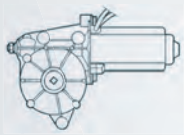
4



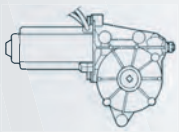
59

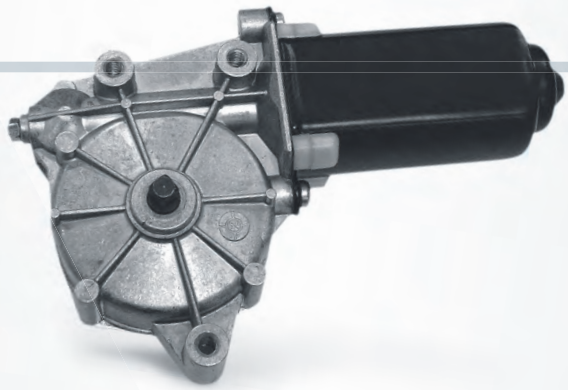
210

A



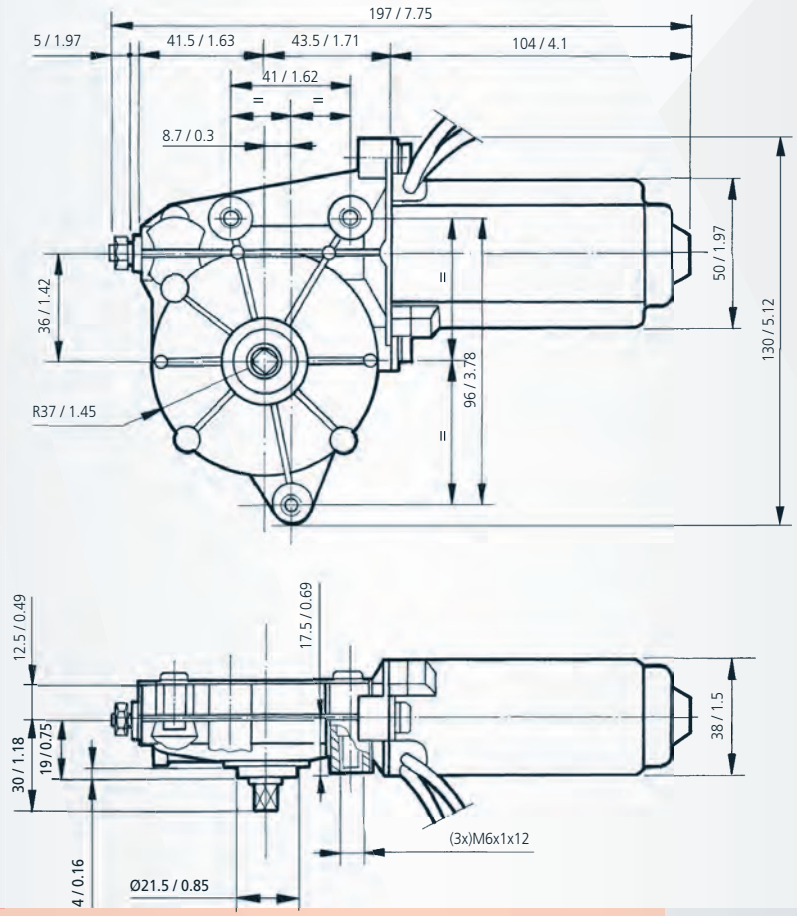
B





REFERENCIA REFERENCE NUMBER 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 SCHÉMA ÉLECTRIQUE SCHALTBILD	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATÉRIAU ROUE MAT. DES SCHNECKENRADES	DISEÑO: A,B DESIGN: A,B DESSIN: A,B ABBILDUNG: A,B	CURVA CURVE COURBE KURVE
	Un (V)	Mn * (N.m./lbf.in)	nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP			
210.0111.20.D0	12	3 / 26.5	55-75	7.5	10 / 88.5	28	E39	C20	EE16	60:1	0.95 / 2.09	IP40	PLA	A	17
210.0111.20.I0	12	3 / 26.5	55-75	7.5	10 / 88.5	28	E39	C20	EE16	60:1	0.95 / 2.09	IP40	PLA	B	17
210.0111.30.D0	24	3 / 26.5	55-75	4	10 / 88.5	14	E39	C20	EE16	60:1	0.95 / 2.09	IP40	PLA	A	17
210.0111.30.I0	24	3 / 26.5	55-75	4	10 / 88.5	14	E39	C20	EE16	60:1	0.95 / 2.09	IP40	PLA	B	17

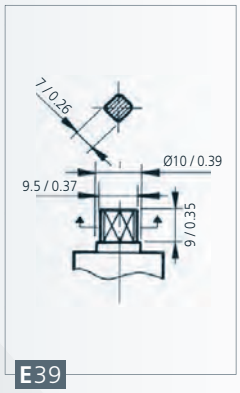
* - (VDE 0530) S3 - 10% (10 min.)



mm / inch

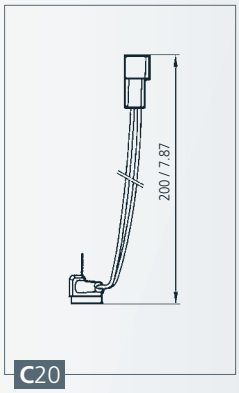
DOGA

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



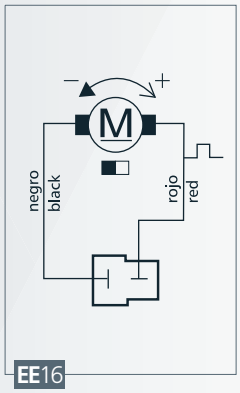
E39

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



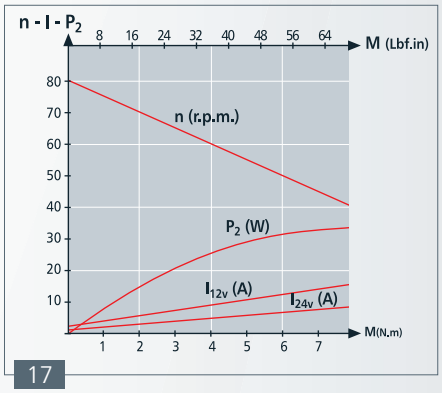
C20

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



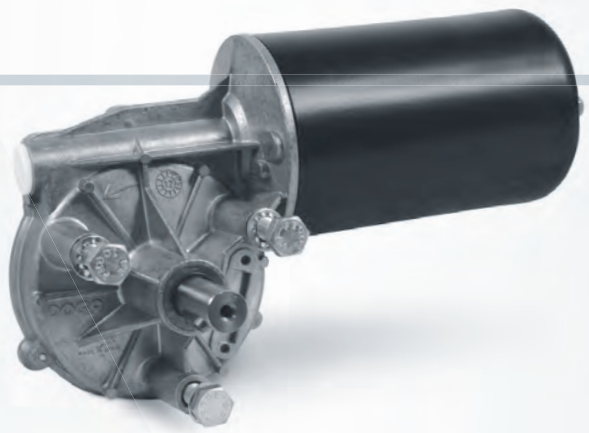
EE16

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

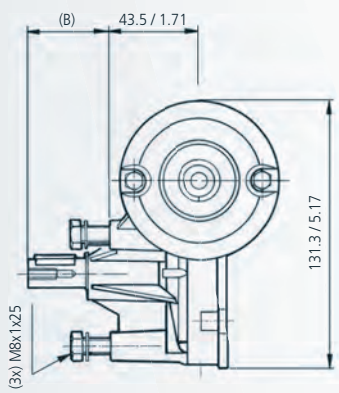


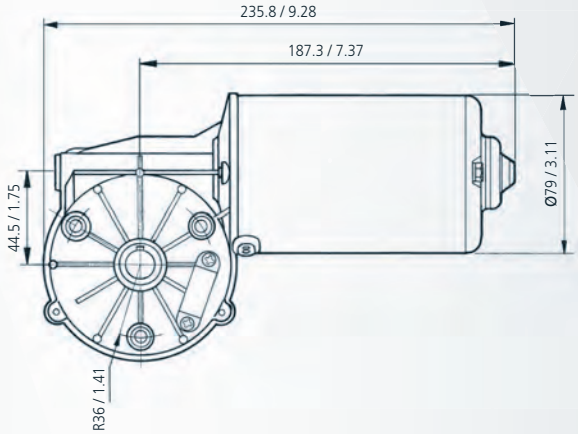
17

258



REFERENCIA REFERENCE NUMBER 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 SCHÉME ÉLECTRIQUE SCHALTBILD	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR 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
	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

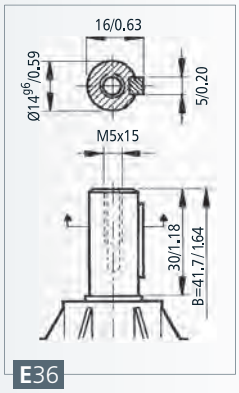




mm / inch

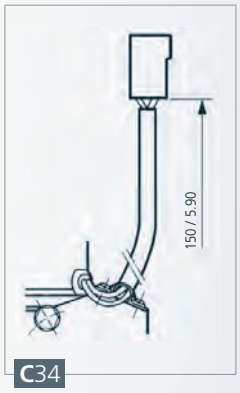
DOGA

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



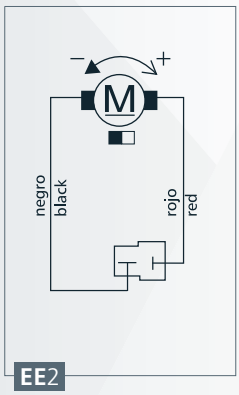
E36

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

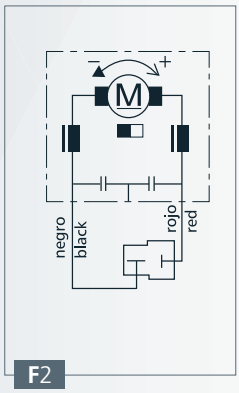


C34

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

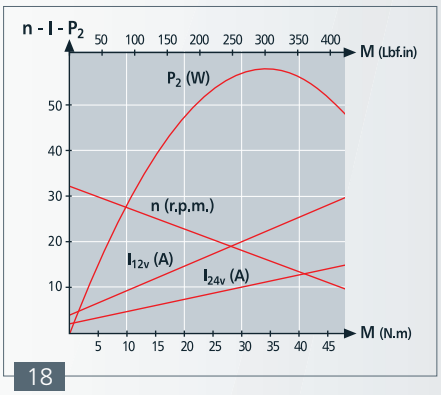


EE2

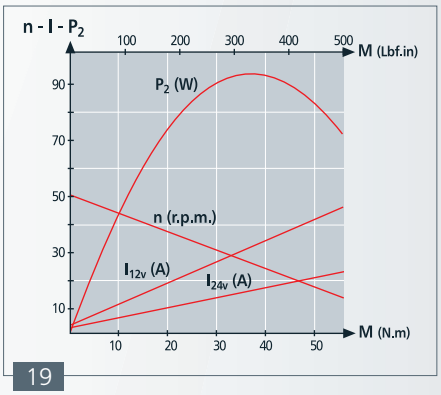


F2

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



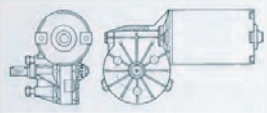
18



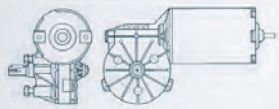
19

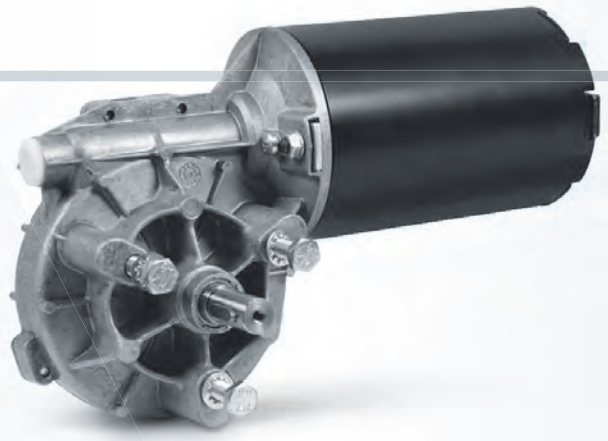
259

A



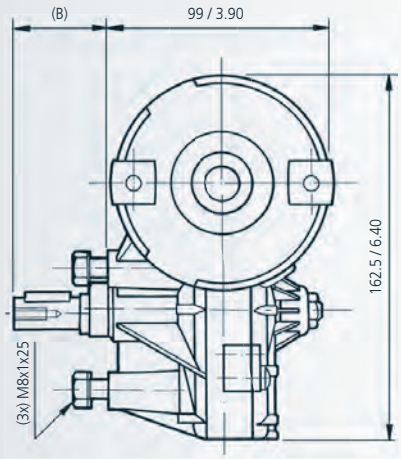
B

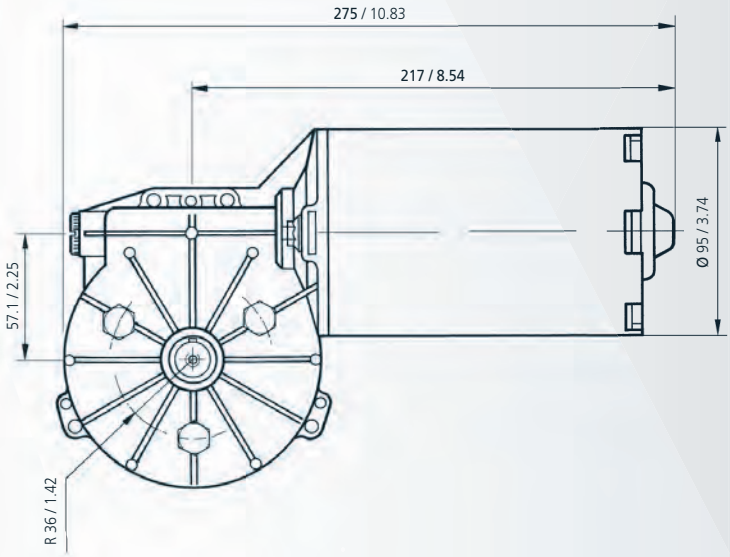




soon available **IP66**

REFERENCIA REFERENCE NUMBER 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 SCHÉMA ÉLECTRIQUE SCHALTBILD	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	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)	nn (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	12	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

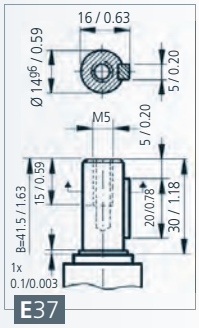




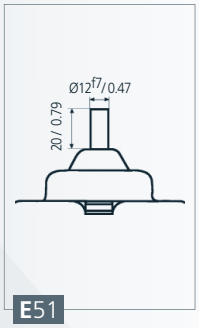
mm / inch

DOGA

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

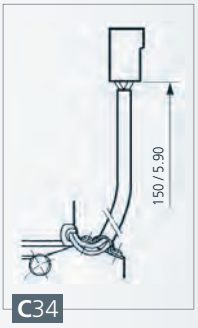


E37



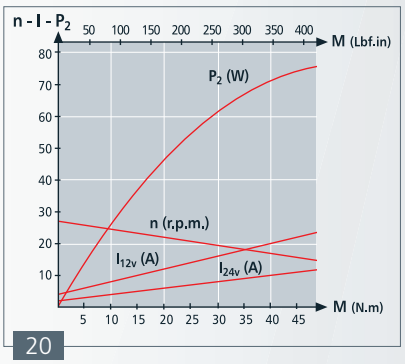
E51

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

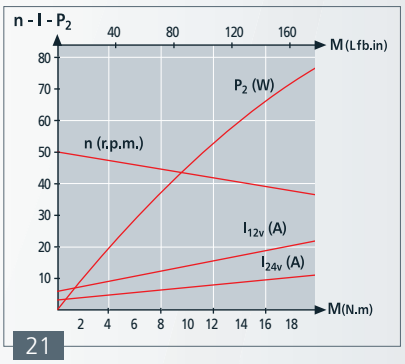


C34

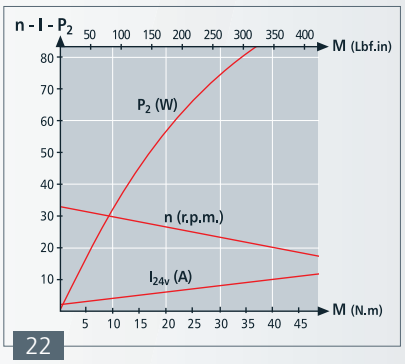
CURVAS **CURVES** COURBES **KURVEN**



20

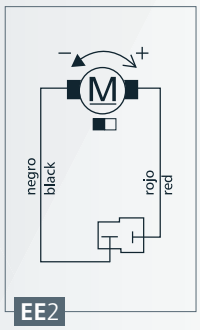


21

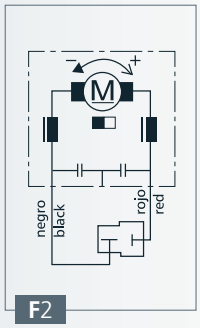


22

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

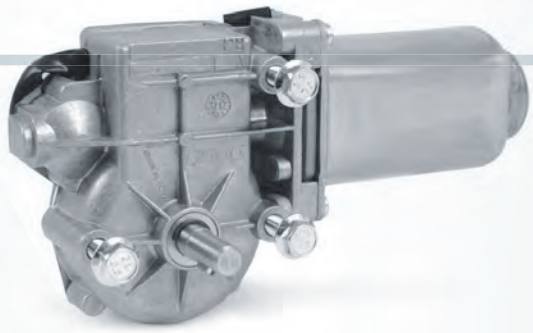


EE2



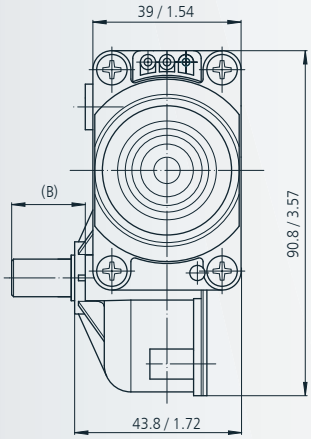
F2

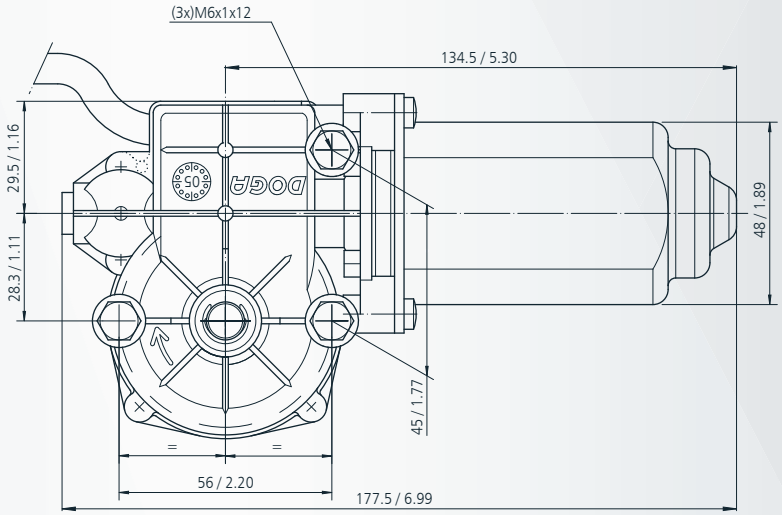
316



REFERENCIA REFERENCE NUMBER 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 SCHÉMA ÉLECTRIQUE SCHALTBILD	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHÉITÉ 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		
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.)

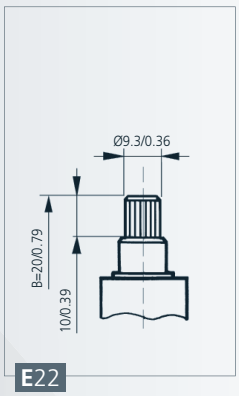




mm / inch

DOGA

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



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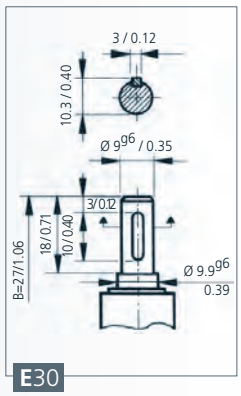
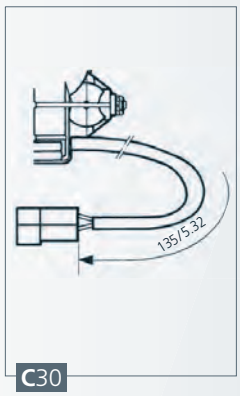


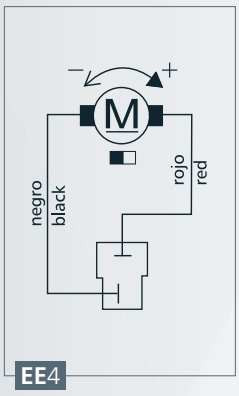
E30

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

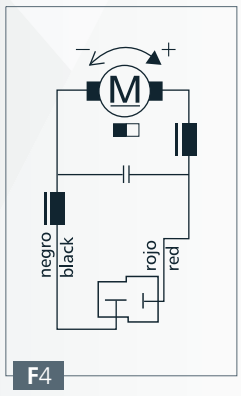


C30

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

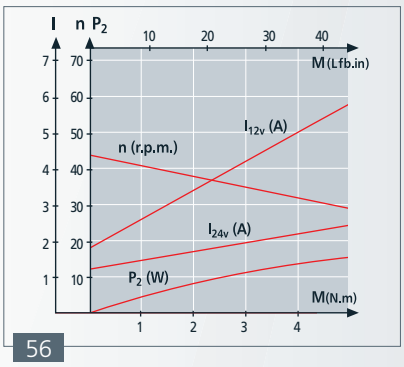


EE4

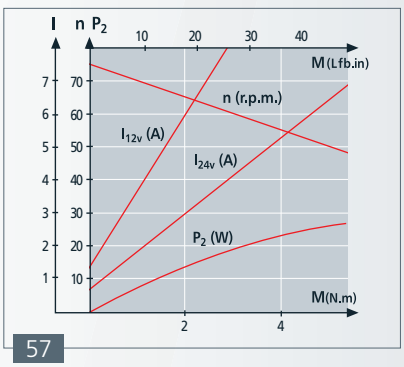


F4

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

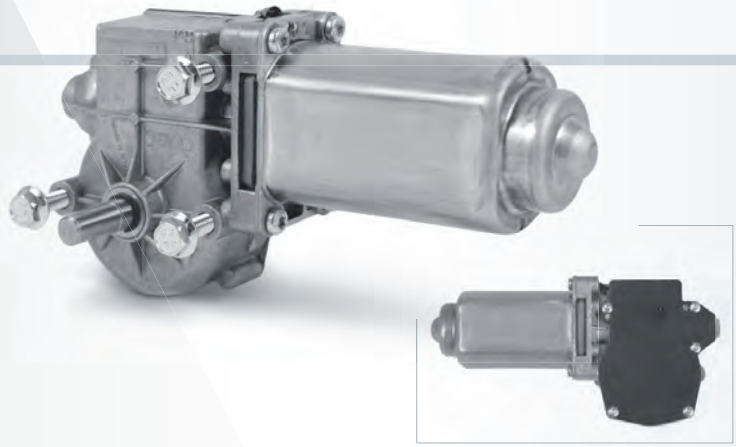


56

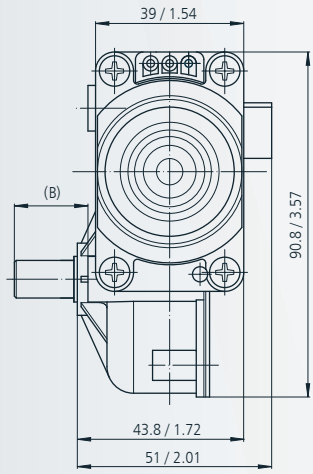


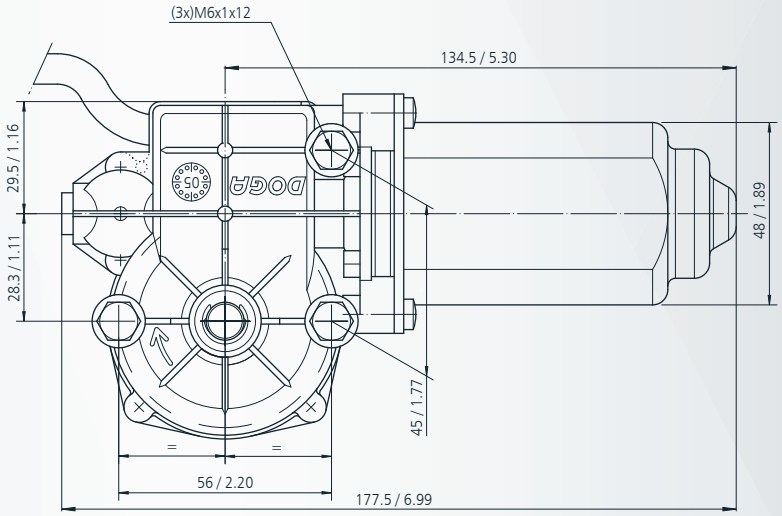
57

316 hall



REFERENCIA REFERENCE NUMBER 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 ELECTRICO WIRING DIAGRAM SCHÉME ÉLECTRIQUE SCHALTBILD	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAU ROUE MAT. DES SCHNECKENRADES	CURVA CURVE COURBE KURVE	Nº PULSOS PULSES NUM. NUM. POLSES 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	F5	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	F5	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	F5	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	F5	62:1	0.90 / 1.98	IP10	PLA	56	310

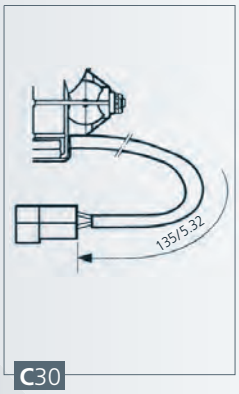


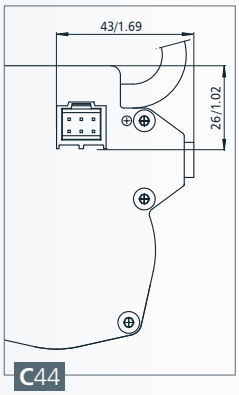


mm / inch

DOGA

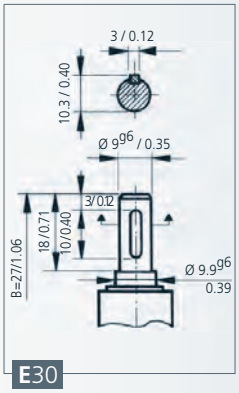
CONEXIONES **CONNECTIONS** CONNEXIONS **ANSCHLUSSART**



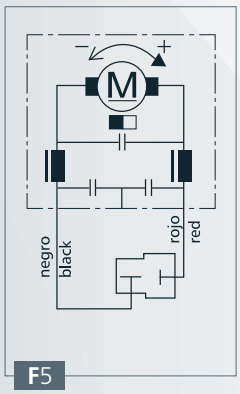


PIN	*FUNCTION - FUNCIÓN*
1	-
2	OUT A
3	OUT B
4	-
5	GND
6	VCC

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

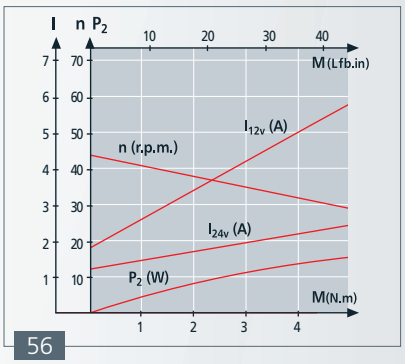


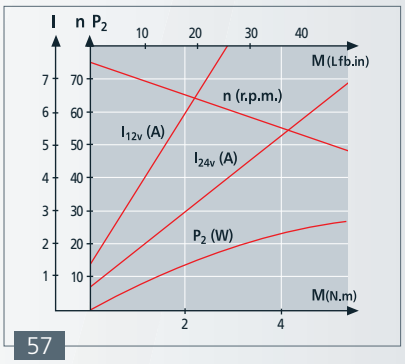
ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**



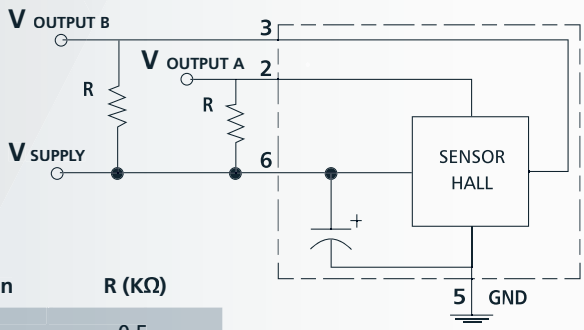
TERMINAL A	*TERMINAL B*	*ROTATION DIRECTION*
GND	VCC	↻
VCC	GND	↺

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



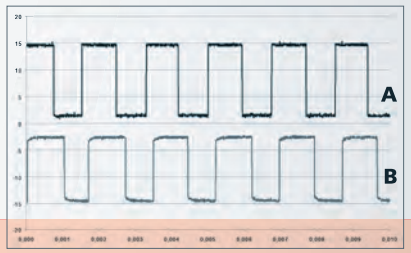


ESQUEMA SENSOR HALL **SENSOR HALL**
SCHÉME SENSOR HALL SCHALTBILD HALLSENSOR

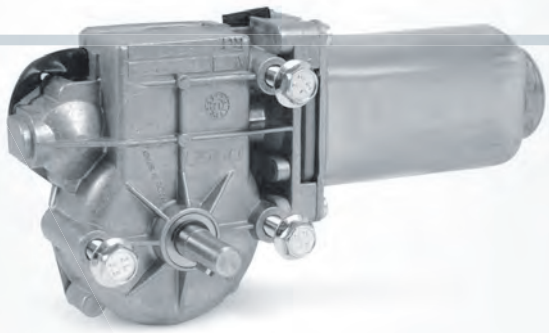


Vout = Vin	R (KΩ)
5V	0.5
12V	1.2
24V	2.4

SEÑAL SALIDA **OUTPUT SIGNAL**
SIGNALISATION DE SORTIE AUSGANGSSIGNAL



317



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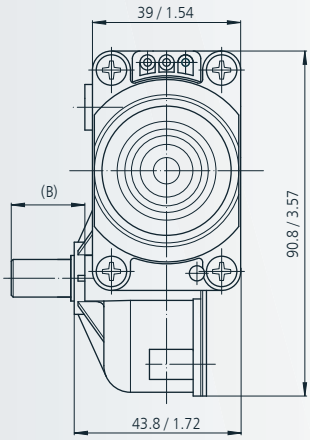
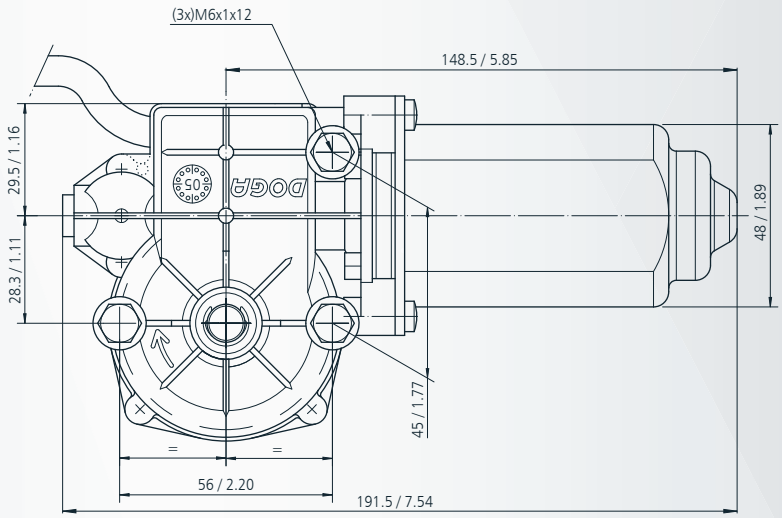
	Un (V)	Mn (N.m./lbf.in)	nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP		
317.2711.20.00	12	4 / 35	25	2.5	12 / 106	8	E22	C30	EE4	62:1	1.15/2.54	IP10	PLA	64
317.2711.30.00	24	4 / 35	25	1.1	12 / 106	4	E22	C30	EE4	62:1	1.15/2.54	IP10	PLA	64
317.2761.20.00	12	4 / 35	25	2.5	12 / 106	8	E30	C30	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
317.9704.20.00	12	* 3.5 / 31	65	4	12 / 106	8	E65	C30	EE5	62:1	1.15/2.54	IP10	BRO	68

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

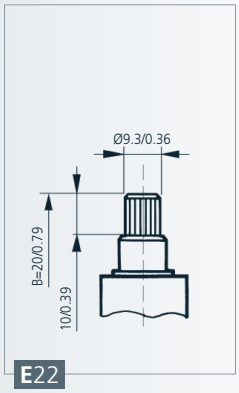




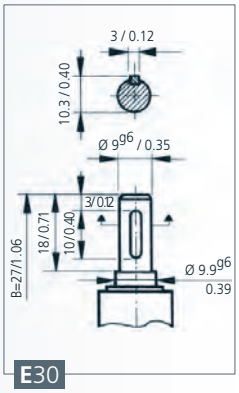
mm / inch

DOGA

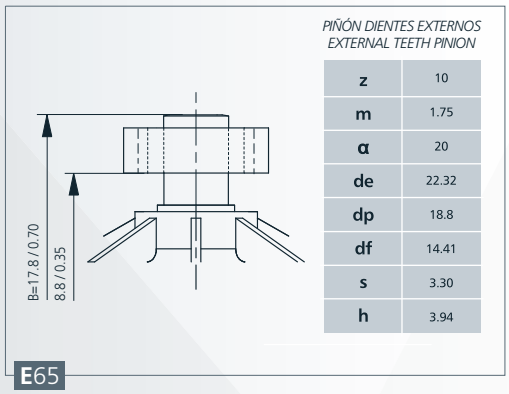
EJE **SHAFT** ARBRE **WELLE**



E22



E30

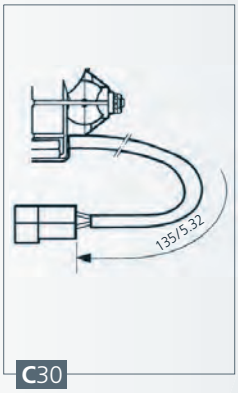


PIÑÓN DIENTES EXTERNOS
EXTERNAL TEETH PINION

z	10
m	1.75
α	20
de	22.32
dp	18.8
df	14.41
s	3.30
h	3.94

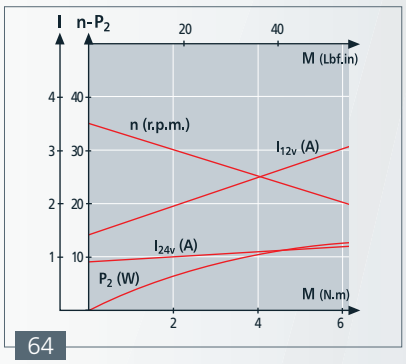
E65

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

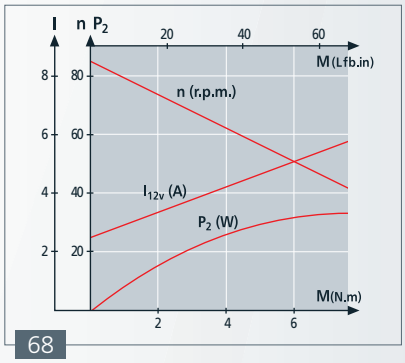


C30

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

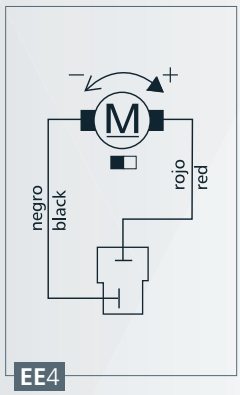


64

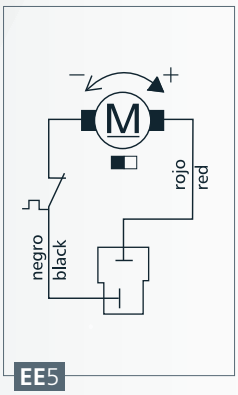


68

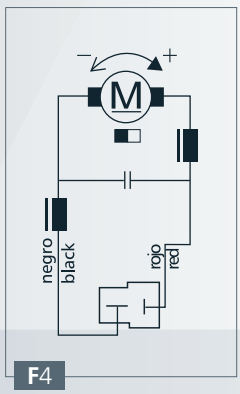
ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**



EE4

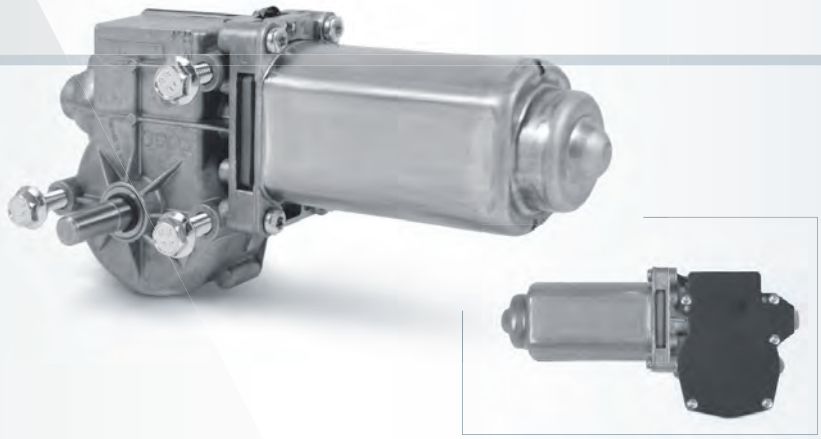


EE5



F4

317 hall



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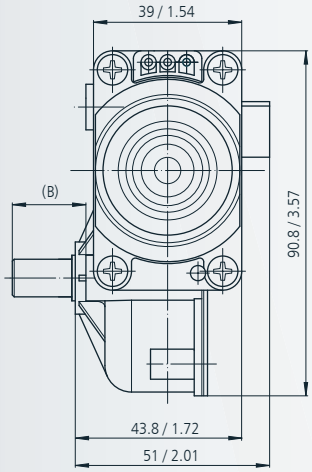
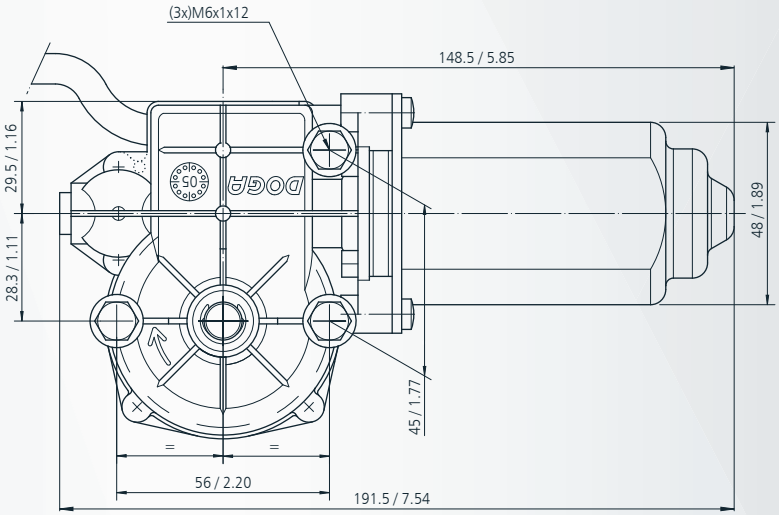
	Un (V)	Mn (N.m./lbf.in)	nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				i	P (kg/lb)	IP			
317.9706.20.00	12	4 / 35	25	2.5	12 / 106	8	E30	C30/C44	F5	62:1	1.15/2.54	IP10	PLA	64	310
317.9706.30.00	24	4 / 35	25	1.1	12 / 106	4	E30	C30/C44	F5	62:1	1.15/2.54	IP10	PLA	64	310

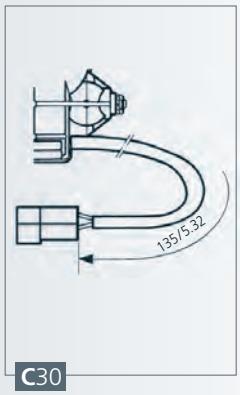


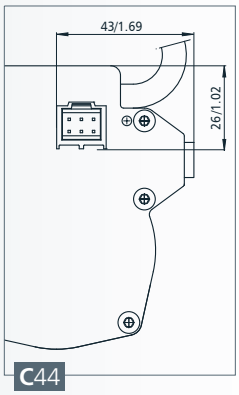


mm / inch

DOGA

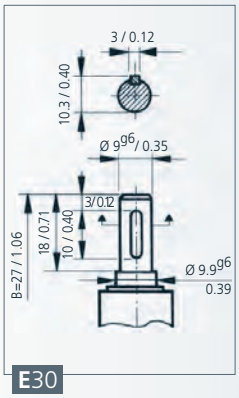
CONEXIONES **CONNECTIONS** CONNEXIONS **ANSCHLUSSART**



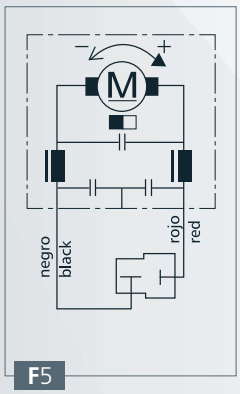


PIN	*FUNCTION - FUNCIÓN*
1	-
2	OUT A
3	OUT B
4	-
5	GND
6	VCC

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

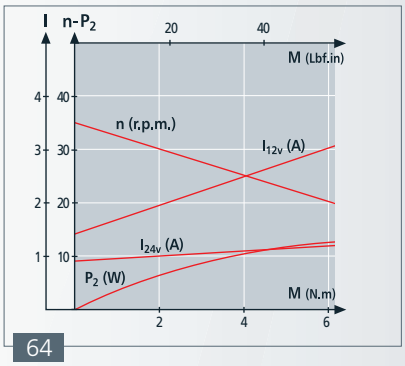


ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**

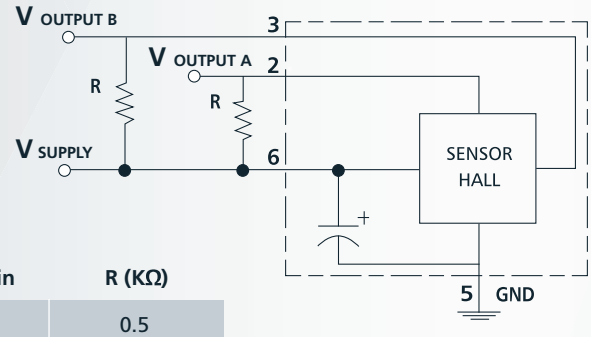


TERMINAL A	*TERMINAL B*	*ROTATION DIRECTION*
GND	VCC	↻
VCC	GND	↺

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

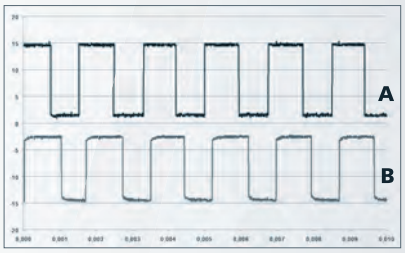


ESQUEMA SENSOR HALL **SENSOR HALL**
SCHÉME SENSOR HALL SCHALTBILD HALLSENSOR



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

SEÑAL SALIDA **OUTPUT SIGNAL**
SIGNALISATION DE SORTIE AUSGANGSSIGNAL



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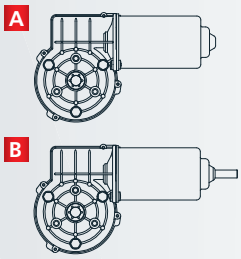

REFERENCIA REFERENCE NUMBER RÉFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	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 SCHÉMA ÉLECTRIQUE 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	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
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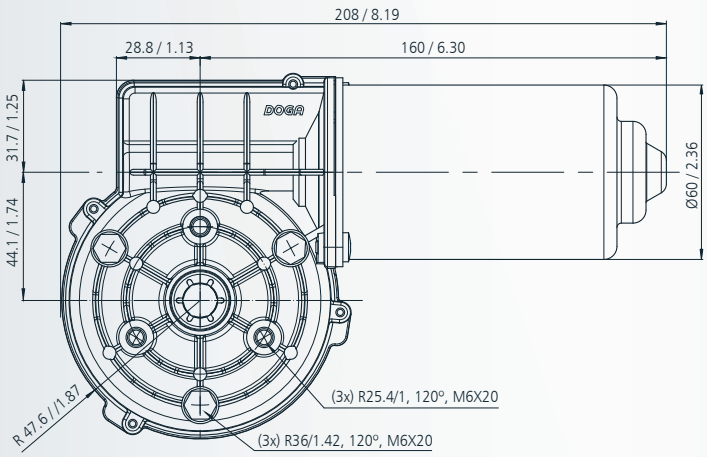
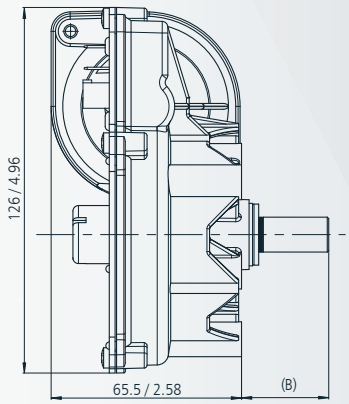
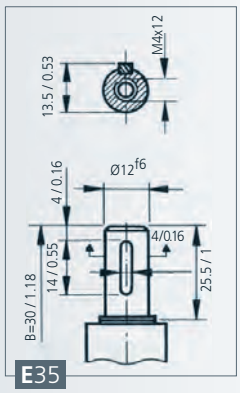




mm / inch

DOGA

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



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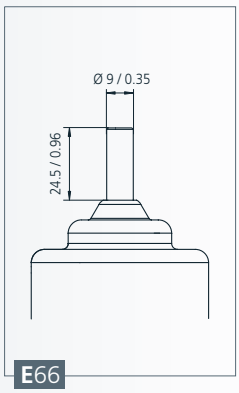
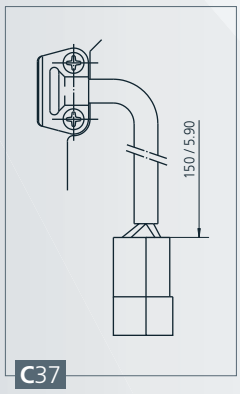


E66

CONEXIONES **CONNECTIONS**
CONNEXIONS ANSCHLUSSART



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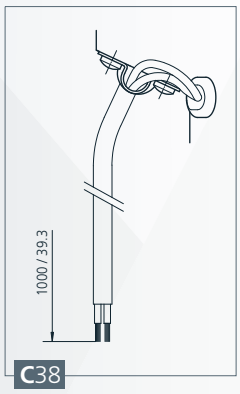
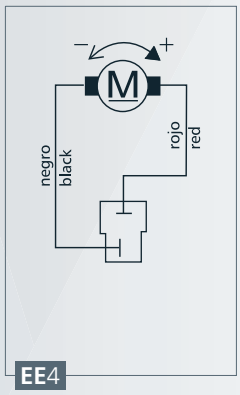


C38

ESQUEMA ELÉCTRICO **WIRING DIAGRAM**
SCHÉMA ÉLECTRIQUE SCHALTBILD



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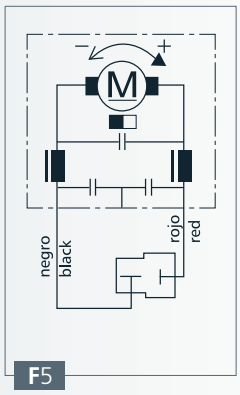
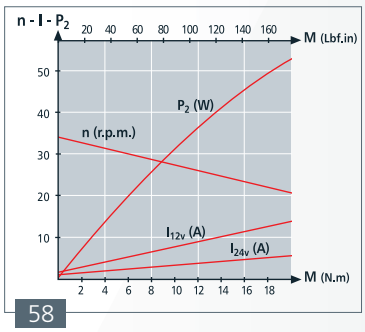


F5

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



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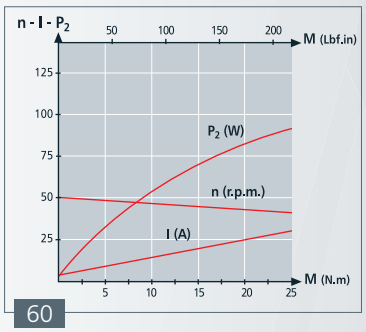

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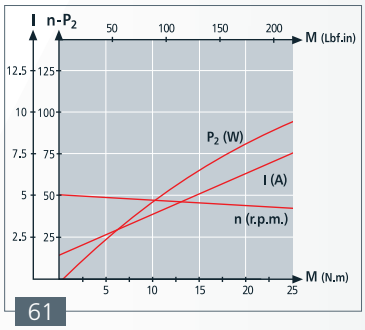

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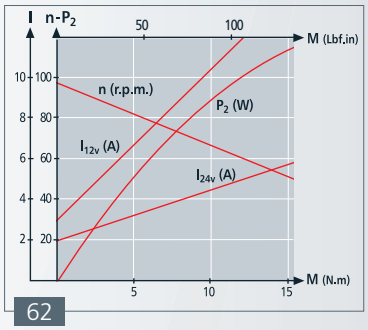

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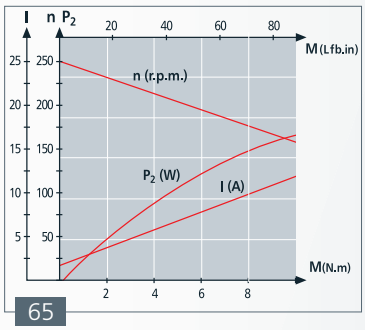

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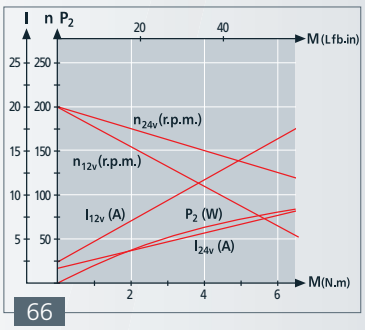

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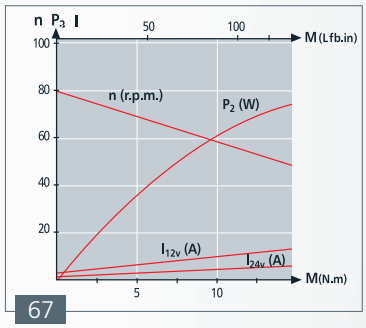
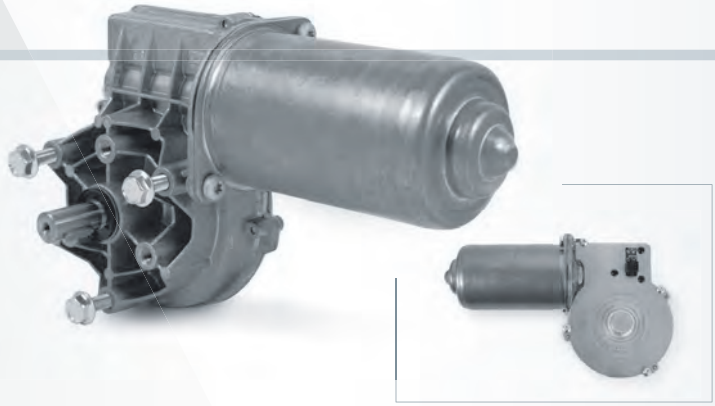
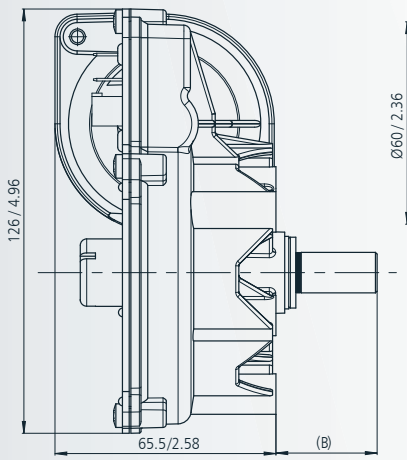


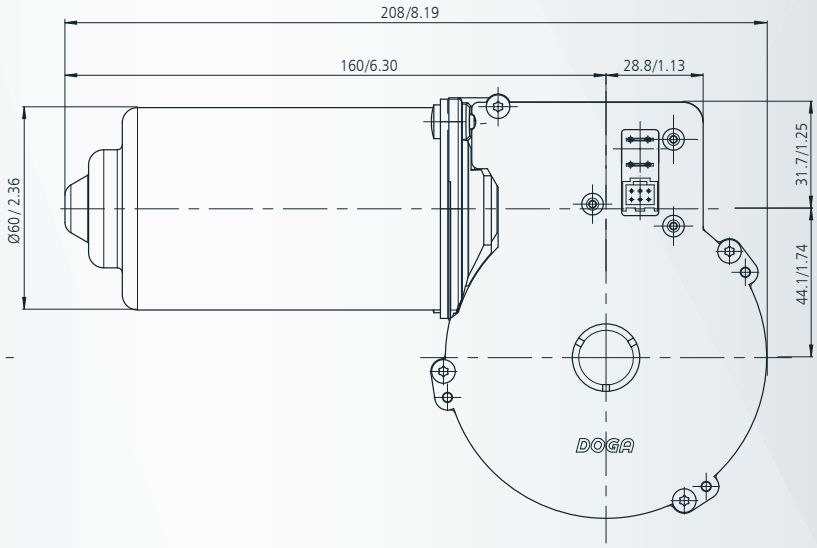
67

319 hall



REFERENCIA REFERENCE NUMBER 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 SCHÉME ÉLECTRIQUE SCHALTBILD	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHÉITE FEUCHTIGKEITSSCHUTZKLASSE	MATERIAL RUEDA WHEEL MATERIAL MATERIAU ROUE MAT. DES SCHNECKENRADES	CURVA CURVE COURBE KURVE	Nº PULSOS PULSES NUM. NUM. POLSES 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

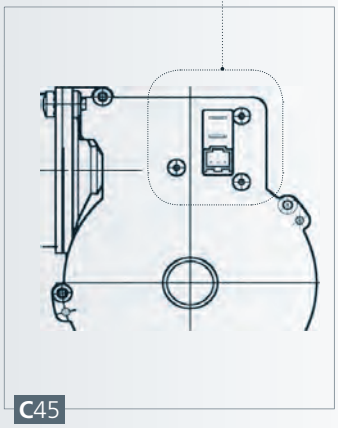


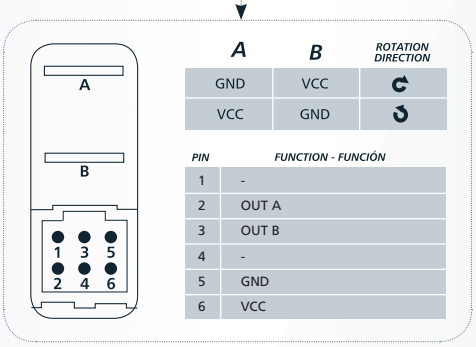


mm / inch

DOGA

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

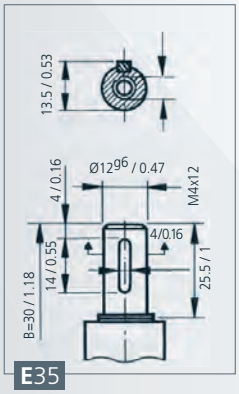




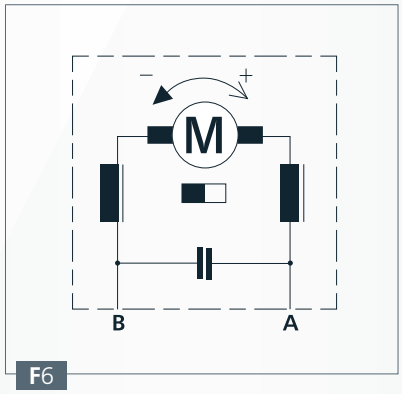
A	B	ROTATION DIRECTION
GND	VCC	↻
VCC	GND	↺

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

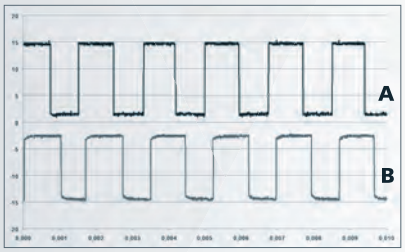
EJE **SHAFT** ARBRE **WELLE**



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

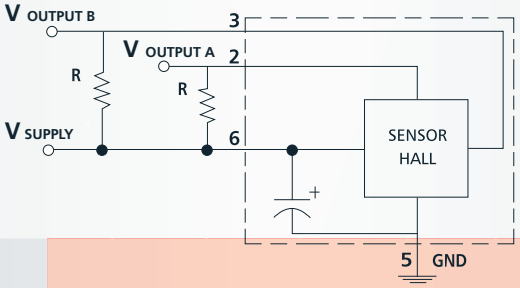


SEÑAL SALIDA **OUTPUT SIGNAL** **SIGNALISATION DE SORTIE** AUSGANGSSIGNAL

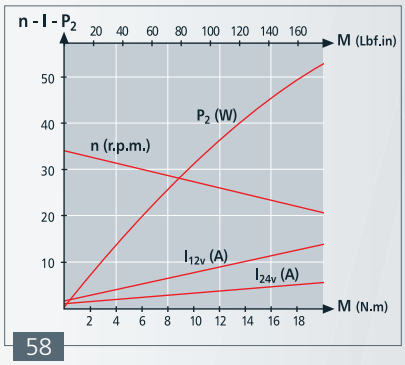


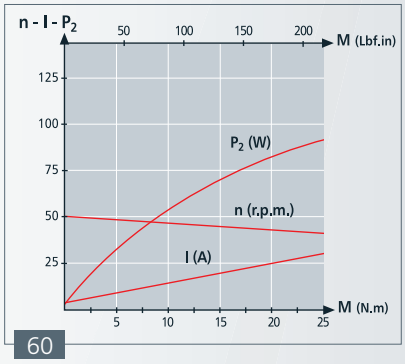
ESQUEMA SENSOR HALL **SENSOR HALL** **SCHÉME SENSOR HALL** SCHALTBILD HALLSENSOR

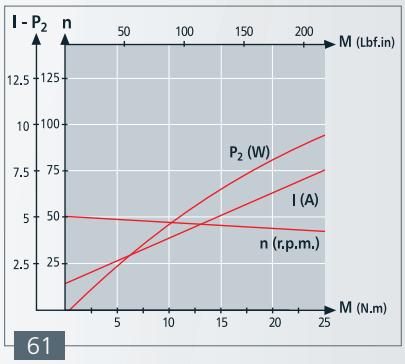
Vout = Vin	R (KΩ)
5V	0.5
12V	1.2
24V	2.4

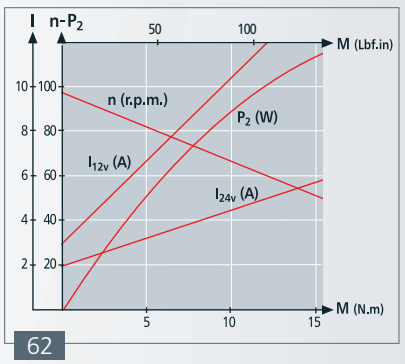


CURVAS **CURVES** COURBES **KURVEN**









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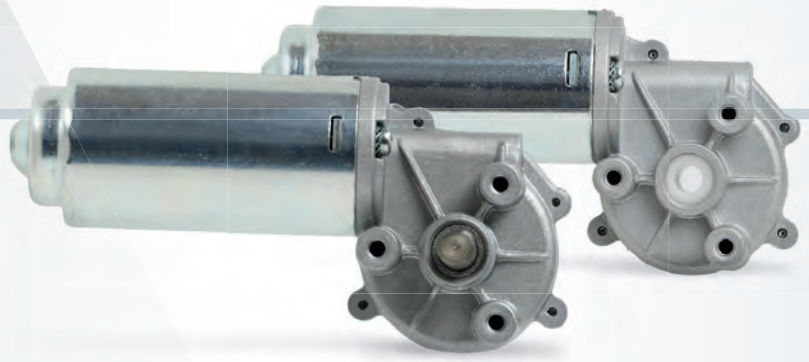
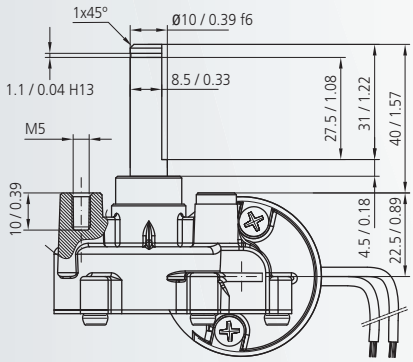
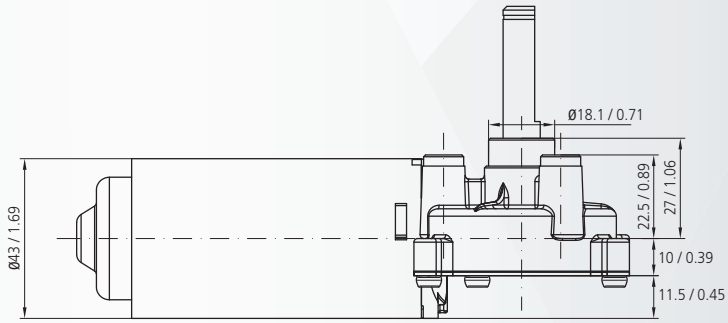
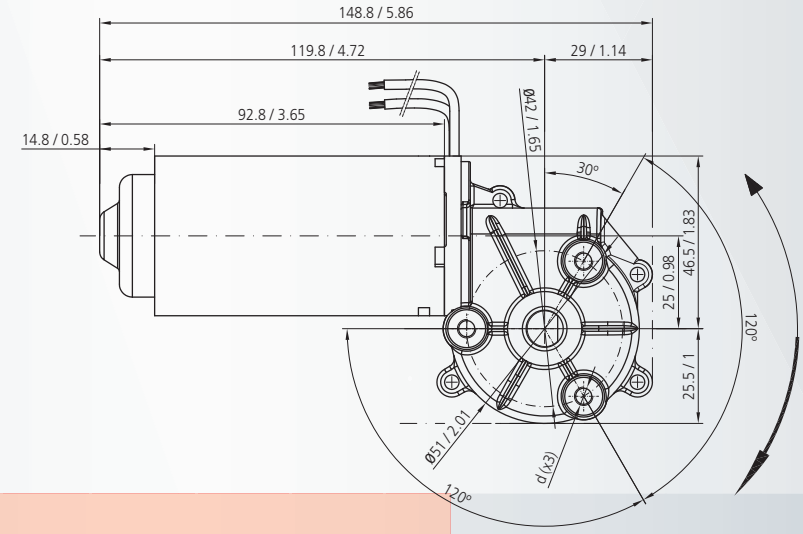


REFERENCIA REFERENCE NUMBER REFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	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 SCHÉME ÉLECTRIQUE SCHALTBILD	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHEITÉ 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		
500.0001.30.00	24	1/8.85 (10%)	115	2.5	9.5/84	15	E42	C47	EE10	62:1	0.75/1.65	IP30	PLA	23
500.0001.20.00	12	1/8.85 (10%)	50	2	5.5/48.67	8.7	E42	C47	EE10	62:1	0.75/1.65	IP30	PLA	23
500.0002.30.00	24	1/8.85 (10%)	165	3	14/123.91	21	E42	C47	EE10	62:1	0.75/1.65	IP30	PLA	24
500.0002.20.00	12	1/8.85 (10%)	75	2.3	8/70.80	11	E42	C47	EE10	62:1	0.75/1.65	IP30	PLA	24
500.0003.30.00	24	1/8.85 (10%)	115	2.5	9.5/84	15	E43	C47	EE10	62:1	0.65/1.43	IP30	PLA	23
500.0003.20.00	12	1/8.85 (10%)	50	2	5.5/48.67	8.7	E43	C47	EE10	62:1	0.65/1.43	IP30	PLA	23
500.0004.30.00	24	1/8.85 (10%)	165	3	14/123.91	21	E43	C47	EE10	62:1	0.65/1.43	IP30	PLA	24
500.0004.20.00	12	1/8.85 (10%)	75	2.3	8/70.80	11	E43	C47	EE10	62:1	0.65/1.43	IP30	PLA	24



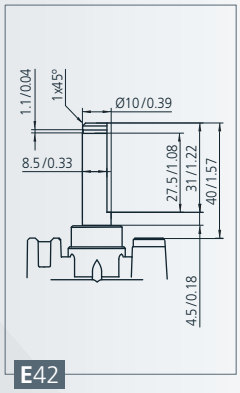




mm / inch

DOGA

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



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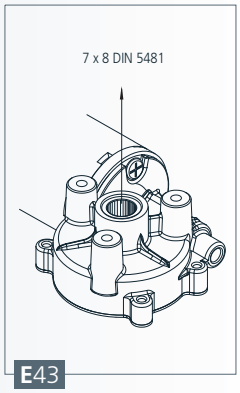
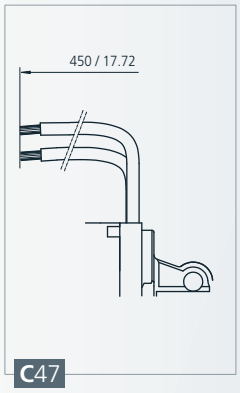


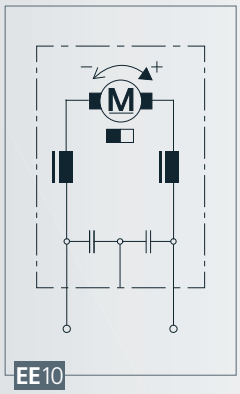
E43

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



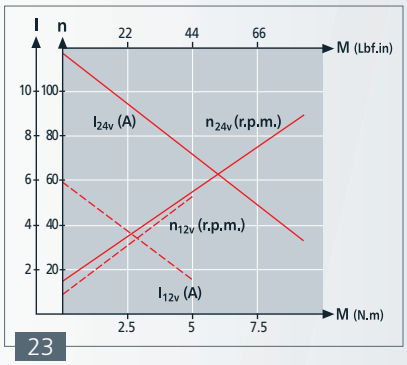
C47

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



EE10

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



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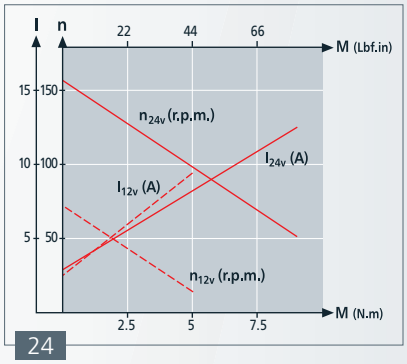


24

DOGA ha diseñado una Unidad de Control Electrónico, ECU embebida, para la serie de motores 319 (versión estándard 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 linea (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 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 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 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.

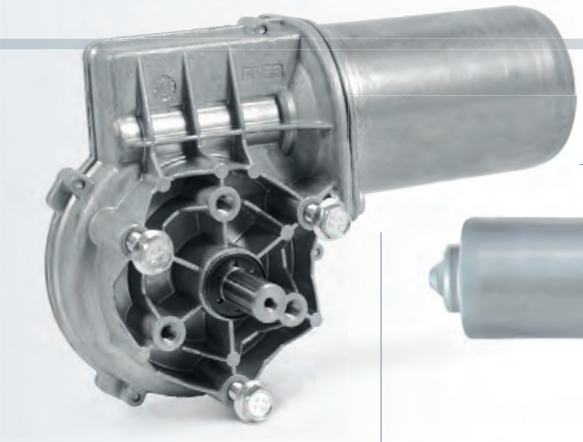
SCHNITTSTELLEN

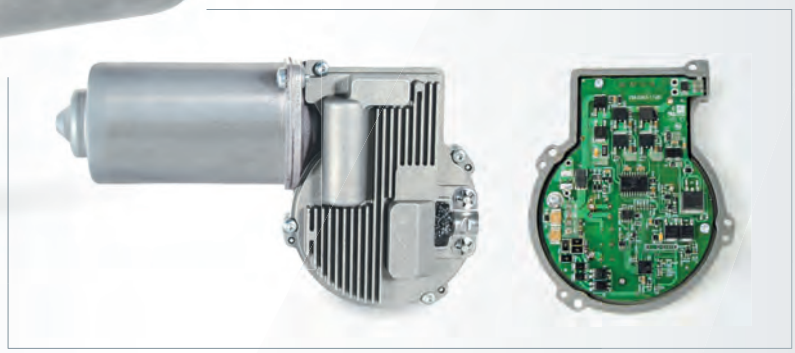
Digitale Eingänge | LIN | CAN J1939 | CAN Open

FUNKTIONEN

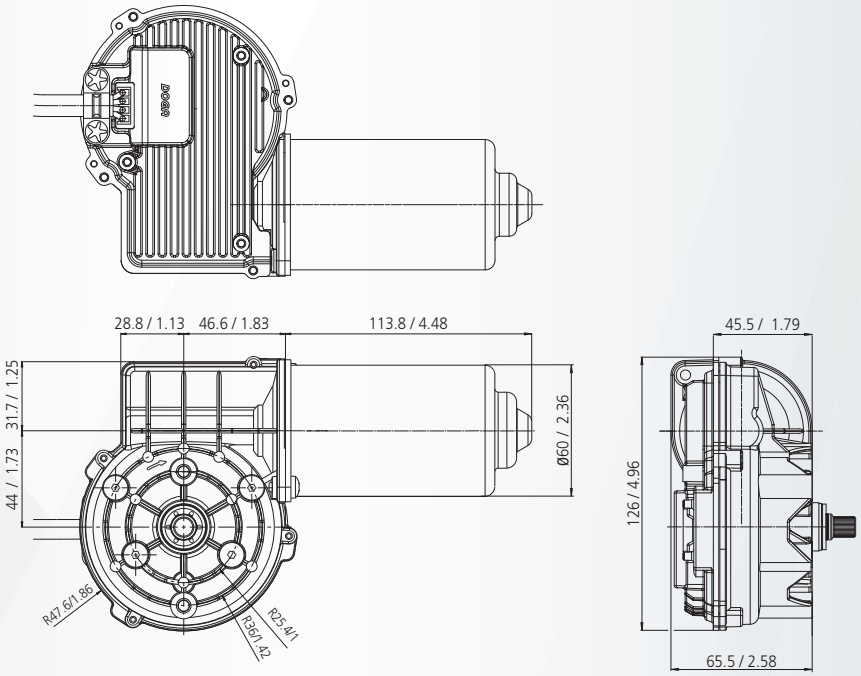
- Kompakter Motor mit integrierter Steureung Steuerung
- Nennspannung : 12 oder 24V
- Sehr exakte Geschwindigkeitssteuerung
- Synchronisation von mehreren Motoren
- Ruckfreie Bewegung bei Drehrichtungsänderung
- IP-Schutzklasse bis IP69k
- Ein System für mehrere Bedürfnisse
- Diagnosefunktion
- Ermöglicht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

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

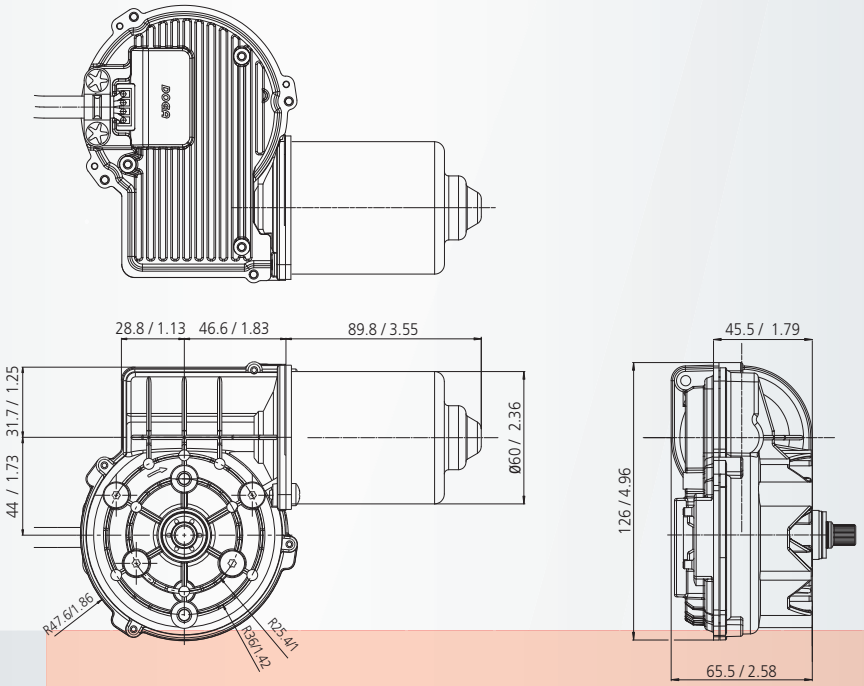




319 e



319 he

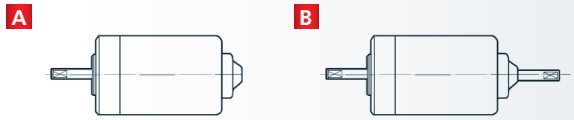


mm / inch

162

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.



REFERENCIA REFERENCE NUMBER 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 SCHEME ÉLECTRIQUE SCHALTBILD	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHEITE 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		
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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
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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
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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
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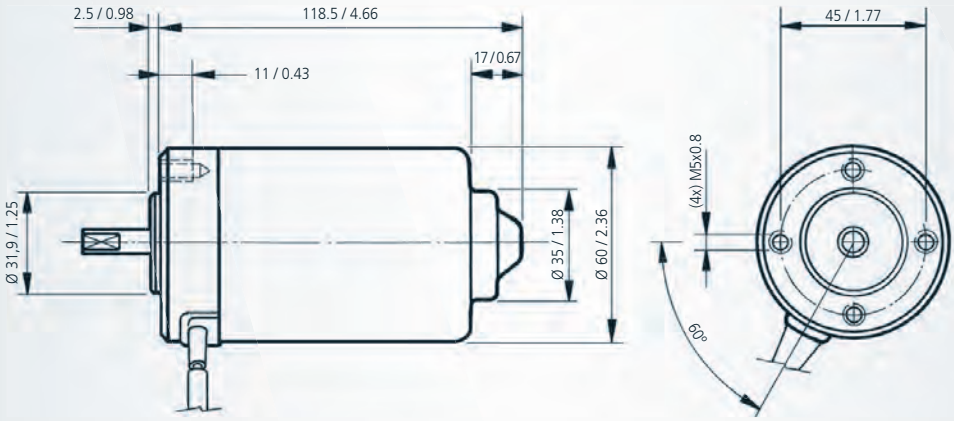
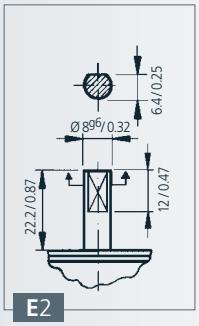


mm / inch

DOGA

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



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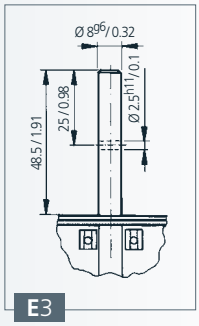

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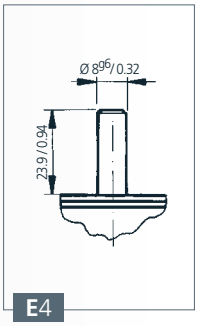

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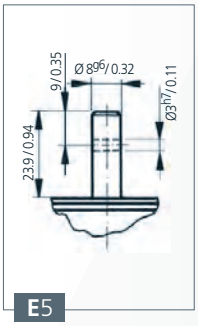

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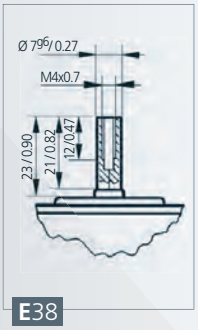

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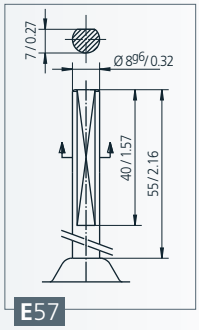

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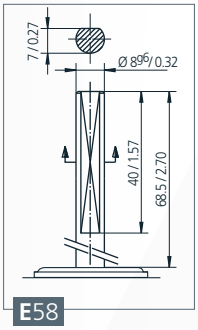
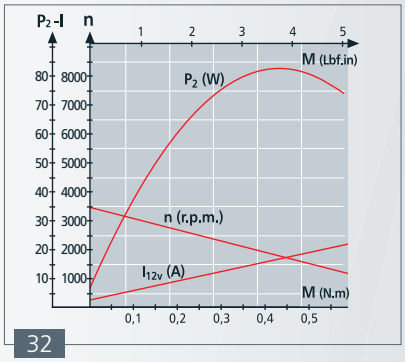


E58

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



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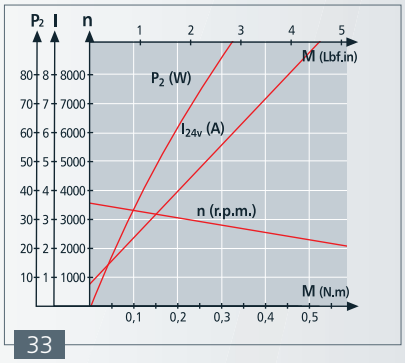

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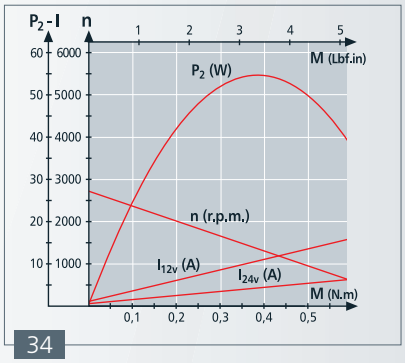

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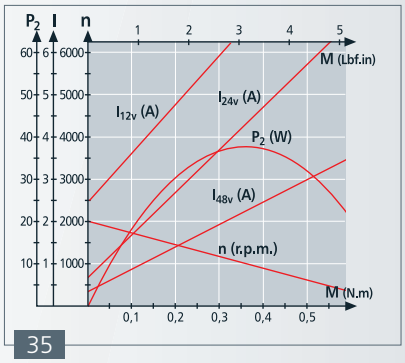

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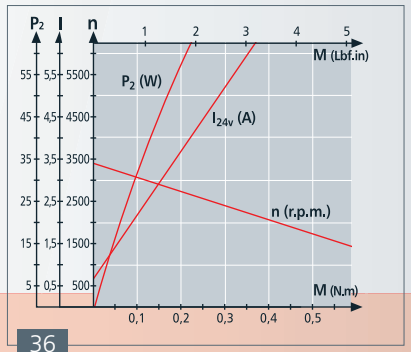
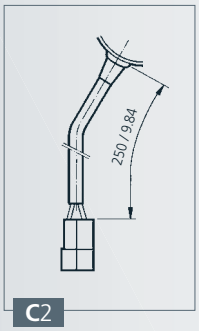


36

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



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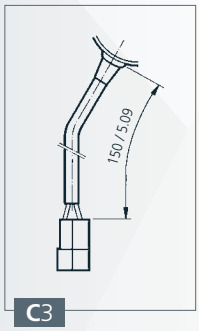

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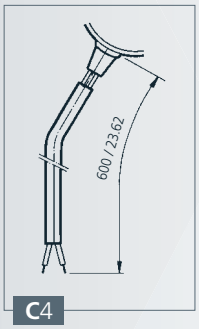

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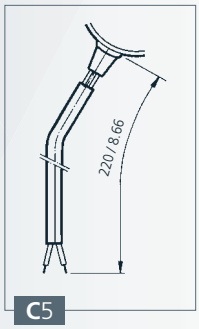

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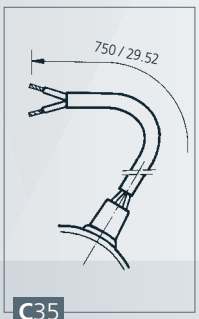
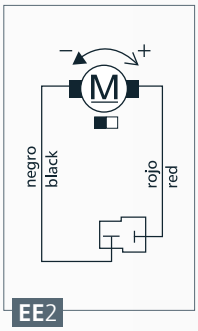


C35

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



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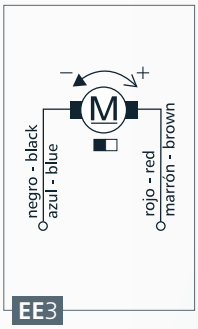

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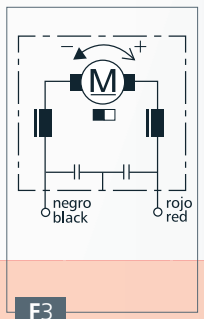
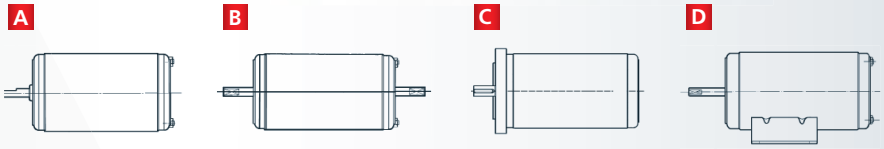


F3

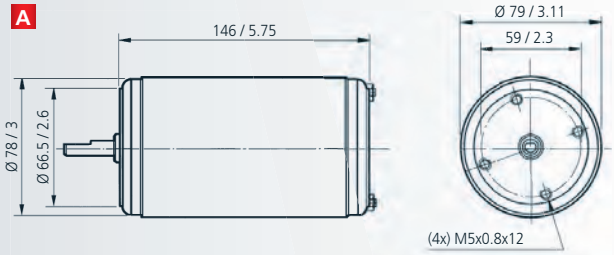
168

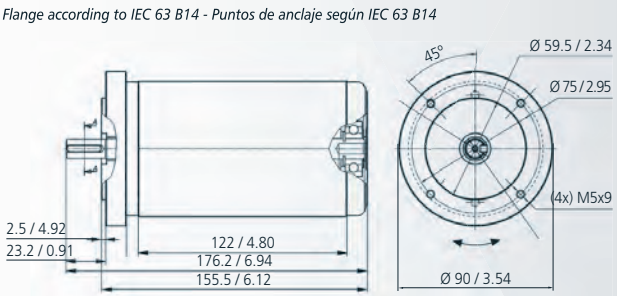
PLANETARY GEAR

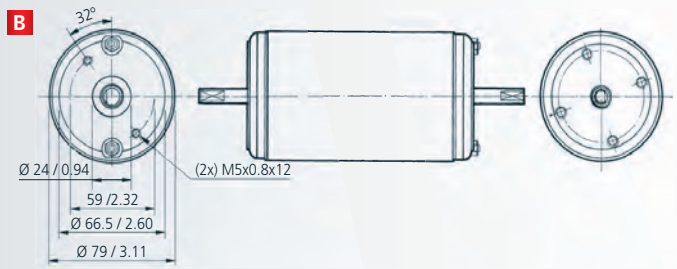
- REDUCTORES PLANETARIOS: combinables con la serie 168. Ver sección especial en catálogo.
- PLANETARY GEARS: combinable with 168 series. See special section in catalogue.
- REDUCTEURS PLANETAIRES: combinables avec la série 168. Consultez section spécial du catalogue.
- PLANETENGETRIEBE: Mit der Reihe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

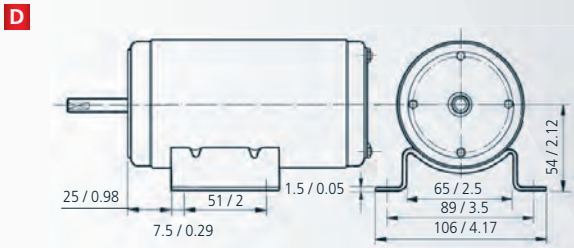


REFERENCIA / REFERENCE NUMBER / RÉFERENCE / REFERENZNUMMERN	TENSIÓN NOMINAL / NOMINAL VOLTAGE / TENSION NOMINALE / NENNSPANNUNG	PAR NOMINAL / NOMINAL TORQUE / COUPLE NOMINAL / DREHMOMENT NOMINAL	VELOCIDAD NOMINAL / NOMINAL SPEED / VITESSE NOMINALE / GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL / NOMINAL 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 / SCHÉMA 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)	Nn (r.p.m.)	In (A)	Ma (N.m./lbf.in)	Ia (A)				P (kg/lb)	IP		
168.4105.20.04	12	0.50 / 4.42	1900	14	3.0 / 26.5	64	E8	C8	EE1	2.6 / 5.73	IP40	A	37
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
168.4116.20.04	12	0.50 / 4.42	1900	14	3.0 / 26.5	64	E8	C8	EE1	2.6 / 5.73	IP40	D	37
168.4116.30.04	24	0.50 / 4.42	1900	7	3.0 / 26.5	32	E8	C8	EE1	2.6 / 5.73	IP40	D	37
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





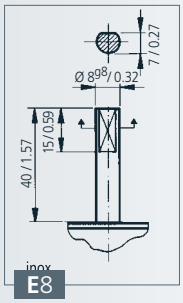




mm / inch

DOGA

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



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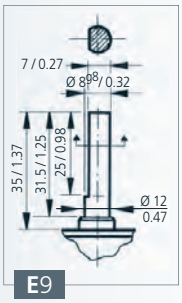

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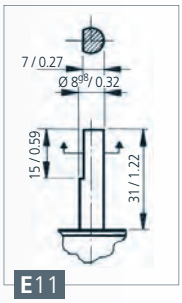

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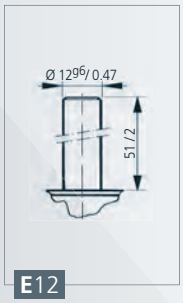

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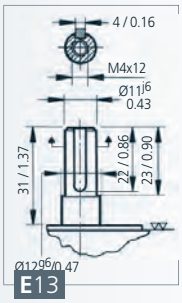

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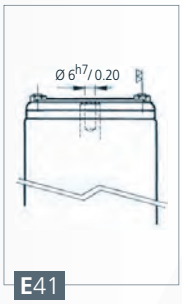

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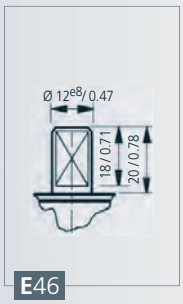

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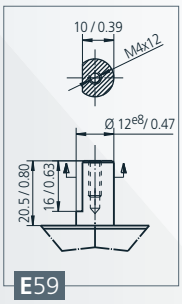

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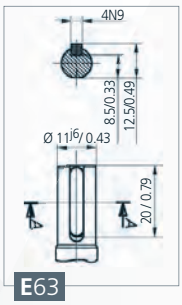

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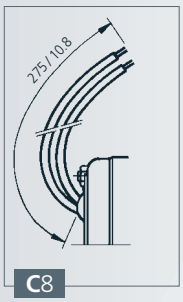
CONEXIONES **CONNECTIONS** CONNEXIONS **ANSCHLUSSART**



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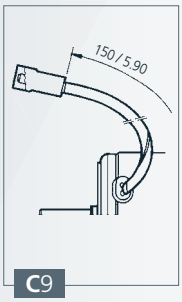

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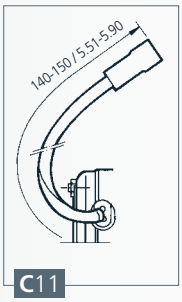

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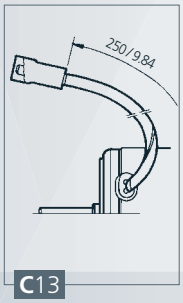

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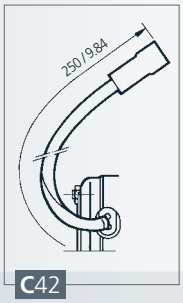

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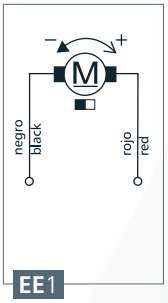
ESQUEMA ELÉCTRICO **WIRING DIAGRAM** **SCHÉMA ÉLECTRIQUE** SCHALTBILD



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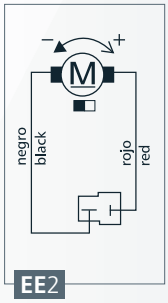

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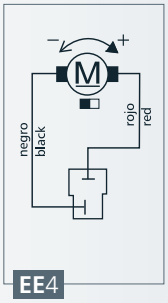

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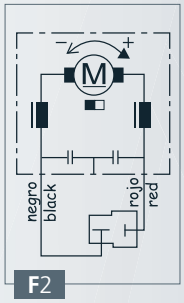

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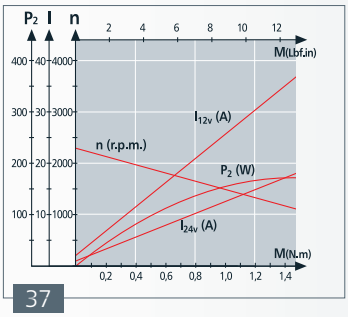
CURVAS **CURVES** COURBES **KURVEN**



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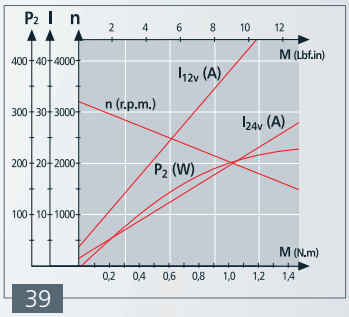

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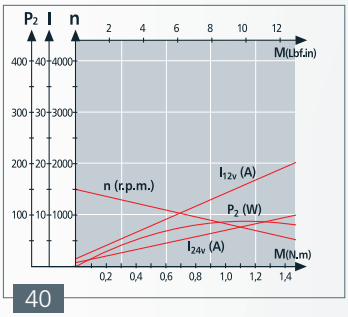

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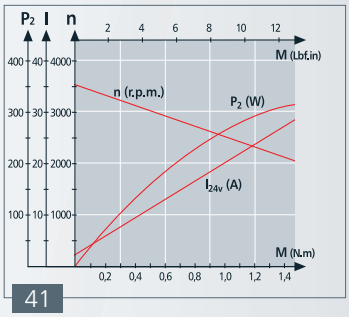

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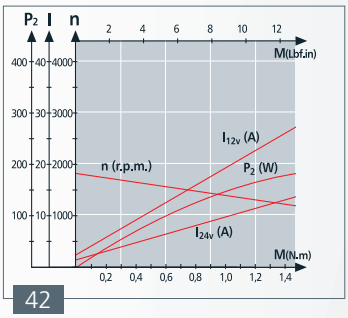

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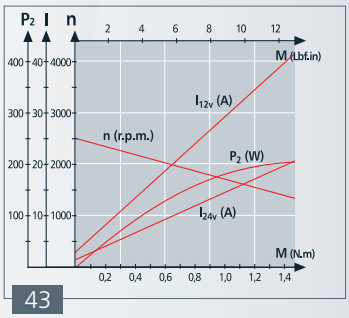

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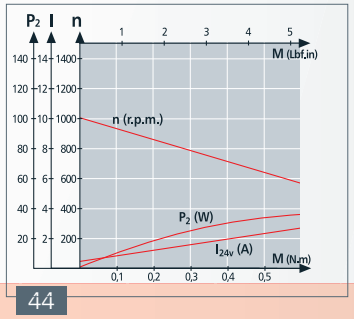

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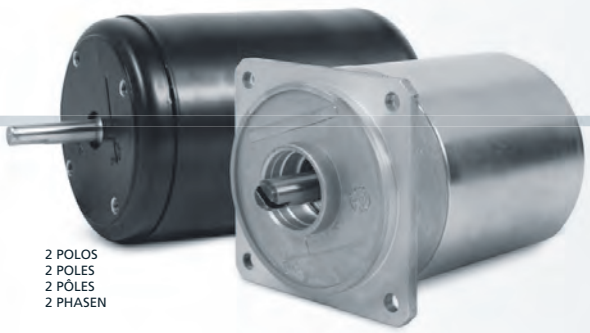
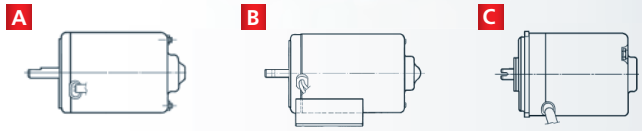
169



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 NUMBER RÉFERENCE 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 SCHEME ÉLECTRIQUE SCHALTBILD	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHÉITÉ 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		
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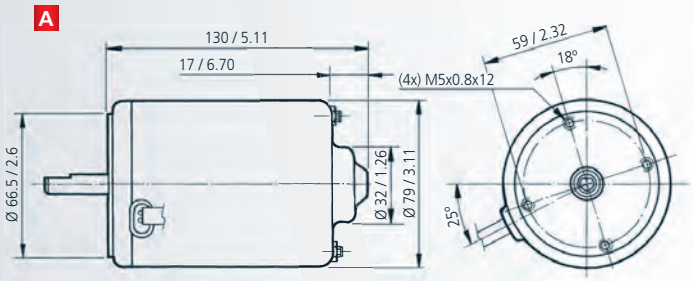
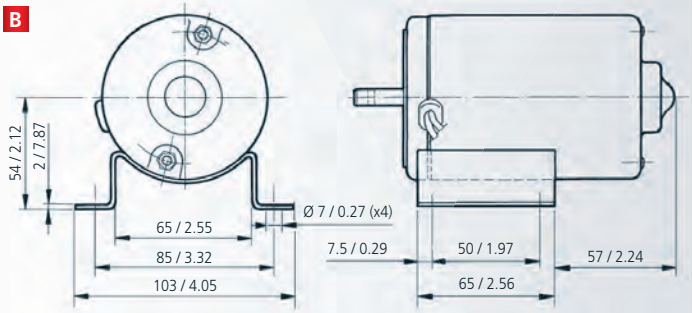
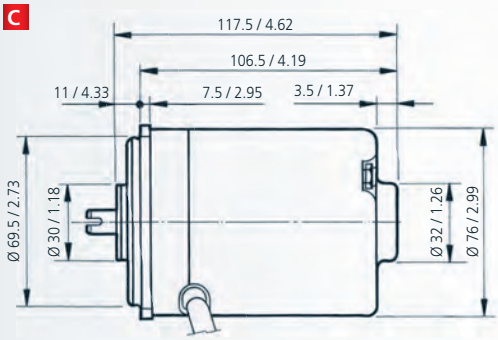
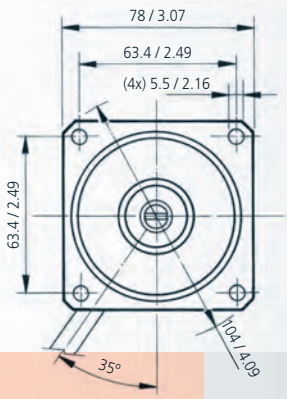
169.4106.30.04	24	0.40 / 3.54	1900	5.5	2.0 / 17.7	23	E14	C14	EE2	2.0 / 4.41	IP53	A	45
169.4107.20.04	12	0.40 / 3.54	2900	16	2.2 / 19.4	100	E15	C15	EE2	2.0 / 4.41	IP53	A	46
169.4107.30.04	24	0.40 / 3.54	2900	8	2.2 / 19.4	50	E15	C15	EE2	2.0 / 4.41	IP53	A	46
169.4110.20.04	12	0.40 / 3.54	1500	9	2.0 / 17.7	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





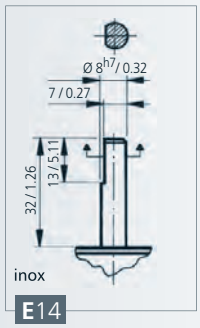




mm / inch

DOGA

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



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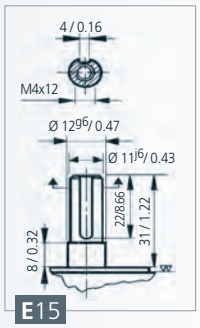

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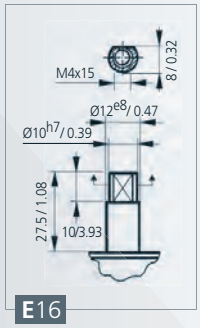

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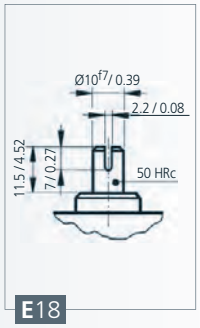

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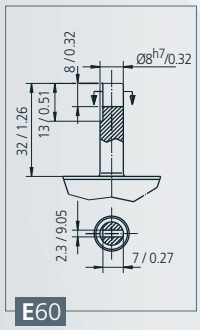

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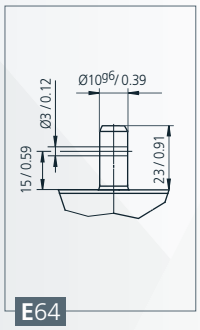

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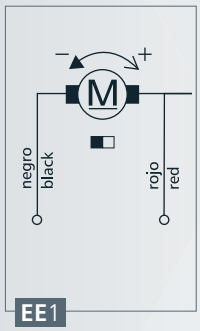
ESQUEMA ELÉCTRICO **WIRING DIAGRAM** **SCHÉMA ÉLECTRIQUE** SCHALTBILD



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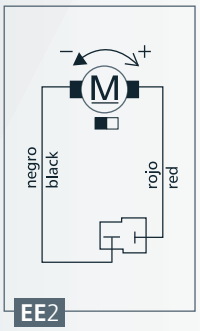

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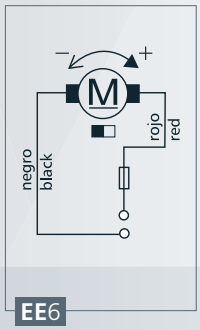

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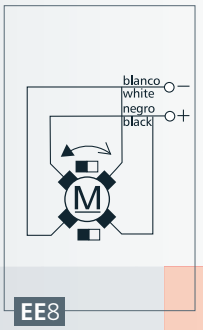

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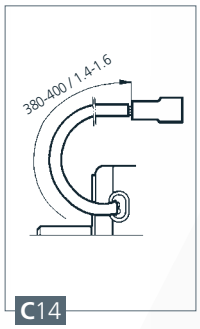
CONEXIONES **CONNECTIONS** **CONNEXIONS** ANSCHLUSSART



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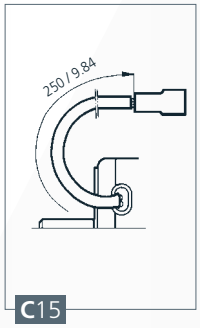

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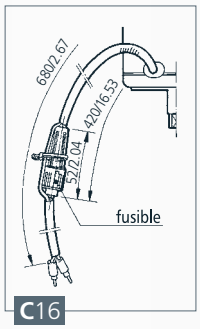

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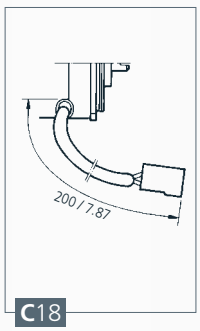
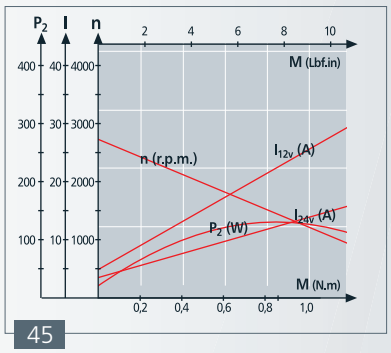


C18

C26

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



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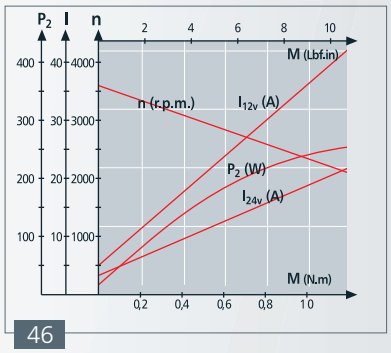

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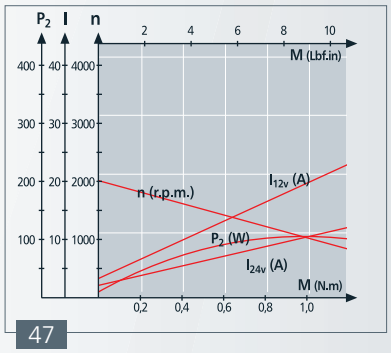

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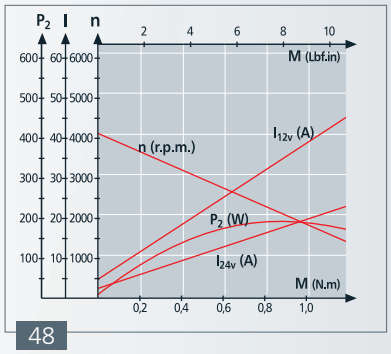

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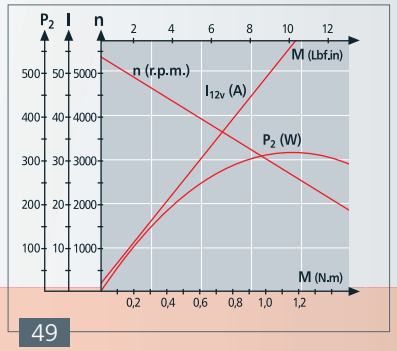


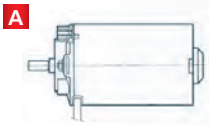
49

269

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.

A



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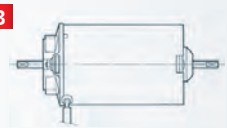
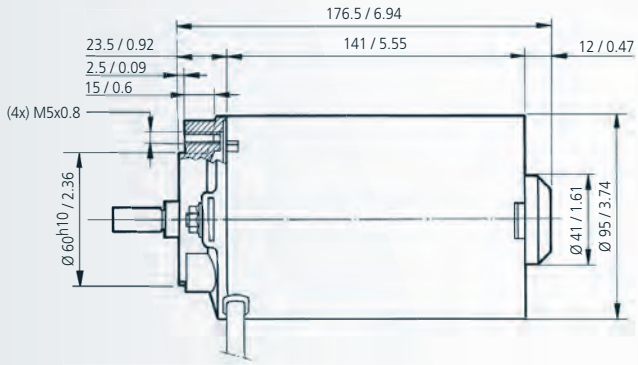
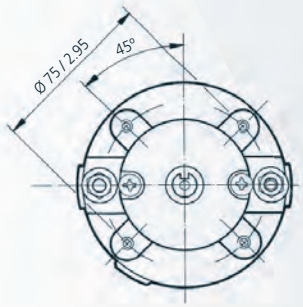


REFERENCIA REFERENCE NUMBER RÉFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	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 SCHÉME ÉLECTRIQUE SCHALTBILD	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHÉITÉ FEUCHTIGKEITSSCHUTZKLASSE	DISEÑO: A,B DESIGN: A,B DESSIN: A,B ABBILDUNG: A,B	CURVA CURVE COURBE KURVE
	Un (V)	Mn (N.m./lbf.in)	ñn (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

A





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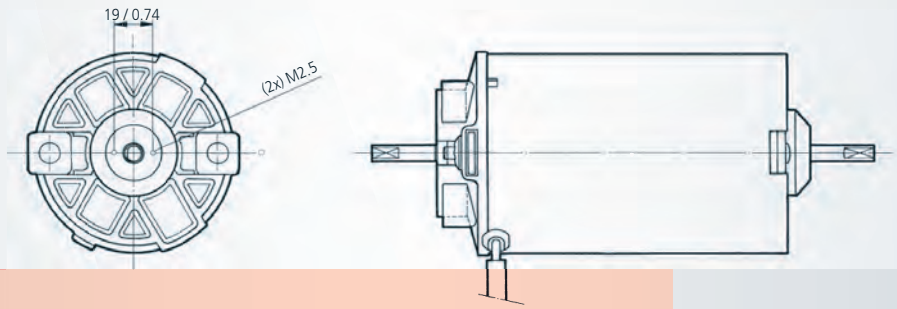
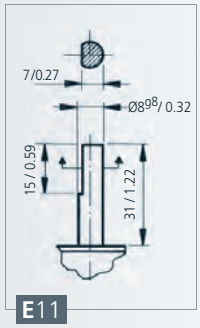
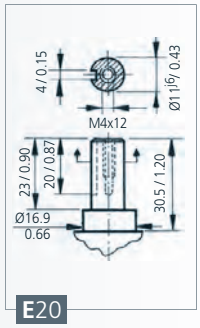


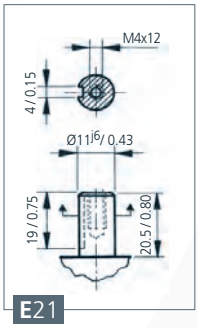
mm / inch

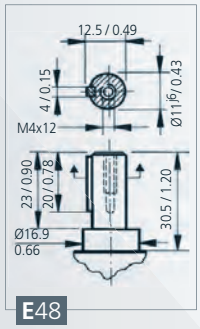
DOGA

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

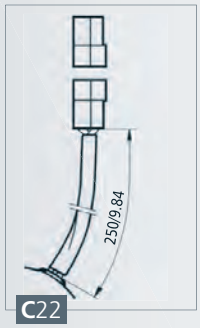


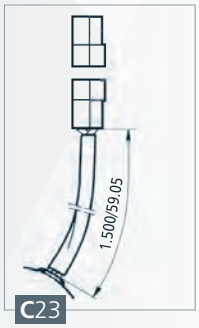


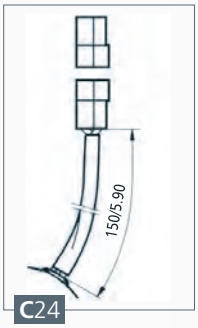




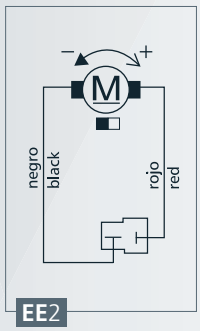
CONEXIONES **CONNECTIONS** CONNEXIONS **ANSCHLUSSART**

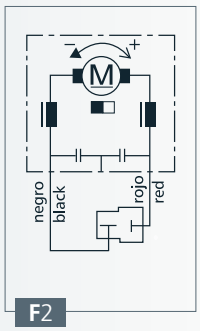




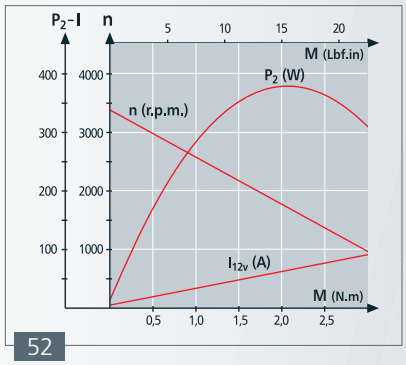


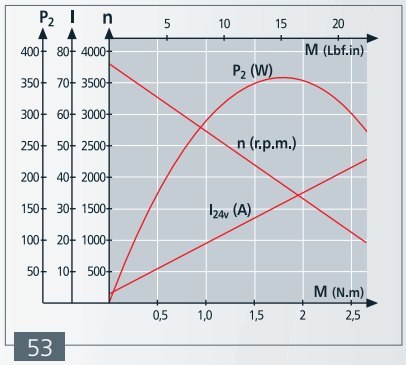
ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**

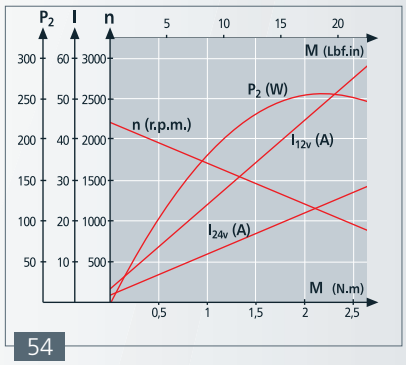


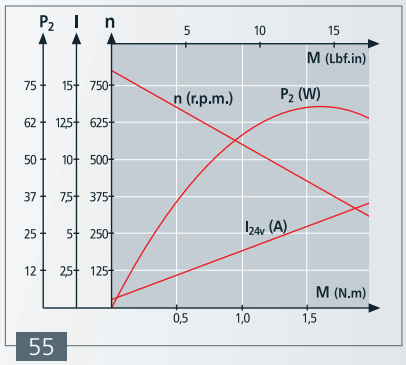


CURVAS **CURVES** COURBES **KURVEN**









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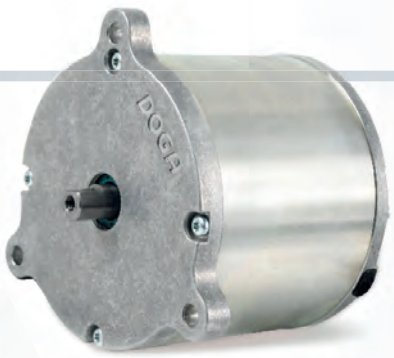
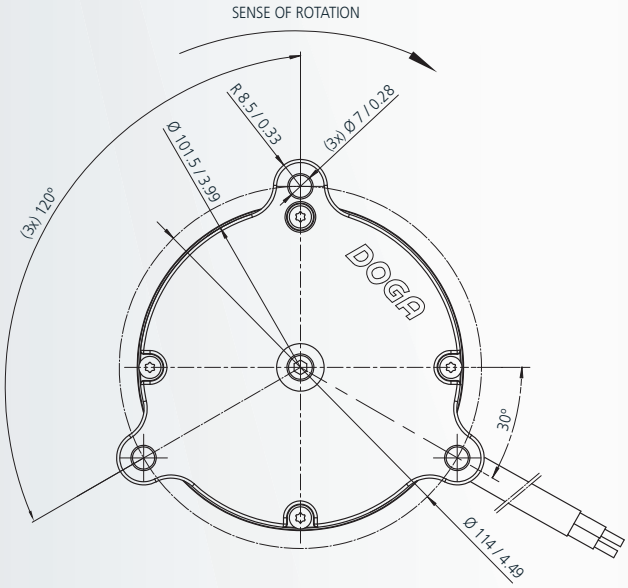
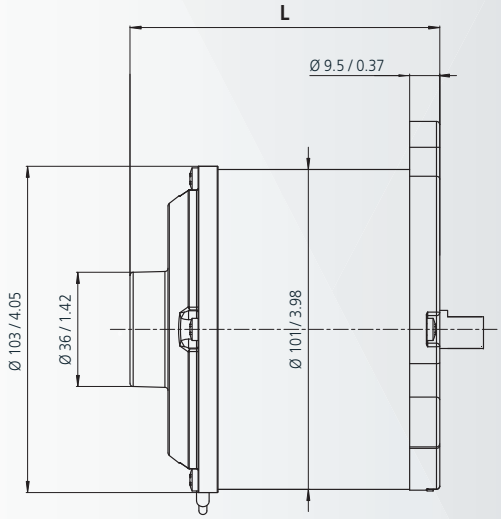


REFERENCIA REFERENCE NUMBER REFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	PAR NOMINAL NOMINAL TORQUE COUPLE NOMINAL DREHMOMENT NOMINAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	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 SCHEME ÉLECTRIQUE SCHALTBILD	PESO APROXIMADO APPROXIMATE WEIGHT POIDS APPROXIMATIF GEWICHT (ca.)	GRADO DE ESTANQUEIDAD WATERTIGHTNESS ETANCHÉITÉ 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

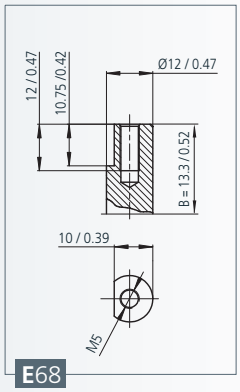




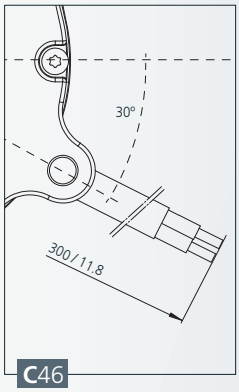
mm / inch

DOGA

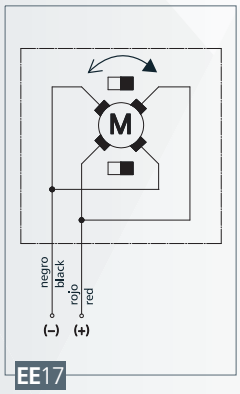
EJE **SHAFT** ARBRE **WELLE**



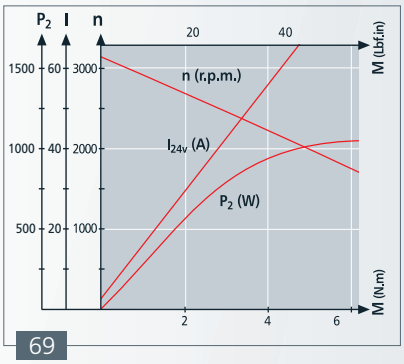
CONEXIONES **CONNECTIONS** CONNEXIONS **ANSCHLUSSART**

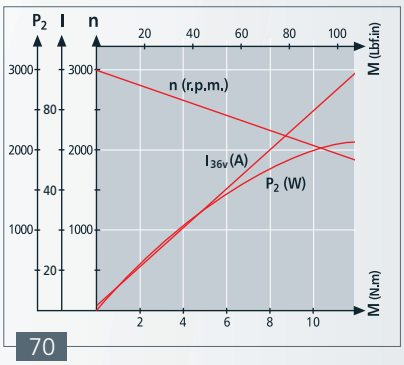


ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**



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





MOTOR

		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 ANLAUFDREHMOMENT	*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

MORE OPTIONS

PLANETARY GEARBOX

		Ø 52 mm Ø 2.05 in			Ø 62 mm Ø 2.44 in			Ø 72 mm Ø 2.83 in			Ø 81 mm 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					

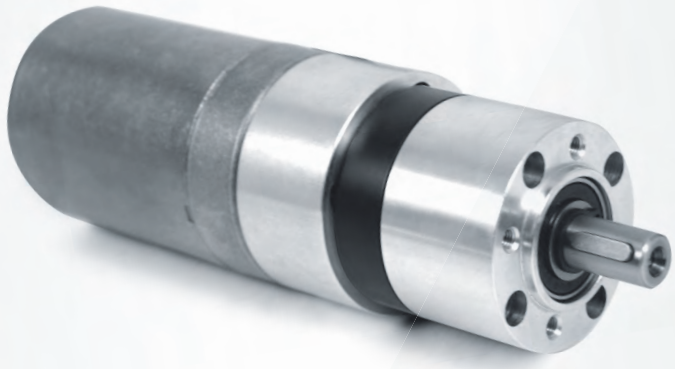
MORE OPTIONS

(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 nº de etapas de reducción.

(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 nº d'étages.

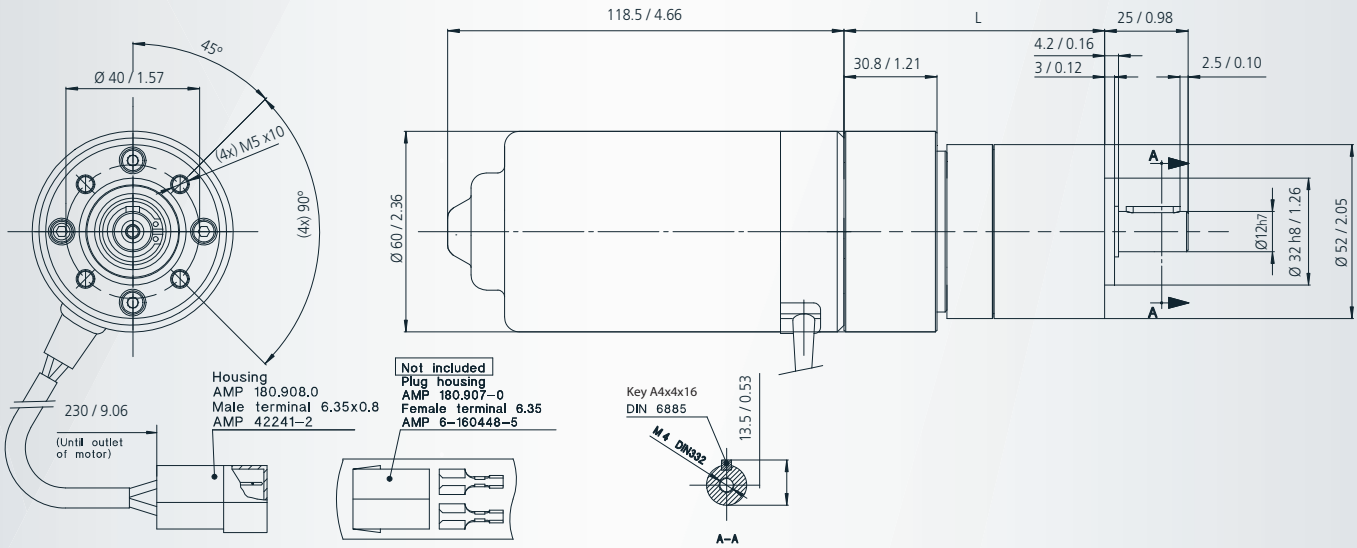
(1) In each motor series we have different power configurations. Here we show one of them. See motor catalogue for others
(2) The Torque capacity will be precisele defined for each motor and gear combination and for each application. Values indicated per 1, 2 & 3 stages respectively. In certain conditions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

(1) 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.

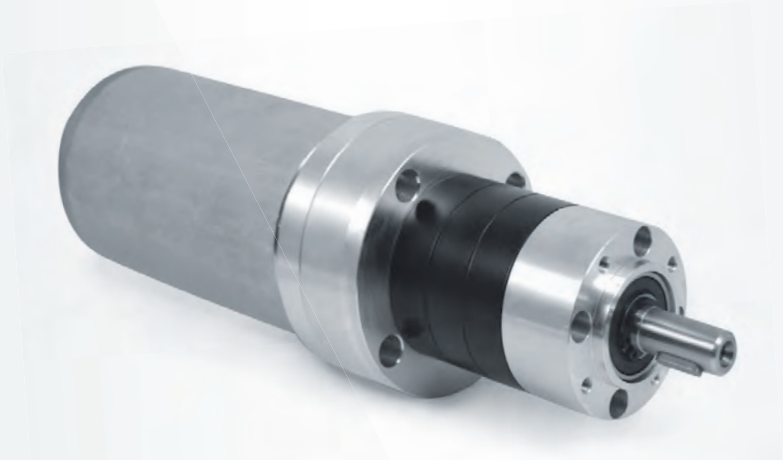


MOTOR					GEAR		
REFERENCIA REFERENCE NUMBER REFERENCE REFERENZNUMMERN	REFERENCIA REFERENCE NUMBER REFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	VELOCIDAD EN VACÍO NO LOAD SPEED VITESSE À VIDE GESCHWINDIGKEIT IM LEERLAU	(*) CURBA CURVE COURBE KURVE	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	ETAPAS STAGES ETAGES STUFEN	L
	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: 28

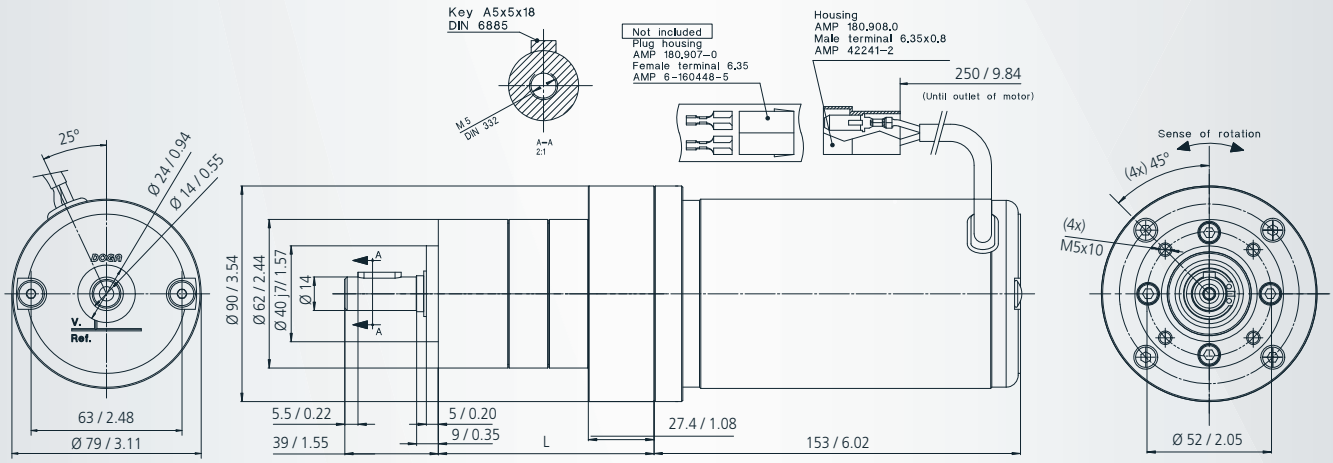


mm / inch

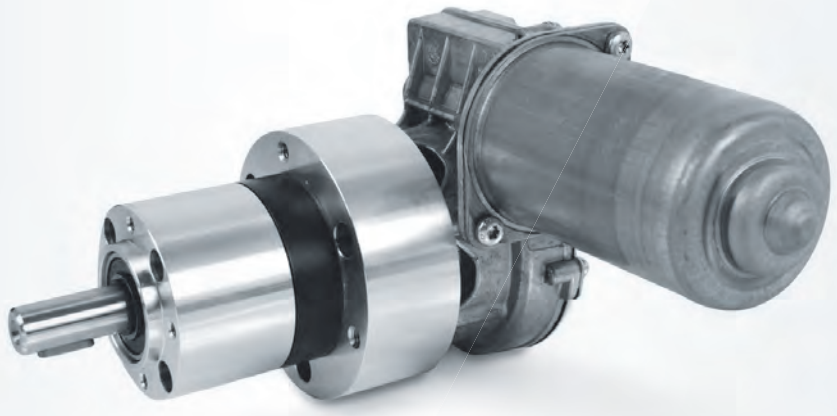


MOTOR					GEAR		
REFERENCIA REFERENCE NUMBER RÉFERENCE REFERENZNUMMERN	REFERENCIA REFERENCE NUMBER RÉFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	VELOCIDAD EN VACÍO NO LOAD SPEED VITESSE À VIDE GESCHWINDIGKEIT IM LEERLAUF	(*) CURBA CURVE COURBE KURVE	RELACIÓN 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: 30

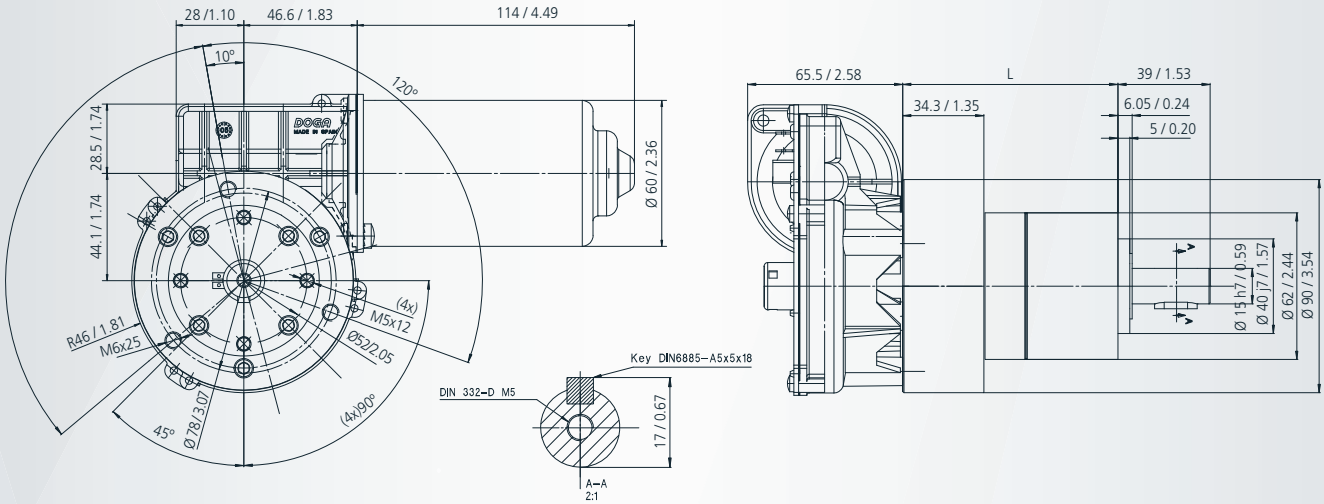


mm / inch



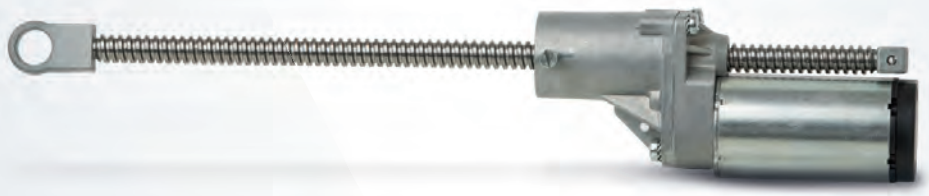
MOTOR					GEAR		
REFERENCIA REFERENCE NUMBER RÉFERENCE REFERENZNUMMERN	REFERENCIA REFERENCE NUMBER RÉFERENCE REFERENZNUMMERN	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	VELOCIDAD EN VACÍO NO LOAD SPEED VITESSE A VIDE GESCHWINDIGKEIT IM LEERLAUF	(*) CURBA CURVE COURBE KURVE	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	ETAPAS STAGES ETAGES 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

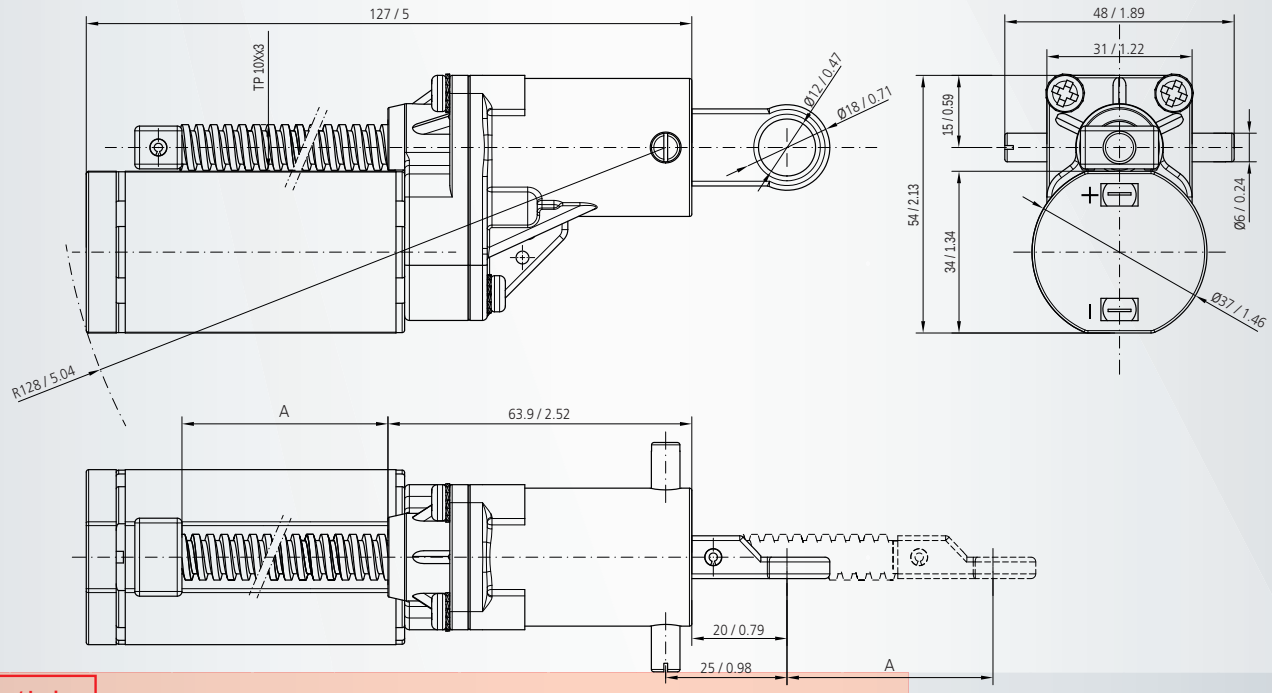


mm / inch

510



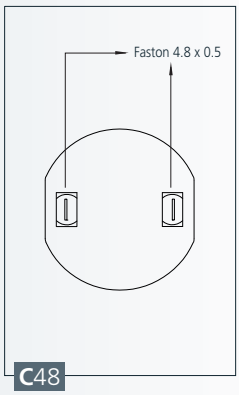
REFERENCIA REFERENCE NUMBER RÉFERENCE REFERENZNUMMERN	RECORRIDO STROKE PARCOURS HUBLÄNGE	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSETZUNG	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	FUERZA NOMINAL NOMINAL LOAD FORCE NOMINAL SCHUB-ZUGKRAFT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	CICLO DE TRABAJO DUTY CYCLE CYCLE DE TRAVAIL EINSCHALTDAUER	FUERZA MÁXIMA MAXIMAL LOAD FORCE MAXI SCHUB-ZUGKRAFT MAXIMAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEME ÉLECTRIQUE SCHALTBILD	CURVA CURVE COURBE KURVE
	A (mm/inch)	i	Un (V)	Fn (kg/lb)	In (A)		F max (kg/lb)	ηn (mm/s - in/s)			
510.0001.30.00	50/1.97	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C48	EE12	25
510.0002.30.00	100/3.94	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C48	EE12	25
510.0003.30.00	200/7.87	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C48	EE12	25
510.0004.30.00	300/11.81	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C48	EE12	25
510.0005.30.00	50/1.97	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C48	EE12	26
510.0006.30.00	100/3.94	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C48	EE12	26
510.0007.30.00	200/7.87	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C48	EE12	26
510.0008.30.00	300/11.81	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C48	EE12	26
510.0009.30.00	50/1.97	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C48	EE12	27
510.0010.30.00	100/3.94	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C48	EE12	27
510.0011.30.00	200/7.87	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C48	EE12	27
510.0012.30.00	300/11.81	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C48	EE12	27
510.0013.30.00	50/1.97	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C48	EE12	28
510.0014.30.00	100/3.94	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C48	EE12	28
510.0015.30.00	200/7.87	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C48	EE12	28
510.0016.30.00	300/11.81	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C48	EE12	28



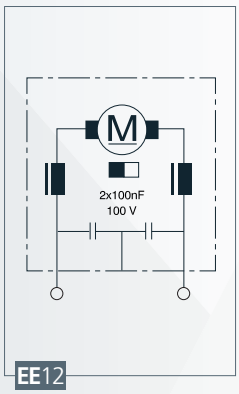
mm / inch

DOGA

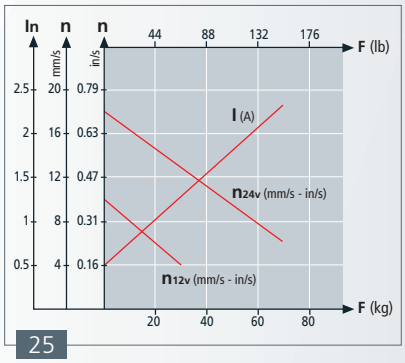
CONEXIONES **CONNECTIONS** CONNEXIONS **ANSCHLUSSART**

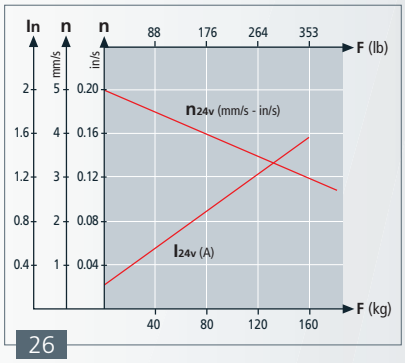


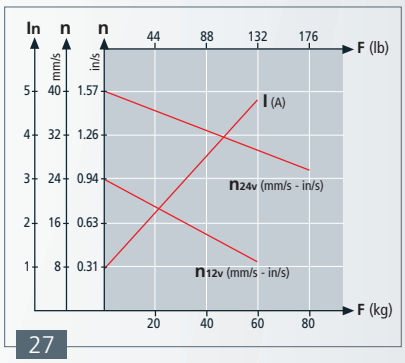
ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**

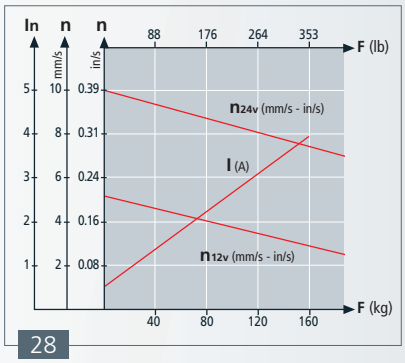


CURVAS **CURVES** COURBES **KURVEN**



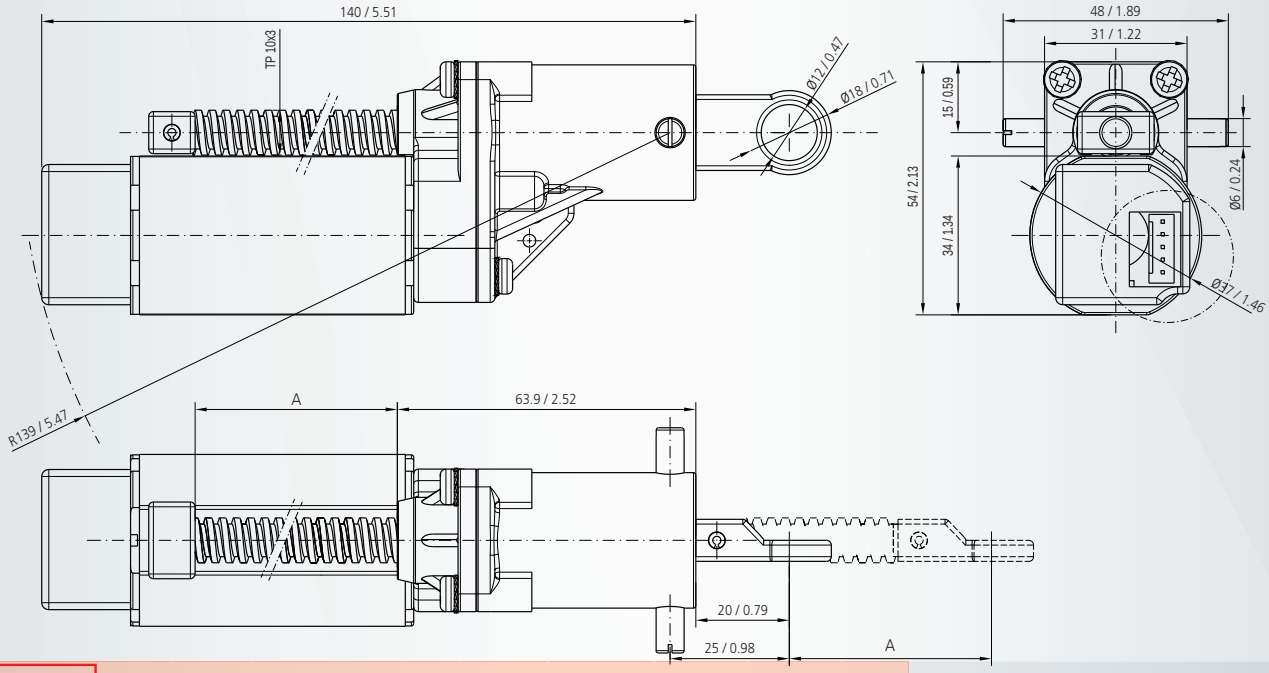






510 hall

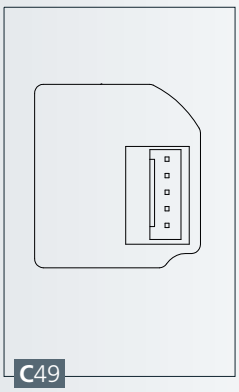
REFERENCIA REFERENCE NUMBER REFERENCE REFERENZNUMMERN	RECORRIDO STROKE PARCOURS HUBLÄNGE	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSETZUNG	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	FUERZA NOMINAL NOMINAL LOAD FORCE NOMINAL SCHUB-ZUGKRAFT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	CICLO DE TRABAJO DUTY CYCLE CYCLE DE TRAVAIL EINSCHALTDAUER	FUERZA MÁXIMA MAXIMAL LOAD FORCE MAXI SCHUB-ZUGKRAFT MAXIMAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHEME ÉLECTRIQUE SCHALTBILD	CURVA CURVE COURBE KURVE
	A (mm/inch)	i	Un (V)	Fn (kg/lb)	In (A)		F max (kg/lb)	ṅn (mm/s - in/s)			
510.0017.30.00	50/1.97	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C49	EE12	25
510.0018.30.00	100/3.94	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C49	EE12	25
510.0019.30.00	200/7.87	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C49	EE12	25
510.0020.30.00	300/11.81	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C49	EE12	25
510.0021.30.00	50/1.97	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C49	EE12	26
510.0022.30.00	100/3.94	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C49	EE12	26
510.0023.30.00	200/7.87	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C49	EE12	26
510.0024.30.00	300/11.81	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C49	EE12	26
510.0025.30.00	50/1.97	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C49	EE12	27
510.0026.30.00	100/3.94	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C49	EE12	27
510.0027.30.00	200/7.87	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C49	EE12	27
510.0028.30.00	300/11.81	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C49	EE12	27
510.0029.30.00	50/1.97	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C49	EE12	28
510.0030.30.00	100/3.94	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C49	EE12	28
510.0031.30.00	200/7.87	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C49	EE12	28
510.0032.30.00	300/11.81	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C49	EE12	28



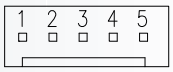
mm / inch

DOGA

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

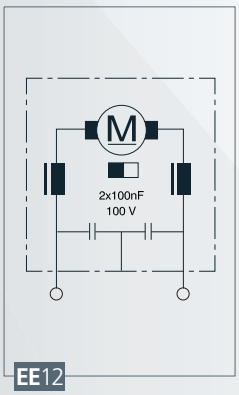


PIN	*FUNCTION - FUNCIÓN*
1	MOTOR POWER
2	MOTOR POWER
3	HALL OUT
4	HALL + 5 ÷12V
5	HALL -

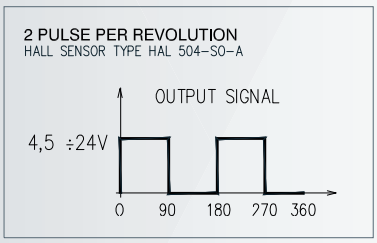


MOLEX CONNECTOR
5 POSITION 2.54mm / 0.1inch
(P/N 22-27-2051)

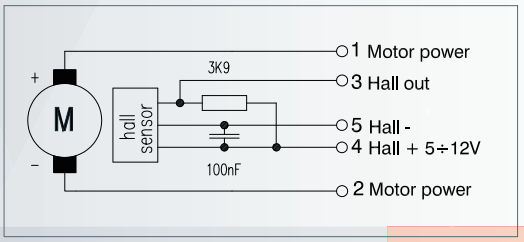
ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**



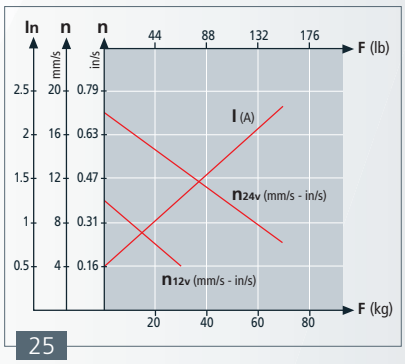
SEÑAL SALIDA **OUTPUT SIGNAL**
SIGNALISATION DE SORTIE AUSGANGSSIGNAL

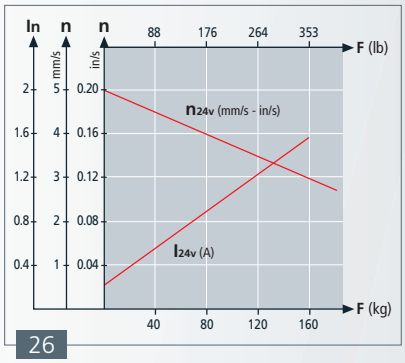


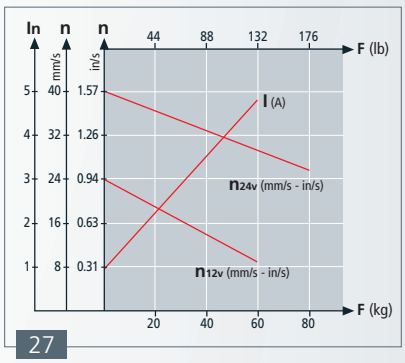
ESQUEMA SENSOR HALL **SENSOR HALL**
SCHÉME SENSOR HALL SCHALTBILD HALLSENSOR

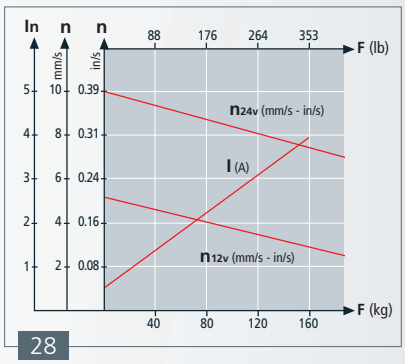


CURVAS **CURVES** COURBES **KURVEN**



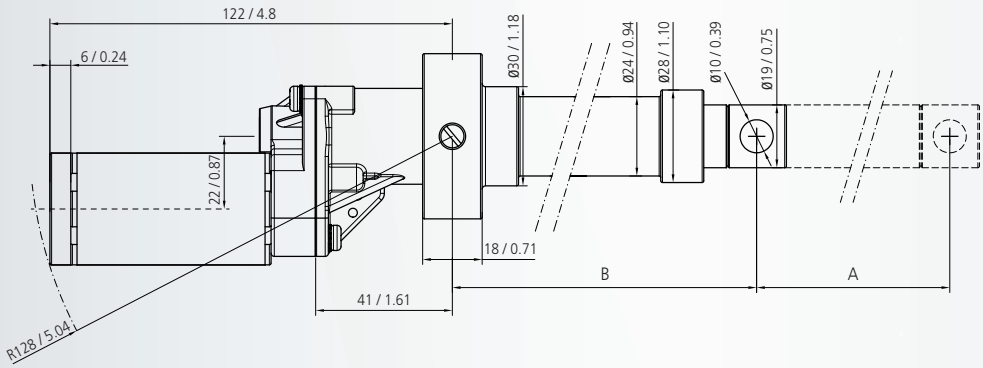


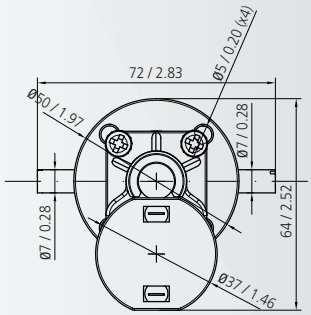




511

REFERENCIA REFERENCE NUMBER RÉFERENCE REFERENZNUMMERN	RECORRIDO STROKE PARCOURS HUBLÄNGE	LONGITUD LENGTH LONGITUDE LÄNGE	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE REDUCTEUR UNTERSETZUNG	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	FUERZA NOMINAL NOMINAL LOAD FORCE NOMINAL SCHUB-ZUGKRAFT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	CICLO DE TRABAJO DUTY CYCLE CYCLE DE TRAVAIL EINSCHALTDAUER	FUERZA MÁXIMA MAXIMAL LOAD FORCE MAXI SCHUB-ZUGKRAFT MAXIMAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHÉME ÉLECTRIQUE SCHALTBILD	CURVA CURVE COURBE KURVE
	A (mm/inch)	B (mm/inch)	i	Un (V)	Fn (kg/lb)	In (A)		F max (kg/lb)	ṅn (mm/s - in/s)			
511.0001.30.00	50/1.97	115/4.53	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C48	EE12	25
511.0002.30.00	100/3.94	165/6.50	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C48	EE12	25
511.0003.30.00	200/7.87	265/10.43	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C48	EE12	25
511.0004.30.00	300/11.81	365/14.37	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C48	EE12	25
511.0005.30.00	50/1.97	115/4.53	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C48	EE12	26
511.0006.30.00	100/3.94	165/6.50	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C48	EE12	26
511.0007.30.00	200/7.87	265/10.43	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C48	EE12	26
511.0008.30.00	300/11.81	365/14.37	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C48	EE12	26
511.0009.30.00	50/1.97	115/4.53	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C48	EE12	27
511.0010.30.00	100/3.94	165/6.50	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C48	EE12	27
511.0011.30.00	200/7.87	265/10.43	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C48	EE12	27
511.0012.30.00	300/11.81	365/14.37	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C48	EE12	27
511.0013.30.00	50/1.97	115/4.53	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C48	EE12	28
511.0014.30.00	100/3.94	165/6.50	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C48	EE12	28
511.0015.30.00	200/7.87	265/10.43	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C48	EE12	28
511.0016.30.00	300/11.81	365/14.37	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C48	EE12	28

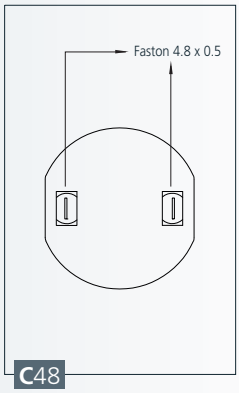




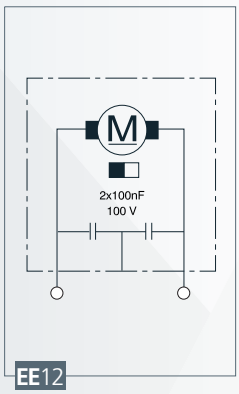
mm / inch

DOGA

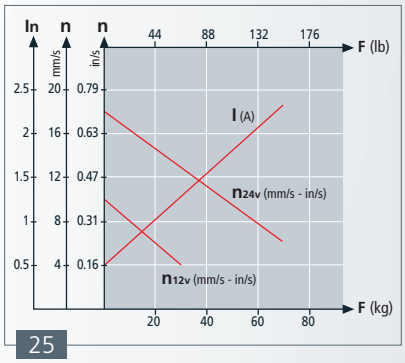
CONEXIONES **CONNECTIONS** CONNEXIONS **ANSCHLUSSART**

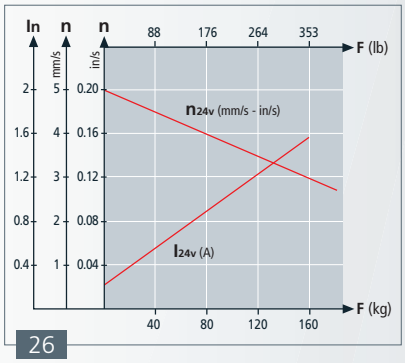


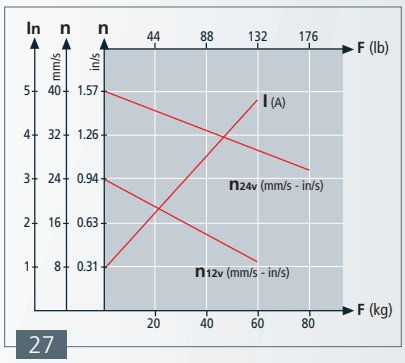
ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**

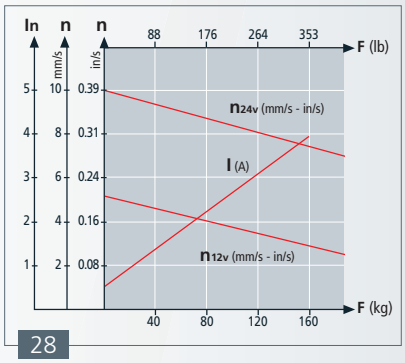


CURVAS **CURVES** COURBES **KURVEN**



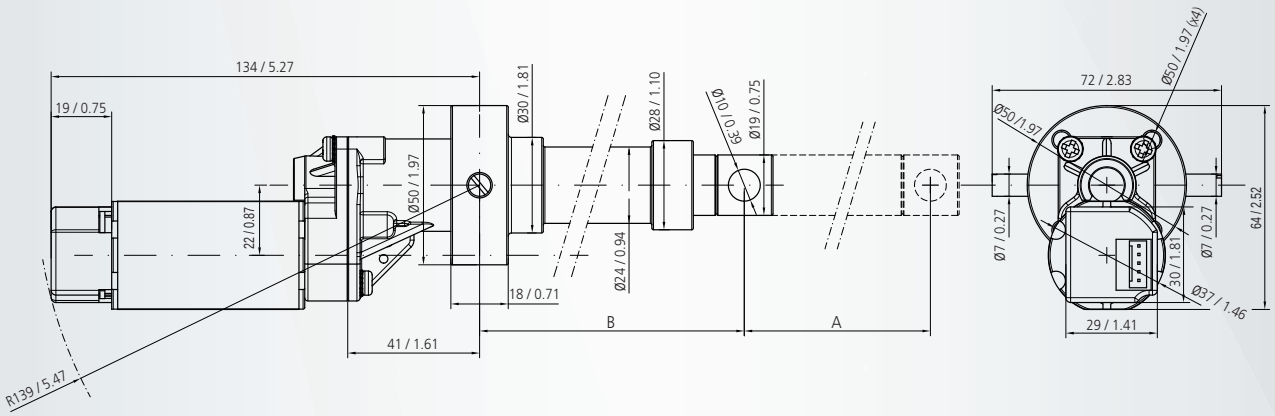






511hall

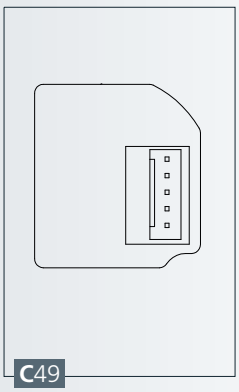
REFERENCIA REFERENCE NUMBER RÉFERENCE REFERENZNUMMERN	RECORRIDO STROKE PARCOURS HUBLÄNGE	LONGITUD LENGTH LONGITUDE LÄNGE	RELACIÓN DE REDUCCIÓN TRANSMISSION RATIO RAPPORT DE RÉDUCTEUR UNTERSETZUNG	TENSIÓN NOMINAL NOMINAL VOLTAGE TENSION NOMINALE NENNSPANNUNG	FUERZA NOMINAL NOMINAL LOAD FORCE NOMINAL SCHUB-ZUGKRAFT NOMINAL	CORRIENTE NOMINAL NOMINAL CURRENT COURANT NOMINAL NOMINALSTROM	CICLO DE TRABAJO DUTY CYCLE CYCLE DE TRAVAIL EINSCHALTDAUER	FUERZA MÁXIMA MAXIMUM LOAD FORCE MAXI SCHUB-ZUGKRAFT MAXIMAL	VELOCIDAD NOMINAL NOMINAL SPEED VITESSE NOMINALE GESCHWINDIGKEIT NOMINAL	CONEXIONES CONNECTIONS CONNEXIONS ANSCHLUSSART	ESQUEMA ELÉCTRICO WIRING DIAGRAM SCHÉMA ÉLECTRIQUE SCHALTBILD	CURVA CURVE COURBE KURVE
	A (mm/inch)	B (mm/inch)	i	Un (V)	Fn (kg/lb)	In (A)		F max (kg/lb)	nn (mm/s - in/s)			
511.0017.30.00	50/1.96	115/4.53	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C49	EE12	25
511.0018.30.00	100/3.94	165/6.50	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C49	EE12	25
511.0019.30.00	200/7.87	265/10.43	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C49	EE12	25
511.0020.30.00	300/11.81	365/14.37	12:1	12-24	20-40/44-88	0.95-1.5	80%-50%	30-70/66-154	8.6-18.5/0.34-0.73	C49	EE12	25
511.0021.30.00	50/1.96	115/4.53	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C49	EE12	26
511.0022.30.00	100/3.94	165/6.50	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C49	EE12	26
511.0023.30.00	200/7.87	265/10.43	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C49	EE12	26
511.0024.30.00	300/11.81	365/14.37	50:1	12-24	*-100/*-220	*-1	*-70%	*-170/*-374	2.7-5/0.11-0.20	C49	EE12	26
511.0025.30.00	50/1.96	115/4.53	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C49	EE12	27
511.0026.30.00	100/3.94	165/6.50	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C49	EE12	27
511.0027.30.00	200/7.87	265/10.43	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C49	EE12	27
511.0028.30.00	300/11.81	365/14.37	12:1	12-24	40-40/88-88	3.6-3.6	50%-30%	60-80/132-176	20-40/0.79-1.58	C49	EE12	27
511.0029.30.00	50/1.96	115/4.53	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C49	EE12	28
511.0030.30.00	100/3.94	165/6.50	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C49	EE12	28
511.0031.30.00	200/7.87	265/10.43	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C49	EE12	28
511.0032.30.00	300/11.81	365/14.37	50:1	12-24	120-120/264-264	3.2-3.2	50%-30%	160-210/353-463	5-10/0.20-0.40	C49	EE12	28



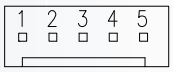
mm / inch

DOGA

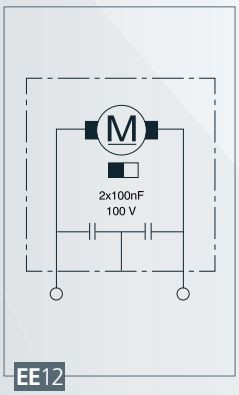
CONEXIONES **CONNECTIONS** CONNEXIONS **ANSCHLUSSART**



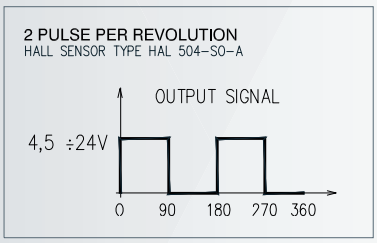
PIN	*FUNCTION - FUNCIÓN*
1	MOTOR POWER
2	MOTOR POWER
3	HALL OUT
4	HALL + 5 ÷12V
5	HALL -



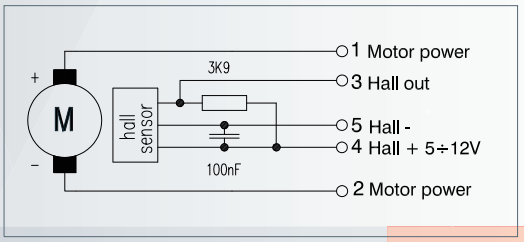
ESQUEMA ELÉCTRICO **WIRING DIAGRAM** SCHÉMA ÉLECTRIQUE **SCHALTBILD**



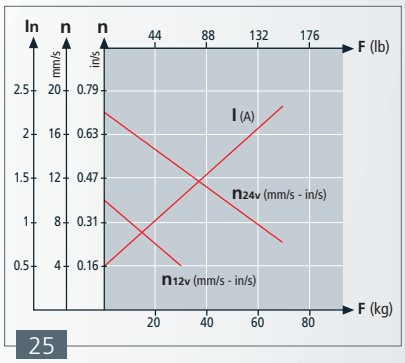
SEÑAL SALIDA **OUTPUT SIGNAL** **SIGNALISATION DE SORTIE** AUSGANGSSIGNAL

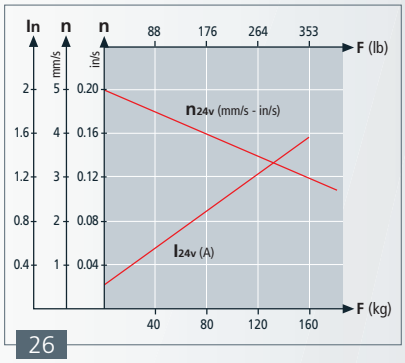


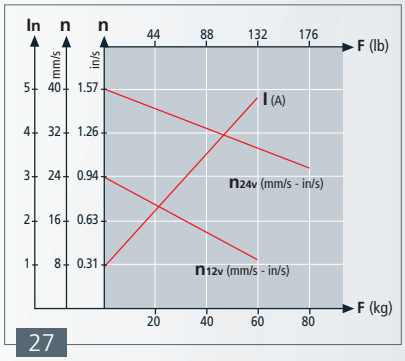
ESQUEMA SENSOR HALL **SENSOR HALL** **SCHÉME SENSOR HALL** SCHALTBILD HALLSENSOR

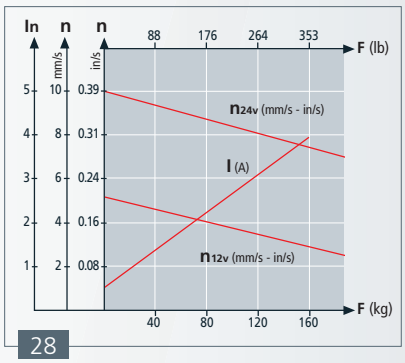


CURVAS **CURVES** COURBES **KURVEN**









STANDARD
SPECIAL
CUSTOMIZED

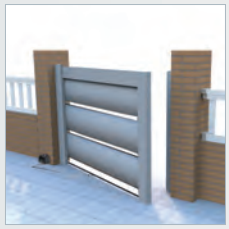
APLICACIONES DE MOTORES MOTOR APPLICATIONS

AGRICULTURA Y GANADERÍA AGRICULTURAL & FARM AGRICULTURE ET BETAIL 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 PERSONENBEHELFSEINRICHTUNGEN





ENERGÍA ENERGY ENERGIE





ALIMENTACIÓN FOOD INDUSTRY ALIMENTATION ERNÄHRUNG





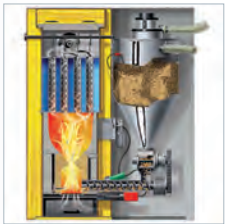
DOGA

STANDARD
SPECIAL
CUSTOMIZED

APPLICATIONS POUR MOTEURS ANWENDUNGSFÄLLE FÜR MOTOREN

HOGAR HOME MAISON HEIM



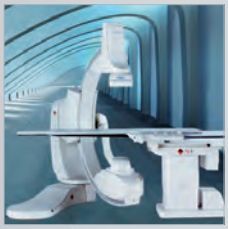


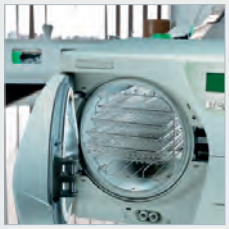
MARINA MARINE MARIN WASSERSPORT



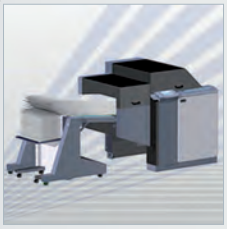


MEDICINA Y LABORATORIO MEDICAL & LAB MEDICAL ET LABORATOIRE MEDIZIN UND LABOR

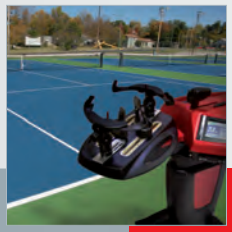




EQUIPOS DE OFICINA OFFICE EQUIPMENT EQUIPEMENT DE BUREAUX BÜROEINRICHTUNGEN


Y MUCHOS MÁS AND MANY MORE ET PLUS ENCORE UND VIELE MEHR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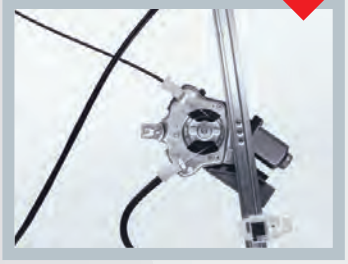

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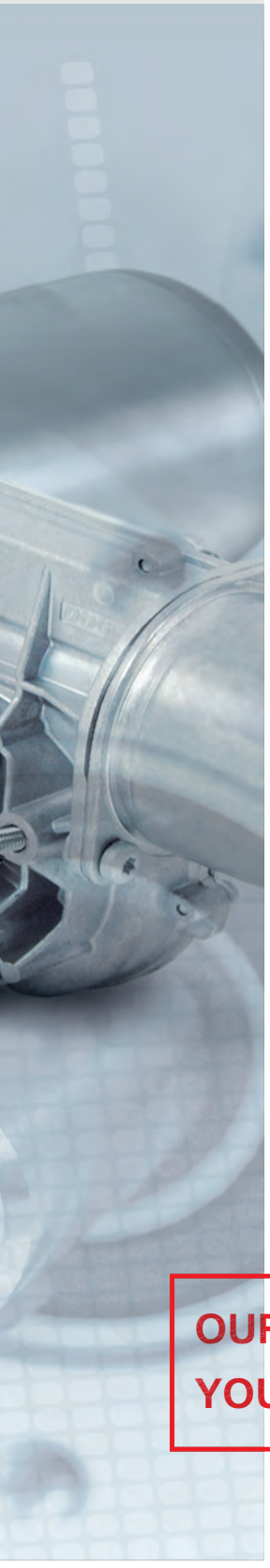

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